



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 07:52 AM UTC

PDB ID : 4V8M / pdb_00004v8m
EMDB ID : EMD-2239
Title : High-resolution cryo-electron microscopy structure of the Trypanosoma brucei ribosome
Authors : Hashem, Y.; des Georges, A.; Fu, J.; Buss, S.N.; Jossinet, F.; Jobe, A.; Zhang, Q.; Liao, H.Y.; Grassucci, R.A.; Bajaj, C.; Westhof, E.; Madison-Antenucci, S.; Frank, J.
Deposited on : 2012-12-09
Resolution : 5.57 Å(reported)
Based on initial models : 3U5B, 4A19, 3U5F, 3U5I, 3U5H, 4A17, 3IZ6, 3U5C, 3IZR, 3U5G, 3IZ9, 2XZN, 3U5D, 4A1B, 4A18, 4A1A, 4A1D, 3U5E, 3IZ7, 2XZM, 4A1E, 4A1C

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

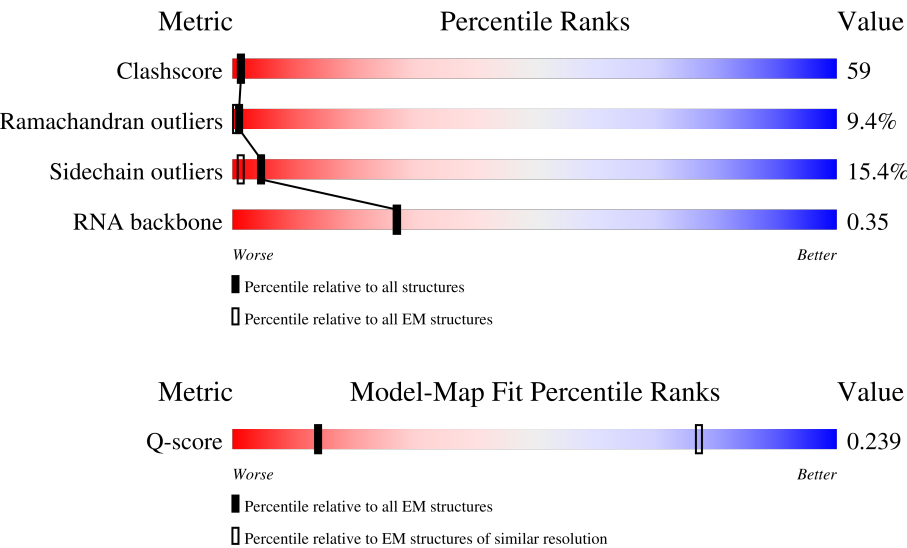
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 5.57 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



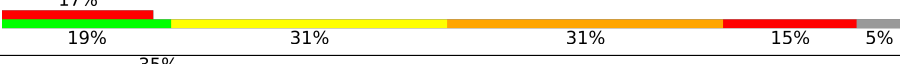
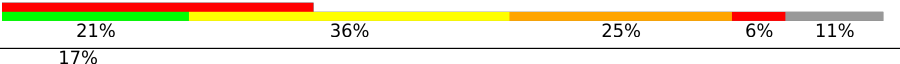
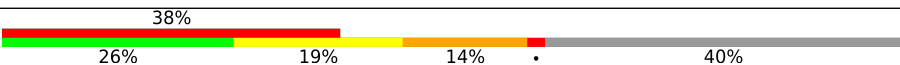
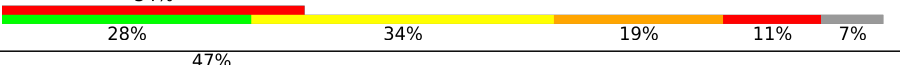
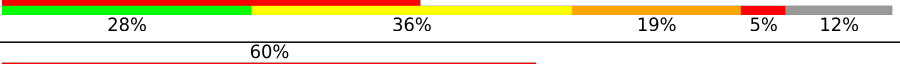
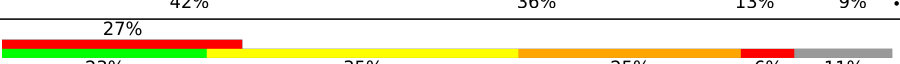
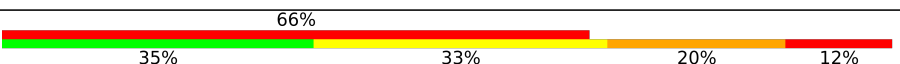
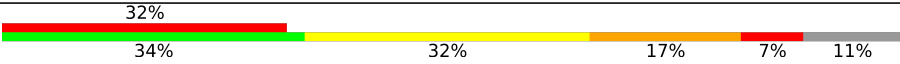
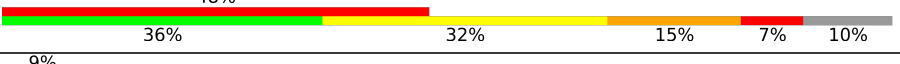
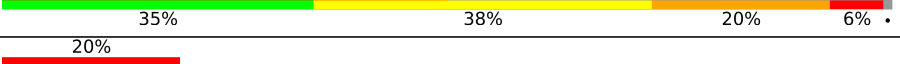
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	474 (5.07 - 6.07)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A0	256	
2	A1	273	

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Mol	Chain	Length	Quality of chain
3	A2	190	
4	A3	250	
5	A4	202	
6	A5	220	
7	A6	190	
8	A7	318	
9	A8	57	
10	A9	153	
11	AC	277	
12	AD	172	
13	AE	174	
14	AF	144	
15	AG	151	
16	AH	144	
17	AI	152	
18	AJ	130	
19	AK	149	
20	AL	142	
21	AM	153	
22	AO	167	
23	AP	266	
24	AQ	117	
25	AR	194	
26	AS	143	
27	AT	137	

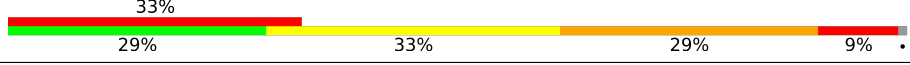
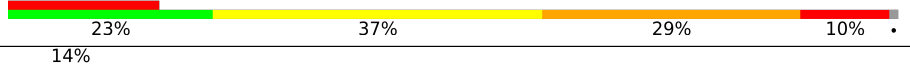
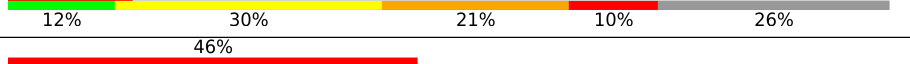
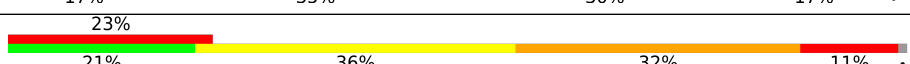
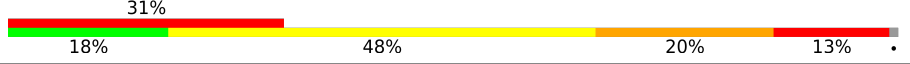
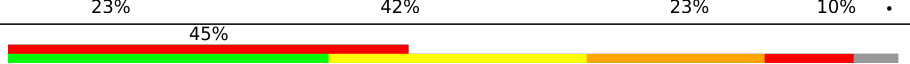
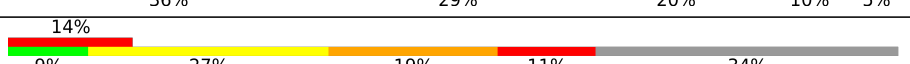
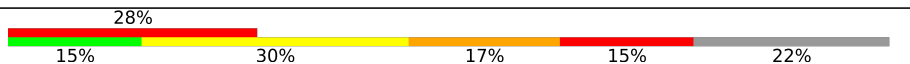
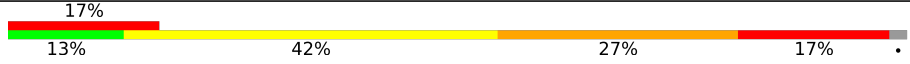
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Mol	Chain	Length	Quality of chain
28	AU	113	
29	AV	111	
30	AW	86	
31	AX	214	
32	AY	66	
33	AZ	103	
34	BA	1847	
35	BB	1465	
36	BC	169	
37	BD	119	
38	BE	210	
39	BF	73	
40	BG	182	
41	BH	135	
42	BI	193	
43	BJ	214	
44	BK	213	
45	BL	194	
46	BM	164	
47	BN	218	
48	BO	222	
49	BP	189	
50	BQ	221	
51	BR	166	
52	BS	179	

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Mol	Chain	Length	Quality of chain
53	BT	260	
54	BU	159	
55	BV	130	
56	BW	139	
57	BX	164	
58	BY	125	
59	BZ	143	
60	Ba	133	
61	Bb	145	
62	Bc	146	
63	Bd	71	
64	Be	260	
65	Bf	429	
66	Bg	105	
67	Bh	188	
68	Bi	132	
69	Bj	170	
70	Bk	127	
71	Bl	149	
72	Bm	109	
73	Bn	84	
74	Bo	93	
75	Bp	82	
76	Bq	51	
77	Br	374	

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Mol	Chain	Length	Quality of chain
78	Bs	128	
79	Bt	106	
80	Bu	308	
81	Bv	192	
82	Bw	257	
83	Bx	276	
84	By	189	
85	AA	2251	
86	AB	73	

2 Entry composition

There are 86 unique types of molecules in this entry. The entry contains 232955 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called 40S RIBOSOMAL PROTEIN S3A, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A0	219	Total	C	N	O	S	0	1
			1782	1124	337	313	8		

- Molecule 2 is a protein called 40S RIBOSOMAL PROTEIN S4, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	A1	248	Total	C	N	O	S	0	1
			1940	1232	360	339	9		

- Molecule 3 is a protein called 40S RIBOSOMAL PROTEIN S5, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	A2	187	Total	C	N	O	S	0	0
			1484	928	286	265	5		

- Molecule 4 is a protein called 40S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	A3	250	Total	C	N	O	S	0	0
			2003	1243	415	341	4		

- Molecule 5 is a protein called RIBOSOMAL PROTEIN S7, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	A4	192	Total	C	N	O	S	0	1
			1592	1014	310	263	5		

- Molecule 6 is a protein called 40S RIBOSOMAL PROTEIN S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	A5	195	Total	C	N	O	S	0	1
			1551	975	315	259	2		

- Molecule 7 is a protein called 40S RIBOSOMAL PROTEIN S9, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	A6	187	Total	C	N	O	S	0	1
			1518	951	307	253	7		

- Molecule 8 is a protein called GUANINE NUCLEOTIDE-BINDING PROTEIN BETA SUBUNIT-LIKE PROTEIN.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	A7	315	Total	C	N	O	S	0	1
			2412	1508	429	462	13		

- Molecule 9 is a protein called RIBOSOMAL PROTEIN S29, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	A8	42	Total	C	N	O	S	0	0
			334	204	69	57	4		

- Molecule 10 is a protein called UBIQUITIN/RIBOSOMAL PROTEIN S27A, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	A9	66	Total	C	N	O	S	0	1
			530	330	102	91	7		

- Molecule 11 is a protein called 40S RIBOSOMAL PROTEIN SA, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AC	204	Total	C	N	O	S	0	1
			1620	1034	293	282	11		

- Molecule 12 is a protein called 40S RIBOSOMAL PROTEIN S10, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AD	104	Total	C	N	O	S	0	1
			853	553	148	147	5		

- Molecule 13 is a protein called 40S RIBOSOMAL PROTEINS S11, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AE	160	Total	C	N	O	S	0	0
			1300	812	262	220	6		

- Molecule 14 is a protein called 40S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AF	121	Total	C	N	O	S	0	0
			940	578	169	184	9		

- Molecule 15 is a protein called 40S RIBOSOMAL PROTEIN S13, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AG	141	Total	C	N	O	S	0	0
			1148	724	227	190	7		

- Molecule 16 is a protein called 40S RIBOSOMAL PROTEIN S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AH	126	Total	C	N	O	S	0	1
			922	572	167	174	9		

- Molecule 17 is a protein called 40S RIBOSOMAL PROTEIN S15, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AI	134	Total	C	N	O	S	0	1
			1074	679	211	181	3		

- Molecule 18 is a protein called 40S RIBOSOMAL PROTEIN S15A, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AJ	129	Total	C	N	O	S	0	0
			1018	645	191	174	8		

- Molecule 19 is a protein called 40S RIBOSOMAL PROTEIN S16, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AK	148	Total	C	N	O	S	0	0
			1190	757	225	205	3		

- Molecule 20 is a protein called 40S RIBOSOMAL PROTEIN S17, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AL	127	Total	C	N	O	S	0	1
			1021	641	198	177	5		

- Molecule 21 is a protein called 40S RIBOSOMAL PROTEIN S18, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AM	153	Total	C	N	O	S	0	0
			1229	764	244	215	6		

- Molecule 22 is a protein called RIBOSOMAL PROTEIN S19, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AO	149	Total	C	N	O	S	0	0
			1181	746	230	196	9		

- Molecule 23 is a protein called 40S RIBOSOMAL PROTEIN S2, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AP	224	Total	C	N	O	S	0	1
			1731	1103	309	310	9		

- Molecule 24 is a protein called RIBOSOMAL PROTEIN S20, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AQ	105	Total	C	N	O	S	0	1
			827	522	153	149	3		

- Molecule 25 is a protein called 40S RIBOSOMAL PROTEIN S21, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AR	81	Total	C	N	O	S	0	1
			603	374	108	118	3		

- Molecule 26 is a protein called 40S RIBOSOMAL PROTEIN S23, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AS	142	Total	C	N	O	S	0	0
			1116	706	219	189	2		

- Molecule 27 is a protein called 40S RIBOSOMAL PROTEIN S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	AT	131	Total	C	N	O	S	0	0
			1050	666	206	174	4		

- Molecule 28 is a protein called 40S RIBOSOMAL PROTEIN S25, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	AU	86	Total	C	N	O	S	0	1
			673	427	127	114	5		

- Molecule 29 is a protein called RIBOSOMAL PROTEIN S26, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AV	101	Total	C	N	O	S	0	1
			809	498	172	131	8		

- Molecule 30 is a protein called 40S RIBOSOMAL PROTEIN S27, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	AW	83	Total	C	N	O	S	0	1
			636	396	120	111	9		

- Molecule 31 is a protein called 40S RIBOSOMAL PROTEIN S3, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	AX	206	Total	C	N	O	S	0	1
			1628	1020	307	289	12		

- Molecule 32 is a protein called 40S RIBOSOMAL PROTEIN S30, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	AY	65	Total	C	N	O	S	0	0
			514	322	107	84	1		

- Molecule 33 is a protein called 40S RIBOSOMAL PROTEIN S33, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	AZ	68	Total	C	N	O	S	0	0
			526	315	107	100	4		

- Molecule 34 is a RNA chain called ALPHA CHAIN OF THE LARGE RIBOSOMAL SUB-UNIT 28S RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	BA	1847	Total	C	N	O	P	0	0
			39395	17589	7008	12952	1846		

There are 16 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BA	?	-	C	deletion	GB X14553
BA	?	-	U	deletion	GB X14553
BA	?	-	U	deletion	GB X14553
BA	?	-	C	deletion	GB X14553
BA	?	-	C	deletion	GB X14553
BA	?	-	G	deletion	GB X14553
BA	?	-	G	deletion	GB X14553
BA	?	-	C	deletion	GB X14553
BA	?	-	C	deletion	GB X14553
BA	?	-	G	deletion	GB X14553
BA	?	-	G	deletion	GB X14553
BA	?	-	U	deletion	GB X14553
BA	?	-	G	deletion	GB X14553
BA	?	-	G	deletion	GB X14553
BA	?	-	G	deletion	GB X14553
BA	799	A	-	insertion	GB X14553

- Molecule 35 is a RNA chain called BETA CHAIN OF THE LARGE RIBOSOMAL SUBUNIT 28S RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BB	1465	Total	C	N	O	P	0	0
			31164	13918	5476	10306	1464		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BB	484	G	-	insertion	GB X14553
BB	485	U	-	insertion	GB X14553
BB	486	G	-	insertion	GB X14553
BB	487	A	-	insertion	GB X14553

- Molecule 36 is a RNA chain called 5.8S RRNA CHAIN OF THE LARGE RIBOSOMAL SUBUNIT.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BC	169	Total	C	N	O	P	0	0
			3584	1604	629	1183	168		

- Molecule 37 is a RNA chain called 5S RRNA CHAIN OF THE LARGE RIBOSOMAL SUBUNIT.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BD	119	Total	C	N	O	P	0	0
			2533	1131	449	835	118		

- Molecule 38 is a RNA chain called SHORT RRNA-I OF THE LARGE RIBOSOMAL SUB-UNIT.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	BE	210	Total	C	N	O	P	0	0
			4441	1986	768	1478	209		

- Molecule 39 is a RNA chain called SHORT RRNA-II OF THE LARGE RIBOSOMAL SUB-UNIT.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	BF	73	Total	C	N	O	P	0	0
			1521	682	247	520	72		

- Molecule 40 is a RNA chain called SHORT RRNA-III OF THE LARGE RIBOSOMAL SUBUNIT.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BG	182	Total	C	N	O	P	0	0
			3896	1737	706	1272	181		

- Molecule 41 is a RNA chain called SHORT RRNA-IV OF THE LARGE RIBOSOMAL SUBUNIT.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	BH	135	Total	C	N	O	P	0	0
			2867	1280	502	951	134		

- Molecule 42 is a protein called 60S RIBOSOMAL PROTEIN L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	BI	192	Total	C	N	O	S	0	0
			1527	956	315	248	8		

- Molecule 43 is a protein called RIBOSOMAL PROTEIN.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	BJ	214	Total	C	N	O	S	0	0
			1717	1086	308	307	16		

- Molecule 44 is a protein called 60S RIBOSOMAL PROTEIN L10, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BK	212	Total	C	N	O	S	0	0
			1725	1086	338	287	14		

- Molecule 45 is a protein called 60S RIBOSOMAL PROTEIN L11, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	BL	170	Total	C	N	O	S	0	1
			1363	859	258	239	7		

- Molecule 46 is a protein called 60S RIBOSOMAL PROTEIN L12, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BM	139	Total	C	N	O	S	0	1
			1022	642	187	188	5		

- Molecule 47 is a protein called 60S RIBOSOMAL PROTEIN L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BN	216	Total	C	N	O	S	0	1
			1762	1097	366	292	7		

- Molecule 48 is a protein called 60S RIBOSOMAL PROTEIN L13A, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	BO	201	Total	C	N	O	S	0	1
			1627	1035	323	262	7		

- Molecule 49 is a protein called PROBABLE 60S RIBOSOMAL PROTEIN L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	BP	184	Total	C	N	O	S	0	1
			1484	934	299	247	4		

- Molecule 50 is a protein called RIBOSOMAL PROTEIN L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	BQ	203	Total	C	N	O	S	0	0
			1716	1077	370	264	5		

- Molecule 51 is a protein called 60S RIBOSOMAL PROTEIN L17, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	BR	155	Total	C	N	O	S	0	1
			1245	782	247	208	8		

- Molecule 52 is a protein called 60S RIBOSOMAL PROTEIN L18A.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	BS	179	Total	C	N	O	S	0	0
			1473	931	290	244	8		

- Molecule 53 is a protein called 60S RIBOSOMAL PROTEIN L19, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	BT	200	Total	C	N	O	S	0	1
			1672	1025	366	273	8		

- Molecule 54 is a protein called 60S RIBOSOMAL PROTEIN L21E, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	BU	158	Total	C	N	O	S	0	0
			1260	802	246	206	6		

- Molecule 55 is a protein called 60S RIBOSOMAL PROTEIN L22, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	BV	104	Total	C	N	O	S	0	1
			863	558	152	150	3		

- Molecule 56 is a protein called 60S RIBOSOMAL PROTEIN L23, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	BW	138	Total	C	N	O	S	0	0
			1042	659	198	180	5		

- Molecule 57 is a protein called 60S RIBOSOMAL PROTEIN L23A.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	BX	121	Total	C	N	O	S	0	0
			990	629	186	173	2		

- Molecule 58 is a protein called 60S RIBOSOMAL PROTEIN L24, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	BY	100	Total	C	N	O	S	0	0
			836	530	171	130	5		

- Molecule 59 is a protein called 60S RIBOSOMAL PROTEIN L26, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	BZ	125	Total	C	N	O	S	0	1
			1008	623	213	167	5		

- Molecule 60 is a protein called 60S RIBOSOMAL PROTEIN L27, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Ba	132	Total	C	N	O	S	0	0
			1091	691	222	175	3		

- Molecule 61 is a protein called 60S RIBOSOMAL PROTEIN L27A.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Bb	144	Total	C	N	O	S	0	0
			1137	717	228	186	6		

- Molecule 62 is a protein called 60S RIBOSOMAL PROTEIN L28, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	Bc	141	Total	C	N	O	S	0	1
			1129	704	226	191	8		

- Molecule 63 is a protein called 60S RIBOSOMAL PROTEIN L29, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	Bd	70	Total	C	N	O	S	0	0
			571	349	128	93	1		

- Molecule 64 is a protein called 60S RIBOSOMAL PROTEIN L2, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Be	186	Total	C	N	O	S	0	1
			1390	859	284	237	10		

- Molecule 65 is a protein called RIBOSOMAL PROTEIN L3, MITOCHONDRIAL, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	Bf	414	Total	C	N	O	S	0	1
			3317	2084	661	559	13		

- Molecule 66 is a protein called 60S RIBOSOMAL PROTEIN L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Bg	96	Total	C	N	O	S	0	0
			735	457	132	141	5		

- Molecule 67 is a protein called 60S RIBOSOMAL SUBUNIT PROTEIN L31, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Bh	188	Total	C	N	O	S	0	0
			1526	961	309	250	6		

- Molecule 68 is a protein called 60S RIBOSOMAL PROTEIN L32, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Bi	129	Total	C	N	O	S	0	1
			1054	664	215	171	4		

- Molecule 69 is a protein called 60S RIBOSOMAL PROTEIN L34, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	Bj	162	Total	C	N	O	S	0	1
			1293	801	286	202	4		

- Molecule 70 is a protein called 60S RIBOSOMAL PROTEIN L35, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Bk	84	Total	C	N	O	S	0	0
			719	448	161	108	2		

- Molecule 71 is a protein called 60S RIBOSOMAL PROTEIN L35A, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	Bl	116	Total	C	N	O	S	0	0
			936	589	189	155	3		

- Molecule 72 is a protein called RIBOSOMAL PROTEIN L36, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	Bm	107	Total	C	N	O	S	0	1
			849	530	178	139	2		

- Molecule 73 is a protein called RIBOSOMAL PROTEIN L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	Bn	83	Total	C	N	O	S	0	0
			699	425	161	107	6		

- Molecule 74 is a protein called 60S RIBOSOMAL PROTEIN L37A, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	Bo	92	Total	C	N	O	S	0	1
			715	442	148	119	6		

- Molecule 75 is a protein called 60S RIBOSOMAL PROTEIN L38, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	Bp	81	Total	C	N	O	S	0	0
			656	411	130	111	4		

- Molecule 76 is a protein called 60S RIBOSOMAL PROTEIN L39, PUTATIVE.

Mol	Chain	Residues	Atoms				AltConf	Trace
76	Bq	50	Total	C	N	O	0	0
			457	297	98	62		

- Molecule 77 is a protein called 60S RIBOSOMAL PROTEIN L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Br	368	Total	C	N	O	S	0	1
			2883	1802	576	488	17		

- Molecule 78 is a protein called UBIQUITIN-60S RIBOSOMAL PROTEIN L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Bs	52	Total	C	N	O	S	0	0
			427	265	88	67	7		

- Molecule 79 is a protein called 60S RIBOSOMAL PROTEIN L44.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	Bt	105	Total	C	N	O	S	0	0
			866	547	170	144	5		

- Molecule 80 is a protein called 60S RIBOSOMAL PROTEIN L5, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	Bu	299	Total	C	N	O	S	0	1
			2354	1485	447	416	6		

- Molecule 81 is a protein called 60S RIBOSOMAL PROTEIN L6, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	Bv	158	Total	C	N	O	S	0	1
			1222	776	228	215	3		

- Molecule 82 is a protein called 60S RIBOSOMAL PROTEIN L7, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	Bw	257	Total	C	N	O	S	0	0
			2066	1316	394	345	11		

- Molecule 83 is a protein called 60S RIBOSOMAL PROTEIN L7A, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	Bx	240	Total	C	N	O	S	0	0
			1908	1198	375	329	6		

- Molecule 84 is a protein called 60S RIBOSOMAL PROTEIN L9, PUTATIVE.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	By	189	Total	C	N	O	S	0	0
			1540	975	284	277	4		

- Molecule 85 is a RNA chain called 18S RRNA OF THE SMALL RIBOSOMAL SUBUNIT.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	AA	2227	Total	C	N	O	P	0	0
			47370	21162	8354	15629	2225		

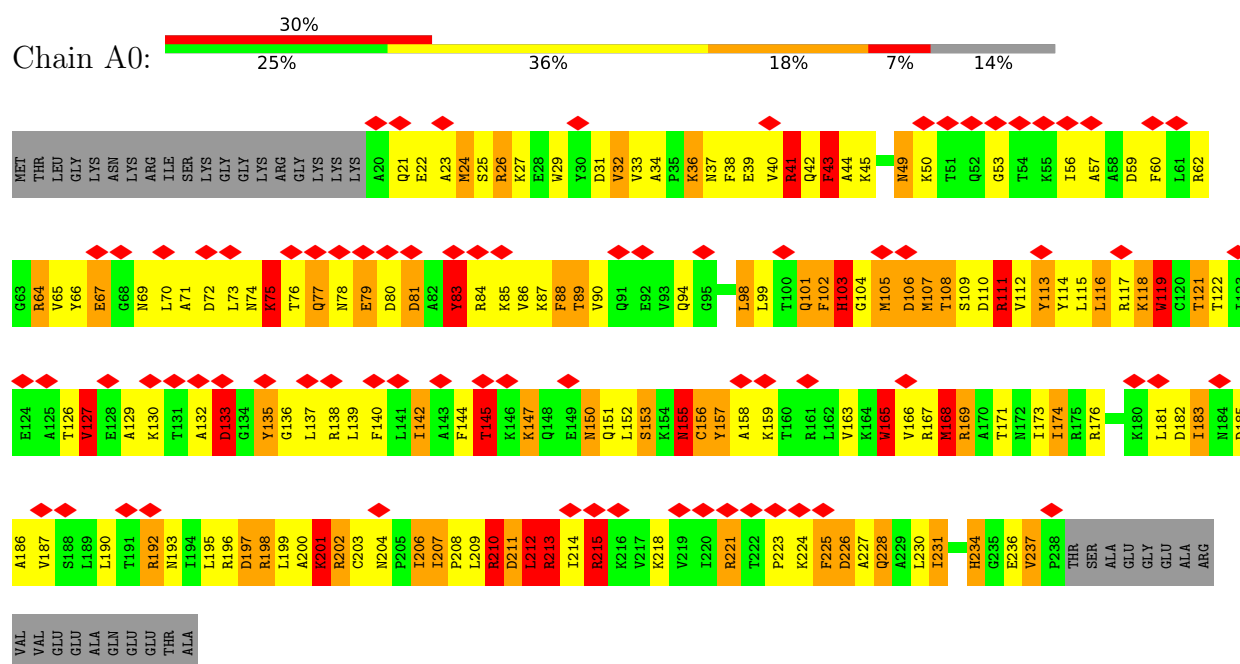
- Molecule 86 is a RNA chain called E-SITE TRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
86	AB	73	1557	695	279	511	72	0	0

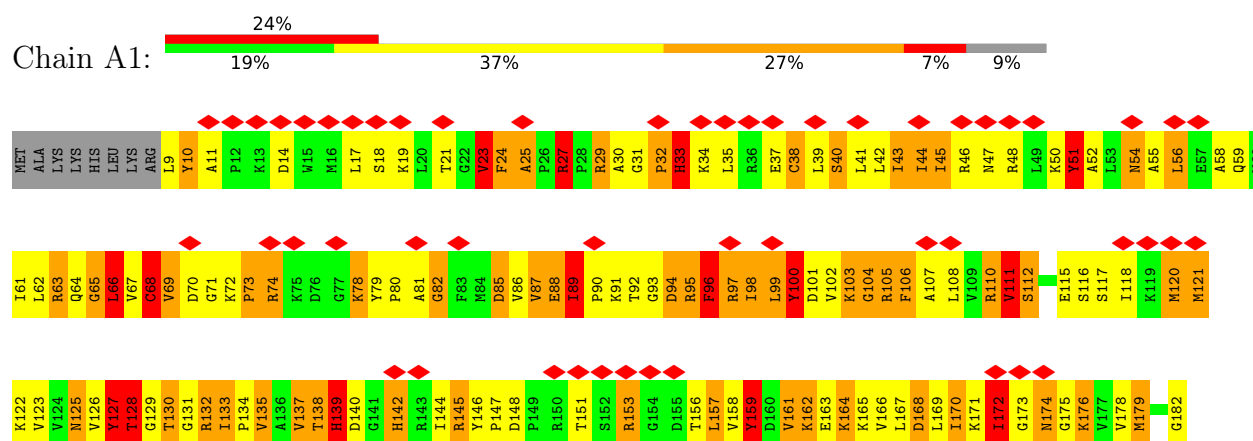
3 Residue-property plots

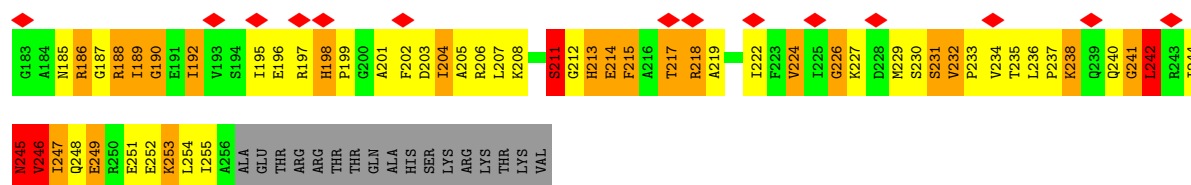
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: 40S RIBOSOMAL PROTEIN S3A, PUTATIVE

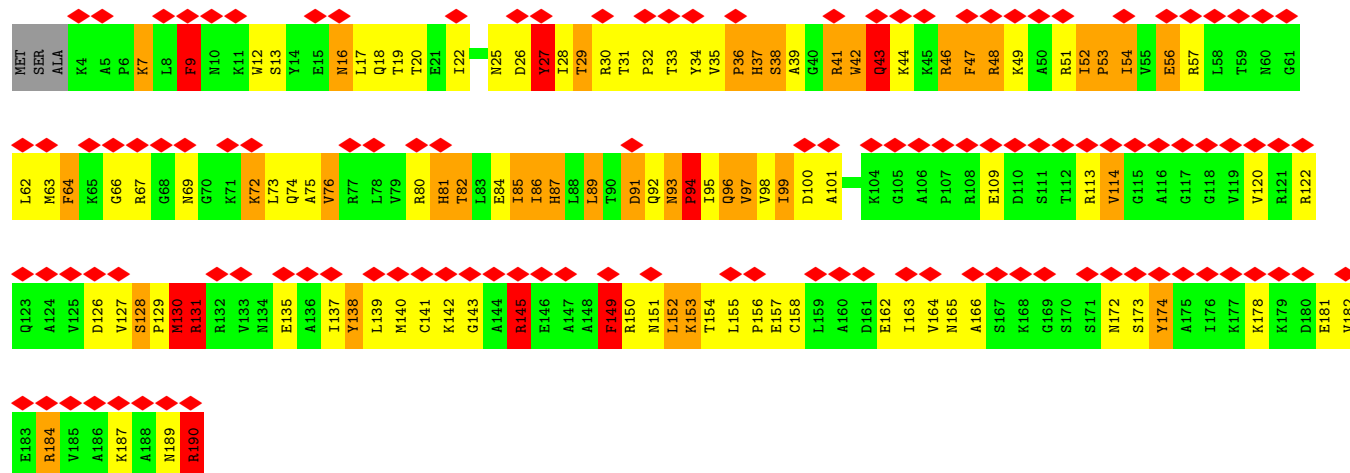


• Molecule 2: 40S RIBOSOMAL PROTEIN S4, PUTATIVE

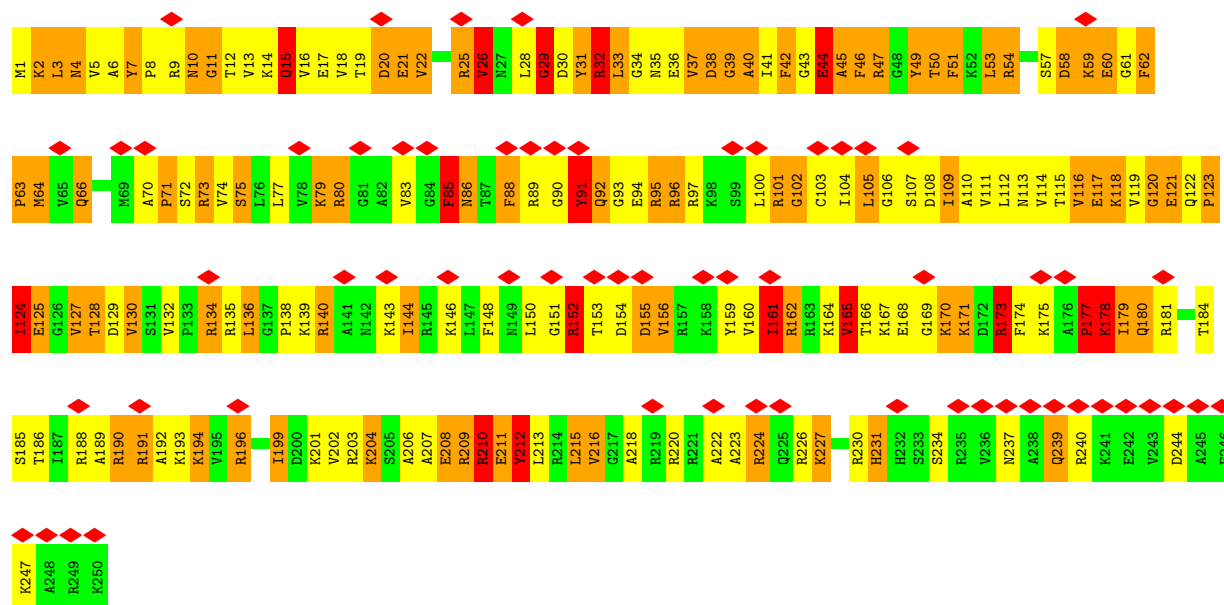
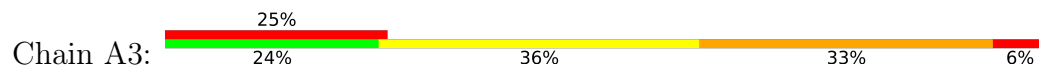




• Molecule 3: 40S RIBOSOMAL PROTEIN S5, PUTATIVE

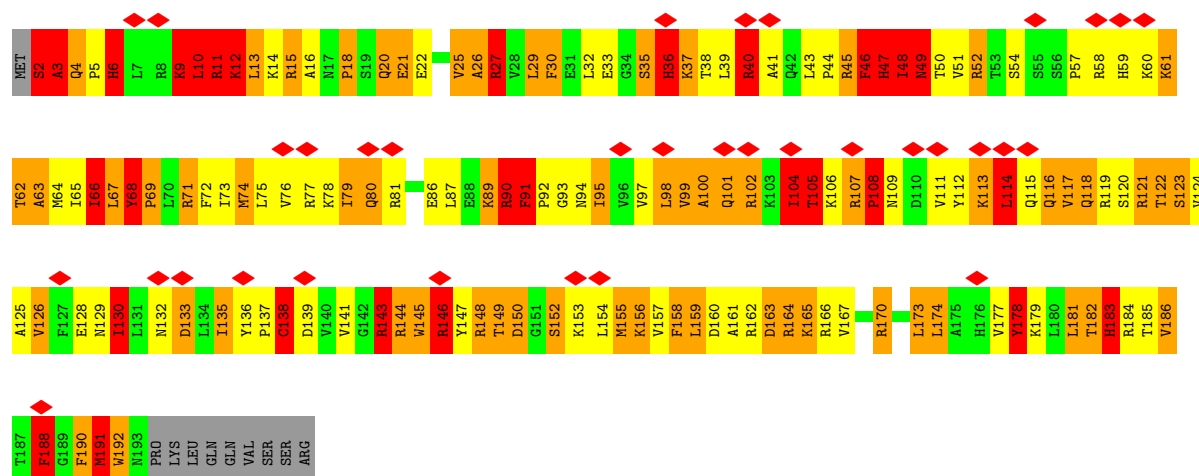


• Molecule 4: 40S RIBOSOMAL PROTEIN S6

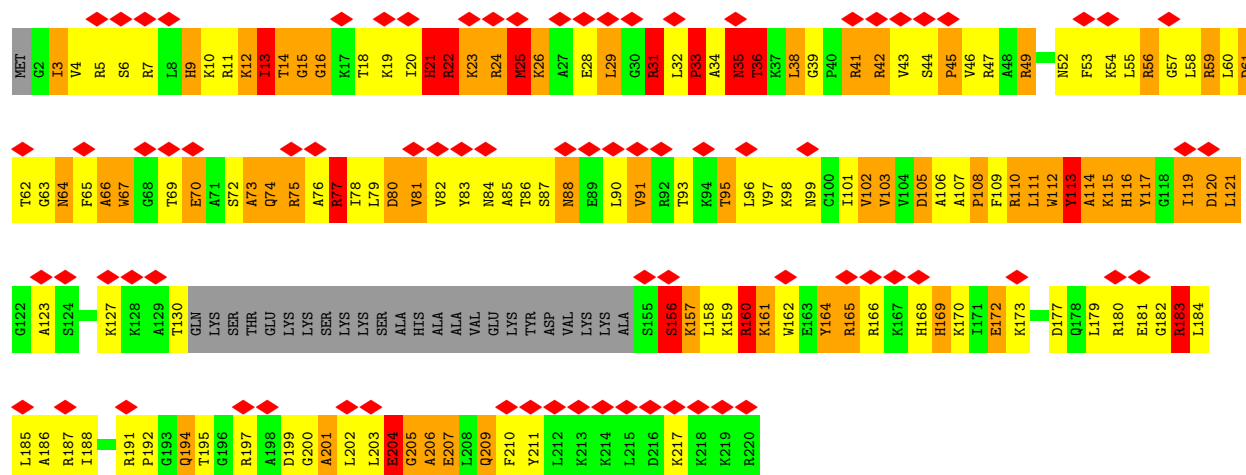
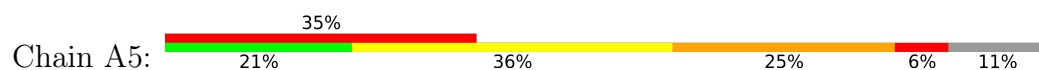


• Molecule 5: RIBOSOMAL PROTEIN S7, PUTATIVE

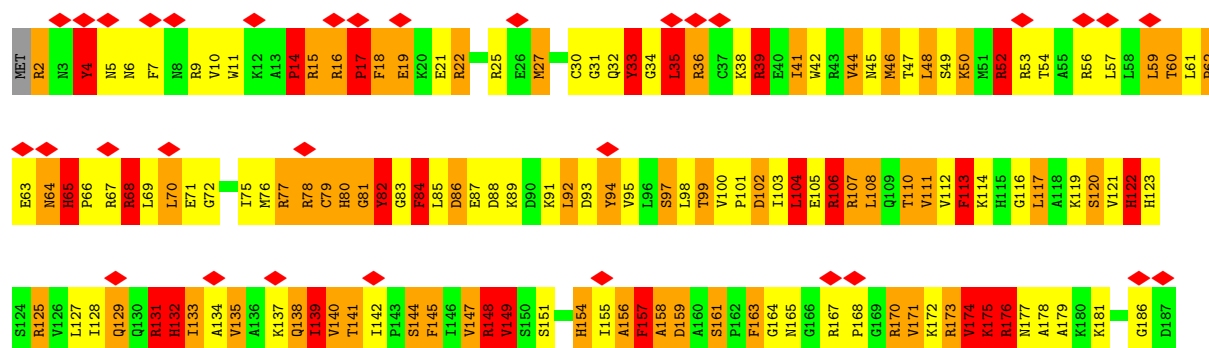
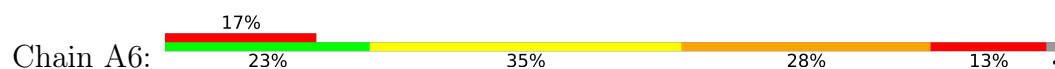




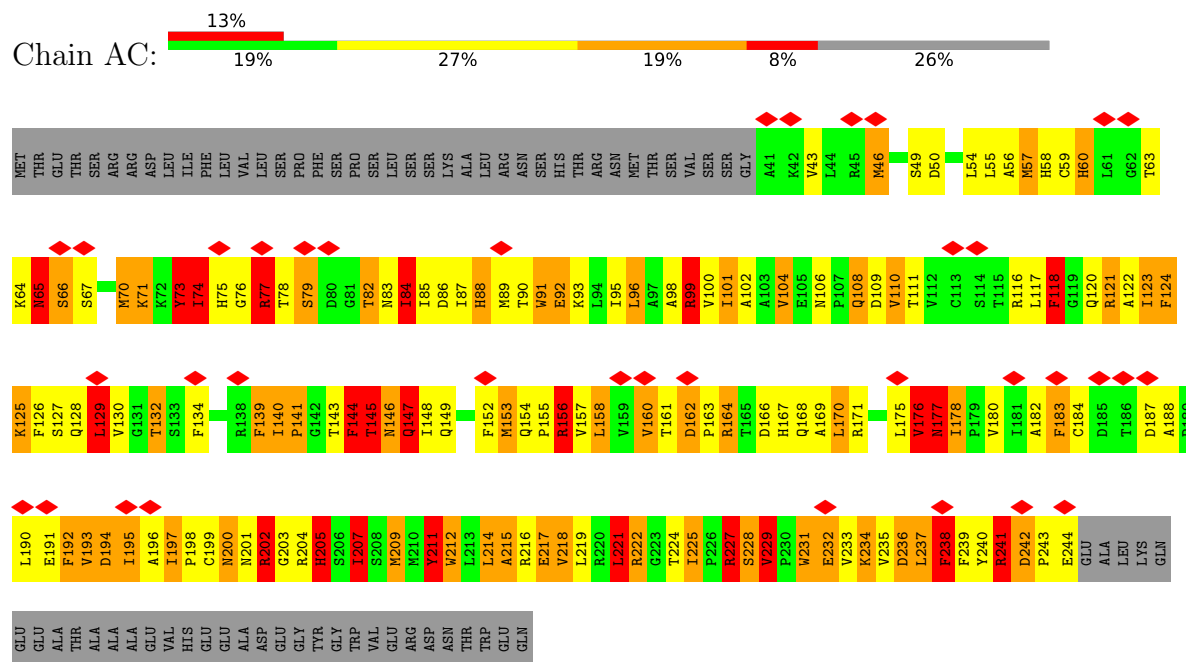
• Molecule 6: 40S RIBOSOMAL PROTEIN S8



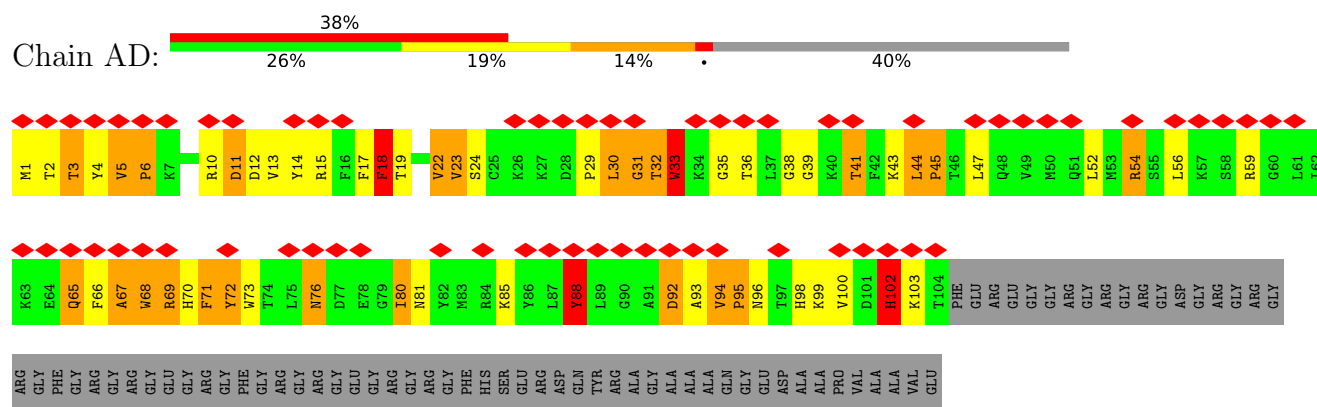
• Molecule 7: 40S RIBOSOMAL PROTEIN S9, PUTATIVE



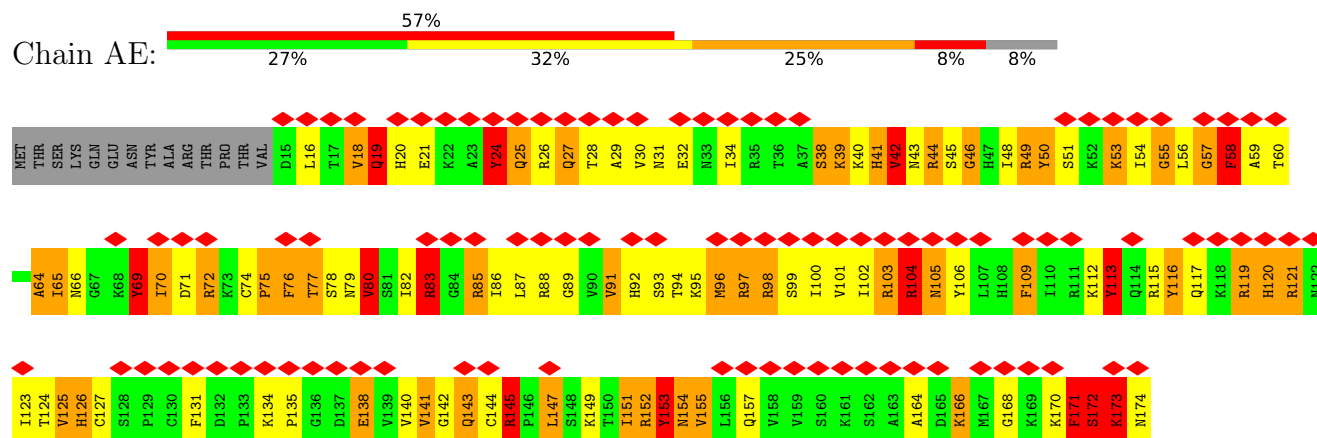
- Molecule 11: 40S RIBOSOMAL PROTEIN SA, PUTATIVE



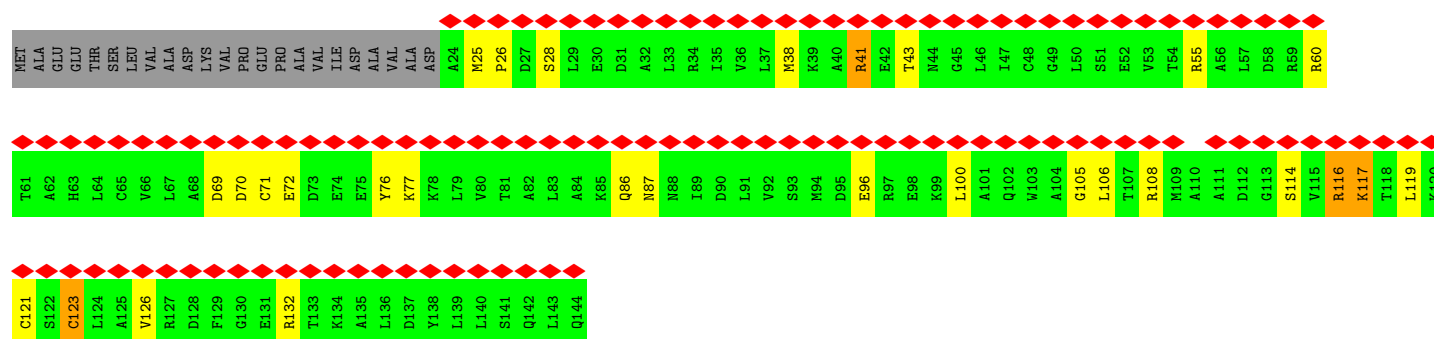
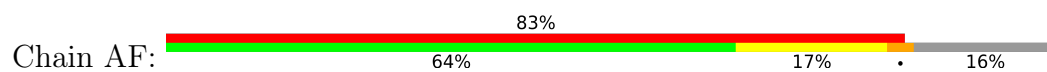
- Molecule 12: 40S RIBOSOMAL PROTEIN S10, PUTATIVE



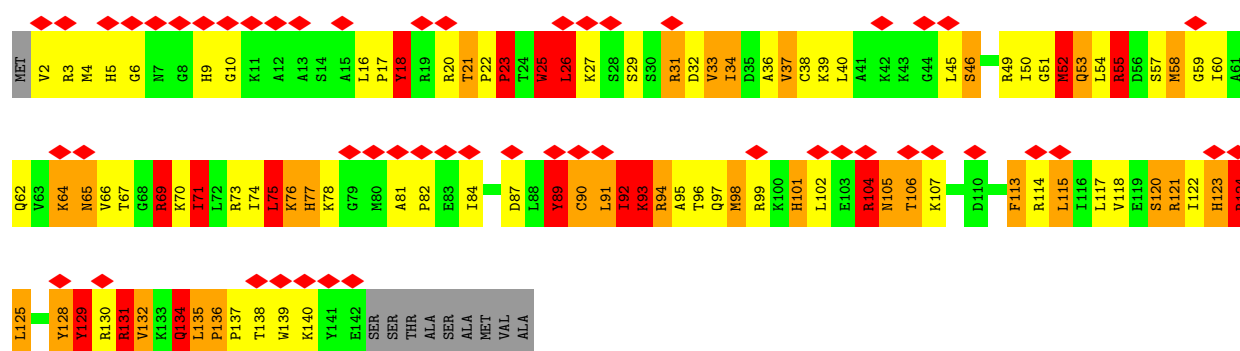
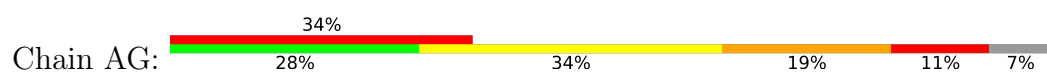
- Molecule 13: 40S RIBOSOMAL PROTEINS S11, PUTATIVE



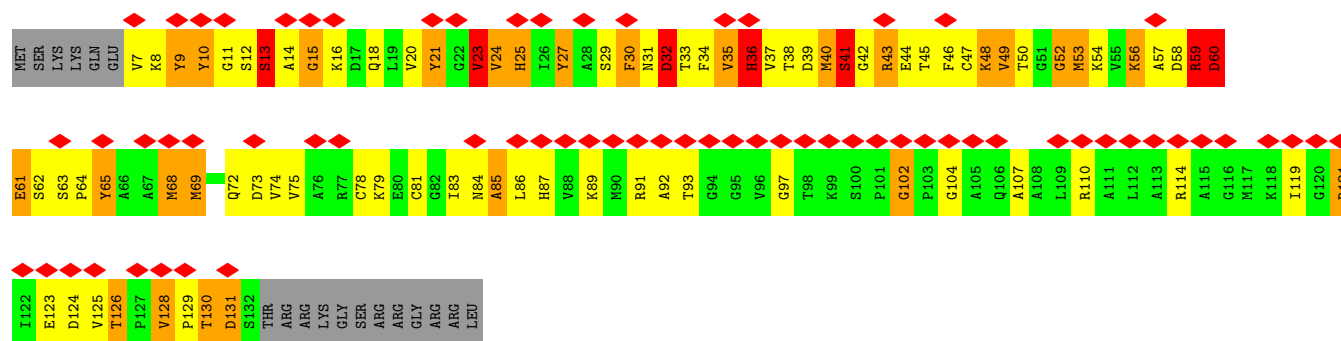
- Molecule 14: 40S RIBOSOMAL PROTEIN S12



• Molecule 15: 40S RIBOSOMAL PROTEIN S13, PUTATIVE

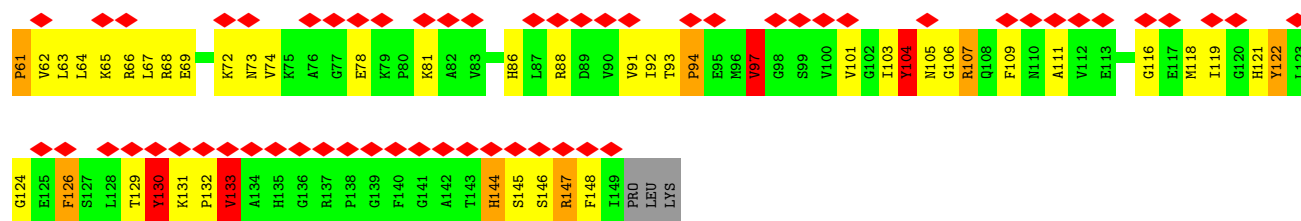


• Molecule 16: 40S RIBOSOMAL PROTEIN S14

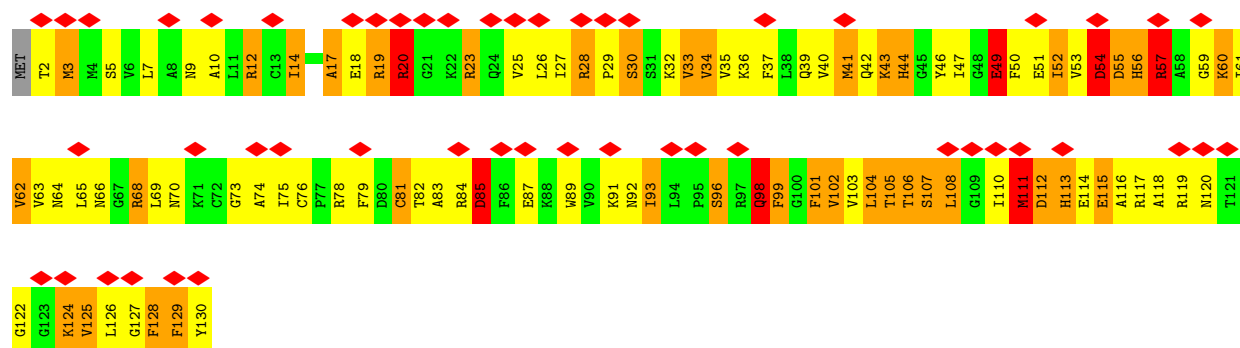
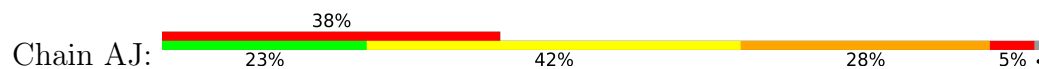


• Molecule 17: 40S RIBOSOMAL PROTEIN S15, PUTATIVE

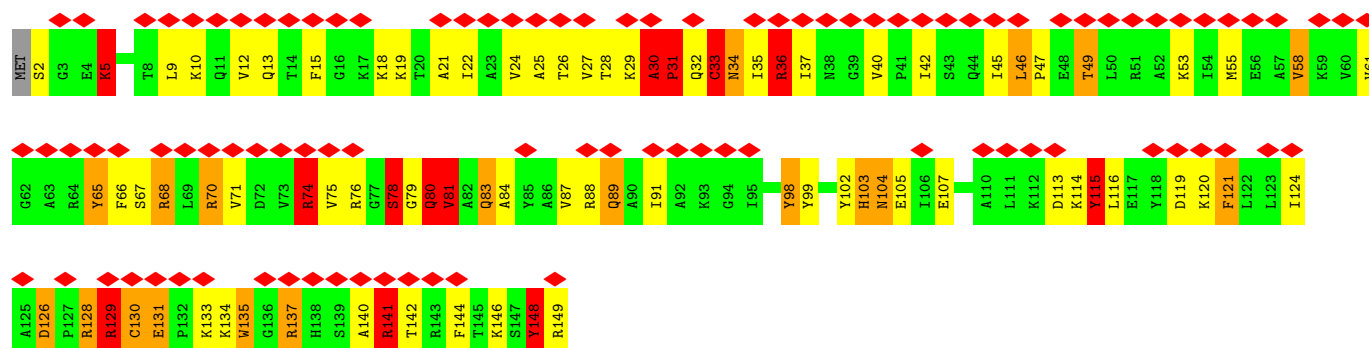
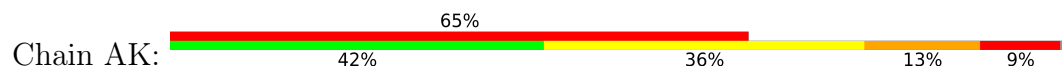




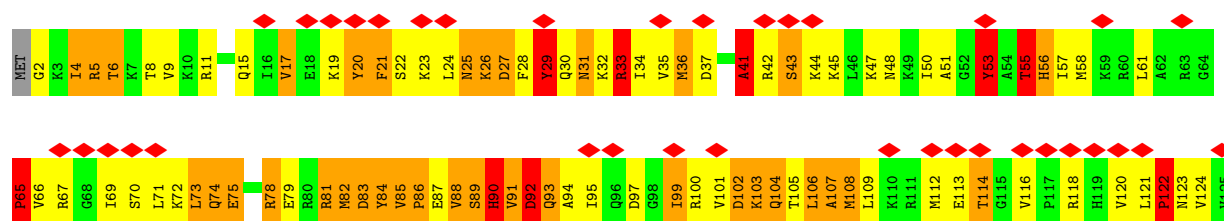
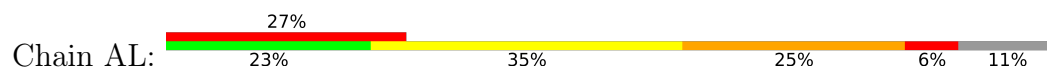
• Molecule 18: 40S RIBOSOMAL PROTEIN S15A, PUTATIVE

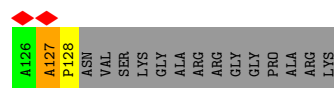


• Molecule 19: 40S RIBOSOMAL PROTEIN S16, PUTATIVE

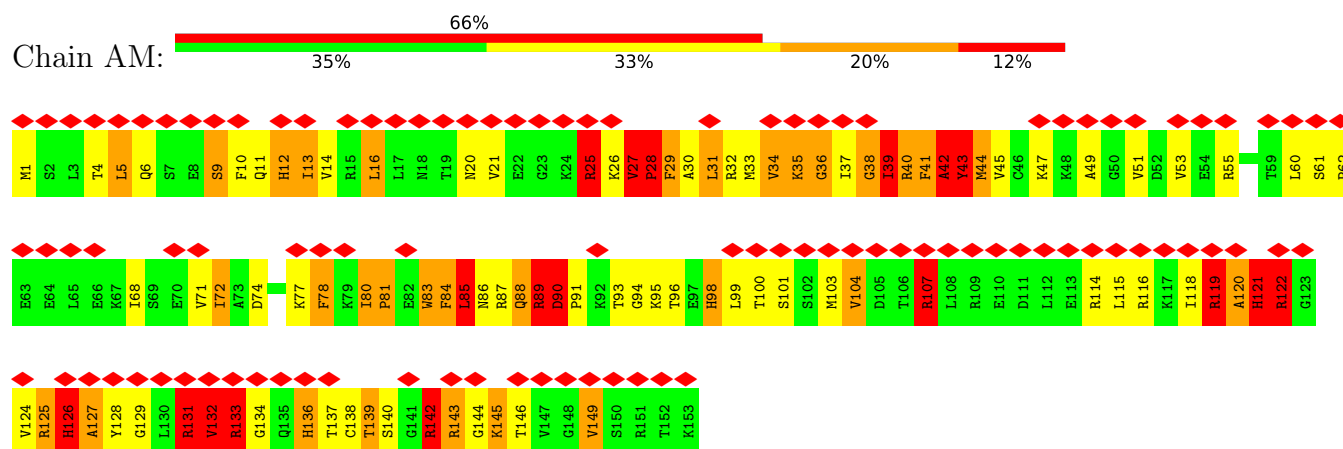


• Molecule 20: 40S RIBOSOMAL PROTEIN S17, PUTATIVE

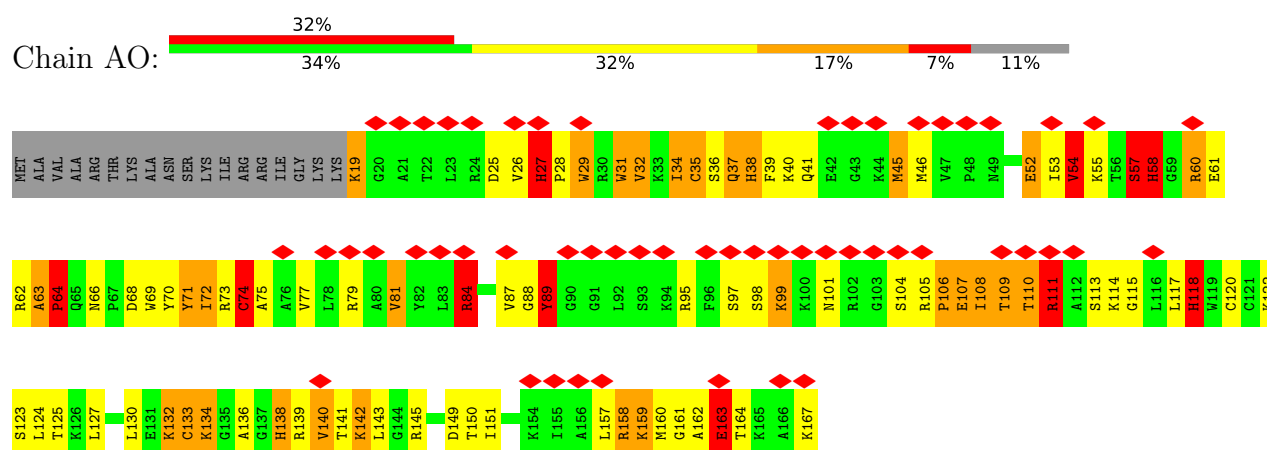




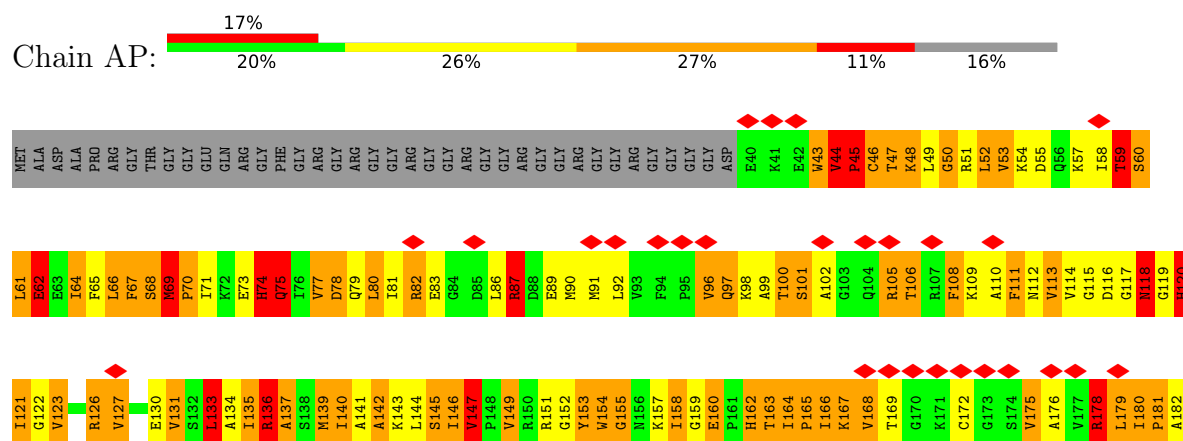
• Molecule 21: 40S RIBOSOMAL PROTEIN S18, PUTATIVE

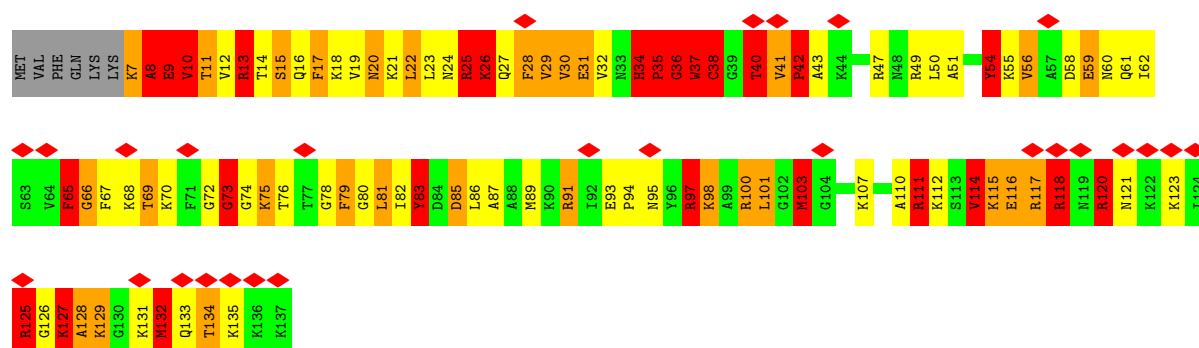
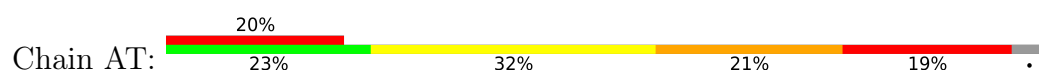


• Molecule 22: RIBOSOMAL PROTEIN S19, PUTATIVE

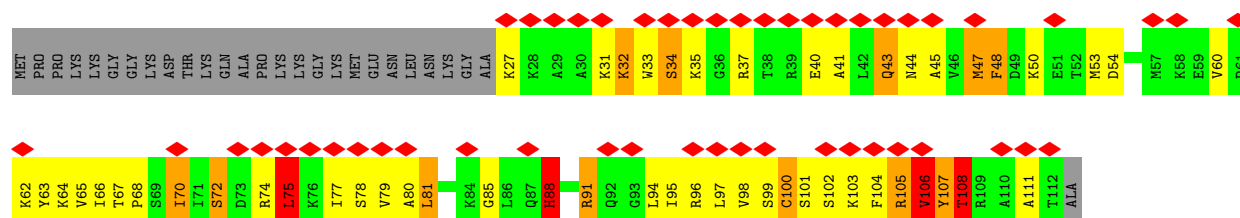
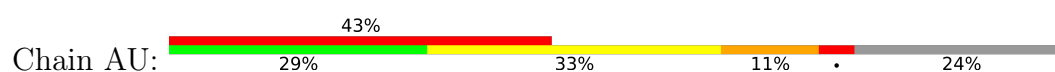


• Molecule 23: 40S RIBOSOMAL PROTEIN S2, PUTATIVE

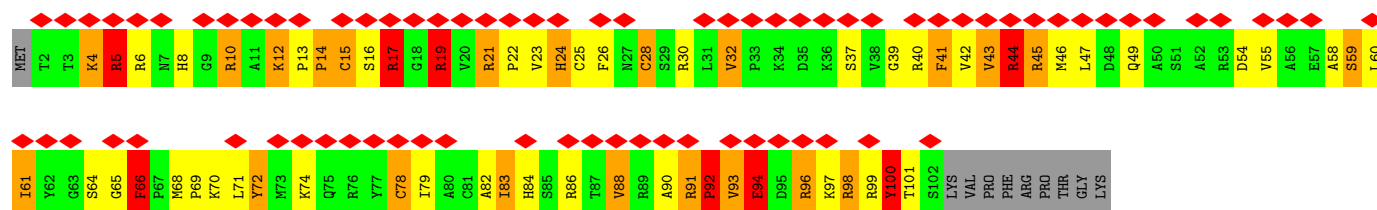




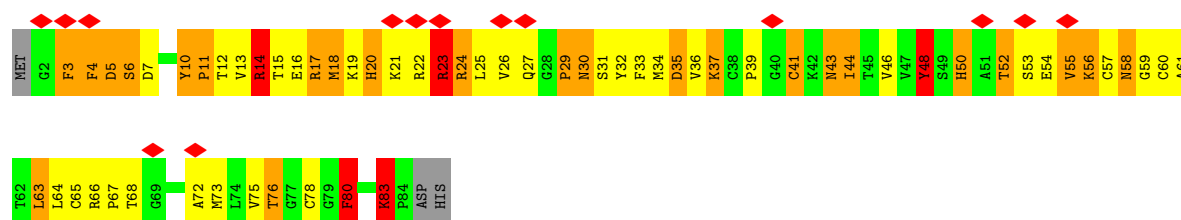
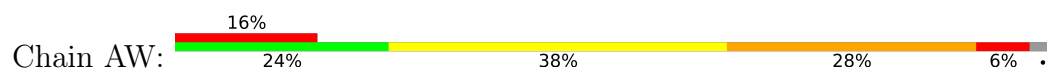
• Molecule 28: 40S RIBOSOMAL PROTEIN S25, PUTATIVE



• Molecule 29: RIBOSOMAL PROTEIN S26, PUTATIVE



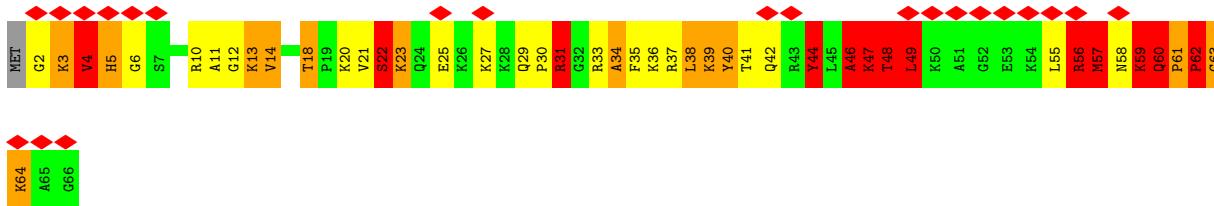
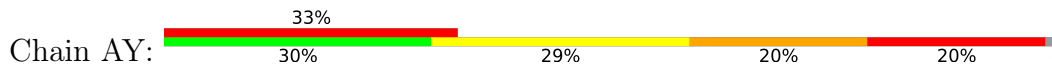
• Molecule 30: 40S RIBOSOMAL PROTEIN S27, PUTATIVE



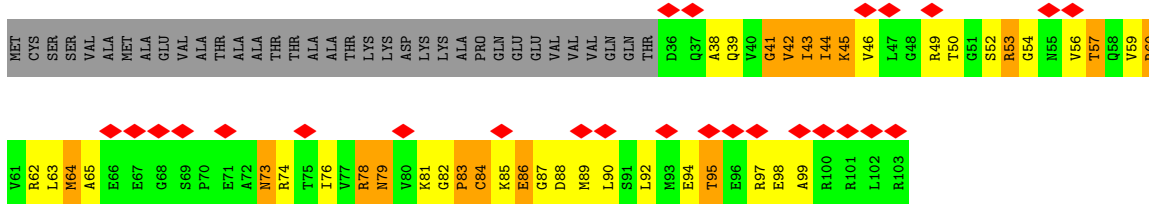
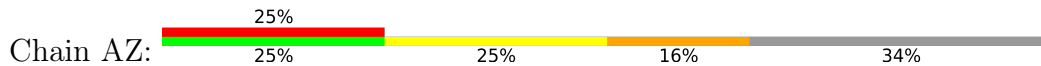
• Molecule 31: 40S RIBOSOMAL PROTEIN S3, PUTATIVE



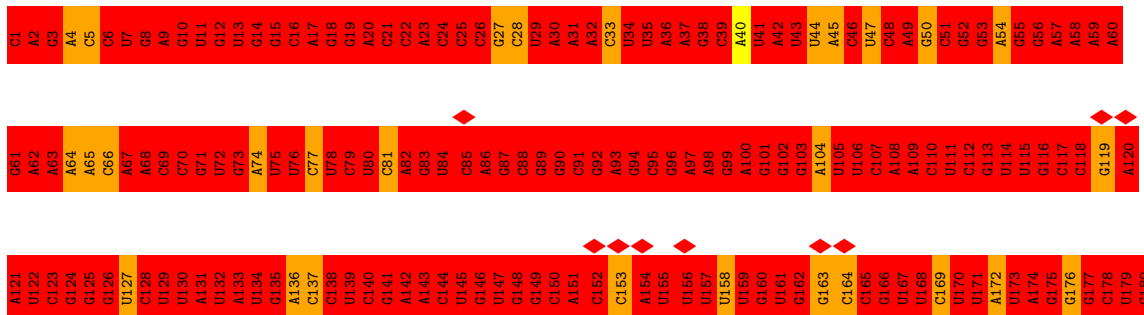
● Molecule 32: 40S RIBOSOMAL PROTEIN S30, PUTATIVE



- Molecule 33: 40S RIBOSOMAL PROTEIN S33, PUTATIVE



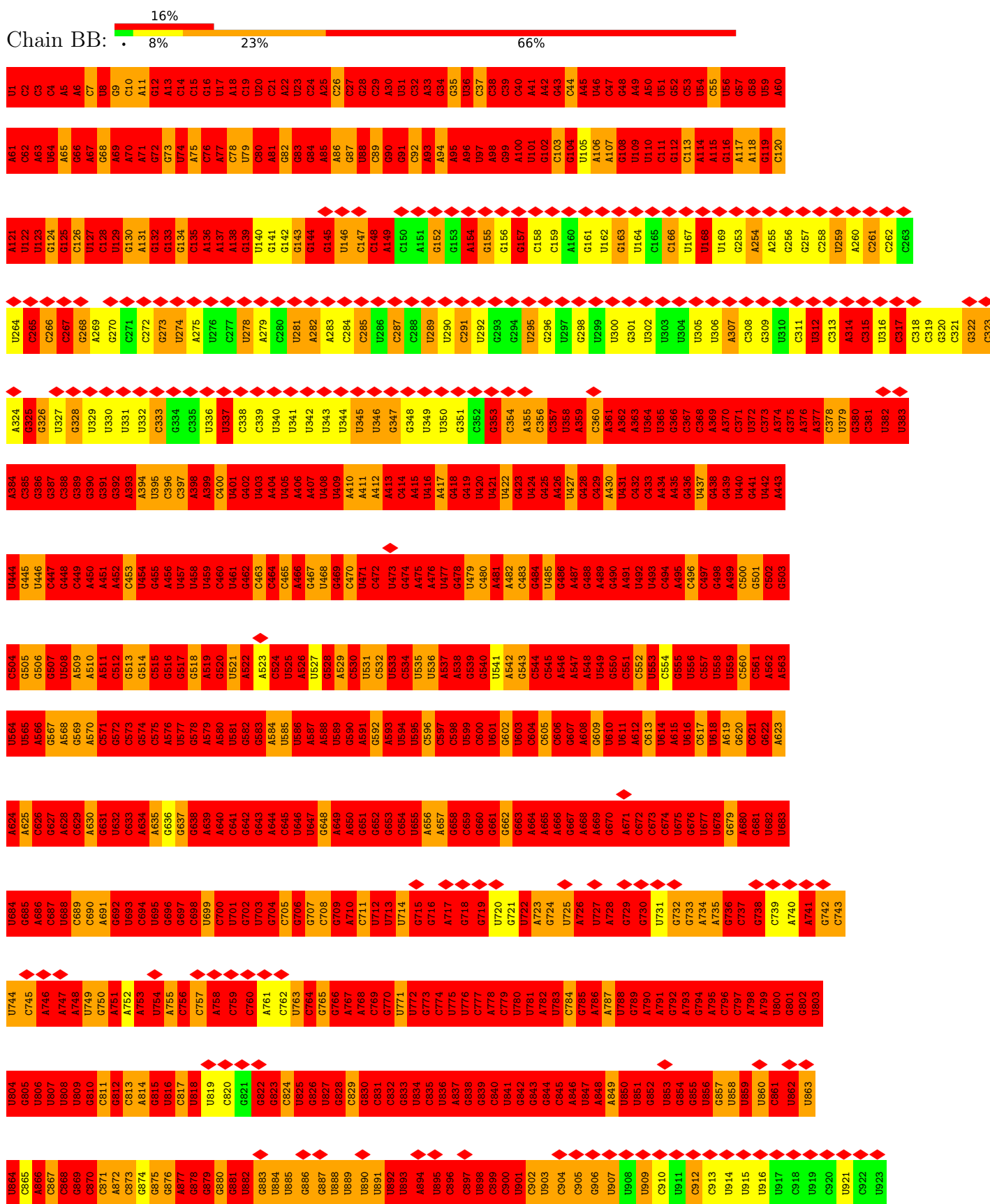
● Molecule 34: ALPHA CHAIN OF THE LARGE RIBOSOMAL SUBUNIT 28S RRNA

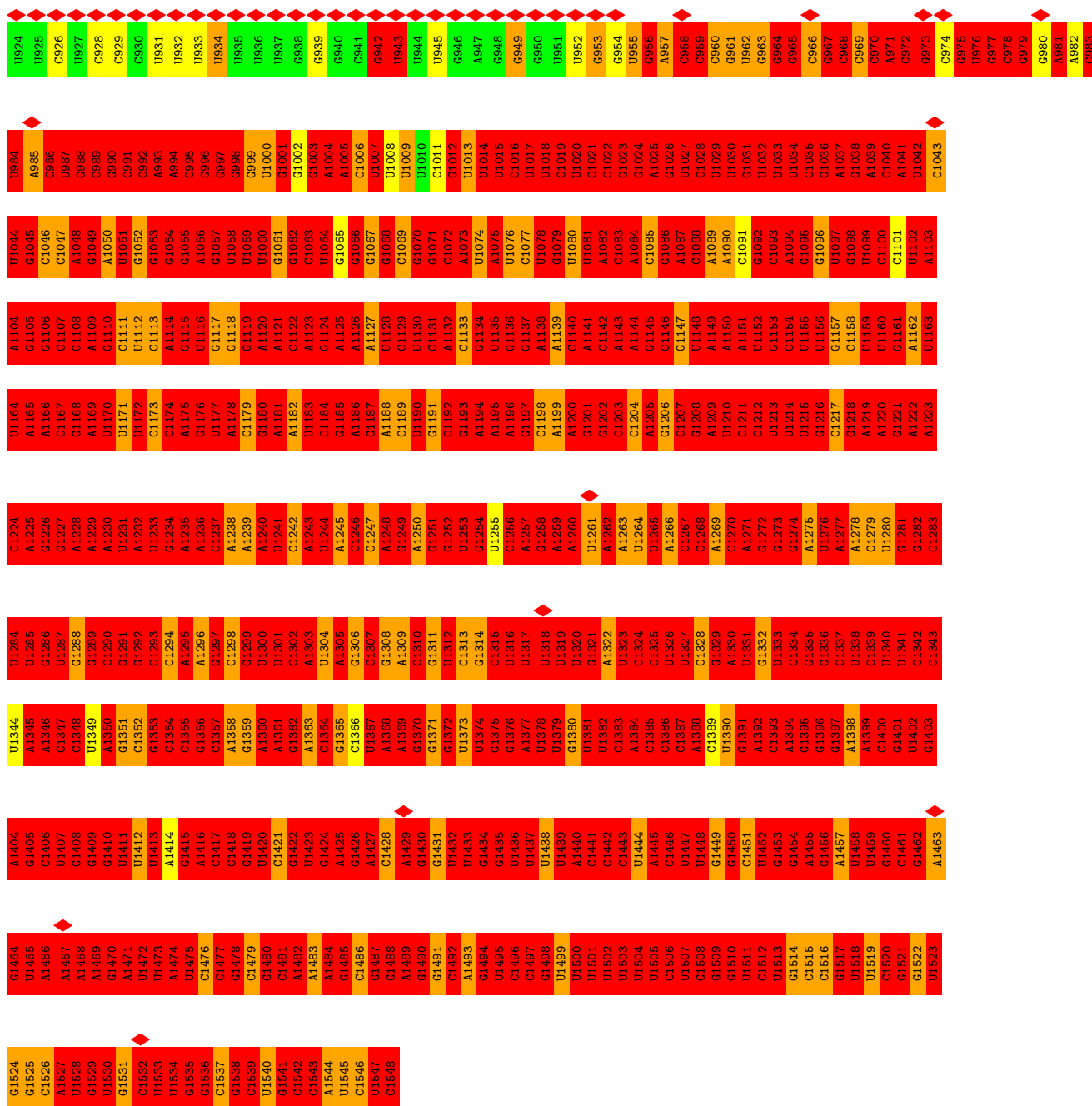


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C901	C902	C903	G904	A905	A906	A907	C908	G909	G910	C911	G912	U913	U914	A915	A916	C917	U918	U919	U920	C921	C922	A923	C924	U924	C925	A926	A927	C928	A929	A930	C931	C932	C933	A934	A935	A936	C937	C938	C939	C940	G941	C942	U1003	A1003	G943	C944	U1004	C1005	U1006	G1007	A1008	C986	G1009	C949	C950	C951	C952	U1012	A1013	A1014	U1015	G1015	A1016	C1017	U1018	C1019	A1020
G841	U842	G843	U844	U845	U846	U847	U848	G849	C850	C851	C852	A853	A854	C855	G856	C857	C858	G859	C860	C861	C862	C863	C864	C865	C866	C867	C868	C869	C870	C871	C872	C873	C874	C875	C876	U877	C878	C879	C880	C881	C882	C883	C884	A885	A886	U887	C888	U889	C890	C891	C892	U893	C894	U895	U896	U897	C898	A900									
U781	C782	C783	C784	U785	U786	U787	C788	U789	U790	C791	A792	A793	C794	C795	A796	C797	C798	A799	C800	U801	C802	U803	C804	A805	U806	U807	U808	U809	A810	C811	C812	C813	C814	C815	C816	U817	C818	C819	C820	U821	U822	C823	C824	C825	C826	A827	A828	U829	C709	U830	U831	C832	U833	C834	U835	U836	U837	U838	U839	U840							
A721	C722	C723	A724	C725	G726	C727	A728	C729	C730	A731	A732	C733	G734	A735	A736	U737	C738	A739	U740	C841	A741	C842	A743	G744	A745	C746	C747	C748	C749	C750	A751	A752	C753	G754	C755	A756	A757	C758	A759	C760	U761	U762	A763	C764	U765	A766	U767	C768	U769	C770	A771	C772	A773	A774	C775	U776	C777	U778	U779	U780							
C661	U662	C663	C664	C665	C666	U667	C668	U669	U670	C671	C672	U673	C674	C675	A676	C677	C678	U679	C680	C681	C682	C683	C684	C685	U686	C687	C688	C689	C690	A691	U692	C693	C694	A695	A696	A697	U698	C699	G700	C701	C702	U703	C704	C705	C706	C707	C708	C709	A710	C711	C712	C713	C714	U715	C716	U717	U718	C719	A720								
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C541	A542	A543	U544	U545	U546	C547	C548	C549	U550	U551	C552	A553	A554	C555	A556	U557	C558	C559	U560	U561	C562	A563	C564	U565	C566	U567	U568	C569	U570	C571	C572	U573	U574	U575	C576	C577	C578	U579	U580	U581	U582	U583	A584	C585	C586	A529	U587	C588	A589	U590	C591	C592	C593	U594	C595	U596	C597	U598	G600								
A481	C482	A483	U484	C485	C486	A487	C488	A489	A490	U491	C492	C493	A494	A495	A496	U497	A498	C499	C500	U501	U502	C503	A504	U505	U506	U507	C508	U509	U510	U511	U512	C513	U514	U515	U516	A517	C518	C519	G520	C521	C522	A523	C524	A525	C526	C527	C528	A529	U530	C531	C532	U533	C534	C535	U536	C537	C538	U539	C540								
G421	C422	G423	U424	C425	C426	C427	C428	C429	A430	A431	A432	C433	U434	U435	U436	C437	A438	A439	A440	A441	C442	C443	A444	C445	U446	U447	U448	C449	G450	A451	A452	C453	G454	A455	C456	U457	C458	U459	G460	A461	C462	A463	U464	A465	C466	A467	C468	C469	C470	U471	C472	A473	A474	U475	U476	C477	C478	U479	G480								
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G1807	A1087	A1207	C1147	G1327	U1387	C1447	C1507	G1567	U1627	A1687	G1747	G1807
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G1809	U1089	A1209	U1149	U1329	U1389	U1449	G1509	G1569	A1629	G1689	C1749	G1809
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A1811	U1091	G1211	A1151	G1331	C1391	A1451	C1511	C1571	U1631	G1691	A1751	A1811
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G1816	G1095	U1215	U1155	A1335	U1395	C1455	U1515	U1575	A1634	G1695	G1754	G1816
G1817	C1096	G1216	U1156	G1336	U1396	C1456	G1516	C1576	G1635	G1696	U1755	G1817
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G1846	G1125	G1244	U1185	G1364	U1423	A1484	C1545	G1605	G1664	U1725	U1780	G1846
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G1131	G1131	A1250	C1191	C1370	A1429	U1490	G1551	A1611	A1670	A1731	G1786	G1131
U1132	U1132	G1252	A1192	U1371	C1430	U1491	C1552	G1612	A1671	U1732	U1787	U1132
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C1138	C1138	G1258	U1198	G1377	A1437	U1497	C1558	A1618	C1677	G1738	U1793	C1138
U1199	U1199	C1259	U1199	A1378	G1438	A1498	C1559	U1619	C1679	G1739	A1794	U1199
A1140	A1140	G1260	U1200	G1379	C1439	U1499	U1560	U1620	G1680	U1740	A1795	A1140
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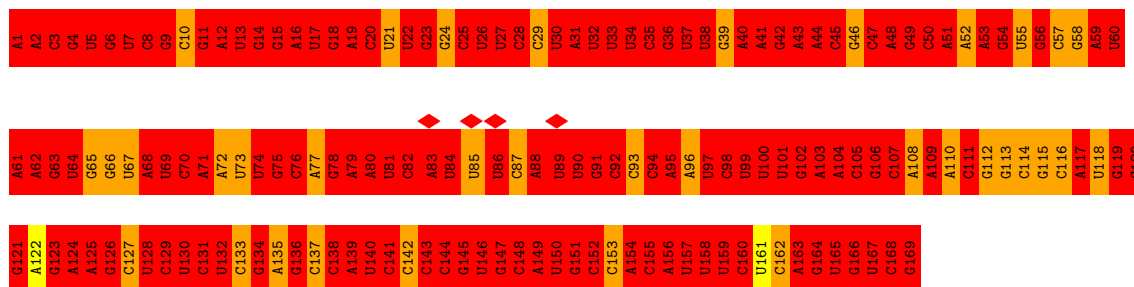
• Molecule 35: BETA CHAIN OF THE LARGE RIBOSOMAL SUBUNIT 28S RRNA



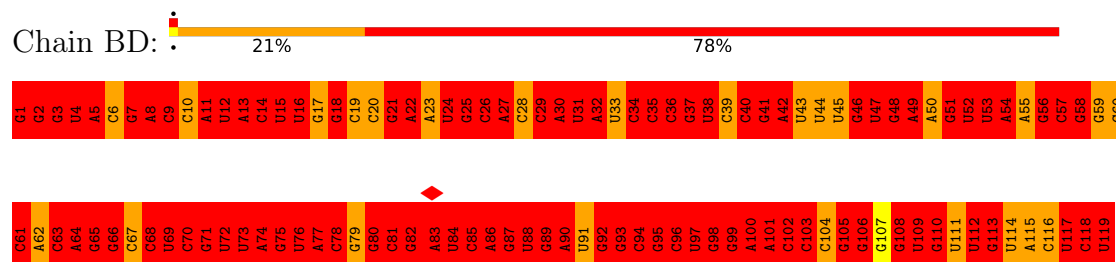


• Molecule 36: 5.8S RRNA CHAIN OF THE LARGE RIBOSOMAL SUBUNIT

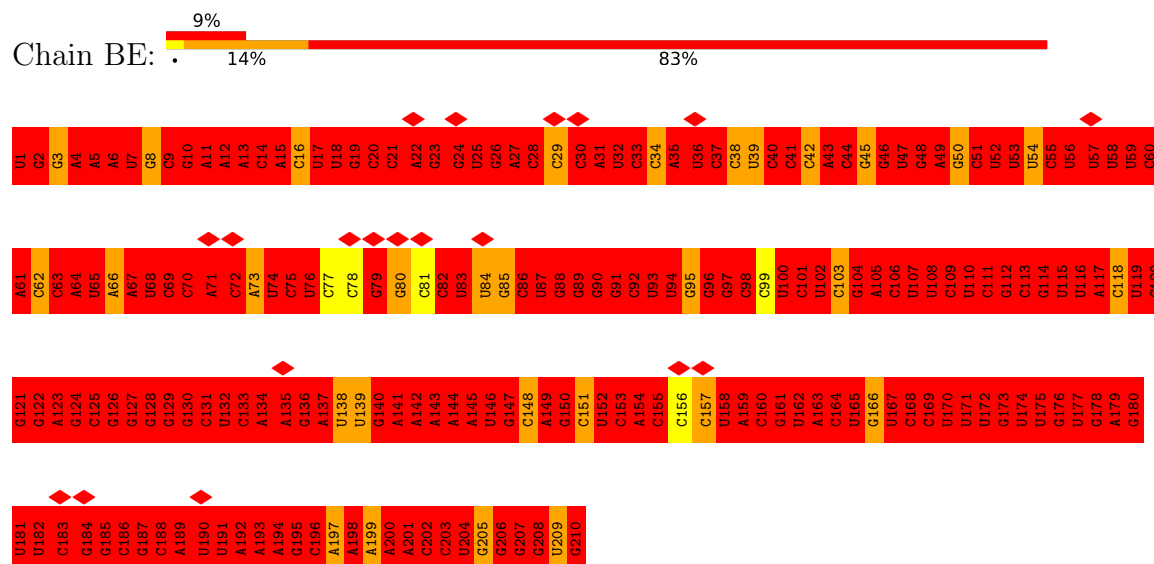
Chain BC: 21% 78%



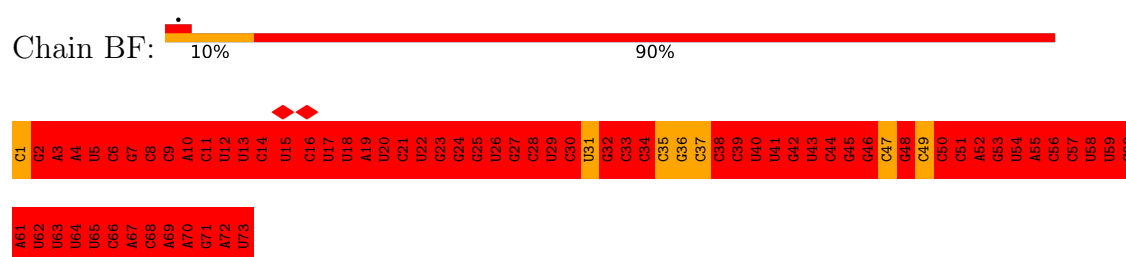
• Molecule 37: 5S RRNA CHAIN OF THE LARGE RIBOSOMAL SUBUNIT



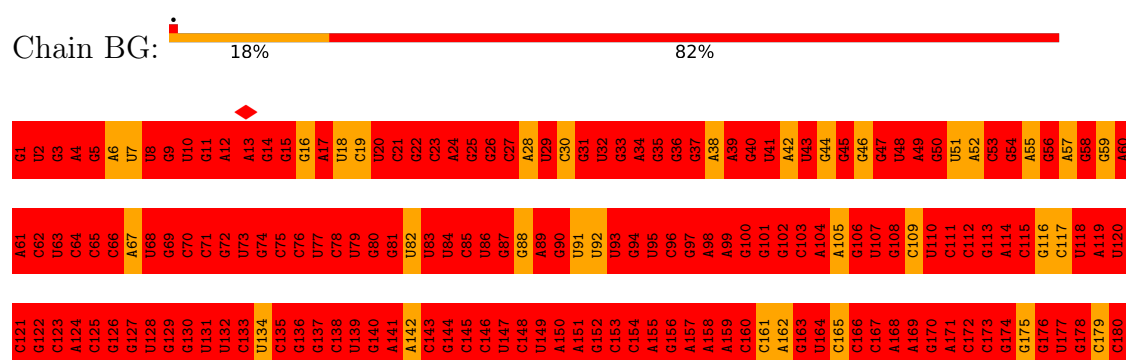
• Molecule 38: SHORT RRNA-I OF THE LARGE RIBOSOMAL SUBUNIT



• Molecule 39: SHORT RRNA-II OF THE LARGE RIBOSOMAL SUBUNIT

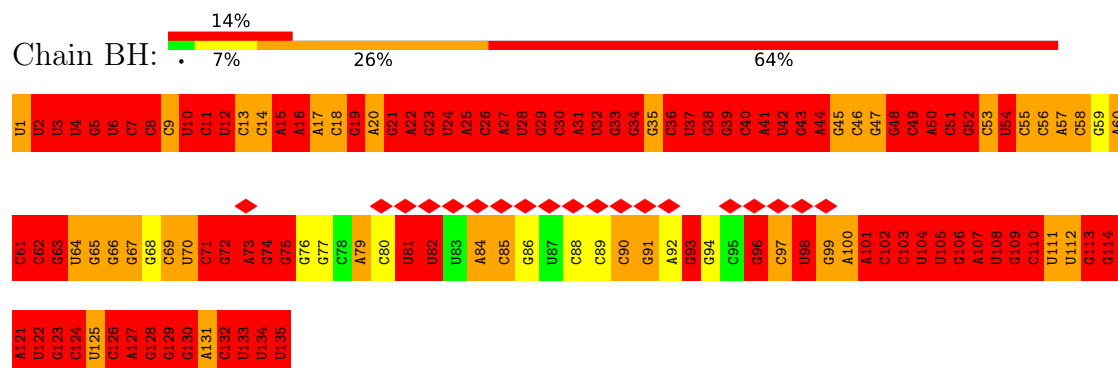


• Molecule 40: SHORT RRNA-III OF THE LARGE RIBOSOMAL SUBUNIT

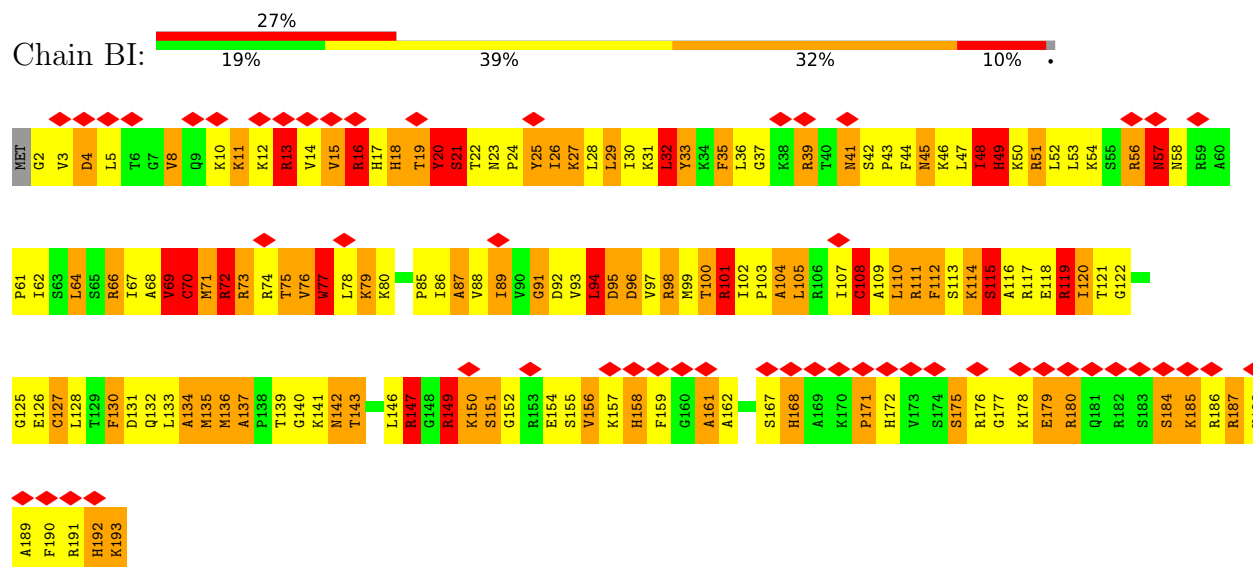


G181
G182

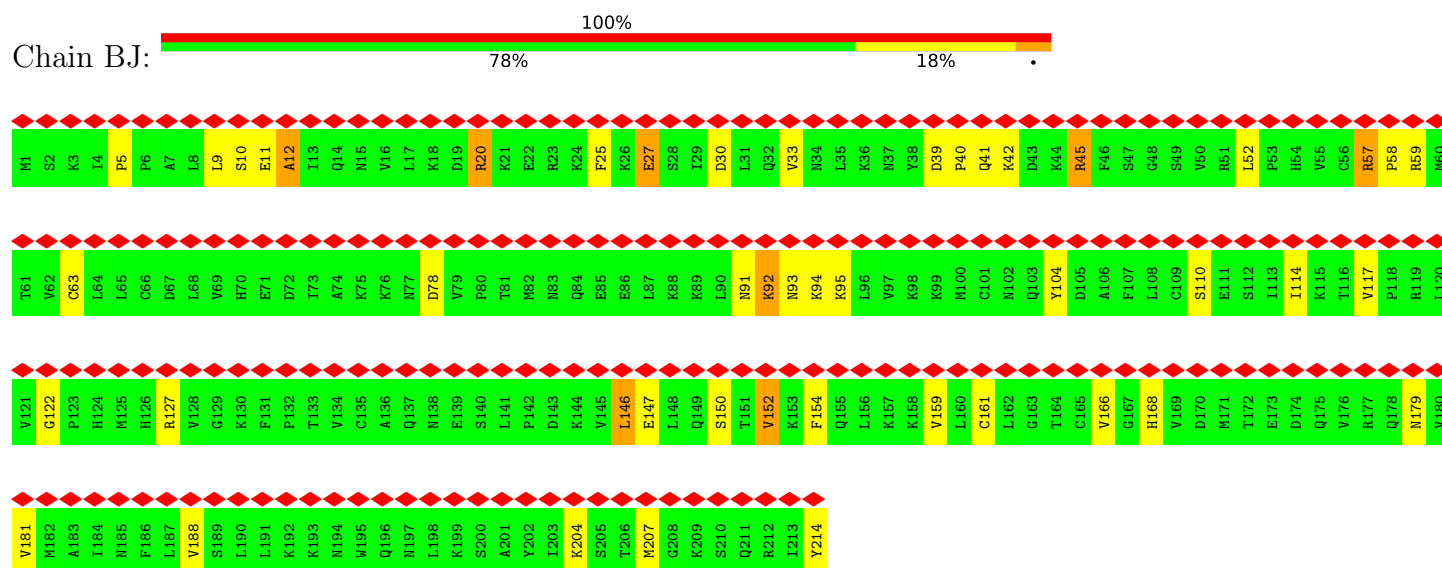
• Molecule 41: SHORT RRNA-IV OF THE LARGE RIBOSOMAL SUBUNIT



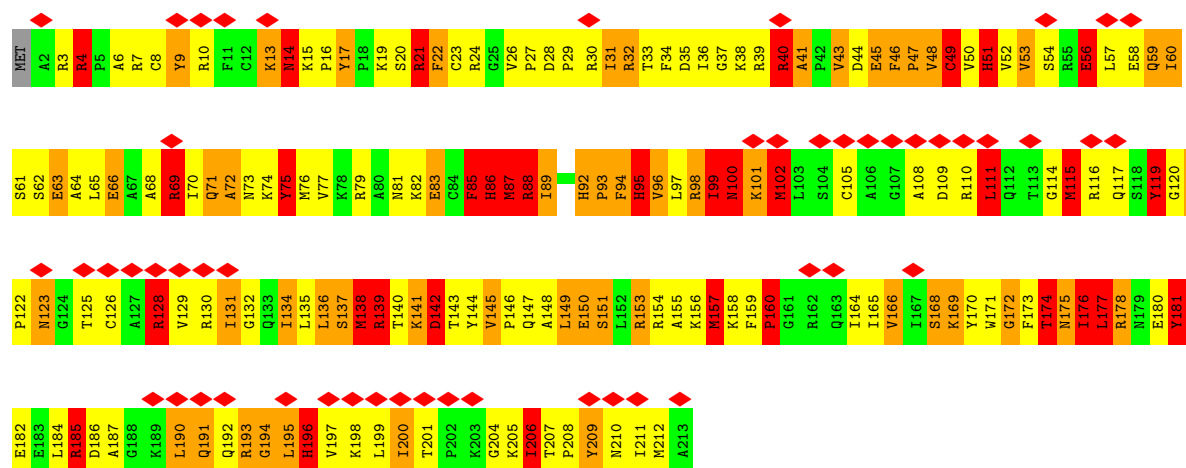
• Molecule 42: 60S RIBOSOMAL PROTEIN L18



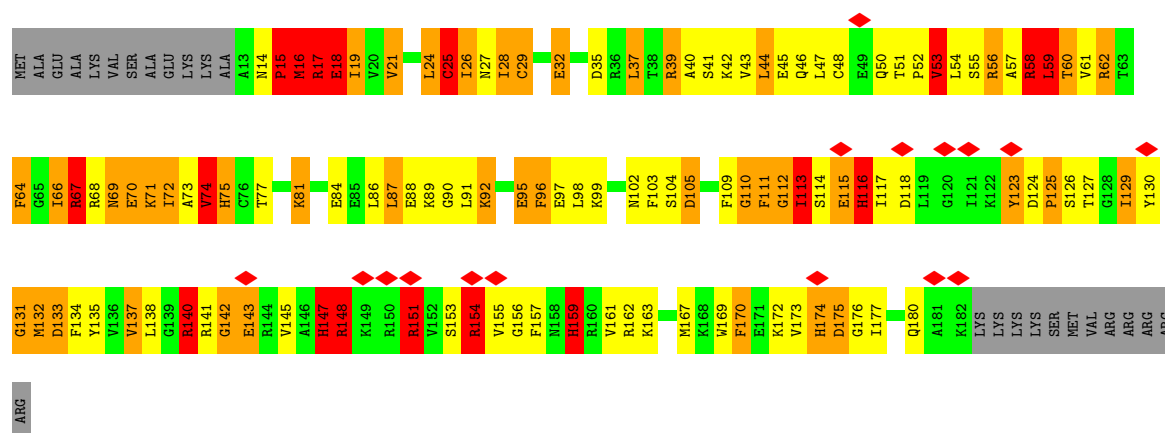
• Molecule 43: RIBOSOMAL PROTEIN



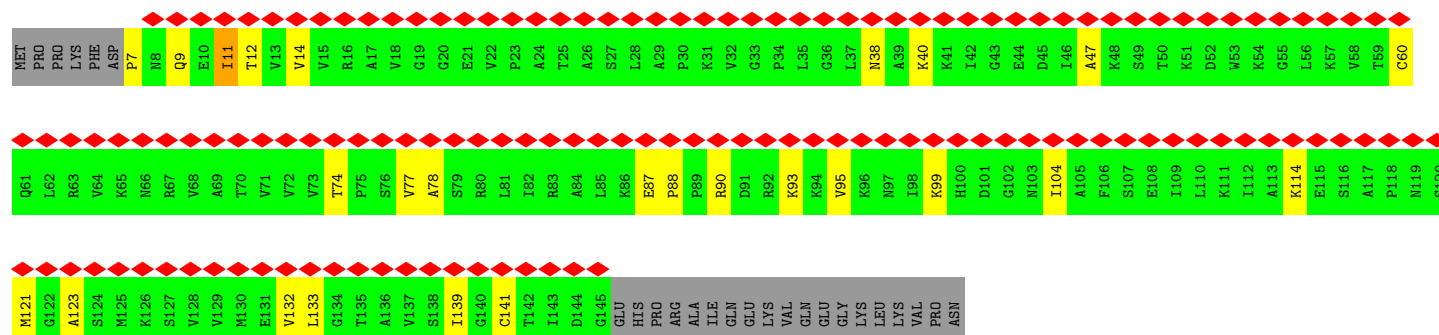
Chain BK:



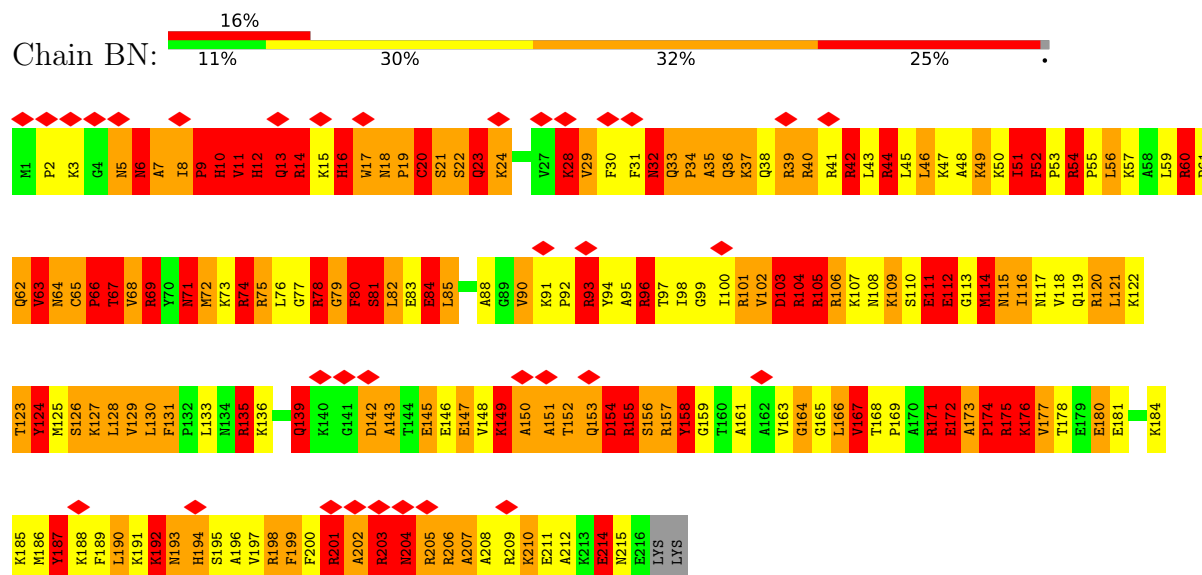
Chain BL:



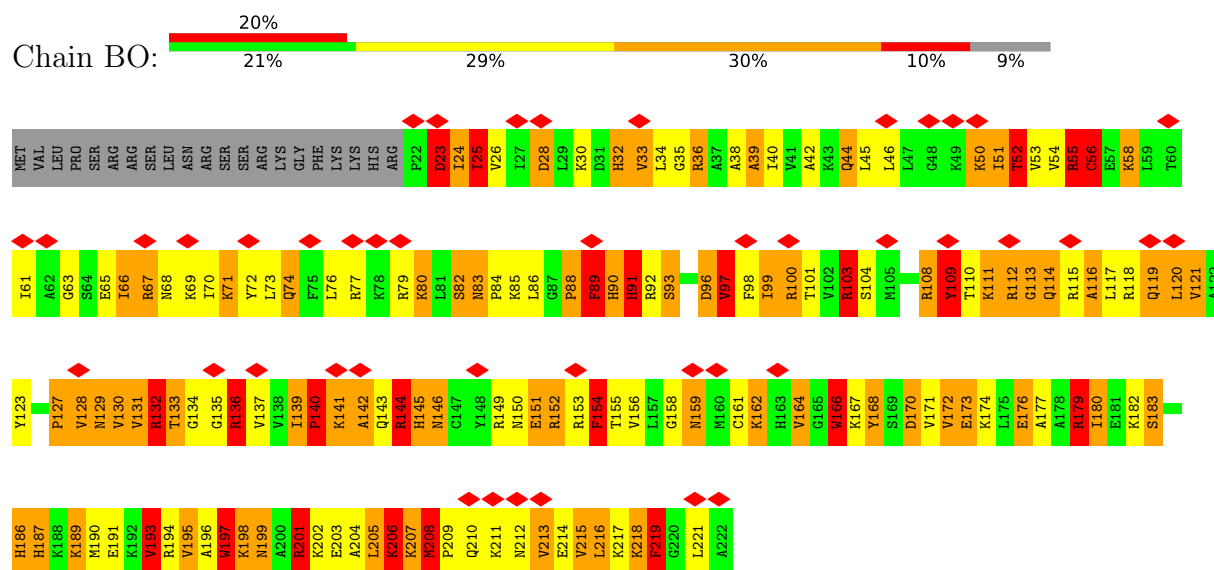
Chain BM:



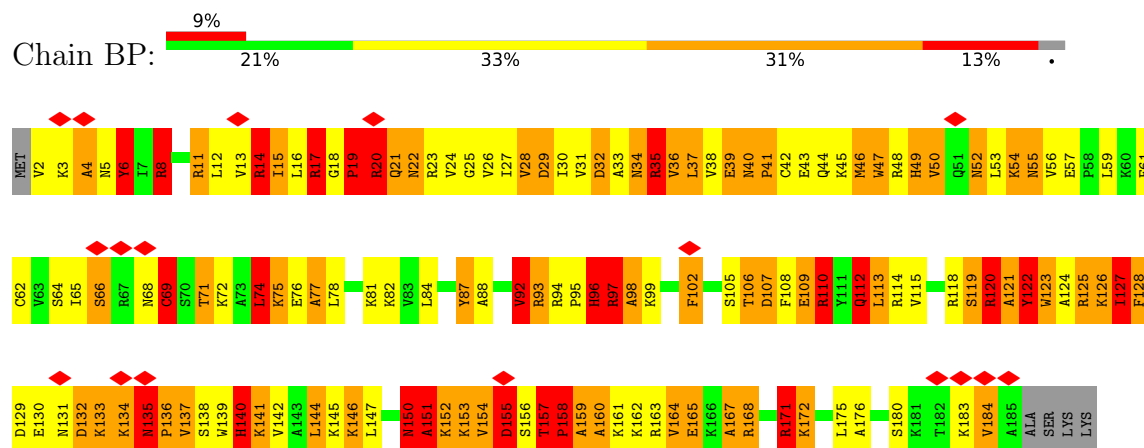
• Molecule 47: 60S RIBOSOMAL PROTEIN L13



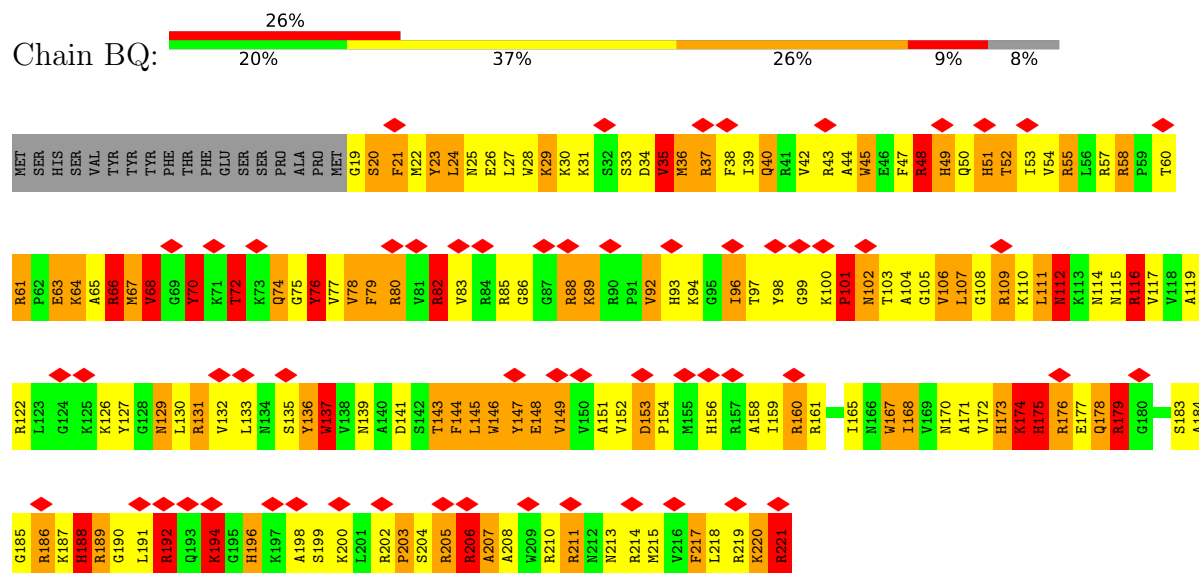
• Molecule 48: 60S RIBOSOMAL PROTEIN L13A, PUTATIVE



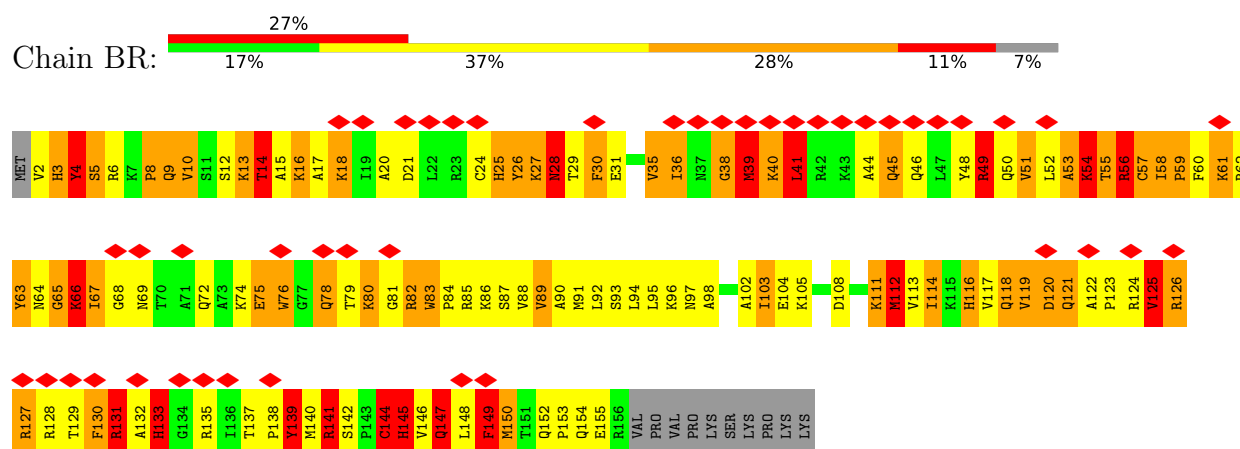
• Molecule 49: PROBABLE 60S RIBOSOMAL PROTEIN L14



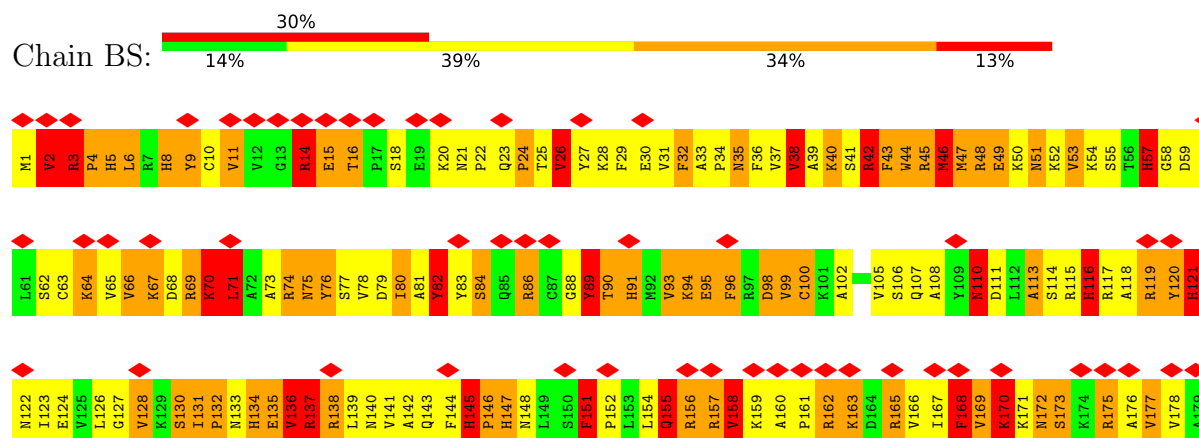
• Molecule 50: RIBOSOMAL PROTEIN L15



• Molecule 51: 60S RIBOSOMAL PROTEIN L17, PUTATIVE

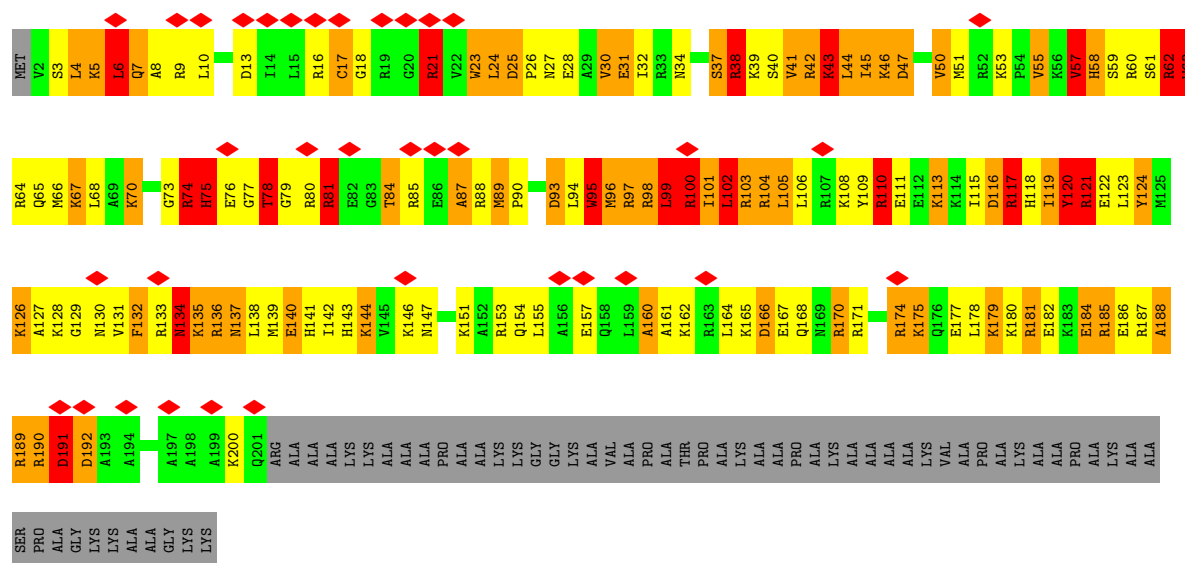


• Molecule 52: 60S RIBOSOMAL PROTEIN L18A

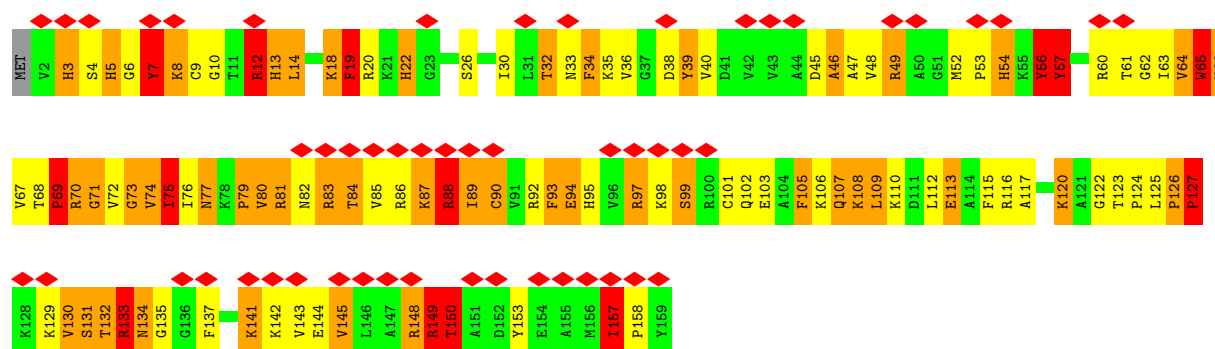
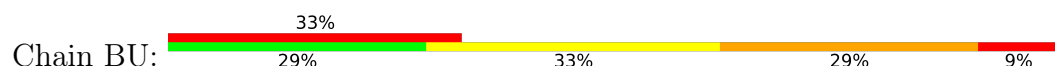


• Molecule 53: 60S RIBOSOMAL PROTEIN L19, PUTATIVE

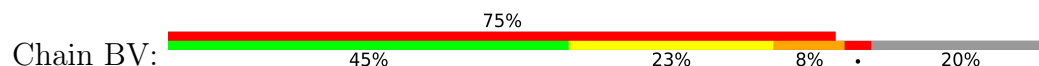




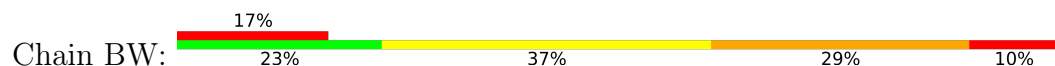
• Molecule 54: 60S RIBOSOMAL PROTEIN L21E, PUTATIVE

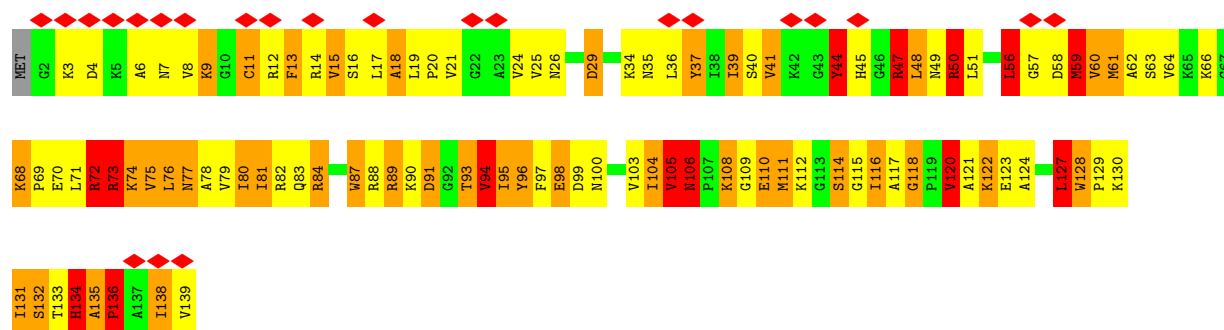


• Molecule 55: 60S RIBOSOMAL PROTEIN L22, PUTATIVE

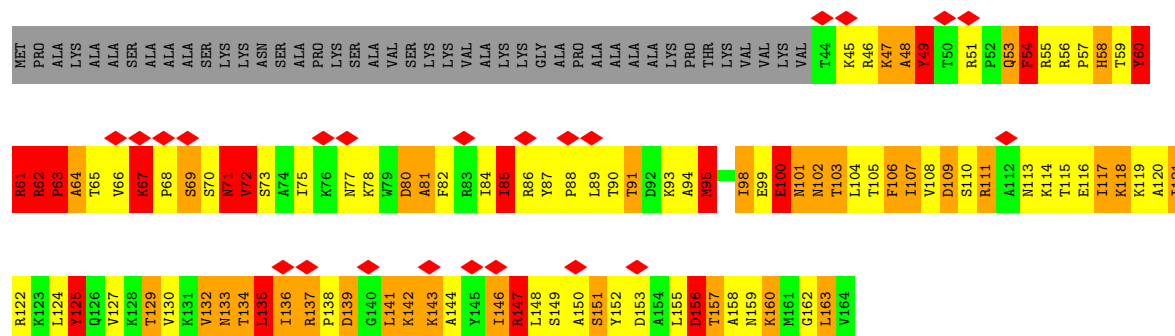


• Molecule 56: 60S RIBOSOMAL PROTEIN L23, PUTATIVE

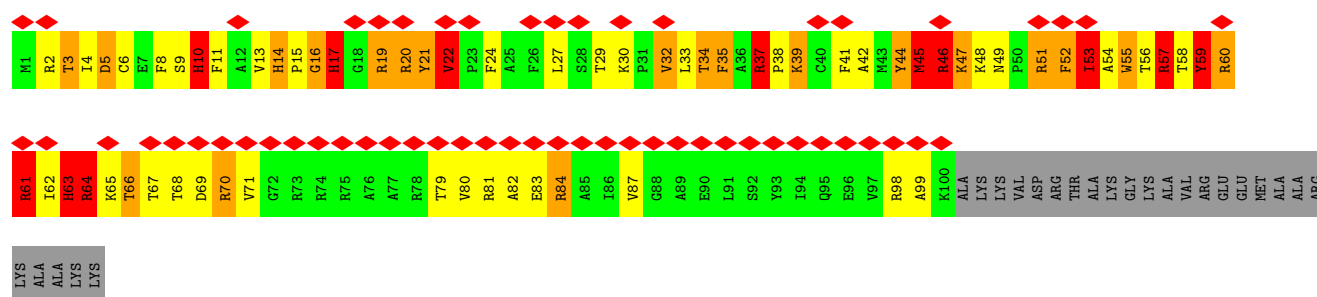
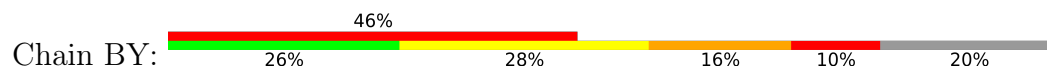




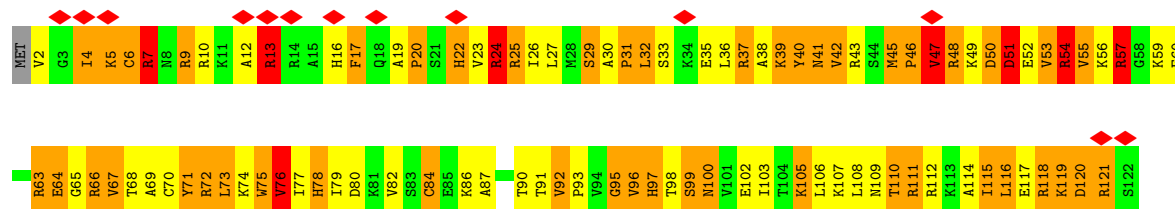
• Molecule 57: 60S RIBOSOMAL PROTEIN L23A

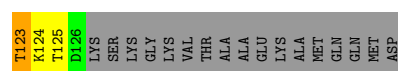


• Molecule 58: 60S RIBOSOMAL PROTEIN L24, PUTATIVE

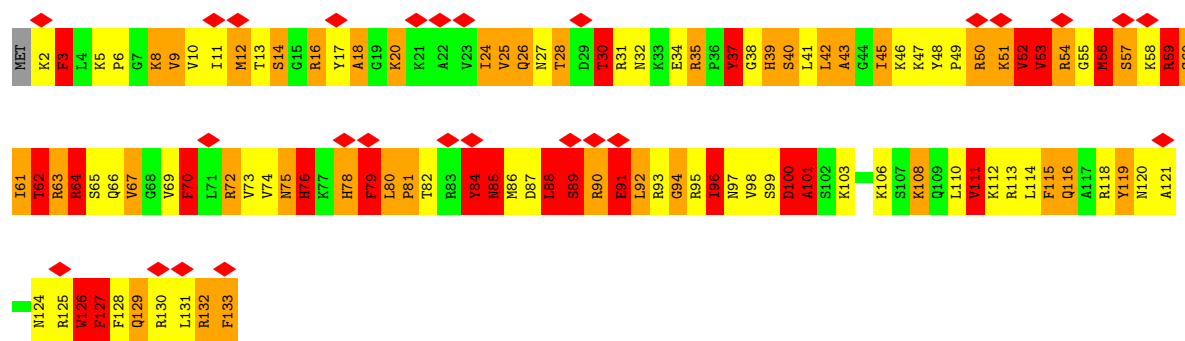


• Molecule 59: 60S RIBOSOMAL PROTEIN L26, PUTATIVE

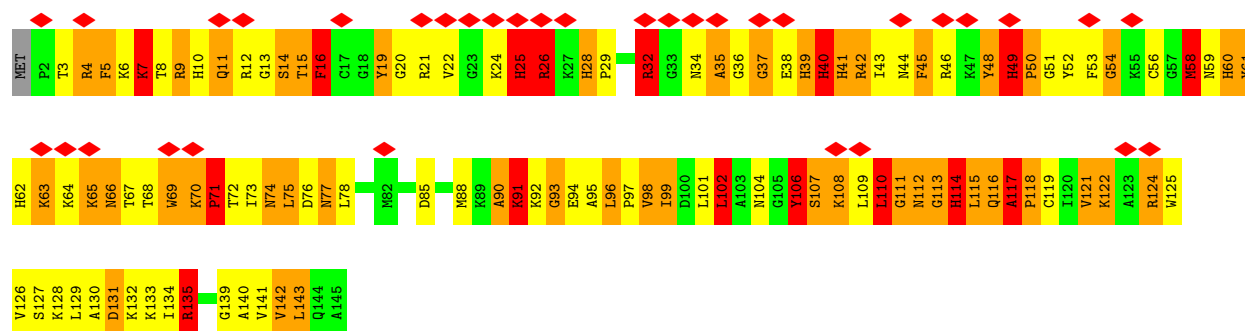
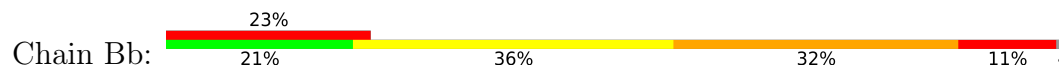




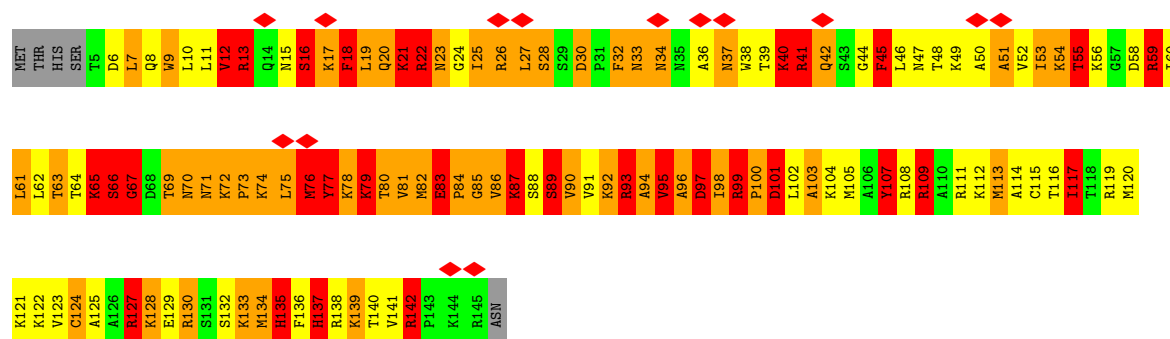
• Molecule 60: 60S RIBOSOMAL PROTEIN L27, PUTATIVE



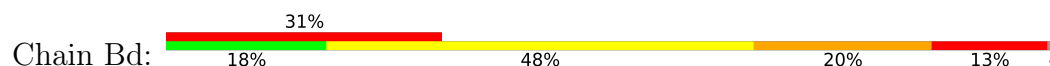
• Molecule 61: 60S RIBOSOMAL PROTEIN L27A

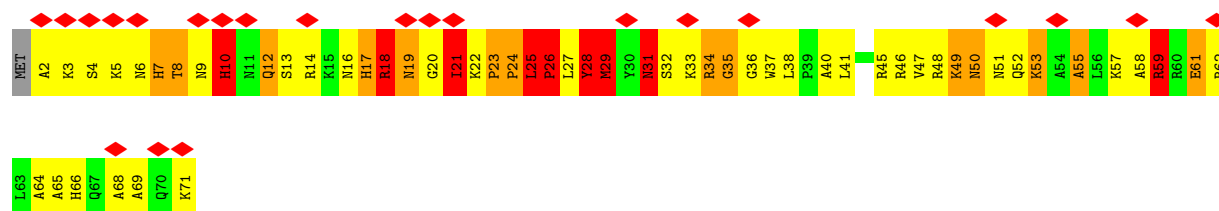


• Molecule 62: 60S RIBOSOMAL PROTEIN L28, PUTATIVE

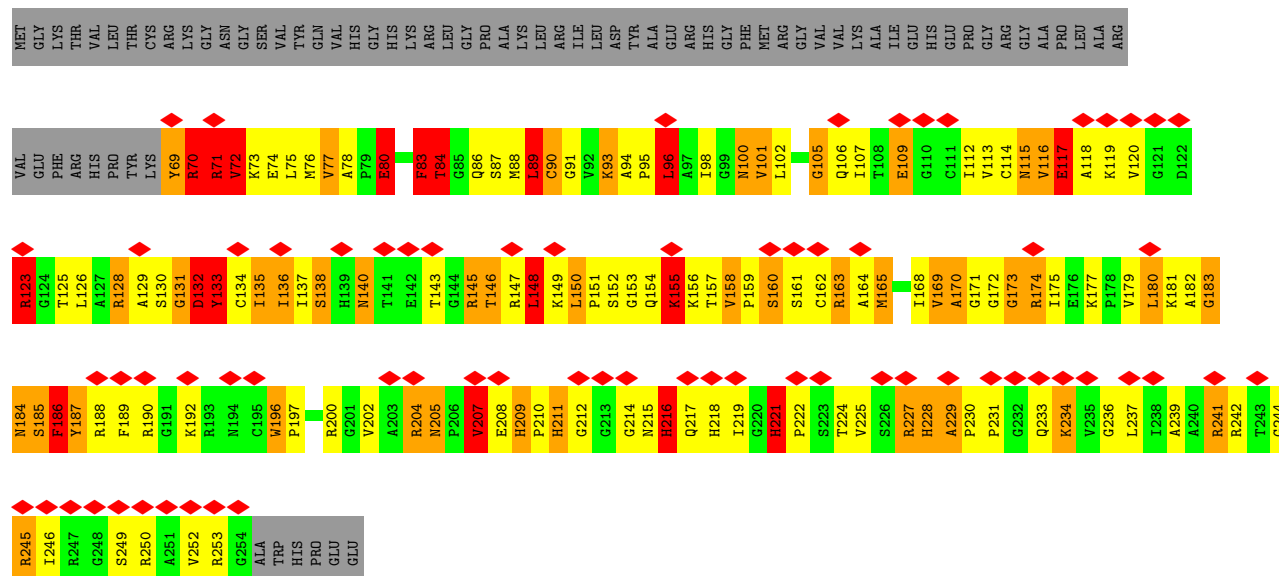


• Molecule 63: 60S RIBOSOMAL PROTEIN L29, PUTATIVE

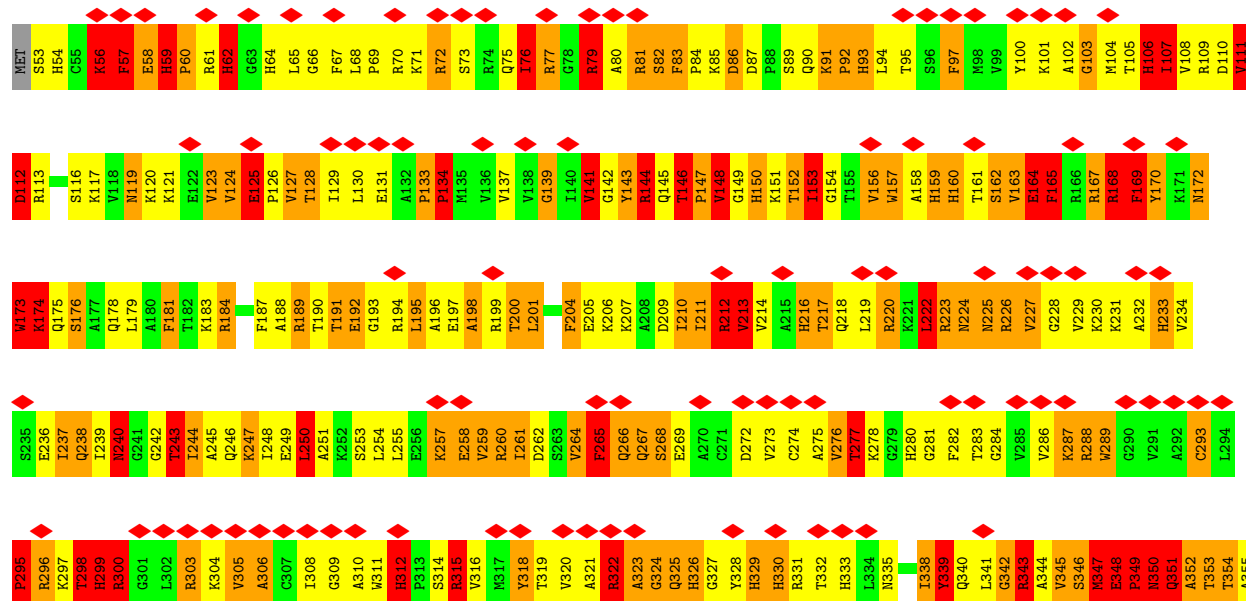
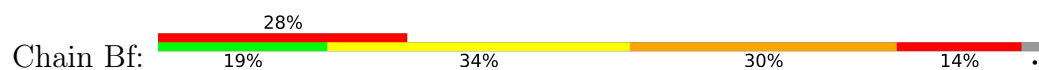




• Molecule 64: 60S RIBOSOMAL PROTEIN L2, PUTATIVE

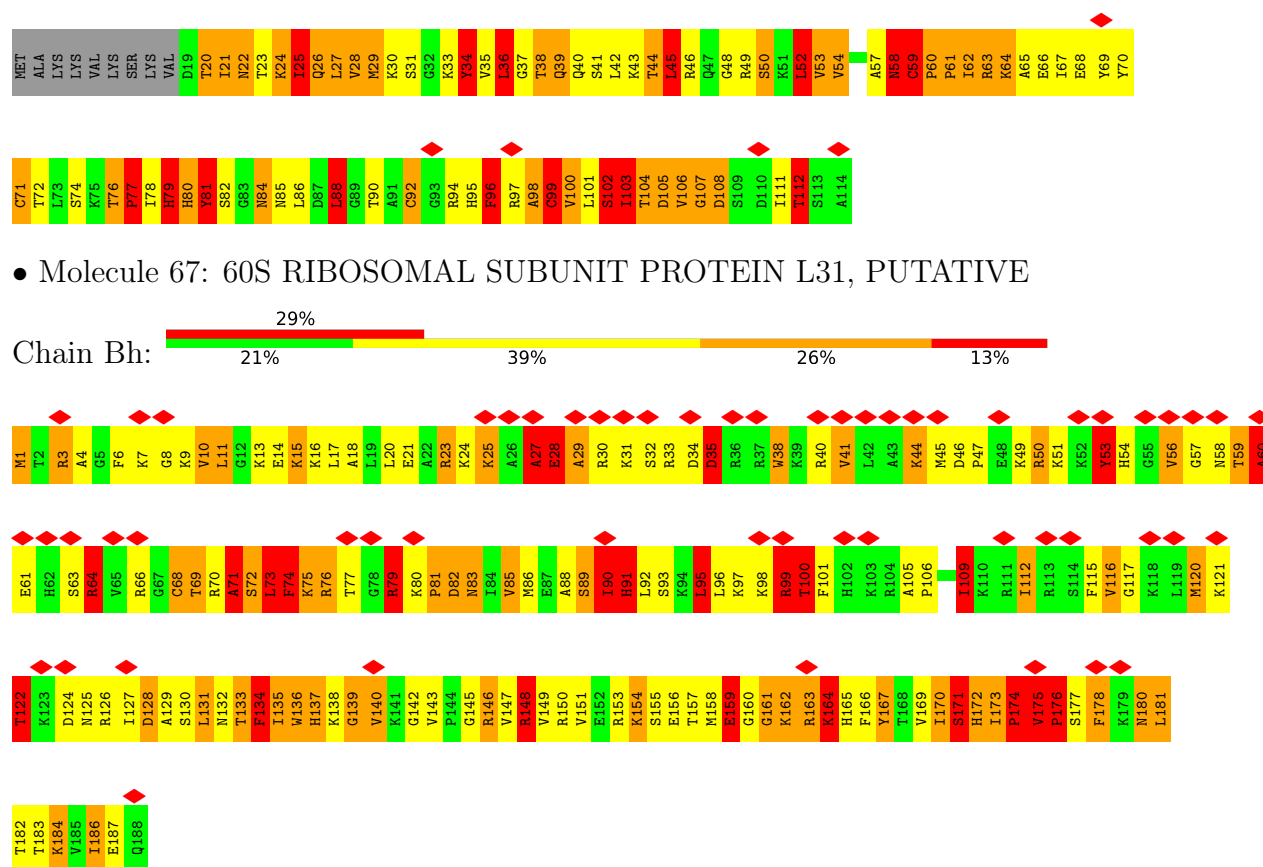


• Molecule 65: RIBOSOMAL PROTEIN L3, MITOCHONDRIAL, PUTATIVE

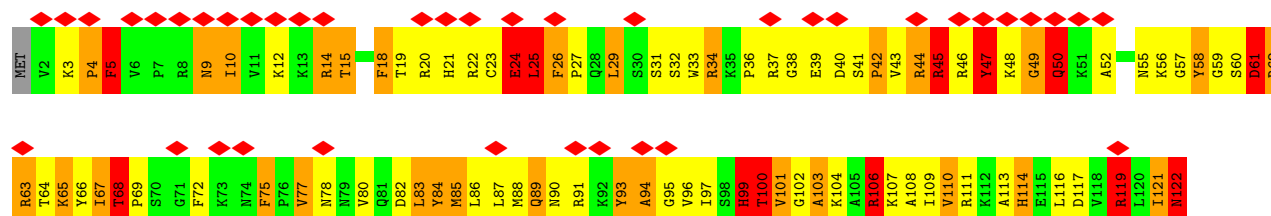
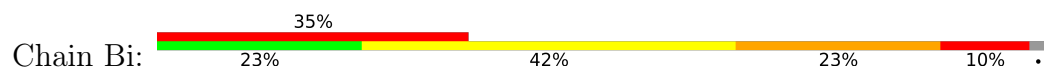




• Molecule 66: 60S RIBOSOMAL PROTEIN L30

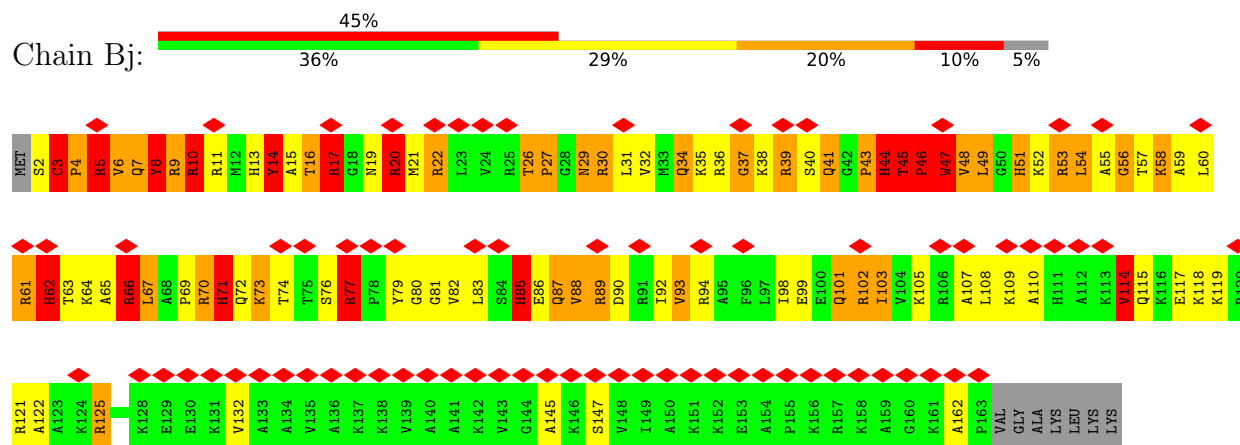


• Molecule 68: 60S RIBOSOMAL PROTEIN L32, PUTATIVE

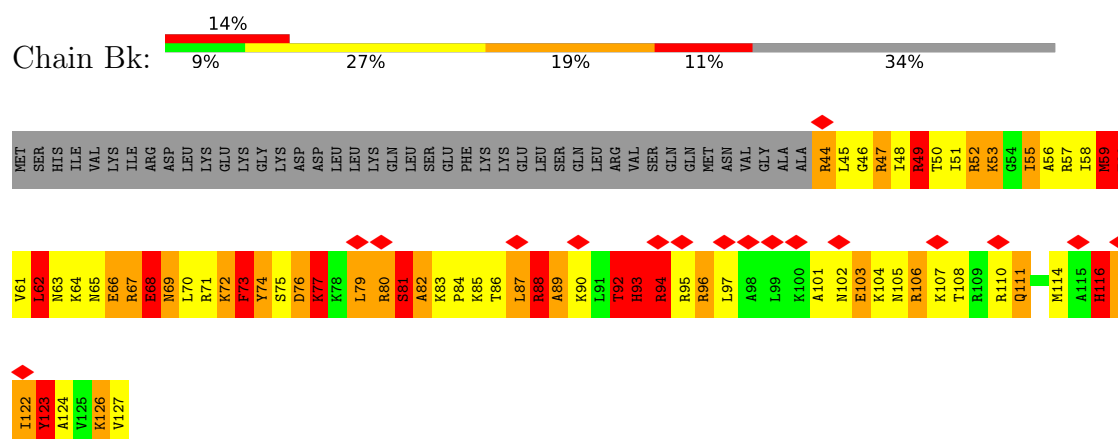




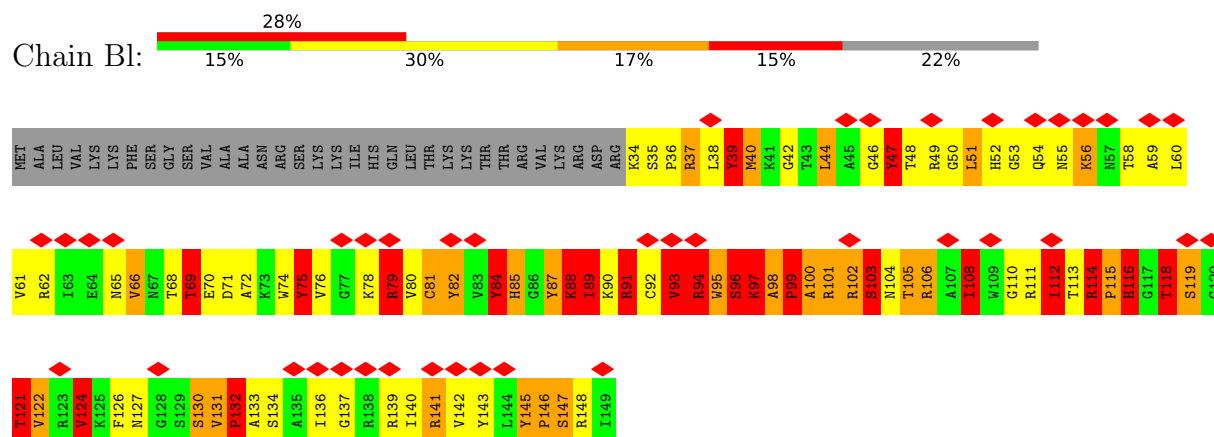
• Molecule 69: 60S RIBOSOMAL PROTEIN L34, PUTATIVE



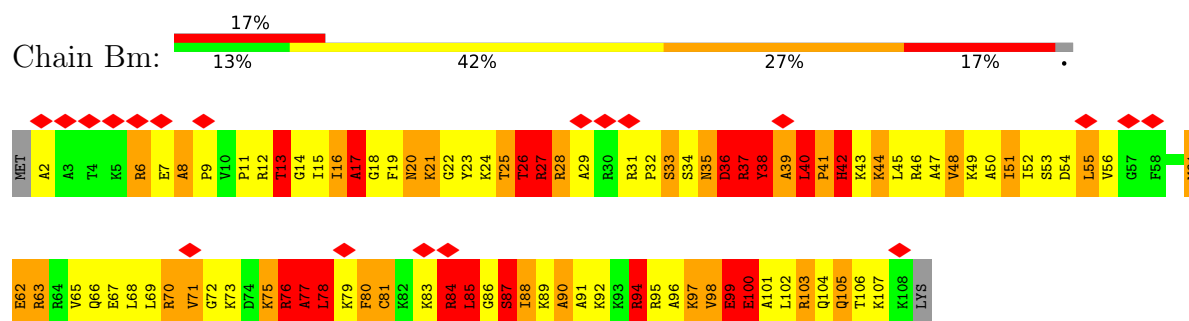
• Molecule 70: 60S RIBOSOMAL PROTEIN L35, PUTATIVE



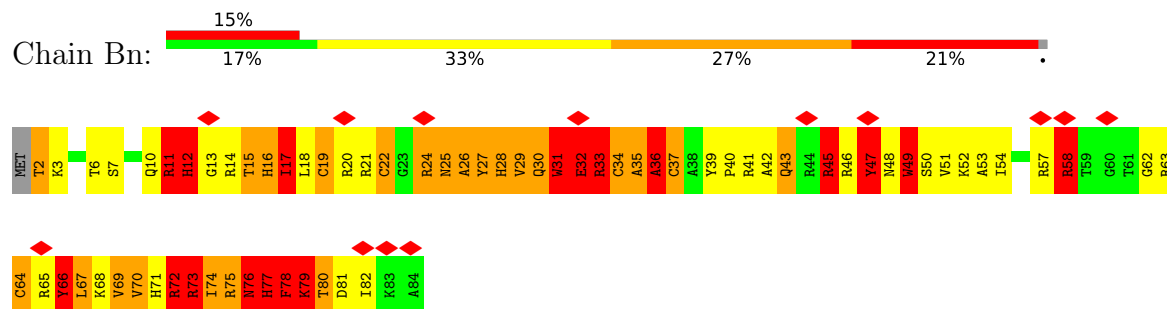
• Molecule 71: 60S RIBOSOMAL PROTEIN L35A, PUTATIVE



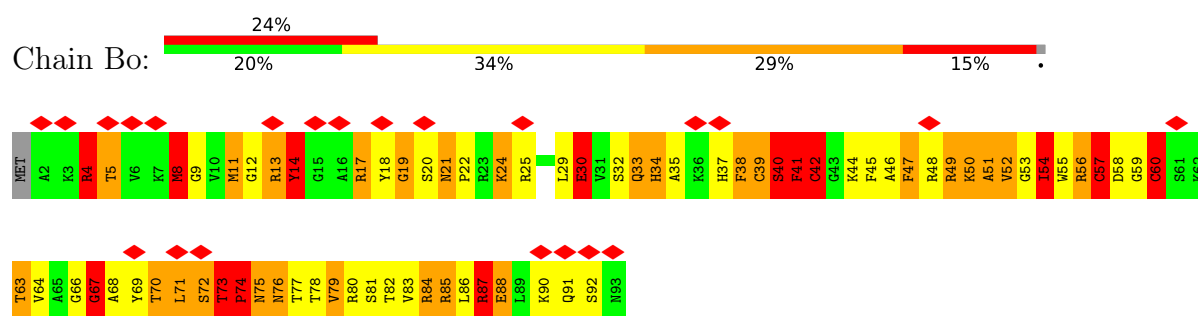
• Molecule 72: RIBOSOMAL PROTEIN L36, PUTATIVE



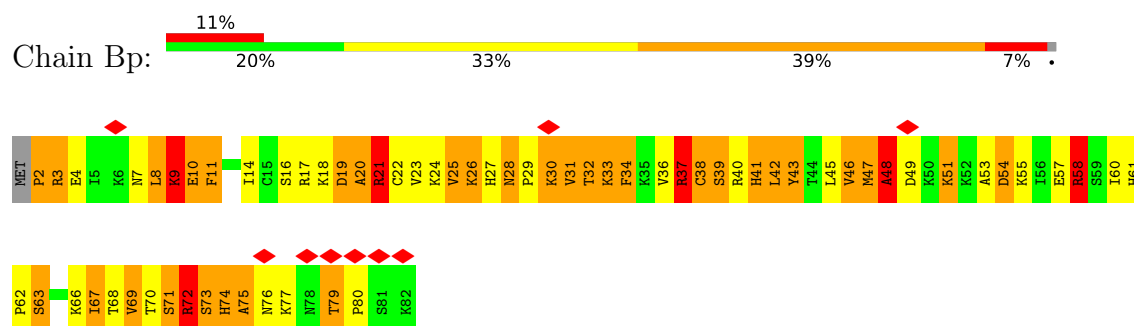
• Molecule 73: RIBOSOMAL PROTEIN L37



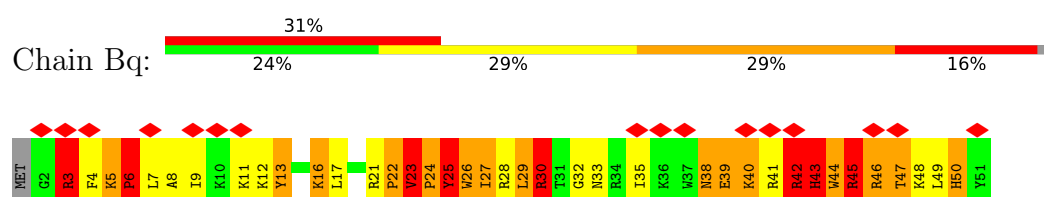
• Molecule 74: 60S RIBOSOMAL PROTEIN L37A, PUTATIVE



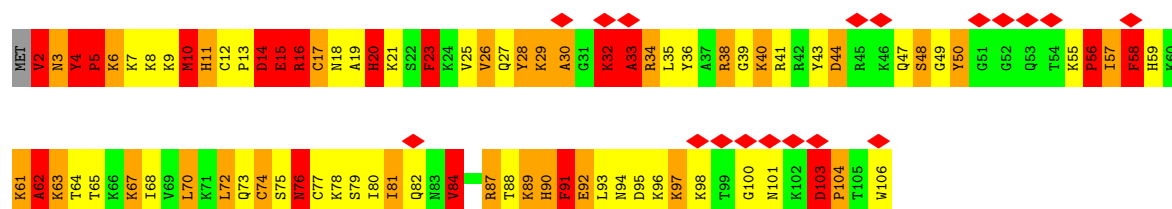
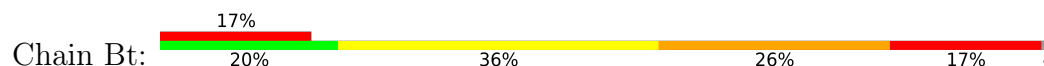
• Molecule 75: 60S RIBOSOMAL PROTEIN L38, PUTATIVE



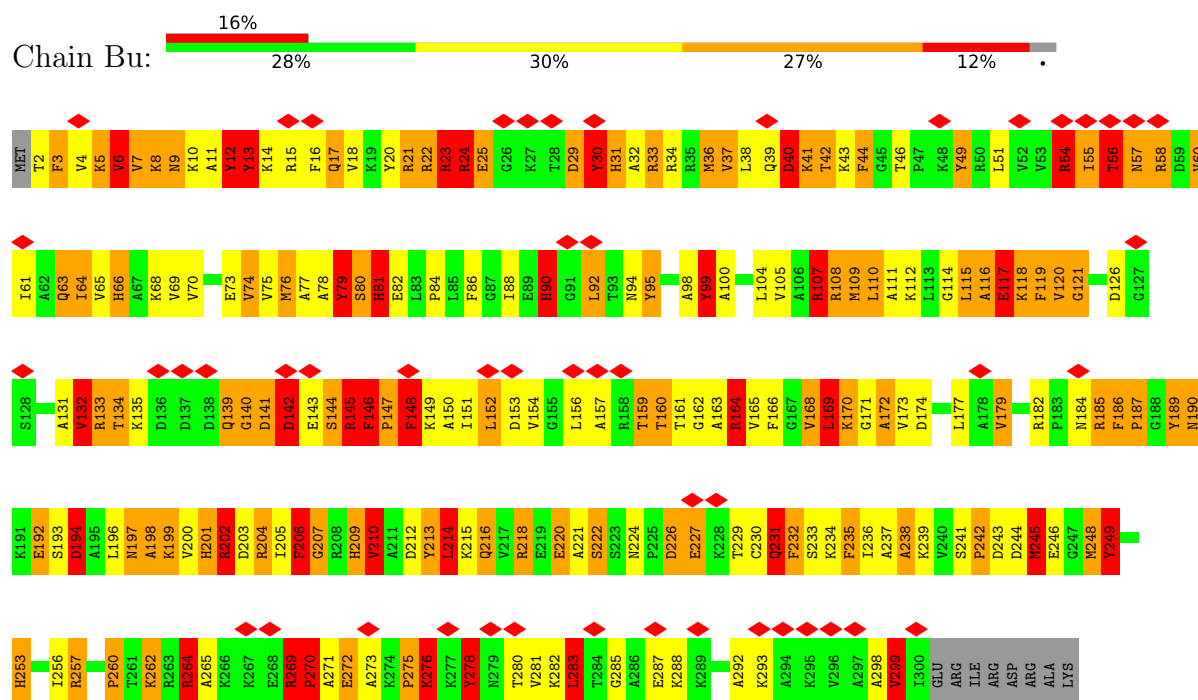
• Molecule 76: 60S RIBOSOMAL PROTEIN L39, PUTATIVE

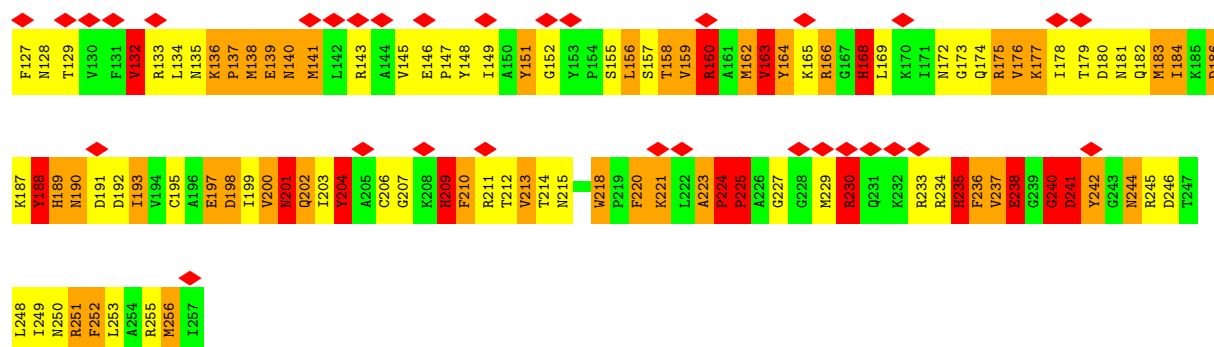


Chain Br: 16% 19% 39% 27% 13%

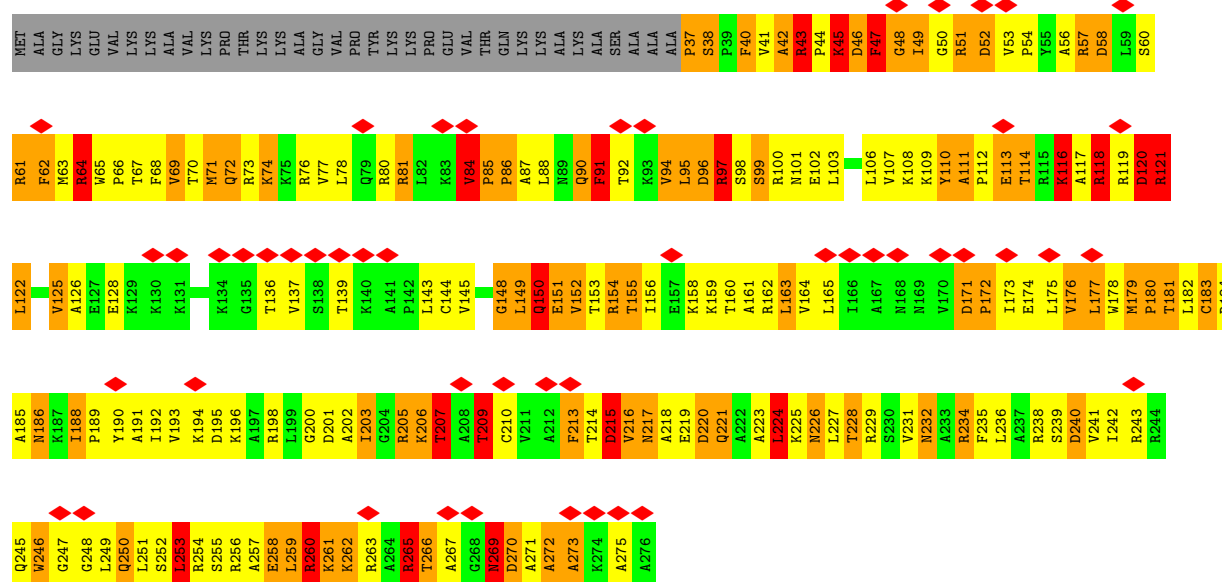
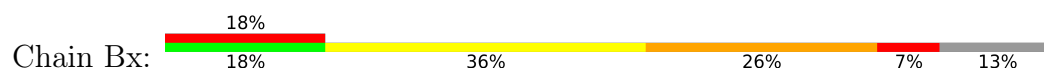


• Molecule 80: 60S RIBOSOMAL PROTEIN L5, PUTATIVE

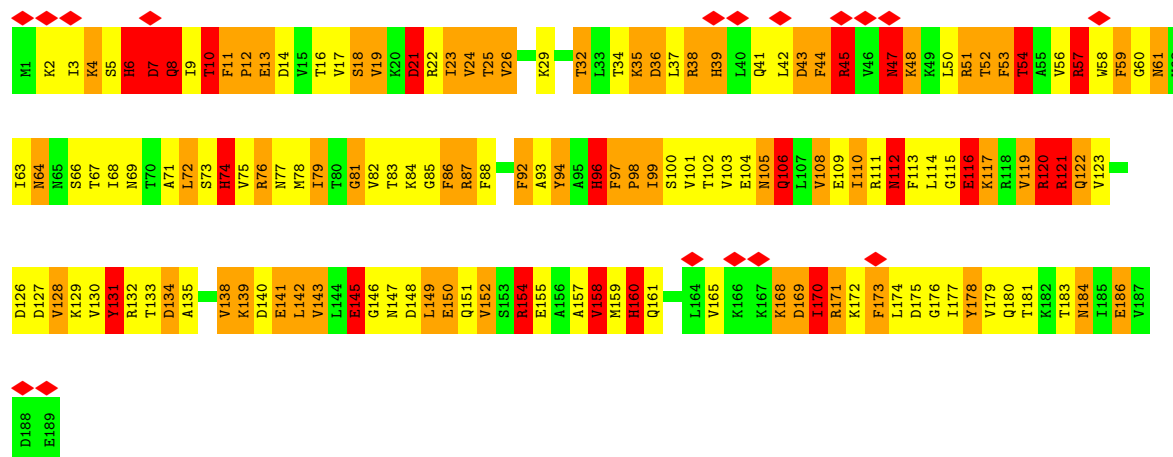
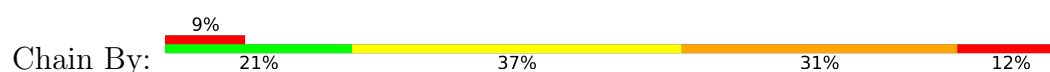




• Molecule 83: 60S RIBOSOMAL PROTEIN L7A, PUTATIVE



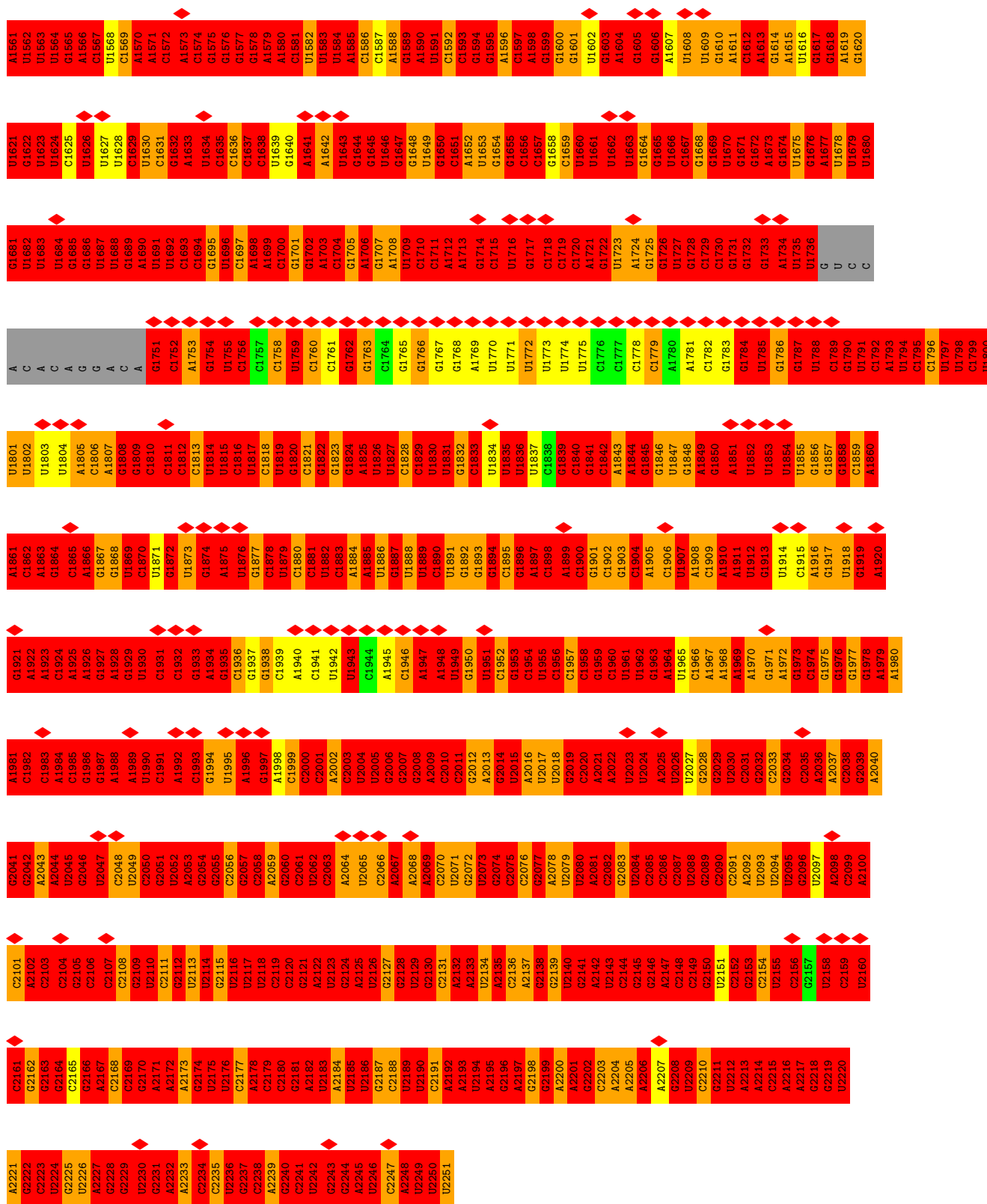
• Molecule 84: 60S RIBOSOMAL PROTEIN L9, PUTATIVE

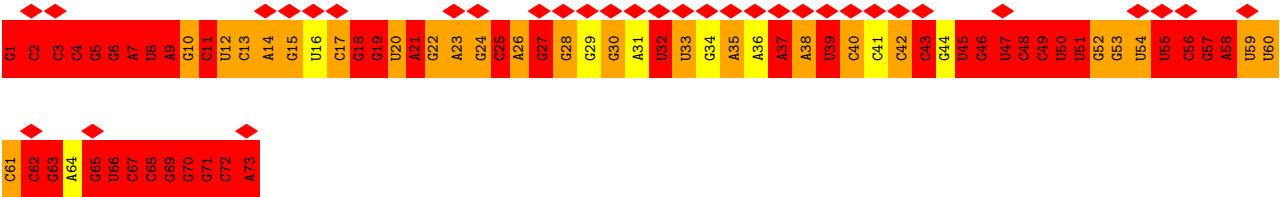


Chain AA: 17% 6% 20% 70%









4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	164000	Depositor
Resolution determination method	Not provided	
CTF correction method	PHASE-FLIPPING	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	59000	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum map value	483783.781	Depositor
Minimum map value	-202702.703	Depositor
Average map value	7679.429	Depositor
Map value standard deviation	33729.660	Depositor
Recommended contour level	108000	Depositor
Map size ($\text{\AA}$)	391.31, 391.31, 391.31	wwPDB
Map dimensions	359, 359, 359	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.09, 1.09, 1.09	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A0	1.88	45/1808 (2.5%)	2.39	110/2432 (4.5%)
2	A1	2.11	72/1973 (3.6%)	2.43	144/2657 (5.4%)
3	A2	1.67	22/1507 (1.5%)	2.28	73/2027 (3.6%)
4	A3	2.03	60/2026 (3.0%)	2.31	110/2699 (4.1%)
5	A4	2.09	60/1623 (3.7%)	2.61	132/2185 (6.0%)
6	A5	2.22	75/1574 (4.8%)	2.40	98/2100 (4.7%)
7	A6	2.19	67/1548 (4.3%)	2.42	93/2076 (4.5%)
8	A7	1.62	36/2471 (1.5%)	2.13	108/3368 (3.2%)
9	A8	1.47	2/337 (0.6%)	2.26	17/445 (3.8%)
10	A9	1.33	2/542 (0.4%)	1.91	17/722 (2.4%)
11	AC	2.24	70/1655 (4.2%)	2.30	86/2240 (3.8%)
12	AD	1.53	8/877 (0.9%)	1.93	20/1182 (1.7%)
13	AE	2.04	43/1324 (3.2%)	2.26	61/1771 (3.4%)
14	AF	1.07	0/946	1.79	19/1270 (1.5%)
15	AG	2.33	61/1170 (5.2%)	2.39	64/1567 (4.1%)
16	AH	1.91	20/937 (2.1%)	2.30	48/1263 (3.8%)
17	AI	1.32	3/1098 (0.3%)	2.11	39/1473 (2.6%)
18	AJ	2.06	39/1035 (3.8%)	2.32	55/1386 (4.0%)
19	AK	1.61	15/1211 (1.2%)	2.24	55/1625 (3.4%)
20	AL	1.97	36/1033 (3.5%)	2.55	87/1380 (6.3%)
21	AM	1.57	16/1247 (1.3%)	2.30	72/1666 (4.3%)
22	AO	1.61	15/1206 (1.2%)	2.38	77/1613 (4.8%)
23	AP	2.21	76/1766 (4.3%)	2.33	94/2383 (3.9%)
24	AQ	1.74	11/839 (1.3%)	2.25	39/1139 (3.4%)
25	AR	2.52	43/612 (7.0%)	2.83	63/835 (7.5%)
26	AS	1.88	29/1137 (2.6%)	2.21	63/1520 (4.1%)
27	AT	1.74	18/1065 (1.7%)	2.58	85/1411 (6.0%)
28	AU	1.54	5/681 (0.7%)	2.08	29/907 (3.2%)
29	AV	1.68	12/825 (1.5%)	2.40	52/1105 (4.7%)
30	AW	2.06	28/648 (4.3%)	2.34	33/868 (3.8%)
31	AX	1.66	18/1649 (1.1%)	2.15	59/2203 (2.7%)
32	AY	1.80	14/521 (2.7%)	2.31	30/685 (4.4%)
33	AZ	1.88	13/527 (2.5%)	2.16	18/702 (2.6%)
34	BA	2.68	3553/44057 (8.1%)	2.41	3746/68678 (5.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	BB	2.44	2231/34826 (6.4%)	2.17	2268/54269 (4.2%)
36	BC	2.85	400/4004 (10.0%)	2.44	355/6235 (5.7%)
37	BD	2.73	249/2830 (8.8%)	2.40	237/4410 (5.4%)
38	BE	2.61	360/4956 (7.3%)	2.59	492/7716 (6.4%)
39	BF	2.55	120/1691 (7.1%)	2.73	181/2627 (6.9%)
40	BG	2.92	447/4358 (10.3%)	2.42	385/6797 (5.7%)
41	BH	2.53	215/3201 (6.7%)	2.42	245/4987 (4.9%)
42	BI	2.34	89/1553 (5.7%)	2.59	129/2070 (6.2%)
43	BJ	1.00	0/1743	1.74	29/2339 (1.2%)
44	BK	2.19	79/1760 (4.5%)	2.36	111/2359 (4.7%)
45	BL	2.06	45/1385 (3.2%)	2.23	64/1851 (3.5%)
46	BM	0.90	0/1033	1.73	15/1394 (1.1%)
47	BN	4.31	97/1793 (5.4%)	2.76	193/2392 (8.1%)
48	BO	2.29	96/1655 (5.8%)	2.44	98/2214 (4.4%)
49	BP	2.37	85/1506 (5.6%)	2.45	99/2014 (4.9%)
50	BQ	2.33	79/1755 (4.5%)	2.30	85/2346 (3.6%)
51	BR	2.14	62/1270 (4.9%)	2.56	93/1705 (5.5%)
52	BS	2.09	59/1508 (3.9%)	2.58	121/2028 (6.0%)
53	BT	2.33	98/1689 (5.8%)	2.32	78/2232 (3.5%)
54	BU	2.05	41/1290 (3.2%)	2.30	64/1734 (3.7%)
55	BV	1.32	3/878 (0.3%)	2.13	37/1169 (3.2%)
56	BW	2.25	51/1059 (4.8%)	2.41	68/1424 (4.8%)
57	BX	2.39	65/1007 (6.5%)	2.52	84/1353 (6.2%)
58	BY	1.90	25/857 (2.9%)	2.19	41/1150 (3.6%)
59	BZ	2.31	54/1021 (5.3%)	2.66	79/1362 (5.8%)
60	Ba	2.14	44/1111 (4.0%)	2.37	67/1479 (4.5%)
61	Bb	2.06	38/1165 (3.3%)	2.52	88/1554 (5.7%)
62	Bc	2.81	49/1145 (4.3%)	2.94	147/1528 (9.6%)
63	Bd	1.78	15/582 (2.6%)	2.73	58/777 (7.5%)
64	Be	2.29	70/1416 (4.9%)	2.48	98/1905 (5.1%)
65	Bf	2.23	157/3387 (4.6%)	2.51	231/4548 (5.1%)
66	Bg	2.83	68/745 (9.1%)	2.69	63/1005 (6.3%)
67	Bh	1.97	42/1551 (2.7%)	2.63	127/2059 (6.2%)
68	Bi	2.11	43/1076 (4.0%)	2.40	75/1439 (5.2%)
69	Bj	1.84	35/1312 (2.7%)	2.36	71/1743 (4.1%)
70	Bk	2.31	41/726 (5.6%)	2.48	49/957 (5.1%)
71	Bl	2.17	37/958 (3.9%)	2.49	67/1290 (5.2%)
72	Bm	2.45	63/859 (7.3%)	2.33	49/1141 (4.3%)
73	Bn	2.46	53/713 (7.4%)	2.44	48/949 (5.1%)
74	Bo	2.68	57/727 (7.8%)	2.31	36/968 (3.7%)
75	Bp	2.40	43/666 (6.5%)	2.49	46/885 (5.2%)
76	Bq	1.92	8/471 (1.7%)	2.15	19/626 (3.0%)
77	Br	2.29	155/2937 (5.3%)	2.52	226/3943 (5.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
78	Bs	2.10	18/433 (4.2%)	2.25	20/572 (3.5%)
79	Bt	2.09	32/883 (3.6%)	2.35	54/1170 (4.6%)
80	Bu	2.02	85/2397 (3.5%)	2.40	138/3219 (4.3%)
81	Bv	2.01	48/1242 (3.9%)	2.36	81/1667 (4.9%)
82	Bw	2.24	91/2105 (4.3%)	2.39	138/2823 (4.9%)
83	Bx	2.32	100/1936 (5.2%)	2.42	102/2603 (3.9%)
84	By	2.15	69/1561 (4.4%)	2.49	115/2098 (5.5%)
85	AA	2.29	2855/52940 (5.4%)	2.27	3947/82489 (4.8%)
86	AB	1.66	26/1740 (1.5%)	1.96	89/2712 (3.3%)
All	All	2.36	13979/250887 (5.6%)	2.34	17796/369909 (4.8%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A0	0	19
2	A1	0	18
3	A2	0	11
4	A3	0	23
5	A4	0	27
6	A5	0	23
7	A6	0	26
8	A7	0	17
9	A8	0	4
10	A9	0	4
11	AC	0	21
12	AD	0	10
13	AE	0	25
14	AF	0	6
15	AG	0	17
16	AH	0	8
17	AI	0	10
18	AJ	0	11
19	AK	0	20
20	AL	0	6
21	AM	0	18
22	AO	0	17
23	AP	0	14
24	AQ	0	7
25	AR	0	12

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Mol	Chain	#Chirality outliers	#Planarity outliers
26	AS	0	7
27	AT	0	27
28	AU	0	7
29	AV	0	13
30	AW	0	13
31	AX	0	10
32	AY	0	13
33	AZ	0	3
34	BA	0	1404
35	BB	0	967
36	BC	0	128
37	BD	0	89
38	BE	0	169
39	BF	0	61
40	BG	0	144
41	BH	0	87
42	BI	0	19
43	BJ	0	7
44	BK	0	26
45	BL	0	15
47	BN	1	31
48	BO	0	21
49	BP	0	24
50	BQ	0	28
51	BR	0	21
52	BS	0	21
53	BT	0	24
54	BU	0	21
55	BV	0	6
56	BW	0	10
57	BX	0	7
58	BY	0	15
59	BZ	0	12
60	Ba	0	20
61	Bb	0	15
62	Bc	0	27
63	Bd	0	10
64	Be	0	21
65	Bf	0	48
66	Bg	0	8
67	Bh	0	23
68	Bi	0	13

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Mol	Chain	#Chirality outliers	#Planarity outliers
69	Bj	1	23
70	Bk	0	12
71	Bl	0	23
72	Bm	0	16
73	Bn	0	14
74	Bo	0	12
75	Bp	0	6
76	Bq	0	9
77	Br	0	46
78	Bs	0	5
79	Bt	0	13
80	Bu	0	34
81	Bv	0	22
82	Bw	0	32
83	Bx	0	19
84	By	1	27
85	AA	0	1567
86	AB	0	45
All	All	3	5934

All (13979) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BN	7	ALA	CA-C	154.18	3.59	1.52
62	Bc	78	LYS	CD-CE	57.86	3.26	1.52
34	BA	546	U	O3'-P	33.85	2.12	1.61
85	AA	469	G	C5-C4	28.05	1.94	1.38
34	BA	743	A	N9-C4	22.26	1.82	1.37
34	BA	214	A	C6-N1	20.04	1.75	1.35
34	BA	214	A	C5-C4	19.57	1.77	1.38
34	BA	214	A	C5-C6	19.07	1.79	1.41
34	BA	743	A	N9-C8	18.75	1.75	1.37
34	BA	214	A	C2-N3	18.35	1.70	1.33
34	BA	214	A	N1-C2	17.58	1.69	1.34
34	BA	547	C	C4'-C3'	17.51	1.78	1.52
34	BA	557	U	O3'-P	17.34	1.87	1.61
34	BA	111	U	C1'-N1	-16.62	1.22	1.47
34	BA	557	U	C3'-C2'	16.36	1.77	1.52
44	BK	145	VAL	CA-CB	-15.89	1.46	1.54
40	BG	9	G	O3'-P	-15.86	1.37	1.61
85	AA	469	G	C8-N7	15.78	1.62	1.30
40	BG	24	A	O3'-P	-14.79	1.39	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	AE	44	ARG	CA-C	-14.43	1.45	1.53
41	BH	72	G	C4'-C3'	14.22	1.73	1.52
34	BA	743	A	C5-C6	14.05	1.69	1.41
38	BE	139	U	P-O5'	-13.66	1.39	1.59
41	BH	72	G	O3'-P	-13.63	1.40	1.61
34	BA	1556	A	C1'-N9	-13.55	1.27	1.48
85	AA	469	G	N9-C4	13.50	1.65	1.38
34	BA	1650	G	C1'-N9	-13.38	1.26	1.47
34	BA	757	G	C2'-C1'	-13.35	1.33	1.53
65	Bf	374	THR	CA-C	-13.21	1.43	1.52
34	BA	1011	G	P-O5'	-13.15	1.40	1.59
41	BH	34	G	P-O5'	-13.14	1.40	1.59
36	BC	31	A	C1'-N9	-13.08	1.28	1.48
40	BG	25	G	P-O5'	-12.86	1.40	1.59
34	BA	502	U	O3'-P	-12.85	1.41	1.61
34	BA	1321	A	P-O5'	-12.81	1.40	1.59
34	BA	1503	U	O3'-P	-12.80	1.42	1.61
38	BE	27	A	C1'-N9	-12.79	1.27	1.47
36	BC	39	G	P-O5'	-12.74	1.40	1.59
40	BG	64	C	P-O5'	-12.71	1.40	1.59
85	AA	867	G	O3'-P	-12.66	1.42	1.61
34	BA	684	G	C5'-C4'	12.59	1.70	1.51
52	BS	49	GLU	CA-C	-12.46	1.42	1.52
35	BB	1315	C	P-O5'	-12.44	1.41	1.59
85	AA	970	U	P-O5'	-12.41	1.41	1.59
85	AA	989	U	P-O5'	-12.41	1.41	1.59
34	BA	517	A	P-O5'	-12.40	1.41	1.59
35	BB	1306	G	P-O5'	-12.38	1.41	1.59
34	BA	1652	G	C1'-N9	-12.36	1.29	1.48
34	BA	1608	C	P-O5'	-12.35	1.41	1.59
35	BB	1132	A	P-O5'	-12.33	1.41	1.59
85	AA	1516	A	C1'-N9	-12.29	1.29	1.48
1	A0	136	GLY	CA-C	-12.29	1.43	1.52
34	BA	1177	C	P-O5'	-12.26	1.41	1.59
85	AA	456	A	C1'-N9	-12.26	1.29	1.48
34	BA	1411	C	P-O5'	-12.24	1.41	1.59
85	AA	313	A	C1'-N9	-12.20	1.29	1.48
34	BA	1832	A	P-O5'	-12.19	1.41	1.59
85	AA	699	U	O3'-P	-12.19	1.42	1.61
85	AA	443	A	O3'-P	-12.16	1.43	1.61
65	Bf	324	GLY	CA-C	-12.14	1.39	1.51
34	BA	1468	U	P-O5'	-12.13	1.41	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	395	G	C1'-N9	-12.10	1.29	1.48
40	BG	95	U	C1'-N1	-12.08	1.30	1.48
34	BA	214	A	N3-C4	12.06	1.58	1.34
34	BA	344	G	O3'-P	-12.02	1.43	1.61
38	BE	117	A	P-O5'	-12.00	1.41	1.59
34	BA	875	G	P-O5'	-11.92	1.41	1.59
35	BB	109	U	P-O5'	-11.90	1.42	1.59
34	BA	1275	G	O3'-P	-11.89	1.43	1.61
35	BB	577	U	P-O5'	-11.89	1.42	1.59
34	BA	196	A	O3'-P	-11.87	1.43	1.61
35	BB	99	G	P-O5'	-11.86	1.42	1.59
40	BG	149	U	C1'-N1	-11.84	1.29	1.47
85	AA	1731	G	P-O5'	-11.79	1.42	1.59
34	BA	1591	G	C1'-N9	-11.79	1.30	1.48
36	BC	113	G	P-O5'	-11.79	1.42	1.59
34	BA	56	G	C1'-N9	-11.78	1.29	1.47
35	BB	703	U	P-O5'	-11.77	1.42	1.59
34	BA	547	C	C5'-C4'	11.76	1.68	1.51
37	BD	48	G	C1'-N9	-11.75	1.29	1.47
40	BG	22	G	O3'-P	-11.75	1.43	1.61
67	Bh	142	GLY	CA-C	-11.71	1.41	1.52
85	AA	1469	G	O3'-P	-11.71	1.43	1.61
34	BA	547	C	O3'-P	11.69	1.78	1.61
34	BA	1709	A	O3'-P	-11.68	1.43	1.61
6	A5	78	ILE	CA-C	-11.65	1.39	1.52
35	BB	1052	G	O3'-P	-11.65	1.43	1.61
40	BG	33	G	C1'-N9	-11.64	1.29	1.47
74	Bo	78	THR	CA-C	-11.63	1.37	1.52
34	BA	1204	U	O3'-P	-11.61	1.43	1.61
34	BA	135	G	P-O5'	-11.60	1.42	1.59
85	AA	788	G	P-O5'	-11.59	1.42	1.59
34	BA	1017	C	P-O5'	-11.58	1.42	1.59
34	BA	919	A	P-O5'	-11.58	1.42	1.59
36	BC	24	G	P-O5'	-11.57	1.42	1.59
34	BA	547	C	C3'-O3'	11.51	1.59	1.42
85	AA	862	U	O3'-P	-11.51	1.43	1.61
34	BA	957	A	O3'-P	-11.49	1.44	1.61
34	BA	500	C	O3'-P	-11.48	1.44	1.61
37	BD	77	A	C1'-N9	-11.47	1.30	1.48
38	BE	101	C	O3'-P	-11.47	1.44	1.61
41	BH	31	A	C1'-N9	-11.46	1.30	1.48
37	BD	72	U	O3'-P	-11.46	1.44	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2063	C	P-O5'	-11.42	1.42	1.59
34	BA	761	U	C1'-N1	-11.40	1.31	1.48
35	BB	21	C	O3'-P	-11.40	1.44	1.61
85	AA	2060	G	P-O5'	-11.38	1.42	1.59
35	BB	605	C	O3'-P	-11.37	1.44	1.61
85	AA	469	G	N9-C8	11.37	1.60	1.37
35	BB	1226	G	C1'-N9	-11.36	1.30	1.48
64	Be	230	PRO	CA-C	-11.34	1.41	1.52
85	AA	1127	G	C1'-N9	-11.33	1.30	1.48
39	BF	14	C	O3'-P	-11.31	1.44	1.61
39	BF	11	C	C5'-C4'	11.29	1.68	1.51
34	BA	740	A	C2'-C1'	-11.28	1.36	1.53
35	BB	1355	C	O3'-P	-11.29	1.44	1.61
38	BE	21	C	O3'-P	-11.28	1.44	1.61
34	BA	82	A	C1'-N9	-11.28	1.30	1.47
34	BA	1697	U	O3'-P	-11.27	1.44	1.61
34	BA	115	U	P-O5'	-11.24	1.42	1.59
34	BA	436	U	P-O5'	-11.22	1.43	1.59
64	Be	158	VAL	CA-C	-11.20	1.43	1.52
4	A3	62	PHE	CA-C	-11.17	1.43	1.52
35	BB	1129	C	P-O5'	-11.16	1.43	1.59
85	AA	1247	A	O3'-P	-11.15	1.44	1.61
34	BA	1599	A	O3'-P	-11.14	1.44	1.61
85	AA	2092	A	P-O5'	-11.14	1.43	1.59
34	BA	383	G	P-O5'	-11.14	1.43	1.59
85	AA	381	A	C1'-N9	-11.11	1.31	1.48
34	BA	1619	U	O3'-P	-11.10	1.44	1.61
60	Ba	25	VAL	CA-C	-11.09	1.42	1.52
34	BA	316	G	P-O5'	-11.08	1.43	1.59
35	BB	80	C	O3'-P	-11.07	1.44	1.61
85	AA	1501	A	P-O5'	-11.07	1.43	1.59
35	BB	584	A	C1'-N9	-11.07	1.31	1.48
34	BA	6	C	P-O5'	-11.06	1.43	1.59
84	By	184	ASN	CA-C	-11.05	1.39	1.52
34	BA	422	C	P-O5'	-11.05	1.43	1.59
34	BA	741	A	C1'-N9	-11.03	1.31	1.48
85	AA	1515	A	C1'-N9	-11.03	1.31	1.48
85	AA	504	U	O3'-P	-11.02	1.44	1.61
85	AA	1136	A	C1'-N9	-11.02	1.31	1.48
34	BA	1721	U	C4'-C3'	-11.02	1.36	1.52
35	BB	1185	G	C1'-N9	-11.00	1.31	1.48
36	BC	24	G	O3'-P	-10.99	1.44	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1130	U	P-O5'	-10.99	1.43	1.59
34	BA	49	A	C1'-N9	-10.98	1.31	1.48
85	AA	1180	C	O3'-P	-10.98	1.44	1.61
34	BA	1796	A	C1'-N9	-10.97	1.30	1.47
85	AA	362	G	C1'-N9	-10.96	1.31	1.48
40	BG	130	G	C1'-N9	-10.95	1.31	1.48
85	AA	424	A	C3'-C2'	-10.95	1.36	1.52
41	BH	37	U	O3'-P	-10.95	1.44	1.61
74	Bo	74	PRO	CA-C	-10.95	1.36	1.52
40	BG	28	A	O3'-P	-10.93	1.44	1.61
56	BW	80	ILE	CA-C	-10.91	1.41	1.52
35	BB	1089	A	C1'-N9	-10.90	1.31	1.48
36	BC	23	G	P-O5'	-10.90	1.43	1.59
34	BA	1097	G	O3'-P	-10.89	1.44	1.61
36	BC	9	G	C1'-N9	-10.89	1.31	1.48
35	BB	1045	G	C1'-N9	-10.89	1.31	1.48
34	BA	680	C	O3'-P	-10.89	1.44	1.61
35	BB	1246	C	P-O5'	-10.88	1.43	1.59
34	BA	927	A	C1'-N9	-10.87	1.31	1.48
85	AA	661	C	P-O5'	-10.87	1.43	1.59
42	BI	29	LEU	CA-C	-10.86	1.38	1.52
35	BB	1148	U	P-O5'	-10.86	1.43	1.59
39	BF	28	C	O3'-P	-10.82	1.45	1.61
34	BA	1808	A	P-O5'	-10.82	1.43	1.59
85	AA	365	G	C1'-N9	-10.82	1.31	1.48
41	BH	104	U	C1'-N1	-10.79	1.32	1.48
85	AA	483	G	P-O5'	-10.78	1.43	1.59
34	BA	1809	G	C1'-N9	-10.77	1.31	1.48
85	AA	115	U	O3'-P	-10.77	1.45	1.61
34	BA	206	C	C5'-C4'	10.77	1.67	1.51
35	BB	1138	A	C4'-C3'	-10.77	1.36	1.52
34	BA	894	G	O3'-P	-10.76	1.45	1.61
49	BP	48	ARG	CA-C	-10.76	1.40	1.52
85	AA	431	G	P-O5'	-10.76	1.43	1.59
34	BA	93	A	O3'-P	-10.76	1.45	1.61
77	Br	284	SER	CA-C	-10.75	1.39	1.52
85	AA	2188	C	O3'-P	-10.75	1.45	1.61
34	BA	26	C	P-O5'	-10.74	1.43	1.59
35	BB	27	C	O3'-P	-10.73	1.45	1.61
85	AA	316	C	P-O5'	-10.73	1.43	1.59
34	BA	292	C	P-O5'	-10.73	1.43	1.59
34	BA	296	G	C4'-C3'	10.72	1.68	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	236	A	O3'-P	-10.72	1.45	1.61
38	BE	133	C	O3'-P	-10.71	1.45	1.61
34	BA	1260	G	P-O5'	-10.71	1.43	1.59
35	BB	1102	U	O3'-P	-10.70	1.45	1.61
85	AA	1106	A	C4'-C3'	-10.70	1.36	1.52
34	BA	81	C	P-O5'	-10.69	1.43	1.59
65	Bf	413	THR	CA-C	-10.69	1.43	1.53
34	BA	348	U	P-O5'	-10.69	1.43	1.59
35	BB	423	G	P-O5'	-10.68	1.43	1.59
35	BB	549	U	O3'-P	-10.67	1.45	1.61
35	BB	1327	U	O3'-P	-10.66	1.45	1.61
34	BA	922	C	O3'-P	-10.65	1.45	1.61
34	BA	1160	U	O3'-P	-10.65	1.45	1.61
85	AA	674	U	P-O5'	-10.64	1.43	1.59
35	BB	1025	A	C5'-C4'	10.64	1.67	1.51
35	BB	1385	C	O3'-P	-10.63	1.45	1.61
34	BA	926	A	C1'-N9	-10.63	1.32	1.48
85	AA	352	G	C1'-N9	-10.63	1.32	1.48
34	BA	494	A	P-O5'	-10.62	1.43	1.59
15	AG	37	VAL	CA-C	-10.61	1.39	1.52
34	BA	1520	A	O3'-P	-10.60	1.45	1.61
34	BA	294	C	P-O5'	-10.59	1.43	1.59
85	AA	2174	G	C1'-N9	-10.57	1.32	1.48
34	BA	1636	C	O3'-P	-10.57	1.45	1.61
40	BG	142	A	C1'-N9	-10.57	1.32	1.48
83	Bx	48	GLY	CA-C	10.54	1.66	1.51
41	BH	33	G	O3'-P	-10.54	1.45	1.61
41	BH	29	G	C1'-N9	-10.54	1.32	1.48
34	BA	1003	A	C1'-N9	-10.53	1.32	1.48
39	BF	32	G	O3'-P	-10.52	1.45	1.61
35	BB	778	A	O3'-P	-10.52	1.45	1.61
44	BK	46	PHE	CA-C	-10.52	1.40	1.52
34	BA	1462	U	O3'-P	-10.52	1.45	1.61
40	BG	30	C	P-O5'	-10.51	1.44	1.59
35	BB	648	G	O3'-P	-10.50	1.45	1.61
85	AA	923	A	O3'-P	-10.50	1.45	1.61
34	BA	894	G	C1'-N9	-10.49	1.32	1.48
35	BB	1514	G	P-O5'	-10.49	1.44	1.59
34	BA	1675	C	O3'-P	-10.49	1.45	1.61
38	BE	94	U	O3'-P	-10.49	1.45	1.61
35	BB	1334	C	O3'-P	-10.48	1.45	1.61
85	AA	1216	A	P-O5'	-10.48	1.44	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
80	Bu	145	ARG	CA-C	-10.46	1.40	1.52
34	BA	1801	G	C1'-N9	-10.46	1.32	1.48
35	BB	375	G	C1'-N9	-10.45	1.32	1.48
39	BF	31	U	O3'-P	-10.45	1.45	1.61
6	A5	200	GLY	CA-C	-10.44	1.39	1.51
82	Bw	146	GLU	C-N	-10.43	1.25	1.33
35	BB	79	U	P-O5'	-10.43	1.44	1.59
34	BA	1315	C	O3'-P	-10.42	1.45	1.61
85	AA	1257	A	C1'-N9	-10.42	1.32	1.48
34	BA	1475	G	O3'-P	-10.41	1.45	1.61
34	BA	1542	A	C1'-N9	-10.41	1.32	1.48
35	BB	468	U	P-O5'	-10.41	1.44	1.59
35	BB	119	G	C1'-N9	-10.40	1.32	1.48
34	BA	96	G	P-O5'	-10.40	1.44	1.59
41	BH	126	C	P-O5'	-10.40	1.44	1.59
85	AA	114	C	P-O5'	-10.39	1.44	1.59
85	AA	1495	G	P-O5'	-10.38	1.44	1.59
34	BA	696	A	O3'-P	-10.38	1.45	1.61
34	BA	214	A	C1'-N9	-10.38	1.32	1.48
34	BA	1620	U	P-O5'	-10.37	1.44	1.59
36	BC	25	C	P-O5'	-10.37	1.44	1.59
34	BA	992	A	C1'-N9	-10.36	1.32	1.48
64	Be	113	VAL	CA-C	-10.35	1.38	1.53
85	AA	635	G	P-O5'	-10.35	1.44	1.59
34	BA	98	A	C1'-N9	-10.35	1.32	1.48
34	BA	800	G	O4'-C1'	-10.33	1.26	1.41
85	AA	1471	G	O3'-P	-10.33	1.45	1.61
35	BB	657	A	P-O5'	-10.33	1.44	1.59
85	AA	1503	G	C1'-N9	-10.32	1.32	1.48
34	BA	452	A	C1'-N9	-10.31	1.32	1.48
35	BB	993	A	P-O5'	-10.31	1.44	1.59
34	BA	65	A	C1'-N9	-10.31	1.32	1.48
35	BB	996	G	C1'-N9	-10.31	1.32	1.48
41	BH	20	A	P-O5'	-10.31	1.44	1.59
34	BA	1728	G	O3'-P	-10.30	1.45	1.61
34	BA	1789	A	O3'-P	-10.30	1.45	1.61
40	BG	35	G	P-O5'	-10.30	1.44	1.59
34	BA	447	U	P-O5'	-10.30	1.44	1.59
34	BA	1689	U	O3'-P	-10.29	1.45	1.61
34	BA	297	A	O3'-P	-10.29	1.45	1.61
37	BD	71	G	C1'-N9	-10.29	1.32	1.48
34	BA	369	A	O3'-P	-10.28	1.45	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1220	A	O3'-P	-10.28	1.45	1.61
40	BG	81	G	P-O5'	-10.28	1.44	1.59
34	BA	335	C	P-O5'	-10.27	1.44	1.59
41	BH	23	G	O3'-P	-10.27	1.45	1.61
85	AA	937	G	P-O5'	-10.27	1.44	1.59
85	AA	2132	A	O3'-P	-10.27	1.45	1.61
34	BA	890	G	C1'-N9	-10.27	1.32	1.48
85	AA	157	G	C1'-N9	-10.26	1.32	1.48
74	Bo	79	VAL	CA-C	-10.25	1.39	1.52
34	BA	881	C	P-O5'	-10.24	1.44	1.59
35	BB	36	U	P-O5'	-10.24	1.44	1.59
36	BC	53	A	C1'-N9	-10.24	1.32	1.48
85	AA	527	A	P-O5'	-10.24	1.44	1.59
85	AA	475	A	C1'-N9	-10.24	1.32	1.48
85	AA	484	G	C2'-C1'	-10.24	1.38	1.53
34	BA	475	A	C1'-N9	-10.22	1.32	1.48
85	AA	1538	C	O3'-P	-10.22	1.45	1.61
34	BA	1222	C	O3'-P	-10.22	1.45	1.61
35	BB	634	A	P-O5'	-10.21	1.44	1.59
37	BD	14	C	P-O5'	-10.21	1.44	1.59
34	BA	372	U	P-O5'	-10.21	1.44	1.59
34	BA	900	A	C1'-N9	-10.21	1.31	1.47
25	AR	18	ILE	N-CA	-10.20	1.39	1.46
67	Bh	64	ARG	CA-C	-10.19	1.39	1.52
40	BG	49	A	O3'-P	-10.18	1.45	1.61
85	AA	1206	A	O3'-P	-10.18	1.45	1.61
41	BH	33	G	C1'-N9	-10.18	1.32	1.48
85	AA	514	U	P-O5'	-10.18	1.44	1.59
35	BB	701	U	P-O5'	-10.17	1.44	1.59
85	AA	1459	C	P-O5'	-10.17	1.44	1.59
34	BA	1577	U	P-O5'	-10.17	1.44	1.59
34	BA	462	C	P-O5'	-10.16	1.44	1.59
35	BB	1334	C	C2'-C1'	-10.16	1.38	1.53
85	AA	1125	G	C1'-N9	-10.16	1.32	1.48
34	BA	1518	A	C1'-N9	-10.16	1.32	1.48
35	BB	1360	A	P-O5'	-10.16	1.44	1.59
35	BB	837	A	P-O5'	-10.15	1.44	1.59
35	BB	1486	C	P-O5'	-10.14	1.44	1.59
40	BG	139	U	O3'-P	-10.14	1.46	1.61
34	BA	151	A	C1'-N9	10.13	1.62	1.47
35	BB	483	C	P-O5'	-10.13	1.44	1.59
35	BB	1431	G	P-O5'	-10.12	1.44	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	874	G	O3'-P	-10.12	1.46	1.61
49	BP	127	ILE	CA-CB	-10.12	1.42	1.54
41	BH	108	U	O3'-P	-10.11	1.46	1.61
85	AA	557	G	P-O5'	-10.11	1.44	1.59
35	BB	994	A	C1'-N9	10.10	1.62	1.47
35	BB	1181	A	C1'-N9	-10.10	1.32	1.48
47	BN	38	GLN	CA-C	-10.08	1.40	1.52
34	BA	1676	A	C1'-N9	-10.08	1.32	1.48
34	BA	758	G	O3'-P	-10.08	1.46	1.61
34	BA	1585	A	C1'-N9	-10.07	1.32	1.48
11	AC	197	ILE	CA-C	-10.07	1.42	1.52
35	BB	1147	G	O3'-P	-10.06	1.46	1.61
35	BB	802	G	P-O5'	-10.06	1.44	1.59
85	AA	411	U	O3'-P	-10.06	1.46	1.61
34	BA	1179	U	O3'-P	-10.06	1.46	1.61
65	Bf	326	HIS	CA-C	-10.06	1.40	1.52
35	BB	5	A	C2'-C1'	-10.06	1.38	1.53
34	BA	481	A	P-O5'	-10.06	1.44	1.59
35	BB	1206	G	P-O5'	-10.05	1.44	1.59
38	BE	128	G	P-O5'	-10.05	1.44	1.59
35	BB	1196	A	O3'-P	-10.05	1.46	1.61
35	BB	654	C	C1'-N1	-10.04	1.33	1.48
40	BG	29	U	P-O5'	-10.04	1.44	1.59
35	BB	662	G	C1'-N9	-10.04	1.32	1.48
34	BA	843	G	P-O5'	-10.04	1.44	1.59
85	AA	1840	C	P-O5'	-10.03	1.44	1.59
40	BG	140	G	P-O5'	-10.02	1.44	1.59
34	BA	397	A	O3'-P	-10.02	1.46	1.61
34	BA	1277	G	P-O5'	-10.01	1.44	1.59
34	BA	21	C	P-O5'	-10.01	1.44	1.59
40	BG	28	A	P-O5'	-10.01	1.44	1.59
38	BE	124	G	C1'-N9	-10.00	1.32	1.48
85	AA	1544	G	C1'-N9	-10.00	1.32	1.48
34	BA	606	G	O3'-P	-9.99	1.46	1.61
34	BA	1619	U	P-O5'	-9.99	1.44	1.59
83	Bx	265	ARG	CA-C	-9.99	1.42	1.53
34	BA	130	U	P-O5'	-9.99	1.44	1.59
34	BA	971	G	C1'-N9	-9.99	1.32	1.48
34	BA	1267	A	P-O5'	-9.99	1.44	1.59
34	BA	397	A	C1'-N9	-9.98	1.32	1.48
85	AA	1516	A	O3'-P	-9.98	1.46	1.61
34	BA	904	G	C1'-N9	-9.97	1.32	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
51	BR	64	ASN	CA-C	-9.97	1.45	1.52
35	BB	778	A	C1'-N9	-9.97	1.32	1.48
41	BH	111	U	P-O5'	-9.97	1.44	1.59
34	BA	1146	U	P-O5'	-9.96	1.44	1.59
61	Bb	133	LYS	CA-C	-9.96	1.39	1.52
35	BB	1430	G	C1'-N9	-9.95	1.33	1.48
34	BA	138	C	O3'-P	-9.95	1.46	1.61
85	AA	706	U	P-O5'	-9.95	1.44	1.59
85	AA	455	G	O3'-P	-9.94	1.46	1.61
34	BA	1065	U	O3'-P	-9.94	1.46	1.61
41	BH	41	A	C1'-N9	-9.94	1.32	1.47
36	BC	164	G	O3'-P	-9.93	1.46	1.61
6	A5	55	LEU	CA-C	-9.93	1.40	1.52
34	BA	557	U	C2'-C1'	-9.93	1.38	1.53
35	BB	649	A	O3'-P	-9.93	1.46	1.61
38	BE	111	C	O3'-P	-9.93	1.46	1.61
35	BB	1515	C	P-O5'	-9.92	1.44	1.59
34	BA	765	U	C5'-C4'	9.91	1.66	1.51
34	BA	800	G	C1'-N9	-9.91	1.33	1.48
35	BB	630	A	P-O5'	-9.90	1.44	1.59
34	BA	1252	G	C1'-N9	-9.90	1.33	1.48
85	AA	1521	U	P-O5'	-9.90	1.45	1.59
34	BA	1192	A	O3'-P	-9.90	1.46	1.61
34	BA	4	A	O3'-P	-9.89	1.46	1.61
37	BD	82	G	C3'-C2'	-9.89	1.38	1.52
39	BF	23	G	C2'-C1'	-9.89	1.38	1.53
34	BA	1475	G	C1'-N9	-9.89	1.33	1.48
35	BB	505	G	P-O5'	-9.89	1.45	1.59
85	AA	1484	G	O3'-P	-9.88	1.46	1.61
34	BA	142	A	O3'-P	-9.88	1.46	1.61
41	BH	112	U	O3'-P	-9.88	1.46	1.61
85	AA	986	U	P-O5'	-9.87	1.45	1.59
72	Bm	90	ALA	CA-C	-9.86	1.40	1.52
36	BC	37	U	O3'-P	-9.86	1.46	1.61
38	BE	31	A	P-O5'	-9.86	1.45	1.59
45	BL	112	GLY	CA-C	-9.85	1.42	1.52
35	BB	1405	G	C1'-N9	-9.85	1.33	1.48
35	BB	1291	G	C1'-N9	-9.84	1.33	1.48
69	Bj	29	ASN	CA-C	-9.84	1.44	1.53
85	AA	694	A	O3'-P	-9.84	1.46	1.61
34	BA	212	A	P-O5'	-9.83	1.45	1.59
34	BA	74	A	C2'-C1'	-9.83	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	AC	176	VAL	CA-C	-9.83	1.40	1.52
11	AC	209	MET	CA-C	-9.83	1.40	1.52
35	BB	621	C	P-O5'	-9.83	1.45	1.59
35	BB	1138	A	O3'-P	-9.82	1.46	1.61
34	BA	1548	A	O3'-P	-9.82	1.46	1.61
35	BB	1430	G	O3'-P	-9.82	1.46	1.61
40	BG	9	G	C1'-N9	-9.82	1.33	1.48
35	BB	446	U	O3'-P	-9.82	1.46	1.61
38	BE	119	U	P-O5'	-9.82	1.45	1.59
34	BA	65	A	C2'-C1'	-9.81	1.38	1.53
34	BA	185	A	C1'-N9	-9.81	1.33	1.48
34	BA	974	G	C1'-N9	-9.81	1.33	1.48
34	BA	1110	A	O3'-P	-9.80	1.46	1.61
85	AA	2140	U	P-O5'	-9.80	1.45	1.59
34	BA	788	C	C2'-C1'	-9.80	1.38	1.53
85	AA	385	A	C1'-N9	-9.80	1.32	1.47
34	BA	473	A	O3'-P	-9.79	1.46	1.61
85	AA	112	A	O3'-P	-9.79	1.46	1.61
34	BA	593	G	C1'-N9	9.79	1.61	1.47
85	AA	806	G	P-O5'	-9.79	1.45	1.59
34	BA	1485	U	P-O5'	-9.79	1.45	1.59
34	BA	1647	G	P-O5'	-9.79	1.45	1.59
85	AA	365	G	C2'-C1'	-9.79	1.38	1.53
85	AA	1490	A	O3'-P	-9.78	1.46	1.61
34	BA	946	A	C1'-N9	-9.77	1.33	1.48
34	BA	381	A	O3'-P	-9.77	1.46	1.61
35	BB	1483	A	P-O5'	-9.77	1.45	1.59
34	BA	897	U	P-O5'	-9.77	1.45	1.59
71	BI	84	TYR	CA-C	-9.77	1.40	1.52
38	BE	197	A	C1'-N9	-9.77	1.33	1.48
34	BA	1058	C	O3'-P	-9.76	1.46	1.61
34	BA	759	A	P-O5'	-9.76	1.45	1.59
85	AA	1471	G	C1'-N9	-9.76	1.33	1.48
85	AA	2133	A	O3'-P	-9.76	1.46	1.61
49	BP	93	ARG	N-CA	-9.75	1.34	1.46
34	BA	30	A	P-O5'	-9.75	1.45	1.59
40	BG	20	U	P-O5'	-9.75	1.45	1.59
35	BB	823	G	C1'-N9	-9.74	1.33	1.48
37	BD	33	U	O3'-P	-9.74	1.46	1.61
35	BB	637	G	O3'-P	-9.74	1.46	1.61
35	BB	784	C	P-O5'	-9.74	1.45	1.59
35	BB	1234	G	P-O5'	-9.73	1.45	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	160	A	C1'-N9	-9.72	1.33	1.48
34	BA	611	A	O3'-P	-9.72	1.46	1.61
59	BZ	80	ASP	N-CA	-9.72	1.34	1.46
34	BA	1333	G	C1'-N9	-9.71	1.33	1.48
36	BC	94	C	O3'-P	-9.71	1.46	1.61
34	BA	241	U	P-O5'	-9.71	1.45	1.59
85	AA	1978	G	C1'-N9	-9.71	1.33	1.48
34	BA	743	A	N7-C5	-9.71	1.19	1.39
34	BA	888	G	P-O5'	-9.71	1.45	1.59
35	BB	118	A	C1'-N9	-9.71	1.33	1.48
85	AA	936	C	O3'-P	-9.71	1.46	1.61
34	BA	19	G	C1'-N9	-9.70	1.33	1.48
35	BB	101	U	O3'-P	-9.70	1.46	1.61
41	BH	3	U	O3'-P	-9.70	1.46	1.61
35	BB	1109	A	P-O5'	-9.70	1.45	1.59
35	BB	1248	A	C1'-N9	-9.70	1.33	1.48
34	BA	297	A	P-O5'	-9.70	1.45	1.59
85	AA	1521	U	O3'-P	-9.70	1.46	1.61
85	AA	525	C	C2'-C1'	-9.69	1.38	1.53
35	BB	835	C	P-O5'	-9.69	1.45	1.59
37	BD	51	G	P-O5'	-9.69	1.45	1.59
34	BA	389	U	P-O5'	-9.69	1.45	1.59
36	BC	141	C	O3'-P	-9.68	1.46	1.61
85	AA	385	A	O3'-P	-9.68	1.46	1.61
35	BB	1249	G	C1'-N9	-9.68	1.33	1.48
35	BB	786	A	C1'-N9	-9.68	1.33	1.48
85	AA	2120	C	P-O5'	-9.67	1.45	1.59
41	BH	26	C	P-O5'	-9.67	1.45	1.59
34	BA	166	G	P-O5'	-9.66	1.45	1.59
35	BB	14	C	O3'-P	-9.66	1.46	1.61
37	BD	19	C	P-O5'	-9.66	1.45	1.59
35	BB	481	A	C1'-N9	-9.66	1.33	1.48
34	BA	1176	C	P-O5'	-9.66	1.45	1.59
34	BA	1675	C	P-O5'	-9.66	1.45	1.59
85	AA	455	G	C1'-N9	-9.66	1.33	1.48
34	BA	440	A	C1'-N9	-9.65	1.32	1.47
36	BC	53	A	O3'-P	-9.65	1.46	1.61
37	BD	35	C	P-O5'	-9.65	1.45	1.59
34	BA	875	G	C1'-N9	-9.65	1.32	1.47
85	AA	1487	G	C1'-N9	-9.65	1.33	1.48
35	BB	374	A	C1'-N9	-9.64	1.33	1.48
34	BA	591	G	P-O5'	-9.64	1.45	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1039	G	P-O5'	-9.64	1.45	1.59
35	BB	61	A	O3'-P	-9.64	1.46	1.61
70	Bk	61	VAL	CA-C	-9.63	1.40	1.52
40	BG	128	U	C1'-N1	-9.63	1.33	1.47
34	BA	74	A	C1'-N9	-9.63	1.33	1.48
65	Bf	200	THR	CA-C	-9.63	1.40	1.52
75	Bp	37	ARG	CA-C	-9.63	1.40	1.53
34	BA	1148	U	P-O5'	-9.62	1.45	1.59
35	BB	451	A	O3'-P	-9.62	1.46	1.61
34	BA	531	C	O3'-P	-9.62	1.46	1.61
67	Bh	91	HIS	CA-C	-9.62	1.40	1.52
4	A3	3	LEU	CA-C	-9.61	1.41	1.52
34	BA	1435	A	C1'-N9	-9.61	1.32	1.47
85	AA	1157	U	O3'-P	-9.61	1.46	1.61
34	BA	281	C	P-O5'	-9.61	1.45	1.59
44	BK	99	ILE	CA-C	-9.61	1.41	1.52
85	AA	731	U	P-O5'	-9.60	1.45	1.59
34	BA	1522	G	C1'-N9	-9.60	1.33	1.48
41	BH	36	C	O3'-P	-9.60	1.46	1.61
34	BA	923	C	O3'-P	-9.60	1.46	1.61
35	BB	1201	G	C4'-C3'	9.60	1.67	1.52
85	AA	413	G	P-O5'	-9.59	1.45	1.59
34	BA	1555	G	O3'-P	-9.59	1.46	1.61
34	BA	1798	G	P-O5'	-9.59	1.45	1.59
36	BC	26	U	O3'-P	-9.59	1.46	1.61
34	BA	299	C	P-O5'	-9.58	1.45	1.59
35	BB	687	C	P-O5'	-9.58	1.45	1.59
34	BA	1286	C	O3'-P	-9.58	1.46	1.61
38	BE	108	U	O3'-P	-9.58	1.46	1.61
85	AA	69	C	C2'-C1'	-9.58	1.39	1.53
34	BA	1143	U	P-O5'	-9.57	1.45	1.59
34	BA	326	A	O3'-P	-9.57	1.46	1.61
34	BA	743	A	C5-C4	9.57	1.57	1.38
34	BA	1239	G	O3'-P	-9.57	1.46	1.61
34	BA	1213	A	C1'-N9	-9.56	1.33	1.48
35	BB	1440	A	O3'-P	-9.56	1.46	1.61
40	BG	51	U	P-O5'	-9.56	1.45	1.59
85	AA	1462	A	C2'-C1'	-9.56	1.39	1.53
34	BA	1224	A	C4'-O4'	-9.56	1.31	1.45
34	BA	1563	G	P-O5'	-9.56	1.45	1.59
34	BA	91	C	O3'-P	-9.55	1.46	1.61
34	BA	1503	U	C2'-C1'	-9.54	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	401	A	P-O5'	-9.54	1.45	1.59
40	BG	135	C	P-O5'	-9.54	1.45	1.59
85	AA	2147	A	O3'-P	-9.53	1.46	1.61
85	AA	390	U	C2'-C1'	-9.53	1.39	1.53
34	BA	440	A	O3'-P	-9.52	1.46	1.61
34	BA	1592	U	P-O5'	-9.52	1.45	1.59
34	BA	48	C	O3'-P	-9.52	1.46	1.61
85	AA	1666	U	P-O5'	-9.52	1.45	1.59
49	BP	119	SER	CA-C	-9.51	1.40	1.52
36	BC	148	C	P-O5'	-9.51	1.45	1.59
34	BA	777	C	P-O5'	-9.50	1.45	1.59
85	AA	731	U	O3'-P	-9.50	1.46	1.61
35	BB	1005	A	P-O5'	-9.50	1.45	1.59
80	Bu	253	HIS	CA-C	-9.50	1.40	1.52
66	Bg	20	THR	CA-C	-9.49	1.40	1.52
85	AA	515	C	O3'-P	-9.48	1.47	1.61
85	AA	2130	G	O3'-P	-9.48	1.47	1.61
34	BA	399	G	N9-C4	-9.48	1.19	1.38
35	BB	2	C	C1'-N1	-9.48	1.34	1.48
85	AA	870	U	P-O5'	-9.48	1.45	1.59
34	BA	1550	G	C1'-N9	-9.48	1.33	1.48
34	BA	979	G	O3'-P	-9.47	1.47	1.61
34	BA	23	A	C1'-N9	-9.46	1.33	1.48
34	BA	1641	G	O3'-P	-9.46	1.47	1.61
35	BB	990	G	O3'-P	-9.46	1.47	1.61
34	BA	784	C	C1'-N1	-9.46	1.34	1.48
77	Br	250	TRP	CA-C	-9.46	1.41	1.52
6	A5	46	VAL	CA-C	-9.46	1.40	1.52
34	BA	400	A	C1'-N9	-9.46	1.33	1.48
38	BE	147	G	C1'-N9	-9.46	1.33	1.48
85	AA	414	C	P-O5'	-9.46	1.45	1.59
35	BB	93	A	P-O5'	-9.46	1.45	1.59
34	BA	896	U	C3'-C2'	9.45	1.67	1.52
85	AA	474	C	P-O5'	-9.45	1.45	1.59
34	BA	985	C	O3'-P	-9.45	1.47	1.61
34	BA	665	C	P-O5'	-9.44	1.45	1.59
35	BB	1246	C	O3'-P	-9.44	1.47	1.61
34	BA	1213	A	P-O5'	-9.43	1.45	1.59
34	BA	687	G	O3'-P	-9.43	1.47	1.61
50	BQ	126	LYS	CA-C	-9.43	1.40	1.52
85	AA	397	G	O3'-P	-9.43	1.47	1.61
35	BB	52	G	C1'-N9	-9.43	1.33	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	871	C	P-O5'	-9.43	1.45	1.59
85	AA	1256	C	P-O5'	-9.43	1.45	1.59
85	AA	2127	G	C2'-C1'	-9.43	1.39	1.53
34	BA	856	G	O3'-P	-9.42	1.47	1.61
34	BA	1415	C	P-O5'	-9.42	1.45	1.59
35	BB	1449	G	P-O5'	-9.42	1.45	1.59
83	Bx	200	GLY	CA-C	-9.42	1.41	1.52
85	AA	463	G	C1'-N9	-9.42	1.33	1.48
40	BG	88	G	O3'-P	-9.42	1.47	1.61
34	BA	1438	C	P-O5'	-9.42	1.45	1.59
35	BB	1172	U	O3'-P	-9.42	1.47	1.61
85	AA	99	U	O3'-P	-9.42	1.47	1.61
85	AA	1224	C	O3'-P	-9.42	1.47	1.61
35	BB	1452	U	P-O5'	-9.41	1.45	1.59
38	BE	45	G	P-O5'	-9.41	1.45	1.59
38	BE	190	U	O3'-P	-9.41	1.47	1.61
41	BH	126	C	O3'-P	-9.41	1.47	1.61
34	BA	1604	A	O3'-P	-9.41	1.47	1.61
34	BA	1223	C	O3'-P	-9.41	1.47	1.61
34	BA	449	G	O3'-P	-9.40	1.47	1.61
40	BG	8	U	C1'-N1	-9.40	1.34	1.48
56	BW	19	LEU	CA-C	-9.40	1.43	1.52
85	AA	586	G	P-O5'	-9.40	1.45	1.59
35	BB	1227	G	O3'-P	-9.40	1.47	1.61
38	BE	16	C	C5'-C4'	9.40	1.65	1.51
35	BB	709	G	C1'-N9	-9.40	1.33	1.48
35	BB	1314	G	O3'-P	-9.40	1.47	1.61
85	AA	1124	G	C3'-C2'	-9.40	1.38	1.52
34	BA	1282	G	O3'-P	-9.39	1.47	1.61
85	AA	2218	G	C1'-N9	-9.39	1.32	1.47
34	BA	1661	U	O3'-P	-9.39	1.47	1.61
36	BC	137	C	P-O5'	-9.39	1.45	1.59
35	BB	1243	A	O3'-P	-9.39	1.47	1.61
85	AA	469	G	C1'-N9	-9.38	1.33	1.48
34	BA	1795	A	C1'-N9	-9.38	1.32	1.47
35	BB	1103	A	O3'-P	-9.38	1.47	1.61
85	AA	427	G	P-O5'	-9.38	1.45	1.59
85	AA	2125	A	O3'-P	-9.38	1.47	1.61
33	AZ	41	GLY	CA-C	-9.37	1.43	1.51
34	BA	909	G	O3'-P	-9.37	1.47	1.61
40	BG	23	C	O3'-P	-9.37	1.47	1.61
85	AA	5	U	P-O5'	-9.37	1.45	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	921	G	P-O5'	-9.36	1.45	1.59
34	BA	1528	U	P-O5'	-9.36	1.45	1.59
34	BA	1790	U	P-O5'	-9.36	1.45	1.59
39	BF	22	U	P-O5'	-9.36	1.45	1.59
34	BA	517	A	C1'-N9	-9.36	1.33	1.48
35	BB	1183	U	O3'-P	-9.36	1.47	1.61
77	Br	109	ARG	CA-C	-9.36	1.43	1.53
35	BB	77	A	C1'-N9	-9.35	1.33	1.48
85	AA	2151	U	P-O5'	-9.35	1.45	1.59
34	BA	1256	A	C1'-N9	-9.35	1.32	1.47
34	BA	1583	A	C1'-N9	-9.35	1.32	1.47
85	AA	492	C	P-O5'	-9.35	1.45	1.59
37	BD	111	U	P-O5'	-9.34	1.45	1.59
39	BF	39	C	O3'-P	-9.34	1.47	1.61
34	BA	201	A	O3'-P	-9.33	1.47	1.61
69	Bj	67	LEU	N-CA	-9.33	1.34	1.46
85	AA	1240	A	C1'-N9	-9.33	1.33	1.48
85	AA	1465	C	P-O5'	-9.33	1.45	1.59
34	BA	1465	C	O3'-P	-9.32	1.47	1.61
74	Bo	84	ARG	CA-C	-9.32	1.41	1.52
34	BA	458	G	P-O5'	-9.32	1.45	1.59
34	BA	1284	G	C1'-N9	-9.32	1.33	1.48
41	BH	124	C	O3'-P	-9.32	1.47	1.61
85	AA	440	U	P-O5'	-9.32	1.45	1.59
34	BA	480	G	P-O5'	-9.32	1.45	1.59
35	BB	1180	G	O3'-P	-9.32	1.47	1.61
34	BA	53	G	O3'-P	-9.31	1.47	1.61
34	BA	774	A	C2'-C1'	-9.31	1.39	1.53
35	BB	431	U	P-O5'	-9.31	1.45	1.59
41	BH	127	A	C1'-N9	-9.31	1.33	1.48
49	BP	35	ARG	CA-C	-9.31	1.41	1.52
34	BA	933	U	C1'-N1	-9.31	1.34	1.48
34	BA	1578	A	C1'-N9	-9.31	1.32	1.47
42	BI	94	LEU	CA-C	-9.30	1.41	1.52
34	BA	350	C	O3'-P	-9.30	1.47	1.61
36	BC	54	G	C2'-C1'	-9.30	1.39	1.53
85	AA	887	A	C1'-N9	-9.30	1.34	1.48
11	AC	194	ASP	CA-C	-9.30	1.41	1.52
85	AA	393	C	O3'-P	-9.29	1.47	1.61
34	BA	206	C	C4'-C3'	9.29	1.66	1.52
35	BB	1164	U	P-O5'	-9.28	1.45	1.59
40	BG	27	C	O3'-P	-9.28	1.47	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	601	A	O3'-P	-9.28	1.47	1.61
34	BA	1193	A	O3'-P	-9.27	1.47	1.61
66	Bg	85	ASN	CA-C	-9.27	1.40	1.52
36	BC	78	G	O3'-P	-9.27	1.47	1.61
35	BB	1348	C	O3'-P	-9.26	1.47	1.61
57	BX	87	TYR	CA-CB	9.26	1.68	1.54
35	BB	604	C	P-O5'	-9.26	1.45	1.59
38	BE	59	U	P-O5'	-9.26	1.45	1.59
85	AA	177	A	C1'-N9	-9.26	1.34	1.48
34	BA	737	U	O3'-P	-9.25	1.47	1.61
34	BA	1430	C	O3'-P	-9.25	1.47	1.61
34	BA	1809	G	O3'-P	-9.25	1.47	1.61
37	BD	77	A	P-O5'	-9.25	1.45	1.59
85	AA	2071	U	P-O5'	-9.25	1.45	1.59
40	BG	78	C	O3'-P	-9.25	1.47	1.61
85	AA	1504	A	C1'-N9	-9.25	1.34	1.48
44	BK	135	LEU	CA-C	-9.25	1.43	1.53
34	BA	858	C	P-O5'	-9.25	1.45	1.59
35	BB	766	G	P-O5'	-9.25	1.45	1.59
38	BE	128	G	O3'-P	-9.25	1.47	1.61
40	BG	10	U	C1'-N1	-9.24	1.34	1.48
85	AA	1679	U	P-O5'	-9.24	1.45	1.59
34	BA	1109	G	C1'-N9	-9.24	1.34	1.48
34	BA	12	G	P-O5'	-9.24	1.45	1.59
82	Bw	155	SER	CA-C	-9.23	1.41	1.52
42	BI	127	CYS	CA-C	-9.23	1.41	1.52
35	BB	1195	A	P-O5'	-9.23	1.46	1.59
65	Bf	345	VAL	CA-C	-9.23	1.42	1.52
34	BA	349	G	C1'-N9	-9.23	1.34	1.48
34	BA	720	A	O3'-P	-9.23	1.47	1.61
36	BC	91	G	C1'-N9	-9.23	1.34	1.48
44	BK	168	SER	CA-C	-9.23	1.41	1.52
7	A6	79	CYS	CA-C	-9.22	1.41	1.52
41	BH	127	A	P-O5'	-9.22	1.46	1.59
85	AA	77	C	P-O5'	-9.22	1.46	1.59
85	AA	902	A	O4'-C1'	-9.22	1.27	1.41
34	BA	1803	A	C1'-N9	-9.22	1.34	1.48
85	AA	1221	G	C1'-N9	-9.22	1.34	1.48
34	BA	912	G	O3'-P	-9.21	1.47	1.61
40	BG	16	G	C1'-N9	-9.21	1.34	1.48
34	BA	272	A	C1'-N9	-9.21	1.33	1.47
35	BB	1254	G	O4'-C1'	-9.21	1.28	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	899	G	O3'-P	-9.21	1.47	1.61
34	BA	931	G	C1'-N9	-9.20	1.34	1.48
34	BA	138	C	P-O5'	-9.20	1.46	1.59
34	BA	793	A	P-O5'	-9.20	1.46	1.59
38	BE	96	G	P-O5'	-9.20	1.46	1.59
85	AA	1676	G	O3'-P	-9.20	1.47	1.61
34	BA	478	G	C1'-N9	-9.20	1.34	1.48
34	BA	556	A	O3'-P	-9.20	1.47	1.61
34	BA	1322	A	O3'-P	-9.20	1.47	1.61
35	BB	970	C	O3'-P	-9.20	1.47	1.61
85	AA	130	G	P-O5'	-9.20	1.46	1.59
34	BA	481	A	N9-C4	-9.19	1.19	1.37
59	BZ	40	TYR	CA-C	-9.19	1.40	1.52
84	By	83	THR	CA-C	-9.19	1.43	1.52
85	AA	1495	G	C1'-N9	-9.19	1.34	1.48
34	BA	1276	G	C1'-N9	-9.18	1.34	1.48
40	BG	40	G	C1'-N9	-9.18	1.34	1.48
84	By	116	GLU	CA-C	-9.18	1.40	1.52
85	AA	932	A	P-O5'	-9.18	1.46	1.59
85	AA	1281	G	C1'-N9	-9.18	1.34	1.48
34	BA	1099	U	O3'-P	-9.18	1.47	1.61
34	BA	1262	A	C1'-N9	-9.18	1.34	1.48
85	AA	1463	A	P-O5'	-9.18	1.46	1.59
85	AA	2145	G	C2'-C1'	-9.18	1.39	1.53
40	BG	69	G	O3'-P	-9.18	1.47	1.61
34	BA	492	G	C1'-N9	-9.17	1.34	1.48
85	AA	922	A	O3'-P	-9.17	1.47	1.61
34	BA	587	U	O3'-P	-9.17	1.47	1.61
34	BA	1558	C	P-O5'	-9.17	1.46	1.59
36	BC	88	A	P-O5'	-9.17	1.46	1.59
34	BA	1556	A	O3'-P	-9.16	1.47	1.61
40	BG	118	U	P-O5'	-9.16	1.46	1.59
37	BD	82	G	O3'-P	-9.16	1.47	1.61
66	Bg	79	HIS	CA-C	-9.15	1.41	1.52
34	BA	1027	C	O3'-P	-9.15	1.47	1.61
34	BA	1693	U	O3'-P	-9.15	1.47	1.61
85	AA	527	A	C1'-N9	-9.15	1.34	1.48
85	AA	1466	U	C1'-N1	-9.15	1.34	1.48
34	BA	1561	C	P-O5'	-9.14	1.46	1.59
40	BG	18	U	P-O5'	-9.14	1.46	1.59
85	AA	2176	U	P-O5'	-9.14	1.46	1.59
34	BA	1259	C	O3'-P	-9.14	1.47	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	808	A	O3'-P	-9.14	1.47	1.61
7	A6	80	HIS	CA-C	-9.14	1.41	1.52
34	BA	911	G	C1'-N9	-9.13	1.34	1.48
85	AA	1499	G	O3'-P	-9.13	1.47	1.61
72	Bm	80	PHE	CA-C	-9.13	1.41	1.52
35	BB	368	C	O3'-P	-9.13	1.47	1.61
34	BA	907	A	O3'-P	-9.13	1.47	1.61
37	BD	4	U	C1'-N1	-9.13	1.34	1.48
40	BG	16	G	C2'-C1'	-9.13	1.39	1.53
38	BE	192	A	C1'-N9	-9.12	1.34	1.48
85	AA	441	C	O3'-P	-9.12	1.47	1.61
85	AA	918	U	O3'-P	-9.12	1.47	1.61
85	AA	99	U	C2'-C1'	-9.12	1.39	1.53
34	BA	471	U	N1-C2	-9.12	1.20	1.38
35	BB	419	G	C1'-N9	-9.12	1.34	1.48
35	BB	552	C	P-O5'	-9.12	1.46	1.59
85	AA	28	A	P-O5'	-9.12	1.46	1.59
35	BB	1033	U	P-O5'	-9.11	1.46	1.59
41	BH	33	G	C2'-C1'	-9.11	1.39	1.53
23	AP	248	ASP	C-N	-9.11	1.25	1.34
34	BA	127	U	P-O5'	-9.11	1.46	1.59
34	BA	837	U	O3'-P	-9.11	1.47	1.61
34	BA	1412	G	O3'-P	-9.11	1.47	1.61
35	BB	1028	C	O3'-P	-9.11	1.47	1.61
40	BG	26	G	C1'-N9	-9.11	1.34	1.48
72	Bm	51	ILE	CA-C	-9.11	1.41	1.52
35	BB	56	U	O3'-P	-9.10	1.47	1.61
35	BB	1342	C	O3'-P	-9.10	1.47	1.61
34	BA	802	G	P-O5'	-9.10	1.46	1.59
40	BG	137	G	C1'-N9	-9.10	1.34	1.48
54	BU	8	LYS	N-CA	-9.10	1.35	1.46
36	BC	96	A	C1'-N9	-9.10	1.34	1.48
13	AE	86	ILE	CA-CB	-9.09	1.42	1.54
34	BA	926	A	P-O5'	-9.09	1.46	1.59
34	BA	1147	C	O3'-P	-9.09	1.47	1.61
57	BX	91	THR	CA-C	-9.09	1.41	1.53
13	AE	86	ILE	CA-C	-9.09	1.40	1.52
74	Bo	47	PHE	CA-C	-9.09	1.41	1.52
34	BA	356	C	O3'-P	-9.08	1.47	1.61
35	BB	130	G	C1'-N9	-9.08	1.34	1.48
85	AA	168	A	P-O5'	-9.08	1.46	1.59
85	AA	4	C	O3'-P	-9.08	1.47	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	290	G	P-O5'	-9.07	1.46	1.59
34	BA	1028	A	P-O5'	-9.07	1.46	1.59
35	BB	781	U	O3'-P	-9.07	1.47	1.61
25	AR	55	THR	CA-C	-9.07	1.41	1.52
48	BO	219	PHE	CA-C	-9.07	1.44	1.53
85	AA	692	U	P-O5'	-9.07	1.46	1.59
34	BA	1494	G	O3'-P	-9.07	1.47	1.61
34	BA	780	U	C1'-N1	9.07	1.62	1.48
56	BW	134	HIS	CA-C	-9.07	1.40	1.52
34	BA	1650	G	O3'-P	-9.06	1.47	1.61
85	AA	484	G	P-O5'	-9.06	1.46	1.59
34	BA	1071	G	O3'-P	-9.06	1.47	1.61
35	BB	1026	G	C2'-C1'	-9.06	1.39	1.53
23	AP	142	ALA	CA-C	-9.06	1.41	1.52
37	BD	50	A	C1'-N9	-9.06	1.34	1.48
38	BE	6	A	C1'-N9	-9.05	1.34	1.48
34	BA	1442	A	C1'-N9	-9.05	1.34	1.48
34	BA	1325	G	O3'-P	-9.05	1.47	1.61
35	BB	1138	A	C2'-C1'	-9.05	1.39	1.53
36	BC	102	G	P-O5'	-9.05	1.46	1.59
85	AA	995	G	C1'-N9	-9.05	1.34	1.48
85	AA	899	A	C2'-C1'	-9.05	1.39	1.53
36	BC	93	C	O3'-P	-9.04	1.47	1.61
77	Br	287	VAL	CA-C	-9.04	1.41	1.52
85	AA	45	U	O3'-P	-9.04	1.47	1.61
34	BA	740	A	C1'-N9	-9.04	1.34	1.48
44	BK	85	PHE	N-CA	-9.04	1.35	1.46
50	BQ	100	LYS	C-N	-9.04	1.22	1.33
85	AA	97	A	C1'-N9	-9.04	1.34	1.48
34	BA	6	C	O3'-P	-9.04	1.47	1.61
41	BH	19	G	C1'-N9	-9.04	1.34	1.48
34	BA	856	G	C1'-N9	-9.03	1.34	1.48
85	AA	879	G	C1'-N9	-9.03	1.34	1.48
34	BA	1614	G	C1'-N9	-9.03	1.34	1.48
36	BC	100	U	O3'-P	-9.03	1.47	1.61
34	BA	1489	U	P-O5'	-9.03	1.46	1.59
85	AA	437	G	C1'-N9	-9.03	1.34	1.48
85	AA	663	C	O3'-P	-9.03	1.47	1.61
85	AA	508	C	P-O5'	-9.02	1.46	1.59
34	BA	59	A	O3'-P	-9.02	1.47	1.61
35	BB	654	C	O3'-P	-9.02	1.47	1.61
39	BF	62	U	O3'-P	-9.02	1.47	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BH	109	G	C2'-C1'	-9.02	1.39	1.53
62	Bc	70	ASN	CA-C	-9.02	1.42	1.52
34	BA	1637	G	P-O5'	-9.02	1.46	1.59
79	Bt	90	HIS	CA-C	-9.02	1.41	1.52
34	BA	1001	G	C1'-N9	-9.01	1.34	1.48
85	AA	373	G	C2'-C1'	-9.01	1.39	1.53
35	BB	47	C	O3'-P	-9.01	1.47	1.61
35	BB	1063	C	P-O5'	-9.01	1.46	1.59
36	BC	114	C	O3'-P	-9.01	1.47	1.61
39	BF	29	U	O3'-P	-9.01	1.47	1.61
34	BA	765	U	C1'-N1	9.01	1.61	1.48
85	AA	1226	A	P-O5'	-9.01	1.46	1.59
85	AA	2075	C	C2'-C1'	-9.00	1.39	1.53
34	BA	933	U	O3'-P	-9.00	1.47	1.61
41	BH	102	C	O3'-P	-9.00	1.47	1.61
77	Br	167	MET	CA-C	-9.00	1.40	1.52
34	BA	326	A	C4'-C3'	-9.00	1.39	1.52
35	BB	1170	U	O3'-P	-9.00	1.47	1.61
42	BI	187	ARG	CA-C	-8.99	1.41	1.52
34	BA	266	G	C1'-N9	-8.99	1.34	1.48
35	BB	54	U	O3'-P	-8.99	1.47	1.61
38	BE	32	U	P-O5'	-8.99	1.46	1.59
35	BB	783	U	O3'-P	-8.98	1.47	1.61
37	BD	98	G	O3'-P	-8.98	1.47	1.61
34	BA	323	C	C2'-C1'	-8.98	1.39	1.53
34	BA	1666	U	P-O5'	-8.98	1.46	1.59
36	BC	154	A	C2'-C1'	-8.98	1.39	1.53
35	BB	39	C	P-O5'	-8.97	1.46	1.59
35	BB	8	U	P-O5'	-8.97	1.46	1.59
71	Bl	68	THR	CA-C	-8.97	1.45	1.53
85	AA	1248	U	O3'-P	-8.97	1.47	1.61
34	BA	1010	C	O3'-P	-8.96	1.47	1.61
34	BA	1160	U	P-O5'	-8.96	1.46	1.59
34	BA	1247	G	P-O5'	-8.96	1.46	1.59
34	BA	1463	U	P-O5'	-8.96	1.46	1.59
34	BA	333	A	C1'-N9	-8.96	1.34	1.48
34	BA	1039	G	C1'-N9	-8.96	1.34	1.48
35	BB	613	C	P-O5'	-8.96	1.46	1.59
35	BB	999	G	C1'-N9	-8.96	1.34	1.48
37	BD	61	C	P-O5'	-8.96	1.46	1.59
85	AA	622	G	C1'-N9	-8.96	1.34	1.48
74	Bo	83	VAL	CA-C	-8.95	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1685	C	P-O5'	-8.95	1.46	1.59
34	BA	1328	U	C2'-C1'	-8.95	1.40	1.53
37	BD	4	U	P-O5'	-8.95	1.46	1.59
85	AA	597	A	C1'-N9	-8.95	1.34	1.48
34	BA	1721	U	O4'-C1'	-8.94	1.28	1.41
34	BA	1653	G	C1'-N9	-8.94	1.34	1.48
38	BE	108	U	C2'-C1'	-8.94	1.40	1.53
50	BQ	207	ALA	CA-C	-8.94	1.41	1.52
65	Bf	249	GLU	CA-C	-8.94	1.41	1.52
30	AW	55	VAL	CA-C	-8.94	1.42	1.52
38	BE	145	A	C1'-N9	-8.94	1.34	1.48
85	AA	2075	C	P-O5'	-8.94	1.46	1.59
23	AP	66	LEU	CA-C	-8.93	1.41	1.52
34	BA	1590	G	C1'-N9	-8.93	1.34	1.48
35	BB	1456	G	O3'-P	-8.93	1.47	1.61
36	BC	44	A	O3'-P	-8.93	1.47	1.61
34	BA	593	G	C5'-C4'	8.93	1.64	1.51
34	BA	1197	U	P-O5'	-8.93	1.46	1.59
35	BB	1204	C	O3'-P	-8.93	1.47	1.61
25	AR	48	GLY	CA-C	-8.93	1.40	1.51
35	BB	50	A	O3'-P	-8.93	1.47	1.61
40	BG	71	C	C1'-N1	-8.93	1.35	1.48
57	BX	82	PHE	CA-CB	8.93	1.68	1.53
34	BA	52	G	C1'-N9	-8.92	1.34	1.48
34	BA	71	G	O3'-P	-8.92	1.47	1.61
34	BA	182	U	P-O5'	-8.92	1.46	1.59
35	BB	487	A	C1'-N9	-8.92	1.34	1.48
35	BB	795	A	O3'-P	-8.92	1.47	1.61
36	BC	42	G	C1'-N9	-8.92	1.34	1.48
59	BZ	79	ILE	CA-C	-8.92	1.42	1.52
47	BN	124	TYR	CA-C	-8.91	1.41	1.52
35	BB	1282	G	P-O5'	-8.91	1.46	1.59
65	Bf	376	ARG	CD-NE	8.91	1.58	1.46
34	BA	996	U	C1'-N1	-8.91	1.35	1.48
35	BB	416	U	O3'-P	-8.91	1.47	1.61
36	BC	10	C	C2'-C1'	-8.91	1.40	1.53
34	BA	1699	A	C2'-C1'	-8.90	1.40	1.53
7	A6	48	LEU	CA-C	-8.90	1.41	1.52
34	BA	504	A	C1'-N9	-8.90	1.34	1.48
34	BA	1031	U	P-O5'	-8.90	1.46	1.59
34	BA	902	C	O3'-P	-8.90	1.47	1.61
35	BB	999	G	P-O5'	-8.89	1.46	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BC	95	A	C1'-N9	-8.89	1.34	1.48
85	AA	1225	C	O3'-P	-8.89	1.47	1.61
34	BA	498	A	O3'-P	-8.89	1.47	1.61
71	Bl	40	MET	CA-C	-8.89	1.41	1.52
85	AA	511	A	P-O5'	-8.89	1.46	1.59
36	BC	107	C	C2'-C1'	-8.89	1.40	1.53
38	BE	2	G	O3'-P	-8.89	1.47	1.61
85	AA	696	G	O3'-P	-8.89	1.47	1.61
85	AA	756	G	O3'-P	-8.89	1.47	1.61
34	BA	1202	G	P-O5'	-8.88	1.46	1.59
40	BG	108	G	C1'-N9	-8.88	1.34	1.48
35	BB	1424	G	O3'-P	-8.88	1.47	1.61
85	AA	1116	G	P-O5'	-8.88	1.46	1.59
85	AA	1230	U	P-O5'	-8.88	1.46	1.59
85	AA	1511	C	P-O5'	-8.88	1.46	1.59
34	BA	891	C	P-O5'	-8.87	1.46	1.59
85	AA	454	G	C1'-N9	-8.87	1.34	1.48
38	BE	162	U	P-O5'	-8.87	1.46	1.59
85	AA	10	G	O3'-P	-8.87	1.47	1.61
34	BA	1598	U	P-O5'	-8.87	1.46	1.59
80	Bu	172	ALA	CA-C	-8.86	1.41	1.52
85	AA	1471	G	P-O5'	-8.87	1.46	1.59
34	BA	96	G	O3'-P	-8.86	1.47	1.61
34	BA	782	C	C1'-N1	-8.86	1.35	1.48
77	Br	295	GLU	CA-C	-8.86	1.42	1.52
35	BB	441	G	C1'-N9	-8.86	1.34	1.48
85	AA	2131	C	P-O5'	-8.85	1.46	1.59
34	BA	1726	U	O3'-P	-8.85	1.47	1.61
34	BA	1550	G	P-O5'	-8.85	1.46	1.59
34	BA	1564	A	P-O5'	-8.85	1.46	1.59
35	BB	87	G	O3'-P	-8.85	1.47	1.61
85	AA	704	A	C1'-N9	-8.85	1.34	1.48
35	BB	1447	U	O3'-P	-8.84	1.47	1.61
85	AA	53	G	P-O5'	-8.84	1.46	1.59
41	BH	119	U	C1'-N1	-8.84	1.35	1.48
37	BD	106	G	P-O5'	-8.84	1.46	1.59
34	BA	1535	G	C1'-N9	-8.83	1.34	1.48
35	BB	642	G	O3'-P	-8.83	1.48	1.61
38	BE	141	A	O3'-P	-8.83	1.47	1.61
85	AA	862	U	P-O5'	-8.83	1.46	1.59
34	BA	1657	A	C1'-N9	-8.83	1.34	1.48
35	BB	697	G	P-O5'	-8.83	1.46	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1851	A	C1'-N9	-8.83	1.34	1.48
4	A3	37	VAL	CA-C	-8.83	1.42	1.52
35	BB	56	U	P-O5'	-8.83	1.46	1.59
85	AA	1119	A	O3'-P	-8.83	1.48	1.61
85	AA	2196	G	P-O5'	-8.83	1.46	1.59
24	AQ	75	ASP	CA-C	8.82	1.63	1.52
34	BA	608	G	O4'-C1'	-8.82	1.28	1.41
85	AA	1525	C	P-O5'	-8.82	1.46	1.59
40	BG	49	A	C1'-N9	-8.82	1.33	1.47
64	Be	131	GLY	CA-C	-8.82	1.39	1.51
34	BA	79	C	O3'-P	-8.82	1.48	1.61
85	AA	419	A	C1'-N9	-8.82	1.34	1.48
35	BB	690	C	P-O5'	-8.82	1.46	1.59
35	BB	1131	C	O3'-P	-8.81	1.48	1.61
35	BB	1371	G	O3'-P	-8.81	1.48	1.61
85	AA	755	G	P-O5'	-8.81	1.46	1.59
34	BA	1641	G	C3'-C2'	-8.81	1.39	1.52
35	BB	971	A	C1'-N9	-8.81	1.34	1.48
34	BA	421	G	P-O5'	-8.81	1.46	1.59
37	BD	3	G	C1'-N9	-8.81	1.34	1.48
65	Bf	211	ILE	CA-C	-8.81	1.41	1.52
35	BB	481	A	O3'-P	-8.81	1.48	1.61
58	BY	5	ASP	CA-C	-8.81	1.42	1.52
85	AA	917	A	C1'-N9	-8.81	1.34	1.48
34	BA	174	A	O3'-P	-8.81	1.48	1.61
34	BA	1052	G	O3'-P	-8.80	1.48	1.61
34	BA	1631	U	C4'-C3'	8.80	1.65	1.52
18	AJ	69	LEU	CA-C	-8.80	1.42	1.52
85	AA	2195	A	O3'-P	-8.80	1.48	1.61
34	BA	844	U	O3'-P	-8.80	1.48	1.61
74	Bo	79	VAL	CA-CB	-8.79	1.43	1.54
34	BA	103	G	C1'-N9	-8.79	1.34	1.48
38	BE	172	U	O3'-P	-8.79	1.48	1.61
34	BA	1549	U	O3'-P	-8.79	1.48	1.61
38	BE	26	G	C4'-O4'	-8.79	1.32	1.45
40	BG	181	C	O3'-P	-8.79	1.48	1.61
34	BA	366	G	C1'-N9	-8.79	1.34	1.48
34	BA	10	G	O3'-P	-8.78	1.48	1.61
35	BB	1218	G	C2'-C1'	-8.79	1.40	1.53
34	BA	301	U	O3'-P	-8.78	1.48	1.61
85	AA	1107	A	O3'-P	-8.78	1.48	1.61
36	BC	167	U	O3'-P	-8.78	1.48	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	169	G	P-O5'	-8.78	1.46	1.59
35	BB	1123	A	P-O5'	-8.78	1.46	1.59
38	BE	121	G	C1'-N9	-8.78	1.34	1.48
85	AA	1879	U	O3'-P	-8.78	1.48	1.61
85	AA	2062	U	O3'-P	-8.78	1.48	1.61
34	BA	593	G	O3'-P	-8.78	1.48	1.61
35	BB	130	G	O3'-P	-8.78	1.48	1.61
38	BE	5	A	O3'-P	-8.78	1.48	1.61
38	BE	28	C	O3'-P	-8.78	1.48	1.61
40	BG	176	G	O3'-P	-8.78	1.48	1.61
49	BP	14	ARG	CA-C	-8.78	1.42	1.52
35	BB	1171	U	O3'-P	-8.77	1.48	1.61
40	BG	35	G	C1'-N9	-8.77	1.34	1.48
40	BG	122	G	O3'-P	-8.77	1.48	1.61
34	BA	460	G	O3'-P	-8.77	1.48	1.61
85	AA	1831	U	P-O5'	-8.77	1.46	1.59
35	BB	1167	C	O3'-P	-8.77	1.48	1.61
85	AA	1669	G	P-O5'	-8.77	1.46	1.59
25	AR	51	ASP	N-CA	-8.76	1.34	1.45
39	BF	58	U	P-O5'	-8.76	1.46	1.59
34	BA	1069	U	C3'-C2'	-8.76	1.39	1.52
34	BA	1493	U	C5'-C4'	8.76	1.64	1.51
34	BA	941	G	C1'-N9	-8.76	1.34	1.48
34	BA	856	G	C2'-C1'	-8.76	1.40	1.53
35	BB	39	C	O3'-P	-8.76	1.48	1.61
35	BB	121	A	P-O5'	-8.76	1.46	1.59
38	BE	114	G	C1'-N9	-8.76	1.34	1.48
34	BA	1519	G	C1'-N9	-8.75	1.34	1.48
85	AA	1598	A	O3'-P	-8.75	1.48	1.61
34	BA	501	U	C1'-N1	8.75	1.61	1.48
35	BB	1312	U	C1'-N1	-8.75	1.35	1.48
35	BB	81	A	P-O5'	-8.74	1.46	1.59
34	BA	316	G	C1'-N9	-8.74	1.34	1.48
34	BA	1612	C	O3'-P	-8.74	1.48	1.61
34	BA	1796	A	O3'-P	-8.74	1.48	1.61
85	AA	1548	A	O3'-P	-8.74	1.48	1.61
34	BA	590	U	P-O5'	-8.74	1.46	1.59
37	BD	93	G	P-O5'	-8.74	1.46	1.59
79	Bt	39	GLY	CA-C	-8.74	1.42	1.52
85	AA	1209	U	O3'-P	-8.74	1.48	1.61
34	BA	1658	G	P-O5'	-8.74	1.46	1.59
34	BA	10	G	C1'-N9	-8.73	1.34	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	280	A	P-O5'	-8.73	1.46	1.59
35	BB	1342	C	C1'-N1	-8.73	1.35	1.48
35	BB	1377	A	C1'-N9	-8.73	1.34	1.48
85	AA	485	A	C1'-N9	-8.73	1.34	1.48
85	AA	498	C	O3'-P	-8.73	1.48	1.61
85	AA	575	G	C1'-N9	-8.73	1.34	1.48
34	BA	1252	G	O3'-P	-8.73	1.48	1.61
35	BB	392	G	C1'-N9	-8.73	1.34	1.48
85	AA	866	U	C2'-C1'	-8.73	1.40	1.53
23	AP	61	LEU	CA-C	-8.73	1.41	1.52
36	BC	102	G	O3'-P	-8.73	1.48	1.61
35	BB	1350	A	O3'-P	-8.72	1.48	1.61
36	BC	3	C	C2'-C1'	-8.72	1.40	1.53
38	BE	136	G	C4'-O4'	-8.72	1.32	1.45
85	AA	454	G	O3'-P	-8.72	1.48	1.61
34	BA	1809	G	P-O5'	-8.72	1.46	1.59
34	BA	788	C	O3'-P	-8.72	1.48	1.61
35	BB	630	A	O3'-P	-8.72	1.48	1.61
35	BB	1038	G	O3'-P	-8.72	1.48	1.61
34	BA	221	G	P-O5'	-8.72	1.46	1.59
36	BC	97	U	O3'-P	-8.72	1.48	1.61
85	AA	370	A	O3'-P	-8.72	1.48	1.61
74	Bo	54	ILE	CA-C	-8.72	1.41	1.52
34	BA	1143	U	O3'-P	-8.71	1.48	1.61
35	BB	1310	C	O3'-P	-8.71	1.48	1.61
40	BG	105	A	C1'-N9	-8.71	1.34	1.48
34	BA	474	A	C1'-N9	-8.71	1.34	1.48
34	BA	1018	U	O3'-P	-8.71	1.48	1.61
34	BA	1269	C	O3'-P	-8.71	1.48	1.61
35	BB	21	C	P-O5'	-8.71	1.46	1.59
85	AA	1287	C	O3'-P	-8.71	1.48	1.61
85	AA	1885	A	C1'-N9	-8.71	1.34	1.48
34	BA	20	A	C1'-N9	-8.70	1.34	1.48
35	BB	587	A	C1'-N9	-8.71	1.34	1.48
35	BB	687	C	C1'-N1	-8.71	1.35	1.48
41	BH	36	C	P-O5'	-8.71	1.46	1.59
35	BB	1240	A	O3'-P	-8.70	1.48	1.61
85	AA	1455	C	C2'-C1'	-8.70	1.40	1.53
34	BA	417	A	O3'-P	-8.70	1.48	1.61
35	BB	1286	G	O3'-P	-8.70	1.48	1.61
34	BA	301	U	C2'-C1'	-8.70	1.40	1.53
34	BA	819	G	C1'-N9	-8.70	1.34	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1730	A	C5'-C4'	8.70	1.64	1.51
85	AA	1147	A	C1'-N9	-8.70	1.33	1.47
85	AA	1699	A	P-O5'	-8.70	1.46	1.59
39	BF	16	C	C5'-C4'	8.70	1.64	1.51
35	BB	1339	C	P-O5'	-8.69	1.46	1.59
34	BA	34	U	O3'-P	-8.69	1.48	1.61
65	Bf	93	HIS	CA-C	-8.69	1.41	1.52
34	BA	420	A	O3'-P	-8.69	1.48	1.61
35	BB	413	A	O3'-P	-8.69	1.48	1.61
34	BA	592	G	C4'-C3'	8.69	1.65	1.52
34	BA	1545	C	P-O5'	-8.69	1.46	1.59
35	BB	101	U	P-O5'	-8.69	1.46	1.59
35	BB	133	G	C1'-N9	-8.69	1.34	1.48
5	A4	40	ARG	CA-C	-8.68	1.45	1.52
34	BA	128	C	O3'-P	-8.68	1.48	1.61
34	BA	609	G	C2'-C1'	-8.68	1.40	1.53
34	BA	1845	G	O3'-P	-8.68	1.48	1.61
13	AE	113	TYR	CA-C	-8.68	1.41	1.52
34	BA	383	G	O3'-P	-8.68	1.48	1.61
35	BB	1135	U	O3'-P	-8.68	1.48	1.61
85	AA	1098	C	O3'-P	-8.68	1.48	1.61
35	BB	1052	G	C1'-N9	-8.68	1.34	1.48
34	BA	1287	G	C1'-N9	-8.68	1.34	1.48
35	BB	512	C	P-O5'	-8.68	1.46	1.59
49	BP	64	SER	CA-C	-8.68	1.42	1.52
85	AA	315	U	O3'-P	-8.68	1.48	1.61
36	BC	98	C	P-O5'	-8.67	1.46	1.59
62	Bc	69	THR	CA-C	-8.67	1.41	1.52
85	AA	100	A	P-O5'	-8.67	1.46	1.59
85	AA	1703	A	P-O5'	-8.67	1.46	1.59
2	A1	237	PRO	CA-C	-8.66	1.43	1.52
34	BA	876	C	O3'-P	-8.66	1.48	1.61
35	BB	85	A	O3'-P	-8.66	1.48	1.61
36	BC	108	A	P-O5'	-8.66	1.46	1.59
35	BB	119	G	O3'-P	-8.66	1.48	1.61
36	BC	110	A	O3'-P	-8.66	1.48	1.61
37	BD	8	A	P-O5'	-8.66	1.46	1.59
39	BF	56	C	P-O5'	-8.66	1.46	1.59
34	BA	1710	C	P-O5'	-8.66	1.46	1.59
35	BB	60	A	C1'-N9	-8.66	1.33	1.47
35	BB	505	G	C1'-N9	-8.66	1.34	1.48
11	AC	219	LEU	CA-C	-8.65	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	62	A	C1'-N9	-8.65	1.34	1.48
61	Bb	10	HIS	CA-C	-8.65	1.40	1.52
85	AA	1499	G	P-O5'	-8.65	1.46	1.59
38	BE	20	C	C2'-C1'	-8.65	1.40	1.53
42	BI	26	ILE	CA-CB	-8.65	1.43	1.54
85	AA	699	U	P-O5'	-8.65	1.46	1.59
85	AA	2203	C	C2'-C1'	-8.65	1.40	1.53
34	BA	517	A	O3'-P	-8.65	1.48	1.61
34	BA	1025	A	C1'-N9	-8.65	1.34	1.48
34	BA	1686	G	C1'-N9	-8.65	1.34	1.48
40	BG	39	A	C1'-N9	-8.65	1.33	1.47
85	AA	879	G	C2'-C1'	-8.65	1.40	1.53
35	BB	492	U	P-O5'	-8.64	1.46	1.59
85	AA	2107	C	P-O5'	-8.64	1.46	1.59
60	Ba	97	ASN	CA-C	-8.64	1.42	1.52
85	AA	1454	U	P-O5'	-8.64	1.46	1.59
80	Bu	37	VAL	CA-C	-8.64	1.41	1.52
6	A5	199	ASP	CA-C	-8.64	1.41	1.52
34	BA	888	G	C1'-N9	-8.63	1.34	1.48
85	AA	1149	A	C1'-N9	-8.63	1.34	1.48
85	AA	450	A	C1'-N9	-8.63	1.35	1.48
34	BA	1836	A	C1'-N9	-8.63	1.35	1.48
35	BB	50	A	P-O5'	-8.63	1.46	1.59
85	AA	1502	A	C1'-N9	-8.63	1.35	1.48
40	BG	9	G	C3'-O3'	-8.63	1.29	1.42
34	BA	1221	A	C1'-N9	-8.63	1.35	1.48
34	BA	1680	G	O3'-P	-8.62	1.48	1.61
35	BB	458	U	P-O5'	-8.62	1.46	1.59
35	BB	464	C	O3'-P	-8.62	1.48	1.61
39	BF	73	U	P-O5'	-8.62	1.46	1.59
40	BG	105	A	P-O5'	-8.62	1.46	1.59
63	Bd	36	GLY	C-N	8.62	1.46	1.33
34	BA	1000	G	C1'-N9	-8.62	1.35	1.48
34	BA	1220	C	O3'-P	-8.62	1.48	1.61
41	BH	45	G	P-O5'	-8.62	1.46	1.59
83	Bx	97	ARG	CA-C	-8.62	1.41	1.52
40	BG	38	A	O3'-P	-8.62	1.48	1.61
66	Bg	103	ILE	CA-C	-8.62	1.42	1.52
35	BB	1278	A	C1'-N9	-8.62	1.35	1.48
82	Bw	211	ARG	CA-C	-8.62	1.41	1.52
34	BA	1177	C	C2'-C1'	-8.61	1.40	1.53
35	BB	127	U	C1'-N1	-8.61	1.35	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	323	U	P-O5'	-8.62	1.46	1.59
85	AA	447	C	O3'-P	-8.61	1.48	1.61
85	AA	2174	G	C2'-C1'	-8.61	1.40	1.53
34	BA	95	C	O3'-P	-8.61	1.48	1.61
34	BA	938	C	C3'-C2'	-8.61	1.39	1.52
35	BB	586	U	P-O5'	-8.61	1.46	1.59
36	BC	100	U	P-O5'	-8.61	1.46	1.59
85	AA	49	C	P-O5'	-8.61	1.46	1.59
34	BA	1250	C	C1'-N1	-8.61	1.35	1.48
34	BA	1816	G	C1'-N9	-8.61	1.34	1.47
35	BB	1403	G	O3'-P	-8.61	1.48	1.61
85	AA	1198	U	O3'-P	-8.61	1.48	1.61
65	Bf	93	HIS	N-CA	-8.60	1.35	1.46
34	BA	707	C	O3'-P	-8.60	1.48	1.61
34	BA	1001	G	O3'-P	-8.60	1.48	1.61
85	AA	2142	A	C1'-N9	-8.60	1.35	1.48
34	BA	801	U	P-O5'	-8.60	1.46	1.59
34	BA	1631	U	C5'-C4'	8.60	1.64	1.51
35	BB	1094	A	C1'-N9	-8.60	1.35	1.48
85	AA	1182	A	C2'-C1'	-8.60	1.40	1.53
34	BA	906	A	P-O5'	-8.60	1.46	1.59
35	BB	1235	A	O3'-P	-8.60	1.48	1.61
38	BE	89	G	C1'-N9	-8.60	1.35	1.48
34	BA	1288	U	C1'-N1	-8.59	1.35	1.48
35	BB	18	A	O3'-P	-8.59	1.48	1.61
35	BB	1134	G	P-O5'	-8.59	1.46	1.59
34	BA	962	U	O3'-P	-8.59	1.48	1.61
42	BI	47	LEU	CA-C	-8.59	1.42	1.52
68	Bi	109	ILE	CA-C	-8.59	1.41	1.52
85	AA	1480	C	O3'-P	-8.59	1.48	1.61
35	BB	638	G	P-O5'	-8.59	1.46	1.59
34	BA	1527	G	O3'-P	-8.58	1.48	1.61
42	BI	115	SER	CA-C	-8.58	1.42	1.52
40	BG	109	C	P-O5'	-8.58	1.46	1.59
34	BA	1003	A	C3'-C2'	-8.58	1.39	1.52
85	AA	700	U	O3'-P	-8.58	1.48	1.61
34	BA	105	U	P-O5'	-8.58	1.46	1.59
34	BA	1331	G	C1'-N9	-8.58	1.35	1.48
85	AA	1116	G	O3'-P	-8.58	1.48	1.61
35	BB	828	G	C1'-N9	-8.58	1.35	1.48
34	BA	556	A	C3'-O3'	8.57	1.55	1.42
36	BC	38	U	O3'-P	-8.57	1.48	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	224	G	O3'-P	-8.57	1.48	1.61
36	BC	42	G	P-O5'	-8.57	1.46	1.59
34	BA	651	U	C2'-C1'	-8.57	1.40	1.53
38	BE	118	C	O3'-P	-8.57	1.48	1.61
34	BA	523	A	C1'-N9	-8.56	1.35	1.48
34	BA	1208	U	C1'-N1	-8.56	1.34	1.47
34	BA	895	U	O3'-P	-8.56	1.48	1.61
35	BB	778	A	P-O5'	-8.56	1.47	1.59
38	BE	50	G	C1'-N9	-8.56	1.35	1.48
85	AA	470	C	C1'-N1	-8.56	1.35	1.48
85	AA	1282	A	O3'-P	-8.56	1.48	1.61
34	BA	10	G	P-O5'	-8.56	1.47	1.59
34	BA	909	G	C1'-N9	-8.56	1.35	1.48
85	AA	21	U	O3'-P	-8.56	1.48	1.61
85	AA	1228	A	C2'-C1'	-8.56	1.40	1.53
34	BA	999	G	O3'-P	-8.55	1.48	1.61
34	BA	1002	U	C3'-C2'	-8.55	1.40	1.52
52	BS	127	GLY	CA-C	-8.56	1.39	1.51
85	AA	2083	G	O3'-P	-8.56	1.48	1.61
83	Bx	159	LYS	CA-C	-8.55	1.42	1.53
85	AA	1197	U	P-O5'	-8.55	1.47	1.59
34	BA	886	G	O3'-P	-8.55	1.48	1.61
35	BB	1156	U	P-O5'	-8.55	1.47	1.59
56	BW	94	VAL	CA-C	-8.55	1.43	1.52
74	Bo	79	VAL	N-CA	-8.55	1.36	1.46
34	BA	910	U	O3'-P	-8.55	1.48	1.61
34	BA	934	G	O3'-P	-8.55	1.48	1.61
40	BG	129	G	C1'-N9	-8.55	1.35	1.48
51	BR	51	VAL	CA-C	-8.55	1.42	1.52
85	AA	889	G	P-O5'	-8.55	1.47	1.59
85	AA	1483	A	C1'-N9	-8.55	1.35	1.48
85	AA	1924	C	P-O5'	-8.54	1.47	1.59
85	AA	2149	C	C2'-C1'	-8.54	1.40	1.53
35	BB	815	G	C1'-N9	-8.54	1.35	1.48
35	BB	1369	A	O3'-P	-8.54	1.48	1.61
36	BC	43	A	C3'-C2'	-8.54	1.40	1.52
61	Bb	132	LYS	N-CA	-8.54	1.35	1.46
34	BA	1251	A	C1'-N9	-8.54	1.35	1.48
34	BA	1609	U	P-O5'	-8.53	1.47	1.59
34	BA	1668	C	P-O5'	-8.54	1.47	1.59
37	BD	34	C	P-O5'	-8.53	1.47	1.59
66	Bg	62	ILE	CA-C	-8.53	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	972	C	O3'-P	-8.53	1.48	1.61
35	BB	606	C	O3'-P	-8.53	1.48	1.61
85	AA	2199	G	C2'-C1'	-8.53	1.40	1.53
35	BB	441	G	O3'-P	-8.53	1.48	1.61
72	Bm	100	GLU	CA-C	-8.53	1.41	1.52
80	Bu	31	HIS	CA-C	-8.53	1.41	1.52
38	BE	175	U	O3'-P	-8.53	1.48	1.61
34	BA	1329	U	P-O5'	-8.53	1.47	1.59
82	Bw	210	PHE	N-CA	-8.52	1.36	1.46
34	BA	1166	A	C1'-N9	-8.52	1.35	1.48
38	BE	23	G	C1'-N9	-8.52	1.35	1.48
34	BA	896	U	C2'-C1'	8.52	1.66	1.53
35	BB	120	C	O3'-P	-8.52	1.48	1.61
40	BG	103	C	P-O5'	-8.52	1.47	1.59
85	AA	471	U	O3'-P	-8.52	1.48	1.61
34	BA	782	C	C2'-C1'	-8.52	1.40	1.53
35	BB	1490	G	C2'-C1'	-8.52	1.40	1.53
85	AA	47	A	O3'-P	-8.52	1.48	1.61
34	BA	997	U	O3'-P	-8.51	1.48	1.61
85	AA	2127	G	C1'-N9	-8.51	1.35	1.48
34	BA	437	G	O3'-P	-8.51	1.48	1.61
34	BA	1832	A	O3'-P	-8.51	1.48	1.61
85	AA	1911	A	O3'-P	-8.51	1.48	1.61
35	BB	1307	C	O3'-P	-8.50	1.48	1.61
85	AA	519	A	C1'-N9	-8.50	1.35	1.48
2	A1	163	GLU	CA-C	-8.50	1.42	1.52
35	BB	1182	A	C1'-N9	-8.50	1.35	1.48
40	BG	55	A	C1'-N9	-8.50	1.35	1.48
66	Bg	38	THR	CA-C	-8.50	1.42	1.52
85	AA	2139	G	O3'-P	-8.50	1.48	1.61
34	BA	696	A	C1'-N9	-8.49	1.35	1.48
34	BA	966	G	C1'-N9	-8.49	1.35	1.48
34	BA	1587	C	O3'-P	-8.49	1.48	1.61
35	BB	1019	C	C1'-N1	-8.49	1.35	1.48
35	BB	810	G	C1'-N9	-8.49	1.35	1.48
4	A3	75	SER	CA-C	-8.49	1.42	1.52
34	BA	237	A	C1'-N9	-8.49	1.35	1.48
34	BA	1323	G	P-O5'	-8.49	1.47	1.59
39	BF	25	G	O3'-P	-8.49	1.48	1.61
85	AA	935	A	P-O5'	-8.49	1.47	1.59
85	AA	1489	G	O3'-P	-8.49	1.48	1.61
37	BD	36	C	C1'-N1	-8.48	1.35	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	490	A	C1'-N9	-8.48	1.35	1.48
34	BA	1272	U	O3'-P	-8.48	1.48	1.61
35	BB	1342	C	C4'-C3'	-8.48	1.39	1.52
38	BE	91	G	P-O5'	-8.48	1.47	1.59
6	A5	201	ALA	CA-C	-8.48	1.42	1.52
35	BB	832	C	P-O5'	-8.48	1.47	1.59
35	BB	1331	U	O3'-P	-8.48	1.48	1.61
40	BG	70	C	C1'-N1	-8.48	1.35	1.48
85	AA	974	U	C5'-C4'	8.48	1.64	1.51
85	AA	1867	G	O3'-P	-8.48	1.48	1.61
85	AA	438	G	C1'-N9	-8.48	1.35	1.48
36	BC	17	U	P-O5'	-8.47	1.47	1.59
81	Bv	81	ILE	CA-C	-8.47	1.42	1.52
80	Bu	76	MET	CA-C	-8.47	1.42	1.52
85	AA	251	A	P-O5'	-8.47	1.47	1.59
85	AA	2072	G	C1'-N9	-8.47	1.35	1.48
34	BA	191	G	O3'-P	-8.46	1.48	1.61
34	BA	1270	G	O3'-P	-8.47	1.48	1.61
35	BB	491	A	O3'-P	-8.46	1.48	1.61
39	BF	34	C	C1'-N1	-8.46	1.35	1.48
65	Bf	195	LEU	CA-C	-8.46	1.43	1.53
85	AA	789	A	C5'-C4'	8.46	1.64	1.51
35	BB	782	A	P-O5'	-8.46	1.47	1.59
34	BA	1321	A	C2'-C1'	-8.46	1.40	1.53
85	AA	2054	G	P-O5'	-8.46	1.47	1.59
34	BA	1556	A	P-O5'	-8.46	1.47	1.59
34	BA	794	G	C1'-N9	-8.46	1.35	1.48
35	BB	430	A	C1'-N9	-8.46	1.35	1.48
35	BB	798	A	C2'-C1'	-8.46	1.40	1.53
35	BB	824	C	C2'-C1'	-8.46	1.40	1.53
38	BE	48	G	P-O5'	-8.45	1.47	1.59
34	BA	1694	C	O3'-P	-8.45	1.48	1.61
35	BB	1153	G	O3'-P	-8.45	1.48	1.61
41	BH	39	G	C1'-N9	-8.45	1.35	1.48
85	AA	420	C	P-O5'	-8.45	1.47	1.59
85	AA	941	C	O3'-P	-8.45	1.48	1.61
35	BB	1080	U	O3'-P	-8.44	1.48	1.61
85	AA	403	G	C1'-N9	-8.44	1.35	1.48
34	BA	1011	G	C1'-N9	-8.44	1.35	1.48
41	BH	6	U	P-O5'	-8.44	1.47	1.59
34	BA	972	C	P-O5'	-8.44	1.47	1.59
25	AR	14	VAL	N-CA	-8.43	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	AS	17	ARG	CA-C	-8.43	1.42	1.52
36	BC	65	G	C1'-N9	-8.43	1.35	1.48
54	BU	64	VAL	CA-C	-8.43	1.43	1.52
65	Bf	139	GLY	CA-C	-8.43	1.42	1.51
85	AA	1496	U	C1'-N1	-8.43	1.35	1.48
34	BA	1461	A	P-O5'	-8.43	1.47	1.59
36	BC	101	U	C2'-C1'	-8.43	1.40	1.53
34	BA	1709	A	C3'-C2'	-8.43	1.40	1.52
36	BC	116	C	P-O5'	-8.43	1.47	1.59
85	AA	446	C	O3'-P	-8.43	1.48	1.61
85	AA	967	C	P-O5'	-8.43	1.47	1.59
34	BA	1654	G	C1'-N9	-8.42	1.35	1.48
35	BB	1025	A	O5'-C5'	8.42	1.55	1.42
34	BA	1499	A	P-O5'	-8.42	1.47	1.59
85	AA	766	G	O3'-P	-8.42	1.48	1.61
35	BB	440	U	C3'-C2'	-8.42	1.40	1.52
50	BQ	92	VAL	CA-C	-8.42	1.42	1.52
85	AA	1104	G	P-O5'	-8.42	1.47	1.59
39	BF	15	U	O3'-P	-8.41	1.48	1.61
35	BB	1063	C	O3'-P	-8.41	1.48	1.61
34	BA	8	G	P-O5'	-8.41	1.47	1.59
34	BA	290	G	C1'-N9	-8.41	1.35	1.48
58	BY	13	VAL	CA-C	-8.41	1.42	1.52
85	AA	267	U	C1'-N1	8.41	1.61	1.48
37	BD	25	G	P-O5'	-8.41	1.47	1.59
34	BA	748	C	P-O5'	-8.41	1.47	1.59
34	BA	777	C	O3'-P	-8.41	1.48	1.61
34	BA	1597	G	C1'-N9	-8.41	1.34	1.47
34	BA	1166	A	O3'-P	-8.40	1.48	1.61
34	BA	267	G	C1'-N9	-8.40	1.35	1.48
85	AA	1292	A	O3'-P	-8.40	1.48	1.61
34	BA	246	G	O3'-P	-8.40	1.48	1.61
34	BA	1190	A	C2'-C1'	-8.40	1.40	1.53
34	BA	1786	C	P-O5'	-8.40	1.47	1.59
35	BB	398	A	C1'-N9	-8.40	1.35	1.48
34	BA	1591	G	P-O5'	-8.40	1.47	1.59
80	Bu	194	ASP	N-CA	-8.40	1.35	1.46
34	BA	8	G	C1'-N9	-8.40	1.35	1.48
35	BB	612	A	C1'-N9	-8.40	1.35	1.48
38	BE	26	G	O3'-P	-8.40	1.48	1.61
85	AA	479	C	P-O5'	-8.40	1.47	1.59
85	AA	2143	U	P-O5'	-8.40	1.47	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1168	G	P-O5'	-8.39	1.47	1.59
40	BG	178	G	O3'-P	-8.39	1.48	1.61
34	BA	10	G	C3'-C2'	-8.39	1.40	1.52
35	BB	44	C	C1'-N1	-8.39	1.35	1.48
35	BB	1441	C	O3'-P	-8.39	1.48	1.61
35	BB	66	G	O3'-P	-8.39	1.48	1.61
35	BB	1036	G	O3'-P	-8.39	1.48	1.61
35	BB	1103	A	C1'-N9	-8.39	1.34	1.47
35	BB	1367	U	O3'-P	-8.39	1.48	1.61
85	AA	34	G	O3'-P	-8.39	1.48	1.61
85	AA	2172	A	O3'-P	-8.39	1.48	1.61
34	BA	711	C	C5'-C4'	8.38	1.64	1.51
35	BB	1207	C	O3'-P	-8.39	1.48	1.61
38	BE	101	C	C3'-C2'	-8.39	1.40	1.52
85	AA	1264	U	O3'-P	-8.38	1.48	1.61
34	BA	4	A	C1'-N9	-8.38	1.35	1.48
34	BA	984	U	C1'-N1	-8.38	1.35	1.48
35	BB	1211	C	P-O5'	-8.38	1.47	1.59
39	BF	53	G	O3'-P	-8.38	1.48	1.61
77	Br	35	VAL	CA-C	-8.38	1.42	1.52
85	AA	771	A	O3'-P	-8.38	1.48	1.61
34	BA	901	C	C1'-N1	-8.38	1.35	1.48
38	BE	40	C	O3'-P	-8.37	1.48	1.61
85	AA	645	C	O3'-P	-8.37	1.48	1.61
34	BA	1687	A	C1'-N9	-8.37	1.35	1.48
74	Bo	82	THR	CA-C	-8.37	1.42	1.52
34	BA	1295	U	C1'-N1	-8.37	1.34	1.47
34	BA	1640	G	C1'-N9	-8.37	1.35	1.48
35	BB	1320	U	P-O5'	-8.37	1.47	1.59
38	BE	60	C	O3'-P	-8.37	1.48	1.61
38	BE	200	A	C2'-C1'	-8.37	1.40	1.53
40	BG	89	A	O3'-P	-8.37	1.48	1.61
71	Bl	140	ILE	CA-C	-8.37	1.42	1.52
85	AA	768	C	O3'-P	-8.37	1.48	1.61
34	BA	504	A	O3'-P	-8.37	1.48	1.61
35	BB	501	G	C1'-N9	-8.37	1.35	1.48
34	BA	1189	A	P-O5'	-8.36	1.47	1.59
34	BA	1322	A	C2'-C1'	-8.36	1.40	1.53
34	BA	1573	C	C1'-N1	-8.36	1.35	1.48
35	BB	1316	U	O3'-P	-8.36	1.48	1.61
35	BB	1363	A	O3'-P	-8.37	1.48	1.61
39	BF	9	C	P-O5'	-8.37	1.47	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BG	140	G	O3'-P	-8.37	1.48	1.61
85	AA	119	G	C2'-C1'	-8.36	1.40	1.53
34	BA	780	U	C5'-C4'	8.36	1.63	1.51
34	BA	370	U	O3'-P	-8.36	1.48	1.61
34	BA	1674	G	O3'-P	-8.36	1.48	1.61
34	BA	352	G	O3'-P	-8.36	1.48	1.61
34	BA	810	A	C1'-N9	-8.36	1.35	1.48
35	BB	633	C	O3'-P	-8.36	1.48	1.61
35	BB	1243	A	C1'-N9	-8.36	1.35	1.48
83	Bx	156	ILE	CA-C	-8.36	1.42	1.52
85	AA	2086	C	O3'-P	-8.36	1.48	1.61
34	BA	1110	A	C1'-N9	-8.35	1.35	1.48
37	BD	47	U	O3'-P	-8.35	1.48	1.61
34	BA	362	G	C1'-N9	-8.35	1.35	1.48
35	BB	1376	G	P-O5'	-8.35	1.47	1.59
68	Bi	19	THR	CA-C	-8.35	1.41	1.53
84	By	87	ARG	CA-C	-8.35	1.43	1.52
85	AA	457	G	C1'-N9	-8.35	1.35	1.48
35	BB	506	G	C1'-N9	-8.34	1.35	1.48
35	BB	630	A	C4'-C3'	-8.34	1.40	1.52
85	AA	63	G	O3'-P	-8.34	1.48	1.61
85	AA	816	A	C1'-N9	8.34	1.60	1.48
40	BG	22	G	P-O5'	-8.34	1.47	1.59
34	BA	1485	U	O3'-P	-8.34	1.48	1.61
36	BC	44	A	C1'-N9	-8.34	1.35	1.48
40	BG	15	G	O3'-P	-8.34	1.48	1.61
42	BI	121	THR	CA-C	-8.34	1.42	1.52
65	Bf	404	THR	CA-C	-8.34	1.44	1.52
85	AA	190	A	C1'-N9	-8.34	1.35	1.48
85	AA	687	G	P-O5'	-8.34	1.47	1.59
34	BA	949	C	O3'-P	-8.34	1.48	1.61
35	BB	1054	G	O3'-P	-8.34	1.48	1.61
35	BB	1398	A	C1'-N9	-8.34	1.35	1.48
86	AB	68	C	P-O5'	-8.34	1.47	1.59
6	A5	97	VAL	CA-C	-8.33	1.43	1.52
34	BA	80	U	O3'-P	-8.33	1.48	1.61
34	BA	705	C	P-O5'	-8.33	1.47	1.59
38	BE	23	G	P-O5'	-8.33	1.47	1.59
38	BE	201	A	P-O5'	-8.33	1.47	1.59
85	AA	1730	C	O3'-P	-8.33	1.48	1.61
34	BA	939	C	P-O5'	-8.33	1.47	1.59
35	BB	1427	A	O3'-P	-8.33	1.48	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
79	Bt	67	LYS	CA-C	-8.33	1.41	1.52
85	AA	172	A	C1'-N9	-8.33	1.35	1.48
75	Bp	27	HIS	CA-C	-8.33	1.42	1.52
36	BC	107	C	P-O5'	-8.33	1.47	1.59
34	BA	273	G	C1'-N9	-8.32	1.35	1.48
38	BE	18	U	P-O5'	-8.32	1.47	1.59
85	AA	2096	G	P-O5'	-8.32	1.47	1.59
34	BA	28	C	O3'-P	-8.32	1.48	1.61
34	BA	113	G	C3'-C2'	-8.32	1.40	1.52
34	BA	1418	G	P-O5'	-8.32	1.47	1.59
34	BA	1639	U	P-O5'	-8.32	1.47	1.59
38	BE	34	C	C2'-C1'	-8.32	1.40	1.53
65	Bf	362	THR	CA-C	-8.32	1.42	1.52
34	BA	902	C	C1'-N1	-8.32	1.35	1.48
34	BA	1335	A	O3'-P	-8.32	1.48	1.61
34	BA	1639	U	O3'-P	-8.32	1.48	1.61
36	BC	9	G	C2'-C1'	-8.32	1.40	1.53
35	BB	1024	G	P-O5'	-8.32	1.47	1.59
47	BN	84	GLU	CA-C	-8.32	1.42	1.52
85	AA	384	C	O3'-P	-8.31	1.48	1.61
85	AA	1871	U	P-O5'	-8.31	1.47	1.59
2	A1	133	ILE	CA-C	-8.31	1.44	1.52
20	AL	103	LYS	CA-C	-8.31	1.42	1.52
35	BB	1079	G	C1'-N9	-8.31	1.35	1.48
42	BI	128	LEU	CA-C	-8.31	1.42	1.52
7	A6	46	MET	CA-C	-8.31	1.42	1.52
34	BA	1003	A	P-O5'	-8.31	1.47	1.59
44	BK	87	MET	CA-C	-8.31	1.42	1.52
85	AA	505	U	P-O5'	-8.31	1.47	1.59
85	AA	2185	U	C2'-C1'	-8.31	1.40	1.53
34	BA	1599	A	P-O5'	-8.30	1.47	1.59
36	BC	4	G	O3'-P	-8.30	1.48	1.61
85	AA	422	G	P-O5'	-8.30	1.47	1.59
85	AA	882	C	O3'-P	-8.30	1.48	1.61
34	BA	1103	G	C1'-N9	-8.30	1.35	1.48
34	BA	1790	U	C1'-N1	-8.30	1.35	1.48
53	BT	100	ARG	N-CA	-8.30	1.35	1.46
85	AA	1235	G	P-O5'	-8.30	1.47	1.59
85	AA	1682	U	O3'-P	-8.30	1.48	1.61
34	BA	336	A	O3'-P	-8.30	1.48	1.61
34	BA	961	C	C2'-C1'	-8.30	1.41	1.53
34	BA	1502	G	C1'-N9	-8.30	1.35	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1166	A	C1'-N9	-8.30	1.35	1.48
15	AG	75	LEU	CA-C	-8.30	1.42	1.52
39	BF	11	C	O5'-C5'	8.30	1.55	1.42
85	AA	1539	A	C1'-N9	-8.30	1.35	1.48
34	BA	1220	C	C1'-N1	-8.29	1.36	1.48
85	AA	504	U	C1'-N1	-8.29	1.35	1.47
35	BB	824	C	P-O5'	-8.29	1.47	1.59
36	BC	3	C	P-O5'	-8.29	1.47	1.59
66	Bg	41	SER	CA-C	-8.29	1.42	1.52
85	AA	450	A	P-O5'	-8.29	1.47	1.59
34	BA	1411	C	O3'-P	-8.29	1.48	1.61
34	BA	1656	A	P-O5'	-8.29	1.47	1.59
82	Bw	3	MET	CA-C	-8.29	1.45	1.52
35	BB	17	U	P-O5'	-8.29	1.47	1.59
35	BB	1053	G	C1'-N9	-8.29	1.34	1.47
40	BG	123	C	P-O5'	-8.29	1.47	1.59
85	AA	1486	G	C2'-C1'	-8.29	1.41	1.53
34	BA	478	G	C2'-C1'	-8.28	1.41	1.53
34	BA	618	G	P-O5'	-8.29	1.47	1.59
34	BA	988	U	P-O5'	-8.29	1.47	1.59
36	BC	41	A	C1'-N9	-8.29	1.35	1.48
40	BG	149	U	O3'-P	-8.29	1.48	1.61
38	BE	117	A	C4'-O4'	-8.28	1.33	1.45
40	BG	30	C	O3'-P	-8.28	1.48	1.61
64	Be	148	LEU	CA-C	-8.29	1.42	1.52
85	AA	1252	A	O3'-P	-8.29	1.48	1.61
36	BC	55	U	O3'-P	-8.28	1.48	1.61
36	BC	55	U	C2'-C1'	-8.28	1.41	1.53
34	BA	426	A	O3'-P	-8.28	1.48	1.61
47	BN	113	GLY	CA-C	-8.28	1.42	1.52
34	BA	1095	G	P-O5'	-8.28	1.47	1.59
35	BB	479	U	O3'-P	-8.28	1.48	1.61
85	AA	70	U	O3'-P	-8.28	1.48	1.61
4	A3	96	ARG	CA-C	-8.28	1.42	1.52
47	BN	34	PRO	CA-C	-8.28	1.40	1.52
35	BB	456	A	C1'-N9	-8.28	1.35	1.48
41	BH	45	G	C1'-N9	-8.28	1.35	1.48
85	AA	404	A	O3'-P	-8.28	1.48	1.61
85	AA	362	G	O3'-P	-8.27	1.48	1.61
34	BA	1165	A	C1'-N9	-8.27	1.35	1.48
35	BB	702	G	C1'-N9	-8.27	1.35	1.48
35	BB	1461	C	C2'-C1'	-8.27	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	BZ	103	ILE	CA-C	-8.27	1.43	1.52
34	BA	238	C	P-O5'	-8.27	1.47	1.59
71	Bl	80	VAL	CA-C	-8.27	1.42	1.52
85	AA	363	A	O3'-P	-8.27	1.48	1.61
85	AA	644	A	C1'-N9	-8.27	1.35	1.48
34	BA	1429	A	P-O5'	-8.27	1.47	1.59
35	BB	805	G	C4'-C3'	-8.27	1.40	1.52
41	BH	119	U	O4'-C1'	-8.27	1.29	1.41
40	BG	24	A	C3'-O3'	-8.27	1.30	1.43
35	BB	836	U	O3'-P	-8.26	1.48	1.61
85	AA	364	C	P-O5'	-8.26	1.47	1.59
85	AA	1490	A	C1'-N9	-8.26	1.34	1.47
23	AP	50	GLY	CA-C	-8.26	1.42	1.51
85	AA	1536	C	C5'-C4'	8.26	1.63	1.51
34	BA	604	G	O3'-P	-8.26	1.48	1.61
85	AA	529	G	O3'-P	-8.26	1.48	1.61
85	AA	2174	G	O3'-P	-8.26	1.48	1.61
34	BA	498	A	C1'-N9	-8.26	1.35	1.48
34	BA	596	G	C5'-C4'	8.26	1.63	1.51
34	BA	1482	A	C1'-N9	-8.26	1.35	1.48
34	BA	754	G	C2'-C1'	-8.25	1.41	1.53
36	BC	122	A	O3'-P	-8.25	1.48	1.61
40	BG	151	A	O3'-P	-8.25	1.48	1.61
35	BB	1060	U	O3'-P	-8.25	1.48	1.61
35	BB	452	A	P-O5'	-8.25	1.47	1.59
48	BO	99	ILE	CA-C	-8.25	1.42	1.52
85	AA	76	G	P-O5'	-8.25	1.47	1.59
35	BB	418	G	C1'-N9	-8.25	1.35	1.48
85	AA	2179	C	P-O5'	-8.25	1.47	1.59
86	AB	16	U	C5'-C4'	8.25	1.63	1.51
85	AA	1578	G	C5'-C4'	8.24	1.63	1.51
25	AR	43	ASN	CA-C	-8.24	1.42	1.52
34	BA	196	A	C1'-N9	-8.24	1.35	1.48
34	BA	1103	G	O3'-P	-8.24	1.48	1.61
40	BG	39	A	O3'-P	-8.24	1.48	1.61
38	BE	185	G	P-O5'	-8.24	1.47	1.59
40	BG	65	C	O3'-P	-8.24	1.48	1.61
83	Bx	156	ILE	CA-CB	-8.24	1.44	1.54
34	BA	420	A	C1'-N9	-8.24	1.35	1.48
35	BB	1138	A	C1'-N9	-8.24	1.35	1.48
57	BX	81	ALA	N-CA	-8.24	1.36	1.46
34	BA	13	U	O3'-P	-8.24	1.48	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	33	C	O3'-P	-8.24	1.48	1.61
85	AA	393	C	C3'-C2'	-8.24	1.40	1.52
34	BA	965	A	O3'-P	-8.23	1.48	1.61
34	BA	1261	G	C2'-C1'	-8.23	1.41	1.53
35	BB	40	C	P-O5'	-8.23	1.47	1.59
40	BG	137	G	O3'-P	-8.23	1.48	1.61
66	Bg	54	VAL	CA-CB	-8.23	1.44	1.54
85	AA	929	G	P-O5'	-8.23	1.47	1.59
85	AA	1134	G	C1'-N9	-8.23	1.35	1.48
35	BB	386	G	P-O5'	-8.23	1.47	1.59
36	BC	149	A	O3'-P	-8.23	1.48	1.61
85	AA	596	A	C2'-C1'	-8.23	1.41	1.53
34	BA	234	A	P-O5'	-8.23	1.47	1.59
34	BA	136	A	P-O5'	-8.23	1.47	1.59
85	AA	1099	U	P-O5'	-8.23	1.47	1.59
35	BB	434	A	C1'-N9	-8.23	1.35	1.48
85	AA	8	U	O3'-P	-8.23	1.48	1.61
85	AA	641	A	O3'-P	-8.23	1.48	1.61
34	BA	1060	C	O3'-P	-8.22	1.48	1.61
34	BA	185	A	P-O5'	-8.22	1.47	1.59
34	BA	609	G	P-O5'	-8.22	1.47	1.59
36	BC	69	U	O3'-P	-8.22	1.48	1.61
50	BQ	145	LEU	CA-C	-8.22	1.43	1.52
85	AA	497	G	O3'-P	-8.22	1.48	1.61
35	BB	93	A	O3'-P	-8.22	1.48	1.61
35	BB	572	G	C1'-N9	-8.22	1.35	1.48
38	BE	27	A	P-O5'	-8.22	1.47	1.59
52	BS	35	ASN	CA-C	-8.22	1.42	1.52
85	AA	132	G	P-O5'	-8.22	1.47	1.59
85	AA	210	G	C2'-C1'	-8.22	1.40	1.53
34	BA	557	U	C4'-O4'	8.21	1.57	1.45
85	AA	976	G	P-O5'	-8.22	1.47	1.59
34	BA	690	G	C1'-N9	-8.21	1.35	1.48
34	BA	1433	U	C1'-N1	-8.21	1.35	1.47
35	BB	620	G	C1'-N9	-8.22	1.35	1.48
40	BG	83	U	O3'-P	-8.21	1.48	1.61
47	BN	209	ARG	CA-C	-8.21	1.42	1.52
12	AD	70	HIS	CA-C	-8.21	1.42	1.52
38	BE	63	C	O3'-P	-8.21	1.48	1.61
49	BP	36	VAL	CA-C	-8.21	1.43	1.52
85	AA	521	A	C2'-C1'	-8.21	1.40	1.53
34	BA	56	G	O3'-P	-8.21	1.48	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	108	A	O3'-P	-8.21	1.48	1.61
34	BA	741	A	C2'-C1'	-8.21	1.41	1.53
35	BB	1169	A	P-O5'	-8.21	1.47	1.59
39	BF	35	C	P-O5'	-8.21	1.47	1.59
63	Bd	18	ARG	CA-C	-8.21	1.42	1.52
35	BB	1142	C	C1'-N1	-8.20	1.35	1.47
35	BB	653	G	P-O5'	-8.20	1.47	1.59
35	BB	1229	A	C2'-C1'	-8.20	1.41	1.53
44	BK	20	SER	CA-C	-8.20	1.42	1.52
85	AA	1439	A	P-O5'	-8.20	1.47	1.59
35	BB	1117	G	O3'-P	-8.20	1.48	1.61
35	BB	1266	A	O3'-P	-8.20	1.48	1.61
40	BG	79	U	C1'-N1	-8.20	1.36	1.48
34	BA	950	C	O3'-P	-8.20	1.48	1.61
40	BG	27	C	P-O5'	-8.20	1.47	1.59
5	A4	69	PRO	CA-C	-8.19	1.42	1.52
25	AR	53	THR	CA-C	-8.19	1.43	1.52
85	AA	373	G	C1'-N9	-8.19	1.35	1.48
85	AA	1371	C	O3'-P	-8.19	1.48	1.61
35	BB	606	C	P-O5'	-8.19	1.47	1.59
35	BB	676	G	P-O5'	-8.19	1.47	1.59
85	AA	392	G	P-O5'	-8.19	1.47	1.59
35	BB	1157	G	O3'-P	-8.19	1.48	1.61
34	BA	17	A	P-O5'	-8.19	1.47	1.59
38	BE	116	U	O3'-P	-8.19	1.48	1.61
34	BA	1695	G	O3'-P	-8.18	1.48	1.61
85	AA	1225	C	P-O5'	-8.18	1.47	1.59
34	BA	24	C	O3'-P	-8.18	1.48	1.61
34	BA	387	A	P-O5'	-8.18	1.47	1.59
85	AA	1102	C	O3'-P	-8.18	1.48	1.61
35	BB	465	C	O3'-P	-8.18	1.48	1.61
36	BC	58	G	P-O5'	-8.18	1.47	1.59
85	AA	767	A	C1'-N9	-8.18	1.35	1.48
35	BB	688	U	O3'-P	-8.17	1.48	1.61
35	BB	995	C	O3'-P	-8.17	1.48	1.61
35	BB	1445	A	C1'-N9	-8.17	1.35	1.48
34	BA	408	U	P-O5'	-8.17	1.47	1.59
34	BA	419	U	C1'-N1	-8.17	1.36	1.48
34	BA	540	G	P-O5'	-8.17	1.47	1.59
84	By	149	LEU	CA-C	-8.17	1.42	1.52
84	By	150	GLU	CA-C	-8.17	1.42	1.52
35	BB	374	A	C2'-C1'	-8.16	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BD	108	G	P-O5'	-8.16	1.47	1.59
77	Br	240	PRO	CA-C	-8.16	1.42	1.52
34	BA	1265	G	P-O5'	-8.16	1.47	1.59
73	Bn	64	CYS	CA-C	-8.16	1.42	1.53
34	BA	236	A	C1'-N9	-8.16	1.35	1.48
34	BA	330	A	O3'-P	-8.16	1.49	1.61
34	BA	897	U	O3'-P	-8.15	1.49	1.61
34	BA	1167	A	O3'-P	-8.15	1.49	1.61
36	BC	18	G	C2'-C1'	-8.15	1.41	1.53
37	BD	10	C	O3'-P	-8.15	1.49	1.61
85	AA	1856	G	P-O5'	-8.15	1.47	1.59
34	BA	184	C	P-O5'	-8.15	1.47	1.59
34	BA	1006	G	P-O5'	-8.15	1.47	1.59
35	BB	8	U	O3'-P	-8.15	1.49	1.61
35	BB	57	G	C1'-N9	-8.15	1.35	1.48
37	BD	60	C	O3'-P	-8.15	1.49	1.61
40	BG	109	C	O3'-P	-8.15	1.49	1.61
85	AA	1107	A	P-O5'	-8.15	1.47	1.59
85	AA	1196	C	C1'-N1	-8.15	1.36	1.48
24	AQ	17	VAL	CA-C	-8.15	1.43	1.52
68	Bi	93	TYR	CA-C	-8.15	1.42	1.52
85	AA	1220	A	O3'-P	-8.15	1.49	1.61
85	AA	1892	G	O3'-P	-8.15	1.49	1.61
34	BA	1041	U	P-O5'	-8.14	1.47	1.59
34	BA	1511	C	C1'-N1	-8.14	1.36	1.48
35	BB	83	G	P-O5'	-8.14	1.47	1.59
35	BB	479	U	P-O5'	-8.14	1.47	1.59
35	BB	1508	G	C2'-C1'	-8.14	1.41	1.53
85	AA	389	A	C1'-N9	-8.14	1.35	1.48
34	BA	1543	A	C1'-N9	-8.14	1.35	1.48
37	BD	74	A	O3'-P	-8.14	1.49	1.61
34	BA	973	U	O3'-P	-8.14	1.49	1.61
34	BA	1142	C	O3'-P	-8.13	1.49	1.61
84	By	142	LEU	CA-C	-8.13	1.43	1.52
11	AC	221	LEU	CA-C	-8.13	1.44	1.53
34	BA	1682	A	O3'-P	-8.13	1.49	1.61
34	BA	1737	A	P-O5'	-8.13	1.47	1.59
34	BA	50	G	C1'-N9	-8.13	1.35	1.48
38	BE	200	A	O3'-P	-8.13	1.49	1.61
35	BB	131	A	C1'-N9	-8.13	1.35	1.48
35	BB	779	C	C1'-N1	-8.13	1.36	1.48
35	BB	787	A	C1'-N9	-8.13	1.35	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1199	A	O3'-P	-8.13	1.49	1.61
36	BC	54	G	C1'-N9	-8.13	1.35	1.48
35	BB	1211	C	O3'-P	-8.13	1.49	1.61
34	BA	260	A	C1'-N9	-8.12	1.34	1.47
35	BB	805	G	O3'-P	-8.12	1.49	1.61
35	BB	837	A	C1'-N9	-8.12	1.35	1.48
38	BE	101	C	C1'-N1	-8.12	1.35	1.47
34	BA	724	A	O3'-P	-8.12	1.49	1.61
34	BA	1194	G	C3'-C2'	-8.12	1.40	1.52
39	BF	6	C	O3'-P	-8.11	1.49	1.61
53	BT	166	ASP	N-CA	-8.12	1.36	1.46
85	AA	657	C	P-O5'	-8.12	1.47	1.59
85	AA	1973	G	O3'-P	-8.11	1.49	1.61
85	AA	2236	U	C2'-C1'	-8.12	1.41	1.53
35	BB	74	U	O3'-P	-8.11	1.49	1.61
38	BE	140	G	P-O5'	-8.11	1.47	1.59
60	Ba	26	GLN	N-CA	-8.11	1.36	1.46
85	AA	423	G	C1'-N9	-8.11	1.35	1.48
85	AA	932	A	C1'-N9	-8.11	1.35	1.48
35	BB	431	U	O3'-P	-8.11	1.49	1.61
40	BG	134	U	O3'-P	-8.11	1.49	1.61
56	BW	81	ILE	N-CA	-8.11	1.37	1.46
57	BX	100	GLU	CA-C	-8.11	1.41	1.52
85	AA	264	A	P-O5'	-8.11	1.47	1.59
34	BA	1022	C	O3'-P	-8.11	1.49	1.61
34	BA	1202	G	C1'-N9	-8.11	1.35	1.48
35	BB	1117	G	C1'-N9	-8.11	1.35	1.48
35	BB	1470	G	C5'-C4'	8.11	1.63	1.51
35	BB	1542	C	P-O5'	-8.11	1.47	1.59
38	BE	176	G	O3'-P	-8.11	1.49	1.61
85	AA	723	U	P-O5'	-8.11	1.47	1.59
35	BB	398	A	P-O5'	-8.10	1.47	1.59
34	BA	479	U	O3'-P	-8.10	1.49	1.61
34	BA	531	C	C2'-C1'	-8.10	1.41	1.53
34	BA	1663	U	O3'-P	-8.10	1.49	1.61
35	BB	667	G	P-O5'	-8.10	1.47	1.59
35	BB	1217	C	O3'-P	-8.10	1.49	1.61
36	BC	52	A	O3'-P	-8.10	1.49	1.61
34	BA	95	C	C1'-N1	-8.10	1.36	1.48
37	BD	6	C	O3'-P	-8.10	1.49	1.61
38	BE	158	U	O3'-P	-8.10	1.49	1.61
51	BR	96	LYS	N-CA	-8.10	1.36	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	608	A	C1'-N9	-8.10	1.35	1.48
34	BA	322	U	O3'-P	-8.10	1.49	1.61
34	BA	788	C	C1'-N1	-8.10	1.36	1.48
35	BB	1151	A	O3'-P	-8.10	1.49	1.61
77	Br	232	SER	N-CA	-8.10	1.35	1.46
85	AA	817	G	C1'-N9	-8.10	1.35	1.48
85	AA	1979	A	O3'-P	-8.10	1.49	1.61
34	BA	42	A	O3'-P	-8.09	1.49	1.61
34	BA	248	G	C2'-C1'	-8.09	1.41	1.53
34	BA	1618	A	P-O5'	-8.09	1.47	1.59
39	BF	16	C	C4'-C3'	8.09	1.64	1.52
85	AA	2240	G	C1'-N9	-8.09	1.35	1.48
85	AA	1671	G	O3'-P	-8.09	1.49	1.61
35	BB	615	A	C1'-N9	-8.09	1.35	1.48
85	AA	396	U	O3'-P	-8.09	1.49	1.61
85	AA	675	A	O3'-P	-8.09	1.49	1.61
15	AG	50	ILE	CA-C	-8.09	1.43	1.52
85	AA	373	G	O3'-P	-8.09	1.49	1.61
85	AA	432	A	P-O5'	-8.09	1.47	1.59
34	BA	1557	G	C1'-N9	-8.09	1.35	1.48
63	Bd	12	GLN	N-CA	-8.09	1.36	1.46
85	AA	1155	A	C1'-N9	-8.09	1.35	1.48
34	BA	49	A	O3'-P	-8.08	1.49	1.61
34	BA	615	A	P-O5'	-8.08	1.47	1.59
34	BA	1441	C	O3'-P	-8.08	1.49	1.61
34	BA	1531	G	C1'-N9	-8.08	1.35	1.48
85	AA	2181	G	P-O5'	-8.08	1.47	1.59
19	AK	81	VAL	CA-C	-8.08	1.42	1.52
85	AA	383	C	C2'-C1'	-8.08	1.41	1.53
34	BA	62	A	O3'-P	-8.08	1.49	1.61
85	AA	247	G	C1'-N9	-8.08	1.35	1.48
85	AA	1269	A	C1'-N9	-8.08	1.35	1.48
85	AA	2141	G	C1'-N9	-8.08	1.35	1.48
15	AG	58	MET	CA-C	-8.08	1.42	1.52
34	BA	583	G	C1'-N9	-8.08	1.35	1.48
35	BB	507	G	C1'-N9	-8.08	1.35	1.48
85	AA	449	G	C2'-C1'	-8.08	1.41	1.53
35	BB	127	U	P-O5'	-8.07	1.47	1.59
35	BB	700	C	P-O5'	-8.07	1.47	1.59
41	BH	119	U	P-O5'	-8.07	1.47	1.59
85	AA	1506	U	O3'-P	-8.07	1.49	1.61
34	BA	88	C	C4'-O4'	-8.07	1.33	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	BE	10	G	C1'-N9	8.07	1.59	1.47
79	Bt	89	LYS	CA-C	-8.07	1.41	1.52
36	BC	2	A	C1'-N9	-8.07	1.35	1.48
40	BG	14	G	C1'-N9	-8.07	1.35	1.48
34	BA	445	C	C2'-C1'	-8.07	1.41	1.53
34	BA	449	G	P-O5'	-8.07	1.47	1.59
41	BH	4	U	P-O5'	-8.07	1.47	1.59
34	BA	297	A	C4'-C3'	-8.06	1.40	1.52
35	BB	1507	U	O3'-P	-8.06	1.49	1.61
36	BC	135	A	P-O5'	-8.06	1.47	1.59
64	Be	145	ARG	CA-C	-8.06	1.43	1.52
34	BA	1669	C	P-O5'	-8.06	1.47	1.59
74	Bo	85	ARG	N-CA	-8.06	1.36	1.46
85	AA	817	G	O3'-P	-8.06	1.49	1.61
49	BP	127	ILE	CA-C	-8.06	1.42	1.52
35	BB	1371	G	C1'-N9	-8.06	1.35	1.48
45	BL	53	VAL	N-CA	-8.05	1.36	1.46
34	BA	106	U	O3'-P	-8.05	1.49	1.61
34	BA	860	G	O3'-P	-8.05	1.49	1.61
35	BB	698	C	O3'-P	-8.05	1.49	1.61
35	BB	970	C	C2'-C1'	-8.05	1.41	1.53
65	Bf	298	THR	CA-C	-8.05	1.43	1.53
85	AA	1676	G	P-O5'	-8.05	1.47	1.59
85	AA	2084	U	P-O5'	-8.05	1.47	1.59
85	AA	2148	C	P-O5'	-8.05	1.47	1.59
85	AA	535	G	P-O5'	-8.05	1.47	1.59
11	AC	201	ASN	CA-C	-8.05	1.42	1.53
34	BA	1463	U	O3'-P	-8.05	1.49	1.61
35	BB	93	A	C2'-C1'	-8.05	1.41	1.53
85	AA	2146	G	C2'-C1'	-8.05	1.41	1.53
34	BA	195	G	C1'-N9	-8.05	1.35	1.48
34	BA	1572	G	O3'-P	-8.04	1.49	1.61
35	BB	6	A	C1'-N9	-8.04	1.35	1.48
35	BB	1264	U	P-O5'	-8.04	1.47	1.59
35	BB	1214	U	O3'-P	-8.04	1.49	1.61
35	BB	1540	U	C2'-C1'	-8.04	1.41	1.53
85	AA	2070	C	P-O5'	-8.04	1.47	1.59
34	BA	383	G	C3'-C2'	-8.04	1.40	1.52
35	BB	451	A	C1'-N9	-8.04	1.35	1.48
35	BB	1016	C	C2'-C1'	-8.04	1.41	1.53
85	AA	366	A	O3'-P	-8.04	1.49	1.61
85	AA	412	G	P-O5'	-8.04	1.47	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	811	A	P-O5'	-8.04	1.47	1.59
34	BA	436	U	O3'-P	-8.04	1.49	1.61
35	BB	552	C	C1'-N1	-8.04	1.36	1.48
41	BH	118	U	O3'-P	-8.04	1.49	1.61
2	A1	95	ARG	CA-C	-8.04	1.42	1.52
2	A1	189	ILE	CA-C	-8.03	1.42	1.52
35	BB	547	A	C1'-N9	-8.04	1.35	1.48
35	BB	1180	G	P-O5'	-8.04	1.47	1.59
85	AA	366	A	P-O5'	-8.04	1.47	1.59
34	BA	790	G	O3'-P	-8.03	1.49	1.61
35	BB	43	G	C1'-N9	-8.03	1.35	1.48
34	BA	186	G	P-O5'	-8.03	1.47	1.59
35	BB	542	A	O3'-P	-8.03	1.49	1.61
38	BE	21	C	C1'-N1	-8.03	1.36	1.48
40	BG	8	U	P-O5'	-8.03	1.47	1.59
2	A1	61	ILE	CA-C	-8.03	1.43	1.52
5	A4	167	VAL	CA-C	-8.03	1.42	1.52
34	BA	95	C	C3'-C2'	-8.03	1.40	1.52
35	BB	1474	A	C4'-C3'	8.03	1.64	1.52
36	BC	62	A	N9-C4	-8.03	1.21	1.37
40	BG	87	G	C1'-N9	-8.03	1.35	1.48
45	BL	131	GLY	CA-C	-8.03	1.46	1.52
34	BA	1817	G	O3'-P	-8.03	1.49	1.61
36	BC	148	C	C1'-N1	-8.03	1.36	1.48
85	AA	1493	A	C2'-C1'	-8.03	1.41	1.53
37	BD	11	A	O3'-P	-8.03	1.49	1.61
85	AA	2180	C	O3'-P	-8.03	1.49	1.61
85	AA	2185	U	P-O5'	-8.03	1.47	1.59
34	BA	1177	C	C1'-N1	-8.02	1.36	1.48
37	BD	109	U	P-O5'	-8.02	1.47	1.59
40	BG	139	U	C1'-N1	-8.02	1.36	1.48
85	AA	1457	C	C2'-C1'	-8.02	1.41	1.53
34	BA	598	G	P-O5'	-8.02	1.47	1.59
34	BA	1215	U	P-O5'	-8.02	1.47	1.59
34	BA	944	G	O3'-P	-8.02	1.49	1.61
34	BA	1585	A	O3'-P	-8.02	1.49	1.61
36	BC	168	C	O3'-P	-8.02	1.49	1.61
85	AA	160	A	C2'-C1'	-8.02	1.41	1.53
34	BA	366	G	O3'-P	-8.02	1.49	1.61
59	BZ	78	HIS	CA-C	-8.01	1.43	1.52
12	AD	71	PHE	CA-C	-8.01	1.43	1.52
34	BA	1174	A	O3'-P	-8.01	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1079	G	P-O5'	-8.01	1.47	1.59
41	BH	38	G	C1'-N9	-8.01	1.35	1.48
85	AA	972	G	C5'-C4'	8.01	1.63	1.51
59	BZ	67	VAL	CA-C	-8.01	1.44	1.53
85	AA	641	A	P-O5'	-8.01	1.47	1.59
85	AA	1699	A	O3'-P	-8.01	1.49	1.61
25	AR	83	VAL	CA-C	-8.01	1.42	1.52
35	BB	474	G	C1'-N9	-8.01	1.35	1.48
62	Bc	100	PRO	C-N	-8.01	1.23	1.33
35	BB	64	U	O3'-P	-8.00	1.49	1.61
85	AA	364	C	C2'-C1'	-8.00	1.41	1.53
85	AA	679	A	C1'-N9	-8.00	1.35	1.48
85	AA	2176	U	O3'-P	-8.00	1.49	1.61
86	AB	66	U	P-O5'	-8.00	1.47	1.59
34	BA	9	A	O3'-P	-8.00	1.49	1.61
59	BZ	29	SER	CA-C	-8.00	1.42	1.52
77	Br	330	ASN	CA-C	-8.00	1.46	1.52
85	AA	452	A	C1'-N9	-8.00	1.35	1.48
34	BA	337	C	P-O5'	-8.00	1.47	1.59
34	BA	473	A	P-O5'	-8.00	1.47	1.59
40	BG	94	G	C1'-N9	-7.99	1.35	1.48
85	AA	1115	G	C2'-C1'	-7.99	1.41	1.53
85	AA	1106	A	P-O5'	-7.99	1.47	1.59
34	BA	265	A	P-O5'	-7.99	1.47	1.59
41	BH	11	C	O3'-P	-7.99	1.49	1.61
85	AA	1000	U	O4'-C1'	-7.99	1.29	1.41
35	BB	65	A	C1'-N9	-7.99	1.35	1.48
41	BH	123	G	C1'-N9	-7.99	1.35	1.48
65	Bf	210	ILE	CA-C	-7.99	1.42	1.52
25	AR	50	ILE	CA-C	-7.98	1.42	1.52
85	AA	2132	A	C2'-C1'	-7.98	1.41	1.53
37	BD	24	U	P-O5'	-7.98	1.47	1.59
52	BS	21	ASN	C-N	-7.98	1.24	1.33
34	BA	1700	C	O3'-P	-7.98	1.49	1.61
35	BB	136	A	O3'-P	-7.98	1.49	1.61
35	BB	1178	A	C1'-N9	-7.98	1.35	1.48
53	BT	98	ARG	CA-C	-7.98	1.42	1.52
86	AB	66	U	O3'-P	-7.98	1.49	1.61
34	BA	53	G	C1'-N9	-7.98	1.35	1.48
34	BA	981	A	O3'-P	-7.98	1.49	1.61
34	BA	1559	C	O3'-P	-7.98	1.49	1.61
85	AA	1104	G	O3'-P	-7.98	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BC	95	A	C2'-C1'	-7.97	1.41	1.53
34	BA	142	A	C1'-N9	-7.97	1.35	1.48
34	BA	1260	G	C1'-N9	-7.97	1.35	1.48
35	BB	1445	A	O3'-P	-7.97	1.49	1.61
41	BH	22	A	O3'-P	-7.97	1.49	1.61
47	BN	114	MET	CA-C	-7.97	1.42	1.52
57	BX	51	ARG	CA-C	-7.97	1.42	1.52
71	Bl	42	GLY	CA-C	-7.97	1.42	1.51
85	AA	970	U	C1'-N1	7.97	1.60	1.48
77	Br	152	VAL	CA-C	-7.97	1.43	1.52
35	BB	1199	A	C1'-N9	-7.97	1.35	1.48
65	Bf	213	VAL	CA-C	-7.97	1.43	1.52
72	Bm	67	GLU	CA-C	-7.97	1.42	1.52
7	A6	176	ARG	CA-C	-7.97	1.42	1.52
35	BB	1259	A	C1'-N9	-7.97	1.35	1.47
38	BE	122	G	C1'-N9	-7.97	1.36	1.48
85	AA	1967	A	O3'-P	-7.97	1.49	1.61
85	AA	2200	A	C1'-N9	-7.97	1.36	1.48
34	BA	537	C	P-O5'	-7.96	1.47	1.59
35	BB	504	C	O3'-P	-7.96	1.49	1.61
35	BB	620	G	C2'-C1'	-7.96	1.41	1.53
38	BE	171	U	O3'-P	-7.96	1.49	1.61
40	BG	66	C	C1'-N1	-7.96	1.36	1.48
41	BH	19	G	O3'-P	-7.96	1.49	1.61
34	BA	1505	G	C1'-N9	-7.96	1.36	1.48
38	BE	166	G	P-O5'	-7.96	1.47	1.59
34	BA	892	C	C1'-N1	-7.96	1.36	1.48
34	BA	1776	G	C1'-N9	-7.96	1.35	1.47
35	BB	1334	C	C3'-C2'	-7.96	1.40	1.52
34	BA	888	G	O3'-P	-7.96	1.49	1.61
47	BN	51	ILE	CA-C	-7.96	1.44	1.53
85	AA	161	A	O3'-P	-7.96	1.49	1.61
65	Bf	146	THR	CA-C	-7.96	1.42	1.52
85	AA	303	A	C5'-C4'	7.96	1.63	1.51
34	BA	805	A	P-O5'	-7.95	1.47	1.59
41	BH	104	U	O3'-P	-7.95	1.49	1.61
50	BQ	127	TYR	CA-C	-7.95	1.42	1.52
80	Bu	69	VAL	CA-C	-7.95	1.43	1.52
85	AA	2039	G	O3'-P	-7.95	1.49	1.61
34	BA	1245	C	O3'-P	-7.95	1.49	1.61
34	BA	1268	C	P-O5'	-7.95	1.47	1.59
35	BB	971	A	C2'-C1'	-7.95	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	249	C	P-O5'	-7.95	1.47	1.59
34	BA	662	U	P-O5'	-7.95	1.47	1.59
34	BA	1232	C	P-O5'	-7.95	1.47	1.59
51	BR	133	HIS	CA-C	-7.95	1.40	1.52
26	AS	124	LYS	CA-C	-7.95	1.42	1.52
35	BB	132	G	C1'-N9	-7.95	1.36	1.48
36	BC	3	C	O3'-P	-7.95	1.49	1.61
62	Bc	90	VAL	CA-C	-7.95	1.43	1.52
85	AA	201	U	P-O5'	-7.95	1.47	1.59
35	BB	1005	A	C1'-N9	-7.94	1.36	1.48
34	BA	1278	A	O3'-P	-7.94	1.49	1.61
35	BB	397	C	O3'-P	-7.94	1.49	1.61
34	BA	800	G	C4'-O4'	-7.94	1.33	1.45
38	BE	63	C	C1'-N1	-7.94	1.36	1.48
38	BE	132	U	P-O5'	-7.94	1.47	1.59
39	BF	12	U	P-O5'	-7.94	1.47	1.59
50	BQ	64	LYS	N-CA	-7.94	1.36	1.46
34	BA	480	G	O3'-P	-7.94	1.49	1.61
34	BA	900	A	C2'-C1'	-7.94	1.41	1.53
34	BA	22	C	P-O5'	-7.94	1.47	1.59
34	BA	538	G	C2'-C1'	-7.94	1.41	1.53
34	BA	617	G	O4'-C1'	-7.94	1.29	1.41
34	BA	1195	G	C1'-N9	-7.94	1.36	1.48
34	BA	1431	G	C1'-N9	-7.94	1.36	1.48
35	BB	680	A	C1'-N9	-7.94	1.36	1.48
85	AA	705	G	C1'-N9	-7.94	1.36	1.48
34	BA	1808	A	O3'-P	-7.94	1.49	1.61
38	BE	14	C	P-O5'	-7.93	1.47	1.59
71	Bl	122	VAL	CA-C	-7.93	1.43	1.52
40	BG	112	C	P-O5'	-7.93	1.47	1.59
44	BK	151	SER	CA-C	-7.93	1.42	1.52
34	BA	1551	G	C1'-N9	-7.93	1.36	1.48
34	BA	82	A	O3'-P	-7.93	1.49	1.61
34	BA	1223	C	P-O5'	-7.93	1.47	1.59
35	BB	830	G	C2'-C1'	-7.93	1.41	1.53
35	BB	1321	G	O3'-P	-7.93	1.49	1.61
85	AA	1829	C	P-O5'	-7.93	1.47	1.59
42	BI	120	ILE	CA-C	-7.92	1.43	1.52
65	Bf	415	LYS	CA-C	-7.92	1.44	1.52
34	BA	504	A	P-O5'	-7.92	1.47	1.59
34	BA	1335	A	P-O5'	-7.92	1.47	1.59
34	BA	1088	G	C1'-N9	-7.92	1.35	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1671	A	C2'-C1'	-7.92	1.41	1.53
34	BA	953	G	P-O5'	-7.92	1.47	1.59
34	BA	1483	U	C1'-N1	-7.92	1.36	1.48
38	BE	13	A	O3'-P	-7.92	1.49	1.61
40	BG	112	C	O3'-P	-7.92	1.49	1.61
85	AA	407	G	P-O5'	-7.92	1.47	1.59
6	A5	66	ALA	CA-C	-7.92	1.43	1.52
34	BA	428	C	O3'-P	-7.92	1.49	1.61
34	BA	1276	G	P-O5'	-7.92	1.47	1.59
35	BB	40	C	O3'-P	-7.92	1.49	1.61
13	AE	24	TYR	CA-C	-7.91	1.42	1.52
34	BA	958	G	P-O5'	-7.91	1.47	1.59
34	BA	1275	G	P-O5'	-7.91	1.47	1.59
40	BG	67	A	O3'-P	-7.91	1.49	1.61
85	AA	2138	G	C2'-C1'	-7.91	1.41	1.53
85	AA	438	G	P-O5'	-7.91	1.47	1.59
38	BE	49	A	O3'-P	-7.91	1.49	1.61
34	BA	889	U	C1'-N1	-7.91	1.36	1.48
35	BB	782	A	O3'-P	-7.91	1.49	1.61
85	AA	480	U	O3'-P	-7.91	1.49	1.61
42	BI	118	GLU	CA-C	-7.91	1.42	1.52
34	BA	348	U	O3'-P	-7.91	1.49	1.61
34	BA	1698	C	O3'-P	-7.91	1.49	1.61
41	BH	128	G	C1'-N9	-7.91	1.36	1.48
66	Bg	78	ILE	CA-C	-7.91	1.43	1.52
34	BA	1806	A	C1'-N9	-7.90	1.35	1.47
85	AA	1541	G	P-O5'	-7.90	1.47	1.59
34	BA	1478	G	O3'-P	-7.90	1.49	1.61
34	BA	674	G	C1'-N9	-7.90	1.36	1.48
35	BB	1034	U	O3'-P	-7.90	1.49	1.61
35	BB	1469	A	C1'-N9	-7.90	1.36	1.48
73	Bn	27	TYR	CA-C	-7.90	1.42	1.52
34	BA	749	G	O3'-P	-7.90	1.49	1.61
35	BB	576	A	C2'-C1'	-7.90	1.41	1.53
85	AA	1227	A	P-O5'	-7.90	1.48	1.59
34	BA	15	G	C1'-N9	-7.90	1.36	1.48
34	BA	1430	C	C1'-N1	-7.90	1.36	1.48
34	BA	1039	G	C3'-C2'	-7.89	1.41	1.52
85	AA	159	G	C1'-N9	-7.89	1.36	1.48
85	AA	936	C	P-O5'	-7.89	1.48	1.59
34	BA	907	A	C1'-N9	-7.89	1.36	1.48
34	BA	1030	C	O3'-P	-7.89	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1844	U	P-O5'	-7.89	1.48	1.59
35	BB	1179	C	O3'-P	-7.89	1.49	1.61
35	BB	1237	C	C1'-N1	-7.89	1.36	1.48
85	AA	374	C	P-O5'	-7.89	1.48	1.59
34	BA	340	U	P-O5'	-7.89	1.48	1.59
85	AA	299	A	P-O5'	-7.89	1.48	1.59
34	BA	83	G	O3'-P	-7.89	1.49	1.61
7	A6	171	VAL	CA-C	-7.89	1.43	1.52
34	BA	762	A	P-O5'	-7.89	1.48	1.59
35	BB	779	C	O3'-P	-7.89	1.49	1.61
34	BA	2	A	P-O5'	-7.89	1.48	1.59
34	BA	667	U	P-O5'	-7.89	1.48	1.59
34	BA	1156	U	C1'-N1	-7.89	1.36	1.48
34	BA	1814	U	O3'-P	-7.89	1.49	1.61
40	BG	10	U	O4'-C1'	-7.89	1.29	1.41
34	BA	518	C	O3'-P	-7.88	1.49	1.61
38	BE	123	A	C1'-N9	-7.88	1.36	1.48
40	BG	161	C	O3'-P	-7.88	1.49	1.61
62	Bc	13	ARG	CD-NE	7.88	1.57	1.46
34	BA	1559	C	C1'-N1	-7.88	1.36	1.48
38	BE	121	G	C2'-C1'	-7.88	1.41	1.53
35	BB	1139	A	O3'-P	-7.88	1.49	1.61
7	A6	50	LYS	CA-C	-7.88	1.43	1.52
34	BA	355	U	P-O5'	-7.88	1.48	1.59
34	BA	962	U	C2'-C1'	-7.88	1.41	1.53
35	BB	446	U	C4'-O4'	-7.88	1.34	1.45
34	BA	876	C	C2'-C1'	-7.88	1.41	1.53
34	BA	1527	G	C1'-N9	-7.88	1.36	1.48
40	BG	15	G	C2'-C1'	-7.88	1.41	1.53
53	BT	181	ARG	CA-C	-7.88	1.42	1.52
85	AA	1661	U	P-O5'	-7.88	1.48	1.59
34	BA	76	U	O3'-P	-7.88	1.49	1.61
34	BA	335	C	O3'-P	-7.88	1.49	1.61
64	Be	182	ALA	CA-C	-7.88	1.42	1.52
51	BR	117	VAL	N-CA	-7.88	1.37	1.46
85	AA	2204	A	C1'-N9	-7.88	1.36	1.48
34	BA	1681	U	O3'-P	-7.87	1.49	1.61
35	BB	843	G	C1'-N9	-7.87	1.36	1.48
36	BC	91	G	O3'-P	-7.87	1.49	1.61
34	BA	1190	A	P-O5'	-7.87	1.48	1.59
34	BA	1220	C	P-O5'	-7.87	1.48	1.59
39	BF	32	G	C1'-N9	-7.87	1.35	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	822	U	P-O5'	-7.87	1.48	1.59
65	Bf	379	TYR	CA-C	-7.87	1.42	1.52
34	BA	84	U	O3'-P	-7.87	1.49	1.61
34	BA	232	U	C5'-C4'	7.87	1.63	1.51
48	BO	73	LEU	CA-C	-7.87	1.43	1.52
85	AA	769	C	O3'-P	-7.87	1.49	1.61
64	Be	154	GLN	N-CA	-7.87	1.36	1.46
34	BA	198	U	C1'-N1	-7.87	1.36	1.48
34	BA	376	U	C1'-N1	-7.87	1.36	1.48
38	BE	61	A	P-O5'	-7.87	1.48	1.59
7	A6	78	ARG	CA-C	-7.86	1.43	1.52
25	AR	53	THR	N-CA	-7.86	1.37	1.46
35	BB	1546	C	P-O5'	-7.86	1.48	1.59
85	AA	456	A	C2'-C1'	-7.86	1.41	1.53
34	BA	1007	G	C1'-N9	-7.86	1.35	1.47
35	BB	1165	A	C1'-N9	-7.86	1.36	1.48
80	Bu	218	ARG	CA-C	-7.86	1.47	1.52
34	BA	327	G	C2'-C1'	-7.86	1.41	1.53
34	BA	16	C	P-O5'	-7.86	1.48	1.59
35	BB	1194	A	C2'-C1'	-7.86	1.41	1.53
34	BA	838	U	P-O5'	-7.86	1.48	1.59
35	BB	825	U	C2'-C1'	-7.86	1.41	1.53
35	BB	1154	C	O3'-P	-7.86	1.49	1.61
85	AA	1191	G	P-O5'	-7.86	1.48	1.59
34	BA	1720	U	P-O5'	-7.85	1.48	1.59
37	BD	110	G	C1'-N9	-7.85	1.36	1.48
35	BB	1021	C	C1'-N1	-7.85	1.36	1.48
41	BH	35	G	P-O5'	-7.85	1.48	1.59
41	BH	133	U	P-O5'	-7.85	1.48	1.59
40	BG	92	U	C1'-N1	-7.85	1.36	1.48
40	BG	52	A	O3'-P	-7.85	1.49	1.61
85	AA	387	U	O3'-P	-7.85	1.49	1.61
34	BA	1454	G	C1'-N9	-7.85	1.36	1.48
53	BT	99	LEU	CA-C	-7.85	1.42	1.52
35	BB	1441	C	C1'-N1	-7.85	1.35	1.47
34	BA	1562	G	O3'-P	-7.84	1.49	1.61
85	AA	916	A	O3'-P	-7.84	1.49	1.61
34	BA	1429	A	O3'-P	-7.84	1.49	1.61
47	BN	68	VAL	CA-C	-7.84	1.43	1.52
85	AA	684	G	P-O5'	-7.84	1.48	1.59
85	AA	2098	A	C1'-N9	-7.84	1.36	1.48
34	BA	1455	C	O3'-P	-7.84	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	107	A	C1'-N9	-7.84	1.36	1.48
85	AA	1828	C	O3'-P	-7.84	1.49	1.61
85	AA	2184	A	O3'-P	-7.84	1.49	1.61
34	BA	327	G	O3'-P	-7.84	1.49	1.61
35	BB	1019	C	P-O5'	-7.84	1.48	1.59
35	BB	1368	A	C1'-N9	-7.84	1.36	1.48
35	BB	370	A	P-O5'	-7.83	1.48	1.59
35	BB	440	U	P-O5'	-7.83	1.48	1.59
61	Bb	25	HIS	CA-C	-7.83	1.42	1.52
66	Bg	40	GLN	CA-C	-7.83	1.42	1.52
35	BB	135	C	O3'-P	-7.83	1.49	1.61
35	BB	435	A	C1'-N9	-7.83	1.36	1.48
34	BA	1646	U	O3'-P	-7.83	1.49	1.61
38	BE	176	G	C1'-N9	-7.83	1.36	1.48
37	BD	36	C	C2'-C1'	-7.83	1.41	1.53
85	AA	425	G	O3'-P	-7.83	1.49	1.61
35	BB	409	U	P-O5'	-7.83	1.48	1.59
35	BB	1045	G	C2'-C1'	-7.83	1.41	1.53
40	BG	23	C	P-O5'	-7.83	1.48	1.59
83	Bx	231	VAL	CA-CB	-7.83	1.45	1.54
85	AA	2189	U	C2'-C1'	-7.83	1.41	1.53
36	BC	150	U	O3'-P	-7.82	1.49	1.61
85	AA	1214	C	O3'-P	-7.82	1.49	1.61
21	AM	84	PHE	CA-C	-7.82	1.43	1.52
35	BB	777	C	P-O5'	-7.82	1.48	1.59
34	BA	1210	A	C1'-N9	-7.82	1.36	1.48
85	AA	864	C	C2'-C1'	-7.82	1.41	1.53
85	AA	2177	C	O3'-P	-7.82	1.49	1.61
34	BA	572	G	C1'-N9	7.81	1.59	1.48
72	Bm	94	ARG	CA-C	-7.81	1.42	1.52
6	A5	4	VAL	CA-C	-7.81	1.43	1.52
35	BB	1096	G	C1'-N9	-7.81	1.36	1.48
40	BG	70	C	P-O5'	-7.81	1.48	1.59
85	AA	83	U	P-O5'	-7.81	1.48	1.59
85	AA	790	A	C2'-C1'	-7.81	1.41	1.53
34	BA	947	A	C1'-N9	-7.81	1.36	1.48
37	BD	67	C	O3'-P	-7.81	1.49	1.61
85	AA	644	A	O3'-P	-7.81	1.49	1.61
38	BE	141	A	C4'-C3'	-7.81	1.41	1.53
39	BF	38	C	P-O5'	-7.81	1.48	1.59
85	AA	809	A	P-O5'	-7.81	1.48	1.59
34	BA	409	A	O3'-P	-7.80	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	BE	204	U	O3'-P	-7.80	1.49	1.61
40	BG	126	G	O3'-P	-7.80	1.49	1.61
85	AA	474	C	O3'-P	-7.80	1.49	1.61
15	AG	74	ILE	CA-C	-7.80	1.43	1.52
34	BA	427	G	O3'-P	-7.80	1.49	1.61
35	BB	1367	U	P-O5'	-7.80	1.48	1.59
34	BA	88	C	O3'-P	-7.80	1.49	1.61
34	BA	382	G	P-O5'	-7.80	1.48	1.59
34	BA	482	C	C4'-O4'	-7.80	1.34	1.45
34	BA	718	U	C2'-C1'	-7.80	1.41	1.53
34	BA	1016	A	O3'-P	-7.80	1.49	1.61
71	Bl	116	HIS	CA-C	-7.80	1.43	1.52
77	Br	76	PRO	CA-C	-7.80	1.43	1.52
83	Bx	231	VAL	CA-C	-7.80	1.43	1.52
85	AA	189	G	P-O5'	-7.80	1.48	1.59
85	AA	1976	G	P-O5'	-7.80	1.48	1.59
34	BA	1443	U	O4'-C1'	-7.80	1.29	1.41
34	BA	1708	A	C3'-C2'	-7.80	1.41	1.52
85	AA	868	A	P-O5'	-7.80	1.48	1.59
34	BA	1561	C	C1'-N1	-7.80	1.36	1.48
35	BB	639	A	O3'-P	-7.80	1.49	1.61
35	BB	1107	C	O3'-P	-7.80	1.49	1.61
41	BH	105	U	P-O5'	-7.80	1.48	1.59
34	BA	1724	G	C2'-C1'	-7.79	1.41	1.53
35	BB	1117	G	C3'-C2'	-7.79	1.41	1.52
35	BB	119	G	C3'-C2'	-7.79	1.41	1.52
35	BB	574	G	C1'-N9	-7.79	1.35	1.47
35	BB	1339	C	O3'-P	-7.79	1.49	1.61
65	Bf	248	ILE	CA-C	-7.79	1.42	1.52
85	AA	392	G	C1'-N9	-7.79	1.36	1.48
85	AA	2075	C	C1'-N1	-7.79	1.36	1.48
2	A1	249	GLU	CA-C	-7.79	1.42	1.52
34	BA	824	C	P-O5'	-7.79	1.48	1.59
35	BB	1100	C	O3'-P	-7.79	1.49	1.61
85	AA	681	G	O3'-P	-7.79	1.49	1.61
34	BA	331	G	O3'-P	-7.79	1.49	1.61
34	BA	465	A	C1'-N9	-7.79	1.36	1.48
34	BA	1684	A	C1'-N9	-7.79	1.36	1.48
35	BB	399	A	C1'-N9	-7.79	1.36	1.48
38	BE	113	C	P-O5'	-7.79	1.48	1.59
38	BE	148	C	P-O5'	-7.79	1.48	1.59
85	AA	1655	G	C2'-C1'	-7.79	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2075	C	O3'-P	-7.79	1.49	1.61
20	AL	22	SER	CA-C	-7.79	1.45	1.52
77	Br	123	VAL	CA-C	-7.79	1.42	1.52
83	Bx	256	ARG	CA-C	-7.79	1.43	1.52
34	BA	69	C	O3'-P	-7.78	1.49	1.61
34	BA	431	A	O3'-P	-7.78	1.49	1.61
34	BA	880	G	O3'-P	-7.78	1.49	1.61
37	BD	41	G	C4'-O4'	-7.78	1.34	1.45
77	Br	47	SER	CA-C	-7.78	1.42	1.52
34	BA	1496	G	C1'-N9	-7.78	1.35	1.47
34	BA	937	G	C1'-N9	-7.78	1.36	1.48
85	AA	2119	C	C3'-C2'	-7.78	1.41	1.52
34	BA	276	C	C2'-C1'	-7.78	1.41	1.53
34	BA	400	A	P-O5'	-7.78	1.48	1.59
34	BA	1424	G	P-O5'	-7.78	1.48	1.59
34	BA	1502	G	C2'-C1'	-7.78	1.41	1.53
40	BG	118	U	C1'-N1	-7.78	1.36	1.48
85	AA	1122	U	O3'-P	-7.78	1.49	1.61
85	AA	2029	G	P-O5'	-7.78	1.48	1.59
85	AA	472	A	P-O5'	-7.78	1.48	1.59
73	Bn	17	ILE	CA-C	-7.77	1.42	1.52
35	BB	509	A	C1'-N9	-7.77	1.36	1.48
40	BG	159	A	C1'-N9	-7.77	1.36	1.48
81	Bv	61	VAL	CA-C	-7.77	1.43	1.52
85	AA	538	A	O3'-P	-7.77	1.49	1.61
85	AA	2085	C	O3'-P	-7.77	1.49	1.61
2	A1	165	LYS	CA-C	-7.77	1.43	1.52
34	BA	93	A	P-O5'	-7.77	1.48	1.59
64	Be	165	MET	CA-C	-7.77	1.43	1.52
65	Bf	295	PRO	CA-C	-7.77	1.41	1.52
30	AW	44	ILE	CA-C	-7.77	1.46	1.52
34	BA	93	A	C1'-N9	-7.77	1.36	1.48
35	BB	1528	U	P-O5'	-7.77	1.48	1.59
82	Bw	149	ILE	CA-C	-7.77	1.43	1.52
85	AA	1661	U	O3'-P	-7.77	1.49	1.61
35	BB	649	A	P-O5'	-7.76	1.48	1.59
37	BD	73	U	P-O5'	-7.76	1.48	1.59
39	BF	36	G	O3'-P	-7.76	1.49	1.61
77	Br	288	THR	N-CA	-7.76	1.36	1.46
85	AA	2123	U	P-O5'	-7.76	1.48	1.59
35	BB	434	A	O3'-P	-7.76	1.49	1.61
36	BC	67	U	P-O5'	-7.76	1.48	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	BO	35	GLY	CA-C	-7.76	1.43	1.52
85	AA	488	G	P-O5'	-7.76	1.48	1.59
85	AA	509	C	O3'-P	-7.76	1.49	1.61
34	BA	268	U	C1'-N1	-7.76	1.36	1.48
34	BA	484	A	P-O5'	-7.76	1.48	1.59
35	BB	135	C	C3'-C2'	-7.76	1.41	1.52
34	BA	417	A	C1'-N9	-7.76	1.35	1.47
34	BA	471	U	P-O5'	-7.76	1.48	1.59
85	AA	398	U	O3'-P	-7.76	1.49	1.61
34	BA	1069	U	C2'-C1'	-7.75	1.41	1.53
35	BB	827	U	O3'-P	-7.75	1.49	1.61
41	BH	17	A	P-O5'	-7.75	1.48	1.59
34	BA	1002	U	P-O5'	-7.75	1.48	1.59
85	AA	712	U	P-O5'	-7.75	1.48	1.59
35	BB	1075	A	C2'-C1'	-7.75	1.41	1.53
35	BB	1453	G	C2'-C1'	-7.75	1.41	1.53
34	BA	1608	C	O3'-P	-7.75	1.49	1.61
85	AA	384	C	C1'-N1	-7.75	1.36	1.48
85	AA	788	G	O3'-P	-7.75	1.49	1.61
40	BG	17	A	C4'-C3'	-7.75	1.41	1.52
40	BG	95	U	O4'-C1'	-7.75	1.30	1.41
35	BB	608	A	C1'-N9	-7.75	1.36	1.48
35	BB	1262	A	C1'-N9	-7.75	1.36	1.48
50	BQ	159	ILE	CA-C	-7.75	1.42	1.52
85	AA	102	A	O3'-P	-7.75	1.49	1.61
85	AA	111	A	O3'-P	-7.75	1.49	1.61
85	AA	118	C	C2'-C1'	-7.75	1.41	1.53
34	BA	131	A	O3'-P	-7.74	1.49	1.61
34	BA	734	G	P-O5'	-7.74	1.48	1.59
34	BA	942	G	P-O5'	-7.74	1.48	1.59
50	BQ	148	GLU	CA-C	-7.74	1.43	1.52
35	BB	439	G	O3'-P	-7.74	1.49	1.61
85	AA	106	G	P-O5'	-7.74	1.48	1.59
34	BA	754	G	C1'-N9	-7.74	1.36	1.48
34	BA	111	U	C3'-C2'	-7.74	1.41	1.52
34	BA	599	U	O3'-P	-7.74	1.49	1.61
34	BA	878	G	C1'-N9	-7.74	1.36	1.48
34	BA	1289	C	O3'-P	-7.74	1.49	1.61
38	BE	12	A	C1'-N9	-7.74	1.36	1.48
85	AA	1540	A	P-O5'	-7.74	1.48	1.59
37	BD	41	G	C1'-N9	-7.74	1.35	1.47
34	BA	212	A	C1'-N9	-7.74	1.36	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BG	15	G	C1'-N9	-7.74	1.36	1.48
85	AA	880	A	C2'-C1'	-7.74	1.41	1.53
85	AA	2074	G	C1'-N9	-7.74	1.36	1.48
85	AA	2199	G	C3'-C2'	-7.74	1.41	1.52
34	BA	695	A	C2'-C1'	-7.73	1.41	1.53
36	BC	153	C	O3'-P	-7.73	1.49	1.61
85	AA	302	C	C5'-C4'	7.73	1.62	1.51
34	BA	89	G	P-O5'	-7.73	1.48	1.59
34	BA	1208	U	O3'-P	-7.73	1.49	1.61
41	BH	33	G	P-O5'	-7.73	1.48	1.59
40	BG	23	C	C5'-C4'	-7.73	1.39	1.51
34	BA	255	G	O3'-P	-7.73	1.49	1.61
34	BA	1019	C	C1'-N1	-7.73	1.35	1.47
35	BB	1133	C	O3'-P	-7.73	1.49	1.61
35	BB	1256	C	O3'-P	-7.73	1.49	1.61
37	BD	81	C	C3'-C2'	-7.73	1.41	1.52
85	AA	383	C	P-O5'	-7.73	1.48	1.59
34	BA	207	A	C1'-N9	-7.72	1.36	1.48
34	BA	1041	U	C1'-N1	-7.72	1.36	1.48
34	BA	1100	A	P-O5'	-7.72	1.48	1.59
35	BB	484	G	O3'-P	-7.72	1.49	1.61
35	BB	818	U	P-O5'	-7.72	1.48	1.59
36	BC	92	C	P-O5'	-7.72	1.48	1.59
37	BD	115	A	P-O5'	-7.72	1.48	1.59
62	Bc	116	THR	CA-C	-7.72	1.43	1.52
85	AA	707	U	O3'-P	-7.72	1.49	1.61
85	AA	1201	A	C1'-N9	-7.72	1.36	1.48
85	AA	1925	A	C1'-N9	-7.72	1.36	1.48
34	BA	954	U	P-O5'	-7.72	1.48	1.59
35	BB	1260	A	C1'-N9	-7.72	1.35	1.47
64	Be	146	THR	CA-C	-7.72	1.43	1.52
40	BG	57	A	C1'-N9	-7.72	1.36	1.48
85	AA	1531	G	P-O5'	-7.72	1.48	1.59
18	AJ	14	ILE	CA-C	-7.72	1.43	1.52
35	BB	1343	C	O3'-P	-7.72	1.49	1.61
40	BG	116	G	C1'-N9	-7.72	1.36	1.48
34	BA	324	C	C4'-C3'	-7.71	1.41	1.52
35	BB	692	G	C1'-N9	-7.71	1.36	1.48
85	AA	605	A	O3'-P	-7.71	1.49	1.61
34	BA	783	U	O3'-P	-7.71	1.49	1.61
37	BD	68	C	P-O5'	-7.71	1.48	1.59
34	BA	3	G	C3'-C2'	-7.71	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	297	A	O4'-C1'	-7.71	1.30	1.41
35	BB	1152	U	O3'-P	-7.71	1.49	1.61
52	BS	82	TYR	CA-C	-7.71	1.43	1.52
77	Br	23	LEU	C-N	-7.71	1.27	1.33
40	BG	8	U	C2'-C1'	-7.71	1.41	1.53
35	BB	1413	U	P-O5'	-7.71	1.48	1.59
36	BC	68	A	C1'-N9	-7.71	1.36	1.48
40	BG	103	C	O3'-P	-7.71	1.49	1.61
34	BA	696	A	C2'-C1'	-7.71	1.41	1.53
85	AA	436	G	P-O5'	-7.71	1.48	1.59
35	BB	1326	U	C2'-C1'	-7.71	1.41	1.53
34	BA	850	C	P-O5'	-7.70	1.48	1.59
35	BB	638	G	C1'-N9	-7.70	1.36	1.48
35	BB	1231	U	O3'-P	-7.70	1.49	1.61
48	BO	96	ASP	CA-C	-7.70	1.42	1.52
85	AA	244	G	P-O5'	-7.70	1.48	1.59
34	BA	349	G	O3'-P	-7.70	1.49	1.61
34	BA	1812	C	O3'-P	-7.70	1.49	1.61
42	BI	69	VAL	CA-C	-7.70	1.41	1.52
85	AA	1133	C	O3'-P	-7.70	1.49	1.61
13	AE	27	GLN	CA-C	-7.70	1.43	1.52
85	AA	270	A	P-O5'	-7.70	1.48	1.59
34	BA	1166	A	C3'-C2'	-7.70	1.41	1.52
85	AA	241	U	O3'-P	-7.70	1.49	1.61
85	AA	52	U	O3'-P	-7.70	1.49	1.61
35	BB	709	G	C2'-C1'	-7.70	1.41	1.53
40	BG	181	C	C2'-C1'	-7.70	1.41	1.53
34	BA	1159	A	P-O5'	-7.69	1.48	1.59
34	BA	61	G	O3'-P	-7.69	1.49	1.61
40	BG	166	C	O3'-P	-7.69	1.49	1.61
34	BA	433	G	C1'-N9	-7.69	1.36	1.48
34	BA	1037	C	O3'-P	-7.69	1.49	1.61
34	BA	1645	C	O3'-P	-7.69	1.49	1.61
36	BC	95	A	O3'-P	-7.69	1.49	1.61
85	AA	2105	G	P-O5'	-7.69	1.48	1.59
34	BA	749	G	C1'-N9	-7.69	1.36	1.48
34	BA	994	G	O3'-P	-7.69	1.49	1.61
35	BB	482	A	O3'-P	-7.69	1.49	1.61
35	BB	1242	C	P-O5'	-7.69	1.48	1.59
85	AA	455	G	P-O5'	-7.69	1.48	1.59
8	A7	153	ASP	N-CA	-7.69	1.36	1.46
35	BB	674	C	C1'-N1	-7.69	1.36	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1311	G	C1'-N9	-7.69	1.36	1.48
37	BD	4	U	O3'-P	-7.69	1.49	1.61
38	BE	97	G	C3'-C2'	-7.69	1.41	1.52
85	AA	2007	G	C2'-C1'	-7.69	1.41	1.53
34	BA	1588	U	O3'-P	-7.68	1.49	1.61
85	AA	763	U	O3'-P	-7.68	1.49	1.61
34	BA	1311	G	C1'-N9	-7.68	1.36	1.48
38	BE	150	G	C1'-N9	-7.68	1.36	1.48
68	Bi	110	VAL	CA-C	-7.68	1.43	1.52
77	Br	168	THR	CA-C	-7.68	1.43	1.52
35	BB	1232	A	P-O5'	-7.68	1.48	1.59
38	BE	28	C	P-O5'	-7.68	1.48	1.59
39	BF	71	G	O3'-P	-7.68	1.49	1.61
34	BA	86	A	P-O5'	-7.68	1.48	1.59
34	BA	918	U	P-O5'	-7.68	1.48	1.59
35	BB	1072	C	C1'-N1	-7.68	1.35	1.47
34	BA	35	U	P-O5'	-7.68	1.48	1.59
34	BA	810	A	P-O5'	-7.68	1.48	1.59
35	BB	7	C	C1'-N1	-7.68	1.36	1.48
35	BB	503	G	C1'-N9	-7.68	1.36	1.48
74	Bo	34	HIS	CA-C	-7.68	1.42	1.52
85	AA	2201	A	C1'-N9	-7.68	1.36	1.48
34	BA	125	G	P-O5'	-7.67	1.48	1.59
35	BB	1178	A	O3'-P	-7.67	1.49	1.61
72	Bm	45	LEU	CA-C	-7.67	1.43	1.52
34	BA	1549	U	P-O5'	-7.67	1.48	1.59
35	BB	33	A	C1'-N9	-7.67	1.35	1.47
34	BA	860	G	C1'-N9	-7.67	1.36	1.48
35	BB	1395	G	C1'-N9	-7.67	1.36	1.48
35	BB	1421	C	P-O5'	-7.67	1.48	1.59
49	BP	106	THR	CA-C	-7.67	1.43	1.52
34	BA	103	G	O3'-P	-7.67	1.49	1.61
34	BA	545	U	P-O5'	-7.67	1.48	1.59
34	BA	598	G	O3'-P	-7.67	1.49	1.61
34	BA	1558	C	O3'-P	-7.67	1.49	1.61
41	BH	114	G	C1'-N9	-7.67	1.36	1.48
35	BB	1420	U	O3'-P	-7.67	1.49	1.61
37	BD	84	U	P-O5'	-7.67	1.48	1.59
85	AA	1823	G	O3'-P	-7.67	1.49	1.61
35	BB	1254	G	C4'-O4'	-7.67	1.34	1.45
85	AA	248	U	O3'-P	-7.67	1.49	1.61
85	AA	437	G	O3'-P	-7.67	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2228	G	P-O5'	-7.67	1.48	1.59
23	AP	49	LEU	CA-C	-7.66	1.43	1.52
34	BA	1722	U	P-O5'	-7.66	1.48	1.59
48	BO	215	VAL	CA-C	-7.66	1.43	1.52
85	AA	24	U	P-O5'	-7.66	1.48	1.59
85	AA	541	A	P-O5'	-7.66	1.48	1.59
34	BA	1327	G	O3'-P	-7.66	1.49	1.61
65	Bf	416	PHE	N-CA	-7.66	1.36	1.46
34	BA	48	C	C1'-N1	-7.66	1.36	1.48
34	BA	967	C	O3'-P	-7.66	1.49	1.61
35	BB	1027	U	O3'-P	-7.66	1.49	1.61
36	BC	144	C	C1'-N1	-7.66	1.36	1.48
39	BF	65	U	P-O5'	-7.66	1.48	1.59
34	BA	44	U	P-O5'	-7.66	1.48	1.59
34	BA	1477	C	C1'-N1	-7.66	1.36	1.48
35	BB	611	U	O3'-P	-7.66	1.49	1.61
35	BB	675	U	O3'-P	-7.66	1.49	1.61
35	BB	1293	C	P-O5'	-7.66	1.48	1.59
37	BD	32	A	O3'-P	-7.66	1.49	1.61
38	BE	39	U	P-O5'	-7.66	1.48	1.59
85	AA	1275	A	C1'-N9	-7.66	1.35	1.47
40	BG	9	G	C3'-C2'	-7.65	1.41	1.52
57	BX	125	TYR	CA-C	-7.65	1.43	1.52
7	A6	41	ILE	CA-C	-7.65	1.42	1.52
34	BA	717	U	P-O5'	-7.65	1.48	1.59
35	BB	120	C	C3'-C2'	-7.65	1.41	1.52
40	BG	176	G	C1'-N9	-7.65	1.36	1.48
50	BQ	55	ARG	CA-C	-7.65	1.42	1.52
85	AA	860	C	C3'-C2'	-7.65	1.41	1.52
34	BA	78	U	C2'-C1'	-7.65	1.41	1.53
85	AA	424	A	C2'-C1'	-7.65	1.41	1.53
85	AA	743	C	C2'-C1'	-7.65	1.41	1.53
39	BF	65	U	O3'-P	-7.65	1.49	1.61
85	AA	1473	U	C1'-N1	-7.65	1.35	1.47
37	BD	32	A	C1'-N9	-7.64	1.35	1.47
35	BB	442	U	O3'-P	-7.64	1.49	1.61
41	BH	110	C	O3'-P	-7.64	1.49	1.61
85	AA	2119	C	O3'-P	-7.64	1.49	1.61
38	BE	13	A	C5'-C4'	7.64	1.62	1.51
34	BA	1598	U	O3'-P	-7.64	1.49	1.61
52	BS	131	ILE	N-CA	-7.64	1.40	1.46
85	AA	1238	U	O3'-P	-7.64	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A0	26	ARG	CA-C	-7.63	1.43	1.52
38	BE	141	A	P-O5'	-7.63	1.48	1.59
40	BG	10	U	C4'-O4'	-7.63	1.34	1.45
74	Bo	22	PRO	CA-C	-7.63	1.41	1.52
34	BA	146	G	C2'-C1'	-7.63	1.42	1.53
36	BC	162	C	P-O5'	-7.63	1.48	1.59
38	BE	139	U	O3'-P	-7.63	1.49	1.61
42	BI	146	LEU	CA-C	-7.63	1.43	1.52
85	AA	1481	U	P-O5'	-7.63	1.48	1.59
35	BB	1017	U	C2'-C1'	-7.63	1.42	1.53
34	BA	502	U	C3'-C2'	-7.63	1.41	1.52
34	BA	1687	A	O3'-P	-7.63	1.49	1.61
35	BB	608	A	O3'-P	-7.63	1.49	1.61
53	BT	28	GLU	CA-C	-7.63	1.40	1.52
85	AA	2058	C	C2'-C1'	-7.63	1.42	1.53
34	BA	346	A	C1'-N9	-7.62	1.36	1.48
35	BB	375	G	O3'-P	-7.62	1.49	1.61
35	BB	664	A	C1'-N9	-7.62	1.36	1.48
85	AA	420	C	C3'-C2'	-7.62	1.41	1.52
34	BA	1144	A	P-O5'	-7.62	1.48	1.59
35	BB	442	U	C1'-N1	-7.62	1.36	1.47
38	BE	32	U	C1'-N1	-7.62	1.37	1.48
35	BB	703	U	O3'-P	-7.62	1.49	1.61
37	BD	91	U	C3'-C2'	-7.62	1.41	1.52
85	AA	591	A	C1'-N9	-7.62	1.36	1.48
85	AA	1483	A	C2'-C1'	-7.62	1.42	1.53
34	BA	893	U	O3'-P	-7.62	1.49	1.61
85	AA	678	A	C1'-N9	-7.62	1.36	1.48
34	BA	247	U	C3'-C2'	7.62	1.64	1.52
34	BA	1073	G	C1'-N9	-7.62	1.36	1.48
34	BA	1688	G	P-O5'	-7.62	1.48	1.59
34	BA	1782	C	C2'-C1'	-7.62	1.42	1.53
35	BB	667	G	O3'-P	-7.62	1.49	1.61
53	BT	41	VAL	CA-CB	-7.62	1.45	1.54
82	Bw	68	ARG	CA-C	-7.62	1.43	1.52
85	AA	1516	A	C3'-C2'	-7.62	1.41	1.52
85	AA	1650	G	O3'-P	-7.62	1.49	1.61
34	BA	43	U	C1'-N1	-7.62	1.37	1.48
34	BA	301	U	C1'-N1	-7.62	1.37	1.48
34	BA	975	A	O3'-P	-7.62	1.49	1.61
57	BX	58	HIS	CA-C	-7.61	1.43	1.52
85	AA	1357	U	P-O5'	-7.61	1.48	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BH	54	U	P-O5'	-7.61	1.48	1.59
34	BA	986	G	P-O5'	-7.61	1.48	1.59
85	AA	1182	A	P-O5'	-7.61	1.48	1.59
34	BA	1802	C	C1'-N1	-7.61	1.37	1.48
35	BB	121	A	C3'-C2'	-7.61	1.41	1.52
38	BE	46	G	O3'-P	-7.61	1.49	1.61
85	AA	314	C	P-O5'	-7.61	1.48	1.59
34	BA	423	G	O3'-P	-7.60	1.49	1.61
35	BB	661	G	O3'-P	-7.60	1.49	1.61
85	AA	370	A	P-O5'	-7.60	1.48	1.59
34	BA	125	G	O3'-P	-7.60	1.49	1.61
77	Br	164	LYS	CA-C	-7.60	1.42	1.52
35	BB	1294	C	C1'-N1	-7.60	1.37	1.48
68	Bi	96	VAL	CA-C	-7.60	1.43	1.52
34	BA	1422	A	C1'-N9	-7.60	1.36	1.48
37	BD	23	A	C2'-C1'	-7.60	1.42	1.53
64	Be	163	ARG	CD-NE	7.60	1.56	1.46
77	Br	140	GLY	CA-C	-7.60	1.41	1.51
34	BA	1329	U	O3'-P	-7.60	1.49	1.61
85	AA	760	U	C3'-C2'	-7.60	1.41	1.52
11	AC	90	THR	CA-C	-7.60	1.43	1.52
20	AL	57	ILE	CA-C	-7.60	1.43	1.52
34	BA	1599	A	C2'-C1'	-7.60	1.42	1.53
34	BA	390	A	O3'-P	-7.59	1.49	1.61
35	BB	814	A	P-O5'	-7.59	1.48	1.59
38	BE	46	G	P-O5'	-7.59	1.48	1.59
38	BE	47	U	O3'-P	-7.59	1.49	1.61
42	BI	30	ILE	N-CA	-7.59	1.37	1.46
61	Bb	142	VAL	CA-C	-7.59	1.43	1.52
85	AA	31	C	C2'-C1'	-7.59	1.42	1.53
85	AA	604	C	O3'-P	-7.59	1.49	1.61
34	BA	557	U	O4'-C1'	7.59	1.53	1.41
34	BA	1501	U	C2'-C1'	-7.59	1.42	1.53
35	BB	992	C	O3'-P	-7.59	1.49	1.61
36	BC	168	C	P-O5'	-7.59	1.48	1.59
40	BG	17	A	C2'-C1'	-7.59	1.42	1.53
50	BQ	173	HIS	CA-C	-7.59	1.42	1.52
85	AA	545	A	P-O5'	-7.59	1.48	1.59
45	BL	56	ARG	CA-C	-7.59	1.42	1.53
34	BA	494	A	C1'-N9	-7.59	1.36	1.48
34	BA	606	G	P-O5'	-7.59	1.48	1.59
35	BB	1312	U	P-O5'	-7.59	1.48	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	851	C	O3'-P	-7.59	1.49	1.61
34	BA	1720	U	C1'-N1	-7.59	1.37	1.48
70	Bk	69	ASN	CA-C	-7.59	1.42	1.52
34	BA	1843	G	C1'-N9	-7.58	1.36	1.48
85	AA	2146	G	C4'-O4'	-7.58	1.34	1.45
34	BA	1254	C	P-O5'	-7.58	1.48	1.59
51	BR	82	ARG	CA-C	-7.58	1.42	1.53
5	A4	20	GLN	CA-C	-7.58	1.42	1.52
35	BB	1306	G	C1'-N9	-7.58	1.36	1.48
37	BD	79	G	C1'-N9	-7.58	1.36	1.48
40	BG	48	U	P-O5'	-7.58	1.48	1.59
42	BI	57	ASN	CA-C	-7.58	1.43	1.52
85	AA	2103	C	O3'-P	-7.58	1.49	1.61
3	A2	53	PRO	CA-C	-7.58	1.43	1.52
20	AL	4	ILE	CA-C	-7.58	1.43	1.52
34	BA	1226	G	C1'-N9	-7.58	1.36	1.48
36	BC	28	C	N1-C2	-7.58	1.25	1.40
85	AA	1909	C	P-O5'	-7.58	1.48	1.59
34	BA	1510	C	O3'-P	-7.58	1.49	1.61
34	BA	1840	C	O3'-P	-7.58	1.49	1.61
35	BB	49	A	O3'-P	-7.58	1.49	1.61
35	BB	456	A	O3'-P	-7.58	1.49	1.61
34	BA	1152	A	O3'-P	-7.58	1.49	1.61
35	BB	778	A	C3'-C2'	-7.58	1.41	1.52
85	AA	363	A	C3'-C2'	-7.58	1.41	1.52
34	BA	252	A	C1'-N9	-7.58	1.36	1.48
34	BA	1573	C	O3'-P	-7.58	1.49	1.61
35	BB	690	C	C1'-N1	-7.58	1.37	1.48
35	BB	1037	A	C1'-N9	-7.58	1.36	1.48
35	BB	1098	G	C1'-N9	-7.58	1.35	1.47
85	AA	2124	G	O3'-P	-7.58	1.49	1.61
13	AE	76	PHE	CA-C	-7.57	1.43	1.52
35	BB	1482	A	O3'-P	-7.57	1.49	1.61
41	BH	110	C	C3'-C2'	-7.57	1.41	1.52
34	BA	21	C	O3'-P	-7.57	1.49	1.61
34	BA	1672	C	O3'-P	-7.57	1.49	1.61
34	BA	1706	A	C2'-C1'	-7.57	1.42	1.53
35	BB	414	C	P-O5'	-7.57	1.48	1.59
35	BB	1407	U	O3'-P	-7.57	1.49	1.61
40	BG	132	U	C1'-N1	-7.57	1.37	1.48
85	AA	362	G	C2'-C1'	-7.57	1.42	1.53
11	AC	197	ILE	CA-CB	-7.57	1.44	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1722	U	O4'-C1'	-7.57	1.30	1.42
47	BN	37	LYS	CA-C	-7.57	1.43	1.52
80	Bu	20	TYR	CA-C	-7.57	1.42	1.52
85	AA	2136	C	P-O5'	-7.57	1.48	1.59
34	BA	1474	G	O3'-P	-7.57	1.49	1.61
40	BG	38	A	C1'-N9	-7.57	1.36	1.48
82	Bw	183	MET	CA-C	-7.57	1.42	1.52
85	AA	1708	A	C1'-N9	-7.57	1.36	1.48
34	BA	1065	U	C3'-C2'	-7.56	1.41	1.52
37	BD	105	G	C1'-N9	-7.56	1.36	1.48
85	AA	2126	U	C2'-C1'	-7.56	1.42	1.53
34	BA	1283	U	O3'-P	-7.56	1.49	1.61
34	BA	1668	C	O3'-P	-7.56	1.49	1.61
34	BA	1711	G	C3'-C2'	-7.56	1.41	1.52
36	BC	111	C	P-O5'	-7.56	1.48	1.59
38	BE	28	C	C1'-N1	-7.56	1.36	1.47
39	BF	49	C	O3'-P	-7.56	1.49	1.61
40	BG	179	C	O3'-P	-7.56	1.49	1.61
53	BT	30	VAL	CA-CB	-7.56	1.45	1.54
85	AA	25	C	P-O5'	-7.56	1.48	1.59
85	AA	1515	A	C2'-C1'	-7.56	1.42	1.53
34	BA	1507	C	C1'-N1	-7.56	1.37	1.48
56	BW	80	ILE	CA-CB	-7.56	1.45	1.54
85	AA	637	U	O3'-P	-7.56	1.49	1.61
85	AA	2227	A	P-O5'	-7.56	1.48	1.59
34	BA	881	C	O3'-P	-7.56	1.49	1.61
64	Be	137	ILE	CA-C	-7.56	1.43	1.52
85	AA	495	G	O3'-P	-7.56	1.49	1.61
85	AA	2124	G	C1'-N9	-7.56	1.36	1.48
35	BB	1164	U	O3'-P	-7.56	1.49	1.61
48	BO	108	ARG	CA-C	-7.55	1.43	1.52
82	Bw	203	ILE	CA-C	-7.55	1.43	1.52
85	AA	926	C	O3'-P	-7.55	1.49	1.61
85	AA	710	A	O3'-P	-7.55	1.49	1.61
85	AA	1124	G	O3'-P	-7.55	1.49	1.61
34	BA	892	C	O3'-P	-7.55	1.49	1.61
85	AA	695	A	O3'-P	-7.55	1.49	1.61
85	AA	531	G	C2'-C1'	-7.55	1.42	1.53
34	BA	1676	A	P-O5'	-7.55	1.48	1.59
35	BB	40	C	C1'-N1	-7.55	1.37	1.48
35	BB	647	U	O3'-P	-7.55	1.49	1.61
35	BB	1377	A	O3'-P	-7.55	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BC	143	C	O3'-P	-7.55	1.49	1.61
40	BG	14	G	C2'-C1'	-7.55	1.42	1.53
38	BE	178	G	C1'-N9	-7.54	1.36	1.48
59	BZ	9	ARG	CA-C	-7.54	1.43	1.52
35	BB	85	A	C1'-N9	-7.54	1.35	1.47
35	BB	1285	U	O3'-P	-7.54	1.49	1.61
37	BD	67	C	C2'-C1'	-7.54	1.42	1.53
83	Bx	163	LEU	CA-C	-7.54	1.43	1.52
85	AA	164	G	P-O5'	-7.54	1.48	1.59
6	A5	67	TRP	CA-C	-7.54	1.43	1.52
34	BA	31	A	O3'-P	-7.54	1.49	1.61
34	BA	413	A	C2'-C1'	-7.54	1.42	1.53
34	BA	1055	U	P-O5'	-7.54	1.48	1.59
35	BB	46	U	P-O5'	-7.54	1.48	1.59
35	BB	389	G	O3'-P	-7.54	1.49	1.61
39	BF	11	C	O3'-P	-7.54	1.49	1.61
85	AA	173	A	O3'-P	-7.54	1.49	1.61
85	AA	174	U	O3'-P	-7.54	1.49	1.61
35	BB	1147	G	P-O5'	-7.54	1.48	1.59
40	BG	46	G	P-O5'	-7.54	1.48	1.59
85	AA	2174	G	C3'-C2'	-7.54	1.41	1.52
40	BG	126	G	C1'-N9	-7.54	1.36	1.48
40	BG	176	G	P-O5'	-7.54	1.48	1.59
34	BA	272	A	O3'-P	-7.54	1.49	1.61
34	BA	1642	A	C1'-N9	-7.54	1.36	1.48
36	BC	66	G	C1'-N9	-7.54	1.36	1.48
34	BA	1713	U	O3'-P	-7.54	1.49	1.61
85	AA	1814	U	C2'-C1'	-7.54	1.42	1.53
18	AJ	47	ILE	CA-C	-7.53	1.44	1.52
34	BA	1615	A	C1'-N9	-7.53	1.36	1.48
34	BA	1249	G	C1'-N9	-7.53	1.36	1.48
34	BA	1546	C	C2'-C1'	-7.53	1.42	1.53
35	BB	828	G	C2'-C1'	-7.53	1.42	1.53
36	BC	128	U	P-O5'	-7.53	1.48	1.59
85	AA	1474	U	O3'-P	-7.53	1.49	1.61
34	BA	384	U	C3'-C2'	-7.53	1.41	1.52
85	AA	1549	G	O3'-P	-7.53	1.49	1.61
35	BB	658	G	C1'-N9	-7.53	1.36	1.48
40	BG	109	C	C1'-N1	-7.53	1.37	1.48
56	BW	37	TYR	CA-C	-7.53	1.43	1.52
85	AA	292	C	C2'-C1'	-7.53	1.42	1.53
85	AA	2054	G	O3'-P	-7.53	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	372	U	C3'-C2'	-7.53	1.41	1.52
34	BA	557	U	P-OP1	7.53	1.64	1.49
34	BA	961	C	O3'-P	-7.53	1.49	1.61
34	BA	1615	A	O3'-P	-7.53	1.49	1.61
35	BB	1029	U	C1'-N1	-7.53	1.36	1.47
37	BD	65	G	P-O5'	-7.53	1.48	1.59
38	BE	27	A	C4'-O4'	-7.53	1.34	1.45
85	AA	707	U	C4'-C3'	-7.53	1.41	1.52
85	AA	1182	A	O3'-P	-7.53	1.49	1.61
36	BC	20	C	P-O5'	-7.52	1.48	1.59
85	AA	2094	U	O3'-P	-7.52	1.49	1.61
34	BA	20	A	C2'-C1'	-7.52	1.42	1.53
34	BA	975	A	C3'-C2'	-7.52	1.41	1.52
40	BG	162	A	P-O5'	-7.52	1.48	1.59
65	Bf	237	ILE	CA-C	-7.52	1.43	1.52
34	BA	38	G	C2'-C1'	-7.52	1.42	1.53
34	BA	1701	U	C1'-N1	-7.52	1.37	1.48
38	BE	200	A	C1'-N9	-7.52	1.36	1.48
39	BF	69	A	C1'-N9	-7.52	1.36	1.48
41	BH	106	G	C1'-N9	-7.52	1.36	1.48
83	Bx	156	ILE	N-CA	-7.52	1.37	1.46
34	BA	13	U	P-O5'	-7.52	1.48	1.59
34	BA	391	U	O3'-P	-7.52	1.49	1.61
34	BA	685	C	C5'-C4'	7.52	1.62	1.51
34	BA	1609	U	O3'-P	-7.52	1.49	1.61
35	BB	1192	C	O3'-P	-7.52	1.49	1.61
41	BH	29	G	C2'-C1'	-7.52	1.42	1.53
34	BA	876	C	C1'-N1	-7.52	1.37	1.48
35	BB	1019	C	O3'-P	-7.52	1.49	1.61
34	BA	514	U	C2'-C1'	-7.51	1.42	1.53
35	BB	493	U	P-O5'	-7.51	1.48	1.59
35	BB	495	A	C1'-N9	-7.51	1.36	1.48
35	BB	1359	G	C1'-N9	-7.51	1.36	1.48
85	AA	682	C	O3'-P	-7.51	1.49	1.61
35	BB	97	U	O3'-P	-7.51	1.49	1.61
13	AE	44	ARG	N-CA	-7.51	1.41	1.46
34	BA	115	U	O4'-C1'	-7.51	1.30	1.42
34	BA	700	G	C1'-N9	-7.51	1.36	1.48
35	BB	426	A	O3'-P	-7.51	1.49	1.61
40	BG	61	A	C1'-N9	-7.51	1.36	1.48
34	BA	1283	U	C2'-C1'	-7.51	1.42	1.53
35	BB	1486	C	O3'-P	-7.51	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	629	A	O3'-P	-7.51	1.49	1.61
34	BA	789	U	C1'-N1	-7.51	1.37	1.48
68	Bi	31	SER	CA-C	-7.51	1.45	1.53
84	By	186	GLU	CA-C	-7.51	1.43	1.53
85	AA	2191	C	O3'-P	-7.51	1.49	1.61
34	BA	708	C	O3'-P	-7.51	1.49	1.61
34	BA	1468	U	O3'-P	-7.51	1.49	1.61
36	BC	26	U	C4'-O4'	-7.51	1.34	1.45
85	AA	105	A	C1'-N9	-7.51	1.36	1.48
85	AA	2182	A	O3'-P	-7.51	1.49	1.61
66	Bg	101	LEU	CA-C	-7.50	1.43	1.52
85	AA	471	U	P-O5'	-7.50	1.48	1.59
85	AA	655	U	P-O5'	-7.50	1.48	1.59
11	AC	219	LEU	N-CA	-7.50	1.37	1.46
35	BB	1484	A	P-O5'	-7.50	1.48	1.59
40	BG	31	G	C1'-N9	-7.50	1.36	1.48
85	AA	2175	U	O3'-P	-7.50	1.49	1.61
34	BA	788	C	C3'-C2'	-7.50	1.41	1.52
35	BB	74	U	P-O5'	-7.50	1.48	1.59
35	BB	79	U	O3'-P	-7.50	1.50	1.61
35	BB	368	C	C1'-N1	-7.50	1.37	1.48
36	BC	119	G	C1'-N9	-7.50	1.36	1.48
37	BD	16	U	P-O5'	-7.50	1.48	1.59
85	AA	549	A	P-O5'	-7.50	1.48	1.59
85	AA	757	A	P-O5'	-7.50	1.48	1.59
40	BG	73	U	O3'-P	-7.50	1.50	1.61
62	Bc	94	ALA	CA-C	-7.50	1.43	1.52
75	Bp	69	VAL	CA-C	-7.50	1.44	1.52
85	AA	2037	A	O3'-P	-7.50	1.50	1.61
34	BA	705	C	C1'-N1	-7.50	1.37	1.48
35	BB	1311	G	O3'-P	-7.49	1.50	1.61
85	AA	508	C	C2'-C1'	-7.49	1.42	1.53
85	AA	514	U	C1'-N1	-7.49	1.37	1.48
85	AA	819	G	C1'-N9	-7.49	1.36	1.48
85	AA	2100	A	C1'-N9	-7.49	1.35	1.47
85	AA	486	G	O3'-P	-7.49	1.50	1.61
34	BA	177	G	C1'-N9	-7.49	1.35	1.47
34	BA	531	C	C3'-O3'	-7.49	1.30	1.42
35	BB	1449	G	O3'-P	-7.49	1.50	1.61
36	BC	63	G	C1'-N9	-7.49	1.36	1.48
66	Bg	44	THR	CA-C	-7.49	1.43	1.52
85	AA	1148	G	C2'-C1'	-7.49	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	895	U	C4'-C3'	-7.49	1.41	1.52
34	BA	1071	G	C3'-C2'	-7.49	1.41	1.52
39	BF	6	C	C3'-C2'	-7.49	1.41	1.52
34	BA	193	C	O3'-P	-7.49	1.50	1.61
35	BB	1388	A	C1'-N9	-7.49	1.36	1.48
40	BG	45	G	C1'-N9	-7.49	1.36	1.48
85	AA	924	A	P-O5'	-7.49	1.48	1.59
35	BB	444	U	C1'-N1	-7.48	1.37	1.48
48	BO	66	ILE	CA-C	-7.48	1.43	1.52
85	AA	384	C	P-O5'	-7.48	1.48	1.59
85	AA	659	A	C2'-C1'	-7.48	1.42	1.53
34	BA	371	U	C1'-N1	-7.48	1.37	1.48
34	BA	1724	G	C3'-C2'	-7.48	1.41	1.52
35	BB	1070	G	P-O5'	-7.48	1.48	1.59
65	Bf	109	ARG	CA-C	-7.48	1.43	1.52
73	Bn	70	VAL	CA-CB	-7.48	1.45	1.54
74	Bo	81	SER	CA-C	-7.48	1.42	1.52
85	AA	1541	G	O3'-P	-7.48	1.50	1.61
2	A1	105	ARG	CA-C	-7.48	1.43	1.52
65	Bf	338	ILE	CA-C	-7.48	1.44	1.53
80	Bu	110	LEU	CA-C	-7.48	1.42	1.52
85	AA	1228	A	P-O5'	-7.48	1.48	1.59
56	BW	110	GLU	CA-C	-7.48	1.43	1.52
35	BB	552	C	O3'-P	-7.47	1.50	1.61
39	BF	52	A	O3'-P	-7.47	1.50	1.61
65	Bf	277	THR	CA-C	-7.47	1.43	1.53
85	AA	551	C	P-O5'	-7.47	1.48	1.59
85	AA	1140	G	C2'-C1'	-7.47	1.42	1.53
85	AA	2176	U	C1'-N1	-7.47	1.37	1.48
34	BA	735	A	C1'-N9	-7.47	1.36	1.48
40	BG	115	C	C1'-N1	-7.47	1.37	1.48
34	BA	1257	U	O3'-P	-7.47	1.50	1.61
34	BA	1600	G	P-O5'	-7.47	1.48	1.59
37	BD	66	G	C1'-N9	-7.47	1.36	1.48
35	BB	665	A	C2'-C1'	-7.47	1.42	1.53
39	BF	43	U	O3'-P	-7.47	1.50	1.61
85	AA	1667	C	O3'-P	-7.47	1.50	1.61
29	AV	59	SER	CA-C	-7.47	1.42	1.52
34	BA	652	C	P-O5'	-7.47	1.48	1.59
34	BA	712	C	O3'-P	-7.47	1.50	1.61
35	BB	1105	G	P-O5'	-7.47	1.48	1.59
68	Bi	27	PRO	CA-C	-7.47	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A4	65	ILE	CA-C	-7.46	1.43	1.52
34	BA	759	A	O3'-P	-7.46	1.50	1.61
34	BA	1312	A	O3'-P	-7.46	1.50	1.61
34	BA	1460	U	P-O5'	-7.46	1.48	1.59
35	BB	620	G	O3'-P	-7.46	1.50	1.61
35	BB	1286	G	C1'-N9	-7.46	1.36	1.48
36	BC	37	U	C2'-C1'	-7.46	1.41	1.53
38	BE	65	U	P-O5'	-7.46	1.48	1.59
85	AA	15	U	C1'-N1	-7.46	1.37	1.48
85	AA	485	A	P-O5'	-7.46	1.48	1.59
85	AA	1110	A	P-O5'	-7.46	1.48	1.59
34	BA	1562	G	C1'-N9	-7.46	1.36	1.48
35	BB	1194	A	C1'-N9	-7.46	1.36	1.48
65	Bf	280	HIS	CB-CG	-7.46	1.39	1.50
85	AA	158	C	P-O5'	-7.46	1.48	1.59
16	AH	91	ARG	CA-C	-7.46	1.43	1.52
34	BA	1486	U	O3'-P	-7.46	1.50	1.61
38	BE	123	A	O3'-P	-7.46	1.50	1.61
41	BH	72	G	C5'-C4'	7.46	1.62	1.51
47	BN	193	ASN	N-CA	-7.46	1.37	1.46
85	AA	931	G	C1'-N9	-7.46	1.36	1.48
85	AA	1165	C	O3'-P	-7.46	1.50	1.61
40	BG	33	G	C2'-C1'	-7.46	1.41	1.53
35	BB	368	C	P-O5'	-7.46	1.48	1.59
35	BB	679	G	C1'-N9	-7.46	1.36	1.48
66	Bg	35	VAL	N-CA	-7.46	1.37	1.46
85	AA	119	G	C1'-N9	-7.46	1.36	1.48
35	BB	628	A	C1'-N9	-7.46	1.36	1.48
35	BB	1029	U	P-O5'	-7.46	1.48	1.59
48	BO	70	ILE	CA-C	-7.46	1.43	1.52
65	Bf	143	TYR	CA-C	-7.46	1.44	1.52
85	AA	449	G	C1'-N9	-7.46	1.36	1.48
85	AA	1463	A	O3'-P	-7.46	1.50	1.61
37	BD	86	A	C3'-C2'	-7.46	1.41	1.52
34	BA	452	A	O3'-P	-7.45	1.50	1.61
34	BA	670	U	O3'-P	-7.45	1.50	1.61
35	BB	43	G	C2'-C1'	-7.45	1.42	1.53
35	BB	129	U	C1'-N1	-7.45	1.37	1.48
35	BB	1019	C	C2'-C1'	-7.45	1.42	1.53
35	BB	1186	A	C1'-N9	-7.45	1.36	1.48
36	BC	163	A	P-O5'	-7.45	1.48	1.59
85	AA	1466	U	C4'-O4'	-7.45	1.34	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	310	C	P-O5'	-7.45	1.48	1.59
85	AA	79	G	P-O5'	-7.45	1.48	1.59
34	BA	147	U	C1'-N1	-7.45	1.37	1.48
35	BB	822	G	N9-C4	7.45	1.52	1.38
35	BB	1535	G	O3'-P	-7.45	1.50	1.61
85	AA	1470	A	C1'-N9	-7.45	1.36	1.48
85	AA	2069	A	C2'-C1'	-7.45	1.42	1.53
34	BA	807	U	C2'-C1'	-7.45	1.42	1.53
35	BB	1384	A	C2'-C1'	-7.45	1.42	1.53
74	Bo	39	CYS	CA-C	-7.45	1.43	1.52
85	AA	117	C	C3'-C2'	-7.45	1.41	1.52
40	BG	41	U	O3'-P	-7.45	1.50	1.61
34	BA	390	A	C1'-N9	-7.45	1.36	1.48
34	BA	407	A	O3'-P	-7.45	1.50	1.61
34	BA	1784	G	P-O5'	-7.45	1.48	1.59
35	BB	1022	C	C1'-N1	-7.45	1.37	1.48
52	BS	46	MET	CA-C	-7.45	1.42	1.52
34	BA	703	U	O3'-P	-7.44	1.50	1.61
34	BA	1010	C	C3'-C2'	-7.44	1.41	1.52
34	BA	1648	G	O3'-P	-7.44	1.50	1.61
85	AA	1926	A	C2'-C1'	-7.44	1.42	1.53
34	BA	1094	U	O3'-P	-7.44	1.50	1.61
34	BA	1421	A	C1'-N9	-7.44	1.36	1.48
35	BB	1145	G	O3'-P	-7.44	1.50	1.61
35	BB	1444	U	P-O5'	-7.44	1.48	1.59
38	BE	16	C	O3'-P	-7.44	1.50	1.61
85	AA	496	C	P-O5'	-7.44	1.48	1.59
35	BB	576	A	O3'-P	-7.44	1.50	1.61
38	BE	192	A	C2'-C1'	-7.44	1.42	1.53
2	A1	162	LYS	CA-C	-7.44	1.43	1.52
34	BA	125	G	C1'-N9	-7.44	1.36	1.48
38	BE	25	U	C3'-C2'	-7.44	1.41	1.52
85	AA	2238	C	P-O5'	-7.44	1.48	1.59
34	BA	843	G	O3'-P	-7.44	1.50	1.61
31	AX	45	THR	CA-C	-7.43	1.43	1.52
35	BB	1340	U	C2'-C1'	-7.43	1.42	1.53
85	AA	4	C	P-O5'	-7.43	1.48	1.59
51	BR	88	VAL	CA-C	-7.43	1.43	1.52
85	AA	1700	C	P-O5'	-7.43	1.48	1.59
35	BB	1130	U	O3'-P	-7.43	1.50	1.61
34	BA	27	G	O3'-P	-7.43	1.50	1.61
85	AA	81	A	O3'-P	-7.43	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	603	C	P-O5'	-7.43	1.48	1.59
85	AA	1448	A	P-O5'	-7.43	1.48	1.59
7	A6	120	SER	CA-C	-7.43	1.43	1.52
34	BA	753	G	O3'-P	-7.43	1.50	1.61
34	BA	1260	G	O3'-P	-7.43	1.50	1.61
34	BA	1555	G	P-O5'	-7.43	1.48	1.59
37	BD	87	G	P-O5'	-7.43	1.48	1.59
85	AA	598	C	O3'-P	-7.43	1.50	1.61
85	AA	1200	A	C1'-N9	-7.43	1.36	1.48
85	AA	1356	U	O3'-P	-7.43	1.50	1.61
34	BA	145	U	P-O5'	-7.42	1.48	1.59
34	BA	305	C	P-O5'	-7.42	1.48	1.59
35	BB	586	U	O3'-P	-7.42	1.50	1.61
34	BA	1696	G	C3'-C2'	-7.42	1.41	1.52
38	BE	38	C	P-O5'	-7.42	1.48	1.59
66	Bg	77	PRO	CA-C	-7.42	1.43	1.52
34	BA	428	C	P-O5'	-7.42	1.48	1.59
34	BA	815	C	O3'-P	-7.42	1.50	1.61
36	BC	12	A	C1'-N9	-7.42	1.36	1.48
37	BD	69	U	P-O5'	-7.42	1.48	1.59
40	BG	25	G	C2'-C1'	-7.42	1.42	1.53
85	AA	618	A	C2'-C1'	-7.42	1.42	1.53
85	AA	1200	A	O3'-P	-7.42	1.50	1.61
34	BA	1690	U	O3'-P	-7.42	1.50	1.61
65	Bf	141	VAL	CA-C	-7.42	1.43	1.52
34	BA	29	U	O3'-P	-7.42	1.50	1.61
35	BB	1287	U	P-O5'	-7.42	1.48	1.59
35	BB	1293	C	O3'-P	-7.42	1.50	1.61
85	AA	572	G	C2'-C1'	-7.42	1.42	1.53
85	AA	854	A	C5'-C4'	7.42	1.62	1.51
34	BA	1396	A	C1'-N9	-7.42	1.35	1.47
41	BH	114	G	O3'-P	-7.42	1.50	1.61
49	BP	138	SER	CA-C	-7.42	1.43	1.52
52	BS	38	VAL	CA-C	-7.42	1.43	1.52
85	AA	2228	G	C2'-C1'	-7.42	1.42	1.53
36	BC	17	U	C3'-C2'	-7.41	1.41	1.52
50	BQ	149	VAL	N-CA	-7.41	1.37	1.46
56	BW	104	ILE	CA-CB	-7.41	1.46	1.54
85	AA	2129	U	C2'-C1'	-7.41	1.42	1.53
85	AA	2213	A	C2'-C1'	-7.41	1.42	1.53
34	BA	409	A	P-O5'	-7.41	1.48	1.59
34	BA	757	G	C4'-O4'	-7.41	1.34	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BN	117	ASN	CA-C	-7.41	1.42	1.52
85	AA	1890	C	C2'-C1'	-7.41	1.42	1.53
64	Be	133	TYR	N-CA	-7.41	1.37	1.46
67	Bh	161	GLY	CA-C	-7.41	1.41	1.51
72	Bm	20	ASN	CA-C	-7.41	1.43	1.52
84	By	68	ILE	N-CA	-7.41	1.37	1.46
34	BA	543	A	C2'-C1'	-7.41	1.42	1.53
34	BA	1594	G	C2'-C1'	-7.41	1.42	1.53
34	BA	1628	A	O3'-P	-7.41	1.50	1.61
36	BC	43	A	O3'-P	-7.41	1.50	1.61
38	BE	2	G	C1'-N9	-7.41	1.36	1.48
85	AA	613	G	P-O5'	-7.41	1.48	1.59
85	AA	627	A	C1'-N9	-7.41	1.36	1.48
34	BA	557	U	C4'-C3'	7.41	1.63	1.52
35	BB	121	A	C1'-N9	-7.41	1.36	1.48
36	BC	105	C	P-O5'	-7.41	1.48	1.59
35	BB	1443	C	C2'-C1'	-7.41	1.42	1.53
70	Bk	96	ARG	CA-C	-7.40	1.42	1.52
85	AA	1526	G	P-O5'	-7.40	1.48	1.59
35	BB	587	A	C2'-C1'	-7.40	1.42	1.53
36	BC	119	G	O3'-P	-7.40	1.50	1.61
38	BE	94	U	C3'-C2'	-7.40	1.41	1.52
66	Bg	29	MET	CA-C	-7.40	1.43	1.52
85	AA	1217	U	C2'-C1'	-7.40	1.42	1.53
5	A4	157	VAL	CA-CB	-7.40	1.45	1.54
34	BA	687	G	C1'-N9	-7.40	1.36	1.48
34	BA	1217	A	O3'-P	-7.40	1.50	1.61
35	BB	447	C	O3'-P	-7.40	1.50	1.61
73	Bn	80	THR	CA-C	-7.40	1.43	1.52
85	AA	1289	U	P-O5'	-7.40	1.48	1.59
34	BA	574	U	O3'-P	-7.40	1.50	1.61
34	BA	1265	G	O3'-P	-7.40	1.50	1.61
34	BA	1462	U	C3'-C2'	-7.40	1.41	1.52
34	BA	1560	U	C1'-N1	-7.40	1.37	1.48
85	AA	1152	U	P-O5'	-7.40	1.48	1.59
85	AA	1452	C	O3'-P	-7.40	1.50	1.61
34	BA	244	A	P-O5'	-7.40	1.48	1.59
34	BA	812	A	P-O5'	-7.40	1.48	1.59
40	BG	133	C	O3'-P	-7.40	1.50	1.61
80	Bu	169	LEU	CA-C	-7.40	1.43	1.52
85	AA	1586	C	C3'-C2'	-7.40	1.41	1.52
35	BB	1015	U	C2'-C1'	-7.40	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BG	79	U	O3'-P	-7.40	1.50	1.61
51	BR	117	VAL	CA-CB	-7.40	1.45	1.54
34	BA	421	G	C1'-N9	-7.39	1.36	1.48
35	BB	1400	C	O3'-P	-7.39	1.50	1.61
39	BF	48	G	O3'-P	-7.39	1.50	1.61
40	BG	33	G	C3'-C2'	-7.39	1.41	1.52
54	BU	112	LEU	CA-C	-7.39	1.43	1.52
85	AA	185	A	P-O5'	-7.39	1.48	1.59
34	BA	341	U	C1'-N1	-7.39	1.37	1.48
34	BA	1406	U	P-O5'	-7.39	1.48	1.59
34	BA	1467	U	O3'-P	-7.39	1.50	1.61
34	BA	1472	G	C1'-N9	-7.39	1.36	1.48
35	BB	827	U	P-O5'	-7.39	1.48	1.59
35	BB	993	A	C1'-N9	-7.39	1.36	1.48
77	Br	133	PRO	CA-C	-7.39	1.41	1.52
84	By	143	VAL	CA-CB	-7.39	1.44	1.54
85	AA	150	U	O3'-P	-7.39	1.50	1.61
34	BA	380	A	C1'-N9	-7.39	1.36	1.48
38	BE	94	U	C1'-N1	-7.39	1.37	1.48
34	BA	98	A	C2'-C1'	-7.39	1.42	1.53
34	BA	1676	A	C2'-C1'	-7.39	1.42	1.53
34	BA	1685	C	O3'-P	-7.39	1.50	1.61
35	BB	29	C	C1'-N1	-7.39	1.37	1.48
85	AA	579	U	C2'-C1'	-7.39	1.42	1.53
85	AA	1149	A	O3'-P	-7.39	1.50	1.61
4	A3	120	GLY	CA-C	-7.39	1.44	1.52
34	BA	1595	G	O3'-P	-7.39	1.50	1.61
35	BB	634	A	O3'-P	-7.39	1.50	1.61
66	Bg	42	LEU	CA-C	-7.39	1.43	1.52
85	AA	2139	G	P-O5'	-7.39	1.48	1.59
34	BA	776	U	O3'-P	-7.38	1.50	1.61
85	AA	2001	C	O3'-P	-7.38	1.50	1.61
35	BB	1342	C	C2'-C1'	-7.38	1.42	1.53
35	BB	1380	G	C1'-N9	-7.38	1.36	1.48
85	AA	1211	C	C2'-C1'	-7.38	1.42	1.53
85	AA	1302	A	C5'-C4'	7.38	1.62	1.51
34	BA	313	C	C1'-N1	-7.38	1.37	1.48
34	BA	1017	C	O3'-P	-7.38	1.50	1.61
34	BA	1659	G	P-O5'	-7.38	1.48	1.59
35	BB	1075	A	C1'-N9	-7.38	1.36	1.48
65	Bf	300	ARG	CA-C	-7.38	1.45	1.53
76	Bq	16	LYS	CA-C	-7.38	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
79	Bt	7	LYS	CA-C	-7.38	1.43	1.52
5	A4	129	ASN	CA-C	-7.38	1.43	1.52
34	BA	36	A	P-O5'	-7.38	1.48	1.59
34	BA	132	U	C2'-C1'	-7.38	1.42	1.53
34	BA	330	A	C1'-N9	-7.38	1.35	1.47
34	BA	515	U	C5'-C4'	7.38	1.62	1.51
34	BA	748	C	C3'-C2'	-7.38	1.41	1.52
39	BF	34	C	C2'-C1'	-7.38	1.42	1.53
83	Bx	38	SER	N-CA	-7.38	1.39	1.46
15	AG	136	PRO	C-N	-7.38	1.23	1.33
34	BA	1779	U	P-O5'	-7.38	1.48	1.59
35	BB	1492	C	P-O5'	-7.38	1.48	1.59
41	BH	131	A	O3'-P	-7.38	1.50	1.61
85	AA	2204	A	C2'-C1'	-7.38	1.42	1.53
85	AA	2108	C	C2'-C1'	-7.38	1.42	1.53
34	BA	108	A	C1'-N9	-7.37	1.35	1.47
34	BA	1665	G	P-O5'	-7.37	1.48	1.59
35	BB	416	U	C3'-C2'	-7.37	1.41	1.52
35	BB	1109	A	O3'-P	-7.37	1.50	1.61
65	Bf	206	LYS	N-CA	-7.37	1.37	1.46
34	BA	784	C	C2'-C1'	-7.37	1.42	1.53
34	BA	927	A	P-O5'	-7.37	1.48	1.59
34	BA	1164	C	C2'-C1'	-7.37	1.42	1.53
35	BB	680	A	C3'-C2'	-7.37	1.41	1.52
74	Bo	77	THR	CA-C	-7.37	1.43	1.52
85	AA	1253	G	C2'-C1'	-7.37	1.42	1.53
34	BA	1098	G	P-O5'	-7.37	1.48	1.59
47	BN	7	ALA	C-N	7.37	1.41	1.33
34	BA	926	A	C3'-C2'	-7.37	1.41	1.52
40	BG	37	G	P-O5'	-7.37	1.48	1.59
53	BT	165	LYS	CA-C	-7.37	1.42	1.52
85	AA	926	C	C1'-N1	-7.37	1.37	1.48
85	AA	928	U	O3'-P	-7.37	1.50	1.61
85	AA	1495	G	C3'-C2'	-7.37	1.41	1.52
8	A7	211	CYS	CA-C	-7.37	1.43	1.52
85	AA	705	G	C3'-C2'	-7.37	1.41	1.52
67	Bh	72	SER	N-CA	-7.36	1.37	1.46
74	Bo	21	ASN	C-N	-7.36	1.24	1.34
35	BB	25	A	P-O5'	-7.36	1.48	1.59
34	BA	341	U	O4'-C1'	-7.36	1.30	1.41
34	BA	1613	G	P-O5'	-7.36	1.48	1.59
35	BB	502	C	P-O5'	-7.36	1.48	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	433	U	P-O5'	-7.36	1.48	1.59
34	BA	774	A	P-O5'	-7.36	1.48	1.59
34	BA	851	C	P-O5'	-7.36	1.48	1.59
38	BE	145	A	O3'-P	-7.36	1.50	1.61
85	AA	668	A	C1'-N9	-7.36	1.36	1.48
34	BA	262	A	P-O5'	-7.36	1.48	1.59
34	BA	999	G	P-O5'	-7.36	1.48	1.59
35	BB	1129	C	O3'-P	-7.36	1.50	1.61
35	BB	1146	C	O3'-P	-7.36	1.50	1.61
40	BG	124	A	O3'-P	-7.36	1.50	1.61
40	BG	164	U	O3'-P	-7.36	1.50	1.61
73	Bn	28	HIS	CA-C	-7.36	1.43	1.52
73	Bn	39	TYR	CA-C	-7.36	1.44	1.52
85	AA	2193	A	O3'-P	-7.36	1.50	1.61
34	BA	292	C	C2'-C1'	-7.36	1.42	1.53
34	BA	357	A	C2'-C1'	-7.36	1.42	1.53
34	BA	532	C	C2'-C1'	-7.36	1.42	1.53
34	BA	955	G	P-O5'	-7.36	1.48	1.59
34	BA	1098	G	O3'-P	-7.36	1.50	1.61
34	BA	1454	G	C2'-C1'	-7.36	1.42	1.53
42	BI	49	HIS	CB-CG	-7.36	1.39	1.50
69	Bj	26	THR	C-N	-7.36	1.25	1.34
78	Bs	50	LYS	CA-C	-7.36	1.43	1.52
83	Bx	48	GLY	N-CA	7.36	1.56	1.45
34	BA	400	A	C3'-C2'	-7.35	1.41	1.52
34	BA	744	G	C2'-C1'	-7.35	1.42	1.53
34	BA	915	A	O3'-P	-7.35	1.50	1.61
36	BC	5	U	P-O5'	-7.35	1.48	1.59
36	BC	124	A	C5'-C4'	7.35	1.62	1.51
35	BB	429	C	P-O5'	-7.35	1.48	1.59
35	BB	999	G	C2'-C1'	-7.35	1.42	1.53
85	AA	1235	G	C1'-N9	-7.35	1.36	1.48
48	BO	172	VAL	CA-C	-7.35	1.43	1.52
35	BB	1199	A	P-O5'	-7.35	1.48	1.59
85	AA	50	C	P-O5'	-7.35	1.48	1.59
34	BA	406	G	P-O5'	-7.35	1.48	1.59
34	BA	736	G	O3'-P	-7.35	1.50	1.61
34	BA	760	G	C1'-N9	-7.35	1.36	1.48
66	Bg	71	CYS	CA-C	-7.35	1.43	1.52
85	AA	925	G	O3'-P	-7.35	1.50	1.61
85	AA	1927	G	O3'-P	-7.35	1.50	1.61
35	BB	1032	U	O3'-P	-7.35	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1618	A	C1'-N9	-7.34	1.36	1.48
71	Bl	100	ALA	CA-C	-7.34	1.46	1.53
85	AA	1542	A	O3'-P	-7.34	1.50	1.61
34	BA	1570	C	O3'-P	-7.34	1.50	1.61
35	BB	1321	G	C1'-N9	-7.34	1.36	1.48
39	BF	56	C	C1'-N1	7.34	1.59	1.48
85	AA	1294	U	O4'-C1'	-7.34	1.30	1.41
34	BA	293	A	O3'-P	-7.34	1.50	1.61
34	BA	979	G	C1'-N9	-7.34	1.36	1.48
37	BD	80	G	C1'-N9	-7.34	1.36	1.48
41	BH	22	A	C1'-N9	-7.34	1.36	1.48
85	AA	1565	G	O3'-P	-7.34	1.50	1.61
34	BA	1164	C	O3'-P	-7.34	1.50	1.61
49	BP	141	LYS	CA-C	-7.34	1.43	1.52
34	BA	353	U	O3'-P	-7.34	1.50	1.61
35	BB	470	C	C1'-N1	-7.34	1.37	1.48
37	BD	75	G	P-O5'	-7.34	1.48	1.59
63	Bd	17	HIS	CB-CG	-7.34	1.39	1.50
85	AA	1486	G	C1'-N9	-7.34	1.36	1.48
35	BB	6	A	P-O5'	-7.33	1.48	1.59
38	BE	198	A	O3'-P	-7.33	1.50	1.61
51	BR	83	TRP	CA-C	-7.33	1.43	1.52
85	AA	2128	G	C1'-N9	-7.33	1.36	1.48
34	BA	480	G	N9-C4	-7.33	1.23	1.38
85	AA	1115	G	P-O5'	-7.33	1.48	1.59
35	BB	380	G	P-O5'	-7.33	1.48	1.59
36	BC	81	U	O3'-P	-7.33	1.50	1.61
35	BB	1198	C	O3'-P	-7.33	1.50	1.61
85	AA	2153	G	P-O5'	-7.33	1.48	1.59
35	BB	570	A	O3'-P	-7.33	1.50	1.61
35	BB	1423	U	C2'-C1'	-7.33	1.42	1.53
57	BX	142	LYS	CA-C	-7.33	1.43	1.52
72	Bm	102	LEU	CA-C	-7.33	1.43	1.52
85	AA	1466	U	O4'-C1'	-7.33	1.30	1.41
85	AA	1895	C	P-O5'	-7.33	1.48	1.59
85	AA	474	C	C3'-C2'	-7.33	1.41	1.52
35	BB	659	C	C1'-N1	-7.33	1.36	1.47
38	BE	7	U	O3'-P	-7.33	1.50	1.61
47	BN	22	SER	N-CA	-7.33	1.36	1.46
13	AE	25	GLN	CA-C	-7.32	1.43	1.52
34	BA	1506	C	C3'-C2'	-7.32	1.41	1.52
85	AA	1125	G	C2'-C1'	-7.32	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	42	A	P-O5'	-7.32	1.48	1.59
34	BA	482	C	P-O5'	-7.32	1.48	1.59
35	BB	131	A	O3'-P	-7.32	1.50	1.61
85	AA	69	C	C1'-N1	-7.32	1.37	1.48
85	AA	177	A	O3'-P	-7.32	1.50	1.61
34	BA	963	G	C2'-C1'	-7.32	1.42	1.53
35	BB	428	G	C2'-C1'	-7.32	1.42	1.53
35	BB	491	A	C3'-C2'	-7.32	1.41	1.52
35	BB	1488	G	C1'-N9	-7.32	1.36	1.48
34	BA	341	U	O3'-P	-7.32	1.50	1.61
34	BA	924	U	P-O5'	-7.32	1.48	1.59
85	AA	376	C	O3'-P	-7.32	1.50	1.61
85	AA	1216	A	C3'-C2'	-7.32	1.41	1.52
34	BA	1327	G	C1'-N9	-7.32	1.36	1.48
34	BA	1685	C	C1'-N1	-7.32	1.37	1.48
36	BC	127	C	P-O5'	-7.32	1.48	1.59
51	BR	117	VAL	CA-C	-7.32	1.43	1.52
85	AA	1136	A	C2'-C1'	-7.32	1.42	1.53
34	BA	1511	C	O3'-P	-7.31	1.50	1.61
37	BD	47	U	C1'-N1	-7.31	1.37	1.48
37	BD	92	G	P-O5'	-7.31	1.48	1.59
85	AA	542	G	C2'-C1'	-7.31	1.42	1.53
34	BA	613	A	C1'-N9	-7.31	1.36	1.48
35	BB	6	A	C2'-C1'	-7.31	1.42	1.53
35	BB	686	A	O3'-P	-7.31	1.50	1.61
34	BA	1609	U	C3'-C2'	-7.31	1.41	1.52
38	BE	147	G	O3'-P	-7.31	1.50	1.61
50	BQ	35	VAL	N-CA	-7.31	1.38	1.46
82	Bw	47	ALA	CA-C	-7.31	1.43	1.52
83	Bx	99	SER	CA-C	-7.31	1.43	1.52
34	BA	291	C	O3'-P	-7.31	1.50	1.61
35	BB	1120	A	C1'-N9	-7.31	1.36	1.48
36	BC	65	G	O3'-P	-7.31	1.50	1.61
40	BG	5	G	O3'-P	-7.31	1.50	1.61
5	A4	4	GLN	CA-C	-7.30	1.43	1.52
34	BA	1822	U	O3'-P	-7.30	1.50	1.61
35	BB	1479	C	P-O5'	-7.30	1.48	1.59
40	BG	76	C	O3'-P	-7.30	1.50	1.61
34	BA	126	G	C1'-N9	-7.30	1.36	1.48
75	Bp	3	ARG	CA-C	-7.30	1.43	1.52
85	AA	1187	G	O3'-P	-7.30	1.50	1.61
34	BA	35	U	C3'-C2'	-7.30	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	143	A	P-O5'	-7.30	1.48	1.59
35	BB	1378	U	P-O5'	-7.30	1.48	1.59
85	AA	447	C	C2'-C1'	-7.30	1.42	1.53
13	AE	153	TYR	CA-C	-7.30	1.43	1.52
34	BA	243	C	P-O5'	-7.30	1.48	1.59
35	BB	1071	G	O3'-P	-7.30	1.50	1.61
49	BP	71	THR	CA-C	-7.30	1.43	1.52
34	BA	1475	G	C2'-C1'	-7.30	1.42	1.53
35	BB	1161	G	O3'-P	-7.30	1.50	1.61
40	BG	75	C	C1'-N1	-7.30	1.37	1.48
56	BW	95	ILE	CA-C	-7.30	1.44	1.52
85	AA	31	C	O3'-P	-7.30	1.50	1.61
34	BA	338	U	O3'-P	-7.29	1.50	1.61
35	BB	612	A	O3'-P	-7.29	1.50	1.61
34	BA	1067	G	C1'-N9	-7.29	1.37	1.48
35	BB	368	C	C2'-C1'	-7.29	1.42	1.53
35	BB	1252	G	O3'-P	-7.29	1.50	1.61
41	BH	21	G	C2'-C1'	-7.29	1.42	1.53
70	Bk	94	ARG	CA-C	-7.29	1.43	1.52
85	AA	511	A	O3'-P	-7.29	1.50	1.61
85	AA	1196	C	P-O5'	-7.29	1.48	1.59
34	BA	45	A	O3'-P	-7.29	1.50	1.61
34	BA	1301	G	C1'-N9	-7.29	1.37	1.48
40	BG	79	U	C2'-C1'	-7.29	1.42	1.53
40	BG	136	G	C1'-N9	-7.29	1.37	1.48
40	BG	167	C	O3'-P	-7.29	1.50	1.61
44	BK	76	MET	CA-C	-7.29	1.43	1.52
47	BN	21	SER	CA-C	-7.29	1.42	1.52
72	Bm	49	LYS	CA-C	-7.29	1.43	1.52
85	AA	2187	G	C4'-C3'	-7.29	1.41	1.52
85	AA	440	U	O3'-P	-7.29	1.50	1.61
4	A3	208	GLU	CA-C	-7.29	1.43	1.52
36	BC	49	G	O3'-P	-7.29	1.50	1.61
85	AA	1913	G	P-O5'	-7.29	1.48	1.59
34	BA	857	C	C1'-N1	-7.29	1.37	1.48
35	BB	438	G	C1'-N9	-7.29	1.37	1.48
40	BG	148	C	P-O5'	-7.29	1.48	1.59
85	AA	1140	G	O3'-P	-7.29	1.50	1.61
23	AP	113	VAL	CA-CB	-7.28	1.45	1.54
23	AP	140	ILE	CA-C	-7.28	1.42	1.52
34	BA	67	A	C1'-N9	-7.28	1.37	1.48
34	BA	88	C	O4'-C1'	-7.28	1.30	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	676	G	C1'-N9	-7.28	1.37	1.48
34	BA	1000	G	O3'-P	-7.28	1.50	1.61
35	BB	538	A	P-O5'	-7.28	1.48	1.59
35	BB	1057	G	P-O5'	-7.28	1.48	1.59
35	BB	1186	A	C3'-C2'	-7.28	1.41	1.52
35	BB	1419	G	P-O5'	-7.28	1.48	1.59
68	Bi	55	ASN	CA-C	-7.28	1.43	1.52
85	AA	2228	G	C1'-N9	-7.28	1.37	1.48
34	BA	1547	G	C1'-N9	-7.28	1.37	1.48
35	BB	35	G	C1'-N9	-7.28	1.37	1.48
48	BO	208	MET	N-CA	-7.28	1.37	1.46
67	Bh	143	VAL	C-N	-7.28	1.25	1.33
85	AA	161	A	C2'-C1'	-7.28	1.42	1.53
34	BA	1704	G	C1'-N9	-7.28	1.37	1.48
34	BA	1018	U	C4'-C3'	-7.28	1.41	1.52
34	BA	1234	U	O3'-P	-7.28	1.50	1.61
82	Bw	210	PHE	CA-C	-7.28	1.43	1.52
35	BB	1033	U	C1'-N1	-7.28	1.37	1.48
85	AA	969	U	O3'-P	-7.28	1.50	1.61
1	A0	173	ILE	CA-C	-7.27	1.44	1.52
34	BA	481	A	O3'-P	-7.27	1.50	1.61
34	BA	882	G	C2'-C1'	-7.27	1.42	1.53
34	BA	1270	G	C1'-N9	-7.27	1.37	1.48
34	BA	1801	G	C2'-C1'	-7.27	1.42	1.53
85	AA	1518	A	O3'-P	-7.27	1.50	1.61
34	BA	1410	C	P-O5'	-7.27	1.48	1.59
35	BB	1404	A	C1'-N9	-7.27	1.37	1.48
40	BG	81	G	O3'-P	-7.27	1.50	1.61
34	BA	513	U	O3'-P	-7.27	1.50	1.61
35	BB	618	U	C3'-C2'	-7.27	1.41	1.52
62	Bc	13	ARG	CA-CB	7.27	1.65	1.53
85	AA	2183	U	O3'-P	-7.27	1.50	1.61
34	BA	518	C	C1'-N1	-7.27	1.37	1.48
36	BC	154	A	O3'-P	-7.27	1.50	1.61
38	BE	23	G	O3'-P	-7.27	1.50	1.61
41	BH	28	U	O3'-P	-7.27	1.50	1.61
41	BH	35	G	O3'-P	-7.27	1.50	1.61
82	Bw	73	THR	CA-C	-7.27	1.43	1.52
2	A1	247	ILE	CA-C	-7.27	1.44	1.52
41	BH	13	C	C2'-C1'	-7.27	1.42	1.53
34	BA	432	A	C1'-N9	-7.26	1.37	1.48
35	BB	1470	G	C4'-C3'	7.26	1.63	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BD	72	U	C1'-N1	-7.26	1.37	1.48
85	AA	1677	A	O3'-P	-7.26	1.50	1.61
85	AA	2167	A	P-O5'	-7.26	1.48	1.59
45	BL	173	VAL	CA-C	-7.26	1.43	1.52
85	AA	1266	C	P-O5'	-7.26	1.48	1.59
4	A3	166	THR	CA-C	-7.26	1.43	1.52
13	AE	25	GLN	N-CA	-7.26	1.36	1.45
26	AS	27	TRP	CA-C	-7.26	1.43	1.52
49	BP	142	VAL	N-CA	-7.26	1.38	1.46
85	AA	1252	A	C2'-C1'	-7.26	1.42	1.53
4	A3	203	ARG	CA-C	-7.26	1.43	1.52
27	AT	127	LYS	CA-C	-7.26	1.43	1.52
34	BA	504	A	C2'-C1'	-7.26	1.42	1.53
48	BO	52	THR	CA-C	-7.25	1.43	1.52
34	BA	1792	U	P-O5'	-7.25	1.48	1.59
35	BB	502	C	C1'-N1	-7.25	1.37	1.48
37	BD	43	U	O3'-P	-7.25	1.50	1.61
80	Bu	32	ALA	N-CA	-7.25	1.37	1.46
85	AA	995	G	C2'-C1'	-7.25	1.42	1.53
85	AA	1464	G	C1'-N9	-7.25	1.37	1.48
85	AA	2030	U	P-O5'	-7.25	1.48	1.59
25	AR	13	ASN	CA-C	-7.25	1.43	1.52
35	BB	1034	U	C1'-N1	-7.25	1.37	1.48
35	BB	1161	G	C1'-N9	-7.25	1.36	1.47
35	BB	1323	U	P-O5'	-7.25	1.48	1.59
54	BU	26	SER	CA-C	-7.25	1.43	1.53
64	Be	101	VAL	CA-C	-7.25	1.43	1.52
51	BR	29	THR	CA-C	-7.25	1.43	1.52
25	AR	38	GLN	CA-C	-7.25	1.44	1.52
36	BC	160	C	O3'-P	-7.25	1.50	1.61
41	BH	103	C	C2'-C1'	-7.25	1.42	1.53
85	AA	627	A	O3'-P	-7.25	1.50	1.61
85	AA	2085	C	P-O5'	-7.25	1.48	1.59
40	BG	26	G	O3'-P	-7.24	1.50	1.61
73	Bn	37	CYS	CA-C	-7.24	1.42	1.52
4	A3	51	PHE	CA-C	-7.24	1.44	1.52
34	BA	378	C	O3'-P	-7.24	1.50	1.61
34	BA	775	C	P-O5'	-7.24	1.48	1.59
34	BA	1607	U	C3'-C2'	-7.24	1.41	1.52
35	BB	1102	U	C1'-N1	-7.24	1.36	1.47
38	BE	100	U	O3'-P	-7.24	1.50	1.61
38	BE	192	A	O3'-P	-7.24	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1243	G	C2'-C1'	-7.24	1.42	1.53
34	BA	728	A	O3'-P	-7.24	1.50	1.61
34	BA	1324	G	P-O5'	-7.24	1.48	1.59
36	BC	16	A	O3'-P	-7.24	1.50	1.61
40	BG	174	G	O3'-P	-7.24	1.50	1.61
23	AP	213	LYS	CA-C	-7.24	1.44	1.53
34	BA	455	A	O3'-P	-7.24	1.50	1.61
35	BB	547	A	O3'-P	-7.24	1.50	1.61
38	BE	101	C	C2'-C1'	-7.24	1.42	1.53
40	BG	147	U	P-O5'	-7.24	1.48	1.59
49	BP	92	VAL	CA-C	-7.24	1.43	1.52
56	BW	103	VAL	CA-C	-7.24	1.43	1.52
85	AA	1580	A	O3'-P	-7.24	1.50	1.61
85	AA	2251	U	C5'-C4'	7.24	1.62	1.51
35	BB	591	A	C1'-N9	-7.24	1.37	1.48
36	BC	163	A	O3'-P	-7.24	1.50	1.61
20	AL	99	ILE	CA-C	7.24	1.61	1.52
34	BA	258	C	O3'-P	-7.24	1.50	1.61
68	Bi	110	VAL	N-CA	-7.24	1.37	1.46
85	AA	859	G	P-O5'	-7.23	1.48	1.59
34	BA	218	G	P-O5'	-7.23	1.49	1.59
64	Be	177	LYS	C-N	-7.23	1.27	1.33
74	Bo	63	THR	CA-C	-7.23	1.44	1.52
34	BA	1101	A	C1'-N9	-7.23	1.37	1.48
34	BA	1641	G	P-O5'	-7.23	1.49	1.59
35	BB	873	C	P-O5'	-7.23	1.49	1.59
35	BB	1081	U	O3'-P	-7.23	1.50	1.61
40	BG	96	C	C1'-N1	-7.23	1.37	1.48
53	BT	98	ARG	N-CA	-7.23	1.37	1.46
85	AA	863	C	P-O5'	-7.23	1.49	1.59
47	BN	106	ARG	CA-C	-7.23	1.43	1.52
35	BB	471	U	P-O5'	-7.23	1.49	1.59
83	Bx	213	PHE	CA-C	-7.23	1.44	1.52
34	BA	502	U	P-O5'	-7.23	1.49	1.59
57	BX	98	ILE	CA-C	-7.23	1.44	1.52
85	AA	868	A	O3'-P	-7.23	1.50	1.61
26	AS	63	ASN	CA-C	-7.22	1.43	1.52
34	BA	275	C	O3'-P	-7.22	1.50	1.61
38	BE	198	A	C1'-N9	-7.22	1.37	1.48
35	BB	1063	C	O4'-C1'	-7.22	1.31	1.42
83	Bx	158	LYS	CA-C	-7.22	1.42	1.52
85	AA	270	A	C2'-C1'	-7.22	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	118	C	C1'-N1	-7.22	1.37	1.48
34	BA	752	A	C1'-N9	-7.22	1.37	1.48
34	BA	1712	U	C1'-N1	-7.22	1.37	1.48
60	Ba	114	LEU	CA-C	-7.22	1.43	1.52
85	AA	363	A	C2'-C1'	-7.22	1.42	1.53
35	BB	1036	G	C3'-C2'	-7.22	1.42	1.52
36	BC	36	G	C1'-N9	-7.22	1.37	1.48
41	BH	127	A	C2'-C1'	-7.22	1.42	1.53
52	BS	44	TRP	N-CA	-7.22	1.37	1.46
85	AA	523	U	P-O5'	-7.22	1.49	1.59
34	BA	774	A	O3'-P	-7.22	1.50	1.61
74	Bo	85	ARG	CA-C	-7.22	1.44	1.52
85	AA	592	C	O3'-P	-7.22	1.50	1.61
85	AA	1526	G	C1'-N9	-7.22	1.37	1.48
48	BO	40	ILE	CA-C	-7.21	1.44	1.52
34	BA	1826	C	O3'-P	-7.21	1.50	1.61
38	BE	106	C	O3'-P	-7.21	1.50	1.61
85	AA	369	A	P-O5'	-7.21	1.49	1.59
85	AA	2184	A	C1'-N9	-7.21	1.37	1.48
41	BH	106	G	O3'-P	-7.21	1.50	1.61
82	Bw	74	GLU	N-CA	-7.21	1.37	1.46
35	BB	500	C	O3'-P	-7.21	1.50	1.61
35	BB	601	U	O3'-P	-7.21	1.50	1.61
35	BB	1428	C	O3'-P	-7.21	1.50	1.61
37	BD	7	G	C1'-N9	-7.21	1.37	1.48
85	AA	794	A	C1'-N9	-7.21	1.37	1.48
37	BD	3	G	O3'-P	-7.21	1.50	1.61
85	AA	1259	U	P-O5'	-7.21	1.49	1.59
85	AA	2142	A	C2'-C1'	-7.21	1.42	1.53
65	Bf	247	LYS	CA-C	-7.21	1.43	1.52
66	Bg	30	LYS	CA-C	-7.21	1.44	1.52
85	AA	1535	C	O3'-P	-7.21	1.50	1.61
34	BA	992	A	C2'-C1'	-7.20	1.42	1.53
35	BB	1351	G	C1'-N9	-7.20	1.37	1.48
85	AA	485	A	C2'-C1'	-7.20	1.42	1.53
35	BB	1122	C	P-O5'	-7.20	1.49	1.59
34	BA	899	G	P-O5'	-7.20	1.49	1.59
38	BE	25	U	O3'-P	-7.20	1.50	1.61
73	Bn	70	VAL	CA-C	-7.20	1.43	1.52
85	AA	1878	C	P-O5'	-7.20	1.49	1.59
34	BA	19	G	P-O5'	-7.20	1.49	1.59
35	BB	978	C	P-O5'	-7.20	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	BI	26	ILE	CA-C	-7.20	1.43	1.52
37	BD	48	G	O3'-P	-7.20	1.50	1.61
40	BG	94	G	C2'-C1'	-7.20	1.42	1.53
85	AA	883	A	O3'-P	-7.20	1.50	1.61
85	AA	1183	C	O3'-P	-7.20	1.50	1.61
34	BA	1576	C	O3'-P	-7.20	1.50	1.61
38	BE	27	A	C2'-C1'	-7.20	1.42	1.53
65	Bf	244	ILE	CA-C	-7.20	1.44	1.52
34	BA	366	G	P-O5'	-7.19	1.49	1.59
85	AA	2186	U	O3'-P	-7.19	1.50	1.61
34	BA	658	C	O3'-P	-7.19	1.50	1.61
35	BB	561	C	P-O5'	-7.19	1.49	1.59
35	BB	1103	A	C4'-O4'	-7.19	1.35	1.45
35	BB	1510	G	C1'-N9	-7.19	1.37	1.48
37	BD	37	G	P-O5'	-7.19	1.49	1.59
85	AA	686	U	O3'-P	-7.19	1.50	1.61
35	BB	560	C	C1'-N1	-7.19	1.37	1.48
35	BB	994	A	P-O5'	-7.19	1.49	1.59
35	BB	1153	G	C1'-N9	-7.19	1.37	1.48
40	BG	95	U	C4'-O4'	-7.19	1.34	1.45
71	Bl	111	ARG	CD-NE	7.19	1.56	1.46
85	AA	674	U	C3'-C2'	-7.19	1.42	1.52
85	AA	1139	G	C2'-C1'	-7.19	1.42	1.53
34	BA	1336	U	P-O5'	-7.19	1.49	1.59
82	Bw	147	PRO	CA-C	-7.19	1.45	1.52
35	BB	1086	G	O3'-P	-7.19	1.50	1.61
35	BB	1338	U	O3'-P	-7.19	1.50	1.61
36	BC	52	A	P-O5'	-7.19	1.49	1.59
67	Bh	130	SER	CA-C	-7.19	1.43	1.52
34	BA	1300	G	C1'-N9	-7.19	1.37	1.48
34	BA	1341	A	C1'-N9	-7.19	1.37	1.48
2	A1	96	PHE	CA-C	-7.18	1.44	1.52
35	BB	571	C	O3'-P	-7.18	1.50	1.61
65	Bf	92	PRO	CA-C	-7.18	1.43	1.52
5	A4	65	ILE	CA-CB	-7.18	1.45	1.54
34	BA	78	U	O3'-P	-7.18	1.50	1.61
34	BA	1588	U	P-O5'	-7.18	1.49	1.59
35	BB	393	A	C1'-N9	-7.18	1.37	1.48
35	BB	579	A	O3'-P	-7.18	1.50	1.61
35	BB	1025	A	C4'-O4'	7.18	1.56	1.45
35	BB	1250	A	C1'-N9	-7.18	1.37	1.48
34	BA	670	U	C2'-C1'	-7.18	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	170	C	O3'-P	-7.18	1.50	1.61
85	AA	758	C	P-O5'	-7.18	1.49	1.59
59	BZ	118	ARG	CA-C	-7.18	1.43	1.52
85	AA	966	G	P-O5'	-7.18	1.49	1.59
50	BQ	185	GLY	CA-C	-7.18	1.44	1.52
34	BA	484	A	C1'-N9	-7.18	1.37	1.48
34	BA	1191	C	C2'-C1'	-7.18	1.42	1.53
35	BB	1073	A	O3'-P	-7.18	1.50	1.61
40	BG	112	C	C3'-C2'	-7.18	1.42	1.52
61	Bb	71	PRO	N-CA	-7.18	1.38	1.47
66	Bg	45	LEU	CA-C	-7.18	1.43	1.52
85	AA	456	A	O3'-P	-7.18	1.50	1.61
34	BA	749	G	C3'-C2'	-7.17	1.42	1.52
35	BB	425	G	C1'-N9	-7.17	1.36	1.47
35	BB	868	C	C2'-C1'	-7.17	1.42	1.53
35	BB	1203	C	C2'-C1'	-7.17	1.42	1.53
85	AA	1963	G	O3'-P	-7.17	1.50	1.61
34	BA	449	G	C3'-C2'	-7.17	1.42	1.52
36	BC	106	G	O3'-P	-7.17	1.50	1.61
36	BC	117	A	O3'-P	-7.17	1.50	1.61
34	BA	30	A	C3'-C2'	-7.17	1.42	1.52
34	BA	1028	A	C1'-N9	-7.17	1.37	1.48
50	BQ	117	VAL	CA-C	-7.17	1.42	1.52
85	AA	676	U	P-O5'	-7.17	1.49	1.59
85	AA	2203	C	O3'-P	-7.17	1.50	1.61
2	A1	164	LYS	CA-C	-7.17	1.43	1.53
35	BB	1202	G	C2'-C1'	-7.17	1.42	1.53
85	AA	128	U	O3'-P	-7.17	1.50	1.61
35	BB	1036	G	P-O5'	-7.17	1.49	1.59
35	BB	1047	C	O3'-P	-7.17	1.50	1.61
35	BB	1406	C	O3'-P	-7.17	1.50	1.61
60	Ba	28	THR	CA-C	-7.17	1.43	1.53
85	AA	372	U	C1'-N1	-7.17	1.37	1.48
34	BA	936	A	C1'-N9	-7.17	1.37	1.48
35	BB	1047	C	C1'-N1	-7.17	1.37	1.48
82	Bw	138	MET	N-CA	-7.17	1.37	1.46
85	AA	2110	U	C1'-N1	-7.17	1.37	1.48
35	BB	379	U	P-O5'	-7.17	1.49	1.59
34	BA	756	A	P-O5'	-7.16	1.49	1.59
34	BA	939	C	C3'-C2'	-7.16	1.42	1.52
35	BB	418	G	P-O5'	-7.16	1.49	1.59
74	Bo	50	LYS	CA-C	-7.16	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A3	211	GLU	CA-C	-7.16	1.43	1.52
35	BB	687	C	O3'-P	-7.16	1.50	1.61
56	BW	105	VAL	N-CA	-7.16	1.37	1.46
35	BB	38	C	P-O5'	-7.16	1.49	1.59
35	BB	551	C	O3'-P	-7.16	1.50	1.61
36	BC	37	U	C1'-N1	-7.16	1.36	1.47
85	AA	1828	C	P-O5'	-7.16	1.49	1.59
35	BB	650	A	P-O5'	-7.16	1.49	1.59
35	BB	1356	G	C1'-N9	-7.16	1.37	1.48
85	AA	2191	C	P-O5'	-7.16	1.49	1.59
35	BB	117	A	O3'-P	-7.16	1.50	1.61
35	BB	1466	A	C2'-C1'	-7.16	1.42	1.53
34	BA	619	U	P-O5'	-7.16	1.49	1.59
35	BB	1462	G	C3'-O3'	7.16	1.52	1.42
40	BG	82	U	O3'-P	-7.16	1.50	1.61
85	AA	299	A	O3'-P	-7.16	1.50	1.61
85	AA	757	A	O3'-P	-7.16	1.50	1.61
85	AA	2210	C	P-O5'	-7.16	1.49	1.59
11	AC	178	ILE	CA-C	-7.15	1.45	1.52
80	Bu	248	MET	CA-C	-7.15	1.43	1.52
83	Bx	88	LEU	CA-C	-7.15	1.42	1.52
34	BA	1542	A	O3'-P	-7.15	1.50	1.61
39	BF	51	C	P-O5'	-7.15	1.49	1.59
83	Bx	77	VAL	CA-CB	-7.15	1.46	1.54
86	AB	70	G	O3'-P	-7.15	1.50	1.61
34	BA	1282	G	P-O5'	-7.15	1.49	1.59
34	BA	1094	U	P-O5'	-7.15	1.49	1.59
40	BG	140	G	C3'-C2'	-7.15	1.42	1.52
49	BP	127	ILE	N-CA	-7.15	1.37	1.46
34	BA	856	G	P-O5'	-7.15	1.49	1.59
61	Bb	28	HIS	CA-C	-7.15	1.45	1.52
34	BA	1332	U	C2'-C1'	-7.14	1.42	1.53
34	BA	1451	A	C2'-C1'	-7.14	1.42	1.53
35	BB	109	U	O3'-P	-7.14	1.50	1.61
79	Bt	76	ASN	CA-C	-7.14	1.43	1.52
85	AA	2038	C	P-O5'	-7.14	1.49	1.59
5	A4	91	PHE	CA-C	-7.14	1.45	1.52
34	BA	17	A	O3'-P	-7.14	1.50	1.61
34	BA	996	U	O3'-P	-7.14	1.50	1.61
34	BA	1250	C	O3'-P	-7.14	1.50	1.61
34	BA	1835	A	P-O5'	-7.14	1.49	1.59
2	A1	138	THR	CA-C	-7.14	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1282	A	C1'-N9	-7.14	1.37	1.48
5	A4	162	ARG	CA-C	-7.14	1.43	1.52
34	BA	1590	G	O3'-P	-7.14	1.50	1.61
35	BB	826	G	O3'-P	-7.14	1.50	1.61
35	BB	1434	G	C1'-N9	-7.14	1.37	1.48
40	BG	54	G	P-O5'	-7.14	1.49	1.59
40	BG	166	C	P-O5'	-7.14	1.49	1.59
75	Bp	27	HIS	CB-CG	-7.14	1.40	1.50
85	AA	116	G	C1'-N9	-7.14	1.37	1.48
85	AA	526	G	P-O5'	-7.14	1.49	1.59
34	BA	702	G	C3'-C2'	-7.14	1.42	1.52
36	BC	6	G	O3'-P	-7.14	1.50	1.61
41	BH	36	C	C3'-C2'	-7.14	1.42	1.52
85	AA	860	C	O3'-P	-7.14	1.50	1.61
34	BA	1119	A	C1'-N9	-7.14	1.36	1.47
34	BA	1271	C	C1'-N1	-7.14	1.37	1.48
35	BB	1139	A	C1'-N9	-7.14	1.37	1.48
36	BC	69	U	C3'-C2'	-7.14	1.42	1.52
58	BY	61	ARG	CA-C	-7.14	1.43	1.52
82	Bw	212	THR	N-CA	-7.14	1.37	1.46
34	BA	875	G	O3'-P	-7.13	1.50	1.61
34	BA	1504	A	P-O5'	-7.13	1.49	1.59
36	BC	18	G	O3'-P	-7.13	1.50	1.61
38	BE	8	G	C1'-N9	-7.13	1.37	1.48
42	BI	95	ASP	N-CA	-7.13	1.37	1.46
34	BA	809	U	C1'-N1	-7.13	1.37	1.48
34	BA	1843	G	C2'-C1'	-7.13	1.42	1.53
35	BB	373	C	O3'-P	-7.13	1.50	1.61
35	BB	1508	G	C1'-N9	-7.13	1.37	1.48
85	AA	2139	G	C1'-N9	-7.13	1.37	1.48
19	AK	78	SER	CA-C	-7.13	1.44	1.52
33	AZ	50	THR	CA-C	-7.13	1.43	1.52
65	Bf	329	HIS	CA-C	-7.13	1.44	1.52
85	AA	999	A	C5'-C4'	7.13	1.62	1.51
85	AA	1096	G	P-O5'	-7.13	1.49	1.59
85	AA	2054	G	C2'-C1'	-7.13	1.42	1.53
34	BA	1642	A	P-O5'	-7.13	1.49	1.59
35	BB	598	C	O3'-P	-7.13	1.50	1.61
53	BT	138	LEU	CA-C	-7.13	1.43	1.52
34	BA	24	C	C1'-N1	-7.13	1.37	1.48
34	BA	267	G	O3'-P	-7.13	1.50	1.61
34	BA	807	U	C4'-O4'	-7.13	1.34	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BC	33	U	O3'-P	-7.13	1.50	1.61
85	AA	1928	A	C4'-O4'	-7.13	1.35	1.45
85	AA	2069	A	C1'-N9	-7.13	1.37	1.48
35	BB	1057	G	C1'-N9	-7.13	1.37	1.48
84	By	139	LYS	CA-C	-7.13	1.45	1.52
85	AA	701	C	O3'-P	-7.13	1.50	1.61
44	BK	50	VAL	CA-CB	-7.12	1.45	1.54
34	BA	136	A	O3'-P	-7.12	1.50	1.61
35	BB	27	C	C2'-C1'	-7.12	1.42	1.53
36	BC	101	U	C1'-N1	-7.12	1.37	1.48
85	AA	639	C	O3'-P	-7.12	1.50	1.61
85	AA	973	U	C3'-O3'	7.12	1.52	1.42
85	AA	1829	C	O3'-P	-7.12	1.50	1.61
26	AS	14	VAL	CA-C	-7.12	1.44	1.52
34	BA	384	U	P-O5'	-7.12	1.49	1.59
42	BI	45	ASN	CA-C	-7.12	1.43	1.52
85	AA	994	A	C2'-C1'	-7.12	1.42	1.53
25	AR	54	THR	N-CA	-7.12	1.36	1.45
54	BU	70	ARG	CA-C	-7.12	1.43	1.52
65	Bf	146	THR	N-CA	-7.12	1.37	1.45
85	AA	1143	C	O3'-P	-7.12	1.50	1.61
6	A5	195	THR	CA-C	-7.12	1.43	1.52
34	BA	203	U	O3'-P	-7.12	1.50	1.61
34	BA	433	G	C5'-C4'	7.12	1.61	1.51
34	BA	451	A	O3'-P	-7.12	1.50	1.61
2	A1	69	VAL	CA-C	-7.12	1.44	1.52
34	BA	1839	G	P-O5'	-7.12	1.49	1.59
53	BT	84	THR	CA-C	-7.12	1.43	1.53
34	BA	1512	C	C1'-N1	-7.11	1.37	1.48
41	BH	14	C	O3'-P	-7.11	1.50	1.61
85	AA	1526	G	O3'-P	-7.11	1.50	1.61
85	AA	2100	A	C2'-C1'	-7.11	1.42	1.53
34	BA	751	A	O3'-P	-7.11	1.50	1.61
59	BZ	82	VAL	CA-C	-7.11	1.43	1.52
82	Bw	66	TYR	CA-C	-7.11	1.43	1.52
85	AA	1255	C	P-O5'	-7.11	1.49	1.59
34	BA	894	G	C2'-C1'	-7.11	1.42	1.53
35	BB	2	C	P-O5'	-7.11	1.49	1.59
35	BB	631	G	O3'-P	-7.11	1.50	1.61
35	BB	1366	C	O3'-P	-7.11	1.50	1.61
37	BD	18	G	O3'-P	-7.11	1.50	1.61
85	AA	425	G	C1'-N9	-7.11	1.36	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	928	U	C2'-C1'	-7.11	1.42	1.53
85	AA	1502	A	O3'-P	-7.11	1.50	1.61
15	AG	52	MET	CA-C	-7.11	1.43	1.52
35	BB	1220	A	P-O5'	-7.11	1.49	1.59
35	BB	1282	G	O3'-P	-7.11	1.50	1.61
40	BG	11	G	P-O5'	-7.11	1.49	1.59
57	BX	115	THR	CA-C	-7.11	1.43	1.52
85	AA	557	G	C1'-N9	-7.11	1.37	1.48
34	BA	748	C	C1'-N1	-7.11	1.37	1.48
35	BB	1440	A	C1'-N9	-7.11	1.37	1.48
38	BE	199	A	C1'-N9	-7.11	1.37	1.48
82	Bw	41	PHE	N-CA	-7.11	1.37	1.46
85	AA	2003	C	O3'-P	-7.11	1.50	1.61
34	BA	291	C	P-O5'	-7.10	1.49	1.59
34	BA	803	U	P-O5'	-7.10	1.49	1.59
34	BA	1532	G	C1'-N9	-7.10	1.37	1.48
34	BA	701	G	C3'-C2'	-7.10	1.42	1.52
85	AA	57	G	P-O5'	-7.10	1.49	1.59
85	AA	407	G	C1'-N9	-7.10	1.37	1.48
85	AA	1217	U	O3'-P	-7.10	1.50	1.61
36	BC	25	C	O3'-P	-7.10	1.50	1.61
77	Br	166	ALA	N-CA	-7.10	1.38	1.46
85	AA	1678	U	C2'-C1'	-7.10	1.42	1.53
34	BA	743	A	P-O5'	-7.10	1.49	1.59
35	BB	1359	G	C2'-C1'	-7.10	1.42	1.53
40	BG	28	A	C2'-C1'	-7.10	1.42	1.53
41	BH	30	C	P-O5'	-7.10	1.49	1.59
35	BB	1225	A	O3'-P	-7.10	1.50	1.61
41	BH	38	G	O3'-P	-7.10	1.50	1.61
57	BX	117	ILE	CA-C	-7.10	1.43	1.52
85	AA	428	G	C1'-N9	-7.10	1.37	1.48
85	AA	1248	U	C2'-C1'	-7.10	1.42	1.53
36	BC	17	U	O3'-P	-7.10	1.50	1.61
36	BC	55	U	C3'-C2'	-7.10	1.42	1.52
81	Bv	61	VAL	N-CA	-7.10	1.38	1.46
34	BA	891	C	C1'-N1	-7.09	1.37	1.48
35	BB	110	U	P-O5'	-7.09	1.49	1.59
35	BB	968	C	C2'-C1'	-7.09	1.42	1.53
38	BE	194	A	C1'-N9	-7.09	1.37	1.48
34	BA	323	C	C3'-C2'	-7.09	1.42	1.52
34	BA	484	A	C5'-C4'	-7.09	1.40	1.51
34	BA	954	U	O3'-P	-7.09	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1592	U	O3'-P	-7.09	1.50	1.61
77	Br	249	ILE	CA-C	-7.09	1.43	1.52
85	AA	1146	C	P-O5'	-7.09	1.49	1.59
85	AA	2154	C	C2'-C1'	-7.09	1.42	1.53
35	BB	426	A	P-O5'	-7.09	1.49	1.59
40	BG	41	U	P-O5'	-7.09	1.49	1.59
68	Bi	15	THR	CA-C	-7.09	1.44	1.52
85	AA	341	C	P-O5'	-7.09	1.49	1.59
34	BA	1287	G	C2'-C1'	-7.09	1.42	1.53
35	BB	1422	G	O3'-P	-7.09	1.50	1.61
37	BD	12	U	O3'-P	-7.09	1.50	1.61
40	BG	52	A	C3'-C2'	-7.09	1.42	1.52
85	AA	2031	C	O3'-P	-7.09	1.50	1.61
85	AA	2133	A	C4'-C3'	-7.09	1.42	1.52
35	BB	494	C	C1'-N1	-7.09	1.37	1.48
85	AA	1204	A	O3'-P	-7.09	1.50	1.61
85	AA	1221	G	O3'-P	-7.09	1.50	1.61
20	AL	30	GLN	CA-C	-7.09	1.43	1.52
34	BA	958	G	C1'-N9	-7.09	1.36	1.47
34	BA	1510	C	C3'-C2'	-7.09	1.42	1.52
85	AA	43	A	O3'-P	-7.09	1.50	1.61
34	BA	1224	A	C1'-N9	-7.08	1.37	1.48
34	BA	1465	C	C1'-N1	-7.08	1.37	1.48
79	Bt	15	GLU	CA-C	-7.08	1.45	1.53
13	AE	66	ASN	CA-C	-7.08	1.42	1.52
34	BA	1281	U	C3'-C2'	-7.08	1.42	1.52
35	BB	867	C	C2'-C1'	-7.08	1.42	1.53
34	BA	81	C	C1'-N1	-7.08	1.37	1.48
34	BA	1279	U	C1'-N1	-7.08	1.37	1.48
35	BB	1480	G	C3'-C2'	-7.08	1.42	1.52
36	BC	116	C	C1'-N1	-7.08	1.37	1.48
41	BH	31	A	O3'-P	-7.08	1.50	1.61
85	AA	336	C	O3'-P	-7.08	1.50	1.61
85	AA	1822	G	O3'-P	-7.08	1.50	1.61
34	BA	1170	A	C1'-N9	-7.08	1.37	1.48
56	BW	131	ILE	CA-C	-7.08	1.43	1.52
85	AA	28	A	O3'-P	-7.08	1.50	1.61
34	BA	1641	G	C1'-N9	-7.08	1.37	1.48
34	BA	1835	A	O3'-P	-7.08	1.50	1.61
35	BB	1083	C	O3'-P	-7.08	1.50	1.61
69	Bj	34	GLN	CA-C	-7.08	1.43	1.52
34	BA	1007	G	O3'-P	-7.08	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1599	A	C3'-C2'	-7.08	1.42	1.52
85	AA	662	U	O3'-P	-7.08	1.50	1.61
23	AP	44	VAL	CA-C	-7.08	1.46	1.53
34	BA	165	C	O3'-P	-7.08	1.50	1.61
35	BB	86	A	O3'-P	-7.08	1.50	1.61
66	Bg	64	LYS	CA-C	-7.08	1.43	1.52
82	Bw	193	ILE	CA-C	-7.08	1.44	1.52
85	AA	1283	C	P-O5'	-7.08	1.49	1.59
85	AA	2177	C	C2'-C1'	-7.08	1.42	1.53
37	BD	81	C	O3'-P	-7.07	1.50	1.61
38	BE	174	U	C3'-C2'	-7.07	1.42	1.52
35	BB	28	G	P-O5'	-7.07	1.49	1.59
85	AA	399	A	O3'-P	-7.07	1.50	1.61
85	AA	929	G	O3'-P	-7.07	1.50	1.61
34	BA	6	C	C3'-C2'	-7.07	1.42	1.52
34	BA	349	G	C2'-C1'	-7.07	1.42	1.53
34	BA	1838	U	O3'-P	-7.07	1.50	1.61
35	BB	613	C	O3'-P	-7.07	1.50	1.61
35	BB	648	G	C4'-C3'	-7.07	1.42	1.52
35	BB	1382	U	O3'-P	-7.07	1.50	1.61
36	BC	74	U	O3'-P	-7.07	1.50	1.61
37	BD	57	C	O3'-P	-7.07	1.50	1.61
85	AA	1503	G	O3'-P	-7.07	1.50	1.61
83	Bx	227	LEU	CA-C	-7.07	1.43	1.52
34	BA	1108	U	O3'-P	-7.07	1.50	1.61
81	Bv	89	ASP	CA-C	-7.07	1.43	1.52
85	AA	110	U	C1'-N1	-7.07	1.37	1.48
85	AA	477	U	C3'-C2'	-7.07	1.42	1.52
85	AA	629	A	C1'-N9	-7.07	1.37	1.48
34	BA	893	U	C2'-C1'	-7.07	1.42	1.53
34	BA	1613	G	C1'-N9	-7.07	1.37	1.48
85	AA	1123	C	P-O5'	-7.07	1.49	1.59
85	AA	2099	C	O3'-P	-7.07	1.50	1.61
2	A1	25	ALA	C-N	-7.06	1.25	1.33
40	BG	165	C	P-O5'	-7.06	1.49	1.59
34	BA	1407	C	P-O5'	-7.06	1.49	1.59
41	BH	20	A	C1'-N9	-7.06	1.37	1.48
85	AA	1819	U	P-O5'	-7.06	1.49	1.59
85	AA	391	G	O3'-P	-7.06	1.50	1.61
34	BA	190	U	P-O5'	-7.06	1.49	1.59
34	BA	370	U	P-O5'	-7.06	1.49	1.59
34	BA	680	C	C3'-C2'	-7.06	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1501	U	C1'-N1	-7.06	1.37	1.48
35	BB	391	G	P-O5'	-7.06	1.49	1.59
35	BB	1370	G	P-O5'	-7.06	1.49	1.59
38	BE	192	A	P-O5'	-7.06	1.49	1.59
85	AA	273	C	P-O5'	-7.06	1.49	1.59
85	AA	1223	A	P-O5'	-7.06	1.49	1.59
4	A3	118	LYS	CA-C	-7.06	1.44	1.52
34	BA	658	C	C2'-C1'	-7.06	1.42	1.53
35	BB	516	G	O3'-P	-7.06	1.50	1.61
40	BG	151	A	C1'-N9	-7.06	1.37	1.48
68	Bi	100	THR	N-CA	-7.06	1.37	1.46
28	AU	31	LYS	CA-C	-7.05	1.49	1.53
85	AA	689	U	P-O5'	-7.05	1.49	1.59
85	AA	1534	A	O3'-P	-7.05	1.50	1.61
6	A5	72	SER	CA-C	-7.05	1.44	1.52
34	BA	1686	G	O3'-P	-7.05	1.50	1.61
35	BB	1425	A	O3'-P	-7.05	1.50	1.61
41	BH	47	G	C1'-N9	-7.05	1.37	1.48
51	BR	29	THR	N-CA	-7.05	1.37	1.46
34	BA	768	G	C1'-N9	-7.05	1.37	1.48
34	BA	817	U	C3'-C2'	-7.05	1.42	1.52
34	BA	930	A	P-O5'	-7.05	1.49	1.59
35	BB	565	U	O3'-P	-7.05	1.50	1.61
59	BZ	79	ILE	N-CA	-7.05	1.38	1.46
85	AA	2139	G	C2'-C1'	-7.05	1.42	1.53
35	BB	1026	G	C5'-C4'	7.05	1.61	1.51
35	BB	1390	U	O3'-P	-7.05	1.50	1.61
23	AP	78	ASP	N-CA	-7.05	1.37	1.46
34	BA	515	U	C1'-N1	-7.05	1.37	1.48
34	BA	1173	C	P-O5'	-7.05	1.49	1.59
35	BB	7	C	O3'-P	-7.05	1.50	1.61
41	BH	40	C	C2'-C1'	-7.05	1.42	1.53
85	AA	104	C	C1'-N1	-7.05	1.37	1.48
34	BA	910	U	C1'-N1	-7.04	1.37	1.48
35	BB	1353	G	P-O5'	-7.04	1.49	1.59
36	BC	43	A	C2'-C1'	-7.04	1.42	1.53
85	AA	537	G	P-O5'	-7.04	1.49	1.59
34	BA	1597	G	C2'-C1'	-7.04	1.42	1.53
65	Bf	141	VAL	N-CA	-7.04	1.37	1.46
79	Bt	81	ILE	CA-C	-7.04	1.44	1.52
34	BA	465	A	O3'-P	-7.04	1.50	1.61
34	BA	1711	G	P-O5'	-7.04	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1244	U	O3'-P	-7.04	1.50	1.61
37	BD	80	G	O3'-P	-7.04	1.50	1.61
41	BH	135	U	P-O5'	-7.04	1.49	1.59
85	AA	100	A	O4'-C1'	-7.04	1.31	1.41
85	AA	1655	G	C1'-N9	-7.04	1.37	1.48
35	BB	1519	U	C2'-C1'	-7.04	1.42	1.53
37	BD	9	C	C1'-N1	-7.04	1.37	1.48
34	BA	1163	G	C1'-N9	-7.04	1.37	1.48
35	BB	1155	U	C2'-C1'	-7.04	1.42	1.53
78	Bs	22	ARG	CA-C	-7.04	1.44	1.52
85	AA	667	A	C1'-N9	-7.04	1.37	1.48
85	AA	1234	G	O3'-P	-7.04	1.50	1.61
35	BB	776	U	O3'-P	-7.04	1.50	1.61
85	AA	430	G	C1'-N9	-7.04	1.37	1.48
85	AA	1209	U	P-O5'	-7.04	1.49	1.59
85	AA	1858	G	P-O5'	-7.04	1.49	1.59
34	BA	388	A	O3'-P	-7.04	1.50	1.61
34	BA	691	A	C1'-N9	-7.04	1.37	1.48
35	BB	1303	A	O3'-P	-7.04	1.50	1.61
40	BG	37	G	O3'-P	-7.04	1.50	1.61
85	AA	165	C	O3'-P	-7.04	1.50	1.61
85	AA	1181	U	O3'-P	-7.04	1.50	1.61
6	A5	42	ARG	CA-C	-7.03	1.45	1.52
35	BB	470	C	O3'-P	-7.03	1.50	1.61
40	BG	73	U	C1'-N1	-7.03	1.37	1.48
48	BO	69	LYS	CA-C	-7.03	1.43	1.52
57	BX	139	ASP	N-CA	-7.03	1.37	1.46
85	AA	1462	A	C1'-N9	-7.03	1.37	1.48
35	BB	1539	C	O3'-P	-7.03	1.50	1.61
85	AA	2133	A	C1'-N9	-7.03	1.37	1.48
34	BA	1552	C	C1'-N1	-7.03	1.38	1.48
35	BB	971	A	O3'-P	-7.03	1.50	1.61
66	Bg	100	VAL	CA-CB	-7.03	1.45	1.54
85	AA	1832	G	P-O5'	-7.03	1.49	1.59
49	BP	146	LYS	CA-C	-7.03	1.43	1.52
85	AA	2085	C	C1'-N1	-7.03	1.36	1.47
34	BA	275	C	C1'-N1	-7.03	1.38	1.48
35	BB	469	G	C1'-N9	-7.03	1.37	1.48
74	Bo	29	LEU	CA-C	-7.03	1.42	1.52
7	A6	175	LYS	CA-C	-7.03	1.44	1.52
23	AP	208	THR	CA-C	-7.03	1.43	1.52
34	BA	616	G	C2'-C1'	-7.03	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BN	173	ALA	N-CA	-7.03	1.39	1.46
80	Bu	13	TYR	CA-C	-7.03	1.43	1.52
85	AA	1275	A	C2'-C1'	-7.03	1.42	1.53
7	A6	18	PHE	CA-C	-7.02	1.44	1.53
34	BA	1095	G	O3'-P	-7.02	1.50	1.61
35	BB	1253	U	C1'-N1	-7.02	1.38	1.48
54	BU	106	LYS	N-CA	-7.02	1.37	1.46
82	Bw	253	LEU	CA-C	-7.02	1.43	1.52
85	AA	725	G	P-O5'	-7.02	1.49	1.59
23	AP	113	VAL	CA-C	-7.02	1.44	1.52
34	BA	794	G	O3'-P	-7.02	1.50	1.61
35	BB	9	G	P-O5'	-7.02	1.49	1.59
35	BB	516	G	P-O5'	-7.02	1.49	1.59
26	AS	97	ASN	CA-C	-7.02	1.43	1.53
34	BA	608	G	C4'-O4'	-7.02	1.35	1.45
34	BA	1023	G	O3'-P	-7.02	1.50	1.61
34	BA	1473	A	C1'-N9	-7.02	1.37	1.48
34	BA	1476	G	P-O5'	-7.02	1.49	1.59
34	BA	1716	A	C5'-C4'	7.02	1.61	1.51
35	BB	1110	G	O3'-P	-7.02	1.50	1.61
77	Br	262	PHE	CA-C	-7.02	1.43	1.52
85	AA	1900	C	P-O5'	-7.02	1.49	1.59
34	BA	15	G	N9-C4	-7.02	1.24	1.38
35	BB	1172	U	C1'-N1	-7.02	1.38	1.48
35	BB	1343	C	C1'-N1	-7.02	1.38	1.48
35	BB	1534	U	P-O5'	-7.02	1.49	1.59
36	BC	10	C	O3'-P	-7.02	1.50	1.61
41	BH	24	U	C1'-N1	-7.02	1.36	1.47
57	BX	163	LEU	CA-C	-7.02	1.44	1.52
7	A6	161	SER	CA-C	-7.02	1.45	1.53
35	BB	593	A	O3'-P	-7.02	1.50	1.61
35	BB	662	G	C2'-C1'	-7.02	1.42	1.53
35	BB	1340	U	C3'-C2'	-7.02	1.42	1.52
40	BG	58	G	C4'-C3'	-7.01	1.42	1.52
45	BL	74	VAL	CA-C	-7.01	1.43	1.53
62	Bc	91	VAL	CA-C	-7.01	1.43	1.52
85	AA	1885	A	C2'-C1'	-7.01	1.42	1.53
21	AM	84	PHE	N-CA	-7.01	1.37	1.46
85	AA	1254	A	C2'-C1'	-7.01	1.42	1.53
34	BA	933	U	P-O5'	-7.01	1.49	1.59
40	BG	56	G	O3'-P	-7.01	1.50	1.61
85	AA	176	C	C1'-N1	-7.01	1.38	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1928	A	C1'-N9	-7.01	1.36	1.47
85	AA	2058	C	C3'-C2'	-7.01	1.42	1.52
23	AP	60	SER	CA-C	-7.01	1.43	1.52
35	BB	1444	U	O3'-P	-7.01	1.50	1.61
35	BB	1520	C	P-O5'	-7.01	1.49	1.59
40	BG	86	U	C2'-C1'	-7.01	1.42	1.53
79	Bt	23	PHE	CA-C	-7.01	1.43	1.52
85	AA	36	U	O3'-P	-7.01	1.50	1.61
85	AA	160	A	P-O5'	-7.01	1.49	1.59
85	AA	516	G	O3'-P	-7.01	1.50	1.61
85	AA	1801	U	O3'-P	-7.01	1.50	1.61
34	BA	1803	A	O3'-P	-7.01	1.50	1.61
68	Bi	23	CYS	CA-C	-7.01	1.44	1.52
35	BB	1189	C	O3'-P	-7.01	1.50	1.61
37	BD	64	A	O3'-P	-7.01	1.50	1.61
85	AA	418	G	P-O5'	-7.01	1.49	1.59
35	BB	1048	A	C1'-N9	-7.00	1.37	1.48
34	BA	296	G	C5'-C4'	7.00	1.61	1.51
34	BA	1503	U	C1'-N1	-7.00	1.38	1.48
34	BA	1802	C	C2'-C1'	-7.00	1.42	1.53
66	Bg	34	TYR	CA-C	-7.00	1.44	1.52
85	AA	1656	C	O3'-P	-7.00	1.50	1.61
34	BA	1176	C	O3'-P	-7.00	1.50	1.61
34	BA	1722	U	C1'-N1	-7.00	1.36	1.47
35	BB	1142	C	O3'-P	-7.00	1.50	1.61
81	Bv	162	ILE	CA-CB	-7.00	1.45	1.54
34	BA	705	C	C3'-C2'	-7.00	1.42	1.52
85	AA	2056	C	P-O5'	-7.00	1.49	1.59
34	BA	718	U	C1'-N1	-7.00	1.38	1.48
34	BA	909	G	C4'-C3'	-7.00	1.42	1.52
34	BA	1262	A	P-O5'	-7.00	1.49	1.59
35	BB	52	G	P-O5'	-7.00	1.49	1.59
35	BB	707	G	C1'-N9	-7.00	1.37	1.48
35	BB	1365	G	C1'-N9	-7.00	1.37	1.48
38	BE	32	U	O4'-C1'	-7.00	1.31	1.41
56	BW	48	LEU	CA-C	-7.00	1.43	1.52
66	Bg	39	GLN	CA-C	-7.00	1.44	1.52
85	AA	878	U	P-O5'	-7.00	1.49	1.59
34	BA	1671	A	O3'-P	-7.00	1.50	1.61
35	BB	670	G	O3'-P	-7.00	1.50	1.61
35	BB	825	U	O3'-P	-7.00	1.50	1.61
37	BD	32	A	C3'-C2'	-7.00	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A4	152	SER	CA-C	-6.99	1.44	1.52
34	BA	43	U	O3'-P	-6.99	1.50	1.61
34	BA	454	G	C1'-N9	-6.99	1.37	1.48
44	BK	136	LEU	CA-C	-6.99	1.44	1.52
60	Ba	81	PRO	CA-C	-6.99	1.43	1.52
85	AA	2011	C	C2'-C1'	-6.99	1.42	1.53
34	BA	1009	G	O3'-P	-6.99	1.50	1.61
41	BH	38	G	C2'-C1'	-6.99	1.42	1.53
85	AA	1268	C	O3'-P	-6.99	1.50	1.61
85	AA	1984	A	O3'-P	-6.99	1.50	1.61
34	BA	427	G	P-O5'	-6.99	1.49	1.59
35	BB	556	U	C3'-C2'	-6.99	1.42	1.52
35	BB	1080	U	C1'-N1	-6.99	1.38	1.48
42	BI	49	HIS	N-CA	-6.99	1.38	1.46
44	BK	140	THR	CA-C	-6.99	1.43	1.52
83	Bx	47	PHE	C-N	6.99	1.43	1.33
85	AA	442	G	C1'-N9	-6.99	1.37	1.48
34	BA	1559	C	C3'-C2'	-6.99	1.42	1.52
35	BB	1376	G	O3'-P	-6.99	1.50	1.61
77	Br	234	ASN	N-CA	-6.99	1.37	1.46
85	AA	443	A	C1'-N9	-6.99	1.37	1.48
34	BA	616	G	P-O5'	-6.99	1.49	1.59
34	BA	1458	A	C5'-C4'	6.99	1.61	1.51
35	BB	496	C	O3'-P	-6.99	1.50	1.61
37	BD	75	G	O3'-P	-6.99	1.50	1.61
85	AA	736	U	C2'-C1'	-6.99	1.42	1.53
34	BA	1046	G	P-O5'	-6.98	1.49	1.59
64	Be	125	THR	CA-C	-6.98	1.43	1.52
85	AA	1283	C	O3'-P	-6.98	1.50	1.61
7	A6	76	MET	N-CA	-6.98	1.38	1.46
34	BA	135	G	C3'-C2'	-6.98	1.42	1.52
34	BA	308	C	P-O5'	-6.98	1.49	1.59
34	BA	591	G	C1'-N9	-6.98	1.37	1.48
34	BA	1675	C	C3'-C2'	-6.98	1.42	1.52
35	BB	469	G	O3'-P	-6.98	1.50	1.61
85	AA	307	G	C2'-C1'	-6.98	1.42	1.53
85	AA	318	A	C1'-N9	-6.98	1.37	1.48
19	AK	114	LYS	N-CA	-6.98	1.38	1.46
56	BW	73	ARG	CD-NE	6.98	1.56	1.46
58	BY	59	TYR	CA-C	-6.98	1.43	1.52
60	Ba	115	PHE	CA-C	-6.98	1.43	1.52
85	AA	938	A	P-O5'	-6.98	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	82	A	P-O5'	-6.98	1.49	1.59
35	BB	1078	U	O3'-P	-6.98	1.50	1.61
53	BT	121	ARG	CA-C	-6.98	1.43	1.52
53	BT	135	LYS	CA-C	-6.98	1.43	1.52
54	BU	112	LEU	N-CA	-6.98	1.38	1.46
85	AA	2060	G	O3'-P	-6.98	1.50	1.61
34	BA	1841	A	O3'-P	-6.98	1.50	1.61
35	BB	880	G	P-O5'	-6.98	1.49	1.59
72	Bm	91	ALA	N-CA	-6.98	1.38	1.46
34	BA	1682	A	C1'-N9	-6.98	1.37	1.48
35	BB	1229	A	C1'-N9	-6.98	1.37	1.48
34	BA	1175	G	P-O5'	-6.97	1.49	1.59
34	BA	1486	U	C2'-C1'	-6.97	1.42	1.53
38	BE	59	U	C1'-N1	-6.97	1.38	1.48
64	Be	158	VAL	CA-CB	-6.97	1.47	1.55
77	Br	147	ALA	N-CA	-6.97	1.37	1.46
85	AA	1263	G	C1'-N9	-6.97	1.37	1.48
34	BA	1034	U	O3'-P	-6.97	1.50	1.61
34	BA	1328	U	C3'-C2'	-6.97	1.42	1.52
36	BC	125	A	P-O5'	-6.97	1.49	1.59
85	AA	1476	C	O3'-P	-6.97	1.50	1.61
60	Ba	47	LYS	CA-C	-6.97	1.44	1.52
34	BA	446	U	O3'-P	-6.97	1.50	1.61
34	BA	1150	A	C1'-N9	-6.97	1.37	1.48
35	BB	1190	U	P-O5'	-6.97	1.49	1.59
38	BE	140	G	O3'-P	-6.97	1.50	1.61
85	AA	102	A	C1'-N9	-6.97	1.37	1.48
85	AA	463	G	P-O5'	-6.97	1.49	1.59
85	AA	1288	A	P-O5'	-6.97	1.49	1.59
85	AA	1759	U	O3'-P	-6.97	1.50	1.61
2	A1	98	ILE	CA-CB	-6.97	1.46	1.54
34	BA	713	C	C2'-C1'	-6.97	1.42	1.53
35	BB	1194	A	O3'-P	-6.97	1.50	1.61
36	BC	70	C	C1'-N1	-6.97	1.37	1.47
38	BE	108	U	C3'-C2'	-6.97	1.42	1.52
40	BG	136	G	C2'-C1'	-6.97	1.43	1.53
72	Bm	69	LEU	CA-C	-6.97	1.43	1.52
74	Bo	83	VAL	N-CA	-6.97	1.38	1.46
85	AA	96	C	P-O5'	-6.97	1.49	1.59
85	AA	385	A	C2'-C1'	-6.97	1.42	1.53
34	BA	300	C	C2'-C1'	-6.96	1.43	1.53
34	BA	800	G	C2'-C1'	-6.96	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1057	G	O3'-P	-6.96	1.50	1.61
58	BY	34	THR	CA-C	-6.96	1.44	1.52
67	Bh	177	SER	CA-C	-6.96	1.43	1.52
2	A1	164	LYS	N-CA	-6.96	1.37	1.46
85	AA	1709	U	O3'-P	-6.96	1.50	1.61
34	BA	193	C	C1'-N1	-6.96	1.38	1.48
35	BB	1372	G	P-O5'	-6.96	1.49	1.59
36	BC	125	A	C2'-C1'	-6.96	1.43	1.53
38	BE	13	A	C2'-C1'	-6.96	1.43	1.53
41	BH	39	G	C2'-C1'	-6.96	1.43	1.53
85	AA	514	U	O3'-P	-6.96	1.50	1.61
85	AA	2186	U	C1'-N1	-6.96	1.38	1.48
2	A1	170	ILE	CA-C	-6.96	1.43	1.52
52	BS	60	VAL	CA-C	-6.96	1.45	1.52
34	BA	1177	C	O3'-P	-6.96	1.50	1.61
34	BA	1555	G	C2'-C1'	-6.96	1.43	1.53
35	BB	1144	A	O3'-P	-6.96	1.50	1.61
36	BC	141	C	P-O5'	-6.96	1.49	1.59
49	BP	75	LYS	CA-C	-6.96	1.43	1.52
75	Bp	16	SER	N-CA	-6.96	1.38	1.46
84	By	122	GLN	CA-C	-6.96	1.44	1.52
85	AA	649	C	P-O5'	-6.96	1.49	1.59
34	BA	104	A	O3'-P	-6.96	1.50	1.61
34	BA	807	U	O3'-P	-6.96	1.50	1.61
34	BA	1017	C	C1'-N1	-6.96	1.38	1.48
35	BB	1512	C	P-O5'	-6.96	1.49	1.59
48	BO	53	VAL	CA-CB	-6.96	1.45	1.54
85	AA	1262	A	C2'-C1'	-6.96	1.43	1.53
85	AA	1284	A	C1'-N9	-6.96	1.37	1.48
85	AA	1502	A	C2'-C1'	-6.96	1.43	1.53
34	BA	1546	C	C1'-N1	-6.96	1.38	1.48
85	AA	161	A	C1'-N9	-6.96	1.37	1.48
34	BA	1531	G	C2'-C1'	-6.95	1.43	1.53
35	BB	1134	G	O3'-P	-6.95	1.50	1.61
38	BE	27	A	O3'-P	-6.95	1.50	1.61
42	BI	48	ILE	CA-C	-6.95	1.44	1.52
78	Bs	12	LYS	CA-C	-6.95	1.43	1.52
85	AA	2102	A	C1'-N9	-6.95	1.37	1.48
4	A3	106	GLY	CA-C	-6.95	1.45	1.52
35	BB	100	A	O3'-P	-6.95	1.50	1.61
85	AA	1160	U	P-O5'	-6.95	1.49	1.59
85	AA	1477	A	O3'-P	-6.95	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2174	G	P-O5'	-6.95	1.49	1.59
6	A5	209	GLN	CA-C	-6.95	1.44	1.52
23	AP	74	HIS	CA-C	-6.95	1.42	1.52
34	BA	1105	A	C1'-N9	-6.95	1.37	1.48
85	AA	806	G	C2'-C1'	-6.95	1.43	1.53
35	BB	1122	C	O3'-P	-6.95	1.50	1.61
39	BF	57	C	C1'-N1	-6.95	1.38	1.48
36	BC	27	U	P-O5'	-6.95	1.49	1.59
44	BK	53	VAL	CA-C	-6.95	1.43	1.52
50	BQ	23	TYR	CA-C	-6.95	1.44	1.52
85	AA	243	A	C5'-C4'	6.95	1.61	1.51
31	AX	132	GLY	CA-C	-6.95	1.44	1.51
34	BA	138	C	C3'-C2'	-6.95	1.42	1.52
36	BC	73	U	C3'-C2'	-6.95	1.42	1.52
40	BG	16	G	O3'-P	-6.95	1.50	1.61
85	AA	2110	U	O3'-P	-6.95	1.50	1.61
25	AR	49	VAL	N-CA	-6.94	1.38	1.46
35	BB	1062	G	C2'-C1'	-6.94	1.43	1.53
47	BN	38	GLN	N-CA	-6.94	1.38	1.46
1	A0	214	ILE	CA-C	-6.94	1.46	1.53
11	AC	110	VAL	CA-C	-6.94	1.43	1.52
35	BB	694	C	O3'-P	-6.94	1.50	1.61
63	Bd	27	LEU	CA-C	-6.94	1.44	1.52
34	BA	422	C	O3'-P	-6.94	1.50	1.61
35	BB	491	A	C2'-C1'	-6.94	1.43	1.53
35	BB	563	A	C1'-N9	-6.94	1.37	1.48
38	BE	64	A	O3'-P	-6.94	1.50	1.61
40	BG	89	A	P-O5'	-6.94	1.49	1.59
48	BO	99	ILE	CA-CB	-6.94	1.45	1.54
7	A6	49	SER	CA-C	-6.94	1.43	1.52
11	AC	101	ILE	CA-CB	-6.94	1.46	1.54
35	BB	1062	G	O3'-P	-6.94	1.50	1.61
36	BC	4	G	C2'-C1'	-6.94	1.43	1.53
38	BE	56	U	P-O5'	-6.94	1.49	1.59
40	BG	97	G	O3'-P	-6.94	1.50	1.61
40	BG	120	U	O3'-P	-6.94	1.50	1.61
35	BB	404	A	P-O5'	-6.94	1.49	1.59
35	BB	1450	G	P-O5'	-6.94	1.49	1.59
34	BA	289	A	C1'-N9	-6.93	1.37	1.48
36	BC	44	A	P-O5'	-6.93	1.49	1.59
5	A4	177	VAL	CA-C	-6.93	1.44	1.52
35	BB	434	A	P-O5'	-6.93	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	BE	136	G	O4'-C1'	-6.93	1.31	1.42
85	AA	397	G	C1'-N9	-6.93	1.37	1.48
85	AA	2039	G	C1'-N9	-6.93	1.37	1.48
34	BA	216	C	C2'-C1'	-6.93	1.43	1.53
34	BA	1556	A	C2'-C1'	-6.93	1.43	1.53
34	BA	1104	C	C1'-N1	-6.93	1.37	1.47
35	BB	1375	G	C1'-N9	-6.93	1.37	1.48
38	BE	46	G	C1'-N9	-6.93	1.37	1.48
45	BL	92	LYS	CA-C	-6.93	1.44	1.52
53	BT	97	ARG	CA-C	-6.93	1.44	1.52
85	AA	329	G	C1'-N9	-6.93	1.36	1.47
85	AA	381	A	P-O5'	-6.93	1.49	1.59
85	AA	1678	U	O3'-P	-6.93	1.50	1.61
85	AA	2145	G	O3'-P	-6.93	1.50	1.61
35	BB	102	G	C1'-N9	-6.93	1.37	1.48
82	Bw	137	PRO	CA-C	-6.93	1.40	1.52
35	BB	1076	U	O3'-P	-6.93	1.50	1.61
36	BC	30	U	O3'-P	-6.93	1.50	1.61
85	AA	705	G	O3'-P	-6.93	1.50	1.61
85	AA	1877	G	O3'-P	-6.93	1.50	1.61
6	A5	87	SER	CA-C	-6.92	1.43	1.52
34	BA	471	U	C4'-C3'	-6.92	1.42	1.52
85	AA	1472	G	P-O5'	-6.92	1.49	1.59
85	AA	1955	U	P-O5'	-6.92	1.49	1.59
38	BE	177	U	P-O5'	-6.92	1.49	1.59
35	BB	1191	G	P-O5'	-6.92	1.49	1.59
35	BB	1423	U	P-O5'	-6.92	1.49	1.59
36	BC	147	G	O3'-P	-6.92	1.50	1.61
40	BG	33	G	O3'-P	-6.92	1.50	1.61
40	BG	38	A	P-O5'	-6.92	1.49	1.59
85	AA	12	U	P-O5'	-6.92	1.49	1.59
34	BA	513	U	P-O5'	-6.92	1.49	1.59
34	BA	882	G	O3'-P	-6.92	1.50	1.61
35	BB	697	G	O3'-P	-6.92	1.50	1.61
85	AA	1797	U	P-O5'	-6.92	1.49	1.59
35	BB	1036	G	C1'-N9	-6.92	1.37	1.48
38	BE	130	G	C1'-N9	-6.92	1.37	1.48
75	Bp	39	SER	CA-C	-6.92	1.44	1.52
7	A6	75	ILE	CA-C	-6.92	1.43	1.52
34	BA	939	C	O3'-P	-6.92	1.50	1.61
34	BA	1283	U	C3'-C2'	-6.92	1.42	1.52
35	BB	58	G	C1'-N9	-6.92	1.37	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	82	G	C2'-C1'	-6.92	1.43	1.53
35	BB	1239	A	P-O5'	-6.92	1.49	1.59
75	Bp	58	ARG	CA-C	-6.92	1.43	1.52
77	Br	287	VAL	C-N	-6.92	1.24	1.33
5	A4	158	PHE	CA-C	-6.92	1.44	1.52
34	BA	1321	A	C1'-N9	-6.92	1.37	1.48
52	BS	124	GLU	N-CA	-6.92	1.38	1.46
34	BA	690	G	O4'-C1'	-6.91	1.31	1.41
34	BA	1733	G	P-O5'	-6.91	1.49	1.59
36	BC	120	G	C1'-N9	-6.91	1.37	1.48
38	BE	183	C	C5'-C4'	6.91	1.61	1.51
44	BK	48	VAL	CA-CB	-6.91	1.45	1.54
85	AA	81	A	P-O5'	-6.91	1.49	1.59
85	AA	1215	A	P-O5'	-6.91	1.49	1.59
85	AA	2173	A	P-O5'	-6.91	1.49	1.59
34	BA	940	C	C3'-C2'	-6.91	1.42	1.52
39	BF	58	U	C1'-N1	-6.91	1.38	1.48
73	Bn	34	CYS	CA-C	-6.91	1.44	1.52
34	BA	942	G	O3'-P	-6.91	1.50	1.61
34	BA	1107	A	O3'-P	-6.91	1.50	1.61
34	BA	1511	C	C3'-C2'	-6.91	1.42	1.52
36	BC	2	A	P-O5'	-6.91	1.49	1.59
36	BC	101	U	P-O5'	-6.91	1.49	1.59
37	BD	89	G	C2'-C1'	-6.91	1.43	1.53
40	BG	85	C	O3'-P	-6.91	1.50	1.61
64	Be	115	ASN	CA-C	-6.91	1.43	1.52
77	Br	42	ASN	CA-C	-6.91	1.44	1.52
85	AA	1515	A	O3'-P	-6.91	1.50	1.61
34	BA	1530	G	C1'-N9	-6.91	1.37	1.48
35	BB	688	U	P-O5'	-6.91	1.49	1.59
35	BB	1040	C	C2'-C1'	-6.91	1.43	1.53
35	BB	1259	A	C5'-C4'	6.91	1.61	1.51
59	BZ	37	ARG	CA-C	-6.91	1.44	1.52
85	AA	1688	U	O3'-P	-6.91	1.50	1.61
38	BE	6	A	P-O5'	-6.91	1.49	1.59
85	AA	382	G	O4'-C1'	-6.91	1.31	1.41
34	BA	764	G	C5'-C4'	6.91	1.61	1.51
34	BA	1037	C	C3'-C2'	-6.91	1.42	1.52
34	BA	1335	A	C3'-C2'	-6.91	1.42	1.52
34	BA	1439	C	P-O5'	-6.91	1.49	1.59
40	BG	88	G	C1'-N9	-6.91	1.37	1.48
44	BK	96	VAL	CA-C	-6.91	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	BS	114	SER	CA-C	-6.91	1.43	1.52
57	BX	160	LYS	CA-C	-6.91	1.44	1.53
85	AA	112	A	C1'-N9	-6.91	1.37	1.48
86	AB	63	G	C2'-C1'	-6.91	1.43	1.53
34	BA	1416	C	C1'-N1	-6.90	1.38	1.48
35	BB	787	A	P-O5'	-6.90	1.49	1.59
40	BG	28	A	C1'-N9	-6.90	1.37	1.48
33	AZ	45	LYS	CA-C	-6.90	1.44	1.52
34	BA	1197	U	O3'-P	-6.90	1.50	1.61
34	BA	1712	U	O3'-P	-6.90	1.50	1.61
35	BB	1188	A	P-O5'	-6.90	1.49	1.59
35	BB	1191	G	O3'-P	-6.90	1.50	1.61
35	BB	1237	C	C2'-C1'	-6.90	1.43	1.53
35	BB	1397	G	P-O5'	-6.90	1.49	1.59
34	BA	17	A	C1'-N9	-6.90	1.37	1.48
34	BA	1706	A	C5'-C4'	6.90	1.61	1.51
85	AA	54	C	P-O5'	-6.90	1.49	1.59
34	BA	503	C	O3'-P	-6.90	1.50	1.61
80	Bu	199	LYS	CA-C	-6.90	1.44	1.52
85	AA	505	U	C4'-C3'	-6.90	1.42	1.53
35	BB	452	A	O4'-C1'	-6.90	1.31	1.41
52	BS	100	CYS	N-CA	-6.90	1.37	1.46
53	BT	88	ARG	N-CA	-6.90	1.38	1.46
82	Bw	165	LYS	CA-C	-6.90	1.44	1.52
85	AA	766	G	P-O5'	-6.90	1.49	1.59
34	BA	977	G	P-O5'	-6.90	1.49	1.59
35	BB	72	G	C3'-C2'	-6.90	1.42	1.52
35	BB	1377	A	P-O5'	-6.90	1.49	1.59
85	AA	627	A	C2'-C1'	-6.90	1.43	1.53
7	A6	60	THR	CA-C	-6.89	1.43	1.52
35	BB	1396	G	C1'-N9	-6.89	1.37	1.48
34	BA	663	U	P-O5'	-6.89	1.49	1.59
40	BG	175	G	C2'-C1'	-6.89	1.43	1.53
49	BP	109	GLU	CA-C	-6.89	1.44	1.52
50	BQ	65	ALA	CA-C	-6.89	1.44	1.52
63	Bd	14	ARG	N-CA	-6.89	1.38	1.46
85	AA	377	U	P-O5'	-6.89	1.49	1.59
85	AA	764	U	P-O5'	-6.89	1.49	1.59
5	A4	182	THR	CA-C	-6.89	1.43	1.52
34	BA	81	C	O3'-P	-6.89	1.50	1.61
34	BA	507	U	C5'-C4'	6.89	1.61	1.51
34	BA	1451	A	C4'-C3'	-6.89	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1039	A	P-O5'	-6.89	1.49	1.59
38	BE	124	G	O3'-P	-6.89	1.50	1.61
85	AA	1292	A	C1'-N9	-6.89	1.37	1.48
35	BB	494	C	C2'-C1'	-6.89	1.43	1.53
35	BB	1079	G	O3'-P	-6.89	1.50	1.61
72	Bm	50	ALA	N-CA	-6.89	1.37	1.46
34	BA	977	G	O3'-P	-6.89	1.50	1.61
39	BF	19	A	O3'-P	-6.89	1.50	1.61
41	BH	109	G	C4'-C3'	-6.89	1.42	1.52
48	BO	217	LYS	N-CA	-6.89	1.37	1.46
85	AA	276	C	C1'-N1	-6.89	1.38	1.48
85	AA	1536	C	O5'-C5'	6.89	1.52	1.42
85	AA	2214	A	C2'-C1'	-6.89	1.43	1.53
15	AG	134	GLN	CA-C	-6.88	1.43	1.52
34	BA	159	U	C2'-C1'	-6.88	1.43	1.53
34	BA	755	G	O3'-P	-6.88	1.50	1.61
35	BB	41	A	O4'-C1'	-6.88	1.31	1.42
36	BC	55	U	P-O5'	-6.88	1.49	1.59
41	BH	47	G	O3'-P	-6.88	1.50	1.61
85	AA	520	A	C5'-C4'	6.88	1.61	1.51
85	AA	985	G	P-O5'	-6.88	1.49	1.59
85	AA	1518	A	C1'-N9	-6.88	1.37	1.48
34	BA	1836	A	O3'-P	-6.88	1.50	1.61
35	BB	506	G	C3'-C2'	-6.88	1.42	1.52
44	BK	141	LYS	N-CA	-6.88	1.37	1.46
49	BP	78	LEU	CA-C	-6.88	1.43	1.52
85	AA	1969	A	O3'-P	-6.88	1.50	1.61
34	BA	328	A	C2'-C1'	-6.88	1.43	1.53
34	BA	1583	A	C2'-C1'	-6.88	1.42	1.53
35	BB	370	A	C1'-N9	-6.88	1.37	1.48
37	BD	73	U	O3'-P	-6.88	1.50	1.61
42	BI	68	ALA	CA-C	-6.88	1.43	1.52
59	BZ	82	VAL	CA-CB	-6.88	1.46	1.54
85	AA	621	U	O3'-P	-6.88	1.50	1.61
85	AA	1670	U	P-O5'	-6.88	1.49	1.59
6	A5	201	ALA	N-CA	-6.88	1.37	1.45
34	BA	930	A	O3'-P	-6.88	1.50	1.61
85	AA	1485	G	O3'-P	-6.88	1.50	1.61
4	A3	2	LYS	C-N	-6.88	1.24	1.33
25	AR	13	ASN	N-CA	-6.88	1.37	1.46
35	BB	610	U	P-O5'	-6.88	1.49	1.59
36	BC	144	C	C3'-C2'	-6.88	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	BZ	30	ALA	CA-C	-6.88	1.44	1.52
34	BA	763	U	P-O5'	-6.88	1.49	1.59
40	BG	141	A	C1'-N9	-6.88	1.37	1.48
82	Bw	190	ASN	N-CA	-6.88	1.37	1.46
85	AA	490	A	O3'-P	-6.88	1.50	1.61
85	AA	521	A	C1'-N9	-6.88	1.36	1.47
34	BA	978	U	O3'-P	-6.88	1.50	1.61
44	BK	52	VAL	CA-C	-6.88	1.45	1.52
34	BA	1068	C	P-O5'	-6.87	1.49	1.59
35	BB	1087	A	O3'-P	-6.87	1.50	1.61
38	BE	128	G	C1'-N9	-6.87	1.37	1.48
79	Bt	97	LYS	CA-C	-6.87	1.44	1.52
34	BA	63	A	O3'-P	-6.87	1.50	1.61
35	BB	399	A	O3'-P	-6.87	1.50	1.61
35	BB	1119	G	O3'-P	-6.87	1.50	1.61
35	BB	1147	G	C1'-N9	-6.87	1.37	1.48
36	BC	41	A	C2'-C1'	-6.87	1.43	1.53
64	Be	150	LEU	C-N	-6.87	1.25	1.34
72	Bm	63	ARG	N-CA	-6.87	1.38	1.46
85	AA	158	C	O3'-P	-6.87	1.50	1.61
85	AA	2045	U	O3'-P	-6.87	1.50	1.61
34	BA	1610	A	P-O5'	-6.87	1.49	1.59
34	BA	1651	C	O3'-P	-6.87	1.50	1.61
35	BB	1208	G	O3'-P	-6.87	1.50	1.61
85	AA	1892	G	P-O5'	-6.87	1.49	1.59
22	AO	136	ALA	CA-C	-6.87	1.43	1.52
34	BA	117	C	C2'-C1'	-6.87	1.43	1.53
85	AA	429	G	O3'-P	-6.87	1.50	1.61
85	AA	443	A	C2'-C1'	-6.87	1.43	1.53
34	BA	761	U	O4'-C1'	-6.87	1.31	1.41
44	BK	43	VAL	CA-CB	-6.87	1.44	1.54
62	Bc	107	TYR	CA-C	-6.87	1.43	1.52
34	BA	1464	C	P-O5'	-6.87	1.49	1.59
37	BD	113	G	O3'-P	-6.87	1.50	1.61
55	BV	32	ILE	CA-CB	-6.87	1.50	1.54
67	Bh	173	ILE	N-CA	-6.87	1.38	1.46
82	Bw	188	TYR	CA-C	-6.87	1.44	1.53
85	AA	97	A	C2'-C1'	-6.87	1.43	1.53
34	BA	376	U	O3'-P	-6.86	1.50	1.61
35	BB	2	C	C4'-C3'	-6.86	1.42	1.52
35	BB	483	C	C1'-N1	-6.86	1.38	1.48
49	BP	29	ASP	CA-C	-6.86	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
77	Br	55	ARG	CA-C	-6.86	1.43	1.52
35	BB	1294	C	O3'-P	-6.86	1.50	1.61
50	BQ	132	VAL	CA-C	-6.86	1.44	1.52
31	AX	178	ALA	N-CA	-6.86	1.39	1.46
34	BA	503	C	C2'-C1'	-6.86	1.43	1.53
34	BA	1019	C	C3'-C2'	-6.86	1.42	1.52
34	BA	1578	A	C2'-C1'	-6.86	1.42	1.53
64	Be	158	VAL	N-CA	-6.86	1.40	1.46
73	Bn	33	ARG	CA-C	-6.86	1.43	1.52
85	AA	17	C	P-O5'	-6.86	1.49	1.59
85	AA	24	U	C1'-N1	-6.86	1.38	1.48
85	AA	330	C	O3'-P	-6.86	1.50	1.61
34	BA	1152	A	C1'-N9	-6.86	1.37	1.48
39	BF	69	A	C2'-C1'	-6.86	1.43	1.53
40	BG	106	G	C1'-N9	-6.86	1.36	1.47
68	Bi	75	PHE	CA-C	-6.86	1.45	1.52
34	BA	52	G	C2'-C1'	-6.86	1.43	1.53
34	BA	1196	C	O3'-P	-6.86	1.50	1.61
35	BB	832	C	C3'-C2'	-6.86	1.42	1.52
35	BB	1388	A	O3'-P	-6.86	1.50	1.61
85	AA	2055	G	C1'-N9	-6.86	1.37	1.48
50	BQ	133	LEU	N-CA	-6.86	1.37	1.46
52	BS	41	SER	CA-C	-6.86	1.43	1.52
83	Bx	188	ILE	CA-C	-6.86	1.45	1.52
85	AA	353	G	C1'-N9	-6.86	1.37	1.48
85	AA	1855	U	O3'-P	-6.86	1.50	1.61
85	AA	2178	A	C1'-N9	-6.86	1.37	1.48
34	BA	857	C	C3'-C2'	-6.85	1.42	1.52
35	BB	1049	G	O3'-P	-6.85	1.50	1.61
35	BB	442	U	O4'-C1'	-6.85	1.31	1.42
35	BB	603	U	O3'-P	-6.85	1.50	1.61
35	BB	1531	G	P-O5'	-6.85	1.49	1.59
38	BE	193	A	O3'-P	-6.85	1.50	1.61
47	BN	139	GLN	CA-C	-6.85	1.43	1.52
85	AA	1509	A	C1'-N9	-6.85	1.37	1.48
42	BI	28	LEU	CA-C	-6.85	1.43	1.52
85	AA	1211	C	C1'-N1	-6.85	1.38	1.48
85	AA	1265	C	P-O5'	-6.85	1.49	1.59
6	A5	117	TYR	CA-C	-6.85	1.43	1.52
34	BA	948	C	P-O5'	-6.85	1.49	1.59
34	BA	1282	G	C3'-C2'	-6.85	1.42	1.52
36	BC	160	C	C3'-C2'	-6.85	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BD	74	A	C1'-N9	-6.85	1.36	1.47
85	AA	1494	C	P-O5'	-6.85	1.49	1.59
85	AA	1532	G	C1'-N9	-6.85	1.37	1.48
34	BA	1432	C	P-O5'	-6.85	1.49	1.59
34	BA	1599	A	C1'-N9	-6.85	1.37	1.48
73	Bn	29	VAL	CA-CB	-6.85	1.45	1.54
85	AA	32	U	P-O5'	-6.85	1.49	1.59
85	AA	1476	C	C1'-N1	-6.85	1.38	1.48
34	BA	1566	G	P-O5'	-6.85	1.49	1.59
35	BB	10	C	P-O5'	-6.85	1.49	1.59
34	BA	211	C	C3'-C2'	-6.84	1.42	1.52
34	BA	1655	G	C1'-N9	-6.84	1.37	1.48
48	BO	167	LYS	CA-C	-6.84	1.44	1.52
85	AA	1682	U	P-O5'	-6.84	1.49	1.59
34	BA	96	G	C1'-N9	-6.84	1.37	1.48
34	BA	983	A	O3'-P	-6.84	1.50	1.61
34	BA	996	U	C3'-C2'	-6.84	1.42	1.52
35	BB	614	U	O3'-P	-6.84	1.50	1.61
35	BB	1326	U	O3'-P	-6.84	1.50	1.61
35	BB	1033	U	C2'-C1'	-6.84	1.43	1.53
36	BC	113	G	C2'-C1'	-6.84	1.43	1.53
38	BE	66	A	O3'-P	-6.84	1.50	1.61
13	AE	125	VAL	N-CA	-6.84	1.38	1.46
34	BA	128	C	P-O5'	-6.84	1.49	1.59
34	BA	726	G	O3'-P	-6.84	1.50	1.61
34	BA	1579	G	O3'-P	-6.84	1.50	1.61
35	BB	788	U	C1'-N1	-6.84	1.38	1.48
56	BW	105	VAL	CA-C	-6.84	1.45	1.52
69	Bj	19	ASN	N-CA	-6.84	1.37	1.46
34	BA	1163	G	O3'-P	-6.84	1.50	1.61
34	BA	1695	G	C3'-C2'	-6.84	1.42	1.52
39	BF	17	U	P-O5'	-6.84	1.49	1.59
62	Bc	28	SER	CA-C	-6.84	1.44	1.52
65	Bf	153	ILE	CA-C	-6.84	1.46	1.52
85	AA	596	A	P-O5'	-6.84	1.49	1.59
85	AA	989	U	O3'-P	-6.84	1.50	1.61
34	BA	1670	A	O3'-P	-6.83	1.50	1.61
34	BA	1725	U	C4'-C3'	-6.83	1.42	1.53
51	BR	88	VAL	CA-CB	-6.83	1.46	1.54
72	Bm	27	ARG	CA-C	-6.83	1.43	1.52
34	BA	506	U	C2'-C1'	-6.83	1.43	1.53
34	BA	681	G	O3'-P	-6.83	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	629	C	P-O5'	-6.83	1.49	1.59
35	BB	1286	G	C2'-C1'	-6.83	1.43	1.53
38	BE	199	A	C2'-C1'	-6.83	1.43	1.53
39	BF	62	U	C3'-C2'	-6.83	1.42	1.52
51	BR	94	LEU	N-CA	-6.83	1.38	1.46
18	AJ	10	ALA	N-CA	-6.83	1.38	1.46
35	BB	1335	G	C1'-N9	-6.83	1.37	1.48
56	BW	20	PRO	CA-C	-6.83	1.44	1.52
85	AA	1283	C	C1'-N1	-6.83	1.38	1.48
34	BA	1702	G	P-O5'	-6.83	1.49	1.59
35	BB	1267	C	C1'-N1	-6.83	1.38	1.48
36	BC	134	G	C2'-C1'	-6.83	1.43	1.53
40	BG	101	G	C1'-N9	-6.83	1.37	1.48
41	BH	20	A	O3'-P	-6.83	1.50	1.61
65	Bf	176	SER	CA-C	-6.83	1.44	1.52
85	AA	1488	G	C1'-N9	-6.83	1.37	1.48
85	AA	1571	A	C2'-C1'	-6.83	1.43	1.53
25	AR	26	ASN	CA-C	-6.83	1.44	1.53
34	BA	200	C	O3'-P	-6.83	1.50	1.61
35	BB	1372	G	C1'-N9	-6.83	1.37	1.48
40	BG	33	G	N9-C4	-6.83	1.24	1.38
45	BL	41	SER	CA-C	-6.83	1.44	1.52
85	AA	890	U	O3'-P	-6.83	1.50	1.61
85	AA	2209	U	P-O5'	-6.83	1.49	1.59
85	AA	416	U	C1'-N1	-6.83	1.37	1.47
21	AM	44	MET	CA-C	-6.83	1.44	1.52
35	BB	683	U	O3'-P	-6.83	1.50	1.61
57	BX	71	ASN	CA-C	-6.83	1.44	1.52
64	Be	157	THR	CA-C	-6.83	1.44	1.52
34	BA	691	A	C2'-C1'	-6.82	1.43	1.53
34	BA	1225	A	O3'-P	-6.82	1.50	1.61
34	BA	1742	G	C2'-C1'	-6.82	1.43	1.53
35	BB	428	G	P-O5'	-6.82	1.49	1.59
38	BE	180	G	P-O5'	-6.82	1.49	1.59
85	AA	1252	A	C1'-N9	-6.82	1.37	1.48
85	AA	1887	G	C1'-N9	-6.82	1.37	1.48
16	AH	30	PHE	CA-C	-6.82	1.44	1.52
56	BW	104	ILE	CA-C	-6.82	1.45	1.52
7	A6	44	VAL	CA-CB	-6.82	1.45	1.54
13	AE	86	ILE	N-CA	-6.82	1.37	1.46
37	BD	2	G	C1'-N9	-6.82	1.37	1.48
38	BE	90	G	O3'-P	-6.82	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	Bx	69	VAL	CA-C	-6.82	1.44	1.52
85	AA	548	G	C2'-C1'	-6.82	1.43	1.53
18	AJ	19	ARG	N-CA	-6.82	1.38	1.46
38	BE	70	C	P-O5'	-6.82	1.49	1.59
41	BH	69	C	O3'-P	-6.82	1.50	1.61
77	Br	323	ARG	CA-C	-6.82	1.44	1.52
34	BA	463	A	C1'-N9	-6.82	1.36	1.47
34	BA	484	A	O3'-P	-6.82	1.50	1.61
35	BB	66	G	C1'-N9	-6.82	1.37	1.48
35	BB	1148	U	O3'-P	-6.82	1.50	1.61
38	BE	132	U	O4'-C1'	-6.82	1.31	1.41
39	BF	47	C	P-O5'	-6.82	1.49	1.59
49	BP	44	GLN	CA-C	-6.82	1.46	1.53
61	Bb	135	ARG	N-CA	-6.82	1.38	1.46
66	Bg	104	THR	CA-C	-6.82	1.43	1.52
70	Bk	92	THR	CA-C	-6.82	1.43	1.52
85	AA	11	A	P-O5'	-6.82	1.49	1.59
85	AA	1557	U	O3'-P	-6.82	1.50	1.61
34	BA	74	A	O3'-P	-6.82	1.50	1.61
34	BA	79	C	C1'-N1	-6.82	1.38	1.48
34	BA	259	C	P-O5'	-6.82	1.49	1.59
34	BA	936	A	C3'-C2'	-6.82	1.42	1.52
38	BE	37	C	O3'-P	-6.82	1.50	1.61
65	Bf	197	GLU	N-CA	-6.82	1.37	1.46
85	AA	190	A	C3'-C2'	-6.82	1.42	1.52
85	AA	1441	G	P-O5'	-6.82	1.49	1.59
85	AA	1865	C	O3'-P	-6.82	1.50	1.61
85	AA	2054	G	C1'-N9	-6.82	1.37	1.48
85	AA	2222	G	C1'-N9	-6.82	1.37	1.48
6	A5	60	LEU	CA-C	-6.81	1.44	1.52
8	A7	136	TRP	CA-C	-6.81	1.44	1.52
34	BA	453	A	C1'-N9	-6.81	1.37	1.48
35	BB	1074	U	O3'-P	-6.81	1.50	1.61
34	BA	1783	C	C2'-C1'	-6.81	1.43	1.53
35	BB	1271	A	P-O5'	-6.81	1.49	1.59
36	BC	60	U	O3'-P	-6.81	1.50	1.61
85	AA	1117	G	C1'-N9	-6.81	1.37	1.48
34	BA	17	A	C2'-C1'	-6.81	1.43	1.53
38	BE	77	C	O3'-P	-6.81	1.50	1.61
38	BE	131	C	P-O5'	-6.81	1.49	1.59
39	BF	58	U	O3'-P	-6.81	1.50	1.61
77	Br	65	SER	CA-C	-6.81	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1584	U	O3'-P	-6.81	1.50	1.61
35	BB	638	G	O3'-P	-6.81	1.50	1.61
40	BG	75	C	O3'-P	-6.81	1.50	1.61
40	BG	165	C	O3'-P	-6.81	1.50	1.61
74	Bo	56	ARG	CD-NE	6.81	1.55	1.46
85	AA	578	U	C5'-C4'	-6.81	1.41	1.51
85	AA	2060	G	C1'-N9	-6.81	1.37	1.48
34	BA	308	C	O3'-P	-6.81	1.50	1.61
34	BA	825	G	C3'-C2'	-6.81	1.42	1.52
34	BA	1154	U	P-O5'	-6.81	1.49	1.59
34	BA	1324	G	O3'-P	-6.81	1.50	1.61
36	BC	152	C	C1'-N1	-6.81	1.38	1.48
40	BG	138	C	P-O5'	-6.81	1.49	1.59
85	AA	1736	U	P-O5'	-6.81	1.49	1.59
85	AA	2123	U	O4'-C1'	-6.81	1.31	1.41
34	BA	1189	A	O3'-P	-6.81	1.50	1.61
39	BF	3	A	O3'-P	-6.81	1.50	1.61
85	AA	1140	G	C1'-N9	-6.81	1.37	1.48
35	BB	1157	G	C1'-N9	-6.80	1.37	1.48
36	BC	115	G	O3'-P	-6.80	1.50	1.61
38	BE	89	G	C2'-C1'	-6.80	1.43	1.53
38	BE	105	A	C2'-C1'	-6.80	1.43	1.53
54	BU	106	LYS	CA-C	-6.80	1.44	1.52
35	BB	1378	U	O3'-P	-6.80	1.50	1.61
34	BA	1434	U	P-O5'	-6.80	1.49	1.59
35	BB	103	C	P-O5'	-6.80	1.49	1.59
35	BB	692	G	C3'-C2'	-6.80	1.42	1.52
39	BF	10	A	C3'-O3'	6.80	1.53	1.43
40	BG	81	G	C1'-N9	-6.80	1.37	1.48
40	BG	176	G	C3'-C2'	-6.80	1.42	1.52
11	AC	224	THR	CA-C	-6.80	1.44	1.52
15	AG	136	PRO	CA-C	-6.80	1.45	1.52
35	BB	441	G	C2'-C1'	-6.80	1.43	1.53
35	BB	786	A	C2'-C1'	-6.80	1.43	1.53
36	BC	45	C	C2'-C1'	-6.80	1.43	1.53
85	AA	509	C	P-O5'	-6.80	1.49	1.59
85	AA	372	U	O3'-P	-6.80	1.50	1.61
85	AA	1717	G	C5'-C4'	6.80	1.61	1.51
25	AR	12	VAL	CA-C	-6.80	1.44	1.52
34	BA	319	C	C1'-N1	-6.80	1.38	1.48
34	BA	324	C	O3'-P	-6.80	1.50	1.61
34	BA	1454	G	N9-C4	-6.80	1.24	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A0	49	ASN	CA-C	-6.79	1.44	1.52
41	BH	17	A	O3'-P	-6.79	1.50	1.61
85	AA	9	U	C1'-N1	-6.79	1.38	1.48
23	AP	121	ILE	CA-C	-6.79	1.44	1.52
34	BA	495	A	C3'-C2'	-6.79	1.42	1.52
45	BL	113	ILE	CA-C	-6.79	1.44	1.52
83	Bx	154	ARG	CA-C	-6.79	1.43	1.52
85	AA	442	G	O3'-P	-6.79	1.50	1.61
34	BA	576	C	O3'-P	-6.79	1.50	1.61
4	A3	168	GLU	CA-C	-6.79	1.44	1.52
35	BB	624	A	O3'-P	-6.79	1.50	1.61
35	BB	1252	G	C1'-N9	-6.79	1.36	1.47
66	Bg	43	LYS	CA-C	-6.79	1.44	1.52
34	BA	1168	C	O3'-P	-6.79	1.50	1.61
18	AJ	63	VAL	N-CA	-6.79	1.38	1.46
37	BD	81	C	P-O5'	-6.79	1.49	1.59
81	Bv	151	GLN	CA-C	-6.79	1.44	1.52
83	Bx	67	THR	N-CA	-6.79	1.37	1.46
85	AA	5	U	C2'-C1'	-6.79	1.43	1.53
85	AA	851	G	O3'-P	-6.79	1.50	1.61
34	BA	303	C	O4'-C1'	-6.78	1.31	1.42
40	BG	135	C	C1'-N1	-6.78	1.38	1.48
85	AA	258	G	C1'-N9	-6.78	1.37	1.48
85	AA	519	A	C2'-C1'	-6.78	1.43	1.53
85	AA	640	C	P-O5'	-6.78	1.49	1.59
32	AY	29	GLN	CA-C	-6.78	1.44	1.53
35	BB	1051	U	O3'-P	-6.78	1.50	1.61
4	A3	50	THR	CA-C	-6.78	1.44	1.52
34	BA	882	G	P-O5'	-6.78	1.49	1.59
35	BB	394	A	C1'-N9	-6.78	1.37	1.48
40	BG	37	G	C3'-C2'	-6.78	1.42	1.52
40	BG	99	A	O3'-P	-6.78	1.50	1.61
49	BP	74	LEU	CA-C	-6.78	1.44	1.52
83	Bx	118	ARG	CA-C	-6.78	1.43	1.52
85	AA	1106	A	C2'-C1'	-6.78	1.43	1.53
85	AA	1712	A	C1'-N9	-6.78	1.37	1.48
85	AA	2228	G	O3'-P	-6.78	1.50	1.61
36	BC	29	C	O3'-P	-6.78	1.50	1.61
4	A3	212	TYR	N-CA	-6.78	1.38	1.46
34	BA	103	G	C2'-C1'	-6.78	1.43	1.53
35	BB	624	A	C1'-N9	-6.78	1.37	1.48
34	BA	111	U	O3'-P	-6.78	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1181	G	O3'-P	-6.78	1.50	1.61
34	BA	1412	G	C1'-N9	-6.78	1.36	1.47
41	BH	112	U	P-O5'	-6.78	1.49	1.59
34	BA	356	C	C2'-C1'	-6.77	1.43	1.53
35	BB	674	C	C2'-C1'	-6.77	1.43	1.53
35	BB	1064	U	P-O5'	-6.77	1.49	1.59
85	AA	677	U	O3'-P	-6.77	1.50	1.61
85	AA	1694	C	O3'-P	-6.77	1.50	1.61
15	AG	94	ARG	CA-C	-6.77	1.44	1.52
34	BA	474	A	O3'-P	-6.77	1.50	1.61
34	BA	1807	G	O3'-P	-6.77	1.50	1.61
35	BB	404	A	C3'-C2'	-6.77	1.42	1.52
35	BB	625	A	P-O5'	-6.77	1.49	1.59
40	BG	123	C	O3'-P	-6.77	1.50	1.61
41	BH	19	G	P-O5'	-6.77	1.49	1.59
42	BI	115	SER	N-CA	-6.77	1.38	1.46
82	Bw	162	MET	CA-C	-6.77	1.43	1.52
85	AA	1240	A	O3'-P	-6.77	1.50	1.61
34	BA	782	C	O3'-P	-6.77	1.50	1.61
34	BA	1301	G	O3'-P	-6.77	1.50	1.61
35	BB	407	A	O3'-P	-6.77	1.50	1.61
35	BB	450	A	O3'-P	-6.77	1.50	1.61
35	BB	1435	G	C1'-N9	-6.77	1.37	1.48
36	BC	149	A	P-O5'	-6.77	1.49	1.59
42	BI	136	MET	CA-C	-6.77	1.44	1.53
75	Bp	70	THR	CA-C	-6.77	1.44	1.52
85	AA	1671	G	P-O5'	-6.77	1.49	1.59
34	BA	1052	G	C1'-N9	-6.77	1.37	1.48
35	BB	1147	G	C3'-C2'	-6.77	1.42	1.52
85	AA	326	C	O3'-P	-6.77	1.50	1.61
85	AA	1492	U	C3'-C2'	-6.77	1.42	1.52
26	AS	30	SER	CA-C	-6.77	1.44	1.52
35	BB	1097	U	O3'-P	-6.77	1.51	1.61
35	BB	1146	C	P-O5'	-6.77	1.49	1.59
72	Bm	42	HIS	CA-C	-6.77	1.45	1.53
85	AA	395	G	O3'-P	-6.77	1.51	1.61
85	AA	2194	U	C1'-N1	-6.77	1.38	1.48
35	BB	102	G	O3'-P	-6.76	1.51	1.61
36	BC	126	G	C2'-C1'	-6.76	1.43	1.53
45	BL	21	VAL	CA-C	-6.76	1.45	1.52
65	Bf	107	ILE	CA-C	-6.76	1.44	1.52
34	BA	937	G	C3'-C2'	-6.76	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BD	5	A	O3'-P	-6.76	1.51	1.61
38	BE	144	A	C1'-N9	-6.76	1.37	1.48
18	AJ	87	GLU	CA-C	-6.76	1.44	1.52
35	BB	1272	G	O3'-P	-6.76	1.51	1.61
36	BC	43	A	C1'-N9	-6.76	1.37	1.48
54	BU	34	PHE	CA-C	-6.76	1.44	1.52
65	Bf	193	GLY	CA-C	-6.76	1.45	1.52
85	AA	1541	G	C4'-C3'	-6.76	1.42	1.52
85	AA	1976	G	O3'-P	-6.76	1.51	1.61
6	A5	34	ALA	CA-C	-6.76	1.43	1.52
8	A7	136	TRP	N-CA	-6.76	1.37	1.45
34	BA	500	C	C1'-N1	-6.76	1.38	1.48
35	BB	98	A	O3'-P	-6.76	1.51	1.61
35	BB	696	G	O3'-P	-6.76	1.51	1.61
35	BB	1323	U	C3'-C2'	-6.76	1.42	1.52
35	BB	1392	A	P-O5'	-6.76	1.49	1.59
85	AA	879	G	O3'-P	-6.76	1.51	1.61
85	AA	1195	U	O3'-P	-6.76	1.51	1.61
85	AA	2074	G	O3'-P	-6.76	1.51	1.61
35	BB	1271	A	O3'-P	-6.76	1.51	1.61
41	BH	36	C	C1'-N1	-6.76	1.38	1.48
85	AA	1562	U	O3'-P	-6.76	1.51	1.61
34	BA	933	U	O4'-C1'	-6.76	1.31	1.41
34	BA	1676	A	O3'-P	-6.76	1.51	1.61
35	BB	129	U	C2'-C1'	-6.76	1.43	1.53
35	BB	1109	A	C1'-N9	-6.76	1.37	1.48
36	BC	154	A	C1'-N9	-6.76	1.37	1.48
38	BE	122	G	C2'-C1'	-6.76	1.43	1.53
74	Bo	75	ASN	N-CA	-6.76	1.38	1.46
85	AA	1127	G	O3'-P	-6.76	1.51	1.61
85	AA	1218	C	P-O5'	-6.76	1.49	1.59
35	BB	1292	G	P-O5'	-6.75	1.49	1.59
85	AA	1553	G	P-O5'	-6.75	1.49	1.59
85	AA	2076	C	O3'-P	-6.75	1.51	1.61
16	AH	24	VAL	CA-C	-6.75	1.44	1.52
34	BA	809	U	C2'-C1'	-6.75	1.43	1.53
34	BA	1428	G	C1'-N9	-6.75	1.37	1.48
35	BB	778	A	C5'-C4'	-6.75	1.41	1.51
40	BG	16	G	C3'-C2'	-6.75	1.42	1.52
85	AA	505	U	O3'-P	-6.75	1.51	1.61
34	BA	26	C	C1'-N1	-6.75	1.38	1.48
34	BA	218	G	C1'-N9	-6.75	1.36	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	572	G	C5'-C4'	6.75	1.61	1.51
34	BA	1200	U	O3'-P	-6.75	1.51	1.61
34	BA	1328	U	O3'-P	-6.75	1.51	1.61
36	BC	104	A	P-O5'	-6.75	1.49	1.59
38	BE	110	U	P-O5'	-6.75	1.49	1.59
40	BG	65	C	C1'-N1	-6.75	1.38	1.48
53	BT	40	SER	CA-C	-6.75	1.44	1.52
85	AA	1299	A	C1'-N9	-6.75	1.37	1.48
34	BA	1066	A	O3'-P	-6.75	1.51	1.61
36	BC	148	C	O3'-P	-6.75	1.51	1.61
85	AA	1221	G	C2'-C1'	-6.75	1.43	1.53
34	BA	5	C	C3'-C2'	-6.75	1.42	1.52
35	BB	1087	A	C3'-C2'	-6.75	1.42	1.52
51	BR	21	ASP	CA-C	-6.75	1.44	1.53
85	AA	533	C	C2'-C1'	-6.75	1.43	1.53
34	BA	415	C	P-O5'	-6.75	1.49	1.59
34	BA	1275	G	C1'-N9	-6.75	1.37	1.48
34	BA	1686	G	C2'-C1'	-6.75	1.43	1.53
34	BA	1694	C	P-O5'	-6.75	1.49	1.59
35	BB	379	U	O3'-P	-6.75	1.51	1.61
50	BQ	151	ALA	CA-C	-6.75	1.44	1.52
85	AA	545	A	C2'-C1'	-6.75	1.43	1.53
85	AA	982	G	C2'-C1'	-6.75	1.43	1.53
34	BA	357	A	C1'-N9	-6.75	1.37	1.48
34	BA	1234	U	C3'-C2'	-6.75	1.42	1.52
34	BA	1418	G	C1'-N9	-6.75	1.37	1.48
34	BA	1687	A	C2'-C1'	-6.75	1.43	1.53
35	BB	1118	G	C1'-N9	-6.75	1.37	1.48
44	BK	71	GLN	CA-C	-6.75	1.44	1.52
34	BA	495	A	C1'-N9	-6.74	1.37	1.48
35	BB	569	G	O3'-P	-6.74	1.51	1.61
37	BD	61	C	O3'-P	-6.74	1.51	1.61
66	Bg	30	LYS	N-CA	-6.74	1.38	1.46
40	BG	59	G	P-O5'	-6.74	1.49	1.59
85	AA	1464	G	C3'-C2'	-6.74	1.42	1.52
85	AA	2081	A	O3'-P	-6.74	1.51	1.61
35	BB	998	G	C1'-N9	-6.74	1.37	1.48
39	BF	27	G	C1'-N9	-6.74	1.37	1.48
50	BQ	24	LEU	N-CA	-6.74	1.38	1.46
27	AT	97	ARG	CA-C	-6.74	1.44	1.52
34	BA	1311	G	O3'-P	-6.74	1.51	1.61
41	BH	115	A	C1'-N9	-6.74	1.37	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
66	Bg	69	TYR	CA-C	-6.74	1.44	1.52
85	AA	1673	A	P-O5'	-6.74	1.49	1.59
18	AJ	5	SER	CA-C	-6.74	1.43	1.52
34	BA	49	A	C4'-O4'	-6.74	1.35	1.45
34	BA	1456	C	O3'-P	-6.74	1.51	1.61
36	BC	77	A	O3'-P	-6.74	1.51	1.61
38	BE	105	A	O3'-P	-6.74	1.51	1.61
38	BE	181	U	O3'-P	-6.74	1.51	1.61
13	AE	65	ILE	N-CA	-6.74	1.38	1.46
34	BA	912	G	P-O5'	-6.74	1.49	1.59
34	BA	1418	G	O3'-P	-6.74	1.51	1.61
35	BB	72	G	O3'-P	-6.74	1.51	1.61
35	BB	557	C	O3'-P	-6.74	1.51	1.61
36	BC	130	U	P-O5'	-6.74	1.49	1.59
38	BE	130	G	P-O5'	-6.74	1.49	1.59
7	A6	140	VAL	N-CA	-6.73	1.38	1.46
35	BB	839	G	C4'-C3'	6.73	1.62	1.52
35	BB	1127	A	C1'-N9	-6.73	1.36	1.47
34	BA	232	U	C2'-C1'	-6.73	1.43	1.53
34	BA	1092	U	P-O5'	-6.73	1.49	1.59
38	BE	116	U	P-O5'	-6.73	1.49	1.59
48	BO	164	VAL	CA-CB	-6.73	1.45	1.54
51	BR	29	THR	CA-CB	-6.73	1.42	1.53
53	BT	104	ARG	CA-C	-6.73	1.42	1.52
82	Bw	72	SER	CA-C	-6.73	1.43	1.52
34	BA	277	A	P-O5'	-6.73	1.49	1.59
34	BA	423	G	C1'-N9	-6.73	1.37	1.48
35	BB	1401	G	P-O5'	-6.73	1.49	1.59
34	BA	917	C	C3'-C2'	-6.73	1.42	1.52
85	AA	419	A	O3'-P	-6.73	1.51	1.61
34	BA	1196	C	C4'-C3'	-6.73	1.42	1.52
34	BA	1707	C	C3'-C2'	-6.73	1.42	1.52
35	BB	1170	U	P-O5'	-6.73	1.49	1.59
36	BC	48	A	C1'-N9	-6.73	1.36	1.47
35	BB	3	C	O3'-P	-6.73	1.51	1.61
35	BB	64	U	C4'-C3'	-6.73	1.42	1.52
40	BG	150	A	C1'-N9	-6.73	1.37	1.48
85	AA	640	C	O3'-P	-6.73	1.51	1.61
34	BA	1409	A	C2'-C1'	-6.72	1.43	1.53
35	BB	495	A	O3'-P	-6.72	1.51	1.61
35	BB	645	C	O3'-P	-6.72	1.51	1.61
35	BB	1070	G	C2'-C1'	-6.72	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1450	G	O3'-P	-6.72	1.51	1.61
34	BA	1580	U	O3'-P	-6.72	1.51	1.61
35	BB	1394	A	C1'-N9	-6.72	1.37	1.48
35	BB	1485	G	C2'-C1'	-6.72	1.43	1.53
85	AA	830	A	O3'-P	-6.72	1.51	1.61
85	AA	861	G	O3'-P	-6.72	1.51	1.61
5	A4	157	VAL	CA-C	-6.72	1.44	1.52
49	BP	154	VAL	CA-C	-6.72	1.44	1.52
85	AA	2087	C	O3'-P	-6.72	1.51	1.61
30	AW	76	THR	CA-C	-6.72	1.43	1.53
85	AA	131	C	P-O5'	-6.72	1.49	1.59
85	AA	469	G	O3'-P	-6.72	1.51	1.61
34	BA	316	G	O3'-P	-6.72	1.51	1.61
35	BB	104	G	C1'-N9	-6.72	1.37	1.48
65	Bf	435	SER	CA-C	-6.72	1.44	1.52
34	BA	268	U	O3'-P	-6.72	1.51	1.61
34	BA	780	U	C4'-O4'	6.72	1.55	1.45
34	BA	1003	A	O3'-P	-6.72	1.51	1.61
34	BA	1531	G	O3'-P	-6.72	1.51	1.61
35	BB	1185	G	O3'-P	-6.72	1.51	1.61
36	BC	102	G	C1'-N9	-6.72	1.37	1.48
42	BI	98	ARG	CA-C	-6.72	1.44	1.52
65	Bf	137	VAL	CA-C	-6.72	1.45	1.52
68	Bi	24	GLU	CA-C	-6.72	1.43	1.52
11	AC	124	PHE	CA-C	-6.71	1.44	1.52
34	BA	84	U	P-O5'	-6.71	1.49	1.59
34	BA	1203	G	O3'-P	-6.71	1.51	1.61
35	BB	429	C	C2'-C1'	-6.71	1.43	1.53
35	BB	697	G	C1'-N9	-6.71	1.37	1.48
35	BB	1226	G	O3'-P	-6.71	1.51	1.61
36	BC	166	G	P-O5'	-6.71	1.49	1.59
83	Bx	153	THR	CA-C	-6.71	1.44	1.52
85	AA	495	G	C3'-C2'	-6.71	1.42	1.52
85	AA	665	A	C1'-N9	-6.71	1.37	1.48
85	AA	1001	G	P-O5'	-6.71	1.49	1.59
34	BA	1837	U	P-O5'	-6.71	1.49	1.59
41	BH	52	G	C2'-C1'	-6.71	1.43	1.53
85	AA	917	A	C2'-C1'	-6.71	1.43	1.53
8	A7	159	ARG	CA-C	-6.71	1.44	1.52
37	BD	50	A	O3'-P	-6.71	1.51	1.61
38	BE	87	U	P-O5'	-6.71	1.49	1.59
49	BP	26	VAL	CA-C	-6.71	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	BT	75	HIS	CA-C	-6.71	1.43	1.52
56	BW	21	VAL	CA-CB	-6.71	1.47	1.54
67	Bh	135	ILE	CA-CB	-6.71	1.46	1.54
83	Bx	52	ASP	C-N	6.71	1.41	1.33
34	BA	1559	C	C2'-C1'	-6.71	1.43	1.53
85	AA	1690	A	C1'-N9	-6.71	1.37	1.48
29	AV	66	PHE	CA-C	6.71	1.61	1.52
36	BC	152	C	O3'-P	-6.71	1.51	1.61
40	BG	80	G	O3'-P	-6.71	1.51	1.61
85	AA	449	G	O3'-P	-6.71	1.51	1.61
34	BA	1723	U	C1'-N1	6.71	1.57	1.47
38	BE	22	A	O3'-P	-6.71	1.51	1.61
47	BN	49	LYS	CA-C	-6.71	1.43	1.52
66	Bg	74	SER	N-CA	-6.71	1.37	1.46
69	Bj	26	THR	CA-C	-6.71	1.42	1.52
81	Bv	75	ARG	CD-NE	6.71	1.55	1.46
82	Bw	100	VAL	CA-CB	-6.71	1.46	1.54
85	AA	440	U	C2'-C1'	-6.71	1.43	1.53
34	BA	720	A	C1'-N9	-6.71	1.36	1.47
34	BA	983	A	C2'-C1'	-6.71	1.43	1.53
85	AA	2149	C	P-O5'	-6.71	1.49	1.59
6	A5	183	ARG	CA-C	-6.70	1.45	1.53
34	BA	141	G	N9-C4	-6.70	1.24	1.38
34	BA	1474	G	C1'-N9	-6.70	1.37	1.48
34	BA	1519	G	P-O5'	-6.70	1.49	1.59
35	BB	780	U	O3'-P	-6.70	1.51	1.61
59	BZ	115	ILE	CA-C	-6.70	1.44	1.52
85	AA	709	A	C1'-N9	-6.70	1.37	1.48
85	AA	1794	U	C1'-N1	-6.70	1.38	1.48
85	AA	2203	C	C3'-C2'	-6.70	1.42	1.52
34	BA	1223	C	C3'-C2'	-6.70	1.42	1.52
48	BO	114	GLN	CA-C	-6.70	1.44	1.52
85	AA	1461	A	P-O5'	-6.70	1.49	1.59
20	AL	104	GLN	CA-C	-6.70	1.43	1.52
34	BA	152	C	C5'-C4'	6.70	1.61	1.51
34	BA	241	U	O3'-P	-6.70	1.51	1.61
34	BA	306	G	C1'-N9	-6.70	1.37	1.48
41	BH	127	A	O3'-P	-6.70	1.51	1.61
48	BO	32	HIS	CA-C	-6.70	1.44	1.52
73	Bn	73	ARG	N-CA	-6.70	1.38	1.46
75	Bp	53	ALA	CA-C	-6.70	1.44	1.52
85	AA	425	G	C2'-C1'	-6.70	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	740	A	C2'-C1'	-6.70	1.43	1.53
34	BA	1503	U	C3'-C2'	-6.70	1.42	1.52
34	BA	1564	A	C1'-N9	-6.70	1.38	1.48
35	BB	804	U	O3'-P	-6.70	1.51	1.61
35	BB	1148	U	O4'-C1'	-6.70	1.31	1.41
38	BE	26	G	O4'-C1'	-6.70	1.31	1.41
54	BU	69	PRO	CA-C	-6.70	1.42	1.52
72	Bm	96	ALA	CA-C	-6.70	1.44	1.52
85	AA	79	G	O3'-P	-6.70	1.51	1.61
85	AA	1247	A	C2'-C1'	-6.70	1.43	1.53
85	AA	1484	G	C1'-N9	-6.70	1.38	1.48
34	BA	1637	G	O3'-P	-6.70	1.51	1.61
35	BB	1288	G	C1'-N9	-6.70	1.38	1.48
65	Bf	231	LYS	N-CA	-6.70	1.38	1.46
77	Br	264	THR	CA-C	-6.70	1.44	1.52
34	BA	669	U	C2'-C1'	-6.70	1.43	1.53
85	AA	105	A	O3'-P	-6.70	1.51	1.61
34	BA	420	A	P-O5'	-6.69	1.49	1.59
35	BB	1441	C	C2'-C1'	-6.69	1.43	1.53
53	BT	127	ALA	CA-C	-6.69	1.44	1.52
61	Bb	121	VAL	CA-C	-6.69	1.43	1.52
75	Bp	61	HIS	CA-C	-6.69	1.46	1.53
85	AA	398	U	P-O5'	-6.69	1.49	1.59
85	AA	690	G	P-O5'	-6.69	1.49	1.59
34	BA	582	U	C1'-N1	-6.69	1.38	1.48
34	BA	906	A	O3'-P	-6.69	1.51	1.61
35	BB	488	G	C2'-C1'	-6.69	1.43	1.53
36	BC	35	C	C3'-C2'	-6.69	1.42	1.52
64	Be	114	CYS	CA-C	-6.69	1.44	1.52
85	AA	932	A	O3'-P	-6.69	1.51	1.61
35	BB	15	C	P-O5'	-6.69	1.49	1.59
38	BE	195	G	C1'-N9	-6.69	1.38	1.48
34	BA	100	A	O3'-P	-6.69	1.51	1.61
34	BA	589	A	O3'-P	-6.69	1.51	1.61
44	BK	98	ARG	CA-C	-6.69	1.44	1.52
85	AA	165	C	C1'-N1	-6.69	1.38	1.48
85	AA	1551	G	O3'-P	-6.69	1.51	1.61
85	AA	2091	C	C2'-C1'	-6.69	1.43	1.53
34	BA	606	G	C3'-O3'	-6.69	1.32	1.42
35	BB	75	A	O3'-P	-6.69	1.51	1.61
85	AA	1148	G	C1'-N9	-6.69	1.38	1.48
34	BA	1641	G	C4'-O4'	-6.68	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1816	G	C2'-C1'	-6.68	1.43	1.53
47	BN	75	ARG	CA-C	-6.68	1.44	1.52
64	Be	114	CYS	N-CA	-6.68	1.37	1.45
65	Bf	214	VAL	N-CA	-6.68	1.38	1.46
85	AA	84	C	P-O5'	-6.68	1.49	1.59
85	AA	429	G	C1'-N9	-6.68	1.38	1.48
85	AA	831	C	C2'-C1'	-6.68	1.43	1.53
85	AA	960	G	C2'-C1'	-6.68	1.43	1.53
4	A3	130	VAL	CA-CB	-6.68	1.47	1.54
34	BA	681	G	P-O5'	-6.68	1.49	1.59
51	BR	62	ARG	CA-C	-6.68	1.43	1.52
56	BW	128	TRP	C-N	-6.68	1.24	1.33
66	Bg	42	LEU	N-CA	-6.68	1.38	1.46
70	Bk	60	THR	CA-C	-6.68	1.44	1.52
75	Bp	32	THR	N-CA	-6.68	1.38	1.46
34	BA	1305	A	O3'-P	-6.68	1.51	1.61
35	BB	1308	G	C1'-N9	-6.68	1.38	1.48
36	BC	9	G	O3'-P	-6.68	1.51	1.61
82	Bw	158	THR	CA-C	-6.68	1.44	1.52
34	BA	245	U	P-O5'	-6.68	1.49	1.59
34	BA	917	C	P-O5'	-6.68	1.49	1.59
34	BA	1312	A	C2'-C1'	-6.68	1.43	1.53
35	BB	662	G	O3'-P	-6.68	1.51	1.61
45	BL	55	SER	CA-C	-6.68	1.44	1.52
80	Bu	198	ALA	CA-C	-6.68	1.44	1.52
34	BA	1259	C	P-O5'	-6.68	1.49	1.59
34	BA	1820	G	C1'-N9	-6.68	1.38	1.48
35	BB	813	C	P-O5'	-6.68	1.49	1.59
34	BA	134	U	C3'-C2'	-6.67	1.42	1.52
34	BA	1690	U	P-O5'	-6.67	1.49	1.59
35	BB	798	A	O3'-P	-6.67	1.51	1.61
35	BB	1372	G	O3'-P	-6.67	1.51	1.61
42	BI	51	ARG	N-CA	-6.67	1.38	1.46
60	Ba	112	LYS	CA-C	-6.67	1.44	1.52
85	AA	737	G	P-O5'	-6.67	1.49	1.59
34	BA	1410	C	O3'-P	-6.67	1.51	1.61
34	BA	1575	U	O3'-P	-6.67	1.51	1.61
35	BB	1246	C	C3'-C2'	-6.67	1.42	1.52
36	BC	56	G	O3'-P	-6.67	1.51	1.61
40	BG	26	G	P-O5'	-6.67	1.49	1.59
40	BG	35	G	C2'-C1'	-6.67	1.43	1.53
68	Bi	96	VAL	N-CA	-6.67	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	Bx	91	PHE	CA-C	-6.67	1.44	1.52
34	BA	17	A	C3'-C2'	-6.67	1.42	1.52
73	Bn	74	ILE	CA-C	-6.67	1.44	1.52
18	AJ	105	THR	CA-C	-6.67	1.44	1.52
34	BA	57	A	O3'-P	-6.67	1.51	1.61
34	BA	983	A	C1'-N9	-6.67	1.36	1.47
36	BC	14	G	P-O5'	-6.67	1.49	1.59
36	BC	121	G	O3'-P	-6.67	1.51	1.61
74	Bo	70	THR	CA-C	-6.67	1.43	1.52
85	AA	340	G	O3'-P	-6.67	1.51	1.61
34	BA	82	A	C2'-C1'	-6.67	1.43	1.53
34	BA	128	C	C3'-C2'	-6.67	1.42	1.52
34	BA	460	G	C2'-C1'	-6.67	1.43	1.53
34	BA	463	A	O3'-P	-6.67	1.51	1.61
34	BA	1255	G	C1'-N9	-6.67	1.38	1.48
35	BB	632	U	C2'-C1'	-6.67	1.43	1.53
36	BC	153	C	P-O5'	-6.67	1.49	1.59
49	BP	77	ALA	CA-C	-6.67	1.43	1.52
85	AA	120	C	P-O5'	-6.67	1.49	1.59
3	A2	93	ASN	C-N	-6.66	1.25	1.33
35	BB	460	C	C2'-C1'	-6.66	1.43	1.53
85	AA	1563	U	P-O5'	-6.66	1.49	1.59
85	AA	2038	C	O3'-P	-6.66	1.51	1.61
34	BA	752	A	C4'-O4'	-6.66	1.35	1.45
85	AA	486	G	C1'-N9	-6.66	1.38	1.48
34	BA	761	U	O3'-P	-6.66	1.51	1.61
34	BA	1293	A	P-O5'	-6.66	1.49	1.59
35	BB	81	A	O3'-P	-6.66	1.51	1.61
85	AA	1288	A	O3'-P	-6.66	1.51	1.61
23	AP	87	ARG	CA-C	-6.66	1.43	1.52
25	AR	72	ALA	CA-C	-6.66	1.44	1.52
34	BA	889	U	C3'-C2'	-6.66	1.42	1.52
35	BB	377	A	O3'-P	-6.66	1.51	1.61
35	BB	542	A	C1'-N9	-6.66	1.38	1.48
40	BG	94	G	P-O5'	-6.66	1.49	1.59
85	AA	333	A	C1'-N9	-6.66	1.38	1.48
85	AA	1290	G	O3'-P	-6.66	1.51	1.61
36	BC	113	G	O3'-P	-6.66	1.51	1.61
34	BA	1310	C	P-O5'	-6.66	1.49	1.59
34	BA	1609	U	C1'-N1	-6.66	1.38	1.48
34	BA	1685	C	C3'-C2'	-6.66	1.42	1.52
78	Bs	47	MET	CA-C	-6.66	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	By	71	ALA	N-CA	-6.66	1.38	1.46
85	AA	2200	A	O3'-P	-6.66	1.51	1.61
35	BB	555	G	C1'-N9	-6.65	1.38	1.48
35	BB	775	U	C3'-C2'	-6.65	1.42	1.52
85	AA	568	C	P-O5'	-6.65	1.49	1.59
85	AA	817	G	C2'-C1'	-6.65	1.43	1.53
27	AT	117	ARG	CD-NE	6.65	1.55	1.46
34	BA	763	U	O4'-C1'	-6.65	1.31	1.41
35	BB	118	A	P-O5'	-6.65	1.49	1.59
36	BC	117	A	C1'-N9	-6.65	1.38	1.48
37	BD	74	A	P-O5'	-6.65	1.49	1.59
65	Bf	364	THR	CA-C	-6.65	1.45	1.52
66	Bg	25	ILE	N-CA	-6.65	1.37	1.46
75	Bp	46	VAL	CA-CB	-6.65	1.45	1.53
34	BA	123	C	O3'-P	-6.65	1.51	1.61
65	Bf	204	PHE	CA-C	-6.65	1.44	1.52
85	AA	1136	A	O3'-P	-6.65	1.51	1.61
34	BA	1612	C	C3'-C2'	-6.65	1.42	1.52
85	AA	800	A	O3'-P	-6.65	1.51	1.61
85	AA	933	U	O3'-P	-6.65	1.51	1.61
34	BA	121	A	C1'-N9	-6.65	1.36	1.47
34	BA	1165	A	P-O5'	-6.65	1.49	1.59
34	BA	1166	A	C2'-C1'	-6.65	1.43	1.53
34	BA	1226	G	O3'-P	-6.65	1.51	1.61
52	BS	110	ASN	CA-C	-6.65	1.44	1.52
85	AA	379	U	C1'-N1	-6.65	1.38	1.48
34	BA	1799	G	O3'-P	-6.65	1.51	1.61
67	Bh	149	VAL	CA-CB	-6.65	1.45	1.54
85	AA	644	A	P-O5'	-6.65	1.49	1.59
15	AG	96	THR	N-CA	-6.64	1.38	1.46
34	BA	1529	G	P-O5'	-6.64	1.49	1.59
34	BA	1641	G	O4'-C1'	-6.64	1.31	1.41
35	BB	1228	A	C5'-C4'	6.64	1.61	1.51
61	Bb	60	HIS	CA-C	-6.64	1.45	1.53
8	A7	223	TRP	CA-C	-6.64	1.45	1.52
15	AG	38	CYS	CA-C	-6.64	1.44	1.52
34	BA	889	U	P-O5'	-6.64	1.49	1.59
35	BB	72	G	C1'-N9	-6.64	1.38	1.48
49	BP	50	VAL	CA-C	-6.64	1.44	1.52
59	BZ	69	ALA	CA-C	-6.64	1.44	1.52
63	Bd	6	ASN	CA-C	-6.64	1.47	1.53
74	Bo	78	THR	N-CA	-6.64	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
80	Bu	134	THR	CA-C	-6.64	1.44	1.52
85	AA	1190	G	O3'-P	-6.64	1.51	1.61
34	BA	471	U	O3'-P	-6.64	1.51	1.61
35	BB	816	U	O3'-P	-6.64	1.51	1.61
82	Bw	48	ASN	CA-C	-6.64	1.44	1.52
85	AA	902	A	P-O5'	-6.64	1.49	1.59
35	BB	379	U	C3'-C2'	-6.64	1.42	1.52
35	BB	564	U	P-O5'	-6.64	1.49	1.59
53	BT	37	SER	CA-C	-6.64	1.44	1.52
34	BA	430	A	C2'-C1'	-6.64	1.43	1.53
35	BB	436	G	P-O5'	-6.64	1.49	1.59
85	AA	188	G	C2'-C1'	-6.64	1.43	1.53
85	AA	1229	G	O3'-P	-6.64	1.51	1.61
34	BA	759	A	O4'-C1'	-6.63	1.31	1.41
34	BA	890	G	C2'-C1'	-6.63	1.43	1.53
35	BB	571	C	C1'-N1	-6.63	1.38	1.48
40	BG	1	G	C1'-N9	-6.63	1.38	1.48
47	BN	42	ARG	CA-C	-6.63	1.44	1.52
85	AA	921	C	P-O5'	-6.63	1.49	1.59
85	AA	1916	A	N9-C4	-6.63	1.24	1.37
27	AT	14	THR	CA-C	-6.63	1.44	1.52
34	BA	371	U	P-O5'	-6.63	1.49	1.59
35	BB	1371	G	C2'-C1'	-6.63	1.43	1.53
35	BB	1449	G	C1'-N9	-6.63	1.38	1.48
38	BE	17	U	C1'-N1	-6.63	1.38	1.48
34	BA	60	A	P-O5'	-6.63	1.49	1.59
34	BA	588	C	C1'-N1	-6.63	1.37	1.47
35	BB	1063	C	C1'-N1	-6.63	1.37	1.47
41	BH	123	G	O3'-P	-6.63	1.51	1.61
41	BH	129	G	C2'-C1'	-6.63	1.43	1.53
53	BT	123	LEU	CA-C	-6.63	1.43	1.52
85	AA	1249	U	C2'-C1'	-6.63	1.43	1.53
85	AA	2170	G	P-O5'	-6.63	1.49	1.59
23	AP	163	THR	CA-C	-6.63	1.44	1.52
34	BA	369	A	C3'-C2'	-6.63	1.42	1.52
44	BK	69	ARG	CA-C	-6.63	1.44	1.52
85	AA	620	U	C2'-C1'	-6.63	1.43	1.53
85	AA	2033	C	C4'-C3'	-6.63	1.42	1.52
34	BA	414	A	C1'-N9	-6.63	1.37	1.47
34	BA	714	G	C2'-C1'	-6.63	1.43	1.53
35	BB	16	G	O3'-P	-6.63	1.51	1.61
35	BB	1523	U	C2'-C1'	-6.63	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	BT	141	HIS	CA-C	-6.63	1.44	1.52
66	Bg	88	LEU	N-CA	-6.63	1.38	1.46
83	Bx	52	ASP	CA-C	6.63	1.61	1.52
85	AA	1248	U	C3'-C2'	-6.63	1.42	1.52
35	BB	400	C	O3'-P	-6.63	1.51	1.61
35	BB	538	A	C1'-N9	-6.63	1.38	1.48
35	BB	805	G	C2'-C1'	-6.63	1.43	1.53
37	BD	23	A	C1'-N9	-6.63	1.38	1.48
41	BH	18	C	P-O5'	-6.63	1.49	1.59
34	BA	1169	A	P-O5'	-6.62	1.49	1.59
35	BB	597	C	C2'-C1'	-6.62	1.43	1.53
35	BB	1025	A	C4'-C3'	6.62	1.62	1.52
38	BE	207	G	O3'-P	-6.62	1.51	1.61
47	BN	10	HIS	CA-C	-6.62	1.44	1.52
49	BP	110	ARG	CA-C	-6.62	1.44	1.52
54	BU	108	LYS	CA-C	-6.62	1.43	1.52
34	BA	1291	A	O3'-P	-6.62	1.51	1.61
34	BA	1796	A	C2'-C1'	-6.62	1.43	1.53
35	BB	13	A	P-O5'	-6.62	1.49	1.59
35	BB	26	C	O3'-P	-6.62	1.51	1.61
35	BB	879	G	O3'-P	-6.62	1.51	1.61
36	BC	108	A	C1'-N9	-6.62	1.38	1.48
44	BK	77	VAL	CA-C	-6.62	1.44	1.52
64	Be	188	ARG	CA-C	-6.62	1.44	1.52
65	Bf	280	HIS	CA-C	-6.62	1.44	1.52
85	AA	1654	G	C1'-N9	-6.62	1.38	1.48
85	AA	2187	G	C2'-C1'	-6.62	1.43	1.53
85	AA	2192	A	C1'-N9	-6.62	1.38	1.48
34	BA	399	G	O3'-P	-6.62	1.51	1.61
34	BA	1830	A	C4'-C3'	-6.62	1.43	1.53
37	BD	42	A	P-O5'	-6.62	1.49	1.59
38	BE	67	A	P-O5'	-6.62	1.49	1.59
65	Bf	150	HIS	CA-C	-6.62	1.44	1.52
6	A5	95	THR	CA-C	-6.62	1.44	1.52
34	BA	158	U	P-O5'	-6.62	1.49	1.59
34	BA	1094	U	C1'-N1	-6.62	1.38	1.48
35	BB	574	G	P-O5'	-6.62	1.49	1.59
41	BH	21	G	C1'-N9	-6.62	1.38	1.48
65	Bf	198	ALA	CA-C	-6.62	1.44	1.52
75	Bp	25	VAL	CA-C	-6.62	1.44	1.52
6	A5	206	ALA	CA-C	-6.62	1.44	1.52
34	BA	1482	A	C2'-C1'	-6.62	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BH	41	A	C2'-C1'	-6.62	1.43	1.53
59	BZ	91	THR	CA-C	-6.62	1.44	1.52
34	BA	246	G	C1'-N9	-6.62	1.38	1.48
34	BA	1585	A	C4'-O4'	-6.62	1.35	1.45
35	BB	574	G	O4'-C1'	-6.62	1.32	1.42
35	BB	817	C	O3'-P	-6.62	1.51	1.61
35	BB	1370	G	O3'-P	-6.62	1.51	1.61
56	BW	15	VAL	CA-CB	-6.62	1.48	1.55
85	AA	838	G	C2'-C1'	-6.62	1.43	1.53
85	AA	1821	C	P-O5'	-6.62	1.49	1.59
85	AA	1928	A	C2'-C1'	-6.62	1.43	1.53
34	BA	679	U	C1'-N1	-6.61	1.38	1.48
73	Bn	29	VAL	N-CA	-6.61	1.38	1.46
82	Bw	89	ASN	CA-C	-6.61	1.46	1.53
85	AA	82	A	O3'-P	-6.61	1.51	1.61
85	AA	582	A	O3'-P	-6.61	1.51	1.61
5	A4	25	VAL	CA-C	-6.61	1.44	1.52
85	AA	1829	C	C2'-C1'	-6.61	1.43	1.53
6	A5	65	PHE	CA-C	-6.61	1.44	1.52
11	AC	197	ILE	N-CA	-6.61	1.38	1.46
34	BA	54	A	O3'-P	-6.61	1.51	1.61
34	BA	385	U	O3'-P	-6.61	1.51	1.61
34	BA	605	G	N9-C4	6.61	1.51	1.38
34	BA	610	A	C2'-C1'	-6.61	1.43	1.53
35	BB	520	G	C1'-N9	-6.61	1.38	1.48
35	BB	628	A	O3'-P	-6.61	1.51	1.61
35	BB	1062	G	P-O5'	-6.61	1.49	1.59
85	AA	913	U	P-O5'	-6.61	1.49	1.59
85	AA	2232	A	P-O5'	-6.61	1.49	1.59
34	BA	936	A	O3'-P	-6.61	1.51	1.61
34	BA	1706	A	C1'-N9	-6.61	1.38	1.48
35	BB	868	C	O3'-P	-6.61	1.51	1.61
85	AA	64	A	P-O5'	-6.61	1.49	1.59
85	AA	1129	A	C1'-N9	-6.61	1.38	1.48
85	AA	1501	A	C1'-N9	-6.61	1.38	1.48
85	AA	2184	A	C3'-C2'	-6.61	1.42	1.52
34	BA	580	U	C2'-C1'	-6.61	1.43	1.53
34	BA	1109	G	O3'-P	-6.61	1.51	1.61
36	BC	138	C	P-O5'	-6.61	1.49	1.59
51	BR	67	ILE	CA-C	-6.61	1.44	1.52
78	Bs	6	LEU	CA-C	-6.61	1.44	1.52
85	AA	390	U	C1'-N1	-6.61	1.38	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1282	A	C3'-C2'	-6.61	1.42	1.52
85	AA	1528	A	C1'-N9	-6.61	1.38	1.48
86	AB	72	C	C2'-C1'	-6.61	1.43	1.53
2	A1	94	ASP	CA-C	-6.61	1.44	1.52
34	BA	1709	A	C4'-O4'	-6.61	1.35	1.45
35	BB	1267	C	O3'-P	-6.61	1.51	1.61
45	BL	60	THR	CA-C	-6.61	1.44	1.52
77	Br	210	MET	CA-C	-6.61	1.44	1.52
85	AA	704	A	O3'-P	-6.61	1.51	1.61
85	AA	877	G	O3'-P	-6.61	1.51	1.61
85	AA	1501	A	O3'-P	-6.61	1.51	1.61
29	AV	39	GLY	CA-C	-6.60	1.46	1.51
34	BA	1190	A	C1'-N9	-6.60	1.38	1.48
34	BA	1587	C	C2'-C1'	-6.60	1.43	1.53
40	BG	139	U	C3'-C2'	-6.60	1.42	1.52
85	AA	2042	G	C1'-N9	-6.60	1.38	1.48
11	AC	170	LEU	CA-C	-6.60	1.44	1.52
34	BA	67	A	O3'-P	-6.60	1.51	1.61
34	BA	718	U	P-O5'	-6.60	1.49	1.59
34	BA	760	G	P-O5'	-6.60	1.49	1.59
35	BB	673	C	P-O5'	-6.60	1.49	1.59
35	BB	1097	U	P-O5'	-6.60	1.49	1.59
68	Bi	80	VAL	CA-CB	-6.60	1.46	1.54
84	By	141	GLU	CA-C	-6.60	1.44	1.52
85	AA	79	G	C1'-N9	-6.60	1.38	1.48
85	AA	1430	A	P-O5'	-6.60	1.49	1.59
34	BA	8	G	C2'-C1'	-6.60	1.43	1.53
34	BA	150	C	C4'-C3'	-6.60	1.42	1.52
35	BB	1409	G	P-O5'	-6.60	1.49	1.59
41	BH	37	U	P-O5'	-6.60	1.49	1.59
80	Bu	4	VAL	CA-C	6.60	1.61	1.52
15	AG	53	GLN	N-CA	-6.60	1.38	1.46
34	BA	456	G	C1'-N9	-6.60	1.38	1.48
34	BA	669	U	P-O5'	-6.60	1.49	1.59
35	BB	1315	C	O3'-P	-6.60	1.51	1.61
37	BD	57	C	P-O5'	-6.60	1.49	1.59
58	BY	37	ARG	C-N	-6.60	1.26	1.34
85	AA	1237	A	O3'-P	-6.60	1.51	1.61
4	A3	38	ASP	CA-C	-6.60	1.44	1.52
23	AP	62	GLU	CA-C	-6.60	1.43	1.52
35	BB	1050	A	O3'-P	-6.60	1.51	1.61
35	BB	1364	C	P-O5'	-6.60	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1467	A	C5'-C4'	6.60	1.61	1.51
37	BD	25	G	C2'-C1'	-6.60	1.43	1.53
85	AA	1212	C	P-O5'	-6.60	1.49	1.59
28	AU	107	TYR	CA-C	-6.60	1.44	1.52
34	BA	658	C	P-O5'	-6.60	1.49	1.59
34	BA	747	G	C2'-C1'	-6.60	1.43	1.53
35	BB	979	G	O3'-P	-6.60	1.51	1.61
41	BH	130	G	C5'-C4'	-6.60	1.41	1.51
66	Bg	61	PRO	CA-C	-6.60	1.40	1.52
85	AA	487	G	P-O5'	-6.60	1.49	1.59
34	BA	14	G	C1'-N9	-6.59	1.38	1.48
34	BA	57	A	C2'-C1'	-6.59	1.43	1.53
34	BA	1459	U	O3'-P	-6.59	1.51	1.61
36	BC	12	A	P-O5'	-6.59	1.49	1.59
82	Bw	224	PRO	CA-C	-6.59	1.46	1.52
34	BA	1704	G	C3'-C2'	-6.59	1.42	1.52
35	BB	700	C	O3'-P	-6.59	1.51	1.61
35	BB	1119	G	C3'-C2'	-6.59	1.42	1.52
47	BN	181	GLU	CA-C	-6.59	1.43	1.52
65	Bf	103	GLY	CA-C	-6.59	1.44	1.51
66	Bg	24	LYS	CA-C	-6.59	1.44	1.52
67	Bh	186	ILE	CA-C	-6.59	1.45	1.52
85	AA	544	A	O3'-P	-6.59	1.51	1.61
34	BA	754	G	O3'-P	-6.59	1.51	1.61
34	BA	1312	A	C1'-N9	-6.59	1.38	1.48
34	BA	1720	U	O3'-P	-6.59	1.51	1.61
35	BB	465	C	P-O5'	-6.59	1.49	1.59
35	BB	539	G	O3'-P	-6.59	1.51	1.61
40	BG	75	C	P-O5'	-6.59	1.49	1.59
41	BH	2	U	O3'-P	-6.59	1.51	1.61
42	BI	74	ARG	CA-C	-6.59	1.43	1.52
47	BN	52	PHE	N-CA	-6.59	1.36	1.46
82	Bw	250	ASN	CA-C	-6.59	1.44	1.52
35	BB	618	U	C1'-N1	-6.59	1.38	1.48
36	BC	82	C	O3'-P	-6.59	1.51	1.61
42	BI	23	ASN	C-N	-6.59	1.25	1.34
66	Bg	106	VAL	CA-C	-6.59	1.44	1.53
69	Bj	70	ARG	CA-C	-6.59	1.44	1.52
80	Bu	49	TYR	CA-C	-6.59	1.44	1.52
85	AA	664	C	O3'-P	-6.59	1.51	1.61
35	BB	596	C	C1'-N1	-6.59	1.38	1.48
36	BC	151	G	O3'-P	-6.59	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
77	Br	11	SER	CA-C	-6.59	1.44	1.52
85	AA	2187	G	O3'-P	-6.59	1.51	1.61
7	A6	47	THR	CA-C	-6.59	1.44	1.52
34	BA	12	G	O3'-P	-6.59	1.51	1.61
34	BA	940	C	O3'-P	-6.59	1.51	1.61
34	BA	1541	G	C1'-N9	-6.59	1.37	1.47
85	AA	554	A	P-O5'	-6.59	1.49	1.59
85	AA	927	A	C1'-N9	-6.59	1.38	1.48
85	AA	1368	G	P-O5'	-6.59	1.49	1.59
85	AA	2113	U	P-O5'	-6.59	1.49	1.59
34	BA	290	G	C3'-C2'	-6.58	1.42	1.52
34	BA	326	A	C2'-C1'	-6.58	1.43	1.53
34	BA	789	U	O3'-P	-6.58	1.51	1.61
45	BL	59	LEU	CA-C	-6.58	1.44	1.52
34	BA	112	C	C1'-N1	-6.58	1.38	1.48
34	BA	814	C	C1'-N1	-6.58	1.38	1.48
34	BA	1591	G	O3'-P	-6.58	1.51	1.61
34	BA	1604	A	C1'-N9	-6.58	1.38	1.48
35	BB	1159	U	C1'-N1	-6.58	1.38	1.48
34	BA	139	U	O3'-P	-6.58	1.51	1.61
34	BA	495	A	C2'-C1'	-6.58	1.43	1.53
42	BI	119	ARG	N-CA	-6.58	1.38	1.46
85	AA	420	C	O3'-P	-6.58	1.51	1.61
85	AA	867	G	C1'-N9	-6.58	1.38	1.48
34	BA	387	A	C1'-N9	-6.58	1.38	1.48
34	BA	441	A	C2'-C1'	-6.58	1.43	1.53
34	BA	1332	U	C1'-N1	-6.58	1.38	1.48
34	BA	1333	G	O3'-P	-6.58	1.51	1.61
34	BA	1808	A	C3'-C2'	-6.58	1.42	1.52
35	BB	1418	C	P-O5'	-6.58	1.49	1.59
85	AA	418	G	C1'-N9	-6.58	1.38	1.48
27	AT	34	HIS	CA-C	6.58	1.59	1.52
34	BA	1607	U	O3'-P	-6.58	1.51	1.61
34	BA	1802	C	O3'-P	-6.58	1.51	1.61
35	BB	615	A	C2'-C1'	-6.58	1.43	1.53
36	BC	14	G	C2'-C1'	-6.58	1.43	1.53
73	Bn	53	ALA	CA-C	-6.58	1.43	1.52
85	AA	623	G	P-O5'	-6.58	1.49	1.59
35	BB	1136	G	C1'-N9	-6.58	1.37	1.47
65	Bf	205	GLU	CA-C	-6.58	1.44	1.52
27	AT	98	LYS	CA-C	-6.58	1.44	1.52
34	BA	675	C	P-O5'	-6.58	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1327	G	C2'-C1'	-6.58	1.43	1.53
40	BG	9	G	P-O5'	-6.58	1.49	1.59
41	BH	44	A	C2'-C1'	-6.58	1.43	1.53
42	BI	75	THR	N-CA	-6.58	1.38	1.46
79	Bt	3	ASN	N-CA	-6.58	1.37	1.45
34	BA	401	A	C5'-C4'	-6.57	1.41	1.51
34	BA	432	A	O3'-P	-6.57	1.51	1.61
34	BA	1405	A	C2'-C1'	-6.57	1.43	1.53
34	BA	1544	G	P-O5'	-6.57	1.49	1.59
34	BA	1839	G	O3'-P	-6.57	1.51	1.61
35	BB	616	U	O3'-P	-6.57	1.51	1.61
47	BN	47	LYS	CA-C	-6.57	1.44	1.52
49	BP	49	HIS	CA-C	-6.57	1.44	1.52
85	AA	1000	U	C1'-N1	-6.57	1.38	1.48
85	AA	1651	C	C2'-C1'	-6.57	1.43	1.53
11	AC	92	GLU	CA-C	-6.57	1.44	1.52
34	BA	11	U	C2'-C1'	-6.57	1.43	1.53
34	BA	1241	U	C2'-C1'	-6.57	1.43	1.53
34	BA	1672	C	P-O5'	-6.57	1.49	1.59
35	BB	1042	U	C5'-C4'	6.57	1.61	1.51
35	BB	1084	A	C1'-N9	-6.57	1.38	1.48
35	BB	1278	A	O3'-P	-6.57	1.51	1.61
36	BC	10	C	C1'-N1	-6.57	1.38	1.48
40	BG	72	G	C1'-N9	-6.57	1.38	1.48
44	BK	22	PHE	N-CA	-6.57	1.38	1.46
58	BY	56	THR	CA-C	-6.57	1.44	1.53
59	BZ	31	PRO	N-CA	-6.57	1.39	1.47
77	Br	296	VAL	N-CA	-6.57	1.38	1.46
85	AA	30	G	C1'-N9	-6.57	1.38	1.48
85	AA	672	U	O3'-P	-6.57	1.51	1.61
35	BB	370	A	O3'-P	-6.57	1.51	1.61
35	BB	557	C	P-O5'	-6.57	1.49	1.59
52	BS	121	HIS	CA-C	-6.57	1.44	1.52
54	BU	64	VAL	CA-CB	-6.57	1.46	1.54
34	BA	518	C	C2'-C1'	-6.57	1.43	1.53
35	BB	1542	C	C2'-C1'	-6.57	1.43	1.53
40	BG	86	U	O3'-P	-6.57	1.51	1.61
40	BG	174	G	C4'-O4'	-6.57	1.35	1.45
54	BU	36	VAL	CA-C	-6.57	1.45	1.52
85	AA	93	G	P-O5'	-6.57	1.49	1.59
85	AA	1729	C	O3'-P	-6.57	1.51	1.61
85	AA	2039	G	C4'-C3'	-6.57	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	99	G	P-O5'	-6.57	1.50	1.59
34	BA	1223	C	C2'-C1'	-6.57	1.43	1.53
34	BA	1228	G	P-O5'	-6.57	1.50	1.59
35	BB	1046	C	O3'-P	-6.57	1.51	1.61
35	BB	1157	G	P-O5'	-6.57	1.50	1.59
40	BG	149	U	O4'-C1'	-6.57	1.32	1.42
85	AA	7	G	O3'-P	-6.57	1.51	1.61
85	AA	1663	U	P-O5'	-6.57	1.50	1.59
34	BA	948	C	O3'-P	-6.56	1.51	1.61
35	BB	1412	U	P-O5'	-6.56	1.50	1.59
85	AA	1867	G	P-O5'	-6.56	1.50	1.59
32	AY	18	THR	CA-C	-6.56	1.46	1.53
34	BA	496	G	C1'-N9	-6.56	1.38	1.48
34	BA	1245	C	C1'-N1	-6.56	1.38	1.48
35	BB	490	G	C2'-C1'	-6.56	1.43	1.53
35	BB	1176	G	O3'-P	-6.56	1.51	1.61
77	Br	177	ASP	CA-C	-6.56	1.44	1.52
85	AA	604	C	C2'-C1'	-6.56	1.43	1.53
85	AA	1464	G	P-O5'	-6.56	1.50	1.59
20	AL	55	THR	CA-C	-6.56	1.44	1.52
6	A5	200	GLY	N-CA	-6.56	1.38	1.45
24	AQ	19	VAL	CA-CB	-6.56	1.46	1.54
34	BA	72	U	O3'-P	-6.56	1.51	1.61
34	BA	173	U	P-O5'	-6.56	1.50	1.59
34	BA	467	A	P-O5'	-6.56	1.50	1.59
35	BB	787	A	C3'-C2'	-6.56	1.43	1.52
37	BD	72	U	P-O5'	-6.56	1.50	1.59
42	BI	162	ALA	CA-C	-6.56	1.44	1.52
57	BX	138	PRO	C-N	-6.56	1.25	1.33
67	Bh	149	VAL	CA-C	-6.56	1.44	1.52
85	AA	2016	A	C1'-N9	-6.56	1.38	1.48
20	AL	5	ARG	CD-NE	6.56	1.55	1.46
23	AP	207	TYR	CA-C	-6.56	1.44	1.52
24	AQ	18	LEU	CA-C	-6.56	1.44	1.52
34	BA	1526	C	P-O5'	-6.56	1.50	1.59
34	BA	1572	G	C1'-N9	-6.56	1.38	1.48
36	BC	9	G	O4'-C1'	-6.56	1.31	1.41
38	BE	62	C	P-O5'	-6.56	1.50	1.59
40	BG	31	G	O3'-P	-6.56	1.51	1.61
85	AA	2004	U	O3'-P	-6.56	1.51	1.61
34	BA	826	C	P-O5'	-6.56	1.50	1.59
35	BB	1206	G	C1'-N9	-6.56	1.38	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1116	G	C1'-N9	-6.56	1.38	1.48
34	BA	334	G	C1'-N9	-6.55	1.38	1.48
34	BA	1107	A	C2'-C1'	-6.55	1.43	1.53
35	BB	1314	G	C3'-C2'	-6.55	1.43	1.52
85	AA	152	A	P-O5'	-6.55	1.50	1.59
85	AA	478	U	O3'-P	-6.55	1.51	1.61
85	AA	1130	G	C1'-N9	-6.55	1.38	1.48
85	AA	1670	U	C2'-C1'	-6.55	1.43	1.53
85	AA	2219	G	O3'-P	-6.55	1.51	1.61
40	BG	131	U	C1'-N1	-6.55	1.38	1.48
13	AE	48	ILE	CA-CB	-6.55	1.47	1.54
23	AP	133	LEU	CA-C	-6.55	1.44	1.52
34	BA	985	C	C3'-C2'	-6.55	1.43	1.52
34	BA	1652	G	C2'-C1'	-6.55	1.43	1.53
35	BB	423	G	O3'-P	-6.55	1.51	1.61
36	BC	9	G	P-O5'	-6.55	1.50	1.59
36	BC	106	G	C2'-C1'	-6.55	1.43	1.53
72	Bm	26	THR	CA-CB	-6.55	1.43	1.53
34	BA	121	A	C2'-C1'	-6.55	1.43	1.53
34	BA	506	U	O3'-P	-6.55	1.51	1.61
34	BA	812	A	O3'-P	-6.55	1.51	1.61
34	BA	1582	C	P-O5'	-6.55	1.50	1.59
35	BB	112	G	P-O5'	-6.55	1.50	1.59
35	BB	392	G	O3'-P	-6.55	1.51	1.61
35	BB	578	G	O3'-P	-6.55	1.51	1.61
35	BB	1060	U	P-O5'	-6.55	1.50	1.59
38	BE	117	A	C5'-C4'	-6.55	1.41	1.51
67	Bh	88	ALA	CA-C	-6.55	1.44	1.52
85	AA	996	A	O3'-P	-6.55	1.51	1.61
85	AA	1093	C	P-O5'	-6.55	1.50	1.59
34	BA	701	G	O3'-P	-6.55	1.51	1.61
34	BA	1294	C	O4'-C1'	-6.55	1.31	1.41
35	BB	135	C	C1'-N1	-6.55	1.38	1.48
64	Be	158	VAL	C-N	-6.55	1.25	1.33
85	AA	1950	G	P-O5'	-6.55	1.50	1.59
34	BA	1283	U	P-O5'	-6.55	1.50	1.59
35	BB	569	G	C2'-C1'	-6.55	1.43	1.53
35	BB	1051	U	C3'-C2'	-6.55	1.43	1.52
35	BB	1143	A	O3'-P	-6.55	1.51	1.61
35	BB	1176	G	C1'-N9	-6.55	1.37	1.47
35	BB	1220	A	C1'-N9	-6.55	1.38	1.48
40	BG	110	U	C4'-O4'	-6.55	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	199	U	O3'-P	-6.55	1.51	1.61
85	AA	1480	C	C1'-N1	-6.55	1.38	1.48
85	AA	1734	A	C1'-N9	-6.55	1.38	1.48
34	BA	1490	U	C1'-N1	-6.54	1.38	1.48
2	A1	112	SER	CA-C	-6.54	1.44	1.52
34	BA	708	C	C2'-C1'	-6.54	1.43	1.53
35	BB	634	A	C1'-N9	-6.54	1.38	1.48
35	BB	662	G	C3'-C2'	-6.54	1.43	1.52
38	BE	134	A	P-O5'	-6.54	1.50	1.59
44	BK	70	ILE	N-CA	-6.54	1.38	1.46
50	BQ	146	TRP	N-CA	-6.54	1.38	1.46
53	BT	119	ILE	N-CA	-6.54	1.38	1.46
82	Bw	33	PHE	N-CA	-6.54	1.38	1.46
85	AA	1196	C	C2'-C1'	-6.54	1.43	1.53
34	BA	1210	A	C4'-C3'	-6.54	1.42	1.52
35	BB	620	G	C3'-C2'	-6.54	1.43	1.52
38	BE	114	G	C4'-C3'	-6.54	1.42	1.52
40	BG	17	A	O3'-P	-6.54	1.51	1.61
45	BL	47	LEU	CA-C	-6.54	1.44	1.52
85	AA	486	G	P-O5'	-6.54	1.50	1.59
85	AA	680	U	O3'-P	-6.54	1.51	1.61
85	AA	681	G	C4'-O4'	-6.54	1.35	1.45
85	AA	1190	G	C1'-N9	-6.54	1.38	1.48
85	AA	1669	G	C1'-N9	-6.54	1.38	1.48
34	BA	526	C	C1'-N1	-6.54	1.38	1.48
35	BB	1238	A	O3'-P	-6.54	1.51	1.61
62	Bc	89	SER	CA-C	-6.54	1.44	1.52
76	Bq	17	LEU	CA-C	-6.54	1.44	1.52
35	BB	1128	U	O3'-P	-6.54	1.51	1.61
39	BF	72	A	O3'-P	-6.54	1.51	1.61
85	AA	30	G	C2'-C1'	-6.54	1.43	1.53
85	AA	403	G	C2'-C1'	-6.54	1.43	1.53
85	AA	2008	G	C3'-C2'	-6.54	1.43	1.52
41	BH	41	A	P-O5'	-6.54	1.50	1.59
34	BA	431	A	C1'-N9	-6.54	1.38	1.48
34	BA	1427	U	O3'-P	-6.54	1.51	1.61
35	BB	578	G	P-O5'	-6.54	1.50	1.59
38	BE	186	C	C1'-N1	-6.54	1.37	1.47
40	BG	172	C	O3'-P	-6.54	1.51	1.61
70	Bk	123	TYR	N-CA	-6.54	1.37	1.46
34	BA	1135	U	P-O5'	-6.53	1.50	1.59
40	BG	95	U	C2'-C1'	-6.53	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1823	G	C3'-C2'	-6.53	1.43	1.52
85	AA	2148	C	C3'-C2'	-6.53	1.43	1.52
34	BA	191	G	C1'-N9	-6.53	1.38	1.48
34	BA	440	A	P-O5'	-6.53	1.50	1.59
34	BA	474	A	C2'-C1'	-6.53	1.43	1.53
35	BB	991	C	P-O5'	-6.53	1.50	1.59
40	BG	84	U	P-O5'	-6.53	1.50	1.59
85	AA	1162	A	C2'-C1'	-6.53	1.43	1.53
30	AW	63	LEU	CA-C	-6.53	1.44	1.52
34	BA	10	G	C4'-O4'	-6.53	1.35	1.45
34	BA	195	G	O3'-P	-6.53	1.51	1.61
37	BD	73	U	C1'-N1	-6.53	1.38	1.48
73	Bn	48	ASN	CA-C	-6.53	1.44	1.52
85	AA	90	A	P-O5'	-6.53	1.50	1.59
85	AA	411	U	P-O5'	-6.53	1.50	1.59
85	AA	898	A	P-O5'	-6.53	1.50	1.59
85	AA	1674	G	C1'-N9	-6.53	1.38	1.48
34	BA	99	G	O3'-P	-6.53	1.51	1.61
34	BA	116	G	C4'-O4'	-6.53	1.36	1.45
34	BA	191	G	C2'-C1'	-6.53	1.43	1.53
36	BC	163	A	C1'-N9	-6.53	1.38	1.48
23	AP	49	LEU	N-CA	-6.53	1.38	1.46
34	BA	491	U	C1'-N1	-6.53	1.38	1.48
34	BA	566	G	C1'-N9	-6.53	1.38	1.48
34	BA	727	G	C1'-N9	-6.53	1.38	1.48
35	BB	1391	G	O3'-P	-6.53	1.51	1.61
37	BD	16	U	C1'-N1	-6.53	1.38	1.48
37	BD	41	G	O3'-P	-6.53	1.51	1.61
75	Bp	46	VAL	CA-C	-6.53	1.45	1.52
77	Br	325	LEU	CA-C	-6.53	1.43	1.52
85	AA	31	C	C1'-N1	-6.53	1.38	1.48
85	AA	1434	U	P-O5'	-6.53	1.50	1.59
34	BA	281	C	O3'-P	-6.53	1.51	1.61
34	BA	594	G	C2'-C1'	-6.53	1.43	1.53
34	BA	1040	G	O3'-P	-6.53	1.51	1.61
35	BB	17	U	O3'-P	-6.53	1.51	1.61
40	BG	142	A	O4'-C1'	-6.53	1.31	1.41
53	BT	101	ILE	CA-C	-6.53	1.44	1.52
34	BA	1002	U	O3'-P	-6.52	1.51	1.61
38	BE	179	A	O3'-P	-6.52	1.51	1.61
85	AA	1565	G	P-O5'	-6.52	1.50	1.59
8	A7	180	VAL	CA-C	-6.52	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1440	A	C2'-C1'	-6.52	1.43	1.53
53	BT	32	ILE	CA-C	-6.52	1.44	1.52
85	AA	20	G	P-O5'	-6.52	1.50	1.59
85	AA	1226	A	C2'-C1'	-6.52	1.43	1.53
85	AA	1655	G	O3'-P	-6.52	1.51	1.61
35	BB	1425	A	C2'-C1'	-6.52	1.43	1.53
70	Bk	51	ILE	N-CA	-6.52	1.38	1.46
34	BA	112	C	O3'-P	-6.52	1.51	1.61
34	BA	1826	C	P-O5'	-6.52	1.50	1.59
35	BB	806	U	C1'-N1	-6.52	1.38	1.48
36	BC	11	G	O3'-P	-6.52	1.51	1.61
38	BE	50	G	O3'-P	-6.52	1.51	1.61
54	BU	76	ILE	CA-C	-6.52	1.44	1.52
34	BA	10	G	C2'-C1'	-6.52	1.43	1.53
36	BC	8	C	P-O5'	-6.52	1.50	1.59
41	BH	41	A	C3'-C2'	-6.52	1.43	1.52
77	Br	135	LEU	CA-C	-6.52	1.44	1.52
77	Br	299	VAL	CA-C	-6.52	1.44	1.52
81	Bv	147	ARG	CA-C	-6.52	1.44	1.52
85	AA	887	A	C2'-C1'	-6.52	1.43	1.53
85	AA	1421	U	O3'-P	-6.52	1.51	1.61
34	BA	1164	C	P-O5'	-6.52	1.50	1.59
35	BB	645	C	C3'-C2'	-6.52	1.43	1.52
38	BE	104	G	C4'-C3'	6.52	1.62	1.52
6	A5	98	LYS	CA-C	-6.51	1.44	1.52
34	BA	1162	U	P-O5'	-6.51	1.50	1.59
38	BE	139	U	C1'-N1	-6.51	1.38	1.48
58	BY	16	GLY	CA-C	-6.51	1.44	1.51
65	Bf	211	ILE	N-CA	-6.51	1.38	1.46
68	Bi	43	VAL	CA-C	-6.51	1.44	1.52
85	AA	107	A	O3'-P	-6.51	1.51	1.61
85	AA	211	C	C1'-N1	-6.51	1.38	1.48
85	AA	506	G	C1'-N9	-6.51	1.38	1.48
85	AA	2227	A	C1'-N9	-6.51	1.38	1.48
34	BA	49	A	C3'-C2'	-6.51	1.43	1.52
35	BB	75	A	C1'-N9	-6.51	1.38	1.48
40	BG	59	G	O3'-P	-6.51	1.51	1.61
61	Bb	97	PRO	CA-C	-6.51	1.44	1.52
85	AA	2044	A	C2'-C1'	-6.51	1.43	1.53
35	BB	786	A	C3'-C2'	-6.51	1.43	1.52
37	BD	64	A	P-O5'	-6.51	1.50	1.59
38	BE	38	C	O3'-P	-6.51	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	372	U	C1'-N1	-6.51	1.38	1.48
35	BB	1098	G	P-O5'	-6.51	1.50	1.59
36	BC	109	A	C1'-N9	-6.51	1.38	1.48
37	BD	44	U	P-O5'	-6.51	1.50	1.59
38	BE	93	U	O3'-P	-6.51	1.51	1.61
40	BG	92	U	C2'-C1'	-6.51	1.43	1.53
52	BS	93	VAL	CA-CB	-6.51	1.46	1.54
54	BU	72	VAL	CA-C	-6.51	1.44	1.52
34	BA	1240	G	O3'-P	-6.51	1.51	1.61
35	BB	1313	C	O3'-P	-6.51	1.51	1.61
85	AA	794	A	O3'-P	-6.51	1.51	1.61
34	BA	259	C	O3'-P	-6.51	1.51	1.61
35	BB	1098	G	O3'-P	-6.51	1.51	1.61
35	BB	1183	U	C3'-C2'	-6.51	1.43	1.52
38	BE	146	U	P-O5'	-6.51	1.50	1.59
59	BZ	77	ILE	CA-C	-6.51	1.45	1.52
64	Be	116	VAL	CA-CB	-6.51	1.45	1.54
34	BA	1543	A	O3'-P	-6.50	1.51	1.61
34	BA	407	A	P-O5'	-6.50	1.50	1.59
35	BB	1141	A	O3'-P	-6.50	1.51	1.61
48	BO	159	ASN	N-CA	-6.50	1.38	1.46
65	Bf	350	ASN	N-CA	6.50	1.54	1.46
82	Bw	50	VAL	CA-CB	-6.50	1.46	1.54
85	AA	1281	G	C2'-C1'	-6.50	1.43	1.53
15	AG	96	THR	CA-C	-6.50	1.44	1.52
34	BA	7	U	C3'-C2'	-6.50	1.43	1.52
34	BA	499	C	C1'-N1	-6.50	1.38	1.48
35	BB	786	A	O3'-P	-6.50	1.51	1.61
68	Bi	89	GLN	N-CA	-6.50	1.38	1.46
85	AA	500	C	C1'-N1	-6.50	1.38	1.48
85	AA	1114	A	C1'-N9	-6.50	1.38	1.48
85	AA	2178	A	C2'-C1'	-6.50	1.43	1.53
34	BA	336	A	C2'-C1'	-6.50	1.43	1.53
3	A2	86	ILE	CA-C	-6.50	1.44	1.52
34	BA	124	G	C1'-N9	-6.50	1.38	1.48
34	BA	1167	A	C1'-N9	-6.50	1.37	1.47
34	BA	1718	C	C1'-N1	-6.50	1.38	1.48
35	BB	430	A	C2'-C1'	-6.50	1.43	1.53
35	BB	634	A	C2'-C1'	-6.50	1.43	1.53
35	BB	1241	U	C3'-C2'	-6.50	1.43	1.52
35	BB	1310	C	P-O5'	-6.50	1.50	1.59
37	BD	79	G	O3'-P	-6.50	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	By	67	THR	CA-C	-6.50	1.43	1.52
85	AA	937	G	C2'-C1'	-6.50	1.43	1.53
85	AA	2132	A	C1'-N9	-6.50	1.38	1.48
1	A0	66	TYR	CA-C	-6.50	1.44	1.52
6	A5	63	GLY	CA-C	-6.50	1.45	1.52
11	AC	111	THR	CA-C	-6.50	1.44	1.52
50	BQ	165	ILE	CA-CB	-6.50	1.46	1.54
53	BT	126	LYS	CA-C	-6.50	1.44	1.52
73	Bn	66	TYR	N-CA	-6.50	1.37	1.46
85	AA	689	U	O3'-P	-6.50	1.51	1.61
35	BB	1443	C	O3'-P	-6.50	1.51	1.61
40	BG	124	A	C1'-N9	-6.50	1.38	1.48
40	BG	130	G	O3'-P	-6.50	1.51	1.61
60	Ba	116	GLN	N-CA	-6.50	1.38	1.46
85	AA	1681	G	O3'-P	-6.50	1.51	1.61
34	BA	292	C	O3'-P	-6.49	1.51	1.61
34	BA	754	G	P-O5'	-6.49	1.50	1.59
35	BB	1487	G	P-O5'	-6.49	1.50	1.59
38	BE	176	G	C2'-C1'	-6.49	1.43	1.53
83	Bx	66	PRO	CA-C	-6.49	1.44	1.52
85	AA	759	G	C1'-N9	-6.49	1.38	1.48
85	AA	993	G	O3'-P	-6.49	1.51	1.61
50	BQ	168	ILE	CA-CB	-6.49	1.45	1.54
85	AA	1109	G	O3'-P	-6.49	1.51	1.61
85	AA	1861	A	O3'-P	-6.49	1.51	1.61
7	A6	49	SER	N-CA	-6.49	1.38	1.46
34	BA	620	C	C2'-C1'	-6.49	1.43	1.53
34	BA	855	C	O3'-P	-6.49	1.51	1.61
34	BA	923	C	C3'-C2'	-6.49	1.43	1.52
35	BB	86	A	P-O5'	-6.49	1.50	1.59
35	BB	1505	U	C2'-C1'	-6.49	1.43	1.53
85	AA	509	C	C2'-C1'	-6.49	1.43	1.53
85	AA	577	U	P-O5'	-6.49	1.50	1.59
23	AP	57	LYS	CA-C	-6.49	1.44	1.52
34	BA	330	A	C2'-C1'	-6.49	1.43	1.53
38	BE	139	U	C5'-C4'	-6.49	1.41	1.51
85	AA	369	A	C1'-N9	-6.49	1.38	1.48
85	AA	2146	G	O3'-P	-6.49	1.51	1.61
23	AP	215	ARG	CA-C	-6.49	1.44	1.52
34	BA	684	G	O5'-C5'	6.49	1.52	1.42
36	BC	28	C	C1'-N1	-6.49	1.38	1.48
52	BS	132	PRO	CA-C	-6.49	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	AP	232	TYR	N-CA	-6.49	1.40	1.46
34	BA	1437	G	O3'-P	-6.49	1.51	1.61
34	BA	1594	G	O3'-P	-6.49	1.51	1.61
35	BB	1149	A	O3'-P	-6.49	1.51	1.61
35	BB	1341	U	C2'-C1'	-6.49	1.43	1.53
36	BC	164	G	C1'-N9	-6.49	1.38	1.48
85	AA	366	A	C2'-C1'	-6.49	1.43	1.53
85	AA	1185	G	C5'-C4'	6.49	1.60	1.51
34	BA	126	G	C2'-C1'	-6.48	1.43	1.53
52	BS	43	PHE	CA-C	-6.48	1.44	1.52
34	BA	454	G	O3'-P	-6.48	1.51	1.61
34	BA	1235	C	O3'-P	-6.48	1.51	1.61
34	BA	1741	G	C2'-C1'	-6.48	1.43	1.53
35	BB	518	G	C1'-N9	-6.48	1.38	1.48
71	Bl	79	ARG	N-CA	-6.48	1.37	1.46
85	AA	626	G	P-O5'	-6.48	1.50	1.59
85	AA	1478	G	O3'-P	-6.48	1.51	1.61
34	BA	320	G	O3'-P	-6.48	1.51	1.61
34	BA	1554	C	P-O5'	-6.48	1.50	1.59
35	BB	1192	C	P-O5'	-6.48	1.50	1.59
39	BF	12	U	O3'-P	-6.48	1.51	1.61
66	Bg	45	LEU	N-CA	-6.48	1.38	1.46
85	AA	53	G	O3'-P	-6.48	1.51	1.61
5	A4	62	THR	CA-C	-6.48	1.45	1.52
34	BA	1102	A	O3'-P	-6.48	1.51	1.61
35	BB	669	A	O3'-P	-6.48	1.51	1.61
85	AA	397	G	C4'-O4'	-6.48	1.35	1.45
34	BA	313	C	O3'-P	-6.48	1.51	1.61
34	BA	660	C	C3'-C2'	-6.48	1.43	1.52
34	BA	783	U	P-O5'	-6.48	1.50	1.59
34	BA	1491	U	C5'-C4'	6.48	1.60	1.51
49	BP	107	ASP	CA-C	-6.48	1.44	1.52
84	By	158	VAL	CA-C	-6.48	1.45	1.52
85	AA	646	C	P-O5'	-6.48	1.50	1.59
85	AA	2122	A	O3'-P	-6.48	1.51	1.61
35	BB	1383	C	C2'-C1'	-6.48	1.43	1.53
45	BL	110	GLY	CA-C	-6.48	1.44	1.51
64	Be	70	ARG	CA-C	6.48	1.61	1.52
65	Bf	412	ILE	CA-CB	-6.48	1.45	1.54
85	AA	256	A	C1'-N9	-6.47	1.38	1.48
85	AA	2177	C	C1'-N1	-6.47	1.38	1.48
34	BA	409	A	C2'-C1'	-6.47	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	493	G	C2'-C1'	-6.47	1.43	1.53
34	BA	672	G	C2'-C1'	-6.47	1.43	1.53
34	BA	780	U	O4'-C1'	6.47	1.51	1.41
35	BB	58	G	P-O5'	-6.47	1.50	1.59
35	BB	125	G	O3'-P	-6.47	1.51	1.61
36	BC	53	A	C2'-C1'	-6.47	1.43	1.53
37	BD	46	G	O3'-P	-6.47	1.51	1.61
85	AA	2148	C	C2'-C1'	-6.47	1.43	1.53
34	BA	38	G	O3'-P	-6.47	1.51	1.61
34	BA	617	G	O3'-P	-6.47	1.51	1.61
35	BB	556	U	O3'-P	-6.47	1.51	1.61
85	AA	392	G	O3'-P	-6.47	1.51	1.61
85	AA	1206	A	C3'-C2'	-6.47	1.43	1.52
34	BA	565	U	C1'-N1	-6.47	1.38	1.48
34	BA	1249	G	O3'-P	-6.47	1.51	1.61
35	BB	365	U	O3'-P	-6.47	1.51	1.61
35	BB	1168	G	O3'-P	-6.47	1.51	1.61
35	BB	1284	U	O3'-P	-6.47	1.51	1.61
37	BD	62	A	C1'-N9	-6.47	1.37	1.47
48	BO	162	LYS	CA-C	-6.47	1.44	1.52
71	Bl	108	ILE	CA-C	-6.47	1.45	1.52
34	BA	1064	A	P-O5'	-6.47	1.50	1.59
35	BB	1108	G	C1'-N9	-6.47	1.38	1.48
34	BA	516	U	C2'-C1'	-6.47	1.43	1.53
35	BB	1416	A	C5'-C4'	6.47	1.60	1.51
40	BG	142	A	C2'-C1'	-6.47	1.43	1.53
65	Bf	214	VAL	CA-C	-6.47	1.45	1.52
4	A3	92	GLN	CA-C	-6.46	1.44	1.53
16	AH	60	ASP	N-CA	-6.46	1.37	1.46
34	BA	168	U	P-O5'	-6.46	1.50	1.59
34	BA	513	U	C1'-N1	-6.46	1.38	1.48
53	BT	123	LEU	N-CA	-6.46	1.38	1.46
80	Bu	173	VAL	N-CA	-6.46	1.39	1.46
85	AA	2180	C	C2'-C1'	-6.46	1.43	1.53
34	BA	1437	G	C2'-C1'	-6.46	1.43	1.53
35	BB	457	U	O3'-P	-6.46	1.51	1.61
52	BS	10	CYS	CA-C	-6.46	1.45	1.52
54	BU	77	ASN	CA-C	-6.46	1.45	1.52
59	BZ	102	GLU	CA-C	-6.46	1.44	1.52
75	Bp	9	LYS	N-CA	-6.46	1.38	1.46
81	Bv	60	LEU	CA-C	-6.46	1.44	1.52
82	Bw	48	ASN	N-CA	-6.46	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	620	U	C3'-C2'	-6.46	1.43	1.52
85	AA	2244	G	P-O5'	-6.46	1.50	1.59
34	BA	122	U	O3'-P	-6.46	1.51	1.61
35	BB	68	G	O4'-C1'	-6.46	1.31	1.41
35	BB	462	G	C1'-N9	-6.46	1.38	1.48
35	BB	1283	C	P-O5'	-6.46	1.50	1.59
57	BX	133	ASN	CA-C	-6.46	1.45	1.52
85	AA	605	A	C1'-N9	-6.46	1.37	1.47
85	AA	1911	A	C2'-C1'	-6.46	1.43	1.53
34	BA	493	G	O3'-P	-6.46	1.51	1.61
34	BA	1192	A	P-O5'	-6.46	1.50	1.59
35	BB	1150	A	O3'-P	-6.46	1.51	1.61
36	BC	12	A	O3'-P	-6.46	1.51	1.61
85	AA	149	A	C1'-N9	-6.46	1.38	1.48
85	AA	1711	C	C1'-N1	-6.46	1.38	1.48
34	BA	926	A	O3'-P	-6.46	1.51	1.61
34	BA	1514	A	C1'-N9	-6.46	1.37	1.47
37	BD	108	G	C3'-C2'	-6.46	1.43	1.52
39	BF	23	G	C1'-N9	-6.46	1.38	1.48
54	BU	14	LEU	CA-C	-6.46	1.46	1.52
83	Bx	71	MET	N-CA	-6.46	1.38	1.46
85	AA	190	A	O3'-P	-6.46	1.51	1.61
85	AA	1532	G	O3'-P	-6.46	1.51	1.61
85	AA	411	U	C1'-N1	-6.46	1.37	1.47
85	AA	423	G	P-O5'	-6.46	1.50	1.59
85	AA	450	A	O3'-P	-6.46	1.51	1.61
85	AA	1735	U	C2'-C1'	-6.46	1.43	1.53
34	BA	321	G	C1'-N9	-6.45	1.38	1.48
34	BA	859	G	P-O5'	-6.45	1.50	1.59
34	BA	1701	U	P-O5'	-6.45	1.50	1.59
53	BT	147	ASN	CA-C	-6.45	1.44	1.52
54	BU	48	VAL	CA-C	-6.45	1.45	1.52
67	Bh	73	LEU	CA-C	-6.45	1.44	1.52
85	AA	1124	G	P-O5'	-6.45	1.50	1.59
8	A7	147	SER	CA-C	-6.45	1.44	1.52
35	BB	781	U	C2'-C1'	-6.45	1.43	1.53
62	Bc	61	LEU	N-CA	-6.45	1.37	1.46
18	AJ	70	ASN	N-CA	-6.45	1.38	1.46
34	BA	381	A	C1'-N9	-6.45	1.38	1.48
85	AA	125	A	O3'-P	-6.45	1.51	1.61
7	A6	103	ILE	N-CA	-6.45	1.38	1.46
23	AP	166	ILE	CA-C	-6.45	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	580	U	P-O5'	-6.45	1.50	1.59
34	BA	1697	U	O4'-C1'	-6.45	1.32	1.42
35	BB	831	C	C2'-C1'	-6.45	1.43	1.53
38	BE	127	G	C3'-C2'	-6.45	1.43	1.52
56	BW	73	ARG	CA-C	-6.45	1.44	1.53
85	AA	658	C	P-O5'	-6.45	1.50	1.59
85	AA	1142	G	P-O5'	-6.45	1.50	1.59
21	AM	74	ASP	N-CA	-6.45	1.40	1.46
34	BA	1040	G	C1'-N9	-6.45	1.38	1.48
34	BA	1044	A	C1'-N9	-6.45	1.38	1.48
35	BB	382	U	P-O5'	-6.45	1.50	1.59
79	Bt	94	ASN	CA-C	-6.45	1.47	1.52
26	AS	136	GLN	CA-C	-6.44	1.44	1.52
34	BA	1514	A	O4'-C1'	-6.44	1.32	1.42
61	Bb	143	LEU	CA-C	-6.44	1.44	1.52
85	AA	429	G	P-O5'	-6.44	1.50	1.59
6	A5	101	ILE	CA-C	-6.44	1.44	1.52
34	BA	1337	A	O3'-P	-6.44	1.51	1.61
34	BA	1688	G	C1'-N9	-6.44	1.38	1.48
35	BB	1386	C	O3'-P	-6.44	1.51	1.61
44	BK	88	ARG	CA-C	-6.44	1.45	1.52
49	BP	112	GLN	CA-C	-6.44	1.44	1.52
85	AA	400	G	C1'-N9	-6.44	1.38	1.48
85	AA	1645	G	P-O5'	-6.44	1.50	1.59
34	BA	154	A	P-O5'	-6.44	1.50	1.59
34	BA	1026	C	O3'-P	-6.44	1.51	1.61
34	BA	1315	C	C1'-N1	-6.44	1.38	1.48
35	BB	482	A	C2'-C1'	-6.44	1.43	1.53
38	BE	146	U	C1'-N1	-6.44	1.38	1.48
64	Be	138	SER	CA-C	-6.44	1.44	1.52
85	AA	261	U	C1'-N1	-6.44	1.38	1.48
85	AA	1538	C	C2'-C1'	-6.44	1.43	1.53
35	BB	1018	U	P-O5'	-6.44	1.50	1.59
70	Bk	81	SER	CA-C	-6.44	1.44	1.52
5	A4	155	MET	CA-C	-6.44	1.44	1.52
25	AR	50	ILE	C-N	-6.44	1.24	1.33
34	BA	500	C	C3'-C2'	-6.44	1.43	1.52
34	BA	1498	A	C1'-N9	-6.44	1.38	1.48
34	BA	1717	C	O3'-P	-6.44	1.51	1.61
35	BB	1020	U	C1'-N1	-6.44	1.38	1.48
36	BC	87	C	O3'-P	-6.44	1.51	1.61
85	AA	466	A	P-O5'	-6.44	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	901	C	C2'-C1'	-6.44	1.43	1.53
37	BD	68	C	O3'-P	-6.44	1.51	1.61
85	AA	547	A	P-O5'	-6.44	1.50	1.59
85	AA	1244	A	O3'-P	-6.44	1.51	1.61
20	AL	9	VAL	CA-C	-6.43	1.45	1.52
34	BA	459	U	O3'-P	-6.43	1.51	1.61
34	BA	1673	G	O3'-P	-6.43	1.51	1.61
34	BA	1707	C	C1'-N1	-6.43	1.38	1.48
35	BB	583	G	C2'-C1'	-6.43	1.43	1.53
36	BC	48	A	O3'-P	-6.43	1.51	1.61
39	BF	41	U	P-O5'	-6.43	1.50	1.59
42	BI	93	VAL	N-CA	-6.43	1.38	1.46
34	BA	760	G	C2'-C1'	-6.43	1.43	1.53
35	BB	7	C	C2'-C1'	-6.43	1.43	1.53
35	BB	582	G	C4'-C3'	-6.43	1.43	1.52
35	BB	773	G	C1'-N9	-6.43	1.38	1.48
37	BD	74	A	C4'-C3'	-6.43	1.43	1.53
38	BE	97	G	O3'-P	-6.43	1.51	1.61
72	Bm	99	GLU	CA-C	-6.43	1.44	1.52
85	AA	92	G	O3'-P	-6.43	1.51	1.61
85	AA	2147	A	C2'-C1'	-6.43	1.43	1.53
34	BA	957	A	C1'-N9	-6.43	1.38	1.48
35	BB	1296	A	O3'-P	-6.43	1.51	1.61
80	Bu	157	ALA	CA-C	-6.43	1.46	1.53
34	BA	1470	G	C1'-N9	-6.43	1.37	1.47
35	BB	1178	A	C2'-C1'	-6.43	1.43	1.53
41	BH	39	G	O3'-P	-6.43	1.51	1.61
85	AA	780	U	P-O5'	-6.43	1.50	1.59
85	AA	1473	U	C2'-C1'	-6.43	1.43	1.53
85	AA	2217	A	C2'-C1'	-6.43	1.43	1.53
23	AP	120	HIS	CA-C	-6.43	1.44	1.52
35	BB	1161	G	C2'-C1'	-6.43	1.43	1.53
35	BB	1308	G	P-O5'	-6.43	1.50	1.59
85	AA	1196	C	O3'-P	-6.43	1.51	1.61
34	BA	49	A	O4'-C1'	-6.43	1.32	1.41
34	BA	1064	A	C1'-N9	-6.43	1.38	1.48
34	BA	1289	C	C1'-N1	-6.43	1.38	1.48
34	BA	1534	U	C1'-N1	-6.43	1.38	1.48
35	BB	1215	U	P-O5'	-6.43	1.50	1.59
35	BB	1368	A	P-O5'	-6.43	1.50	1.59
38	BE	61	A	O3'-P	-6.43	1.51	1.61
44	BK	46	PHE	N-CA	-6.43	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	Bx	164	VAL	N-CA	-6.43	1.38	1.46
85	AA	381	A	C4'-O4'	-6.43	1.35	1.45
85	AA	601	A	C2'-C1'	-6.43	1.43	1.53
85	AA	612	A	O3'-P	-6.43	1.51	1.61
85	AA	688	C	C3'-C2'	-6.43	1.43	1.52
85	AA	1542	A	P-O5'	-6.43	1.50	1.59
34	BA	430	A	C1'-N9	-6.42	1.38	1.48
34	BA	1278	A	C3'-C2'	-6.42	1.43	1.52
35	BB	503	G	C2'-C1'	-6.42	1.43	1.53
47	BN	112	GLU	CA-C	-6.42	1.44	1.52
75	Bp	4	GLU	CA-C	-6.42	1.45	1.52
85	AA	374	C	C2'-C1'	-6.42	1.43	1.53
85	AA	1214	C	C4'-O4'	-6.42	1.35	1.45
7	A6	80	HIS	N-CA	-6.42	1.38	1.46
35	BB	68	G	P-O5'	-6.42	1.50	1.59
35	BB	1298	C	O3'-P	-6.42	1.51	1.61
42	BI	69	VAL	N-CA	-6.42	1.38	1.46
47	BN	149	LYS	N-CA	-6.42	1.38	1.45
84	By	119	VAL	CA-C	-6.42	1.44	1.52
34	BA	44	U	O3'-P	-6.42	1.51	1.61
34	BA	938	C	C2'-C1'	-6.42	1.43	1.53
35	BB	69	A	O3'-P	-6.42	1.51	1.61
41	BH	53	C	P-O5'	-6.42	1.50	1.59
50	BQ	160	ARG	N-CA	-6.42	1.38	1.46
51	BR	90	ALA	CA-C	-6.42	1.44	1.52
85	AA	167	A	O3'-P	-6.42	1.51	1.61
34	BA	1047	U	O3'-P	-6.42	1.51	1.61
34	BA	1419	A	P-O5'	-6.42	1.50	1.59
35	BB	127	U	C2'-C1'	-6.42	1.43	1.53
23	AP	135	ILE	CA-C	-6.42	1.45	1.52
34	BA	515	U	C3'-C2'	-6.42	1.43	1.52
35	BB	1070	G	C1'-N9	-6.42	1.38	1.48
36	BC	27	U	O3'-P	-6.42	1.51	1.61
37	BD	67	C	C3'-C2'	-6.42	1.43	1.52
74	Bo	87	ARG	CA-C	-6.42	1.44	1.52
83	Bx	51	ARG	C-N	6.42	1.42	1.33
34	BA	219	U	C2'-C1'	-6.42	1.43	1.53
34	BA	565	U	P-O5'	-6.42	1.50	1.59
34	BA	1092	U	C3'-C2'	-6.42	1.43	1.52
34	BA	1287	G	P-O5'	-6.42	1.50	1.59
35	BB	415	A	P-O5'	-6.42	1.50	1.59
38	BE	144	A	C3'-C2'	-6.42	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	BZ	35	GLU	N-CA	-6.42	1.38	1.46
65	Bf	419	THR	CA-C	-6.42	1.46	1.53
85	AA	2095	U	O3'-P	-6.42	1.51	1.61
4	A3	2	LYS	CA-C	-6.42	1.44	1.52
6	A5	21	HIS	N-CA	-6.42	1.38	1.46
34	BA	240	C	C2'-C1'	-6.42	1.43	1.53
36	BC	14	G	C1'-N9	-6.42	1.38	1.48
38	BE	88	G	P-O5'	-6.42	1.50	1.59
50	BQ	38	PHE	CA-C	-6.42	1.44	1.52
85	AA	877	G	C2'-C1'	-6.42	1.43	1.53
4	A3	16	VAL	CA-C	-6.41	1.45	1.52
5	A4	124	VAL	CA-C	-6.41	1.45	1.52
34	BA	1091	U	O3'-P	-6.41	1.51	1.61
34	BA	1510	C	C1'-N1	-6.41	1.38	1.48
34	BA	1653	G	O3'-P	-6.41	1.51	1.61
85	AA	1817	U	O3'-P	-6.41	1.51	1.61
34	BA	700	G	C3'-C2'	-6.41	1.43	1.52
35	BB	515	C	O3'-P	-6.41	1.51	1.61
35	BB	1144	A	C2'-C1'	-6.41	1.43	1.53
85	AA	364	C	C3'-C2'	-6.41	1.43	1.52
85	AA	2183	U	P-O5'	-6.41	1.50	1.59
34	BA	1165	A	O3'-P	-6.41	1.51	1.61
35	BB	425	G	O3'-P	-6.41	1.51	1.61
35	BB	1136	G	P-O5'	-6.41	1.50	1.59
37	BD	80	G	P-O5'	-6.41	1.50	1.59
53	BT	109	TYR	CA-C	-6.41	1.44	1.52
75	Bp	8	LEU	CA-C	-6.41	1.44	1.52
85	AA	726	U	P-O5'	-6.41	1.50	1.59
85	AA	1858	G	C3'-C2'	-6.41	1.43	1.52
34	BA	386	A	C5'-C4'	6.41	1.60	1.51
34	BA	1609	U	O4'-C1'	-6.41	1.32	1.41
35	BB	1193	G	C1'-N9	-6.41	1.38	1.48
36	BC	21	U	C1'-N1	-6.41	1.37	1.47
75	Bp	26	LYS	CA-C	-6.41	1.44	1.52
34	BA	306	G	C3'-C2'	-6.41	1.43	1.52
34	BA	457	A	C3'-C2'	-6.41	1.43	1.52
35	BB	787	A	O3'-P	-6.41	1.51	1.61
85	AA	1717	G	C4'-C3'	6.41	1.62	1.53
20	AL	4	ILE	N-CA	-6.41	1.38	1.46
25	AR	70	ASP	N-CA	-6.41	1.38	1.46
40	BG	8	U	C3'-C2'	-6.41	1.43	1.52
85	AA	1557	U	P-O5'	-6.41	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2105	G	C1'-N9	-6.41	1.38	1.48
25	AR	41	ILE	CA-C	-6.40	1.44	1.52
35	BB	18	A	P-O5'	-6.40	1.50	1.59
44	BK	36	ILE	CA-C	-6.40	1.45	1.52
85	AA	1506	U	P-O5'	-6.40	1.50	1.59
15	AG	38	CYS	N-CA	-6.40	1.38	1.46
34	BA	625	U	O3'-P	-6.40	1.51	1.61
34	BA	902	C	P-O5'	-6.40	1.50	1.59
34	BA	1107	A	C3'-C2'	-6.40	1.43	1.52
34	BA	1291	A	C1'-N9	-6.40	1.38	1.48
34	BA	1313	U	O3'-P	-6.40	1.51	1.61
34	BA	1433	U	C2'-C1'	-6.40	1.43	1.53
35	BB	1490	G	O4'-C1'	6.40	1.51	1.41
49	BP	153	LYS	CA-C	-6.40	1.45	1.52
85	AA	357	C	P-O5'	-6.40	1.50	1.59
85	AA	505	U	O4'-C1'	-6.40	1.32	1.42
85	AA	2169	C	P-O5'	-6.40	1.50	1.59
34	BA	1800	G	C2'-C1'	-6.40	1.43	1.53
36	BC	94	C	P-O5'	-6.40	1.50	1.59
48	BO	90	HIS	CA-C	-6.40	1.44	1.53
66	Bg	27	LEU	N-CA	-6.40	1.38	1.46
85	AA	474	C	C2'-C1'	-6.40	1.43	1.53
85	AA	989	U	O5'-C5'	-6.40	1.33	1.42
85	AA	1498	C	P-O5'	-6.40	1.50	1.59
35	BB	605	C	P-O5'	-6.40	1.50	1.59
35	BB	1301	U	P-O5'	-6.40	1.50	1.59
69	Bj	109	LYS	N-CA	-6.40	1.38	1.46
85	AA	1810	C	O3'-P	-6.40	1.51	1.61
34	BA	20	A	O3'-P	-6.40	1.51	1.61
34	BA	58	A	O3'-P	-6.40	1.51	1.61
34	BA	690	G	O3'-P	-6.40	1.51	1.61
35	BB	513	G	O4'-C1'	-6.40	1.32	1.41
36	BC	151	G	P-O5'	-6.40	1.50	1.59
47	BN	190	LEU	N-CA	-6.40	1.38	1.46
50	BQ	64	LYS	CA-C	-6.40	1.44	1.52
34	BA	758	G	O4'-C1'	-6.40	1.32	1.41
34	BA	1278	A	C1'-N9	-6.40	1.38	1.48
40	BG	50	G	O3'-P	-6.40	1.51	1.61
85	AA	431	G	O3'-P	-6.40	1.51	1.61
35	BB	1140	C	P-O5'	-6.39	1.50	1.59
34	BA	459	U	C3'-C2'	-6.39	1.43	1.52
34	BA	1221	A	O4'-C1'	-6.39	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	693	U	P-O5'	-6.39	1.50	1.59
51	BR	76	TRP	N-CA	-6.39	1.37	1.46
85	AA	397	G	P-O5'	-6.39	1.50	1.59
86	AB	68	C	O3'-P	-6.39	1.51	1.61
85	AA	422	G	C1'-N9	-6.39	1.38	1.48
85	AA	2011	C	C1'-N1	-6.39	1.38	1.48
86	AB	67	C	O3'-P	-6.39	1.51	1.61
6	A5	67	TRP	N-CA	-6.39	1.38	1.46
35	BB	1510	G	P-O5'	-6.39	1.50	1.59
36	BC	99	U	P-O5'	-6.39	1.50	1.59
41	BH	13	C	O3'-P	-6.39	1.51	1.61
69	Bj	41	GLN	CA-C	-6.39	1.45	1.52
85	AA	895	C	O3'-P	-6.39	1.51	1.61
85	AA	19	A	C1'-N9	-6.39	1.38	1.48
34	BA	183	G	P-O5'	-6.39	1.50	1.59
34	BA	251	U	O3'-P	-6.39	1.51	1.61
34	BA	539	C	P-O5'	-6.39	1.50	1.59
34	BA	1323	G	C1'-N9	-6.39	1.38	1.48
35	BB	679	G	O3'-P	-6.39	1.51	1.61
35	BB	1067	G	C2'-C1'	-6.39	1.43	1.53
36	BC	31	A	C2'-C1'	-6.39	1.43	1.53
50	BQ	36	MET	CA-C	-6.39	1.44	1.52
50	BQ	116	ARG	CA-C	-6.39	1.44	1.52
85	AA	1197	U	O3'-P	-6.39	1.51	1.61
33	AZ	42	VAL	CA-C	-6.38	1.45	1.52
34	BA	82	A	O4'-C1'	-6.38	1.32	1.42
35	BB	42	A	C1'-N9	-6.38	1.38	1.48
35	BB	663	G	P-O5'	-6.38	1.50	1.59
37	BD	27	A	O3'-P	-6.38	1.51	1.61
41	BH	132	C	P-O5'	-6.38	1.50	1.59
54	BU	107	GLN	CA-C	-6.38	1.44	1.52
71	Bl	80	VAL	CA-CB	-6.38	1.46	1.54
60	Ba	129	GLN	CA-C	-6.38	1.44	1.52
85	AA	483	G	O3'-P	-6.38	1.51	1.61
85	AA	547	A	O3'-P	-6.38	1.51	1.61
85	AA	628	C	O3'-P	-6.38	1.51	1.61
34	BA	329	G	C4'-O4'	-6.38	1.36	1.45
34	BA	417	A	C4'-O4'	-6.38	1.36	1.45
48	BO	187	HIS	CB-CG	-6.38	1.41	1.50
77	Br	99	ARG	CA-C	-6.38	1.44	1.52
34	BA	798	G	P-O5'	-6.38	1.50	1.59
35	BB	427	U	O3'-P	-6.38	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	491	G	O3'-P	-6.38	1.51	1.61
85	AA	1793	A	O4'-C1'	-6.38	1.32	1.41
34	BA	736	G	C1'-N9	-6.38	1.37	1.47
34	BA	881	C	C3'-C2'	-6.38	1.43	1.52
34	BA	1171	C	O3'-P	-6.38	1.51	1.61
34	BA	1450	G	O3'-P	-6.38	1.51	1.61
35	BB	509	A	O3'-P	-6.38	1.51	1.61
35	BB	852	G	P-O5'	-6.38	1.50	1.59
36	BC	160	C	C1'-N1	-6.38	1.38	1.48
85	AA	2010	C	P-O5'	-6.38	1.50	1.59
85	AA	2029	G	O3'-P	-6.38	1.51	1.61
85	AA	2238	C	C1'-N1	-6.38	1.38	1.48
18	AJ	93	ILE	CA-C	-6.38	1.44	1.52
34	BA	1037	C	C2'-C1'	-6.38	1.43	1.53
40	BG	177	U	C1'-N1	-6.38	1.38	1.48
41	BH	15	A	P-O5'	-6.38	1.50	1.59
59	BZ	4	ILE	C-N	6.38	1.39	1.33
77	Br	231	ASN	CA-C	-6.38	1.46	1.53
18	AJ	27	ILE	CA-C	-6.38	1.44	1.52
65	Bf	282	PHE	CA-C	-6.38	1.45	1.52
77	Br	36	VAL	N-CA	-6.38	1.39	1.46
16	AH	59	ARG	CA-C	-6.37	1.44	1.52
34	BA	908	G	P-O5'	-6.37	1.50	1.59
35	BB	126	C	C3'-C2'	-6.37	1.43	1.52
35	BB	622	G	C2'-C1'	-6.37	1.43	1.53
35	BB	1325	C	O3'-P	-6.37	1.51	1.61
36	BC	91	G	P-O5'	-6.37	1.50	1.59
38	BE	178	G	P-O5'	-6.37	1.50	1.59
60	Ba	37	TYR	N-CA	-6.37	1.38	1.46
74	Bo	76	ASN	CA-C	-6.37	1.44	1.52
77	Br	290	ILE	CA-CB	-6.37	1.47	1.54
85	AA	186	U	O3'-P	-6.37	1.51	1.61
85	AA	619	A	O3'-P	-6.37	1.51	1.61
34	BA	961	C	C3'-C2'	-6.37	1.43	1.52
52	BS	34	PRO	CA-C	-6.37	1.43	1.52
52	BS	113	ALA	CA-C	-6.37	1.44	1.52
85	AA	1142	G	C1'-N9	-6.37	1.38	1.48
85	AA	2141	G	C3'-C2'	-6.37	1.43	1.52
85	AA	2211	G	P-O5'	-6.37	1.50	1.59
40	BG	154	C	O3'-P	-6.37	1.51	1.61
64	Be	113	VAL	N-CA	-6.37	1.38	1.46
65	Bf	416	PHE	CA-C	-6.37	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	903	G	C4'-C3'	-6.37	1.43	1.52
85	AA	1844	A	C1'-N9	-6.37	1.38	1.48
85	AA	2170	G	O3'-P	-6.37	1.51	1.61
34	BA	1072	U	C1'-N1	-6.37	1.38	1.48
47	BN	128	LEU	CA-C	-6.37	1.44	1.52
64	Be	153	GLY	CA-C	-6.37	1.42	1.51
69	Bj	90	ASP	N-CA	-6.37	1.38	1.46
77	Br	353	HIS	CA-C	-6.37	1.45	1.52
85	AA	70	U	C1'-N1	-6.37	1.38	1.48
85	AA	769	C	P-O5'	-6.37	1.50	1.59
34	BA	727	G	O3'-P	-6.37	1.51	1.61
35	BB	654	C	P-O5'	-6.37	1.50	1.59
73	Bn	25	ASN	N-CA	-6.37	1.38	1.46
85	AA	24	U	O3'-P	-6.37	1.51	1.61
34	BA	656	U	O3'-P	-6.37	1.51	1.61
47	BN	33	GLN	C-O	-6.37	1.18	1.24
67	Bh	135	ILE	N-CA	-6.37	1.38	1.46
85	AA	1149	A	C3'-C2'	-6.37	1.43	1.52
2	A1	163	GLU	N-CA	-6.36	1.37	1.45
5	A4	47	HIS	CA-C	-6.36	1.44	1.52
34	BA	1192	A	C2'-C1'	-6.36	1.43	1.53
34	BA	1490	U	C4'-C3'	6.36	1.62	1.52
35	BB	485	U	P-O5'	-6.36	1.50	1.59
35	BB	1385	C	C3'-C2'	-6.36	1.43	1.52
36	BC	51	A	O3'-P	-6.36	1.51	1.61
39	BF	26	U	O3'-P	-6.36	1.51	1.61
42	BI	64	LEU	CA-C	-6.36	1.44	1.52
44	BK	177	LEU	CA-C	-6.36	1.43	1.52
62	Bc	108	ARG	N-CA	-6.36	1.38	1.46
81	Bv	99	THR	C-N	-6.36	1.27	1.34
34	BA	820	C	C1'-N1	-6.36	1.39	1.48
34	BA	1193	A	P-O5'	-6.36	1.50	1.59
37	BD	74	A	C2'-C1'	-6.36	1.43	1.53
47	BN	36	GLN	N-CA	-6.36	1.38	1.46
85	AA	513	G	O3'-P	-6.36	1.51	1.61
85	AA	2129	U	P-O5'	-6.36	1.50	1.59
34	BA	92	G	C2'-C1'	-6.36	1.43	1.53
34	BA	365	A	P-O5'	-6.36	1.50	1.59
34	BA	730	C	C2'-C1'	-6.36	1.43	1.53
35	BB	704	G	P-O5'	-6.36	1.50	1.59
35	BB	1088	C	O3'-P	-6.36	1.51	1.61
36	BC	97	U	C4'-O4'	-6.36	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	BO	45	LEU	CA-C	-6.36	1.44	1.52
85	AA	679	A	O3'-P	-6.36	1.51	1.61
85	AA	1566	A	P-O5'	-6.36	1.50	1.59
34	BA	1696	G	C1'-N9	-6.36	1.38	1.48
35	BB	1395	G	O3'-P	-6.36	1.51	1.61
19	AK	134	LYS	N-CA	-6.36	1.38	1.46
34	BA	845	U	O3'-P	-6.36	1.51	1.61
35	BB	1364	C	C1'-N1	-6.36	1.39	1.48
42	BI	44	PHE	N-CA	-6.36	1.38	1.46
45	BL	45	GLU	CA-C	-6.36	1.45	1.52
65	Bf	149	GLY	CA-C	-6.36	1.44	1.52
85	AA	352	G	C2'-C1'	-6.36	1.43	1.53
11	AC	177	ASN	N-CA	-6.36	1.37	1.46
35	BB	806	U	O3'-P	-6.36	1.51	1.61
36	BC	122	A	C1'-N9	-6.36	1.38	1.48
47	BN	125	MET	N-CA	-6.36	1.38	1.46
84	By	178	TYR	CA-C	-6.36	1.44	1.52
85	AA	317	A	C1'-N9	-6.36	1.38	1.48
85	AA	445	U	O3'-P	-6.36	1.51	1.61
85	AA	2223	C	P-O5'	-6.36	1.50	1.59
34	BA	111	U	C2'-C1'	-6.35	1.43	1.53
34	BA	344	G	C1'-N9	-6.35	1.38	1.48
18	AJ	102	VAL	CA-CB	-6.35	1.46	1.54
34	BA	617	G	C1'-N9	-6.35	1.38	1.48
35	BB	51	U	C2'-C1'	-6.35	1.43	1.53
36	BC	99	U	O3'-P	-6.35	1.51	1.61
54	BU	108	LYS	N-CA	-6.35	1.38	1.46
60	Ba	106	LYS	CA-C	-6.35	1.44	1.52
82	Bw	55	LEU	CA-C	-6.35	1.44	1.52
34	BA	112	C	C3'-C2'	-6.35	1.43	1.52
34	BA	1163	G	C2'-C1'	-6.35	1.43	1.53
35	BB	1386	C	P-O5'	-6.35	1.50	1.59
62	Bc	101	ASP	N-CA	-6.35	1.38	1.46
2	A1	176	LYS	CA-C	-6.35	1.44	1.52
34	BA	106	U	C3'-C2'	-6.35	1.43	1.52
34	BA	1307	U	P-O5'	-6.35	1.50	1.59
35	BB	497	C	O3'-P	-6.35	1.51	1.61
78	Bs	35	ARG	CD-NE	6.35	1.55	1.46
34	BA	567	U	C2'-C1'	-6.35	1.43	1.53
34	BA	610	A	O3'-P	-6.35	1.51	1.61
34	BA	747	G	C1'-N9	-6.35	1.38	1.48
34	BA	1172	C	C1'-N1	-6.35	1.39	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1405	A	O3'-P	-6.35	1.51	1.61
35	BB	133	G	O3'-P	-6.35	1.51	1.61
35	BB	584	A	O3'-P	-6.35	1.51	1.61
36	BC	135	A	O3'-P	-6.35	1.51	1.61
37	BD	83	A	P-O5'	-6.35	1.50	1.59
85	AA	447	C	C3'-C2'	-6.35	1.43	1.52
85	AA	1271	U	P-O5'	-6.35	1.50	1.59
34	BA	1214	U	O3'-P	-6.35	1.51	1.61
44	BK	19	LYS	CA-C	-6.35	1.44	1.52
5	A4	118	GLN	CA-C	-6.34	1.44	1.52
34	BA	809	U	P-O5'	-6.34	1.50	1.59
34	BA	1108	U	P-O5'	-6.34	1.50	1.59
35	BB	1155	U	C1'-N1	-6.34	1.39	1.48
36	BC	39	G	O4'-C1'	-6.34	1.32	1.42
84	By	146	GLY	CA-C	-6.34	1.45	1.52
85	AA	409	C	O3'-P	-6.34	1.51	1.61
85	AA	1259	U	O3'-P	-6.34	1.51	1.61
66	Bg	28	VAL	CA-C	-6.34	1.44	1.52
77	Br	226	ASP	CA-C	-6.34	1.44	1.53
25	AR	17	TYR	C-N	-6.34	1.28	1.33
35	BB	22	A	C1'-N9	-6.34	1.38	1.48
35	BB	131	A	P-O5'	-6.34	1.50	1.59
85	AA	1199	C	C1'-N1	-6.34	1.39	1.48
85	AA	1228	A	C3'-C2'	-6.34	1.43	1.52
34	BA	364	C	O3'-P	-6.34	1.51	1.61
34	BA	370	U	C3'-C2'	-6.34	1.43	1.52
34	BA	1057	C	O3'-P	-6.34	1.51	1.61
34	BA	1635	A	P-O5'	-6.34	1.50	1.59
35	BB	406	A	O3'-P	-6.34	1.51	1.61
35	BB	1299	G	O3'-P	-6.34	1.51	1.61
53	BT	141	HIS	N-CA	-6.34	1.38	1.46
34	BA	1430	C	C2'-C1'	-6.34	1.43	1.53
52	BS	47	MET	N-CA	-6.34	1.38	1.46
34	BA	91	C	C1'-N1	-6.34	1.39	1.48
35	BB	1053	G	C3'-C2'	-6.34	1.43	1.52
35	BB	1239	A	C1'-N9	-6.34	1.38	1.48
49	BP	167	ALA	CA-C	-6.34	1.44	1.52
85	AA	194	U	P-O5'	-6.34	1.50	1.59
85	AA	321	C	C2'-C1'	-6.34	1.43	1.53
85	AA	539	A	O3'-P	-6.34	1.51	1.61
85	AA	1262	A	C1'-N9	-6.34	1.38	1.48
15	AG	121	ARG	N-CA	-6.33	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	695	A	C1'-N9	-6.33	1.38	1.48
34	BA	818	G	C3'-C2'	-6.33	1.43	1.52
35	BB	1181	A	O3'-P	-6.33	1.51	1.61
41	BH	133	U	C4'-C3'	-6.33	1.43	1.52
71	Bl	75	TYR	CA-C	-6.33	1.43	1.52
72	Bm	62	GLU	CA-C	-6.33	1.44	1.52
61	Bb	135	ARG	CA-C	-6.33	1.44	1.52
70	Bk	96	ARG	N-CA	-6.33	1.38	1.46
82	Bw	47	ALA	N-CA	-6.33	1.39	1.46
85	AA	1137	C	P-O5'	-6.33	1.50	1.59
85	AA	1171	C	C2'-C1'	-6.33	1.43	1.53
85	AA	1482	C	O3'-P	-6.33	1.51	1.61
34	BA	1028	A	C2'-C1'	-6.33	1.43	1.53
34	BA	1743	U	C2'-C1'	-6.33	1.43	1.53
35	BB	431	U	O4'-C1'	-6.33	1.32	1.41
35	BB	811	C	C2'-C1'	-6.33	1.43	1.53
85	AA	440	U	C1'-N1	-6.33	1.39	1.48
85	AA	745	C	P-O5'	-6.33	1.50	1.59
34	BA	1601	C	C1'-N1	-6.33	1.39	1.48
35	BB	1114	A	P-O5'	-6.33	1.50	1.59
73	Bn	35	ALA	CA-C	-6.33	1.44	1.52
20	AL	25	ASN	CA-C	-6.33	1.45	1.52
34	BA	739	A	C4'-O4'	-6.33	1.36	1.45
34	BA	903	C	C2'-C1'	-6.33	1.43	1.53
35	BB	596	C	C2'-C1'	-6.33	1.43	1.53
37	BD	31	U	P-O5'	-6.33	1.50	1.59
38	BE	89	G	C3'-C2'	-6.33	1.43	1.52
40	BG	34	A	C3'-C2'	-6.33	1.43	1.52
85	AA	85	U	P-O5'	-6.33	1.50	1.59
34	BA	452	A	P-O5'	-6.33	1.50	1.59
34	BA	755	G	C1'-N9	-6.33	1.38	1.48
35	BB	1430	G	C4'-C3'	-6.33	1.43	1.52
42	BI	76	VAL	CA-C	-6.33	1.44	1.52
34	BA	1072	U	C3'-C2'	-6.33	1.43	1.52
35	BB	879	G	C2'-C1'	-6.33	1.43	1.53
37	BD	99	G	O3'-P	-6.33	1.51	1.61
38	BE	123	A	N9-C4	-6.33	1.25	1.37
75	Bp	14	ILE	CA-C	-6.33	1.44	1.52
85	AA	1117	G	O4'-C1'	-6.33	1.32	1.41
6	A5	188	ILE	CA-CB	-6.32	1.46	1.54
34	BA	1442	A	O3'-P	-6.32	1.51	1.61
34	BA	1557	G	O3'-P	-6.32	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1311	G	C3'-C2'	-6.32	1.43	1.52
36	BC	68	A	O3'-P	-6.32	1.51	1.61
37	BD	32	A	P-O5'	-6.32	1.50	1.59
37	BD	108	G	O3'-P	-6.32	1.51	1.61
41	BH	113	G	O3'-P	-6.32	1.51	1.61
85	AA	259	A	P-O5'	-6.32	1.50	1.59
85	AA	1230	U	C1'-N1	-6.32	1.39	1.48
34	BA	628	U	C1'-N1	-6.32	1.38	1.47
35	BB	881	G	P-O5'	-6.32	1.50	1.59
36	BC	6	G	N9-C4	-6.32	1.25	1.38
37	BD	13	A	C5'-C4'	-6.32	1.41	1.51
85	AA	994	A	P-O5'	-6.32	1.50	1.59
2	A1	232	VAL	C-N	-6.32	1.28	1.33
13	AE	155	VAL	CA-C	-6.32	1.44	1.52
34	BA	649	A	P-O5'	-6.32	1.50	1.59
34	BA	1533	G	O3'-P	-6.32	1.51	1.61
34	BA	1582	C	C1'-N1	-6.32	1.38	1.47
35	BB	1389	C	P-O5'	-6.32	1.50	1.59
38	BE	105	A	P-O5'	-6.32	1.50	1.59
49	BP	113	LEU	N-CA	-6.32	1.38	1.46
60	Ba	120	ASN	CA-C	-6.32	1.44	1.52
64	Be	102	LEU	CA-C	-6.32	1.46	1.52
85	AA	368	C	C3'-C2'	-6.32	1.43	1.52
85	AA	459	C	C2'-C1'	-6.32	1.43	1.53
85	AA	913	U	C2'-C1'	-6.32	1.43	1.53
4	A3	199	ILE	N-CA	-6.32	1.38	1.46
85	AA	869	A	C1'-N9	-6.32	1.38	1.48
85	AA	2196	G	C1'-N9	-6.32	1.38	1.48
6	A5	80	ASP	CA-C	-6.32	1.45	1.52
23	AP	250	THR	N-CA	-6.32	1.38	1.46
34	BA	157	U	O3'-P	-6.32	1.51	1.61
37	BD	60	C	P-O5'	-6.32	1.50	1.59
77	Br	319	GLY	CA-C	-6.32	1.44	1.52
84	By	183	THR	CA-C	-6.32	1.45	1.53
85	AA	465	A	P-O5'	-6.32	1.50	1.59
85	AA	1437	G	C1'-N9	-6.32	1.38	1.48
34	BA	710	A	C1'-N9	-6.32	1.38	1.48
35	BB	679	G	C2'-C1'	-6.32	1.43	1.53
35	BB	1430	G	C2'-C1'	-6.32	1.43	1.53
85	AA	2128	G	O3'-P	-6.32	1.51	1.61
34	BA	817	U	C1'-N1	-6.31	1.39	1.48
34	BA	1602	A	O3'-P	-6.31	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	BF	58	U	C2'-C1'	-6.31	1.43	1.53
40	BG	72	G	O3'-P	-6.31	1.51	1.61
85	AA	1617	G	O3'-P	-6.31	1.51	1.61
34	BA	654	C	P-O5'	-6.31	1.50	1.59
34	BA	839	U	C3'-C2'	-6.31	1.43	1.52
34	BA	1438	C	O3'-P	-6.31	1.51	1.61
34	BA	1839	G	C1'-N9	-6.31	1.38	1.48
35	BB	570	A	C3'-C2'	-6.31	1.43	1.52
35	BB	1021	C	C2'-C1'	-6.31	1.43	1.53
35	BB	1314	G	C5'-C4'	-6.31	1.41	1.51
35	BB	1385	C	P-O5'	-6.31	1.50	1.59
35	BB	1427	A	C1'-N9	-6.31	1.38	1.48
36	BC	15	G	C1'-N9	-6.31	1.37	1.47
40	BG	157	A	O3'-P	-6.31	1.51	1.61
34	BA	713	C	C3'-C2'	-6.31	1.43	1.52
35	BB	1427	A	P-O5'	-6.31	1.50	1.59
34	BA	57	A	C1'-N9	-6.31	1.38	1.48
34	BA	732	A	C2'-C1'	-6.31	1.43	1.53
35	BB	597	C	O3'-P	-6.31	1.51	1.61
35	BB	728	A	C1'-N9	-6.31	1.37	1.47
40	BG	46	G	C1'-N9	-6.31	1.38	1.48
77	Br	95	CYS	CA-C	-6.31	1.44	1.52
34	BA	248	G	C5'-C4'	6.31	1.60	1.51
34	BA	1013	A	O3'-P	-6.31	1.51	1.61
34	BA	1246	G	O3'-P	-6.31	1.51	1.61
36	BC	2	A	C2'-C1'	-6.31	1.43	1.53
67	Bh	172	HIS	CA-C	-6.31	1.44	1.52
85	AA	276	C	C2'-C1'	-6.31	1.43	1.53
29	AV	14	PRO	CA-C	-6.31	1.43	1.52
34	BA	99	G	C3'-C2'	-6.31	1.43	1.52
34	BA	307	C	C1'-N1	-6.31	1.39	1.48
34	BA	1203	G	C1'-N9	-6.31	1.38	1.48
35	BB	1297	G	O3'-P	-6.31	1.51	1.61
35	BB	1432	U	O3'-P	-6.31	1.51	1.61
64	Be	221	HIS	CA-C	-6.31	1.44	1.52
85	AA	1224	C	C1'-N1	-6.31	1.39	1.48
33	AZ	44	ILE	CA-C	-6.30	1.46	1.52
34	BA	946	A	C4'-O4'	-6.30	1.36	1.45
34	BA	1019	C	O3'-P	-6.30	1.51	1.61
34	BA	1054	U	P-O5'	-6.30	1.50	1.59
34	BA	1171	C	P-O5'	-6.30	1.50	1.59
35	BB	27	C	C1'-N1	-6.30	1.39	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1123	A	C1'-N9	-6.30	1.37	1.47
41	BH	13	C	C1'-N1	-6.30	1.39	1.48
62	Bc	13	ARG	N-CA	6.30	1.54	1.46
85	AA	105	A	C3'-C2'	-6.30	1.43	1.52
85	AA	866	U	C3'-C2'	-6.30	1.43	1.52
34	BA	1099	U	C3'-C2'	-6.30	1.43	1.52
34	BA	1443	U	C4'-O4'	-6.30	1.36	1.45
50	BQ	131	ARG	CA-C	-6.30	1.45	1.52
53	BT	151	LYS	CA-C	-6.30	1.44	1.52
85	AA	718	C	P-O5'	-6.30	1.50	1.59
85	AA	1199	C	C2'-C1'	-6.30	1.43	1.53
85	AA	2182	A	P-O5'	-6.30	1.50	1.59
4	A3	2	LYS	N-CA	-6.30	1.38	1.46
34	BA	1077	G	P-O5'	-6.30	1.50	1.59
34	BA	1678	U	P-O5'	-6.30	1.50	1.59
36	BC	31	A	P-O5'	-6.30	1.50	1.59
57	BX	129	THR	CA-C	-6.30	1.44	1.52
65	Bf	94	LEU	CA-C	-6.30	1.44	1.52
83	Bx	254	ARG	CA-C	-6.30	1.44	1.52
84	By	75	VAL	CA-CB	-6.30	1.45	1.54
85	AA	441	C	C2'-C1'	-6.30	1.43	1.53
38	BE	95	G	P-O5'	-6.30	1.50	1.59
77	Br	61	HIS	CA-C	-6.30	1.44	1.52
85	AA	428	G	O3'-P	-6.30	1.51	1.61
2	A1	213	HIS	CA-C	-6.30	1.45	1.52
4	A3	96	ARG	N-CA	-6.30	1.38	1.46
13	AE	48	ILE	CA-C	-6.30	1.45	1.53
34	BA	307	C	C2'-C1'	-6.30	1.44	1.53
34	BA	816	G	C2'-C1'	-6.30	1.44	1.53
34	BA	1642	A	O3'-P	-6.30	1.51	1.61
35	BB	698	C	C1'-N1	-6.30	1.39	1.48
39	BF	57	C	C3'-C2'	-6.30	1.43	1.52
85	AA	162	A	C2'-C1'	-6.30	1.43	1.53
85	AA	452	A	C2'-C1'	-6.30	1.44	1.53
85	AA	493	A	C2'-C1'	-6.30	1.44	1.53
34	BA	495	A	O3'-P	-6.29	1.51	1.61
40	BG	120	U	P-O5'	-6.29	1.50	1.59
61	Bb	114	HIS	CA-C	-6.29	1.46	1.52
85	AA	527	A	C2'-C1'	-6.29	1.44	1.53
85	AA	2041	G	O3'-P	-6.29	1.51	1.61
34	BA	1846	G	C3'-C2'	-6.29	1.43	1.52
35	BB	1294	C	C4'-C3'	-6.29	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BC	145	G	C1'-N9	-6.29	1.38	1.48
37	BD	27	A	P-O5'	-6.29	1.50	1.59
38	BE	32	U	C4'-O4'	-6.29	1.36	1.45
41	BH	113	G	C2'-C1'	-6.29	1.44	1.53
49	BP	142	VAL	CA-CB	-6.29	1.47	1.54
50	BQ	53	ILE	CA-CB	-6.29	1.46	1.54
34	BA	1006	G	C1'-N9	-6.29	1.37	1.47
34	BA	1262	A	C2'-C1'	-6.29	1.44	1.53
41	BH	25	A	O3'-P	-6.29	1.51	1.61
85	AA	633	C	O3'-P	-6.29	1.51	1.61
2	A1	87	VAL	N-CA	-6.29	1.38	1.46
63	Bd	31	ASN	CA-C	-6.29	1.44	1.53
66	Bg	52	LEU	CA-C	-6.29	1.44	1.52
85	AA	288	G	P-O5'	-6.29	1.50	1.59
85	AA	2194	U	O3'-P	-6.29	1.51	1.61
25	AR	14	VAL	CA-C	-6.29	1.44	1.52
34	BA	805	A	C2'-C1'	-6.29	1.44	1.53
35	BB	419	G	O3'-P	-6.29	1.51	1.61
35	BB	635	A	O3'-P	-6.29	1.51	1.61
42	BI	102	ILE	CA-CB	-6.29	1.46	1.54
50	BQ	110	LYS	N-CA	-6.29	1.38	1.46
50	BQ	119	ALA	N-CA	-6.29	1.38	1.46
85	AA	2181	G	O4'-C1'	-6.29	1.32	1.41
36	BC	74	U	P-O5'	-6.29	1.50	1.59
36	BC	79	A	C1'-N9	-6.29	1.38	1.48
34	BA	372	U	O3'-P	-6.29	1.51	1.61
83	Bx	151	GLU	CA-C	-6.29	1.44	1.52
85	AA	510	A	O5'-C5'	6.29	1.51	1.42
85	AA	1216	A	C2'-C1'	-6.29	1.44	1.53
7	A6	95	VAL	CA-CB	-6.28	1.46	1.54
11	AC	75	HIS	CB-CG	6.28	1.58	1.50
34	BA	1204	U	P-O5'	-6.28	1.50	1.59
37	BD	78	C	O3'-P	-6.28	1.51	1.61
40	BG	133	C	P-O5'	-6.28	1.50	1.59
50	BQ	107	LEU	CA-C	-6.28	1.45	1.53
56	BW	51	LEU	C-N	-6.28	1.25	1.33
77	Br	38	PHE	CA-C	-6.28	1.44	1.52
85	AA	995	G	O3'-P	-6.28	1.51	1.61
34	BA	203	U	P-O5'	-6.28	1.50	1.59
34	BA	521	C	C1'-N1	-6.28	1.39	1.48
66	Bg	81	TYR	N-CA	-6.28	1.38	1.46
85	AA	331	G	P-O5'	-6.28	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	AJ	115	GLU	CA-C	-6.28	1.44	1.52
34	BA	1215	U	C1'-N1	-6.28	1.39	1.48
34	BA	1331	G	C2'-C1'	-6.28	1.44	1.53
35	BB	1300	U	P-O5'	-6.28	1.50	1.59
36	BC	18	G	N9-C4	-6.28	1.25	1.38
69	Bj	80	GLY	CA-C	-6.28	1.43	1.51
74	Bo	60	CYS	CA-C	-6.28	1.44	1.52
80	Bu	215	LYS	CA-C	-6.28	1.46	1.53
85	AA	210	G	O3'-P	-6.28	1.51	1.61
85	AA	878	U	C2'-C1'	-6.28	1.44	1.53
4	A3	17	GLU	CA-C	-6.28	1.45	1.52
34	BA	1704	G	P-O5'	-6.28	1.50	1.59
35	BB	1546	C	C3'-C2'	-6.28	1.43	1.52
77	Br	134	ALA	CA-C	-6.28	1.44	1.52
85	AA	35	U	O3'-P	-6.28	1.51	1.61
34	BA	885	A	C1'-N9	-6.28	1.37	1.47
37	BD	114	U	P-O5'	-6.28	1.50	1.59
40	BG	153	C	O3'-P	-6.28	1.51	1.61
47	BN	35	ALA	N-CA	-6.28	1.38	1.46
26	AS	131	TYR	N-CA	-6.28	1.39	1.46
34	BA	325	A	C2'-C1'	-6.28	1.44	1.53
34	BA	887	U	C3'-C2'	-6.28	1.43	1.52
34	BA	929	A	O3'-P	-6.28	1.51	1.61
34	BA	1318	G	C2'-C1'	-6.28	1.44	1.53
35	BB	104	G	C2'-C1'	-6.28	1.44	1.53
35	BB	432	C	C4'-O4'	-6.28	1.36	1.45
35	BB	901	U	P-O5'	-6.28	1.50	1.59
35	BB	1406	C	C3'-C2'	-6.28	1.43	1.52
36	BC	56	G	C1'-N9	-6.28	1.38	1.48
53	BT	93	ASP	N-CA	-6.28	1.38	1.46
70	Bk	63	ASN	CA-C	-6.28	1.44	1.52
85	AA	487	G	O3'-P	-6.28	1.51	1.61
85	AA	1445	C	O3'-P	-6.28	1.51	1.61
85	AA	1586	C	C2'-C1'	-6.28	1.44	1.53
72	Bm	100	GLU	N-CA	-6.27	1.38	1.46
85	AA	1700	C	O3'-P	-6.27	1.51	1.61
85	AA	2123	U	C3'-C2'	-6.27	1.43	1.52
34	BA	378	C	C1'-N1	-6.27	1.39	1.48
34	BA	1640	G	O3'-P	-6.27	1.51	1.61
35	BB	1199	A	C3'-C2'	-6.27	1.43	1.52
41	BH	24	U	C2'-C1'	-6.27	1.43	1.53
42	BI	70	CYS	CA-C	-6.27	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	90	G	O3'-P	-6.27	1.51	1.61
34	BA	1714	A	C1'-N9	-6.27	1.38	1.48
34	BA	1809	G	C4'-C3'	6.27	1.61	1.52
35	BB	1115	G	P-O5'	-6.27	1.50	1.59
18	AJ	34	VAL	CA-CB	-6.27	1.46	1.54
23	AP	130	GLU	N-CA	-6.27	1.38	1.46
34	BA	178	C	C1'-N1	-6.27	1.39	1.48
34	BA	815	C	C2'-C1'	-6.27	1.44	1.53
35	BB	705	C	P-O5'	-6.27	1.50	1.59
38	BE	13	A	C1'-N9	-6.27	1.38	1.48
39	BF	23	G	C5'-C4'	6.27	1.60	1.51
40	BG	152	G	C5'-C4'	-6.27	1.41	1.51
41	BH	72	G	P-O5'	6.27	1.69	1.59
45	BL	111	PHE	CA-C	-6.27	1.45	1.52
85	AA	277	G	C1'-N9	-6.27	1.38	1.48
85	AA	1879	U	P-O5'	-6.27	1.50	1.59
85	AA	2217	A	C1'-N9	-6.27	1.38	1.48
34	BA	114	U	C2'-C1'	-6.27	1.44	1.53
35	BB	39	C	C3'-C2'	-6.27	1.43	1.52
35	BB	83	G	O3'-P	-6.27	1.51	1.61
38	BE	59	U	O3'-P	-6.27	1.51	1.61
81	Bv	43	PHE	CA-C	-6.27	1.44	1.53
85	AA	1090	A	O3'-P	-6.27	1.51	1.61
85	AA	1272	G	C2'-C1'	-6.27	1.44	1.53
85	AA	2235	C	O3'-P	-6.27	1.51	1.61
34	BA	1841	A	P-O5'	-6.27	1.50	1.59
37	BD	41	G	P-O5'	-6.27	1.50	1.59
38	BE	53	U	O3'-P	-6.27	1.51	1.61
40	BG	80	G	C1'-N9	-6.27	1.38	1.48
62	Bc	129	GLU	N-CA	-6.27	1.38	1.46
85	AA	1509	A	C2'-C1'	-6.27	1.44	1.53
34	BA	58	A	P-O5'	-6.26	1.50	1.59
35	BB	812	G	C1'-N9	-6.26	1.38	1.48
35	BB	1183	U	C2'-C1'	-6.26	1.44	1.53
35	BB	1418	C	O3'-P	-6.26	1.51	1.61
36	BC	126	G	P-O5'	-6.26	1.50	1.59
40	BG	119	A	P-O5'	-6.26	1.50	1.59
75	Bp	54	ASP	N-CA	-6.26	1.38	1.46
85	AA	338	G	P-O5'	-6.26	1.50	1.59
35	BB	71	A	O3'-P	-6.26	1.51	1.61
37	BD	81	C	C1'-N1	-6.26	1.39	1.48
37	BD	105	G	O3'-P	-6.26	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BN	129	VAL	CA-CB	-6.26	1.46	1.54
69	Bj	10	ARG	CA-C	-6.26	1.44	1.52
85	AA	707	U	P-O5'	-6.26	1.50	1.59
11	AC	215	ALA	CA-C	-6.26	1.44	1.52
34	BA	1567	G	P-O5'	-6.26	1.50	1.59
35	BB	30	A	O3'-P	-6.26	1.51	1.61
35	BB	64	U	C2'-C1'	-6.26	1.44	1.53
35	BB	377	A	C1'-N9	-6.26	1.38	1.48
35	BB	1393	C	O3'-P	-6.26	1.51	1.61
65	Bf	184	ARG	N-CA	-6.26	1.38	1.46
85	AA	631	G	C1'-N9	-6.26	1.38	1.48
11	AC	129	LEU	N-CA	-6.26	1.38	1.46
34	BA	334	G	O3'-P	-6.26	1.51	1.61
34	BA	572	G	C3'-O3'	6.26	1.51	1.42
34	BA	1080	U	C4'-C3'	6.26	1.61	1.52
34	BA	1119	A	C5'-C4'	-6.26	1.42	1.51
35	BB	1509	G	C2'-C1'	-6.26	1.44	1.53
85	AA	2184	A	P-O5'	-6.26	1.50	1.59
31	AX	44	ARG	CA-C	-6.26	1.44	1.52
34	BA	1520	A	C1'-N9	-6.26	1.38	1.48
35	BB	115	A	C4'-O4'	-6.26	1.36	1.45
35	BB	366	G	C2'-C1'	-6.26	1.44	1.53
59	BZ	78	HIS	CB-CG	-6.26	1.41	1.50
64	Be	152	SER	CA-C	-6.26	1.44	1.52
77	Br	333	GLN	N-CA	-6.26	1.38	1.46
34	BA	679	U	O3'-P	-6.26	1.51	1.61
72	Bm	65	VAL	CA-CB	-6.26	1.46	1.54
85	AA	835	C	O3'-P	-6.26	1.51	1.61
13	AE	126	HIS	CA-C	-6.25	1.44	1.52
35	BB	768	A	C4'-O4'	6.25	1.55	1.45
85	AA	2236	U	O3'-P	-6.25	1.51	1.61
23	AP	258	SER	CA-C	-6.25	1.44	1.52
34	BA	610	A	C4'-C3'	-6.25	1.43	1.52
34	BA	695	A	O3'-P	-6.25	1.51	1.61
34	BA	1664	C	O3'-P	-6.25	1.51	1.61
38	BE	39	U	C3'-C2'	-6.25	1.43	1.52
82	Bw	199	ILE	CA-C	-6.25	1.45	1.52
84	By	29	LYS	CA-C	-6.25	1.44	1.52
85	AA	1690	A	O3'-P	-6.25	1.51	1.61
85	AA	1822	G	C2'-C1'	-6.25	1.44	1.53
15	AG	67	THR	CA-C	-6.25	1.45	1.52
15	AG	122	ILE	N-CA	-6.25	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	244	A	C1'-N9	-6.25	1.38	1.48
34	BA	338	U	P-O5'	-6.25	1.50	1.59
34	BA	617	G	C2'-C1'	-6.25	1.44	1.53
34	BA	1417	C	C3'-C2'	-6.25	1.43	1.52
35	BB	649	A	C4'-C3'	-6.25	1.43	1.52
35	BB	1235	A	C1'-N9	-6.25	1.38	1.48
37	BD	35	C	C2'-C1'	-6.25	1.44	1.53
37	BD	62	A	O3'-P	-6.25	1.51	1.61
40	BG	38	A	C3'-C2'	-6.25	1.43	1.52
66	Bg	25	ILE	CA-CB	-6.25	1.45	1.54
34	BA	181	G	C1'-N9	-6.25	1.38	1.48
35	BB	1244	U	C1'-N1	-6.25	1.39	1.48
36	BC	125	A	O3'-P	-6.25	1.51	1.61
40	BG	68	U	O3'-P	-6.25	1.51	1.61
85	AA	355	G	C1'-N9	-6.25	1.38	1.48
30	AW	10	TYR	C-N	-6.25	1.25	1.33
35	BB	690	C	O3'-P	-6.25	1.51	1.61
41	BH	19	G	C3'-C2'	-6.25	1.43	1.52
48	BO	194	ARG	CA-C	-6.25	1.44	1.52
35	BB	493	U	C2'-C1'	-6.25	1.44	1.53
35	BB	869	G	C2'-C1'	-6.25	1.43	1.53
39	BF	7	G	O3'-P	-6.25	1.51	1.61
72	Bm	81	CYS	N-CA	-6.25	1.38	1.46
85	AA	662	U	C1'-N1	-6.25	1.39	1.48
34	BA	1845	G	N9-C4	-6.25	1.25	1.38
35	BB	1261	U	O3'-P	-6.25	1.51	1.61
37	BD	98	G	C1'-N9	-6.25	1.38	1.48
58	BY	47	LYS	CA-C	-6.25	1.45	1.53
34	BA	110	C	C2'-C1'	-6.24	1.44	1.53
34	BA	713	C	O3'-P	-6.24	1.51	1.61
34	BA	1193	A	C1'-N9	-6.24	1.38	1.48
34	BA	1307	U	C1'-N1	6.24	1.56	1.47
34	BA	1425	G	O3'-P	-6.24	1.51	1.61
35	BB	976	U	C1'-N1	-6.24	1.39	1.48
72	Bm	84	ARG	CA-C	-6.24	1.44	1.52
85	AA	98	U	O3'-P	-6.24	1.51	1.61
85	AA	661	C	O3'-P	-6.24	1.51	1.61
35	BB	73	G	O4'-C1'	-6.24	1.32	1.41
37	BD	7	G	O3'-P	-6.24	1.51	1.61
37	BD	82	G	C2'-C1'	-6.24	1.44	1.53
49	BP	18	GLY	C-N	-6.24	1.25	1.33
70	Bk	80	ARG	CA-C	-6.24	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A1	199	PRO	CA-C	-6.24	1.45	1.52
34	BA	839	U	O3'-P	-6.24	1.51	1.61
35	BB	54	U	C1'-N1	-6.24	1.39	1.48
35	BB	1185	G	C2'-C1'	-6.24	1.44	1.53
83	Bx	52	ASP	N-CA	6.24	1.54	1.46
85	AA	1700	C	C2'-C1'	-6.24	1.44	1.53
16	AH	52	GLY	CA-C	-6.24	1.44	1.51
34	BA	42	A	C1'-N9	-6.24	1.38	1.48
34	BA	1840	C	C3'-C2'	-6.24	1.43	1.52
35	BB	810	G	C2'-C1'	-6.24	1.44	1.53
36	BC	66	G	C2'-C1'	-6.24	1.44	1.53
36	BC	136	G	C2'-C1'	-6.24	1.44	1.53
41	BH	4	U	C1'-N1	-6.24	1.39	1.48
85	AA	1932	C	C5'-C4'	6.24	1.60	1.51
85	AA	2005	U	C4'-C3'	-6.24	1.43	1.52
34	BA	849	G	C1'-N9	-6.24	1.38	1.48
34	BA	1726	U	C5'-C4'	-6.24	1.42	1.51
35	BB	402	G	O3'-P	-6.24	1.51	1.61
35	BB	1270	C	P-O5'	-6.24	1.50	1.59
37	BD	21	G	O3'-P	-6.24	1.51	1.61
85	AA	94	C	P-O5'	-6.24	1.50	1.59
85	AA	166	C	O3'-P	-6.24	1.51	1.61
85	AA	1856	G	C1'-N9	-6.24	1.38	1.48
34	BA	498	A	C3'-C2'	-6.24	1.43	1.52
35	BB	1369	A	P-O5'	-6.24	1.50	1.59
85	AA	355	G	O3'-P	-6.24	1.51	1.61
85	AA	856	G	C2'-C1'	-6.24	1.44	1.53
85	AA	2135	A	P-O5'	-6.24	1.50	1.59
34	BA	405	C	C1'-N1	-6.23	1.39	1.48
34	BA	476	U	P-O5'	-6.23	1.50	1.59
34	BA	494	A	C2'-C1'	-6.23	1.44	1.53
35	BB	768	A	C2'-C1'	-6.23	1.43	1.53
36	BC	127	C	C2'-C1'	-6.23	1.44	1.53
40	BG	16	G	P-O5'	-6.23	1.50	1.59
66	Bg	67	ILE	N-CA	-6.23	1.39	1.46
85	AA	42	G	O3'-P	-6.23	1.51	1.61
34	BA	410	G	C2'-C1'	-6.23	1.44	1.53
34	BA	706	C	C2'-C1'	-6.23	1.44	1.53
34	BA	1544	G	C1'-N9	-6.23	1.38	1.48
34	BA	1611	A	O3'-P	-6.23	1.51	1.61
82	Bw	46	ALA	CA-C	-6.23	1.44	1.52
85	AA	962	U	C1'-N1	-6.23	1.39	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1248	U	C4'-C3'	-6.23	1.43	1.52
34	BA	398	G	N9-C4	-6.23	1.25	1.38
34	BA	401	A	C4'-C3'	-6.23	1.43	1.52
34	BA	746	C	O3'-P	-6.23	1.51	1.61
35	BB	86	A	C4'-C3'	-6.23	1.43	1.52
35	BB	1226	G	N9-C4	-6.23	1.25	1.38
37	BD	116	C	O3'-P	-6.23	1.51	1.61
38	BE	124	G	P-O5'	-6.23	1.50	1.59
50	BQ	40	GLN	N-CA	-6.23	1.38	1.46
64	Be	183	GLY	CA-C	-6.23	1.45	1.52
81	Bv	34	THR	CA-C	-6.23	1.44	1.53
35	BB	614	U	C3'-C2'	-6.23	1.43	1.52
40	BG	156	G	C1'-N9	-6.23	1.38	1.48
61	Bb	37	GLY	CA-C	-6.23	1.45	1.52
33	AZ	39	GLN	CA-C	-6.23	1.45	1.52
34	BA	27	G	C4'-C3'	-6.23	1.43	1.52
34	BA	185	A	C2'-C1'	-6.23	1.44	1.53
34	BA	1408	C	C2'-C1'	-6.23	1.44	1.53
57	BX	72	VAL	CA-C	-6.23	1.44	1.52
85	AA	19	A	O3'-P	-6.23	1.51	1.61
85	AA	404	A	C1'-N9	-6.23	1.38	1.48
85	AA	687	G	C1'-N9	-6.23	1.37	1.47
85	AA	1057	G	C2'-C1'	-6.23	1.44	1.53
5	A4	156	LYS	CA-C	-6.23	1.45	1.52
34	BA	1810	A	O3'-P	-6.23	1.51	1.61
35	BB	52	G	C3'-C2'	-6.23	1.43	1.52
35	BB	674	C	O3'-P	-6.23	1.51	1.61
35	BB	678	U	C4'-O4'	-6.23	1.36	1.45
34	BA	141	G	O3'-P	-6.22	1.51	1.61
34	BA	288	U	C1'-N1	-6.22	1.39	1.48
34	BA	453	A	P-O5'	-6.22	1.50	1.59
40	BG	28	A	C3'-C2'	-6.22	1.43	1.52
57	BX	87	TYR	CB-CG	6.22	1.65	1.51
65	Bf	181	PHE	CA-C	-6.22	1.44	1.52
85	AA	1486	G	O3'-P	-6.22	1.51	1.61
1	A0	139	LEU	CA-C	-6.22	1.45	1.52
2	A1	24	PHE	N-CA	-6.22	1.38	1.45
34	BA	187	G	C1'-N9	-6.22	1.38	1.48
34	BA	700	G	O3'-P	-6.22	1.51	1.61
34	BA	860	G	P-O5'	-6.22	1.50	1.59
45	BL	52	PRO	CA-C	-6.22	1.45	1.52
50	BQ	97	THR	CA-C	-6.22	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
72	Bm	77	ALA	N-CA	-6.22	1.38	1.46
81	Bv	23	TYR	CA-C	-6.22	1.44	1.52
85	AA	866	U	O3'-P	-6.22	1.51	1.61
34	BA	1227	U	C3'-C2'	-6.22	1.43	1.52
85	AA	1497	U	C1'-N1	-6.22	1.39	1.48
34	BA	768	G	P-O5'	-6.22	1.50	1.59
34	BA	1495	A	O3'-P	-6.22	1.51	1.61
35	BB	1269	A	O3'-P	-6.22	1.51	1.61
37	BD	97	U	O3'-P	-6.22	1.51	1.61
85	AA	179	G	P-O5'	-6.22	1.50	1.59
85	AA	289	G	C2'-C1'	-6.22	1.44	1.53
85	AA	1366	A	P-O5'	-6.22	1.50	1.59
34	BA	500	C	C3'-O3'	-6.22	1.32	1.42
35	BB	454	U	P-O5'	-6.22	1.50	1.59
85	AA	768	C	P-O5'	-6.22	1.50	1.59
34	BA	494	A	O3'-P	-6.22	1.51	1.61
85	AA	595	A	C2'-C1'	-6.22	1.44	1.53
85	AA	1868	G	C2'-C1'	-6.22	1.44	1.53
8	A7	61	ARG	CA-C	-6.21	1.44	1.52
30	AW	11	PRO	CA-C	-6.21	1.45	1.52
34	BA	1049	G	P-O5'	-6.21	1.50	1.59
34	BA	1466	U	C1'-N1	-6.21	1.39	1.48
35	BB	1116	U	P-O5'	-6.21	1.50	1.59
37	BD	68	C	C2'-C1'	-6.21	1.44	1.53
39	BF	51	C	O3'-P	-6.21	1.51	1.61
40	BG	134	U	P-O5'	-6.21	1.50	1.59
48	BO	133	THR	CA-CB	-6.21	1.43	1.53
56	BW	114	SER	CA-C	-6.21	1.44	1.52
64	Be	137	ILE	CA-CB	-6.21	1.48	1.54
65	Bf	121	LYS	CA-C	-6.21	1.45	1.52
74	Bo	83	VAL	CA-CB	-6.21	1.46	1.54
34	BA	180	G	C2'-C1'	-6.21	1.44	1.53
34	BA	987	C	C2'-C1'	-6.21	1.44	1.53
38	BE	25	U	P-O5'	-6.21	1.50	1.59
40	BG	66	C	C2'-C1'	-6.21	1.44	1.53
85	AA	241	U	P-O5'	-6.21	1.50	1.59
85	AA	1162	A	C1'-N9	-6.21	1.38	1.48
34	BA	220	U	P-O5'	-6.21	1.50	1.59
34	BA	245	U	O3'-P	-6.21	1.51	1.61
34	BA	269	G	C2'-C1'	-6.21	1.43	1.53
34	BA	446	U	C3'-C2'	-6.21	1.43	1.52
35	BB	866	A	P-O5'	-6.21	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1505	U	O3'-P	-6.21	1.51	1.61
41	BH	109	G	O3'-P	-6.21	1.51	1.61
56	BW	104	ILE	N-CA	-6.21	1.38	1.46
35	BB	1478	G	O3'-P	-6.21	1.51	1.61
36	BC	37	U	C3'-C2'	-6.21	1.43	1.52
85	AA	785	C	P-O5'	-6.21	1.50	1.59
15	AG	99	ARG	CA-C	-6.21	1.44	1.52
35	BB	1105	G	O3'-P	-6.21	1.51	1.61
35	BB	1263	A	C1'-N9	-6.21	1.38	1.48
40	BG	78	C	C3'-C2'	-6.21	1.43	1.52
44	BK	41	ALA	CA-C	-6.21	1.45	1.52
50	BQ	146	TRP	CA-C	-6.21	1.45	1.52
60	Ba	43	ALA	CA-C	-6.21	1.45	1.52
85	AA	530	A	P-O5'	-6.21	1.50	1.59
85	AA	713	G	O3'-P	-6.21	1.51	1.61
85	AA	1294	U	C1'-N1	-6.21	1.39	1.48
34	BA	1700	C	C3'-C2'	-6.21	1.43	1.52
35	BB	773	G	O3'-P	-6.21	1.51	1.61
35	BB	1014	U	P-O5'	-6.21	1.50	1.59
38	BE	107	U	C4'-C3'	-6.21	1.43	1.52
38	BE	113	C	O3'-P	-6.21	1.51	1.61
41	BH	124	C	C3'-C2'	-6.21	1.43	1.52
85	AA	645	C	C1'-N1	-6.21	1.39	1.48
85	AA	1575	G	P-O5'	-6.21	1.50	1.59
85	AA	1650	G	C2'-C1'	-6.21	1.44	1.53
85	AA	1877	G	C2'-C1'	-6.21	1.44	1.53
34	BA	747	G	O3'-P	-6.21	1.51	1.61
34	BA	763	U	C3'-C2'	6.21	1.62	1.52
35	BB	829	C	O3'-P	-6.21	1.51	1.61
35	BB	1174	C	C1'-N1	-6.21	1.39	1.48
48	BO	44	GLN	CA-C	-6.21	1.44	1.52
85	AA	1247	A	C1'-N9	-6.21	1.38	1.48
34	BA	670	U	C1'-N1	-6.20	1.39	1.48
34	BA	1178	U	P-O5'	-6.20	1.50	1.59
40	BG	117	C	C2'-C1'	-6.20	1.44	1.53
64	Be	106	GLN	CA-C	-6.20	1.43	1.52
72	Bm	44	LYS	N-CA	-6.20	1.39	1.46
85	AA	247	G	O3'-P	-6.20	1.51	1.61
85	AA	313	A	O3'-P	-6.20	1.51	1.61
85	AA	501	A	O3'-P	-6.20	1.51	1.61
85	AA	1122	U	P-O5'	-6.20	1.50	1.59
34	BA	1059	U	O3'-P	-6.20	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2167	A	O3'-P	-6.20	1.51	1.61
31	AX	182	GLY	CA-C	-6.20	1.43	1.51
34	BA	324	C	C1'-N1	-6.20	1.39	1.48
34	BA	975	A	C1'-N9	-6.20	1.38	1.48
35	BB	1294	C	O4'-C1'	-6.20	1.32	1.41
35	BB	1334	C	C1'-N1	-6.20	1.39	1.48
35	BB	1476	C	C1'-N1	-6.20	1.39	1.48
65	Bf	145	GLN	CA-C	-6.20	1.44	1.52
85	AA	351	C	P-O5'	-6.20	1.50	1.59
86	AB	6	G	P-O5'	-6.20	1.50	1.59
34	BA	925	G	O3'-P	-6.20	1.51	1.61
35	BB	1145	G	P-O5'	-6.20	1.50	1.59
35	BB	1281	G	C1'-N9	-6.20	1.38	1.48
35	BB	1363	A	C1'-N9	-6.20	1.38	1.48
82	Bw	138	MET	CA-C	-6.20	1.44	1.52
83	Bx	172	PRO	N-CA	-6.20	1.39	1.47
85	AA	308	U	C1'-N1	-6.20	1.39	1.48
1	A0	201	LYS	CA-C	-6.20	1.45	1.52
6	A5	84	ASN	CA-C	-6.20	1.45	1.52
34	BA	1423	U	O3'-P	-6.20	1.51	1.61
35	BB	467	G	C1'-N9	-6.20	1.38	1.48
37	BD	36	C	O3'-P	-6.20	1.51	1.61
85	AA	683	U	O3'-P	-6.20	1.51	1.61
34	BA	1254	C	O3'-P	-6.20	1.51	1.61
35	BB	1045	G	O3'-P	-6.20	1.51	1.61
35	BB	1425	A	C1'-N9	-6.20	1.38	1.48
38	BE	121	G	O3'-P	-6.20	1.51	1.61
40	BG	27	C	C3'-C2'	-6.20	1.43	1.52
77	Br	7	VAL	CA-C	-6.20	1.45	1.52
85	AA	25	C	O3'-P	-6.20	1.51	1.61
85	AA	1258	U	P-O5'	-6.20	1.50	1.59
85	AA	2031	C	P-O5'	-6.20	1.50	1.59
1	A0	41	ARG	CA-C	-6.19	1.44	1.52
25	AR	7	TYR	N-CA	-6.19	1.38	1.45
35	BB	41	A	O3'-P	-6.19	1.51	1.61
64	Be	136	ILE	CA-C	-6.19	1.45	1.52
71	Bl	66	VAL	CA-CB	-6.19	1.46	1.54
85	AA	1522	U	P-O5'	-6.19	1.50	1.59
34	BA	882	G	C3'-C2'	-6.19	1.43	1.52
34	BA	886	G	C2'-C1'	-6.19	1.44	1.53
71	Bl	98	ALA	CA-C	-6.19	1.45	1.52
85	AA	1544	G	O3'-P	-6.19	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2075	C	C3'-C2'	-6.19	1.43	1.52
8	A7	158	VAL	CA-C	-6.19	1.44	1.52
21	AM	39	ILE	CA-CB	-6.19	1.46	1.54
27	AT	114	VAL	CA-C	-6.19	1.45	1.53
34	BA	909	G	O4'-C1'	-6.19	1.32	1.41
36	BC	58	G	C1'-N9	-6.19	1.37	1.47
36	BC	141	C	C3'-C2'	-6.19	1.43	1.52
77	Br	143	ILE	CA-C	-6.19	1.44	1.52
85	AA	1923	A	C2'-C1'	-6.19	1.43	1.53
5	A4	155	MET	N-CA	-6.19	1.38	1.46
34	BA	444	A	C1'-N9	-6.19	1.38	1.48
85	AA	1528	A	P-O5'	-6.19	1.50	1.59
7	A6	113	PHE	CA-C	-6.19	1.44	1.52
24	AQ	62	THR	CA-C	-6.19	1.44	1.52
27	AT	36	GLY	CA-C	-6.19	1.43	1.51
34	BA	350	C	P-O5'	-6.19	1.50	1.59
34	BA	1270	G	C3'-C2'	-6.19	1.43	1.52
40	BG	88	G	C2'-C1'	-6.19	1.44	1.53
45	BL	172	LYS	CA-C	-6.19	1.44	1.52
85	AA	1004	G	C2'-C1'	-6.19	1.44	1.53
85	AA	1682	U	C2'-C1'	-6.19	1.43	1.53
85	AA	2175	U	P-O5'	-6.19	1.50	1.59
34	BA	380	A	O3'-P	-6.19	1.51	1.61
34	BA	1715	C	P-O5'	-6.19	1.50	1.59
27	AT	70	LYS	CA-C	-6.18	1.45	1.53
35	BB	1142	C	C3'-C2'	-6.18	1.43	1.52
37	BD	75	G	N9-C4	-6.18	1.25	1.38
77	Br	124	VAL	N-CA	-6.18	1.39	1.46
85	AA	804	A	O3'-P	-6.18	1.51	1.61
85	AA	1018	G	P-O5'	-6.18	1.50	1.59
85	AA	1809	G	P-O5'	-6.18	1.50	1.59
85	AA	2133	A	C3'-C2'	-6.18	1.43	1.52
26	AS	120	PHE	CA-C	-6.18	1.45	1.52
34	BA	993	C	O3'-P	-6.18	1.51	1.61
34	BA	1451	A	O3'-P	-6.18	1.51	1.61
34	BA	1467	U	C3'-C2'	-6.18	1.43	1.52
35	BB	1368	A	O3'-P	-6.18	1.51	1.61
40	BG	99	A	C3'-C2'	-6.18	1.43	1.52
85	AA	484	G	C1'-N9	-6.18	1.38	1.48
85	AA	497	G	P-O5'	-6.18	1.50	1.59
23	AP	253	HIS	CA-C	-6.18	1.45	1.53
34	BA	969	A	C1'-N9	-6.18	1.37	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	486	G	C1'-N9	-6.18	1.38	1.48
35	BB	678	U	O3'-P	-6.18	1.51	1.61
71	Bl	70	GLU	CA-C	-6.18	1.44	1.52
77	Br	120	ARG	CA-C	-6.18	1.44	1.52
85	AA	1796	C	C2'-C1'	-6.18	1.44	1.53
34	BA	914	G	O3'-P	-6.18	1.51	1.61
34	BA	1107	A	P-O5'	-6.18	1.50	1.59
35	BB	607	G	O4'-C1'	-6.18	1.32	1.41
85	AA	496	C	C3'-C2'	-6.18	1.43	1.52
85	AA	978	U	C1'-N1	-6.18	1.39	1.48
82	Bw	50	VAL	CA-C	-6.18	1.44	1.52
83	Bx	228	THR	CA-C	-6.18	1.44	1.52
85	AA	112	A	P-O5'	-6.18	1.50	1.59
85	AA	1481	U	O3'-P	-6.18	1.51	1.61
34	BA	181	G	C2'-C1'	-6.18	1.44	1.53
35	BB	975	G	O3'-P	-6.18	1.51	1.61
77	Br	208	LEU	CA-C	-6.18	1.45	1.52
85	AA	774	C	P-O5'	-6.18	1.50	1.59
34	BA	341	U	C4'-C3'	-6.17	1.43	1.52
34	BA	776	U	C2'-C1'	-6.17	1.44	1.53
51	BR	25	HIS	CA-C	-6.17	1.44	1.52
85	AA	1167	G	C1'-N9	-6.17	1.38	1.48
85	AA	1575	G	O3'-P	-6.17	1.51	1.61
34	BA	1671	A	C1'-N9	-6.17	1.38	1.48
35	BB	380	G	O3'-P	-6.17	1.51	1.61
85	AA	891	G	O3'-P	-6.17	1.51	1.61
85	AA	1103	A	C5'-C4'	6.17	1.60	1.51
34	BA	416	A	C1'-N9	-6.17	1.38	1.48
34	BA	434	U	C5'-C4'	6.17	1.60	1.51
34	BA	617	G	C4'-O4'	-6.17	1.36	1.45
34	BA	1113	A	O3'-P	-6.17	1.51	1.61
35	BB	27	C	P-O5'	-6.17	1.50	1.59
35	BB	372	U	C2'-C1'	-6.17	1.44	1.53
35	BB	1053	G	O3'-P	-6.17	1.51	1.61
36	BC	45	C	O3'-P	-6.17	1.51	1.61
77	Br	36	VAL	CA-CB	-6.17	1.46	1.54
85	AA	1182	A	C1'-N9	-6.17	1.38	1.48
35	BB	1058	U	O3'-P	-6.17	1.51	1.61
35	BB	1341	U	P-O5'	-6.17	1.50	1.59
40	BG	142	A	O3'-P	-6.17	1.51	1.61
34	BA	87	G	C1'-N9	-6.17	1.38	1.48
34	BA	114	U	P-O5'	-6.17	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1168	G	O4'-C1'	-6.17	1.32	1.41
73	Bn	16	HIS	CA-C	-6.17	1.44	1.52
85	AA	244	G	C1'-N9	-6.17	1.38	1.48
85	AA	960	G	O3'-P	-6.17	1.51	1.61
85	AA	1260	G	C2'-C1'	-6.17	1.44	1.53
11	AC	121	ARG	CA-C	-6.17	1.44	1.52
34	BA	135	G	O3'-P	-6.17	1.51	1.61
35	BB	434	A	C2'-C1'	-6.17	1.44	1.53
35	BB	492	U	O3'-P	-6.17	1.51	1.61
35	BB	666	A	C1'-N9	-6.17	1.38	1.48
37	BD	71	G	C2'-C1'	-6.17	1.44	1.53
40	BG	68	U	C4'-C3'	-6.17	1.43	1.52
42	BI	46	LYS	CA-C	-6.17	1.44	1.52
64	Be	196	TRP	CA-C	-6.17	1.44	1.52
85	AA	308	U	C2'-C1'	-6.17	1.44	1.53
35	BB	1249	G	O3'-P	-6.17	1.51	1.61
35	BB	1445	A	O4'-C1'	-6.17	1.32	1.41
36	BC	103	A	C1'-N9	-6.17	1.38	1.48
49	BP	150	ASN	N-CA	-6.17	1.40	1.46
85	AA	2117	U	O3'-P	-6.17	1.51	1.61
15	AG	32	ASP	CA-C	-6.16	1.45	1.52
34	BA	137	C	P-O5'	-6.16	1.50	1.59
34	BA	476	U	O3'-P	-6.16	1.51	1.61
34	BA	813	C	P-O5'	-6.16	1.50	1.59
35	BB	605	C	C3'-C2'	-6.16	1.43	1.52
35	BB	1258	G	O3'-P	-6.16	1.51	1.61
65	Bf	201	LEU	CA-C	-6.16	1.44	1.52
72	Bm	68	LEU	CA-C	-6.16	1.44	1.52
85	AA	715	G	C2'-C1'	-6.16	1.44	1.53
34	BA	314	A	P-O5'	-6.16	1.50	1.59
36	BC	7	U	P-O5'	-6.16	1.50	1.59
36	BC	154	A	C3'-C2'	-6.16	1.43	1.52
40	BG	132	U	P-O5'	-6.16	1.50	1.59
52	BS	40	LYS	N-CA	-6.16	1.38	1.46
85	AA	85	U	O3'-P	-6.16	1.51	1.61
85	AA	489	C	O3'-P	-6.16	1.51	1.61
34	BA	61	G	O4'-C1'	-6.16	1.32	1.41
34	BA	605	G	P-O5'	-6.16	1.50	1.59
34	BA	631	G	P-O5'	-6.16	1.50	1.59
34	BA	1119	A	C3'-C2'	-6.16	1.43	1.52
34	BA	1570	C	C4'-C3'	-6.16	1.43	1.52
34	BA	1661	U	C4'-O4'	-6.16	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1664	C	P-O5'	-6.16	1.50	1.59
35	BB	89	C	O3'-P	-6.16	1.51	1.61
35	BB	608	A	P-O5'	-6.16	1.50	1.59
35	BB	1021	C	O3'-P	-6.16	1.51	1.61
37	BD	96	C	C1'-N1	-6.16	1.39	1.48
38	BE	21	C	C4'-C3'	-6.16	1.43	1.52
48	BO	146	ASN	CA-C	-6.16	1.44	1.52
53	BT	137	ASN	CA-C	-6.16	1.44	1.52
79	Bt	40	LYS	CA-C	-6.16	1.44	1.52
85	AA	1090	A	C2'-C1'	-6.16	1.44	1.53
34	BA	798	G	C2'-C1'	-6.16	1.44	1.53
34	BA	1016	A	C1'-N9	-6.16	1.38	1.48
34	BA	1196	C	C4'-O4'	-6.16	1.36	1.45
34	BA	1399	A	C1'-N9	-6.16	1.38	1.48
34	BA	1409	A	C1'-N9	-6.16	1.38	1.48
34	BA	1699	A	O4'-C1'	6.16	1.50	1.41
36	BC	53	A	C3'-C2'	-6.16	1.43	1.52
36	BC	69	U	P-O5'	-6.16	1.50	1.59
61	Bb	14	SER	CA-C	-6.16	1.44	1.52
85	AA	1016	G	O3'-P	-6.16	1.51	1.61
85	AA	2144	C	C2'-C1'	-6.16	1.44	1.53
34	BA	234	A	O3'-P	-6.16	1.51	1.61
34	BA	584	A	O4'-C1'	-6.16	1.32	1.41
34	BA	1427	U	C1'-N1	-6.16	1.39	1.48
38	BE	120	C	O3'-P	-6.16	1.51	1.61
53	BT	102	LEU	CA-C	-6.16	1.44	1.52
82	Bw	56	LYS	CA-C	-6.16	1.44	1.52
26	AS	23	ALA	N-CA	-6.16	1.39	1.46
34	BA	1684	A	P-O5'	-6.16	1.50	1.59
34	BA	1830	A	O3'-P	-6.16	1.51	1.61
35	BB	467	G	O3'-P	-6.16	1.51	1.61
36	BC	78	G	C1'-N9	-6.16	1.38	1.48
38	BE	170	U	C4'-C3'	-6.16	1.43	1.52
39	BF	52	A	C1'-N9	-6.16	1.38	1.48
82	Bw	21	VAL	CA-C	-6.16	1.46	1.52
83	Bx	70	THR	CA-C	-6.16	1.44	1.52
83	Bx	121	ARG	N-CA	-6.16	1.39	1.46
85	AA	96	C	O3'-P	-6.16	1.51	1.61
85	AA	977	U	O3'-P	-6.16	1.51	1.61
85	AA	1172	A	P-O5'	-6.16	1.50	1.59
85	AA	1515	A	P-O5'	-6.16	1.50	1.59
18	AJ	9	ASN	CA-C	-6.15	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1419	G	O3'-P	-6.15	1.51	1.61
38	BE	16	C	C2'-C1'	-6.15	1.44	1.53
40	BG	137	G	C2'-C1'	-6.15	1.44	1.53
73	Bn	73	ARG	CA-C	-6.15	1.44	1.52
77	Br	17	VAL	CA-C	-6.15	1.45	1.52
85	AA	1641	A	O3'-P	-6.15	1.51	1.61
85	AA	1839	G	P-O5'	-6.15	1.50	1.59
85	AA	2145	G	C3'-C2'	-6.15	1.43	1.52
34	BA	78	U	C1'-N1	-6.15	1.39	1.48
34	BA	238	C	C1'-N1	-6.15	1.39	1.48
34	BA	1275	G	C2'-C1'	-6.15	1.44	1.53
34	BA	1673	G	C1'-N9	-6.15	1.38	1.48
34	BA	1734	U	P-O5'	-6.15	1.50	1.59
35	BB	505	G	C3'-C2'	-6.15	1.43	1.52
47	BN	121	LEU	N-CA	-6.15	1.39	1.46
49	BP	15	ILE	CA-CB	-6.15	1.46	1.53
85	AA	515	C	C1'-N1	-6.15	1.39	1.48
85	AA	962	U	C2'-C1'	-6.15	1.44	1.53
85	AA	1134	G	C4'-O4'	-6.15	1.36	1.45
85	AA	2066	C	C2'-C1'	-6.15	1.44	1.53
85	AA	2141	G	O3'-P	-6.15	1.51	1.61
85	AA	2179	C	C1'-N1	-6.15	1.39	1.48
34	BA	819	G	C2'-C1'	-6.15	1.44	1.53
34	BA	887	U	C2'-C1'	-6.15	1.44	1.53
34	BA	1139	G	O3'-P	-6.15	1.51	1.61
35	BB	659	C	C4'-O4'	-6.15	1.36	1.45
39	BF	11	C	C4'-C3'	6.15	1.62	1.53
40	BG	124	A	C2'-C1'	-6.15	1.44	1.53
70	Bk	76	ASP	CA-C	-6.15	1.44	1.52
85	AA	56	U	C5'-C4'	6.15	1.60	1.51
5	A4	11	ARG	CA-C	-6.15	1.46	1.53
35	BB	543	G	O3'-P	-6.15	1.51	1.61
85	AA	2188	C	C2'-C1'	-6.15	1.44	1.53
15	AG	36	ALA	N-CA	-6.15	1.39	1.46
34	BA	526	C	C2'-C1'	-6.15	1.44	1.53
34	BA	856	G	C4'-C3'	-6.15	1.43	1.52
34	BA	1176	C	C4'-C3'	-6.15	1.43	1.52
35	BB	619	A	C3'-C2'	-6.15	1.43	1.52
36	BC	4	G	C1'-N9	-6.15	1.38	1.48
53	BT	122	GLU	CA-C	-6.15	1.44	1.52
85	AA	388	G	C2'-C1'	-6.15	1.43	1.53
23	AP	75	GLN	CA-C	-6.15	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BH	128	G	O5'-C5'	6.15	1.51	1.42
62	Bc	7	LEU	CA-C	-6.15	1.44	1.52
83	Bx	227	LEU	N-CA	-6.15	1.38	1.46
85	AA	385	A	C4'-O4'	-6.15	1.36	1.45
9	A8	45	ARG	CD-NE	6.14	1.54	1.46
34	BA	1457	C	P-O5'	-6.14	1.50	1.59
34	BA	1835	A	C2'-C1'	-6.14	1.44	1.53
35	BB	1233	U	C2'-C1'	-6.14	1.44	1.53
35	BB	1524	G	C1'-N9	-6.14	1.38	1.48
36	BC	78	G	C2'-C1'	-6.14	1.44	1.53
37	BD	110	G	O3'-P	-6.14	1.51	1.61
40	BG	17	A	C1'-N9	-6.14	1.38	1.48
77	Br	282	LEU	CA-C	-6.14	1.44	1.52
85	AA	648	G	O3'-P	-6.14	1.51	1.61
34	BA	614	A	P-O5'	-6.14	1.50	1.59
35	BB	449	C	C2'-C1'	-6.14	1.44	1.53
35	BB	506	G	O3'-P	-6.14	1.51	1.61
35	BB	804	U	C4'-O4'	-6.14	1.36	1.45
77	Br	135	LEU	N-CA	-6.14	1.39	1.46
85	AA	750	A	O4'-C1'	-6.14	1.32	1.41
34	BA	1390	C	O3'-P	-6.14	1.51	1.61
35	BB	1431	G	C1'-N9	-6.14	1.38	1.48
36	BC	144	C	C2'-C1'	-6.14	1.44	1.53
85	AA	892	C	O3'-P	-6.14	1.51	1.61
85	AA	1721	A	P-O5'	-6.14	1.50	1.59
8	A7	204	VAL	CA-C	-6.14	1.45	1.52
26	AS	15	ARG	N-CA	-6.14	1.39	1.46
34	BA	516	U	C3'-C2'	-6.14	1.43	1.52
35	BB	1292	G	O3'-P	-6.14	1.51	1.61
62	Bc	127	ARG	CA-C	-6.14	1.45	1.52
65	Bf	172	ASN	N-CA	-6.14	1.38	1.46
34	BA	1104	C	O3'-P	-6.14	1.51	1.61
35	BB	605	C	C4'-C3'	-6.14	1.43	1.52
85	AA	830	A	C1'-N9	-6.14	1.38	1.48
4	A3	138	PRO	CA-C	-6.14	1.45	1.52
34	BA	1069	U	P-O5'	-6.14	1.50	1.59
34	BA	1436	A	P-O5'	-6.14	1.50	1.59
35	BB	28	G	O3'-P	-6.14	1.51	1.61
35	BB	486	G	C3'-C2'	-6.14	1.43	1.52
35	BB	666	A	O3'-P	-6.14	1.51	1.61
35	BB	1118	G	P-O5'	-6.14	1.50	1.59
35	BB	1270	C	O3'-P	-6.14	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BC	116	C	O3'-P	-6.14	1.51	1.61
40	BG	108	G	C2'-C1'	-6.14	1.44	1.53
41	BH	4	U	C3'-C2'	-6.14	1.43	1.52
57	BX	135	LEU	CA-C	-6.14	1.45	1.52
85	AA	1262	A	O3'-P	-6.14	1.51	1.61
34	BA	735	A	O3'-P	-6.13	1.51	1.61
34	BA	900	A	O3'-P	-6.13	1.51	1.61
34	BA	1435	A	O3'-P	-6.13	1.51	1.61
34	BA	1744	C	C3'-C2'	-6.13	1.43	1.52
38	BE	98	C	C2'-C1'	-6.13	1.44	1.53
38	BE	112	G	O3'-P	-6.13	1.51	1.61
40	BG	27	C	C1'-N1	-6.13	1.39	1.48
85	AA	437	G	C2'-C1'	-6.13	1.44	1.53
34	BA	973	U	C4'-O4'	-6.13	1.36	1.45
35	BB	84	G	P-O5'	-6.13	1.50	1.59
68	Bi	75	PHE	C-N	-6.13	1.25	1.33
34	BA	581	U	C3'-O3'	6.13	1.52	1.43
35	BB	693	U	O3'-P	-6.13	1.51	1.61
35	BB	1294	C	P-O5'	-6.13	1.50	1.59
35	BB	1321	G	C4'-C3'	-6.13	1.43	1.52
40	BG	146	C	C3'-C2'	-6.13	1.43	1.52
77	Br	232	SER	CA-C	-6.13	1.44	1.52
85	AA	2126	U	C1'-N1	-6.13	1.39	1.48
85	AA	2241	C	P-O5'	-6.13	1.50	1.59
11	AC	194	ASP	N-CA	-6.13	1.39	1.46
35	BB	627	G	P-O5'	-6.13	1.50	1.59
34	BA	846	U	O3'-P	-6.13	1.51	1.61
34	BA	1044	A	C2'-C1'	-6.13	1.44	1.53
35	BB	1310	C	C1'-N1	-6.13	1.39	1.48
35	BB	1361	A	P-O5'	-6.13	1.50	1.59
35	BB	1476	C	O3'-P	-6.13	1.51	1.61
35	BB	1520	C	C2'-C1'	-6.13	1.44	1.53
38	BE	93	U	C2'-C1'	-6.13	1.44	1.53
40	BG	105	A	O3'-P	-6.13	1.51	1.61
44	BK	88	ARG	N-CA	-6.13	1.39	1.46
51	BR	56	ARG	CA-C	6.13	1.55	1.52
60	Ba	37	TYR	CA-C	-6.13	1.45	1.52
65	Bf	124	VAL	CA-CB	-6.13	1.47	1.54
2	A1	157	LEU	CA-C	-6.13	1.45	1.52
34	BA	1195	G	C2'-C1'	-6.13	1.44	1.53
34	BA	1289	C	O4'-C1'	-6.13	1.32	1.41
35	BB	66	G	C4'-C3'	-6.13	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	799	A	C4'-C3'	-6.13	1.43	1.52
40	BG	112	C	C1'-N1	-6.13	1.39	1.48
68	Bi	45	ARG	CA-C	-6.13	1.43	1.52
79	Bt	93	LEU	CA-C	-6.13	1.45	1.52
85	AA	2074	G	P-O5'	-6.13	1.50	1.59
51	BR	12	SER	N-CA	-6.12	1.39	1.46
20	AL	27	ASP	CA-C	-6.12	1.44	1.52
34	BA	35	U	C1'-N1	-6.12	1.39	1.48
34	BA	650	C	C2'-C1'	-6.12	1.44	1.53
35	BB	371	C	O3'-P	-6.12	1.51	1.61
35	BB	818	U	O4'-C1'	-6.12	1.32	1.41
40	BG	76	C	C4'-O4'	-6.12	1.36	1.45
69	Bj	107	ALA	N-CA	-6.12	1.38	1.46
70	Bk	55	ILE	CA-CB	-6.12	1.46	1.54
85	AA	493	A	C1'-N9	-6.12	1.38	1.48
85	AA	2106	C	P-O5'	-6.12	1.50	1.59
2	A1	89	ILE	N-CA	-6.12	1.40	1.46
34	BA	1194	G	C1'-N9	-6.12	1.38	1.48
34	BA	1256	A	C2'-C1'	-6.12	1.43	1.53
35	BB	479	U	C3'-C2'	-6.12	1.43	1.52
38	BE	160	C	C1'-N1	-6.12	1.39	1.48
63	Bd	16	ASN	CA-C	-6.12	1.44	1.52
65	Bf	365	PRO	CA-C	-6.12	1.44	1.52
34	BA	1068	C	O3'-P	-6.12	1.51	1.61
36	BC	114	C	P-O5'	-6.12	1.50	1.59
35	BB	12	G	O3'-P	-6.12	1.51	1.61
36	BC	136	G	O3'-P	-6.12	1.51	1.61
36	BC	146	U	O3'-P	-6.12	1.51	1.61
52	BS	100	CYS	CA-C	-6.12	1.45	1.52
59	BZ	95	GLY	C-N	6.12	1.37	1.33
61	Bb	134	ILE	CA-C	-6.12	1.45	1.52
66	Bg	105	ASP	N-CA	-6.12	1.39	1.46
85	AA	1795	C	O3'-P	-6.12	1.51	1.61
34	BA	1167	A	P-O5'	-6.12	1.50	1.59
83	Bx	98	SER	CA-C	-6.12	1.45	1.52
85	AA	1504	A	C2'-C1'	-6.12	1.44	1.53
38	BE	131	C	O3'-P	-6.12	1.51	1.61
47	BN	199	PHE	N-CA	-6.12	1.38	1.46
57	BX	87	TYR	C-N	-6.12	1.25	1.33
65	Bf	89	SER	CA-C	-6.12	1.45	1.52
85	AA	1862	C	P-O5'	-6.12	1.50	1.59
31	AX	121	ILE	CA-C	-6.11	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1029	C	O3'-P	-6.11	1.51	1.61
34	BA	1289	C	C4'-C3'	-6.11	1.43	1.52
72	Bm	54	ASP	N-CA	-6.11	1.38	1.46
85	AA	109	G	O3'-P	-6.11	1.51	1.61
85	AA	423	G	O3'-P	-6.11	1.51	1.61
85	AA	1161	U	O3'-P	-6.11	1.51	1.61
85	AA	1484	G	C2'-C1'	-6.11	1.44	1.53
85	AA	1673	A	C1'-N9	-6.11	1.38	1.48
85	AA	1886	U	O3'-P	-6.11	1.51	1.61
34	BA	480	G	C4'-C3'	-6.11	1.43	1.52
34	BA	991	U	C3'-C2'	-6.11	1.43	1.52
34	BA	1523	U	O3'-P	-6.11	1.51	1.61
34	BA	1709	A	C1'-N9	-6.11	1.38	1.48
34	BA	365	A	O3'-P	-6.11	1.51	1.61
34	BA	924	U	O3'-P	-6.11	1.51	1.61
35	BB	666	A	C2'-C1'	-6.11	1.44	1.53
35	BB	1423	U	O3'-P	-6.11	1.51	1.61
40	BG	110	U	C2'-C1'	-6.11	1.44	1.53
48	BO	36	ARG	CA-C	-6.11	1.45	1.52
81	Bv	50	ILE	CA-C	-6.11	1.44	1.52
85	AA	870	U	O3'-P	-6.11	1.51	1.61
85	AA	1516	A	C2'-C1'	-6.11	1.44	1.53
85	AA	2007	G	C3'-C2'	-6.11	1.43	1.52
13	AE	20	HIS	CA-C	-6.11	1.45	1.52
34	BA	729	C	C3'-C2'	-6.11	1.43	1.52
36	BC	61	A	C1'-N9	-6.11	1.38	1.48
37	BD	96	C	O3'-P	-6.11	1.51	1.61
38	BE	186	C	O3'-P	-6.11	1.51	1.61
77	Br	111	HIS	N-CA	-6.11	1.38	1.45
84	By	128	VAL	N-CA	-6.11	1.39	1.46
85	AA	197	C	C4'-C3'	6.11	1.61	1.52
8	A7	15	TRP	CA-C	-6.11	1.44	1.52
21	AM	21	VAL	CA-C	-6.11	1.45	1.52
34	BA	115	U	C1'-N1	-6.11	1.38	1.47
34	BA	329	G	C1'-N9	-6.11	1.37	1.47
34	BA	706	C	C3'-C2'	-6.11	1.43	1.52
34	BA	971	G	O3'-P	-6.11	1.51	1.61
34	BA	1518	A	O3'-P	-6.11	1.51	1.61
35	BB	1349	U	O3'-P	-6.11	1.51	1.61
35	BB	1396	G	O3'-P	-6.11	1.51	1.61
37	BD	102	C	O3'-P	-6.11	1.51	1.61
81	Bv	98	ILE	CA-CB	-6.11	1.46	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	Bw	65	LYS	N-CA	-6.11	1.38	1.46
85	AA	499	G	C1'-N9	-6.11	1.38	1.48
85	AA	1839	G	O3'-P	-6.11	1.51	1.61
85	AA	1997	G	C5'-C4'	6.11	1.60	1.51
4	A3	209	ARG	CA-C	-6.11	1.45	1.52
34	BA	441	A	C1'-N9	-6.11	1.38	1.48
34	BA	792	A	C1'-N9	-6.11	1.38	1.48
34	BA	889	U	O3'-P	-6.11	1.51	1.61
34	BA	1461	A	O3'-P	-6.11	1.51	1.61
35	BB	463	C	P-O5'	-6.11	1.50	1.59
35	BB	611	U	P-O5'	-6.11	1.50	1.59
35	BB	647	U	C3'-C2'	-6.11	1.43	1.52
35	BB	1397	G	C1'-N9	-6.11	1.38	1.48
48	BO	56	CYS	N-CA	-6.11	1.39	1.46
58	BY	42	ALA	CA-C	-6.11	1.45	1.52
72	Bm	105	GLN	CA-C	-6.11	1.44	1.52
29	AV	60	LEU	N-CA	-6.10	1.39	1.46
34	BA	999	G	C2'-C1'	-6.10	1.44	1.53
34	BA	1215	U	O3'-P	-6.10	1.51	1.61
34	BA	1447	C	C2'-C1'	-6.10	1.43	1.53
35	BB	506	G	C2'-C1'	-6.10	1.44	1.53
35	BB	797	C	C2'-C1'	-6.10	1.44	1.53
40	BG	34	A	C1'-N9	-6.10	1.38	1.48
66	Bg	92	CYS	CA-C	-6.10	1.43	1.52
85	AA	173	A	C4'-C3'	-6.10	1.43	1.52
34	BA	18	G	P-O5'	-6.10	1.50	1.59
67	Bh	155	SER	CA-C	-6.10	1.45	1.52
85	AA	436	G	O3'-P	-6.10	1.51	1.61
85	AA	1194	U	C2'-C1'	-6.10	1.44	1.53
85	AA	2133	A	C2'-C1'	-6.10	1.44	1.53
34	BA	661	C	C2'-C1'	-6.10	1.44	1.53
65	Bf	248	ILE	N-CA	-6.10	1.39	1.46
34	BA	202	A	C1'-N9	-6.10	1.38	1.48
34	BA	1300	G	O3'-P	-6.10	1.51	1.61
34	BA	1707	C	P-O5'	-6.10	1.50	1.59
35	BB	1311	G	P-O5'	-6.10	1.50	1.59
38	BE	23	G	C4'-C3'	-6.10	1.43	1.52
44	BK	175	ASN	CA-C	-6.10	1.45	1.52
62	Bc	70	ASN	N-CA	-6.10	1.39	1.46
74	Bo	52	VAL	CA-C	-6.10	1.45	1.52
82	Bw	199	ILE	CA-CB	-6.10	1.47	1.54
83	Bx	38	SER	CA-C	-6.10	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A1	102	VAL	CA-CB	-6.10	1.48	1.54
7	A6	46	MET	C-N	-6.10	1.25	1.33
7	A6	81	GLY	CA-C	-6.10	1.45	1.52
34	BA	391	U	P-O5'	-6.10	1.50	1.59
34	BA	566	G	C2'-C1'	-6.10	1.44	1.53
34	BA	1473	A	O3'-P	-6.10	1.52	1.61
35	BB	615	A	O3'-P	-6.10	1.52	1.61
39	BF	71	G	C1'-N9	-6.10	1.37	1.47
53	BT	124	TYR	CA-C	-6.10	1.45	1.52
59	BZ	41	ASN	CA-C	-6.10	1.44	1.52
83	Bx	241	VAL	CA-C	-6.10	1.44	1.52
85	AA	37	U	C2'-C1'	-6.10	1.44	1.53
85	AA	65	A	C2'-C1'	-6.10	1.44	1.53
85	AA	70	U	C4'-C3'	-6.10	1.43	1.52
85	AA	118	C	O3'-P	-6.10	1.52	1.61
85	AA	411	U	C2'-C1'	-6.10	1.44	1.53
85	AA	869	A	P-O5'	-6.10	1.50	1.59
4	A3	209	ARG	N-CA	-6.10	1.38	1.46
34	BA	1322	A	C3'-C2'	-6.10	1.43	1.52
34	BA	1661	U	C5'-C4'	-6.10	1.42	1.51
56	BW	109	GLY	CA-C	-6.10	1.43	1.51
66	Bg	62	ILE	CA-CB	-6.10	1.46	1.54
85	AA	401	U	P-O5'	-6.10	1.50	1.59
85	AA	1204	A	C3'-C2'	-6.10	1.43	1.52
85	AA	1276	A	O3'-P	-6.10	1.52	1.61
34	BA	222	C	O3'-P	-6.09	1.52	1.61
34	BA	995	A	P-O5'	-6.09	1.50	1.59
34	BA	1706	A	O5'-C5'	6.09	1.51	1.42
35	BB	53	C	C1'-N1	-6.09	1.39	1.48
35	BB	440	U	C2'-C1'	-6.09	1.44	1.53
40	BG	104	A	P-O5'	-6.09	1.50	1.59
56	BW	76	LEU	N-CA	-6.09	1.38	1.45
72	Bm	85	LEU	CA-C	-6.09	1.44	1.52
85	AA	758	C	O3'-P	-6.09	1.52	1.61
30	AW	41	CYS	CA-C	-6.09	1.45	1.52
35	BB	19	C	C1'-N1	-6.09	1.39	1.48
35	BB	837	A	C4'-O4'	-6.09	1.36	1.45
38	BE	69	C	O3'-P	-6.09	1.52	1.61
59	BZ	31	PRO	CA-C	-6.09	1.44	1.52
85	AA	1216	A	O3'-P	-6.09	1.52	1.61
85	AA	1518	A	P-O5'	-6.09	1.50	1.59
30	AW	12	THR	N-CA	-6.09	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	401	U	C3'-C2'	-6.09	1.43	1.52
35	BB	959	C	P-O5'	-6.09	1.50	1.59
35	BB	1445	A	P-O5'	-6.09	1.50	1.59
36	BC	101	U	O3'-P	-6.09	1.52	1.61
40	BG	66	C	O3'-P	-6.09	1.52	1.61
64	Be	101	VAL	CA-CB	-6.09	1.46	1.54
11	AC	127	SER	CA-C	-6.09	1.44	1.52
34	BA	426	A	P-O5'	-6.09	1.50	1.59
34	BA	1258	G	C2'-C1'	-6.09	1.44	1.53
34	BA	1574	C	O3'-P	-6.09	1.52	1.61
35	BB	553	U	P-O5'	-6.09	1.50	1.59
35	BB	640	A	P-O5'	-6.09	1.50	1.59
36	BC	33	U	C1'-N1	6.09	1.56	1.47
49	BP	41	PRO	N-CA	-6.09	1.43	1.47
77	Br	72	VAL	CA-C	-6.09	1.45	1.52
77	Br	235	LEU	CA-C	-6.09	1.44	1.52
85	AA	823	C	C2'-C1'	-6.09	1.44	1.53
34	BA	878	G	C2'-C1'	-6.09	1.44	1.53
34	BA	922	C	C2'-C1'	-6.09	1.44	1.53
34	BA	1288	U	C2'-C1'	-6.09	1.44	1.53
85	AA	2206	A	P-O5'	-6.09	1.50	1.59
34	BA	75	U	O3'-P	-6.09	1.52	1.61
34	BA	255	G	C1'-N9	-6.09	1.38	1.48
34	BA	439	A	C1'-N9	-6.09	1.38	1.48
35	BB	622	G	C1'-N9	-6.09	1.38	1.48
40	BG	4	A	P-O5'	-6.09	1.50	1.59
40	BG	43	U	C2'-C1'	-6.09	1.44	1.53
40	BG	45	G	C2'-C1'	-6.09	1.44	1.53
85	AA	857	G	P-O5'	-6.09	1.50	1.59
85	AA	975	G	C1'-N9	-6.09	1.38	1.48
85	AA	1561	A	C1'-N9	-6.09	1.38	1.48
85	AA	1664	G	P-O5'	-6.09	1.50	1.59
34	BA	692	U	N1-C2	-6.08	1.26	1.38
34	BA	1086	A	C2'-C1'	-6.08	1.44	1.53
35	BB	551	C	P-O5'	-6.08	1.50	1.59
39	BF	21	C	C4'-C3'	-6.08	1.43	1.52
40	BG	23	C	C3'-O3'	-6.08	1.33	1.42
85	AA	2172	A	C3'-C2'	-6.08	1.43	1.52
26	AS	12	LYS	CA-C	-6.08	1.44	1.52
34	BA	1067	G	P-O5'	-6.08	1.50	1.59
35	BB	687	C	C2'-C1'	-6.08	1.44	1.53
37	BD	60	C	C2'-C1'	-6.08	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	BE	148	C	C2'-C1'	-6.08	1.44	1.53
62	Bc	119	ARG	CA-C	-6.08	1.45	1.52
85	AA	263	A	O3'-P	-6.08	1.52	1.61
85	AA	1451	U	O3'-P	-6.08	1.52	1.61
85	AA	1522	U	C2'-C1'	-6.08	1.44	1.53
34	BA	289	A	O4'-C1'	-6.08	1.32	1.41
34	BA	557	U	N1-C6	-6.08	1.25	1.38
34	BA	1323	G	C3'-C2'	-6.08	1.43	1.52
35	BB	43	G	O3'-P	-6.08	1.52	1.61
35	BB	562	A	O3'-P	-6.08	1.52	1.61
38	BE	205	G	P-O5'	-6.08	1.50	1.59
77	Br	36	VAL	CA-C	-6.08	1.45	1.52
34	BA	276	C	C1'-N1	-6.08	1.39	1.48
34	BA	1431	G	C2'-C1'	-6.08	1.44	1.53
57	BX	151	SER	CA-C	-6.08	1.44	1.52
85	AA	1261	U	C3'-C2'	-6.08	1.43	1.52
2	A1	247	ILE	N-CA	-6.08	1.39	1.46
34	BA	1064	A	O3'-P	-6.08	1.52	1.61
35	BB	90	G	O3'-P	-6.08	1.52	1.61
37	BD	95	G	C1'-N9	-6.08	1.38	1.48
47	BN	36	GLN	CA-C	-6.08	1.44	1.52
82	Bw	36	GLN	N-CA	-6.08	1.38	1.46
84	By	81	GLY	CA-C	-6.08	1.45	1.52
85	AA	2052	U	O3'-P	-6.08	1.52	1.61
85	AA	2209	U	C3'-C2'	-6.08	1.43	1.52
85	AA	2215	C	C2'-C1'	-6.08	1.44	1.53
35	BB	23	U	P-O5'	-6.08	1.50	1.59
35	BB	71	A	P-O5'	-6.08	1.50	1.59
37	BD	1	G	C2'-C1'	-6.08	1.44	1.53
37	BD	105	G	C3'-C2'	-6.08	1.43	1.52
85	AA	997	U	P-O5'	-6.08	1.50	1.59
27	AT	49	ARG	CA-C	-6.08	1.45	1.52
34	BA	1259	C	C3'-C2'	-6.08	1.43	1.52
35	BB	808	U	C3'-C2'	-6.08	1.43	1.52
35	BB	967	G	C2'-C1'	-6.08	1.44	1.53
53	BT	45	ILE	CA-C	-6.08	1.45	1.52
85	AA	439	U	C1'-N1	-6.08	1.39	1.48
5	A4	125	ALA	CA-C	-6.07	1.45	1.52
34	BA	801	U	C2'-C1'	-6.07	1.44	1.53
34	BA	919	A	O3'-P	-6.07	1.52	1.61
35	BB	1334	C	C4'-C3'	-6.07	1.43	1.52
47	BN	17	TRP	CA-C	-6.07	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	Bc	11	LEU	N-CA	-6.07	1.38	1.46
85	AA	166	C	C2'-C1'	-6.07	1.44	1.53
35	BB	1272	G	C1'-N9	-6.07	1.38	1.48
50	BQ	213	ASN	CA-C	-6.07	1.45	1.53
82	Bw	197	GLU	CA-C	-6.07	1.44	1.52
11	AC	128	GLN	CA-C	-6.07	1.45	1.52
11	AC	130	VAL	CA-CB	-6.07	1.45	1.54
34	BA	28	C	P-O5'	-6.07	1.50	1.59
34	BA	1066	A	P-O5'	-6.07	1.50	1.59
34	BA	1612	C	P-O5'	-6.07	1.50	1.59
34	BA	1834	A	O3'-P	-6.07	1.52	1.61
35	BB	771	U	O3'-P	-6.07	1.52	1.61
35	BB	1289	G	P-O5'	-6.07	1.50	1.59
35	BB	1406	C	C2'-C1'	-6.07	1.44	1.53
67	Bh	95	LEU	N-CA	-6.07	1.38	1.46
85	AA	512	U	P-O5'	-6.07	1.50	1.59
85	AA	790	A	O3'-P	-6.07	1.52	1.61
85	AA	2214	A	O3'-P	-6.07	1.52	1.61
5	A4	186	VAL	CA-CB	-6.07	1.45	1.55
35	BB	484	G	C4'-O4'	-6.07	1.36	1.45
73	Bn	52	LYS	CA-C	-6.07	1.44	1.52
4	A3	206	ALA	CA-C	-6.07	1.45	1.52
34	BA	98	A	C3'-C2'	-6.07	1.43	1.52
34	BA	218	G	C2'-C1'	-6.07	1.44	1.53
34	BA	1440	C	O3'-P	-6.07	1.52	1.61
35	BB	586	U	C1'-N1	-6.07	1.39	1.48
36	BC	46	G	C1'-N9	-6.07	1.38	1.48
36	BC	88	A	C1'-N9	-6.07	1.38	1.48
40	BG	93	U	O3'-P	-6.07	1.52	1.61
85	AA	164	G	C1'-N9	-6.07	1.38	1.48
85	AA	688	C	C1'-N1	-6.07	1.39	1.48
85	AA	699	U	C3'-C2'	-6.07	1.43	1.52
30	AW	16	GLU	CA-CB	6.07	1.62	1.53
34	BA	412	G	O3'-P	-6.07	1.52	1.61
34	BA	418	G	O3'-P	-6.07	1.52	1.61
34	BA	1203	G	C2'-C1'	-6.07	1.44	1.53
34	BA	1448	G	C1'-N9	-6.07	1.38	1.48
35	BB	1062	G	C1'-N9	-6.07	1.38	1.48
35	BB	1401	G	C1'-N9	-6.07	1.38	1.48
40	BG	169	A	O3'-P	-6.07	1.52	1.61
80	Bu	202	ARG	CA-C	-6.07	1.44	1.52
85	AA	1700	C	C1'-N1	-6.07	1.39	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2181	G	O3'-P	-6.07	1.52	1.61
34	BA	757	G	P-O5'	-6.06	1.50	1.59
34	BA	943	G	O3'-P	-6.06	1.52	1.61
34	BA	1310	C	O3'-P	-6.06	1.52	1.61
35	BB	1431	G	O3'-P	-6.06	1.52	1.61
38	BE	129	G	P-O5'	-6.06	1.50	1.59
38	BE	203	C	P-O5'	-6.06	1.50	1.59
56	BW	25	VAL	CA-C	-6.06	1.45	1.52
84	By	158	VAL	N-CA	-6.06	1.39	1.46
85	AA	623	G	O3'-P	-6.06	1.52	1.61
85	AA	2222	G	C2'-C1'	-6.06	1.44	1.53
11	AC	130	VAL	CA-C	-6.06	1.44	1.53
34	BA	334	G	C3'-C2'	-6.06	1.43	1.52
34	BA	1098	G	C1'-N9	-6.06	1.37	1.47
84	By	101	VAL	CA-CB	-6.06	1.46	1.54
85	AA	1892	G	C1'-N9	-6.06	1.38	1.48
34	BA	908	G	C1'-N9	-6.06	1.38	1.48
35	BB	1460	G	O3'-P	-6.06	1.52	1.61
37	BD	48	G	O4'-C1'	-6.06	1.32	1.42
57	BX	141	LEU	CA-C	-6.06	1.45	1.52
60	Ba	60	SER	CA-C	-6.06	1.44	1.52
85	AA	1124	G	C2'-C1'	-6.06	1.44	1.53
34	BA	960	C	C3'-C2'	-6.06	1.43	1.52
34	BA	1275	G	C3'-C2'	-6.06	1.43	1.52
34	BA	1702	G	C2'-C1'	-6.06	1.44	1.53
35	BB	374	A	O3'-P	-6.06	1.52	1.61
35	BB	594	U	C1'-N1	-6.06	1.39	1.48
36	BC	46	G	P-O5'	-6.06	1.50	1.59
61	Bb	119	CYS	CA-C	-6.06	1.45	1.52
76	Bq	30	ARG	CA-C	-6.06	1.44	1.52
84	By	24	VAL	CA-C	-6.06	1.45	1.52
84	By	36	ASP	CA-C	-6.06	1.45	1.52
85	AA	12	U	O3'-P	-6.06	1.52	1.61
85	AA	686	U	P-O5'	-6.06	1.50	1.59
6	A5	97	VAL	CA-CB	-6.06	1.45	1.54
34	BA	123	C	P-O5'	-6.06	1.50	1.59
34	BA	574	U	C1'-N1	6.06	1.57	1.48
34	BA	723	C	P-O5'	-6.06	1.50	1.59
34	BA	1475	G	C3'-O3'	-6.06	1.33	1.42
34	BA	1506	C	C2'-C1'	-6.06	1.44	1.53
35	BB	1388	A	C3'-C2'	-6.06	1.43	1.52
41	BH	119	U	C4'-O4'	-6.06	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	BZ	93	PRO	CA-C	-6.06	1.44	1.52
85	AA	1440	C	O3'-P	-6.06	1.52	1.61
85	AA	1869	U	O3'-P	-6.06	1.52	1.61
34	BA	325	A	O3'-P	-6.06	1.52	1.61
34	BA	1022	C	C3'-C2'	-6.06	1.43	1.52
36	BC	129	C	P-O5'	-6.06	1.50	1.59
72	Bm	65	VAL	CA-C	-6.06	1.45	1.52
85	AA	528	U	O3'-P	-6.06	1.52	1.61
4	A3	114	VAL	CA-C	-6.05	1.45	1.52
34	BA	1027	C	C3'-C2'	-6.05	1.43	1.52
35	BB	555	G	C3'-C2'	-6.05	1.43	1.52
35	BB	814	A	C3'-C2'	-6.05	1.43	1.52
35	BB	1154	C	C1'-N1	-6.05	1.39	1.48
74	Bo	34	HIS	CB-CG	-6.05	1.41	1.50
75	Bp	41	HIS	CB-CG	-6.05	1.41	1.50
85	AA	711	C	O3'-P	-6.05	1.52	1.61
85	AA	1637	C	O3'-P	-6.05	1.52	1.61
85	AA	1907	U	O3'-P	-6.05	1.52	1.61
23	AP	100	THR	CA-C	-6.05	1.44	1.52
34	BA	209	A	C3'-C2'	-6.05	1.43	1.52
34	BA	626	G	C2'-C1'	-6.05	1.44	1.53
34	BA	1621	U	O3'-P	-6.05	1.52	1.61
37	BD	45	U	O3'-P	-6.05	1.52	1.61
80	Bu	168	VAL	CA-C	-6.05	1.45	1.52
85	AA	2185	U	C1'-N1	-6.05	1.39	1.48
6	A5	43	VAL	CA-C	-6.05	1.45	1.52
34	BA	398	G	C3'-C2'	-6.05	1.43	1.52
34	BA	708	C	C3'-C2'	-6.05	1.43	1.52
34	BA	1730	A	C2'-C1'	-6.05	1.44	1.53
35	BB	619	A	C1'-N9	-6.05	1.38	1.48
35	BB	1054	G	C1'-N9	-6.05	1.38	1.48
77	Br	122	ALA	N-CA	-6.05	1.39	1.46
85	AA	640	C	C2'-C1'	-6.05	1.44	1.53
11	AC	90	THR	N-CA	-6.05	1.39	1.46
12	AD	33	TRP	CA-C	-6.05	1.47	1.53
34	BA	1332	U	O3'-P	-6.05	1.52	1.61
37	BD	104	C	C2'-C1'	-6.05	1.44	1.53
40	BG	18	U	C1'-N1	-6.05	1.39	1.48
40	BG	136	G	O3'-P	-6.05	1.52	1.61
47	BN	172	GLU	N-CA	-6.05	1.38	1.46
51	BR	95	LEU	CA-C	-6.05	1.45	1.52
61	Bb	24	LYS	CA-CB	6.05	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
72	Bm	25	THR	CA-C	-6.05	1.44	1.52
85	AA	543	A	C1'-N9	-6.05	1.38	1.48
85	AA	836	A	O3'-P	-6.05	1.52	1.61
85	AA	1166	C	O3'-P	-6.05	1.52	1.61
85	AA	1168	C	P-O5'	-6.05	1.50	1.59
85	AA	1793	A	C4'-C3'	-6.05	1.43	1.52
11	AC	96	LEU	CA-C	-6.05	1.45	1.52
20	AL	87	GLU	N-CA	-6.05	1.38	1.46
34	BA	14	G	C4'-O4'	-6.05	1.36	1.45
85	AA	542	G	O3'-P	-6.05	1.52	1.61
85	AA	714	U	P-O5'	-6.05	1.50	1.59
85	AA	2187	G	C1'-N9	-6.05	1.38	1.48
34	BA	974	G	C2'-C1'	-6.05	1.44	1.53
34	BA	1297	G	O3'-P	-6.05	1.52	1.61
34	BA	1556	A	C4'-O4'	-6.05	1.36	1.45
34	BA	1846	G	C2'-C1'	-6.05	1.44	1.53
38	BE	19	G	O3'-P	-6.05	1.52	1.61
41	BH	46	C	O3'-P	-6.05	1.52	1.61
80	Bu	12	TYR	CA-C	-6.05	1.45	1.52
83	Bx	165	LEU	N-CA	-6.05	1.39	1.46
85	AA	2096	G	C1'-N9	-6.05	1.38	1.48
34	BA	222	C	P-O5'	-6.04	1.50	1.59
35	BB	450	A	P-O5'	-6.04	1.50	1.59
35	BB	1359	G	P-O5'	-6.04	1.50	1.59
68	Bi	58	TYR	CA-C	-6.04	1.44	1.52
34	BA	194	G	C2'-C1'	-6.04	1.44	1.53
34	BA	199	U	C1'-N1	-6.04	1.39	1.48
34	BA	306	G	P-O5'	-6.04	1.50	1.59
34	BA	406	G	C2'-C1'	-6.04	1.44	1.53
34	BA	892	C	C3'-C2'	-6.04	1.43	1.52
34	BA	1103	G	P-O5'	-6.04	1.50	1.59
34	BA	1843	G	O3'-P	-6.04	1.52	1.61
38	BE	64	A	P-O5'	-6.04	1.50	1.59
41	BH	67	G	P-O5'	-6.04	1.50	1.59
67	Bh	181	LEU	CA-C	-6.04	1.44	1.52
68	Bi	44	ARG	CA-C	-6.04	1.45	1.52
77	Br	163	THR	CA-CB	-6.04	1.44	1.53
82	Bw	132	VAL	CA-CB	-6.04	1.46	1.54
85	AA	555	C	P-O5'	-6.04	1.50	1.59
85	AA	620	U	O3'-P	-6.04	1.52	1.61
34	BA	147	U	P-O5'	-6.04	1.50	1.59
34	BA	375	C	P-O5'	-6.04	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	716	C	O3'-P	-6.04	1.52	1.61
50	BQ	79	PHE	CA-C	-6.04	1.45	1.52
51	BR	89	VAL	CA-CB	-6.04	1.47	1.54
54	BU	71	GLY	CA-C	-6.04	1.45	1.52
74	Bo	86	LEU	N-CA	-6.04	1.39	1.46
83	Bx	51	ARG	CA-C	6.04	1.60	1.53
85	AA	1897	A	O3'-P	-6.04	1.52	1.61
34	BA	341	U	P-O5'	-6.04	1.50	1.59
34	BA	990	G	O3'-P	-6.04	1.52	1.61
34	BA	1398	C	O3'-P	-6.04	1.52	1.61
35	BB	708	C	O3'-P	-6.04	1.52	1.61
35	BB	1068	G	C1'-N9	-6.04	1.38	1.48
40	BG	70	C	C2'-C1'	-6.04	1.44	1.53
85	AA	590	U	O3'-P	-6.04	1.52	1.61
85	AA	1554	C	C1'-N1	-6.04	1.39	1.48
85	AA	1633	A	C1'-N9	-6.04	1.38	1.48
85	AA	2135	A	C1'-N9	-6.04	1.38	1.48
34	BA	260	A	C2'-C1'	-6.04	1.44	1.53
34	BA	1640	G	C3'-C2'	-6.04	1.43	1.52
35	BB	670	G	C1'-N9	-6.04	1.37	1.47
35	BB	1341	U	O3'-P	-6.04	1.52	1.61
36	BC	147	G	P-O5'	-6.04	1.50	1.59
37	BD	59	G	P-O5'	-6.04	1.50	1.59
51	BR	116	HIS	CA-C	-6.04	1.44	1.52
70	Bk	67	ARG	N-CA	-6.04	1.38	1.46
85	AA	1453	U	P-O5'	-6.04	1.50	1.59
4	A3	79	LYS	CA-C	-6.04	1.45	1.52
35	BB	38	C	O3'-P	-6.04	1.52	1.61
39	BF	63	U	P-O5'	-6.04	1.50	1.59
82	Bw	209	HIS	CA-C	-6.04	1.45	1.52
85	AA	68	A	C1'-N9	-6.04	1.38	1.48
34	BA	333	A	O3'-P	-6.04	1.52	1.61
36	BC	121	G	C2'-C1'	-6.04	1.44	1.53
40	BG	178	G	C1'-N9	-6.04	1.38	1.48
70	Bk	68	GLU	CA-C	-6.04	1.44	1.52
6	A5	205	GLY	CA-C	-6.03	1.43	1.51
34	BA	1354	G	O3'-P	-6.03	1.52	1.61
36	BC	59	A	C1'-N9	-6.03	1.37	1.47
40	BG	150	A	O3'-P	-6.03	1.52	1.61
66	Bg	33	LYS	N-CA	-6.03	1.38	1.46
82	Bw	166	ARG	N-CA	-6.03	1.39	1.46
82	Bw	238	GLU	CA-C	-6.03	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	103	U	O3'-P	-6.03	1.52	1.61
34	BA	29	U	C2'-C1'	-6.03	1.44	1.53
34	BA	398	G	C1'-N9	-6.03	1.39	1.48
34	BA	1465	C	C2'-C1'	-6.03	1.44	1.53
35	BB	568	A	C1'-N9	-6.03	1.39	1.48
49	BP	57	GLU	CA-C	-6.03	1.48	1.52
78	Bs	10	ALA	CA-C	-6.03	1.45	1.52
85	AA	616	A	C2'-C1'	-6.03	1.44	1.53
85	AA	1991	C	C4'-O4'	-6.03	1.36	1.45
2	A1	224	VAL	CA-C	-6.03	1.44	1.52
34	BA	734	G	C1'-N9	-6.03	1.39	1.48
34	BA	1691	G	C1'-N9	-6.03	1.38	1.47
35	BB	800	U	C5'-C4'	6.03	1.60	1.51
35	BB	1409	G	C1'-N9	-6.03	1.39	1.48
35	BB	1453	G	O3'-P	-6.03	1.52	1.61
37	BD	41	G	O4'-C1'	-6.03	1.32	1.42
37	BD	81	C	C2'-C1'	-6.03	1.44	1.53
57	BX	101	ASN	CA-C	-6.03	1.44	1.52
74	Bo	57	CYS	CA-C	-6.03	1.45	1.52
85	AA	1495	G	C4'-O4'	-6.03	1.36	1.45
34	BA	447	U	C3'-C2'	-6.03	1.43	1.52
85	AA	1355	U	C5'-C4'	6.03	1.60	1.51
20	AL	127	ALA	C-N	-6.03	1.25	1.34
34	BA	1684	A	C3'-C2'	-6.03	1.43	1.52
34	BA	1819	U	O5'-C5'	6.03	1.51	1.42
35	BB	1163	U	P-O5'	-6.03	1.50	1.59
38	BE	177	U	C1'-N1	-6.03	1.39	1.48
41	BH	29	G	C3'-C2'	-6.03	1.43	1.52
80	Bu	235	PHE	CA-C	-6.03	1.45	1.52
34	BA	101	G	O3'-P	-6.03	1.52	1.61
34	BA	320	G	C1'-N9	-6.03	1.39	1.48
34	BA	322	U	C3'-C2'	-6.03	1.43	1.52
34	BA	917	C	O3'-P	-6.03	1.52	1.61
34	BA	1658	G	C1'-N9	-6.03	1.39	1.48
35	BB	501	G	O3'-P	-6.03	1.52	1.61
85	AA	162	A	P-O5'	-6.03	1.50	1.59
85	AA	962	U	C3'-C2'	-6.03	1.43	1.52
85	AA	1107	A	C4'-C3'	-6.03	1.43	1.52
34	BA	1059	U	C4'-O4'	-6.02	1.36	1.45
35	BB	84	G	O3'-P	-6.02	1.52	1.61
35	BB	1292	G	C4'-C3'	-6.02	1.43	1.52
49	BP	75	LYS	N-CA	-6.02	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	491	G	C2'-C1'	-6.02	1.44	1.53
8	A7	46	ASN	N-CA	-6.02	1.40	1.46
34	BA	1092	U	O3'-P	-6.02	1.52	1.61
34	BA	1723	U	C5'-C4'	6.02	1.60	1.51
35	BB	45	A	O3'-P	-6.02	1.52	1.61
38	BE	124	G	C2'-C1'	-6.02	1.44	1.53
40	BG	154	C	C2'-C1'	-6.02	1.44	1.53
73	Bn	39	TYR	C-N	-6.02	1.22	1.34
85	AA	674	U	C2'-C1'	-6.02	1.44	1.53
85	AA	2039	G	C4'-O4'	-6.02	1.36	1.45
34	BA	702	G	C1'-N9	-6.02	1.39	1.48
40	BG	2	U	C3'-C2'	-6.02	1.43	1.52
85	AA	336	C	C3'-C2'	-6.02	1.43	1.52
85	AA	2107	C	O3'-P	-6.02	1.52	1.61
85	AA	2243	G	C5'-C4'	6.02	1.60	1.51
34	BA	52	G	O3'-P	-6.02	1.52	1.61
34	BA	239	C	C3'-C2'	-6.02	1.43	1.52
34	BA	1465	C	C3'-C2'	-6.02	1.43	1.52
35	BB	619	A	O3'-P	-6.02	1.52	1.61
35	BB	1471	A	O3'-P	-6.02	1.52	1.61
35	BB	1525	G	C2'-C1'	-6.02	1.44	1.53
37	BD	65	G	O3'-P	-6.02	1.52	1.61
40	BG	51	U	C2'-C1'	-6.02	1.44	1.53
47	BN	62	GLN	CA-C	-6.02	1.45	1.52
47	BN	118	VAL	CA-CB	-6.02	1.47	1.54
59	BZ	96	VAL	CA-CB	-6.02	1.51	1.55
71	Bl	108	ILE	CA-CB	-6.02	1.47	1.54
85	AA	597	A	O3'-P	-6.02	1.52	1.61
85	AA	1935	G	P-O5'	-6.02	1.50	1.59
85	AA	2213	A	C3'-C2'	-6.02	1.43	1.52
9	A8	54	SER	CA-C	-6.02	1.45	1.52
11	AC	145	THR	CA-C	-6.02	1.44	1.52
34	BA	32	A	C1'-N9	-6.02	1.39	1.48
35	BB	1522	G	C3'-C2'	-6.02	1.43	1.52
85	AA	1539	A	P-O5'	-6.02	1.50	1.59
34	BA	417	A	O4'-C1'	-6.02	1.32	1.42
34	BA	508	C	O3'-P	-6.02	1.52	1.61
34	BA	1284	G	O3'-P	-6.02	1.52	1.61
35	BB	127	U	C3'-C2'	-6.02	1.43	1.52
38	BE	115	U	P-O5'	-6.02	1.50	1.59
48	BO	65	GLU	CA-C	-6.02	1.44	1.52
80	Bu	287	GLU	N-CA	-6.02	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	409	A	C1'-N9	-6.01	1.39	1.48
35	BB	997	G	P-O5'	-6.01	1.50	1.59
35	BB	1450	G	C1'-N9	-6.01	1.39	1.48
60	Ba	88	LEU	N-CA	-6.01	1.39	1.46
83	Bx	66	PRO	C-N	-6.01	1.25	1.34
85	AA	404	A	C4'-O4'	-6.01	1.36	1.45
85	AA	1977	G	P-O5'	-6.01	1.50	1.59
34	BA	45	A	C1'-N9	-6.01	1.38	1.47
34	BA	257	G	O3'-P	-6.01	1.52	1.61
34	BA	412	G	C2'-C1'	-6.01	1.44	1.53
34	BA	1493	U	C3'-O3'	6.01	1.52	1.43
34	BA	1792	U	C3'-C2'	-6.01	1.43	1.52
35	BB	559	U	P-O5'	-6.01	1.50	1.59
36	BC	95	A	P-O5'	-6.01	1.50	1.59
38	BE	88	G	C1'-N9	-6.01	1.39	1.48
38	BE	125	C	C3'-C2'	-6.01	1.43	1.52
58	BY	14	HIS	C-N	-6.01	1.26	1.33
85	AA	397	G	C3'-C2'	-6.01	1.43	1.52
34	BA	607	C	O3'-P	-6.01	1.52	1.61
34	BA	1721	U	O3'-P	-6.01	1.52	1.61
35	BB	1521	G	O3'-P	-6.01	1.52	1.61
40	BG	128	U	O3'-P	-6.01	1.52	1.61
41	BH	105	U	O3'-P	-6.01	1.52	1.61
50	BQ	42	VAL	CA-C	-6.01	1.45	1.52
64	Be	84	THR	CA-C	-6.01	1.44	1.52
72	Bm	61	MET	CA-C	-6.01	1.45	1.52
75	Bp	33	LYS	CA-C	-6.01	1.45	1.52
85	AA	1095	C	P-O5'	-6.01	1.50	1.59
22	AO	45	MET	CA-C	-6.01	1.45	1.52
49	BP	93	ARG	CA-C	-6.01	1.45	1.52
62	Bc	128	LYS	CA-C	-6.01	1.45	1.52
34	BA	692	U	P-O5'	-6.01	1.50	1.59
34	BA	1222	C	C4'-C3'	-6.01	1.43	1.52
34	BA	1702	G	C3'-C2'	-6.01	1.43	1.52
35	BB	816	U	C1'-N1	-6.01	1.39	1.48
38	BE	40	C	P-O5'	-6.01	1.50	1.59
35	BB	53	C	C2'-C1'	-6.00	1.44	1.53
45	BL	53	VAL	CA-C	-6.00	1.45	1.52
58	BY	8	PHE	N-CA	-6.00	1.39	1.46
33	AZ	57	THR	CA-C	-6.00	1.45	1.52
34	BA	1039	G	O3'-P	-6.00	1.52	1.61
34	BA	1561	C	C4'-O4'	-6.00	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1460	G	C2'-C1'	-6.00	1.44	1.53
50	BQ	53	ILE	CA-C	-6.00	1.44	1.52
85	AA	1500	C	C2'-C1'	-6.00	1.44	1.53
30	AW	56	LYS	N-CA	-6.00	1.38	1.46
34	BA	421	G	O3'-P	-6.00	1.52	1.61
34	BA	562	C	P-O5'	-6.00	1.50	1.59
34	BA	1312	A	P-O5'	-6.00	1.50	1.59
34	BA	1342	C	P-O5'	-6.00	1.50	1.59
34	BA	1698	C	C1'-N1	-6.00	1.39	1.48
36	BC	18	G	C1'-N9	-6.00	1.39	1.48
40	BG	173	C	C2'-C1'	-6.00	1.44	1.53
65	Bf	144	ARG	CA-C	-6.00	1.45	1.52
77	Br	195	MET	CA-C	-6.00	1.44	1.52
85	AA	41	G	O3'-P	-6.00	1.52	1.61
85	AA	396	U	P-O5'	-6.00	1.50	1.59
41	BH	15	A	C1'-N9	-6.00	1.39	1.48
85	AA	73	A	O3'-P	-6.00	1.52	1.61
85	AA	629	A	C2'-C1'	-6.00	1.44	1.53
15	AG	57	SER	CA-C	-6.00	1.45	1.52
34	BA	3	G	O4'-C1'	-6.00	1.32	1.41
34	BA	112	C	C4'-O4'	-6.00	1.36	1.45
34	BA	696	A	C3'-C2'	-6.00	1.43	1.52
34	BA	765	U	O5'-C5'	6.00	1.51	1.42
34	BA	1495	A	C4'-C3'	-6.00	1.44	1.53
35	BB	459	U	C3'-C2'	-6.00	1.43	1.52
35	BB	1188	A	O4'-C1'	-6.00	1.32	1.41
36	BC	66	G	O3'-P	-6.00	1.52	1.61
38	BE	96	G	C3'-C2'	-6.00	1.43	1.52
41	BH	126	C	C1'-N1	-6.00	1.39	1.48
51	BR	83	TRP	N-CA	-6.00	1.37	1.46
65	Bf	412	ILE	CA-C	-6.00	1.45	1.52
71	Bl	105	THR	CA-C	-6.00	1.45	1.52
85	AA	376	C	C3'-C2'	-6.00	1.43	1.52
85	AA	865	G	C1'-N9	-6.00	1.39	1.48
34	BA	420	A	C3'-C2'	-6.00	1.43	1.52
34	BA	1433	U	C4'-O4'	-6.00	1.36	1.45
35	BB	763	U	P-O5'	-6.00	1.50	1.59
47	BN	33	GLN	N-CA	-6.00	1.41	1.46
48	BO	51	ILE	N-CA	-6.00	1.39	1.46
85	AA	1830	U	P-O5'	-6.00	1.50	1.59
85	AA	2172	A	P-O5'	-6.00	1.50	1.59
16	AH	54	LYS	N-CA	-6.00	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	AX	155	TYR	CA-C	-6.00	1.45	1.52
34	BA	1568	A	C2'-C1'	-6.00	1.44	1.53
34	BA	1728	G	C1'-N9	-6.00	1.38	1.47
35	BB	736	G	O3'-P	-6.00	1.52	1.61
35	BB	1460	G	C1'-N9	-6.00	1.38	1.47
37	BD	82	G	C4'-O4'	-6.00	1.36	1.45
85	AA	902	A	O3'-P	-6.00	1.52	1.61
11	AC	78	THR	CA-C	-5.99	1.45	1.52
34	BA	51	C	O3'-P	-5.99	1.52	1.61
34	BA	1732	A	O3'-P	-5.99	1.52	1.61
37	BD	80	G	C3'-C2'	-5.99	1.43	1.52
44	BK	155	ALA	CA-C	-5.99	1.45	1.52
65	Bf	79	ARG	CD-NE	5.99	1.54	1.46
82	Bw	105	ARG	CA-C	-5.99	1.45	1.52
85	AA	421	G	C1'-N9	-5.99	1.39	1.48
85	AA	605	A	C2'-C1'	-5.99	1.44	1.53
35	BB	1194	A	P-O5'	-5.99	1.50	1.59
48	BO	199	ASN	CA-C	-5.99	1.44	1.52
53	BT	41	VAL	N-CA	-5.99	1.39	1.46
70	Bk	62	LEU	CA-C	-5.99	1.45	1.52
85	AA	2183	U	C3'-C2'	-5.99	1.43	1.52
34	BA	89	G	C1'-N9	-5.99	1.39	1.48
34	BA	1602	A	C1'-N9	-5.99	1.39	1.48
42	BI	50	LYS	CA-C	-5.99	1.45	1.52
73	Bn	15	THR	CA-C	-5.99	1.44	1.52
35	BB	1096	G	C2'-C1'	-5.99	1.44	1.53
40	BG	152	G	C1'-N9	-5.99	1.39	1.48
42	BI	122	GLY	CA-C	-5.99	1.45	1.52
85	AA	455	G	O4'-C1'	-5.99	1.32	1.41
85	AA	1120	G	C2'-C1'	-5.99	1.44	1.53
34	BA	450	G	O3'-P	-5.99	1.52	1.61
34	BA	1184	A	O3'-P	-5.99	1.52	1.61
65	Bf	288	ARG	CD-NE	5.99	1.54	1.46
85	AA	138	C	C2'-C1'	-5.99	1.44	1.53
85	AA	692	U	O3'-P	-5.99	1.52	1.61
85	AA	716	G	O3'-P	-5.99	1.52	1.61
18	AJ	91	LYS	CA-C	-5.99	1.45	1.52
23	AP	157	LYS	CA-C	-5.99	1.45	1.52
26	AS	30	SER	N-CA	-5.99	1.39	1.46
30	AW	23	ARG	N-CA	-5.99	1.41	1.46
34	BA	1180	A	P-O5'	-5.99	1.50	1.59
38	BE	43	A	C1'-N9	-5.99	1.39	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	Bx	122	LEU	CA-C	-5.99	1.45	1.52
85	AA	475	A	O3'-P	-5.99	1.52	1.61
85	AA	1882	U	O3'-P	-5.99	1.52	1.61
86	AB	71	G	O3'-P	-5.99	1.52	1.61
35	BB	813	C	C2'-C1'	-5.98	1.44	1.53
35	BB	1076	U	C1'-N1	-5.98	1.39	1.48
35	BB	1094	A	P-O5'	-5.98	1.50	1.59
35	BB	1361	A	C2'-C1'	-5.98	1.44	1.53
84	By	111	ARG	N-CA	-5.98	1.38	1.45
85	AA	476	C	C3'-C2'	-5.98	1.43	1.52
4	A3	3	LEU	N-CA	-5.98	1.38	1.46
34	BA	1022	C	C1'-N1	-5.98	1.38	1.47
34	BA	1341	A	P-O5'	-5.98	1.50	1.59
34	BA	1505	G	O3'-P	-5.98	1.52	1.61
35	BB	433	C	P-O5'	-5.98	1.50	1.59
35	BB	1258	G	C2'-C1'	-5.98	1.44	1.53
77	Br	119	LYS	CA-C	-5.98	1.45	1.52
79	Bt	25	VAL	CA-C	-5.98	1.45	1.52
85	AA	34	G	C1'-N9	-5.98	1.39	1.48
85	AA	340	G	C3'-C2'	-5.98	1.43	1.52
7	A6	173	ARG	CA-C	-5.98	1.45	1.52
34	BA	1603	A	C2'-C1'	-5.98	1.44	1.53
35	BB	102	G	C2'-C1'	-5.98	1.44	1.53
35	BB	505	G	O3'-P	-5.98	1.52	1.61
35	BB	563	A	C2'-C1'	-5.98	1.44	1.53
35	BB	1193	G	O3'-P	-5.98	1.52	1.61
37	BD	26	C	P-O5'	-5.98	1.50	1.59
41	BH	16	A	C3'-C2'	-5.98	1.43	1.52
48	BO	71	LYS	N-CA	-5.98	1.39	1.46
48	BO	197	TRP	N-CA	-5.98	1.39	1.46
62	Bc	124	CYS	CA-C	-5.98	1.45	1.52
81	Bv	27	ARG	CA-C	-5.98	1.44	1.52
85	AA	513	G	C1'-N9	-5.98	1.39	1.48
35	BB	77	A	O3'-P	-5.98	1.52	1.61
85	AA	245	A	O3'-P	-5.98	1.52	1.61
34	BA	1160	U	C1'-N1	-5.98	1.39	1.48
34	BA	1694	C	C3'-C2'	-5.98	1.43	1.52
36	BC	141	C	C2'-C1'	-5.98	1.44	1.53
38	BE	148	C	O3'-P	-5.98	1.52	1.61
41	BH	6	U	C3'-C2'	-5.98	1.43	1.52
68	Bi	110	VAL	CA-CB	-5.98	1.47	1.54
85	AA	1904	C	O3'-P	-5.98	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	944	G	C3'-C2'	-5.98	1.43	1.52
34	BA	1034	U	C3'-C2'	-5.98	1.43	1.52
34	BA	1045	C	O3'-P	-5.98	1.52	1.61
34	BA	1269	C	C1'-N1	-5.98	1.39	1.48
38	BE	182	U	O3'-P	-5.98	1.52	1.61
40	BG	5	G	P-O5'	-5.98	1.50	1.59
85	AA	1140	G	C4'-C3'	-5.98	1.43	1.52
7	A6	76	MET	CA-C	-5.97	1.45	1.52
34	BA	1509	U	C1'-N1	-5.97	1.39	1.48
41	BH	46	C	C3'-C2'	-5.97	1.43	1.52
41	BH	110	C	P-O5'	-5.97	1.50	1.59
60	Ba	9	VAL	CA-C	-5.97	1.45	1.52
77	Br	256	GLU	N-CA	-5.97	1.38	1.46
84	By	151	GLN	CA-C	-5.97	1.45	1.52
85	AA	268	A	P-O5'	-5.97	1.50	1.59
85	AA	860	C	C1'-N1	-5.97	1.39	1.48
85	AA	2188	C	C1'-N1	-5.97	1.39	1.48
2	A1	248	GLN	CA-C	-5.97	1.45	1.52
5	A4	95	ILE	CA-CB	-5.97	1.47	1.54
35	BB	1044	U	O3'-P	-5.97	1.52	1.61
35	BB	1531	G	O3'-P	-5.97	1.52	1.61
53	BT	164	LEU	N-CA	-5.97	1.39	1.46
71	Bl	145	TYR	N-CA	-5.97	1.40	1.46
85	AA	52	U	P-O5'	-5.97	1.50	1.59
85	AA	1756	C	P-O5'	-5.97	1.50	1.59
85	AA	2171	A	C2'-C1'	-5.97	1.44	1.53
35	BB	4	C	C1'-N1	5.97	1.57	1.48
35	BB	847	U	P-O5'	-5.97	1.50	1.59
35	BB	1530	U	O3'-P	-5.97	1.52	1.61
38	BE	8	G	C2'-C1'	-5.97	1.44	1.53
67	Bh	69	THR	CA-C	-5.97	1.44	1.52
34	BA	395	G	O4'-C1'	-5.97	1.32	1.41
34	BA	680	C	C4'-C3'	-5.97	1.43	1.52
34	BA	1026	C	C3'-C2'	-5.97	1.43	1.52
35	BB	1448	U	O3'-P	-5.97	1.52	1.61
41	BH	37	U	C4'-O4'	-5.97	1.36	1.45
42	BI	68	ALA	C-N	-5.97	1.26	1.33
48	BO	98	PHE	CA-C	-5.97	1.45	1.52
58	BY	45	MET	CA-C	-5.97	1.45	1.52
67	Bh	137	HIS	N-CA	-5.97	1.39	1.46
80	Bu	14	LYS	CA-C	-5.97	1.45	1.52
81	Bv	94	ASP	CA-C	-5.97	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1845	G	C1'-N9	-5.97	1.39	1.48
34	BA	701	G	C1'-N9	-5.97	1.39	1.48
85	AA	722	G	P-O5'	-5.97	1.50	1.59
34	BA	1101	A	C2'-C1'	-5.97	1.44	1.53
34	BA	1719	G	C1'-N9	-5.97	1.39	1.48
35	BB	68	G	O3'-P	-5.97	1.52	1.61
35	BB	1049	G	C1'-N9	-5.97	1.39	1.48
35	BB	1063	C	C4'-O4'	-5.97	1.36	1.45
38	BE	203	C	C1'-N1	-5.97	1.39	1.48
53	BT	6	LEU	CA-C	-5.97	1.44	1.52
85	AA	16	G	C3'-C2'	-5.97	1.43	1.52
8	A7	110	LYS	CA-C	-5.96	1.45	1.52
23	AP	47	THR	CA-C	-5.96	1.45	1.53
26	AS	60	LYS	CA-C	-5.96	1.44	1.52
34	BA	79	C	C3'-C2'	-5.96	1.43	1.52
34	BA	857	C	O4'-C1'	-5.96	1.32	1.41
34	BA	1178	U	O3'-P	-5.96	1.52	1.61
34	BA	1303	U	O3'-P	-5.96	1.52	1.61
35	BB	1138	A	P-O5'	-5.96	1.50	1.59
36	BC	40	A	C2'-C1'	-5.96	1.44	1.53
57	BX	157	THR	N-CA	-5.96	1.38	1.46
68	Bi	25	LEU	N-CA	-5.96	1.38	1.46
85	AA	144	A	O3'-P	-5.96	1.52	1.61
85	AA	2224	U	P-O5'	-5.96	1.50	1.59
2	A1	10	TYR	CA-C	-5.96	1.44	1.52
24	AQ	15	GLN	CA-C	-5.96	1.45	1.52
34	BA	205	G	P-O5'	-5.96	1.50	1.59
34	BA	910	U	C3'-C2'	-5.96	1.43	1.52
85	AA	1358	A	O3'-P	-5.96	1.52	1.61
34	BA	119	G	C5'-C4'	5.96	1.60	1.51
36	BC	76	C	C2'-C1'	-5.96	1.44	1.53
74	Bo	17	ARG	CA-C	-5.96	1.45	1.52
85	AA	1464	G	O4'-C1'	-5.96	1.32	1.41
85	AA	1517	G	O3'-P	-5.96	1.52	1.61
34	BA	291	C	C3'-C2'	-5.96	1.43	1.52
34	BA	994	G	P-O5'	-5.96	1.50	1.59
35	BB	1245	A	O3'-P	-5.96	1.52	1.61
35	BB	1387	C	C3'-C2'	-5.96	1.43	1.52
38	BE	182	U	C4'-C3'	-5.96	1.43	1.52
75	Bp	42	LEU	N-CA	-5.96	1.38	1.46
85	AA	364	C	C1'-N1	-5.96	1.39	1.48
85	AA	626	G	C1'-N9	-5.96	1.39	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1171	C	O3'-P	-5.96	1.52	1.61
34	BA	1541	G	C2'-C1'	-5.96	1.44	1.53
35	BB	1409	G	O3'-P	-5.96	1.52	1.61
40	BG	107	U	C1'-N1	-5.96	1.38	1.47
85	AA	543	A	C2'-C1'	-5.96	1.44	1.53
85	AA	790	A	C4'-O4'	-5.96	1.36	1.45
85	AA	1659	C	P-O5'	-5.96	1.50	1.59
85	AA	2098	A	O3'-P	-5.96	1.52	1.61
3	A2	137	ILE	CA-C	-5.96	1.45	1.52
4	A3	165	VAL	CA-C	-5.96	1.45	1.52
7	A6	114	LYS	N-CA	-5.96	1.39	1.46
34	BA	95	C	C2'-C1'	-5.96	1.44	1.53
34	BA	413	A	O3'-P	-5.96	1.52	1.61
34	BA	569	C	O3'-P	-5.96	1.52	1.61
34	BA	894	G	N9-C4	-5.96	1.26	1.38
35	BB	713	U	O3'-P	-5.96	1.52	1.61
40	BG	39	A	C3'-C2'	-5.96	1.44	1.52
40	BG	168	A	O4'-C1'	-5.96	1.33	1.42
59	BZ	92	VAL	N-CA	-5.96	1.39	1.46
70	Bk	55	ILE	CA-C	-5.96	1.45	1.52
85	AA	556	C	C2'-C1'	-5.96	1.44	1.53
34	BA	934	G	O4'-C1'	-5.96	1.33	1.42
35	BB	1288	G	C2'-C1'	-5.96	1.44	1.53
48	BO	38	ALA	CA-C	-5.96	1.45	1.52
48	BO	190	MET	CA-C	-5.96	1.45	1.52
49	BP	106	THR	N-CA	-5.96	1.39	1.46
85	AA	2216	A	O3'-P	-5.96	1.52	1.61
35	BB	116	G	P-O5'	-5.95	1.50	1.59
35	BB	117	A	C1'-N9	-5.95	1.39	1.48
35	BB	375	G	C2'-C1'	-5.95	1.44	1.53
38	BE	41	C	C2'-C1'	-5.95	1.44	1.53
70	Bk	51	ILE	CA-C	-5.95	1.45	1.52
78	Bs	10	ALA	N-CA	-5.95	1.39	1.46
85	AA	473	C	C3'-C2'	-5.95	1.43	1.52
85	AA	1215	A	O3'-P	-5.95	1.52	1.61
34	BA	1221	A	P-O5'	-5.95	1.50	1.59
34	BA	1618	A	C2'-C1'	-5.95	1.44	1.53
35	BB	845	C	O3'-P	-5.95	1.52	1.61
35	BB	1521	G	C1'-N9	-5.95	1.39	1.48
36	BC	164	G	C4'-O4'	-5.95	1.36	1.45
80	Bu	66	HIS	CA-C	-5.95	1.45	1.52
85	AA	1141	U	O3'-P	-5.95	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1660	U	C3'-C2'	-5.95	1.43	1.52
85	AA	2204	A	O3'-P	-5.95	1.52	1.61
13	AE	101	VAL	CA-C	-5.95	1.45	1.52
15	AG	91	LEU	N-CA	-5.95	1.39	1.46
27	AT	82	ILE	CA-C	-5.95	1.45	1.52
34	BA	344	G	C2'-C1'	-5.95	1.44	1.53
34	BA	688	G	O3'-P	-5.95	1.52	1.61
34	BA	1477	C	C4'-C3'	-5.95	1.43	1.52
38	BE	21	C	C2'-C1'	-5.95	1.44	1.53
65	Bf	355	ALA	CA-C	-5.95	1.44	1.52
85	AA	1283	C	C4'-O4'	-5.95	1.36	1.45
34	BA	337	C	O3'-P	-5.95	1.52	1.61
34	BA	1493	U	C1'-N1	5.95	1.56	1.47
79	Bt	80	ILE	CA-CB	-5.95	1.46	1.54
85	AA	811	A	O3'-P	-5.95	1.52	1.61
85	AA	1624	U	C1'-N1	-5.95	1.39	1.48
34	BA	293	A	C2'-C1'	-5.95	1.44	1.53
34	BA	506	U	C3'-C2'	-5.95	1.43	1.52
35	BB	1139	A	C2'-C1'	-5.95	1.44	1.53
39	BF	4	A	P-O5'	-5.95	1.50	1.59
85	AA	489	C	C2'-C1'	-5.95	1.44	1.53
6	A5	160	ARG	N-CA	-5.95	1.38	1.46
34	BA	414	A	C2'-C1'	-5.95	1.44	1.53
34	BA	1814	U	C2'-C1'	-5.95	1.44	1.53
36	BC	156	A	C4'-C3'	-5.95	1.43	1.52
37	BD	69	U	C1'-N1	-5.95	1.39	1.48
38	BE	191	U	O3'-P	-5.95	1.52	1.61
74	Bo	56	ARG	CA-C	-5.95	1.45	1.52
80	Bu	14	LYS	N-CA	-5.95	1.39	1.46
85	AA	1970	A	C2'-C1'	-5.95	1.44	1.53
85	AA	2089	G	C1'-N9	-5.95	1.39	1.48
34	BA	19	G	C2'-C1'	-5.94	1.44	1.53
34	BA	313	C	C2'-C1'	-5.94	1.44	1.53
34	BA	823	G	O3'-P	-5.94	1.52	1.61
34	BA	844	U	P-O5'	-5.94	1.50	1.59
35	BB	566	A	P-O5'	-5.94	1.50	1.59
35	BB	598	C	C3'-C2'	-5.94	1.43	1.52
36	BC	65	G	P-O5'	-5.94	1.50	1.59
40	BG	73	U	P-O5'	-5.94	1.50	1.59
34	BA	134	U	P-O5'	-5.94	1.50	1.59
34	BA	239	C	C2'-C1'	-5.94	1.44	1.53
34	BA	431	A	C3'-C2'	-5.94	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1244	G	C2'-C1'	-5.94	1.44	1.53
34	BA	1547	G	P-O5'	-5.94	1.50	1.59
35	BB	1003	G	C2'-C1'	-5.94	1.44	1.53
36	BC	6	G	P-O5'	-5.94	1.50	1.59
36	BC	52	A	C4'-C3'	-5.94	1.43	1.52
40	BG	182	G	P-O5'	-5.94	1.50	1.59
50	BQ	208	ALA	N-CA	-5.94	1.38	1.46
85	AA	7	G	C3'-C2'	-5.94	1.43	1.52
34	BA	94	G	C1'-N9	-5.94	1.39	1.48
34	BA	1466	U	C2'-C1'	-5.94	1.44	1.53
34	BA	1708	A	C2'-C1'	-5.94	1.44	1.53
35	BB	1296	A	C1'-N9	-5.94	1.39	1.48
38	BE	52	U	O3'-P	-5.94	1.52	1.61
47	BN	122	LYS	N-CA	-5.94	1.39	1.46
77	Br	164	LYS	N-CA	-5.94	1.39	1.46
77	Br	255	PHE	CA-C	-5.94	1.45	1.52
85	AA	1005	C	P-O5'	-5.94	1.50	1.59
85	AA	1487	G	O3'-P	-5.94	1.52	1.61
40	BG	36	G	O3'-P	-5.94	1.52	1.61
42	BI	70	CYS	N-CA	-5.94	1.38	1.46
56	BW	128	TRP	N-CA	-5.94	1.40	1.46
70	Bk	62	LEU	N-CA	-5.94	1.39	1.46
85	AA	1483	A	P-O5'	-5.94	1.50	1.59
11	AC	123	ILE	CA-C	-5.94	1.45	1.52
16	AH	25	HIS	N-CA	-5.94	1.39	1.46
31	AX	71	CYS	CA-C	-5.94	1.45	1.52
34	BA	921	G	O3'-P	-5.94	1.52	1.61
35	BB	381	C	O3'-P	-5.94	1.52	1.61
35	BB	1241	U	O3'-P	-5.94	1.52	1.61
35	BB	1538	G	C1'-N9	-5.94	1.39	1.48
37	BD	112	U	P-O5'	-5.94	1.50	1.59
41	BH	113	G	C1'-N9	-5.94	1.39	1.48
59	BZ	5	LYS	CA-C	5.94	1.60	1.53
60	Ba	110	LEU	CA-C	-5.94	1.45	1.52
66	Bg	74	SER	CA-C	-5.94	1.44	1.52
73	Bn	57	ARG	CA-C	-5.94	1.45	1.52
78	Bs	2	MET	N-CA	-5.94	1.38	1.45
85	AA	687	G	C2'-C1'	-5.94	1.44	1.53
34	BA	286	C	C2'-C1'	-5.94	1.44	1.53
34	BA	909	G	C3'-C2'	-5.94	1.43	1.52
34	BA	1143	U	C3'-C2'	-5.94	1.43	1.52
7	A6	154	HIS	CA-C	-5.93	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	97	A	O3'-P	-5.93	1.52	1.61
34	BA	507	U	C4'-C3'	5.93	1.61	1.52
34	BA	967	C	C3'-C2'	-5.93	1.43	1.52
34	BA	1234	U	C1'-N1	-5.93	1.39	1.48
35	BB	459	U	C2'-C1'	-5.93	1.44	1.53
35	BB	1288	G	O3'-P	-5.93	1.52	1.61
40	BG	111	C	P-O5'	-5.93	1.50	1.59
34	BA	149	G	P-O5'	-5.93	1.50	1.59
35	BB	132	G	P-O5'	-5.93	1.50	1.59
35	BB	703	U	C1'-N1	-5.93	1.39	1.48
35	BB	1131	C	C4'-O4'	-5.93	1.36	1.45
36	BC	49	G	C1'-N9	-5.93	1.39	1.48
52	BS	39	ALA	CA-C	-5.93	1.45	1.52
82	Bw	64	LEU	CA-C	-5.93	1.45	1.52
85	AA	460	U	O3'-P	-5.93	1.52	1.61
34	BA	216	C	P-O5'	-5.93	1.50	1.59
34	BA	257	G	C1'-N9	-5.93	1.39	1.48
34	BA	912	G	C1'-N9	-5.93	1.39	1.48
34	BA	1234	U	P-O5'	-5.93	1.50	1.59
35	BB	522	A	O3'-P	-5.93	1.52	1.61
35	BB	737	C	P-O5'	-5.93	1.50	1.59
35	BB	1440	A	C4'-C3'	-5.93	1.43	1.52
81	Bv	25	THR	CA-C	-5.93	1.45	1.52
85	AA	1288	A	C2'-C1'	-5.93	1.44	1.53
22	AO	40	LYS	CA-C	-5.93	1.45	1.52
34	BA	424	U	C2'-C1'	-5.93	1.44	1.53
34	BA	688	G	P-O5'	-5.93	1.50	1.59
34	BA	905	A	C2'-C1'	-5.93	1.44	1.53
85	AA	2037	A	P-O5'	-5.93	1.50	1.59
34	BA	689	C	C1'-N1	-5.93	1.39	1.48
34	BA	1219	G	C1'-N9	-5.93	1.39	1.48
36	BC	64	U	O3'-P	-5.93	1.52	1.61
36	BC	69	U	C1'-N1	-5.93	1.39	1.48
39	BF	32	G	C3'-C2'	-5.93	1.44	1.52
45	BL	48	CYS	CA-C	-5.93	1.44	1.52
49	BP	98	ALA	N-CA	-5.93	1.38	1.46
49	BP	110	ARG	N-CA	-5.93	1.39	1.46
85	AA	255	A	C1'-N9	-5.93	1.39	1.48
34	BA	90	G	C1'-N9	-5.92	1.39	1.48
34	BA	885	A	O3'-P	-5.92	1.52	1.61
37	BD	110	G	C2'-C1'	-5.92	1.44	1.53
38	BE	201	A	C2'-C1'	-5.92	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	BU	70	ARG	N-CA	-5.92	1.38	1.46
82	Bw	147	PRO	N-CA	-5.92	1.41	1.47
83	Bx	205	ARG	CD-NE	5.92	1.54	1.46
85	AA	354	C	C2'-C1'	-5.92	1.44	1.53
85	AA	412	G	O3'-P	-5.92	1.52	1.61
85	AA	473	C	C2'-C1'	-5.92	1.44	1.53
85	AA	649	C	C5'-C4'	-5.92	1.42	1.51
85	AA	674	U	O3'-P	-5.92	1.52	1.61
85	AA	867	G	C3'-O3'	-5.92	1.33	1.42
85	AA	899	A	C5'-C4'	5.92	1.60	1.51
85	AA	1701	G	O3'-P	-5.92	1.52	1.61
85	AA	1703	A	C1'-N9	-5.92	1.39	1.48
34	BA	1521	C	O3'-P	-5.92	1.52	1.61
35	BB	136	A	C1'-N9	-5.92	1.39	1.48
65	Bf	123	VAL	CA-C	-5.92	1.45	1.52
83	Bx	164	VAL	CA-C	-5.92	1.45	1.52
85	AA	2182	A	C1'-N9	-5.92	1.39	1.48
34	BA	343	G	O3'-P	-5.92	1.52	1.61
34	BA	1413	G	C1'-N9	-5.92	1.39	1.48
35	BB	101	U	C1'-N1	-5.92	1.39	1.48
35	BB	110	U	O3'-P	-5.92	1.52	1.61
35	BB	1023	G	C1'-N9	-5.92	1.39	1.48
38	BE	119	U	O3'-P	-5.92	1.52	1.61
40	BG	44	G	C1'-N9	-5.92	1.39	1.48
42	BI	156	VAL	CA-CB	-5.92	1.45	1.54
57	BX	98	ILE	CA-CB	-5.92	1.47	1.54
58	BY	3	THR	CA-C	-5.92	1.45	1.52
65	Bf	413	THR	N-CA	-5.92	1.39	1.47
85	AA	1524	A	O3'-P	-5.92	1.52	1.61
85	AA	1966	C	P-O5'	-5.92	1.50	1.59
27	AT	23	LEU	CA-C	-5.92	1.44	1.52
34	BA	765	U	C4'-O4'	5.92	1.54	1.45
35	BB	1299	G	P-O5'	-5.92	1.50	1.59
44	BK	157	MET	CA-C	-5.92	1.44	1.52
34	BA	1255	G	O3'-P	-5.92	1.52	1.61
36	BC	34	U	O4'-C1'	-5.92	1.33	1.42
51	BR	119	VAL	CA-CB	-5.92	1.46	1.54
65	Bf	214	VAL	CA-CB	-5.92	1.47	1.53
85	AA	1664	G	O3'-P	-5.92	1.52	1.61
13	AE	92	HIS	N-CA	-5.92	1.38	1.46
29	AV	24	HIS	CA-CB	5.92	1.62	1.53
34	BA	1323	G	O3'-P	-5.92	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	393	A	O3'-P	-5.92	1.52	1.61
35	BB	1219	A	C1'-N9	-5.92	1.39	1.48
36	BC	144	C	O3'-P	-5.92	1.52	1.61
56	BW	80	ILE	C-N	-5.92	1.26	1.33
57	BX	147	ARG	CA-C	-5.92	1.45	1.52
80	Bu	275	PRO	CA-CB	-5.92	1.45	1.53
85	AA	39	A	C1'-N9	-5.92	1.39	1.48
34	BA	326	A	C4'-O4'	-5.92	1.36	1.45
34	BA	1732	A	C1'-N9	-5.92	1.39	1.48
35	BB	100	A	C1'-N9	-5.92	1.39	1.48
35	BB	403	U	O3'-P	-5.92	1.52	1.61
37	BD	82	G	C1'-N9	-5.92	1.39	1.48
42	BI	177	GLY	CA-C	-5.92	1.43	1.51
57	BX	104	LEU	CA-C	-5.92	1.45	1.52
23	AP	100	THR	N-CA	-5.91	1.39	1.46
34	BA	12	G	N9-C4	-5.91	1.26	1.38
34	BA	195	G	C2'-C1'	-5.91	1.44	1.53
34	BA	494	A	C3'-C2'	-5.91	1.43	1.52
34	BA	710	A	C2'-C1'	-5.91	1.44	1.53
34	BA	852	C	O3'-P	-5.91	1.52	1.61
34	BA	1218	G	C1'-N9	-5.91	1.39	1.48
47	BN	43	LEU	N-CA	-5.91	1.39	1.46
47	BN	203	ARG	CD-NE	5.91	1.54	1.46
85	AA	113	U	C3'-C2'	-5.91	1.43	1.52
85	AA	695	A	C1'-N9	-5.91	1.39	1.48
85	AA	718	C	C2'-C1'	-5.91	1.44	1.53
85	AA	1860	A	O3'-P	-5.91	1.52	1.61
6	A5	64	ASN	CA-C	-5.91	1.45	1.53
34	BA	706	C	C4'-O4'	-5.91	1.36	1.45
34	BA	1507	C	P-O5'	-5.91	1.50	1.59
35	BB	59	U	O3'-P	-5.91	1.52	1.61
35	BB	1407	U	C4'-O4'	-5.91	1.36	1.45
82	Bw	68	ARG	N-CA	-5.91	1.39	1.46
83	Bx	183	CYS	CA-C	-5.91	1.45	1.52
1	A0	234	HIS	CA-C	-5.91	1.45	1.52
34	BA	453	A	O3'-P	-5.91	1.52	1.61
34	BA	1046	G	C1'-N9	-5.91	1.39	1.48
39	BF	62	U	C1'-N1	-5.91	1.38	1.47
85	AA	1554	C	C2'-C1'	-5.91	1.44	1.53
4	A3	128	THR	CA-C	-5.91	1.44	1.52
34	BA	568	G	P-O5'	-5.91	1.50	1.59
34	BA	1042	U	O3'-P	-5.91	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BC	43	A	C4'-C3'	-5.91	1.43	1.52
40	BG	20	U	O3'-P	-5.91	1.52	1.61
62	Bc	60	ILE	N-CA	-5.91	1.40	1.46
72	Bm	83	LYS	CA-C	-5.91	1.45	1.52
74	Bo	41	PHE	CA-CB	5.91	1.62	1.53
82	Bw	82	ARG	CA-C	-5.91	1.45	1.52
85	AA	939	A	C1'-N9	-5.91	1.39	1.48
85	AA	1199	C	O3'-P	-5.91	1.52	1.61
85	AA	1357	U	O3'-P	-5.91	1.52	1.61
85	AA	1471	G	C5-C6	-5.91	1.30	1.42
85	AA	1801	U	P-O5'	-5.91	1.50	1.59
34	BA	53	G	C3'-C2'	-5.91	1.43	1.52
34	BA	483	A	P-O5'	-5.91	1.50	1.59
34	BA	533	U	C1'-N1	-5.91	1.39	1.48
34	BA	1294	C	C2'-C1'	-5.91	1.44	1.53
35	BB	829	C	C1'-N1	-5.91	1.39	1.48
85	AA	290	G	C2'-C1'	-5.91	1.44	1.53
85	AA	1057	G	O3'-P	-5.91	1.52	1.61
11	AC	207	ILE	CA-C	-5.91	1.45	1.52
34	BA	1530	G	O3'-P	-5.91	1.52	1.61
35	BB	591	A	P-O5'	-5.91	1.50	1.59
53	BT	157	GLU	N-CA	-5.91	1.39	1.46
65	Bf	201	LEU	N-CA	-5.91	1.39	1.46
70	Bk	70	LEU	N-CA	-5.91	1.39	1.46
80	Bu	233	SER	CA-C	-5.91	1.45	1.52
85	AA	415	G	P-O5'	-5.91	1.50	1.59
85	AA	925	G	C3'-C2'	-5.91	1.43	1.52
19	AK	87	VAL	CA-C	-5.90	1.45	1.52
35	BB	30	A	C2'-C1'	-5.90	1.44	1.53
65	Bf	357	ASP	CA-C	-5.90	1.45	1.52
85	AA	1284	A	O3'-P	-5.90	1.52	1.61
85	AA	2203	C	C1'-N1	-5.90	1.39	1.48
34	BA	78	U	C4'-C3'	-5.90	1.43	1.52
34	BA	951	C	C1'-N1	-5.90	1.39	1.48
34	BA	1522	G	C2'-C1'	-5.90	1.44	1.53
35	BB	124	G	O3'-P	-5.90	1.52	1.61
36	BC	131	C	O3'-P	-5.90	1.52	1.61
37	BD	103	C	P-O5'	-5.90	1.50	1.59
47	BN	81	SER	CA-C	-5.90	1.44	1.52
85	AA	1512	U	O3'-P	-5.90	1.52	1.61
85	AA	2199	G	O3'-P	-5.90	1.52	1.61
5	A4	117	VAL	CA-C	-5.90	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	876	C	C3'-C2'	-5.90	1.43	1.52
34	BA	888	G	C2'-C1'	-5.90	1.44	1.53
34	BA	1411	C	C2'-C1'	-5.90	1.44	1.53
35	BB	78	C	O3'-P	-5.90	1.52	1.61
35	BB	560	C	C2'-C1'	-5.90	1.44	1.53
85	AA	94	C	C1'-N1	-5.90	1.39	1.48
85	AA	1516	A	C4'-C3'	-5.90	1.43	1.52
34	BA	214	A	C2'-C1'	-5.90	1.44	1.53
34	BA	809	U	O3'-P	-5.90	1.52	1.61
35	BB	572	G	P-O5'	-5.90	1.50	1.59
57	BX	117	ILE	CA-CB	-5.90	1.46	1.54
85	AA	477	U	P-O5'	-5.90	1.50	1.59
2	A1	190	GLY	CA-C	-5.90	1.43	1.51
3	A2	162	GLU	CA-C	-5.90	1.45	1.52
34	BA	706	C	C1'-N1	-5.90	1.39	1.48
34	BA	1099	U	P-O5'	-5.90	1.50	1.59
35	BB	616	U	C1'-N1	-5.90	1.39	1.48
35	BB	775	U	P-O5'	-5.90	1.50	1.59
39	BF	72	A	P-O5'	-5.90	1.50	1.59
40	BG	25	G	C3'-C2'	-5.90	1.44	1.52
53	BT	32	ILE	CA-CB	-5.90	1.47	1.54
74	Bc	82	THR	N-CA	-5.90	1.39	1.46
85	AA	533	C	C1'-N1	-5.90	1.39	1.48
85	AA	1900	C	O3'-P	-5.90	1.52	1.61
85	AA	2105	G	O3'-P	-5.90	1.52	1.61
34	BA	1014	A	O3'-P	-5.90	1.52	1.61
34	BA	1338	G	O3'-P	-5.90	1.52	1.61
35	BB	465	C	C1'-N1	-5.90	1.38	1.47
35	BB	522	A	C2'-C1'	-5.90	1.44	1.53
35	BB	1545	U	C2'-C1'	-5.90	1.44	1.53
36	BC	62	A	C1'-N9	-5.90	1.38	1.47
72	Bm	56	VAL	CA-CB	-5.90	1.46	1.54
4	A3	95	ARG	CA-C	-5.89	1.45	1.52
15	AG	129	TYR	CA-C	-5.89	1.44	1.52
29	AV	25	CYS	CA-C	-5.89	1.45	1.52
34	BA	413	A	C3'-C2'	-5.89	1.44	1.52
34	BA	1656	A	C1'-N9	-5.89	1.39	1.48
37	BD	69	U	C3'-C2'	-5.89	1.44	1.52
47	BN	115	ASN	CA-C	-5.89	1.45	1.52
50	BQ	103	THR	CA-C	-5.89	1.44	1.52
62	Bc	138	ARG	CA-C	-5.89	1.45	1.52
34	BA	1158	A	C3'-C2'	-5.89	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	504	C	P-O5'	-5.89	1.50	1.59
35	BB	827	U	C1'-N1	-5.89	1.39	1.48
35	BB	1268	C	C2'-C1'	-5.89	1.44	1.53
36	BC	157	U	O3'-P	-5.89	1.52	1.61
65	Bf	287	LYS	CA-C	-5.89	1.45	1.52
70	Bk	87	LEU	N-CA	-5.89	1.38	1.46
34	BA	702	G	C2'-C1'	-5.89	1.44	1.53
34	BA	1479	G	O3'-P	-5.89	1.52	1.61
35	BB	787	A	C4'-O4'	-5.89	1.36	1.45
35	BB	1076	U	C3'-C2'	-5.89	1.44	1.52
38	BE	144	A	P-O5'	-5.89	1.50	1.59
64	Be	227	ARG	CD-NE	5.89	1.54	1.46
85	AA	2004	U	C4'-O4'	-5.89	1.37	1.45
6	A5	114	ALA	N-CA	-5.89	1.38	1.46
34	BA	162	G	C1'-N9	-5.89	1.38	1.47
34	BA	291	C	C2'-C1'	-5.89	1.44	1.53
34	BA	905	A	C1'-N9	-5.89	1.39	1.48
34	BA	1256	A	O3'-P	-5.89	1.52	1.61
34	BA	1281	U	C2'-C1'	-5.89	1.44	1.53
34	BA	1629	A	O3'-P	-5.89	1.52	1.61
34	BA	1730	A	C4'-C3'	5.89	1.61	1.52
35	BB	981	A	P-O5'	-5.89	1.50	1.59
35	BB	1310	C	C2'-C1'	-5.89	1.44	1.53
36	BC	104	A	C1'-N9	-5.89	1.38	1.47
37	BD	100	A	C1'-N9	-5.89	1.39	1.48
38	BE	204	U	C3'-C2'	-5.89	1.44	1.52
85	AA	1698	A	C1'-N9	-5.89	1.38	1.47
85	AA	2218	G	P-O5'	-5.89	1.50	1.59
25	AR	73	ILE	CA-CB	-5.89	1.46	1.54
34	BA	922	C	C1'-N1	-5.89	1.39	1.48
35	BB	1159	U	O4'-C1'	-5.89	1.32	1.41
36	BC	70	C	C2'-C1'	-5.89	1.44	1.53
85	AA	318	A	O3'-P	-5.89	1.52	1.61
85	AA	887	A	P-O5'	-5.89	1.50	1.59
85	AA	1531	G	C1'-N9	-5.89	1.39	1.48
85	AA	1637	C	P-O5'	-5.89	1.50	1.59
26	AS	26	GLY	CA-C	-5.89	1.45	1.52
34	BA	15	G	C3'-C2'	-5.89	1.44	1.52
34	BA	45	A	C2'-C1'	-5.89	1.44	1.53
34	BA	733	G	C1'-N9	-5.89	1.39	1.48
34	BA	915	A	C2'-C1'	-5.89	1.44	1.53
34	BA	1016	A	C3'-C2'	-5.89	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BN	73	LYS	CA-C	-5.89	1.45	1.52
57	BX	82	PHE	CB-CG	5.89	1.64	1.50
61	Bb	49	HIS	CA-C	-5.89	1.46	1.53
85	AA	1176	C	O3'-P	-5.89	1.52	1.61
85	AA	1843	A	C1'-N9	-5.89	1.39	1.48
4	A3	116	VAL	CA-C	-5.88	1.46	1.52
11	AC	132	THR	CA-C	-5.88	1.44	1.52
21	AM	42	ALA	CA-C	-5.88	1.44	1.52
25	AR	63	LEU	N-CA	-5.88	1.39	1.46
34	BA	915	A	C1'-N9	-5.88	1.38	1.47
34	BA	1379	G	O3'-P	-5.88	1.52	1.61
34	BA	1508	C	P-O5'	-5.88	1.50	1.59
34	BA	1797	A	P-O5'	-5.88	1.50	1.59
38	BE	11	A	O3'-P	-5.88	1.52	1.61
56	BW	134	HIS	CB-CG	-5.88	1.42	1.50
66	Bg	79	HIS	N-CA	-5.88	1.39	1.46
85	AA	589	A	C5'-C4'	5.88	1.60	1.51
85	AA	1228	A	N9-C4	-5.88	1.26	1.37
85	AA	2188	C	C3'-C2'	-5.88	1.44	1.52
34	BA	1045	C	C1'-N1	-5.88	1.39	1.48
54	BU	116	ARG	CD-NE	5.88	1.54	1.46
60	Ba	9	VAL	CA-CB	-5.88	1.47	1.54
85	AA	298	C	O3'-P	-5.88	1.52	1.61
85	AA	1175	A	O3'-P	-5.88	1.52	1.61
7	A6	45	ASN	CA-C	-5.88	1.44	1.52
34	BA	355	U	C1'-N1	-5.88	1.39	1.48
34	BA	477	C	P-O5'	-5.88	1.50	1.59
34	BA	523	A	O4'-C1'	-5.88	1.32	1.41
34	BA	855	C	C1'-N1	-5.88	1.39	1.48
34	BA	1153	C	O3'-P	-5.88	1.52	1.61
35	BB	111	C	O3'-P	-5.88	1.52	1.61
38	BE	39	U	C2'-C1'	-5.88	1.44	1.53
38	BE	158	U	C2'-C1'	-5.88	1.44	1.53
50	BQ	29	LYS	CA-C	-5.88	1.44	1.52
59	BZ	84	CYS	N-CA	-5.88	1.38	1.45
65	Bf	173	TRP	CA-C	-5.88	1.44	1.52
35	BB	108	G	C1'-N9	-5.88	1.39	1.48
84	By	142	LEU	N-CA	-5.88	1.38	1.45
34	BA	849	G	P-O5'	-5.88	1.50	1.59
34	BA	973	U	C4'-C3'	-5.88	1.43	1.52
48	BO	104	SER	CA-C	-5.88	1.44	1.52
85	AA	120	C	C3'-C2'	-5.88	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2082	C	C4'-O4'	-5.88	1.36	1.45
34	BA	340	U	O3'-P	-5.88	1.52	1.61
34	BA	353	U	C1'-N1	-5.88	1.39	1.48
35	BB	131	A	C3'-C2'	-5.88	1.44	1.52
35	BB	896	C	O3'-P	-5.88	1.52	1.61
35	BB	1052	G	C3'-C2'	-5.88	1.44	1.52
36	BC	23	G	O3'-P	-5.88	1.52	1.61
36	BC	87	C	C1'-N1	-5.88	1.39	1.48
47	BN	94	TYR	N-CA	-5.88	1.39	1.46
65	Bf	283	THR	CA-C	-5.88	1.45	1.52
85	AA	1702	G	P-O5'	-5.88	1.50	1.59
2	A1	37	GLU	CA-C	-5.88	1.43	1.52
34	BA	753	G	C2'-C1'	-5.88	1.44	1.53
34	BA	1406	U	C2'-C1'	-5.88	1.44	1.53
34	BA	1556	A	N9-C4	-5.88	1.26	1.37
34	BA	1605	G	O3'-P	-5.88	1.52	1.61
36	BC	24	G	C3'-C2'	-5.88	1.44	1.52
85	AA	34	G	C2'-C1'	-5.88	1.44	1.53
85	AA	876	U	P-O5'	-5.88	1.50	1.59
30	AW	11	PRO	N-CA	-5.87	1.40	1.47
38	BE	142	A	P-O5'	-5.87	1.50	1.59
40	BG	54	G	O3'-P	-5.87	1.52	1.61
85	AA	1187	G	C1'-N9	-5.87	1.39	1.48
34	BA	236	A	P-O5'	-5.87	1.50	1.59
34	BA	895	U	C2'-C1'	-5.87	1.44	1.53
34	BA	1075	U	O3'-P	-5.87	1.52	1.61
35	BB	826	G	C1'-N9	-5.87	1.39	1.48
37	BD	29	C	P-O5'	-5.87	1.50	1.59
39	BF	49	C	C3'-C2'	-5.87	1.44	1.52
52	BS	43	PHE	C-N	-5.87	1.25	1.34
85	AA	162	A	O3'-P	-5.87	1.52	1.61
85	AA	996	A	C1'-N9	-5.87	1.39	1.48
4	A3	63	PRO	N-CA	-5.87	1.40	1.47
11	AC	225	ILE	N-CA	-5.87	1.41	1.46
34	BA	1575	U	P-O5'	-5.87	1.50	1.59
35	BB	1103	A	C3'-C2'	-5.87	1.44	1.52
85	AA	1558	U	C1'-N1	-5.87	1.39	1.48
7	A6	106	ARG	CA-C	-5.87	1.45	1.52
20	AL	48	ASN	CA-C	-5.87	1.45	1.52
34	BA	392	A	O3'-P	-5.87	1.52	1.61
34	BA	532	C	C1'-N1	-5.87	1.39	1.48
34	BA	854	A	O3'-P	-5.87	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1246	G	C1'-N9	-5.87	1.39	1.48
35	BB	513	G	P-O5'	-5.87	1.50	1.59
37	BD	38	U	O3'-P	-5.87	1.52	1.61
40	BG	26	G	C3'-C2'	-5.87	1.44	1.52
78	Bs	32	THR	CA-C	-5.87	1.45	1.52
85	AA	75	U	O3'-P	-5.87	1.52	1.61
85	AA	351	C	C1'-N1	-5.87	1.39	1.48
85	AA	2238	C	C3'-C2'	-5.87	1.44	1.52
34	BA	523	A	C4'-O4'	-5.87	1.36	1.45
84	By	84	LYS	CA-C	-5.87	1.45	1.52
85	AA	332	A	O3'-P	-5.87	1.52	1.61
85	AA	1563	U	O3'-P	-5.87	1.52	1.61
1	A0	104	GLY	CA-C	-5.87	1.43	1.51
34	BA	423	G	C2'-C1'	-5.87	1.44	1.53
34	BA	1070	G	C2'-C1'	-5.87	1.44	1.53
34	BA	1172	C	C3'-C2'	-5.87	1.44	1.52
34	BA	1594	G	C1'-N9	-5.87	1.39	1.48
35	BB	1326	U	P-O5'	-5.87	1.50	1.59
36	BC	92	C	C1'-N1	-5.87	1.39	1.48
52	BS	78	VAL	CA-CB	-5.87	1.47	1.54
53	BT	95	TRP	N-CA	-5.87	1.39	1.46
61	Bb	66	ASN	CA-C	-5.87	1.44	1.52
72	Bm	46	ARG	N-CA	-5.87	1.39	1.46
85	AA	52	U	C2'-C1'	-5.87	1.44	1.53
85	AA	630	A	C1'-N9	-5.87	1.39	1.48
15	AG	82	PRO	CA-C	-5.86	1.46	1.52
34	BA	37	A	O3'-P	-5.86	1.52	1.61
35	BB	485	U	O3'-P	-5.86	1.52	1.61
37	BD	104	C	C1'-N1	-5.86	1.39	1.48
49	BP	106	THR	C-N	-5.86	1.26	1.33
85	AA	197	C	C5'-C4'	5.86	1.60	1.51
85	AA	396	U	C3'-C2'	-5.86	1.44	1.52
85	AA	487	G	C1'-N9	-5.86	1.39	1.48
85	AA	1522	U	C1'-N1	-5.86	1.39	1.48
85	AA	2203	C	P-O5'	-5.86	1.50	1.59
34	BA	1091	U	C1'-N1	-5.86	1.39	1.48
34	BA	1561	C	O4'-C1'	-5.86	1.32	1.41
35	BB	617	C	C2'-C1'	-5.86	1.44	1.53
35	BB	628	A	C2'-C1'	-5.86	1.44	1.53
35	BB	1238	A	C1'-N9	-5.86	1.39	1.48
40	BG	178	G	P-O5'	-5.86	1.50	1.59
74	Bo	12	GLY	CA-C	-5.86	1.44	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	AK	15	PHE	CA-C	-5.86	1.45	1.52
34	BA	1814	U	C3'-C2'	-5.86	1.44	1.52
35	BB	135	C	P-O5'	-5.86	1.50	1.59
35	BB	407	A	P-O5'	-5.86	1.50	1.59
35	BB	1251	G	P-O5'	-5.86	1.50	1.59
35	BB	1301	U	O3'-P	-5.86	1.52	1.61
35	BB	1457	A	C4'-O4'	-5.86	1.36	1.45
38	BE	160	C	O3'-P	-5.86	1.52	1.61
42	BI	140	GLY	CA-C	-5.86	1.43	1.51
47	BN	39	ARG	N-CA	-5.86	1.39	1.46
52	BS	37	VAL	CA-C	-5.86	1.45	1.52
1	A0	71	ALA	CA-C	-5.86	1.45	1.52
35	BB	983	C	O3'-P	-5.86	1.52	1.61
35	BB	1426	G	C1'-N9	-5.86	1.39	1.48
40	BG	139	U	C2'-C1'	-5.86	1.44	1.53
64	Be	156	LYS	CA-C	-5.86	1.45	1.52
83	Bx	258	GLU	CA-C	-5.86	1.45	1.52
85	AA	501	A	P-O5'	-5.86	1.50	1.59
85	AA	2193	A	C1'-N9	-5.86	1.39	1.48
34	BA	1170	A	C2'-C1'	-5.86	1.44	1.53
34	BA	1720	U	C2'-C1'	-5.86	1.44	1.53
35	BB	25	A	C5'-C4'	-5.86	1.42	1.51
35	BB	1046	C	C2'-C1'	-5.86	1.44	1.53
40	BG	109	C	C3'-C2'	-5.86	1.44	1.52
85	AA	923	A	C3'-O3'	-5.86	1.33	1.42
7	A6	129	GLN	N-CA	-5.86	1.39	1.46
35	BB	129	U	C3'-C2'	-5.86	1.44	1.52
35	BB	465	C	C2'-C1'	-5.86	1.44	1.53
35	BB	998	G	O3'-P	-5.86	1.52	1.61
35	BB	1095	G	P-O5'	-5.86	1.50	1.59
35	BB	1543	C	C2'-C1'	-5.86	1.44	1.53
41	BH	17	A	C1'-N9	-5.86	1.39	1.48
62	Bc	71	ASN	CA-C	-5.86	1.47	1.53
69	Bj	29	ASN	N-CA	-5.86	1.39	1.46
82	Bw	159	VAL	CA-C	-5.86	1.45	1.52
85	AA	291	G	C1'-N9	-5.86	1.39	1.48
85	AA	378	A	C2'-C1'	-5.86	1.44	1.53
85	AA	1180	C	C4'-O4'	-5.86	1.37	1.45
85	AA	1711	C	C2'-C1'	-5.86	1.44	1.53
85	AA	2240	G	O3'-P	-5.86	1.52	1.61
5	A4	21	GLU	CA-C	-5.85	1.45	1.52
34	BA	1539	A	O3'-P	-5.85	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1384	A	O3'-P	-5.85	1.52	1.61
53	BT	94	LEU	CA-C	-5.85	1.45	1.52
57	BX	151	SER	N-CA	-5.85	1.38	1.46
77	Br	237	HIS	CA-C	-5.85	1.44	1.52
85	AA	44	C	O3'-P	-5.85	1.52	1.61
7	A6	27	MET	N-CA	-5.85	1.39	1.46
15	AG	95	ALA	CA-C	-5.85	1.44	1.52
16	AH	131	ASP	C-N	-5.85	1.25	1.33
34	BA	206	C	O5'-C5'	5.85	1.51	1.42
34	BA	1115	A	C3'-C2'	-5.85	1.44	1.52
34	BA	1266	A	C4'-O4'	-5.85	1.36	1.45
35	BB	76	C	P-O5'	-5.85	1.50	1.59
35	BB	689	C	C3'-C2'	-5.85	1.44	1.52
35	BB	1037	A	C2'-C1'	-5.85	1.44	1.53
40	BG	148	C	O3'-P	-5.85	1.52	1.61
40	BG	154	C	C1'-N1	-5.85	1.39	1.48
47	BN	41	ARG	CA-C	-5.85	1.45	1.52
85	AA	29	U	C1'-N1	-5.85	1.39	1.48
85	AA	1268	C	C1'-N1	-5.85	1.39	1.48
85	AA	2201	A	C2'-C1'	-5.85	1.44	1.53
85	AA	2202	G	C1'-N9	-5.85	1.39	1.48
35	BB	1232	A	O3'-P	-5.85	1.52	1.61
35	BB	1482	A	C2'-C1'	-5.85	1.44	1.53
34	BA	1552	C	O3'-P	-5.85	1.52	1.61
35	BB	1337	C	C1'-N1	-5.85	1.39	1.48
36	BC	41	A	O3'-P	-5.85	1.52	1.61
65	Bf	352	ALA	CA-C	-5.85	1.45	1.52
81	Bv	99	THR	CA-C	-5.85	1.45	1.52
85	AA	454	G	P-O5'	-5.85	1.50	1.59
34	BA	513	U	C3'-C2'	-5.85	1.44	1.52
34	BA	1594	G	C3'-C2'	-5.85	1.44	1.52
34	BA	1718	C	C2'-C1'	-5.85	1.44	1.53
35	BB	517	G	C1'-N9	-5.85	1.39	1.48
35	BB	650	A	C1'-N9	-5.85	1.39	1.48
37	BD	103	C	O3'-P	-5.85	1.52	1.61
40	BG	129	G	O3'-P	-5.85	1.52	1.61
41	BH	29	G	C6-N1	-5.85	1.27	1.39
7	A6	67	ARG	CA-C	-5.85	1.45	1.52
34	BA	763	U	C4'-C3'	-5.85	1.43	1.52
34	BA	835	U	O3'-P	-5.85	1.52	1.61
35	BB	1242	C	O3'-P	-5.85	1.52	1.61
36	BC	36	G	C2'-C1'	-5.85	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BH	42	U	P-O5'	-5.85	1.50	1.59
34	BA	277	A	O3'-P	-5.84	1.52	1.61
34	BA	1030	C	C1'-N1	-5.84	1.39	1.48
34	BA	1547	G	O3'-P	-5.84	1.52	1.61
35	BB	115	A	P-O5'	-5.84	1.50	1.59
35	BB	1506	C	C5'-C4'	5.84	1.60	1.51
60	Ba	45	ILE	CA-CB	-5.84	1.47	1.54
65	Bf	326	HIS	N-CA	-5.84	1.38	1.46
68	Bi	106	ARG	CA-C	-5.84	1.44	1.52
85	AA	616	A	C1'-N9	-5.84	1.39	1.48
85	AA	627	A	P-O5'	-5.84	1.50	1.59
35	BB	692	G	O4'-C1'	-5.84	1.32	1.41
35	BB	786	A	P-O5'	-5.84	1.50	1.59
35	BB	1235	A	C2'-C1'	-5.84	1.44	1.53
38	BE	142	A	C2'-C1'	-5.84	1.44	1.53
85	AA	575	G	O3'-P	-5.84	1.52	1.61
85	AA	1483	A	O3'-P	-5.84	1.52	1.61
34	BA	36	A	O3'-P	-5.84	1.52	1.61
34	BA	339	G	P-O5'	-5.84	1.50	1.59
34	BA	1601	C	O3'-P	-5.84	1.52	1.61
35	BB	443	A	O3'-P	-5.84	1.52	1.61
35	BB	1053	G	P-O5'	-5.84	1.50	1.59
35	BB	1077	C	P-O5'	-5.84	1.50	1.59
35	BB	1089	A	O3'-P	-5.84	1.52	1.61
37	BD	12	U	C1'-N1	-5.84	1.38	1.47
40	BG	23	C	O5'-C5'	-5.84	1.33	1.42
57	BX	121	ILE	CA-C	-5.84	1.45	1.52
85	AA	874	A	C1'-N9	-5.84	1.39	1.48
85	AA	927	A	P-O5'	-5.84	1.50	1.59
86	AB	66	U	C2'-C1'	-5.84	1.44	1.53
25	AR	22	CYS	CA-C	-5.84	1.46	1.53
34	BA	825	G	C1'-N9	-5.84	1.39	1.48
34	BA	937	G	O3'-P	-5.84	1.52	1.61
34	BA	1219	G	O3'-P	-5.84	1.52	1.61
35	BB	1051	U	P-O5'	-5.84	1.50	1.59
38	BE	35	A	O3'-P	-5.84	1.52	1.61
40	BG	65	C	P-O5'	-5.84	1.50	1.59
41	BH	36	C	C2'-C1'	-5.84	1.44	1.53
50	BQ	49	HIS	N-CA	-5.84	1.39	1.46
59	BZ	117	GLU	N-CA	-5.84	1.39	1.46
65	Bf	312	HIS	CA-C	-5.84	1.45	1.52
65	Bf	329	HIS	N-CA	-5.84	1.39	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	361	U	C2'-C1'	-5.84	1.44	1.53
85	AA	1496	U	P-O5'	-5.84	1.50	1.59
85	AA	1987	G	O3'-P	-5.84	1.52	1.61
85	AA	2190	U	P-O5'	-5.84	1.50	1.59
34	BA	1158	A	O3'-P	-5.84	1.52	1.61
34	BA	1441	C	C2'-C1'	-5.84	1.44	1.53
40	BG	152	G	O3'-P	-5.84	1.52	1.61
57	BX	93	LYS	CA-C	-5.84	1.44	1.52
83	Bx	155	THR	CA-C	-5.84	1.45	1.52
85	AA	531	G	C1'-N9	-5.84	1.39	1.48
85	AA	688	C	O3'-P	-5.84	1.52	1.61
35	BB	975	G	C1'-N9	-5.84	1.39	1.48
35	BB	1432	U	C1'-N1	-5.84	1.39	1.48
35	BB	1448	U	P-O5'	-5.84	1.50	1.59
36	BC	76	C	P-O5'	-5.84	1.50	1.59
67	Bh	112	ILE	N-CA	-5.84	1.39	1.46
85	AA	652	U	O3'-P	-5.84	1.52	1.61
47	BN	147	GLU	N-CA	-5.83	1.38	1.46
47	BN	206	ARG	N-CA	-5.83	1.39	1.46
82	Bw	173	GLY	CA-C	-5.83	1.44	1.52
13	AE	125	VAL	CA-C	-5.83	1.45	1.52
34	BA	292	C	C1'-N1	-5.83	1.39	1.48
34	BA	701	G	P-O5'	-5.83	1.50	1.59
34	BA	896	U	C1'-N1	5.83	1.57	1.48
34	BA	903	C	C1'-N1	-5.83	1.39	1.48
34	BA	1238	C	O3'-P	-5.83	1.52	1.61
34	BA	1744	C	C2'-C1'	-5.83	1.44	1.53
35	BB	1097	U	C3'-C2'	-5.83	1.44	1.52
35	BB	1254	G	C4'-C3'	-5.83	1.44	1.53
40	BG	80	G	C3'-C2'	-5.83	1.44	1.52
85	AA	1244	A	P-O5'	-5.83	1.51	1.59
85	AA	1660	U	C1'-N1	-5.83	1.39	1.48
1	A0	126	THR	CA-C	-5.83	1.45	1.52
7	A6	174	VAL	CA-C	-5.83	1.45	1.52
34	BA	784	C	O3'-P	-5.83	1.52	1.61
34	BA	1192	A	C1'-N9	-5.83	1.39	1.48
34	BA	1640	G	C2'-C1'	-5.83	1.44	1.53
35	BB	453	C	C1'-N1	-5.83	1.39	1.48
35	BB	646	U	P-O5'	-5.83	1.51	1.59
35	BB	692	G	O3'-P	-5.83	1.52	1.61
35	BB	1230	A	O4'-C1'	-5.83	1.32	1.41
52	BS	55	SER	CA-C	-5.83	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	482	C	O3'-P	-5.83	1.52	1.61
86	AB	8	U	O3'-P	-5.83	1.52	1.61
5	A4	173	LEU	CA-C	-5.83	1.45	1.53
34	BA	500	C	P-O5'	-5.83	1.51	1.59
34	BA	1031	U	O3'-P	-5.83	1.52	1.61
35	BB	27	C	C3'-O3'	-5.83	1.33	1.42
35	BB	451	A	P-O5'	-5.83	1.51	1.59
41	BH	43	G	C2'-C1'	-5.83	1.44	1.53
59	BZ	23	VAL	N-CA	-5.83	1.39	1.46
65	Bf	331	ARG	N-CA	-5.83	1.39	1.46
27	AT	83	TYR	CA-C	-5.83	1.45	1.52
34	BA	147	U	C2'-C1'	-5.83	1.44	1.53
34	BA	465	A	C2'-C1'	-5.83	1.44	1.53
34	BA	533	U	C2'-C1'	-5.83	1.44	1.53
35	BB	1222	A	C3'-C2'	-5.83	1.44	1.52
36	BC	53	A	P-O5'	-5.83	1.51	1.59
36	BC	102	G	C2'-C1'	-5.83	1.44	1.53
59	BZ	115	ILE	CA-CB	-5.83	1.46	1.54
69	Bj	82	VAL	N-CA	-5.83	1.36	1.46
85	AA	119	G	C3'-C2'	-5.83	1.44	1.52
85	AA	1273	C	C1'-N1	5.83	1.57	1.48
11	AC	161	THR	CA-C	-5.83	1.45	1.52
18	AJ	35	VAL	N-CA	-5.83	1.39	1.46
30	AW	17	ARG	C-N	-5.83	1.25	1.34
31	AX	207	ILE	C-N	-5.83	1.25	1.33
34	BA	1213	A	N9-C4	-5.83	1.26	1.37
35	BB	411	A	C1'-N9	-5.83	1.39	1.48
40	BG	123	C	C3'-C2'	-5.83	1.44	1.52
40	BG	155	A	O3'-P	-5.83	1.52	1.61
61	Bb	71	PRO	CA-C	-5.83	1.44	1.52
1	A0	94	GLN	N-CA	-5.83	1.39	1.46
34	BA	340	U	C1'-N1	-5.83	1.39	1.48
34	BA	1023	G	C2'-C1'	-5.83	1.44	1.53
34	BA	1545	C	C1'-N1	-5.83	1.39	1.48
34	BA	1745	G	P-O5'	-5.83	1.51	1.59
35	BB	609	G	P-O5'	-5.83	1.51	1.59
35	BB	1361	A	C1'-N9	-5.83	1.39	1.48
36	BC	57	C	O3'-P	-5.83	1.52	1.61
38	BE	42	C	O3'-P	-5.83	1.52	1.61
47	BN	56	LEU	CA-C	-5.83	1.45	1.52
77	Br	289	ARG	CA-C	-5.83	1.45	1.52
25	AR	54	THR	CA-C	-5.82	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	355	U	O3'-P	-5.82	1.52	1.61
34	BA	1071	G	C2'-C1'	-5.82	1.44	1.53
34	BA	1192	A	C3'-C2'	-5.82	1.44	1.52
34	BA	1262	A	O4'-C1'	-5.82	1.32	1.41
34	BA	1293	A	C1'-N9	-5.82	1.39	1.48
35	BB	467	G	P-O5'	-5.82	1.51	1.59
35	BB	1196	A	C3'-C2'	-5.82	1.44	1.52
39	BF	17	U	C1'-N1	-5.82	1.39	1.48
41	BH	2	U	C2'-C1'	-5.82	1.44	1.53
80	Bu	260	PRO	CA-C	-5.82	1.44	1.52
34	BA	664	C	P-O5'	-5.82	1.51	1.59
35	BB	1210	U	C1'-N1	-5.82	1.39	1.48
38	BE	75	C	P-O5'	-5.82	1.51	1.59
85	AA	459	C	O3'-P	-5.82	1.52	1.61
85	AA	805	A	O3'-P	-5.82	1.52	1.61
85	AA	1214	C	C4'-C3'	-5.82	1.43	1.52
85	AA	2081	A	P-O5'	-5.82	1.51	1.59
85	AA	2124	G	C2'-C1'	-5.82	1.44	1.53
85	AA	2170	G	C1'-N9	-5.82	1.39	1.48
85	AA	2193	A	N9-C4	-5.82	1.26	1.37
34	BA	45	A	O4'-C1'	-5.82	1.33	1.42
34	BA	443	U	O3'-P	-5.82	1.52	1.61
34	BA	542	A	P-O5'	-5.82	1.51	1.59
34	BA	1287	G	O3'-P	-5.82	1.52	1.61
35	BB	560	C	O3'-P	-5.82	1.52	1.61
35	BB	783	U	P-O5'	-5.82	1.51	1.59
35	BB	1509	G	C1'-N9	-5.82	1.39	1.48
36	BC	89	U	P-O5'	-5.82	1.51	1.59
38	BE	8	G	O3'-P	-5.82	1.52	1.61
40	BG	137	G	P-O5'	-5.82	1.51	1.59
59	BZ	32	LEU	N-CA	-5.82	1.38	1.45
81	Bv	61	VAL	CA-CB	-5.82	1.46	1.54
82	Bw	172	ASN	CA-C	-5.82	1.45	1.53
85	AA	151	A	O3'-P	-5.82	1.52	1.61
85	AA	1150	G	C1'-N9	-5.82	1.39	1.48
85	AA	1471	G	C3'-C2'	-5.82	1.44	1.52
4	A3	95	ARG	N-CA	-5.82	1.38	1.45
35	BB	1242	C	C1'-N1	-5.82	1.39	1.48
35	BB	1539	C	C1'-N1	-5.82	1.39	1.48
45	BL	46	GLN	CA-C	-5.82	1.44	1.52
85	AA	1936	C	P-O5'	-5.82	1.51	1.59
7	A6	111	VAL	CA-C	-5.82	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1222	C	C4'-O4'	-5.82	1.36	1.45
34	BA	1719	G	C2'-C1'	-5.82	1.44	1.53
40	BG	19	C	C2'-C1'	-5.82	1.44	1.53
49	BP	126	LYS	CA-C	-5.82	1.45	1.52
62	Bc	117	ILE	N-CA	-5.82	1.39	1.46
85	AA	245	A	C2'-C1'	-5.82	1.44	1.53
85	AA	2240	G	C2'-C1'	-5.82	1.44	1.53
15	AG	54	LEU	CA-C	-5.82	1.45	1.52
18	AJ	25	VAL	CA-C	-5.82	1.45	1.52
34	BA	144	C	C1'-N1	-5.82	1.38	1.47
35	BB	1259	A	C2'-C1'	-5.82	1.44	1.53
38	BE	97	G	P-O5'	-5.82	1.51	1.59
38	BE	106	C	C4'-C3'	-5.82	1.43	1.52
57	BX	134	THR	CA-C	-5.82	1.45	1.52
85	AA	887	A	C4'-C3'	-5.82	1.43	1.52
86	AB	49	C	O3'-P	-5.82	1.52	1.61
34	BA	709	C	O3'-P	-5.81	1.52	1.61
42	BI	72	ARG	N-CA	-5.81	1.38	1.46
56	BW	64	VAL	CA-C	-5.81	1.45	1.52
83	Bx	99	SER	N-CA	-5.81	1.39	1.46
85	AA	462	A	C2'-C1'	-5.81	1.44	1.53
85	AA	534	A	C3'-C2'	-5.81	1.44	1.52
7	A6	22	ARG	CA-C	-5.81	1.45	1.52
34	BA	909	G	C2'-C1'	-5.81	1.44	1.53
34	BA	1056	C	O3'-P	-5.81	1.52	1.61
36	BC	72	A	C1'-N9	-5.81	1.39	1.48
62	Bc	119	ARG	N-CA	-5.81	1.39	1.46
73	Bn	51	VAL	CA-CB	-5.81	1.46	1.54
77	Br	219	PHE	CA-C	-5.81	1.46	1.53
84	By	18	SER	CA-C	-5.81	1.45	1.52
34	BA	373	G	C1'-N9	-5.81	1.39	1.48
34	BA	1032	A	O3'-P	-5.81	1.52	1.61
34	BA	1404	A	P-O5'	-5.81	1.51	1.59
34	BA	1417	C	C2'-C1'	-5.81	1.44	1.53
34	BA	1461	A	C1'-N9	-5.81	1.39	1.48
85	AA	172	A	C2'-C1'	-5.81	1.44	1.53
34	BA	101	G	C1'-N9	-5.81	1.39	1.48
34	BA	575	U	C5'-C4'	5.81	1.60	1.51
34	BA	1821	A	C1'-N9	-5.81	1.39	1.48
35	BB	37	C	O3'-P	-5.81	1.52	1.61
35	BB	438	G	C3'-C2'	-5.81	1.44	1.52
35	BB	1350	A	C1'-N9	-5.81	1.39	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	BF	46	G	P-O5'	-5.81	1.51	1.59
39	BF	61	A	C2'-C1'	-5.81	1.44	1.53
40	BG	118	U	O3'-P	-5.81	1.52	1.61
61	Bb	11	GLN	N-CA	-5.81	1.39	1.46
85	AA	367	A	O4'-C1'	-5.81	1.32	1.41
85	AA	611	G	P-O5'	-5.81	1.51	1.59
15	AG	125	LEU	CA-C	-5.81	1.45	1.52
34	BA	68	A	C2'-C1'	-5.81	1.44	1.53
34	BA	446	U	C2'-C1'	-5.81	1.44	1.53
34	BA	796	G	P-O5'	-5.81	1.51	1.59
34	BA	1451	A	C1'-N9	-5.81	1.39	1.48
35	BB	1237	C	O3'-P	-5.81	1.52	1.61
40	BG	52	A	P-O5'	-5.81	1.51	1.59
34	BA	1549	U	C4'-C3'	-5.81	1.43	1.52
35	BB	416	U	C1'-N1	-5.81	1.39	1.48
18	AJ	27	ILE	CA-CB	-5.80	1.47	1.54
19	AK	83	GLN	N-CA	-5.80	1.39	1.46
34	BA	516	U	C1'-N1	-5.80	1.39	1.48
34	BA	985	C	C1'-N1	-5.80	1.39	1.48
34	BA	1008	A	C1'-N9	-5.80	1.39	1.48
36	BC	38	U	C2'-C1'	-5.80	1.44	1.53
40	BG	47	G	P-O5'	-5.80	1.51	1.59
53	BT	50	VAL	CA-C	-5.80	1.45	1.52
75	Bp	57	GLU	CA-C	-5.80	1.44	1.52
77	Br	72	VAL	N-CA	-5.80	1.40	1.46
85	AA	185	A	C2'-C1'	-5.80	1.44	1.53
85	AA	309	G	C1'-N9	-5.80	1.39	1.48
85	AA	1137	C	O3'-P	-5.80	1.52	1.61
85	AA	1179	A	P-O5'	-5.80	1.51	1.59
85	AA	1864	G	C3'-C2'	-5.80	1.44	1.52
35	BB	6	A	C3'-C2'	-5.80	1.44	1.52
35	BB	106	A	P-O5'	-5.80	1.51	1.59
35	BB	812	G	P-O5'	-5.80	1.51	1.59
35	BB	1110	G	C1'-N9	-5.80	1.39	1.48
83	Bx	149	LEU	CA-C	-5.80	1.45	1.52
23	AP	167	LYS	N-CA	-5.80	1.39	1.46
34	BA	356	C	C3'-C2'	-5.80	1.44	1.52
34	BA	363	G	O3'-P	-5.80	1.52	1.61
34	BA	1528	U	C3'-C2'	-5.80	1.44	1.52
34	BA	1587	C	C1'-N1	-5.80	1.39	1.48
34	BA	1661	U	O4'-C1'	-5.80	1.33	1.42
35	BB	1082	A	C2'-C1'	-5.80	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BN	115	ASN	N-CA	-5.80	1.39	1.46
60	Ba	101	ALA	CA-C	-5.80	1.45	1.52
85	AA	118	C	C3'-C2'	-5.80	1.44	1.52
34	BA	932	G	C1'-N9	-5.80	1.39	1.48
34	BA	1022	C	C2'-C1'	-5.80	1.44	1.53
35	BB	1476	C	C2'-C1'	-5.80	1.44	1.53
80	Bu	94	ASN	CA-C	-5.80	1.45	1.52
80	Bu	231	GLN	CA-C	-5.80	1.45	1.52
85	AA	525	C	C1'-N1	-5.80	1.39	1.48
34	BA	394	A	O3'-P	-5.80	1.52	1.61
47	BN	118	VAL	CA-C	-5.80	1.45	1.52
81	Bv	154	ILE	CA-C	-5.80	1.45	1.52
1	A0	38	PHE	N-CA	-5.80	1.38	1.46
54	BU	113	GLU	CA-C	-5.80	1.45	1.52
65	Bf	239	ILE	CA-CB	-5.80	1.47	1.54
85	AA	518	A	C5'-C4'	5.80	1.60	1.51
85	AA	1203	G	O3'-P	-5.80	1.52	1.61
85	AA	1617	G	C2'-C1'	-5.80	1.44	1.53
85	AA	2072	G	O3'-P	-5.80	1.52	1.61
2	A1	51	TYR	CA-C	-5.79	1.45	1.52
34	BA	305	C	O3'-P	-5.79	1.52	1.61
34	BA	971	G	P-O5'	-5.79	1.51	1.59
34	BA	1030	C	C2'-C1'	-5.79	1.44	1.53
60	Ba	38	GLY	CA-C	-5.79	1.46	1.52
68	Bi	24	GLU	N-CA	-5.79	1.38	1.46
85	AA	642	G	P-O5'	-5.79	1.51	1.59
86	AB	48	C	O3'-P	-5.79	1.52	1.61
26	AS	22	TRP	CA-C	-5.79	1.44	1.52
34	BA	399	G	C3'-C2'	-5.79	1.44	1.52
34	BA	482	C	C1'-N1	-5.79	1.38	1.47
34	BA	1210	A	O3'-P	-5.79	1.52	1.61
34	BA	1344	G	P-O5'	-5.79	1.51	1.59
34	BA	1409	A	P-O5'	-5.79	1.51	1.59
36	BC	138	C	C3'-C2'	-5.79	1.44	1.52
65	Bf	251	ALA	CA-C	-5.79	1.45	1.52
77	Br	362	LYS	CA-C	-5.79	1.45	1.52
85	AA	381	A	O3'-P	-5.79	1.52	1.61
85	AA	413	G	C5'-C4'	-5.79	1.42	1.51
85	AA	752	C	O3'-P	-5.79	1.52	1.61
11	AC	218	VAL	CA-C	-5.79	1.44	1.52
35	BB	5	A	C6-N6	-5.79	1.22	1.33
35	BB	1119	G	P-O5'	-5.79	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BN	82	LEU	CA-C	-5.79	1.45	1.52
60	Ba	39	HIS	N-CA	-5.79	1.39	1.46
85	AA	441	C	C3'-C2'	-5.79	1.44	1.52
85	AA	1222	A	O3'-P	-5.79	1.52	1.61
85	AA	1841	G	O3'-P	-5.79	1.52	1.61
23	AP	114	VAL	N-CA	-5.79	1.39	1.46
34	BA	188	C	P-O5'	-5.79	1.51	1.59
34	BA	274	C	C2'-C1'	-5.79	1.44	1.53
34	BA	1840	C	C1'-N1	-5.79	1.39	1.48
35	BB	1319	U	C5'-C4'	5.79	1.59	1.51
85	AA	1638	C	O3'-P	-5.79	1.52	1.61
2	A1	148	ASP	CA-C	-5.79	1.47	1.53
3	A2	53	PRO	N-CA	-5.79	1.40	1.46
13	AE	151	ILE	CA-CB	-5.79	1.47	1.54
34	BA	3	G	O3'-P	-5.79	1.52	1.61
34	BA	143	A	C1'-N9	-5.79	1.38	1.47
35	BB	534	C	C2'-C1'	-5.79	1.44	1.53
35	BB	1210	U	P-O5'	-5.79	1.51	1.59
36	BC	142	C	C2'-C1'	-5.79	1.44	1.53
37	BD	33	U	C3'-C2'	-5.79	1.44	1.52
41	BH	58	C	P-O5'	-5.79	1.51	1.59
50	BQ	86	GLY	CA-C	-5.79	1.46	1.52
85	AA	983	A	P-O5'	-5.79	1.51	1.59
85	AA	1116	G	C3'-C2'	-5.79	1.44	1.52
20	AL	108	MET	CA-C	-5.79	1.45	1.52
34	BA	1287	G	C3'-C2'	-5.79	1.44	1.52
77	Br	154	GLU	CA-C	-5.79	1.45	1.52
85	AA	1491	G	O3'-P	-5.79	1.52	1.61
34	BA	55	G	C1'-N9	-5.79	1.39	1.48
34	BA	63	A	C3'-C2'	-5.79	1.44	1.52
34	BA	215	C	C2'-C1'	-5.79	1.44	1.53
34	BA	516	U	C4'-O4'	-5.79	1.36	1.45
34	BA	1279	U	P-O5'	-5.79	1.51	1.59
36	BC	129	C	O3'-P	-5.79	1.52	1.61
38	BE	122	G	O3'-P	-5.79	1.52	1.61
41	BH	132	C	O3'-P	-5.79	1.52	1.61
44	BK	200	ILE	CA-C	5.79	1.58	1.52
54	BU	105	PHE	CA-C	-5.79	1.45	1.52
64	Be	135	ILE	CA-CB	-5.79	1.47	1.54
65	Bf	75	GLN	CA-C	-5.79	1.45	1.53
66	Bg	21	ILE	N-CA	-5.79	1.39	1.46
77	Br	163	THR	CA-C	-5.79	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1525	C	C1'-N1	-5.79	1.39	1.48
6	A5	18	THR	CA-C	-5.78	1.45	1.52
34	BA	575	U	C2'-C1'	-5.78	1.44	1.53
34	BA	965	A	C2'-C1'	-5.78	1.44	1.53
34	BA	1332	U	P-O5'	-5.78	1.51	1.59
34	BA	1537	G	P-O5'	-5.78	1.51	1.59
37	BD	101	A	P-O5'	-5.78	1.51	1.59
85	AA	420	C	C1'-N1	-5.78	1.39	1.48
85	AA	1168	C	O3'-P	-5.78	1.52	1.61
85	AA	1904	C	P-O5'	-5.78	1.51	1.59
85	AA	2174	G	N9-C4	-5.78	1.26	1.38
3	A2	85	ILE	CA-C	-5.78	1.45	1.52
21	AM	44	MET	N-CA	-5.78	1.39	1.46
34	BA	49	A	N9-C4	-5.78	1.26	1.37
34	BA	892	C	O4'-C1'	-5.78	1.32	1.41
35	BB	877	A	O3'-P	-5.78	1.52	1.61
37	BD	64	A	C1'-N9	-5.78	1.39	1.48
65	Bf	330	HIS	C-N	-5.78	1.26	1.33
85	AA	1511	C	C3'-C2'	-5.78	1.44	1.52
34	BA	578	C	C2'-C1'	-5.78	1.44	1.53
34	BA	659	U	O3'-P	-5.78	1.52	1.61
34	BA	861	C	C1'-N1	-5.78	1.39	1.48
34	BA	1815	G	C1'-N9	-5.78	1.39	1.48
35	BB	553	U	O3'-P	-5.78	1.52	1.61
45	BL	127	THR	CA-C	-5.78	1.45	1.52
77	Br	209	VAL	CA-CB	-5.78	1.47	1.54
85	AA	1100	U	P-O5'	-5.78	1.51	1.59
85	AA	1506	U	C1'-N1	-5.78	1.39	1.48
28	AU	100	CYS	CA-C	-5.78	1.46	1.53
35	BB	518	G	O3'-P	-5.78	1.52	1.61
35	BB	1004	A	O3'-P	-5.78	1.52	1.61
53	BT	30	VAL	CA-C	-5.78	1.45	1.52
57	BX	95	MET	CA-C	-5.78	1.45	1.52
30	AW	83	LYS	C-N	-5.78	1.25	1.34
34	BA	264	A	O3'-P	-5.78	1.52	1.61
34	BA	1289	C	P-O5'	-5.78	1.51	1.59
35	BB	121	A	O3'-P	-5.78	1.52	1.61
35	BB	589	U	C3'-C2'	-5.78	1.44	1.52
36	BC	146	U	C3'-C2'	-5.78	1.44	1.52
77	Br	138	SER	CA-C	-5.78	1.44	1.52
85	AA	95	U	O3'-P	-5.78	1.52	1.61
85	AA	379	U	O3'-P	-5.78	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	976	G	C2'-C1'	-5.78	1.44	1.53
85	AA	1810	C	C2'-C1'	-5.78	1.44	1.53
85	AA	2137	A	P-O5'	-5.78	1.51	1.59
32	AY	57	MET	CA-C	-5.78	1.45	1.53
34	BA	103	G	C4'-C3'	-5.78	1.43	1.52
34	BA	1290	A	P-O5'	-5.78	1.51	1.59
35	BB	385	C	O3'-P	-5.78	1.52	1.61
35	BB	1169	A	C3'-C2'	-5.78	1.44	1.52
40	BG	118	U	O4'-C1'	-5.78	1.32	1.41
50	BQ	151	ALA	N-CA	-5.78	1.38	1.45
85	AA	859	G	C3'-C2'	-5.78	1.44	1.52
85	AA	2035	C	O3'-P	-5.78	1.52	1.61
6	A5	210	PHE	N-CA	-5.77	1.39	1.46
19	AK	130	CYS	CA-C	5.77	1.57	1.52
35	BB	388	C	O3'-P	-5.77	1.52	1.61
48	BO	117	LEU	CA-C	-5.77	1.45	1.52
60	Ba	85	ASN	N-CA	-5.77	1.38	1.46
71	Bl	103	SER	N-CA	-5.77	1.38	1.46
85	AA	832	U	P-O5'	-5.77	1.51	1.59
23	AP	46	CYS	N-CA	-5.77	1.39	1.46
34	BA	1416	C	C5'-C4'	5.77	1.59	1.51
35	BB	7	C	C3'-C2'	-5.77	1.44	1.52
36	BC	146	U	C1'-N1	-5.77	1.39	1.48
36	BC	154	A	C4'-C3'	-5.77	1.43	1.52
40	BG	87	G	P-O5'	-5.77	1.51	1.59
77	Br	165	GLU	CA-C	-5.77	1.45	1.52
85	AA	865	G	C2'-C1'	-5.77	1.44	1.53
85	AA	1590	A	P-O5'	-5.77	1.51	1.59
85	AA	1894	G	C1'-N9	-5.77	1.39	1.48
7	A6	47	THR	N-CA	-5.77	1.39	1.46
34	BA	39	C	O3'-P	-5.77	1.52	1.61
34	BA	1045	C	P-O5'	-5.77	1.51	1.59
35	BB	478	G	P-O5'	-5.77	1.51	1.59
18	AJ	96	SER	CA-C	-5.77	1.45	1.52
34	BA	403	A	O3'-P	-5.77	1.52	1.61
34	BA	541	C	P-O5'	-5.77	1.51	1.59
34	BA	921	G	C1'-N9	-5.77	1.39	1.48
34	BA	1477	C	O3'-P	-5.77	1.52	1.61
35	BB	487	A	O3'-P	-5.77	1.52	1.61
35	BB	1377	A	C2'-C1'	-5.77	1.44	1.53
35	BB	1448	U	C3'-C2'	-5.77	1.44	1.52
62	Bc	105	MET	CA-C	-5.77	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
75	Bp	37	ARG	N-CA	-5.77	1.38	1.46
85	AA	1263	G	C2'-C1'	-5.77	1.44	1.53
85	AA	2127	G	O3'-P	-5.77	1.52	1.61
25	AR	68	GLU	CA-C	-5.77	1.45	1.52
34	BA	151	A	C4'-O4'	5.77	1.54	1.45
34	BA	1172	C	O3'-P	-5.77	1.52	1.61
34	BA	1667	G	C1'-N9	-5.77	1.39	1.48
35	BB	482	A	C3'-C2'	-5.77	1.44	1.52
35	BB	626	C	O3'-P	-5.77	1.52	1.61
35	BB	652	G	C2'-C1'	-5.77	1.44	1.53
61	Bb	43	ILE	CA-C	-5.77	1.45	1.52
85	AA	71	G	P-O5'	-5.77	1.51	1.59
11	AC	100	VAL	N-CA	-5.77	1.39	1.45
42	BI	146	LEU	N-CA	-5.77	1.39	1.46
85	AA	597	A	N9-C4	-5.77	1.26	1.37
34	BA	589	A	C3'-C2'	-5.76	1.44	1.52
34	BA	1233	U	O3'-P	-5.76	1.52	1.61
34	BA	1510	C	C2'-C1'	-5.76	1.44	1.53
35	BB	4	C	P-O5'	-5.76	1.51	1.59
35	BB	1055	G	C1'-N9	-5.76	1.39	1.48
37	BD	49	A	O3'-P	-5.76	1.52	1.61
48	BO	168	TYR	CA-C	-5.76	1.44	1.52
59	BZ	27	LEU	CA-C	-5.76	1.45	1.52
65	Bf	192	GLU	N-CA	-5.76	1.38	1.46
66	Bg	103	ILE	CA-CB	-5.76	1.47	1.54
70	Bk	73	PHE	CA-C	-5.76	1.45	1.52
74	Bo	78	THR	CA-CB	-5.76	1.44	1.53
77	Br	357	VAL	CA-C	-5.76	1.45	1.52
85	AA	1515	A	O4'-C1'	-5.76	1.33	1.41
85	AA	1542	A	O4'-C1'	-5.76	1.33	1.41
35	BB	1016	C	C3'-C2'	-5.76	1.44	1.52
85	AA	2133	A	N9-C4	-5.76	1.26	1.37
85	AA	2143	U	C3'-C2'	-5.76	1.44	1.52
23	AP	220	PHE	CA-C	-5.76	1.45	1.52
35	BB	15	C	O3'-P	-5.76	1.52	1.61
40	BG	113	G	O3'-P	-5.76	1.52	1.61
67	Bh	116	VAL	CA-CB	-5.76	1.47	1.54
85	AA	506	G	O3'-P	-5.76	1.52	1.61
85	AA	1468	G	C4'-C3'	5.76	1.61	1.52
2	A1	82	GLY	CA-C	-5.76	1.44	1.51
15	AG	55	ARG	CA-C	-5.76	1.45	1.52
34	BA	3	G	C5'-C4'	-5.76	1.42	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	296	G	C1'-N9	5.76	1.56	1.48
34	BA	356	C	C1'-N1	-5.76	1.39	1.48
34	BA	1105	A	C3'-O3'	5.76	1.50	1.42
35	BB	1333	U	C1'-N1	5.76	1.57	1.48
40	BG	71	C	O3'-P	-5.76	1.52	1.61
40	BG	137	G	C4'-C3'	-5.76	1.44	1.52
60	Ba	42	LEU	CA-C	-5.76	1.45	1.52
80	Bu	107	ARG	N-CA	-5.76	1.39	1.46
82	Bw	139	GLU	N-CA	-5.76	1.39	1.46
16	AH	47	CYS	CA-C	-5.76	1.45	1.52
34	BA	896	U	P-O5'	-5.76	1.51	1.59
35	BB	1033	U	O3'-P	-5.76	1.52	1.61
37	BD	71	G	O3'-P	-5.76	1.52	1.61
63	Bd	13	SER	CA-C	-5.76	1.44	1.52
85	AA	928	U	C1'-N1	-5.76	1.39	1.48
85	AA	1000	U	O3'-P	-5.76	1.52	1.61
34	BA	166	G	C1'-N9	-5.76	1.39	1.48
34	BA	457	A	P-O5'	-5.76	1.51	1.59
34	BA	1030	C	C3'-C2'	-5.76	1.44	1.52
35	BB	80	C	P-O5'	-5.76	1.51	1.59
35	BB	136	A	C4'-C3'	5.76	1.61	1.52
35	BB	584	A	C2'-C1'	-5.76	1.44	1.53
35	BB	1396	G	C3'-C2'	-5.76	1.44	1.52
35	BB	1437	U	O3'-P	-5.76	1.52	1.61
41	BH	6	U	O3'-P	-5.76	1.52	1.61
48	BO	99	ILE	N-CA	-5.76	1.39	1.46
48	BO	218	LYS	CA-C	-5.76	1.44	1.52
60	Ba	108	LYS	CA-C	-5.76	1.45	1.52
61	Bb	134	ILE	CA-CB	-5.76	1.48	1.54
85	AA	248	U	C1'-N1	-5.76	1.39	1.48
13	AE	149	LYS	CA-C	-5.75	1.45	1.52
34	BA	307	C	P-O5'	-5.75	1.51	1.59
34	BA	1419	A	O3'-P	-5.75	1.52	1.61
34	BA	1696	G	O3'-P	-5.75	1.52	1.61
35	BB	389	G	C2'-C1'	-5.75	1.44	1.53
35	BB	557	C	C3'-C2'	-5.75	1.44	1.52
38	BE	66	A	C2'-C1'	-5.75	1.44	1.53
82	Bw	236	PHE	CA-C	-5.75	1.45	1.52
85	AA	496	C	C1'-N1	-5.75	1.39	1.48
85	AA	509	C	C3'-O3'	-5.75	1.34	1.43
85	AA	1024	G	P-O5'	-5.75	1.51	1.59
20	AL	86	PRO	CA-C	-5.75	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	AM	74	ASP	CA-C	-5.75	1.45	1.52
30	AW	56	LYS	CA-C	-5.75	1.45	1.52
34	BA	970	U	P-O5'	-5.75	1.51	1.59
34	BA	1201	G	C1'-N9	-5.75	1.39	1.48
38	BE	139	U	C3'-C2'	-5.75	1.44	1.52
40	BG	2	U	O3'-P	-5.75	1.52	1.61
83	Bx	87	ALA	CA-C	-5.75	1.45	1.52
85	AA	938	A	C2'-C1'	-5.75	1.44	1.53
85	AA	2147	A	C3'-C2'	-5.75	1.44	1.52
27	AT	125	ARG	CA-C	-5.75	1.45	1.52
34	BA	858	C	C3'-C2'	-5.75	1.44	1.52
34	BA	1497	A	O4'-C1'	-5.75	1.33	1.42
34	BA	1647	G	C2'-C1'	-5.75	1.44	1.53
35	BB	673	C	O3'-P	-5.75	1.52	1.61
35	BB	680	A	C2'-C1'	-5.75	1.44	1.53
35	BB	1166	A	O3'-P	-5.75	1.52	1.61
35	BB	1383	C	O3'-P	-5.75	1.52	1.61
85	AA	2117	U	P-O5'	-5.75	1.51	1.59
42	BI	184	SER	CA-C	-5.75	1.47	1.53
85	AA	1550	C	P-O5'	-5.75	1.51	1.59
34	BA	588	C	C4'-O4'	-5.75	1.37	1.45
34	BA	1180	A	O3'-P	-5.75	1.52	1.61
34	BA	1295	U	O4'-C1'	-5.75	1.33	1.42
35	BB	1026	G	C3'-O3'	5.75	1.50	1.42
40	BG	81	G	C3'-C2'	-5.75	1.44	1.52
65	Bf	261	ILE	CA-CB	-5.75	1.47	1.54
79	Bt	57	ILE	CA-CB	-5.75	1.48	1.54
85	AA	312	G	C1'-N9	-5.75	1.39	1.48
85	AA	471	U	C1'-N1	-5.75	1.39	1.48
4	A3	22	VAL	N-CA	-5.75	1.39	1.46
23	AP	126	ARG	CA-C	-5.75	1.45	1.52
35	BB	1341	U	C5'-C4'	-5.75	1.42	1.51
35	BB	1418	C	C3'-C2'	-5.75	1.44	1.52
36	BC	10	C	C4'-C3'	-5.75	1.44	1.52
40	BG	148	C	C5'-C4'	-5.75	1.42	1.51
64	Be	169	VAL	CA-C	-5.75	1.45	1.52
85	AA	471	U	O4'-C1'	-5.75	1.33	1.41
85	AA	1752	C	P-O5'	-5.75	1.51	1.59
5	A4	181	LEU	CA-C	-5.75	1.45	1.52
34	BA	1725	U	O3'-P	-5.75	1.52	1.61
35	BB	1064	U	O3'-P	-5.75	1.52	1.61
52	BS	31	VAL	CA-C	-5.75	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	Bc	12	VAL	CA-CB	-5.75	1.47	1.54
86	AB	69	G	C2'-C1'	-5.75	1.44	1.53
3	A2	99	ILE	CA-C	-5.74	1.45	1.52
30	AW	33	PHE	CA-C	-5.74	1.45	1.52
34	BA	923	C	C2'-C1'	-5.74	1.44	1.53
34	BA	1590	G	P-O5'	-5.74	1.51	1.59
34	BA	1776	G	O3'-P	-5.74	1.52	1.61
35	BB	130	G	C3'-C2'	-5.74	1.44	1.52
35	BB	567	G	O3'-P	-5.74	1.52	1.61
39	BF	28	C	C4'-C3'	-5.74	1.44	1.53
40	BG	2	U	P-O5'	-5.74	1.51	1.59
44	BK	140	THR	N-CA	-5.74	1.38	1.46
85	AA	542	G	P-O5'	-5.74	1.51	1.59
35	BB	430	A	P-O5'	-5.74	1.51	1.59
35	BB	1170	U	C1'-N1	-5.74	1.39	1.48
85	AA	716	G	C2'-C1'	-5.74	1.44	1.53
24	AQ	15	GLN	N-CA	-5.74	1.39	1.46
34	BA	940	C	P-O5'	-5.74	1.51	1.59
34	BA	1568	A	C1'-N9	-5.74	1.38	1.47
35	BB	972	C	P-O5'	-5.74	1.51	1.59
45	BL	92	LYS	N-CA	-5.74	1.39	1.46
65	Bf	213	VAL	CA-CB	-5.74	1.47	1.54
85	AA	49	C	O3'-P	-5.74	1.52	1.61
85	AA	525	C	O3'-P	-5.74	1.52	1.61
85	AA	891	G	C5'-C4'	5.74	1.59	1.51
85	AA	1248	U	P-O5'	-5.74	1.51	1.59
85	AA	1286	C	C2'-C1'	-5.74	1.44	1.53
85	AA	1541	G	C2'-C1'	-5.74	1.44	1.53
3	A2	131	ARG	CA-C	-5.74	1.45	1.52
34	BA	273	G	O3'-P	-5.74	1.52	1.61
34	BA	1011	G	N9-C4	-5.74	1.26	1.38
35	BB	372	U	O3'-P	-5.74	1.52	1.61
35	BB	664	A	O4'-C1'	-5.74	1.33	1.41
35	BB	1058	U	C2'-C1'	-5.74	1.44	1.53
40	BG	164	U	C3'-C2'	-5.74	1.44	1.52
51	BR	103	ILE	CA-CB	-5.74	1.47	1.54
53	BT	135	LYS	N-CA	-5.74	1.39	1.46
85	AA	1002	G	C2'-C1'	-5.74	1.44	1.53
85	AA	1216	A	C5'-C4'	-5.74	1.42	1.51
34	BA	893	U	C1'-N1	-5.74	1.39	1.48
34	BA	1501	U	C3'-C2'	-5.74	1.44	1.52
44	BK	20	SER	N-CA	-5.74	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
77	Br	346	LYS	CA-C	-5.74	1.45	1.52
85	AA	108	C	O3'-P	-5.74	1.52	1.61
85	AA	1593	C	O3'-P	-5.74	1.52	1.61
85	AA	2229	G	O3'-P	-5.74	1.52	1.61
3	A2	74	GLN	CA-C	-5.74	1.45	1.52
6	A5	112	TRP	N-CA	-5.74	1.39	1.46
16	AH	24	VAL	CA-CB	-5.74	1.46	1.53
34	BA	136	A	C3'-C2'	-5.74	1.44	1.52
35	BB	466	A	O3'-P	-5.74	1.52	1.61
37	BD	88	U	O3'-P	-5.74	1.52	1.61
40	BG	46	G	C2'-C1'	-5.74	1.44	1.53
45	BL	43	VAL	CA-C	-5.74	1.45	1.52
47	BN	122	LYS	CA-C	-5.74	1.45	1.52
85	AA	976	G	C3'-C2'	-5.74	1.44	1.52
85	AA	1211	C	C3'-C2'	-5.74	1.44	1.52
85	AA	1527	G	O3'-P	-5.74	1.52	1.61
34	BA	1012	A	P-O5'	-5.73	1.51	1.59
35	BB	442	U	C3'-C2'	-5.73	1.44	1.52
38	BE	27	A	C3'-C2'	-5.73	1.44	1.52
38	BE	35	A	P-O5'	-5.73	1.51	1.59
47	BN	205	ARG	CD-NE	5.73	1.54	1.46
67	Bh	112	ILE	CA-CB	-5.73	1.47	1.54
85	AA	663	C	C3'-C2'	-5.73	1.44	1.52
85	AA	1244	A	C1'-N9	-5.73	1.39	1.48
2	A1	233	PRO	N-CA	-5.73	1.43	1.47
7	A6	116	GLY	CA-C	-5.73	1.43	1.51
34	BA	1264	U	O3'-P	-5.73	1.52	1.61
34	BA	1354	G	C1'-N9	-5.73	1.39	1.48
35	BB	366	G	C1'-N9	-5.73	1.39	1.48
35	BB	414	C	C2'-C1'	-5.73	1.44	1.53
35	BB	899	C	P-O5'	-5.73	1.51	1.59
35	BB	1265	U	P-O5'	-5.73	1.51	1.59
38	BE	61	A	C1'-N9	-5.73	1.39	1.48
44	BK	50	VAL	CA-C	-5.73	1.45	1.52
50	BQ	143	THR	CA-C	-5.73	1.45	1.52
56	BW	132	SER	CA-C	-5.73	1.45	1.52
72	Bm	101	ALA	CA-C	-5.73	1.45	1.52
85	AA	92	G	P-O5'	-5.73	1.51	1.59
85	AA	204	U	O3'-P	-5.73	1.52	1.61
85	AA	763	U	C3'-C2'	-5.73	1.44	1.52
2	A1	253	LYS	N-CA	-5.73	1.39	1.46
34	BA	347	A	O3'-P	-5.73	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	429	G	O3'-P	-5.73	1.52	1.61
34	BA	759	A	N9-C4	-5.73	1.26	1.37
34	BA	989	C	O3'-P	-5.73	1.52	1.61
34	BA	1092	U	C2'-C1'	-5.73	1.44	1.53
35	BB	591	A	O3'-P	-5.73	1.52	1.61
37	BD	86	A	C1'-N9	-5.73	1.39	1.48
44	BK	176	ILE	CA-C	-5.73	1.45	1.52
80	Bu	15	ARG	N-CA	-5.73	1.39	1.46
85	AA	977	U	C2'-C1'	-5.73	1.44	1.53
85	AA	1958	C	P-O5'	-5.73	1.51	1.59
34	BA	679	U	O4'-C1'	-5.73	1.33	1.41
34	BA	786	U	O3'-P	-5.73	1.52	1.61
34	BA	1070	G	P-O5'	-5.73	1.51	1.59
34	BA	1450	G	C4'-O4'	-5.73	1.36	1.45
84	By	117	LYS	N-CA	-5.73	1.38	1.46
85	AA	1708	A	O3'-P	-5.73	1.52	1.61
2	A1	64	GLN	N-CA	-5.73	1.39	1.46
3	A2	135	GLU	CA-C	-5.73	1.45	1.52
34	BA	1741	G	C1'-N9	-5.73	1.39	1.48
35	BB	1305	A	O3'-P	-5.73	1.52	1.61
37	BD	30	A	C1'-N9	-5.73	1.39	1.48
40	BG	174	G	C1'-N9	-5.73	1.39	1.48
41	BH	21	G	P-O5'	-5.73	1.51	1.59
73	Bn	65	ARG	CA-C	-5.73	1.45	1.52
79	Bt	26	VAL	CA-C	-5.73	1.46	1.52
80	Bu	165	VAL	CA-CB	-5.73	1.47	1.54
82	Bw	119	GLN	CA-C	-5.73	1.45	1.52
85	AA	1063	U	P-O5'	-5.73	1.51	1.59
85	AA	1929	G	O3'-P	-5.73	1.52	1.61
11	AC	158	LEU	N-CA	-5.73	1.38	1.46
35	BB	1313	C	C2'-C1'	-5.73	1.44	1.53
36	BC	121	G	C1'-N9	-5.73	1.39	1.48
40	BG	35	G	O3'-P	-5.73	1.52	1.61
62	Bc	86	VAL	CA-CB	-5.73	1.46	1.54
85	AA	457	G	C3'-C2'	-5.73	1.44	1.52
11	AC	91	TRP	N-CA	-5.72	1.39	1.46
34	BA	875	G	C2'-C1'	-5.72	1.44	1.53
34	BA	1284	G	C2'-C1'	-5.72	1.44	1.53
35	BB	78	C	C3'-C2'	-5.72	1.44	1.52
38	BE	126	G	C3'-O3'	5.72	1.50	1.42
41	BH	111	U	C2'-C1'	-5.72	1.44	1.53
41	BH	116	A	O3'-P	-5.72	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A3	179	ILE	CA-C	-5.72	1.45	1.52
8	A7	221	ARG	CA-C	-5.72	1.45	1.52
11	AC	85	ILE	CA-C	-5.72	1.45	1.52
34	BA	167	U	C2'-C1'	-5.72	1.44	1.53
34	BA	813	C	O4'-C1'	-5.72	1.33	1.41
34	BA	1657	A	C2'-C1'	-5.72	1.44	1.53
35	BB	379	U	C2'-C1'	-5.72	1.44	1.53
53	BT	67	LYS	CA-C	-5.72	1.45	1.52
62	Bc	59	ARG	CA-C	-5.72	1.45	1.52
85	AA	700	U	C1'-N1	-5.72	1.39	1.48
85	AA	1151	G	C1'-N9	-5.72	1.39	1.48
85	AA	2092	A	C1'-N9	-5.72	1.39	1.48
8	A7	269	ASP	CA-C	-5.72	1.46	1.52
11	AC	171	ARG	N-CA	-5.72	1.39	1.46
49	BP	50	VAL	CA-CB	-5.72	1.47	1.54
61	Bb	28	HIS	C-N	-5.72	1.26	1.34
85	AA	1253	G	C1'-N9	-5.72	1.38	1.47
34	BA	1830	A	P-O5'	-5.72	1.51	1.59
35	BB	130	G	C2'-C1'	-5.72	1.44	1.53
42	BI	130	PHE	CA-C	-5.72	1.44	1.52
68	Bi	121	ILE	CA-C	-5.72	1.45	1.52
74	Bo	84	ARG	N-CA	-5.72	1.39	1.46
85	AA	1566	A	C1'-N9	-5.72	1.39	1.48
85	AA	1723	U	O3'-P	-5.72	1.52	1.61
34	BA	1804	A	P-O5'	-5.72	1.51	1.59
35	BB	555	G	P-O5'	-5.72	1.51	1.59
36	BC	26	U	N1-C2	-5.72	1.27	1.38
41	BH	123	G	P-O5'	-5.72	1.51	1.59
49	BP	65	ILE	CA-CB	-5.72	1.49	1.55
85	AA	319	U	C1'-N1	-5.72	1.39	1.48
1	A0	112	VAL	CA-C	-5.72	1.45	1.52
26	AS	61	GLN	CA-C	-5.72	1.45	1.52
34	BA	46	C	O3'-P	-5.72	1.52	1.61
34	BA	803	U	O3'-P	-5.72	1.52	1.61
34	BA	842	U	C2'-C1'	-5.72	1.44	1.53
34	BA	1089	U	O3'-P	-5.72	1.52	1.61
35	BB	432	C	O3'-P	-5.72	1.52	1.61
35	BB	1118	G	C2'-C1'	-5.72	1.44	1.53
52	BS	42	ARG	N-CA	-5.72	1.39	1.46
85	AA	370	A	C2'-C1'	-5.72	1.44	1.53
85	AA	2087	C	P-O5'	-5.72	1.51	1.59
85	AA	2146	G	O4'-C1'	-5.72	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	AD	15	ARG	CA-C	-5.71	1.45	1.52
20	AL	91	VAL	N-CA	-5.71	1.39	1.46
34	BA	406	G	C1'-N9	-5.71	1.38	1.47
34	BA	445	C	O3'-P	-5.71	1.52	1.61
34	BA	664	C	O3'-P	-5.71	1.52	1.61
35	BB	409	U	O3'-P	-5.71	1.52	1.61
84	By	54	THR	CA-C	-5.71	1.45	1.52
85	AA	187	C	P-O5'	-5.71	1.51	1.59
85	AA	441	C	P-O5'	-5.71	1.51	1.59
85	AA	1000	U	C4'-C3'	-5.71	1.44	1.52
2	A1	159	TYR	N-CA	-5.71	1.38	1.46
34	BA	196	A	C3'-C2'	-5.71	1.44	1.52
35	BB	104	G	C3'-C2'	-5.71	1.44	1.52
35	BB	854	G	P-O5'	-5.71	1.51	1.59
37	BD	79	G	C2'-C1'	-5.71	1.44	1.53
85	AA	909	C	O3'-P	-5.71	1.52	1.61
34	BA	24	C	C3'-C2'	-5.71	1.44	1.52
34	BA	49	A	P-O5'	-5.71	1.51	1.59
34	BA	80	U	C1'-N1	-5.71	1.39	1.48
34	BA	150	C	O3'-P	-5.71	1.52	1.61
34	BA	435	U	O3'-P	-5.71	1.52	1.61
34	BA	685	C	O5'-C5'	5.71	1.51	1.42
34	BA	737	U	C2'-C1'	-5.71	1.44	1.53
34	BA	1632	G	P-O5'	-5.71	1.51	1.59
34	BA	1794	A	C5'-C4'	5.71	1.59	1.51
48	BO	219	PHE	N-CA	-5.71	1.40	1.47
72	Bm	102	LEU	N-CA	-5.71	1.39	1.46
85	AA	474	C	C1'-N1	-5.71	1.39	1.48
85	AA	1554	C	O3'-P	-5.71	1.52	1.61
85	AA	1611	A	C1'-N9	-5.71	1.39	1.48
34	BA	699	G	P-O5'	-5.71	1.51	1.59
35	BB	1047	C	C2'-C1'	-5.71	1.44	1.53
39	BF	18	U	C1'-N1	-5.71	1.39	1.48
40	BG	1	G	O3'-P	-5.71	1.52	1.61
58	BY	57	ARG	N-CA	-5.71	1.39	1.46
80	Bu	135	LYS	N-CA	-5.71	1.38	1.46
85	AA	360	C	P-O5'	-5.71	1.51	1.59
34	BA	563	A	O3'-P	-5.71	1.52	1.61
34	BA	1646	U	C1'-N1	-5.71	1.39	1.48
35	BB	588	A	C1'-N9	-5.71	1.39	1.48
35	BB	1354	C	C5'-C4'	-5.71	1.42	1.51
41	BH	109	G	C4'-O4'	-5.71	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	BO	180	ILE	N-CA	-5.71	1.39	1.46
61	Bb	8	THR	CA-C	-5.71	1.45	1.52
64	Be	90	CYS	CA-C	-5.71	1.45	1.53
70	Bk	120	ARG	CA-C	-5.71	1.45	1.52
72	Bm	99	GLU	N-CA	-5.71	1.39	1.46
77	Br	120	ARG	N-CA	-5.71	1.39	1.46
82	Bw	195	CYS	CA-C	-5.71	1.45	1.52
85	AA	1812	C	P-O5'	-5.71	1.51	1.59
85	AA	2071	U	O3'-P	-5.71	1.52	1.61
34	BA	244	A	O3'-P	-5.71	1.52	1.61
34	BA	1439	C	O3'-P	-5.71	1.52	1.61
35	BB	833	G	O3'-P	-5.71	1.52	1.61
36	BC	31	A	O4'-C1'	-5.71	1.33	1.41
54	BU	157	ILE	CA-C	5.71	1.58	1.52
66	Bg	25	ILE	CA-C	-5.71	1.43	1.52
84	By	184	ASN	N-CA	-5.71	1.39	1.45
85	AA	679	A	C3'-C2'	-5.71	1.44	1.52
85	AA	800	A	C2'-C1'	-5.71	1.44	1.53
85	AA	820	G	O3'-P	-5.71	1.52	1.61
13	AE	153	TYR	N-CA	-5.71	1.38	1.45
48	BO	73	LEU	N-CA	-5.71	1.39	1.46
54	BU	74	VAL	CA-C	-5.71	1.45	1.52
65	Bf	436	GLN	CA-C	-5.71	1.45	1.52
85	AA	1294	U	O3'-P	-5.71	1.52	1.61
5	A4	161	ALA	CA-C	-5.70	1.45	1.52
8	A7	124	ILE	CA-C	-5.70	1.46	1.52
8	A7	210	LEU	CA-C	-5.70	1.46	1.52
34	BA	156	U	O3'-P	-5.70	1.52	1.61
34	BA	1783	C	O3'-P	-5.70	1.52	1.61
34	BA	1838	U	P-O5'	-5.70	1.51	1.59
35	BB	1294	C	C5'-C4'	-5.70	1.42	1.51
36	BC	166	G	O3'-P	-5.70	1.52	1.61
37	BD	110	G	C3'-C2'	-5.70	1.44	1.52
40	BG	126	G	P-O5'	-5.70	1.51	1.59
40	BG	168	A	O3'-P	-5.70	1.52	1.61
45	BL	125	PRO	CA-C	-5.70	1.43	1.52
51	BR	52	LEU	N-CA	-5.70	1.38	1.46
53	BT	127	ALA	N-CA	-5.70	1.39	1.46
57	BX	51	ARG	CD-NE	5.70	1.54	1.46
64	Be	149	LYS	N-CA	-5.70	1.39	1.46
85	AA	773	G	C3'-C2'	-5.70	1.44	1.52
85	AA	1165	C	C3'-C2'	-5.70	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1292	A	C4'-C3'	-5.70	1.44	1.52
1	A0	122	THR	N-CA	5.70	1.53	1.46
11	AC	122	ALA	N-CA	-5.70	1.39	1.46
34	BA	1033	G	O3'-P	-5.70	1.52	1.61
35	BB	100	A	C2'-C1'	-5.70	1.44	1.53
35	BB	1128	U	C2'-C1'	-5.70	1.44	1.53
35	BB	1523	U	P-O5'	-5.70	1.51	1.59
38	BE	94	U	C4'-O4'	-5.70	1.36	1.45
38	BE	193	A	C1'-N9	-5.70	1.39	1.48
83	Bx	188	ILE	CA-CB	-5.70	1.46	1.54
34	BA	1642	A	O4'-C1'	-5.70	1.33	1.41
35	BB	90	G	C1'-N9	-5.70	1.39	1.48
35	BB	826	G	C2'-C1'	-5.70	1.44	1.53
35	BB	1254	G	C1'-N9	-5.70	1.38	1.47
36	BC	144	C	P-O5'	-5.70	1.51	1.59
60	Ba	111	VAL	N-CA	-5.70	1.40	1.46
68	Bi	129	ARG	C-N	-5.70	1.25	1.33
77	Br	50	PRO	CA-C	-5.70	1.46	1.52
85	AA	1847	U	O3'-P	-5.70	1.52	1.61
85	AA	2213	A	C1'-N9	-5.70	1.39	1.48
18	AJ	119	ARG	CA-C	-5.70	1.44	1.52
30	AW	18	MET	N-CA	-5.70	1.39	1.46
35	BB	393	A	P-O5'	-5.70	1.51	1.59
35	BB	844	G	P-O5'	-5.70	1.51	1.59
35	BB	1441	C	C3'-C2'	-5.70	1.44	1.52
38	BE	107	U	C2'-C1'	-5.70	1.44	1.53
38	BE	136	G	C1'-N9	-5.70	1.38	1.47
41	BH	27	A	C3'-O3'	5.70	1.50	1.42
85	AA	2164	G	C2'-C1'	-5.70	1.44	1.53
34	BA	176	G	C2'-C1'	-5.70	1.44	1.53
34	BA	430	A	O3'-P	-5.70	1.52	1.61
34	BA	584	A	C1'-N9	-5.70	1.39	1.48
34	BA	1821	A	P-O5'	-5.70	1.51	1.59
35	BB	1457	A	O4'-C1'	-5.70	1.33	1.41
40	BG	92	U	C3'-C2'	-5.70	1.44	1.52
57	BX	59	THR	CA-C	-5.70	1.45	1.52
85	AA	67	C	O3'-P	-5.70	1.52	1.61
85	AA	211	C	O4'-C1'	-5.70	1.33	1.41
4	A3	63	PRO	CA-C	-5.70	1.45	1.52
34	BA	1014	A	P-O5'	-5.70	1.51	1.59
34	BA	1040	G	C2'-C1'	-5.70	1.44	1.53
34	BA	1093	G	O3'-P	-5.70	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	67	A	P-O5'	-5.70	1.51	1.59
35	BB	1232	A	C3'-C2'	-5.70	1.44	1.52
35	BB	1293	C	C2'-C1'	-5.70	1.44	1.53
47	BN	116	ILE	N-CA	-5.70	1.39	1.46
85	AA	422	G	C3'-C2'	-5.70	1.44	1.52
85	AA	1224	C	C3'-C2'	-5.70	1.44	1.52
85	AA	1597	C	C2'-C1'	-5.70	1.44	1.53
85	AA	2222	G	O3'-P	-5.70	1.52	1.61
34	BA	804	G	P-O5'	-5.69	1.51	1.59
35	BB	1462	G	C4'-C3'	5.69	1.61	1.52
49	BP	19	PRO	N-CD	-5.69	1.39	1.47
73	Bn	69	VAL	CA-CB	-5.69	1.47	1.54
6	A5	79	LEU	N-CA	-5.69	1.39	1.46
15	AG	137	PRO	CA-C	-5.69	1.45	1.52
34	BA	115	U	C4'-O4'	-5.69	1.37	1.45
34	BA	397	A	C2'-C1'	-5.69	1.44	1.53
34	BA	761	U	C3'-C2'	-5.69	1.44	1.52
34	BA	1292	A	P-O5'	-5.69	1.51	1.59
34	BA	1845	G	P-O5'	-5.69	1.51	1.59
35	BB	1455	A	C2'-C1'	-5.69	1.44	1.53
36	BC	75	G	C3'-C2'	-5.69	1.44	1.52
38	BE	92	C	C3'-C2'	-5.69	1.44	1.52
40	BG	89	A	C1'-N9	-5.69	1.39	1.48
40	BG	152	G	P-O5'	-5.69	1.51	1.59
41	BH	45	G	O3'-P	-5.69	1.52	1.61
48	BO	198	LYS	CA-C	-5.69	1.45	1.52
52	BS	106	SER	CA-C	-5.69	1.45	1.52
85	AA	912	C	P-O5'	-5.69	1.51	1.59
85	AA	2075	C	O4'-C1'	-5.69	1.33	1.41
15	AG	21	THR	CA-C	-5.69	1.45	1.52
34	BA	500	C	C2'-C1'	-5.69	1.44	1.53
34	BA	997	U	C3'-C2'	-5.69	1.44	1.52
34	BA	1493	U	C4'-C3'	5.69	1.61	1.53
35	BB	477	U	O3'-P	-5.69	1.52	1.61
35	BB	704	G	C1'-N9	-5.69	1.39	1.48
35	BB	793	A	P-O5'	-5.69	1.51	1.59
35	BB	1423	U	C3'-C2'	-5.69	1.44	1.52
41	BH	66	G	C1'-N9	-5.69	1.39	1.48
52	BS	8	HIS	CB-CG	-5.69	1.42	1.50
65	Bf	446	ILE	CA-C	-5.69	1.45	1.52
85	AA	439	U	O3'-P	-5.69	1.52	1.61
18	AJ	62	VAL	C-N	-5.69	1.26	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	782	C	C3'-C2'	-5.69	1.44	1.52
61	Bb	68	THR	N-CA	-5.69	1.38	1.46
80	Bu	235	PHE	N-CA	-5.69	1.39	1.46
34	BA	53	G	P-O5'	-5.69	1.51	1.59
34	BA	339	G	O3'-P	-5.69	1.52	1.61
34	BA	623	U	C4'-C3'	-5.69	1.44	1.52
34	BA	976	C	C1'-N1	-5.69	1.40	1.48
34	BA	1521	C	C3'-C2'	-5.69	1.44	1.52
35	BB	967	G	P-O5'	-5.69	1.51	1.59
38	BE	189	A	C2'-C1'	-5.69	1.44	1.53
42	BI	62	ILE	CA-CB	-5.69	1.46	1.55
85	AA	373	G	P-O5'	-5.69	1.51	1.59
85	AA	456	A	C4'-C3'	-5.69	1.44	1.52
85	AA	1710	C	O3'-P	-5.69	1.52	1.61
85	AA	2213	A	O3'-P	-5.69	1.52	1.61
36	BC	92	C	O3'-P	-5.69	1.52	1.61
77	Br	287	VAL	CA-CB	-5.69	1.47	1.54
85	AA	2006	G	O3'-P	-5.69	1.52	1.61
5	A4	22	GLU	N-CA	-5.68	1.39	1.46
8	A7	262	ILE	CA-C	-5.68	1.45	1.52
34	BA	915	A	O4'-C1'	-5.68	1.33	1.42
34	BA	1194	G	C2'-C1'	-5.68	1.44	1.53
34	BA	1580	U	C4'-C3'	-5.68	1.44	1.52
34	BA	1729	G	C3'-O3'	5.68	1.50	1.42
72	Bm	48	VAL	N-CA	-5.68	1.40	1.46
77	Br	108	ARG	N-CA	-5.68	1.38	1.45
77	Br	170	LEU	N-CA	-5.68	1.39	1.46
82	Bw	74	GLU	CA-C	-5.68	1.45	1.52
85	AA	89	C	C1'-N1	-5.68	1.40	1.48
85	AA	937	G	C1'-N9	-5.68	1.39	1.48
85	AA	1199	C	C5'-C4'	-5.68	1.42	1.51
85	AA	1497	U	O3'-P	-5.68	1.52	1.61
1	A0	26	ARG	N-CA	-5.68	1.39	1.46
34	BA	776	U	C3'-C2'	-5.68	1.44	1.52
34	BA	1046	G	O3'-P	-5.68	1.52	1.61
34	BA	1309	U	O3'-P	-5.68	1.52	1.61
44	BK	194	GLY	CA-C	-5.68	1.43	1.51
85	AA	507	C	C2'-C1'	-5.68	1.44	1.53
85	AA	617	C	O3'-P	-5.68	1.52	1.61
85	AA	1301	C	O3'-P	-5.68	1.52	1.61
34	BA	1054	U	O3'-P	-5.68	1.52	1.61
34	BA	1439	C	C1'-N1	-5.68	1.40	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1283	C	O3'-P	-5.68	1.52	1.61
85	AA	964	C	C5'-C4'	5.68	1.59	1.51
6	A5	31	ARG	CA-C	-5.68	1.45	1.52
34	BA	503	C	C1'-N1	-5.68	1.40	1.48
34	BA	742	C	C1'-N1	-5.68	1.40	1.48
34	BA	1466	U	O3'-P	-5.68	1.52	1.61
34	BA	1544	G	C2'-C1'	-5.68	1.44	1.53
34	BA	1551	G	C2'-C1'	-5.68	1.44	1.53
35	BB	1216	G	C3'-C2'	-5.68	1.44	1.52
37	BD	106	G	C1'-N9	-5.68	1.39	1.48
39	BF	65	U	O4'-C1'	-5.68	1.33	1.41
41	BH	5	G	O3'-P	-5.68	1.52	1.61
48	BO	152	ARG	CA-C	-5.68	1.45	1.52
49	BP	171	ARG	CA-C	-5.68	1.45	1.52
72	Bm	73	LYS	CA-C	-5.68	1.47	1.53
78	Bs	51	LEU	N-CA	-5.68	1.38	1.46
84	By	108	VAL	CA-CB	-5.68	1.47	1.54
85	AA	913	U	C1'-N1	-5.68	1.40	1.48
85	AA	1119	A	C3'-C2'	-5.68	1.44	1.52
22	AO	57	SER	CA-C	-5.68	1.45	1.52
34	BA	1267	A	O4'-C1'	-5.68	1.33	1.42
34	BA	1513	G	P-O5'	-5.68	1.51	1.59
34	BA	1799	G	C3'-O3'	5.68	1.50	1.42
39	BF	50	C	C3'-C2'	-5.68	1.44	1.52
69	Bj	41	GLN	N-CA	-5.68	1.39	1.46
85	AA	269	G	P-O5'	-5.68	1.51	1.59
85	AA	820	G	C1'-N9	-5.68	1.39	1.48
18	AJ	84	ARG	CA-C	-5.68	1.44	1.52
34	BA	43	U	P-O5'	-5.68	1.51	1.59
34	BA	315	U	O3'-P	-5.68	1.52	1.61
34	BA	614	A	C2'-C1'	-5.68	1.44	1.53
34	BA	875	G	O4'-C1'	-5.68	1.33	1.42
34	BA	890	G	C4'-O4'	-5.68	1.37	1.45
35	BB	378	C	P-O5'	-5.68	1.51	1.59
35	BB	1093	C	O3'-P	-5.68	1.52	1.61
49	BP	107	ASP	N-CA	-5.68	1.39	1.46
85	AA	690	G	C1'-N9	-5.68	1.39	1.48
85	AA	2082	C	P-O5'	-5.68	1.51	1.59
18	AJ	63	VAL	CA-CB	-5.67	1.47	1.54
34	BA	115	U	O3'-P	-5.67	1.52	1.61
34	BA	692	U	O4'-C1'	-5.67	1.33	1.42
34	BA	1167	A	C2'-C1'	-5.67	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1285	G	O3'-P	-5.67	1.52	1.61
34	BA	1743	U	O3'-P	-5.67	1.52	1.61
35	BB	633	C	C3'-C2'	-5.67	1.44	1.52
35	BB	643	G	O3'-P	-5.67	1.52	1.61
45	BL	45	GLU	N-CA	-5.67	1.39	1.46
47	BN	180	GLU	N-CA	-5.67	1.38	1.46
71	Bl	85	HIS	CA-C	-5.67	1.46	1.52
85	AA	1470	A	O3'-P	-5.67	1.52	1.61
34	BA	80	U	O4'-C1'	-5.67	1.33	1.41
34	BA	1224	A	C2'-C1'	-5.67	1.44	1.53
62	Bc	44	GLY	CA-C	-5.67	1.43	1.51
85	AA	1831	U	C2'-C1'	-5.67	1.44	1.53
34	BA	116	G	C1'-N9	-5.67	1.38	1.47
34	BA	354	G	O3'-P	-5.67	1.52	1.61
34	BA	1455	C	C1'-N1	-5.67	1.40	1.48
35	BB	567	G	C1'-N9	-5.67	1.39	1.48
35	BB	611	U	C3'-C2'	-5.67	1.44	1.52
35	BB	816	U	O4'-C1'	-5.67	1.33	1.41
35	BB	1081	U	C2'-C1'	-5.67	1.44	1.53
35	BB	1210	U	C2'-C1'	-5.67	1.44	1.53
37	BD	14	C	O3'-P	-5.67	1.52	1.61
38	BE	56	U	C1'-N1	-5.67	1.40	1.48
40	BG	95	U	P-O5'	-5.67	1.51	1.59
64	Be	132	ASP	N-CA	-5.67	1.39	1.46
65	Bf	243	THR	CA-C	-5.67	1.45	1.52
85	AA	286	C	P-O5'	-5.67	1.51	1.59
85	AA	631	G	C4'-O4'	-5.67	1.37	1.45
85	AA	658	C	O3'-P	-5.67	1.52	1.61
85	AA	1135	U	C1'-N1	-5.67	1.40	1.48
85	AA	1672	G	P-O5'	-5.67	1.51	1.59
34	BA	41	U	O3'-P	-5.67	1.52	1.61
34	BA	930	A	C1'-N9	-5.67	1.39	1.48
34	BA	1806	A	O3'-P	-5.67	1.52	1.61
35	BB	697	G	C2'-C1'	-5.67	1.44	1.53
35	BB	839	G	C1'-N9	-5.67	1.39	1.48
35	BB	1320	U	O3'-P	-5.67	1.52	1.61
36	BC	133	C	C5'-C4'	5.67	1.59	1.51
39	BF	46	G	C3'-C2'	-5.67	1.44	1.52
57	BX	143	LYS	N-CA	-5.67	1.39	1.46
71	Bl	44	LEU	CA-C	-5.67	1.45	1.52
85	AA	703	U	P-O5'	-5.67	1.51	1.59
85	AA	1672	G	O3'-P	-5.67	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	AG	75	LEU	N-CA	-5.67	1.39	1.46
34	BA	118	C	O4'-C1'	-5.67	1.33	1.42
34	BA	693	G	O3'-P	-5.67	1.52	1.61
34	BA	1280	A	O3'-P	-5.67	1.52	1.61
34	BA	1431	G	O3'-P	-5.67	1.52	1.61
35	BB	772	U	P-O5'	-5.67	1.51	1.59
48	BO	101	THR	CA-C	-5.67	1.45	1.52
56	BW	50	ARG	CA-C	-5.67	1.45	1.52
58	BY	13	VAL	N-CA	-5.67	1.39	1.46
85	AA	274	A	C3'-C2'	-5.67	1.44	1.52
85	AA	702	G	P-O5'	-5.67	1.51	1.59
85	AA	917	A	P-O5'	-5.67	1.51	1.59
85	AA	1583	U	P-O5'	-5.67	1.51	1.59
85	AA	1807	A	O3'-P	-5.67	1.52	1.61
16	AH	39	ASP	N-CA	-5.67	1.40	1.47
34	BA	1224	A	C4'-C3'	-5.67	1.44	1.52
34	BA	1260	G	C2'-C1'	-5.67	1.44	1.53
34	BA	1658	G	C3'-C2'	-5.67	1.44	1.52
35	BB	578	G	C1'-N9	-5.67	1.39	1.48
35	BB	997	G	O3'-P	-5.67	1.52	1.61
40	BG	116	G	C2'-C1'	-5.67	1.44	1.53
44	BK	159	PHE	CA-C	-5.67	1.45	1.52
47	BN	155	ARG	CA-C	-5.67	1.45	1.52
48	BO	83	ASN	CA-C	-5.67	1.45	1.52
65	Bf	127	VAL	CA-C	-5.67	1.46	1.52
77	Br	117	HIS	CA-C	-5.67	1.45	1.52
77	Br	225	LEU	N-CA	-5.67	1.38	1.46
85	AA	1242	A	P-O5'	-5.67	1.51	1.59
85	AA	2072	G	P-O5'	-5.67	1.51	1.59
25	AR	27	SER	N-CA	-5.67	1.39	1.46
85	AA	1024	G	O3'-P	-5.67	1.52	1.61
34	BA	102	G	C2'-C1'	-5.66	1.44	1.53
34	BA	919	A	C1'-N9	-5.66	1.39	1.48
34	BA	948	C	C1'-N1	-5.66	1.40	1.48
34	BA	1644	A	C1'-N9	-5.66	1.39	1.48
36	BC	44	A	C2'-C1'	-5.66	1.44	1.53
38	BE	116	U	C4'-C3'	-5.66	1.44	1.52
85	AA	1229	G	C3'-C2'	-5.66	1.44	1.52
85	AA	1674	G	O3'-P	-5.66	1.52	1.61
85	AA	1860	A	P-O5'	-5.66	1.51	1.59
85	AA	1882	U	P-O5'	-5.66	1.51	1.59
85	AA	2237	G	O3'-P	-5.66	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1415	C	C1'-N1	-5.66	1.40	1.48
38	BE	56	U	O4'-C1'	-5.66	1.33	1.41
40	BG	102	G	C1'-N9	-5.66	1.39	1.48
85	AA	11	A	O3'-P	-5.66	1.52	1.61
85	AA	922	A	C1'-N9	-5.66	1.39	1.48
85	AA	1826	U	O3'-P	-5.66	1.52	1.61
85	AA	2090	C	P-O5'	-5.66	1.51	1.59
8	A7	169	ILE	CA-C	-5.66	1.45	1.52
34	BA	1325	G	C3'-C2'	-5.66	1.44	1.52
35	BB	644	A	P-O5'	-5.66	1.51	1.59
36	BC	42	G	O4'-C1'	-5.66	1.33	1.41
53	BT	50	VAL	CA-CB	-5.66	1.47	1.54
76	Bq	44	TRP	CA-C	-5.66	1.45	1.52
84	By	143	VAL	N-CA	-5.66	1.39	1.46
85	AA	493	A	O3'-P	-5.66	1.52	1.61
85	AA	1420	U	C5'-C4'	5.66	1.59	1.51
34	BA	62	A	C1'-N9	-5.66	1.38	1.47
34	BA	186	G	C1'-N9	-5.66	1.39	1.48
34	BA	765	U	C3'-C2'	5.66	1.61	1.52
34	BA	920	U	C2'-C1'	-5.66	1.44	1.53
34	BA	992	A	O3'-P	-5.66	1.52	1.61
34	BA	1513	G	C1'-N9	-5.66	1.39	1.48
35	BB	624	A	C2'-C1'	-5.66	1.44	1.53
35	BB	1490	G	O3'-P	-5.66	1.52	1.61
72	Bm	69	LEU	N-CA	-5.66	1.39	1.46
77	Br	179	VAL	CA-C	-5.66	1.45	1.52
79	Bt	79	SER	CA-C	-5.66	1.46	1.52
85	AA	2068	A	C5'-C4'	5.66	1.59	1.51
85	AA	2151	U	C2'-C1'	-5.66	1.44	1.53
85	AA	2196	G	O4'-C1'	-5.66	1.33	1.41
34	BA	6	C	C2'-C1'	-5.66	1.44	1.53
34	BA	568	G	O3'-P	-5.66	1.52	1.61
34	BA	1010	C	C1'-N1	-5.66	1.40	1.48
53	BT	95	TRP	CA-C	-5.66	1.45	1.52
77	Br	257	LYS	CA-C	-5.66	1.45	1.52
85	AA	1264	U	P-O5'	-5.66	1.51	1.59
85	AA	1672	G	C1'-N9	-5.66	1.39	1.48
34	BA	89	G	C4'-O4'	-5.66	1.37	1.45
34	BA	277	A	C1'-N9	-5.66	1.39	1.48
34	BA	579	U	C5'-C4'	-5.66	1.42	1.51
34	BA	857	C	O3'-P	-5.66	1.52	1.61
35	BB	387	G	C2'-C1'	-5.66	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	496	C	C2'-C1'	-5.66	1.44	1.53
35	BB	1498	G	C1'-N9	-5.66	1.39	1.48
41	BH	32	U	P-O5'	-5.66	1.51	1.59
45	BL	173	VAL	N-CA	-5.66	1.39	1.46
70	Bk	72	LYS	CA-C	-5.66	1.45	1.52
73	Bn	22	CYS	CA-C	-5.66	1.45	1.52
85	AA	448	G	O3'-P	-5.66	1.52	1.61
85	AA	1816	C	O3'-P	-5.66	1.52	1.61
85	AA	2195	A	C2'-C1'	-5.66	1.44	1.53
85	AA	2234	C	C2'-C1'	-5.66	1.44	1.53
34	BA	611	A	C2'-C1'	-5.65	1.44	1.53
34	BA	1161	G	C4'-C3'	5.65	1.61	1.52
85	AA	163	C	P-O5'	-5.65	1.51	1.59
85	AA	388	G	O3'-P	-5.65	1.52	1.61
85	AA	803	C	C2'-C1'	-5.65	1.44	1.53
85	AA	2202	G	C2'-C1'	-5.65	1.44	1.53
6	A5	74	GLN	CA-C	-5.65	1.45	1.52
34	BA	1091	U	O4'-C1'	-5.65	1.33	1.41
34	BA	1511	C	C2'-C1'	-5.65	1.44	1.53
34	BA	1709	A	O4'-C1'	-5.65	1.33	1.41
34	BA	1714	A	O3'-P	-5.65	1.52	1.61
35	BB	435	A	O3'-P	-5.65	1.52	1.61
35	BB	1402	U	O3'-P	-5.65	1.52	1.61
35	BB	1466	A	C1'-N9	-5.65	1.39	1.48
48	BO	193	VAL	CA-C	-5.65	1.44	1.52
50	BQ	82	ARG	CA-C	-5.65	1.45	1.52
51	BR	118	GLN	CA-C	-5.65	1.45	1.52
59	BZ	116	LEU	CA-C	-5.65	1.45	1.52
74	Bo	42	CYS	CA-C	-5.65	1.45	1.52
79	Bt	72	LEU	CA-C	-5.65	1.45	1.52
85	AA	289	G	C3'-C2'	-5.65	1.44	1.52
34	BA	826	C	O3'-P	-5.65	1.52	1.61
34	BA	1273	U	C1'-N1	-5.65	1.40	1.48
35	BB	677	U	O3'-P	-5.65	1.52	1.61
35	BB	1200	A	C2'-C1'	-5.65	1.44	1.53
35	BB	1400	C	C2'-C1'	-5.65	1.44	1.53
36	BC	19	A	O3'-P	-5.65	1.52	1.61
41	BH	43	G	O3'-P	-5.65	1.52	1.61
34	BA	147	U	O3'-P	-5.65	1.52	1.61
35	BB	1537	C	C2'-C1'	-5.65	1.44	1.53
35	BB	1540	U	C1'-N1	-5.65	1.40	1.48
60	Ba	125	ARG	CA-C	-5.65	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	302	C	O5'-C5'	5.65	1.50	1.42
85	AA	427	G	C1'-N9	-5.65	1.39	1.48
25	AR	31	SER	CA-C	-5.65	1.46	1.53
34	BA	51	C	C1'-N1	-5.65	1.40	1.48
34	BA	1148	U	O4'-C1'	-5.65	1.33	1.41
36	BC	75	G	P-O5'	-5.65	1.51	1.59
36	BC	134	G	P-O5'	-5.65	1.51	1.59
47	BN	50	LYS	N-CA	-5.65	1.38	1.46
47	BN	187	TYR	CA-CB	5.65	1.60	1.52
71	Bl	88	LYS	N-CA	-5.65	1.39	1.46
85	AA	1928	A	P-O5'	-5.65	1.51	1.59
34	BA	1688	G	O4'-C1'	-5.65	1.33	1.41
35	BB	1283	C	C3'-C2'	-5.65	1.44	1.52
84	By	93	ALA	CA-C	-5.65	1.45	1.52
85	AA	302	C	C4'-C3'	5.65	1.61	1.52
85	AA	421	G	O3'-P	-5.65	1.52	1.61
85	AA	537	G	C1'-N9	-5.65	1.39	1.48
18	AJ	93	ILE	CA-CB	-5.64	1.48	1.54
34	BA	893	U	C3'-C2'	-5.64	1.44	1.52
38	BE	144	A	O3'-P	-5.64	1.52	1.61
40	BG	169	A	P-O5'	-5.64	1.51	1.59
47	BN	102	VAL	N-CA	-5.64	1.39	1.46
57	BX	148	LEU	CA-C	-5.64	1.45	1.52
61	Bb	122	LYS	CA-C	-5.64	1.45	1.53
85	AA	87	C	O3'-P	-5.64	1.52	1.61
85	AA	2045	U	C1'-N1	-5.64	1.40	1.48
85	AA	2234	C	P-O5'	-5.64	1.51	1.59
5	A4	159	LEU	N-CA	-5.64	1.38	1.45
12	AD	13	VAL	CA-C	-5.64	1.46	1.52
34	BA	174	A	P-O5'	-5.64	1.51	1.59
34	BA	189	G	C2'-C1'	-5.64	1.44	1.53
34	BA	1193	A	C2'-C1'	-5.64	1.44	1.53
35	BB	59	U	P-O5'	-5.64	1.51	1.59
35	BB	829	C	C2'-C1'	-5.64	1.44	1.53
35	BB	1250	A	P-O5'	-5.64	1.51	1.59
36	BC	20	C	C1'-N1	-5.64	1.40	1.48
38	BE	44	C	P-O5'	-5.64	1.51	1.59
38	BE	186	C	P-O5'	-5.64	1.51	1.59
40	BG	179	C	C3'-C2'	-5.64	1.44	1.52
47	BN	98	ILE	CA-CB	-5.64	1.46	1.54
48	BO	100	ARG	CA-C	-5.64	1.45	1.52
59	BZ	125	THR	C-N	-5.64	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	177	A	C2'-C1'	-5.64	1.44	1.53
85	AA	719	C	P-O5'	-5.64	1.51	1.59
85	AA	1109	G	C2'-C1'	-5.64	1.44	1.53
15	AG	39	LYS	N-CA	-5.64	1.39	1.46
30	AW	67	PRO	CA-C	-5.64	1.46	1.52
34	BA	399	G	C2'-C1'	-5.64	1.44	1.53
34	BA	707	C	C2'-C1'	-5.64	1.44	1.53
35	BB	1104	A	O3'-P	-5.64	1.52	1.61
40	BG	155	A	P-O5'	-5.64	1.51	1.59
54	BU	101	CYS	CA-C	-5.64	1.45	1.52
79	Bt	29	LYS	CA-C	-5.64	1.45	1.52
85	AA	462	A	O3'-P	-5.64	1.52	1.61
85	AA	963	U	P-O5'	-5.64	1.51	1.59
85	AA	1654	G	O3'-P	-5.64	1.52	1.61
85	AA	1662	U	O3'-P	-5.64	1.52	1.61
34	BA	1115	A	O3'-P	-5.64	1.52	1.61
35	BB	14	C	C3'-C2'	-5.64	1.44	1.52
35	BB	52	G	O3'-P	-5.64	1.52	1.61
35	BB	493	U	C1'-N1	-5.64	1.40	1.48
35	BB	1177	U	C2'-C1'	-5.64	1.44	1.53
57	BX	65	THR	CA-C	-5.64	1.46	1.53
84	By	37	LEU	N-CA	-5.64	1.38	1.45
85	AA	152	A	C1'-N9	-5.64	1.39	1.48
85	AA	344	U	C5'-C4'	5.64	1.59	1.51
85	AA	450	A	C3'-C2'	-5.64	1.44	1.52
85	AA	1959	G	C2'-C1'	-5.64	1.44	1.53
35	BB	1197	G	C1'-N9	-5.64	1.39	1.48
65	Bf	254	LEU	N-CA	-5.64	1.38	1.46
72	Bm	95	ARG	N-CA	-5.64	1.39	1.46
34	BA	792	A	O3'-P	-5.64	1.52	1.61
35	BB	795	A	C3'-C2'	-5.64	1.44	1.52
35	BB	1159	U	O3'-P	-5.64	1.52	1.61
39	BF	70	A	P-O5'	-5.64	1.51	1.59
72	Bm	95	ARG	CA-C	-5.64	1.45	1.52
74	Bo	4	ARG	CA-C	-5.64	1.46	1.52
81	Bv	169	LYS	N-CA	-5.64	1.38	1.45
85	AA	875	C	C1'-N1	-5.64	1.40	1.48
85	AA	1479	U	C3'-C2'	-5.64	1.44	1.52
85	AA	1673	A	O3'-P	-5.64	1.52	1.61
85	AA	1680	U	O3'-P	-5.64	1.52	1.61
20	AL	25	ASN	N-CA	-5.63	1.38	1.46
25	AR	44	VAL	CA-C	-5.63	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	AV	101	THR	C-N	-5.63	1.25	1.33
34	BA	379	C	O3'-P	-5.63	1.52	1.61
34	BA	1153	C	P-O5'	-5.63	1.51	1.59
35	BB	745	C	O3'-P	-5.63	1.52	1.61
35	BB	1385	C	C1'-N1	-5.63	1.40	1.48
38	BE	151	C	P-O5'	-5.63	1.51	1.59
66	Bg	54	VAL	N-CA	-5.63	1.39	1.46
68	Bi	80	VAL	N-CA	-5.63	1.39	1.46
75	Bp	25	VAL	CA-CB	-5.63	1.47	1.54
77	Br	169	PHE	CA-C	-5.63	1.45	1.52
81	Bv	160	GLN	CA-C	-5.63	1.45	1.52
85	AA	359	A	C1'-N9	-5.63	1.39	1.48
85	AA	505	U	C1'-N1	-5.63	1.39	1.47
85	AA	765	U	O3'-P	-5.63	1.52	1.61
85	AA	2008	G	O4'-C1'	-5.63	1.33	1.41
85	AA	2046	G	O3'-P	-5.63	1.52	1.61
85	AA	2221	A	C1'-N9	-5.63	1.39	1.48
34	BA	604	G	P-O5'	-5.63	1.51	1.59
34	BA	691	A	O5'-C5'	5.63	1.50	1.42
35	BB	85	A	C2'-C1'	-5.63	1.44	1.53
35	BB	496	C	C3'-C2'	-5.63	1.44	1.52
35	BB	661	G	C2'-C1'	-5.63	1.44	1.53
37	BD	58	G	O3'-P	-5.63	1.52	1.61
45	BL	39	ARG	CA-C	-5.63	1.45	1.52
47	BN	196	ALA	N-CA	-5.63	1.39	1.46
49	BP	15	ILE	CA-C	-5.63	1.46	1.52
61	Bb	3	THR	CA-C	-5.63	1.45	1.52
64	Be	175	ILE	CA-CB	-5.63	1.47	1.54
81	Bv	51	LEU	N-CA	-5.63	1.39	1.46
82	Bw	10	GLY	CA-C	-5.63	1.45	1.51
84	By	170	ILE	CA-C	-5.63	1.44	1.52
85	AA	1282	A	O4'-C1'	-5.63	1.33	1.41
85	AA	1465	C	O3'-P	-5.63	1.52	1.61
85	AA	1682	U	C3'-O3'	-5.63	1.34	1.43
34	BA	753	G	C1'-N9	-5.63	1.39	1.48
34	BA	1075	U	C3'-C2'	-5.63	1.44	1.52
34	BA	1232	C	C3'-C2'	-5.63	1.44	1.52
34	BA	1422	A	O3'-P	-5.63	1.52	1.61
34	BA	1695	G	P-O5'	-5.63	1.51	1.59
35	BB	490	G	C1'-N9	-5.63	1.39	1.48
35	BB	684	U	P-O5'	-5.63	1.51	1.59
35	BB	1186	A	O3'-P	-5.63	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1299	G	C1'-N9	-5.63	1.39	1.48
36	BC	135	A	C2'-C1'	-5.63	1.45	1.53
38	BE	23	G	C2'-C1'	-5.63	1.45	1.53
38	BE	109	C	O3'-P	-5.63	1.52	1.61
39	BF	32	G	C2'-C1'	-5.63	1.44	1.53
39	BF	61	A	O3'-P	-5.63	1.52	1.61
72	Bm	94	ARG	CD-NE	5.63	1.54	1.46
85	AA	300	C	P-O5'	-5.63	1.51	1.59
85	AA	741	G	C2'-C1'	-5.63	1.44	1.53
85	AA	896	C	C2'-C1'	-5.63	1.45	1.53
34	BA	411	C	O3'-P	-5.63	1.52	1.61
34	BA	1459	U	P-O5'	-5.63	1.51	1.59
35	BB	1141	A	C2'-C1'	-5.63	1.45	1.53
35	BB	1202	G	P-O5'	-5.63	1.51	1.59
35	BB	1210	U	C3'-C2'	-5.63	1.44	1.52
13	AE	104	ARG	CA-C	-5.63	1.45	1.53
34	BA	82	A	C4'-O4'	-5.63	1.37	1.45
34	BA	615	A	C2'-C1'	-5.63	1.45	1.53
35	BB	19	C	C2'-C1'	-5.63	1.45	1.53
35	BB	709	G	C3'-C2'	-5.63	1.44	1.52
35	BB	1351	G	C3'-C2'	-5.63	1.44	1.52
36	BC	153	C	N1-C2	-5.63	1.28	1.40
37	BD	96	C	C2'-C1'	-5.63	1.45	1.53
53	BT	57	VAL	CA-C	-5.63	1.45	1.52
77	Br	289	ARG	N-CA	-5.63	1.39	1.46
80	Bu	55	ILE	CA-CB	-5.63	1.47	1.54
84	By	112	ASN	CA-C	-5.63	1.45	1.52
85	AA	6	G	P-O5'	-5.63	1.51	1.59
85	AA	37	U	C1'-N1	-5.63	1.40	1.48
85	AA	161	A	C3'-C2'	-5.63	1.44	1.52
85	AA	512	U	O3'-P	-5.63	1.52	1.61
85	AA	1242	A	C2'-C1'	-5.63	1.45	1.53
85	AA	1669	G	O3'-P	-5.63	1.52	1.61
1	A0	218	LYS	CA-C	-5.63	1.46	1.52
34	BA	967	C	C1'-N1	-5.63	1.40	1.48
34	BA	1801	G	O4'-C1'	-5.63	1.33	1.41
35	BB	607	G	C1'-N9	-5.63	1.39	1.48
35	BB	1537	C	P-O5'	-5.63	1.51	1.59
53	BT	9	ARG	CA-C	-5.63	1.45	1.52
67	Bh	134	PHE	CA-C	-5.63	1.45	1.52
74	Bo	77	THR	C-N	-5.63	1.26	1.33
85	AA	515	C	O4'-C1'	-5.63	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	755	G	O3'-P	-5.63	1.52	1.61
85	AA	897	A	C3'-C2'	-5.63	1.44	1.52
85	AA	1165	C	C2'-C1'	-5.63	1.45	1.53
85	AA	2199	G	C1'-N9	-5.63	1.39	1.48
35	BB	1430	G	C3'-C2'	-5.62	1.44	1.52
40	BG	39	A	N9-C4	-5.62	1.26	1.37
40	BG	163	G	O3'-P	-5.62	1.52	1.61
85	AA	869	A	O3'-P	-5.62	1.52	1.61
85	AA	939	A	C2'-C1'	-5.62	1.45	1.53
85	AA	1736	U	C3'-O3'	5.62	1.50	1.42
3	A2	75	ALA	CA-C	-5.62	1.45	1.52
23	AP	81	ILE	N-CA	-5.62	1.39	1.46
34	BA	1796	A	P-O5'	-5.62	1.51	1.59
35	BB	782	A	C2'-C1'	-5.62	1.45	1.53
35	BB	1281	G	O3'-P	-5.62	1.52	1.61
35	BB	1416	A	C1'-N9	-5.62	1.39	1.48
37	BD	34	C	O3'-P	-5.62	1.52	1.61
40	BG	58	G	P-O5'	-5.62	1.51	1.59
48	BO	167	LYS	N-CA	-5.62	1.39	1.46
71	Bl	78	LYS	N-CA	-5.62	1.39	1.46
77	Br	237	HIS	N-CA	-5.62	1.39	1.46
82	Bw	240	GLY	CA-C	-5.62	1.44	1.51
85	AA	13	U	P-O5'	-5.62	1.51	1.59
85	AA	813	G	C2'-C1'	-5.62	1.45	1.53
4	A3	204	LYS	N-CA	-5.62	1.39	1.46
7	A6	104	LEU	CA-C	-5.62	1.45	1.52
20	AL	99	ILE	C-N	5.62	1.40	1.33
34	BA	1589	U	C1'-N1	-5.62	1.40	1.48
35	BB	441	G	C3'-C2'	-5.62	1.44	1.52
35	BB	1494	G	P-O5'	-5.62	1.51	1.59
41	BH	133	U	O4'-C1'	-5.62	1.33	1.41
65	Bf	425	HIS	N-CA	-5.62	1.39	1.46
71	Bl	55	ASN	CA-C	-5.62	1.45	1.53
71	Bl	121	THR	CA-C	-5.62	1.45	1.52
84	By	88	PHE	N-CA	-5.62	1.39	1.46
85	AA	30	G	P-O5'	-5.62	1.51	1.59
85	AA	638	G	C4'-C3'	-5.62	1.44	1.53
85	AA	1239	C	C1'-N1	-5.62	1.40	1.48
85	AA	1713	A	P-O5'	-5.62	1.51	1.59
34	BA	318	U	O3'-P	-5.62	1.52	1.61
35	BB	1446	C	O3'-P	-5.62	1.52	1.61
40	BG	97	G	C2'-C1'	-5.62	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
74	Bo	80	ARG	N-CA	-5.62	1.39	1.46
85	AA	742	U	P-O5'	-5.62	1.51	1.59
11	AC	99	ARG	CA-C	-5.62	1.44	1.52
34	BA	484	A	O4'-C1'	-5.62	1.33	1.41
34	BA	937	G	C2'-C1'	-5.62	1.45	1.53
34	BA	1667	G	C2'-C1'	-5.62	1.45	1.53
34	BA	1673	G	C2'-C1'	-5.62	1.45	1.53
35	BB	792	G	O3'-P	-5.62	1.52	1.61
38	BE	94	U	C2'-C1'	-5.62	1.45	1.53
50	BQ	45	TRP	CA-C	-5.62	1.44	1.52
65	Bf	211	ILE	CA-CB	-5.62	1.47	1.54
80	Bu	36	MET	N-CA	-5.62	1.39	1.46
85	AA	1562	U	C2'-C1'	-5.62	1.45	1.53
34	BA	503	C	C3'-C2'	-5.62	1.44	1.52
37	BD	21	G	P-O5'	-5.62	1.51	1.59
85	AA	1704	C	P-O5'	-5.62	1.51	1.59
5	A4	66	ILE	CA-CB	-5.62	1.47	1.54
34	BA	99	G	C2'-C1'	-5.62	1.45	1.53
34	BA	1442	A	N9-C4	5.62	1.49	1.37
34	BA	1528	U	C1'-N1	-5.62	1.40	1.48
34	BA	1795	A	C2'-C1'	-5.62	1.44	1.53
35	BB	1356	G	C2-N2	-5.62	1.23	1.34
37	BD	93	G	C2'-C1'	-5.62	1.45	1.53
41	BH	119	U	C5'-C4'	-5.62	1.42	1.51
42	BI	116	ALA	CA-C	-5.62	1.46	1.52
47	BN	123	THR	CA-C	-5.62	1.45	1.52
74	Bo	13	ARG	CD-NE	5.62	1.54	1.46
85	AA	334	A	O3'-P	-5.62	1.52	1.61
85	AA	683	U	C2'-C1'	-5.62	1.44	1.53
34	BA	374	U	C3'-C2'	-5.61	1.44	1.52
34	BA	999	G	C3'-C2'	-5.61	1.44	1.52
34	BA	1223	C	C4'-C3'	-5.61	1.44	1.52
35	BB	580	A	C5'-C4'	5.61	1.59	1.51
35	BB	1272	G	P-O5'	-5.61	1.51	1.59
36	BC	5	U	O3'-P	-5.61	1.52	1.61
40	BG	53	C	O3'-P	-5.61	1.52	1.61
40	BG	67	A	C2'-C1'	-5.61	1.45	1.53
42	BI	42	SER	CA-C	-5.61	1.45	1.52
44	BK	63	GLU	CA-C	-5.61	1.45	1.52
48	BO	110	THR	CA-C	-5.61	1.45	1.52
67	Bh	143	VAL	N-CA	-5.61	1.39	1.46
73	Bn	28	HIS	C-N	-5.61	1.26	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	By	79	ILE	CA-CB	-5.61	1.47	1.54
85	AA	98	U	P-O5'	-5.61	1.51	1.59
85	AA	159	G	C3'-C2'	-5.61	1.44	1.52
85	AA	320	U	O3'-P	-5.61	1.52	1.61
48	BO	145	HIS	CA-C	-5.61	1.45	1.52
67	Bh	112	ILE	CA-C	-5.61	1.46	1.52
3	A2	75	ALA	N-CA	-5.61	1.39	1.46
34	BA	36	A	C1'-N9	-5.61	1.39	1.48
34	BA	66	C	P-O5'	-5.61	1.51	1.59
34	BA	165	C	C4'-C3'	-5.61	1.44	1.53
34	BA	959	G	P-O5'	-5.61	1.51	1.59
35	BB	458	U	C2'-C1'	-5.61	1.45	1.53
36	BC	17	U	N1-C2	-5.61	1.27	1.38
36	BC	155	C	C2'-C1'	-5.61	1.45	1.53
38	BE	114	G	C2'-C1'	-5.61	1.45	1.53
40	BG	94	G	O3'-P	-5.61	1.52	1.61
51	BR	153	PRO	CA-C	-5.61	1.46	1.53
62	Bc	100	PRO	CA-C	-5.61	1.44	1.52
68	Bi	62	ARG	CA-C	-5.61	1.45	1.52
71	Bl	85	HIS	N-CA	-5.61	1.39	1.45
85	AA	802	A	C1'-N9	-5.61	1.39	1.48
85	AA	1812	C	O3'-P	-5.61	1.52	1.61
34	BA	661	C	C3'-C2'	-5.61	1.44	1.52
38	BE	111	C	C4'-C3'	-5.61	1.44	1.52
73	Bn	30	GLN	CA-C	-5.61	1.44	1.52
85	AA	430	G	O4'-C1'	-5.61	1.33	1.41
34	BA	761	U	P-O5'	-5.61	1.51	1.59
34	BA	1526	C	C2'-C1'	-5.61	1.45	1.53
34	BA	1696	G	P-O5'	-5.61	1.51	1.59
35	BB	1029	U	O3'-P	-5.61	1.52	1.61
35	BB	1079	G	C2'-C1'	-5.61	1.45	1.53
36	BC	28	C	O3'-P	-5.61	1.52	1.61
37	BD	96	C	P-O5'	-5.61	1.51	1.59
39	BF	48	G	P-O5'	-5.61	1.51	1.59
40	BG	128	U	C3'-C2'	-5.61	1.44	1.52
66	Bg	53	VAL	CA-CB	-5.61	1.47	1.54
80	Bu	21	ARG	CA-C	-5.61	1.45	1.52
85	AA	395	G	C1'-N9	-5.61	1.39	1.48
34	BA	1239	G	C3'-C2'	-5.61	1.44	1.52
66	Bg	102	SER	CA-C	-5.61	1.46	1.52
85	AA	646	C	C2'-C1'	-5.61	1.45	1.53
85	AA	2024	U	O3'-P	-5.61	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A4	26	ALA	N-CA	-5.60	1.39	1.46
7	A6	174	VAL	N-CA	-5.60	1.39	1.46
34	BA	445	C	C3'-C2'	-5.60	1.44	1.52
34	BA	1512	C	O3'-P	-5.60	1.52	1.61
80	Bu	190	ASN	CA-C	-5.60	1.45	1.52
83	Bx	74	LYS	CA-C	-5.60	1.45	1.52
85	AA	880	A	C3'-C2'	-5.60	1.44	1.52
85	AA	1286	C	O3'-P	-5.60	1.52	1.61
24	AQ	115	HIS	C-N	-5.60	1.25	1.33
31	AX	68	LEU	CA-C	-5.60	1.45	1.52
34	BA	717	U	O3'-P	-5.60	1.52	1.61
40	BG	170	G	C2'-C1'	-5.60	1.44	1.53
65	Bf	170	TYR	N-CA	-5.60	1.38	1.45
85	AA	642	G	C1'-N9	-5.60	1.39	1.48
85	AA	969	U	C5'-C4'	5.60	1.59	1.51
85	AA	1170	C	P-O5'	-5.60	1.51	1.59
34	BA	69	C	C3'-C2'	-5.60	1.44	1.52
34	BA	1239	G	P-O5'	-5.60	1.51	1.59
53	BT	70	LYS	CA-C	-5.60	1.45	1.52
85	AA	435	A	C1'-N9	-5.60	1.39	1.48
85	AA	2021	A	P-O5'	-5.60	1.51	1.59
6	A5	59	ARG	CD-NE	5.60	1.54	1.46
6	A5	192	PRO	CA-C	-5.60	1.43	1.52
34	BA	1601	C	C3'-C2'	-5.60	1.44	1.52
35	BB	833	G	C1'-N9	-5.60	1.39	1.48
37	BD	118	C	O3'-P	-5.60	1.52	1.61
40	BG	77	U	P-O5'	-5.60	1.51	1.59
40	BG	152	G	C3'-C2'	-5.60	1.44	1.52
47	BN	207	ALA	CA-C	-5.60	1.45	1.52
84	By	121	ARG	CA-C	-5.60	1.45	1.52
85	AA	368	C	P-O5'	-5.60	1.51	1.59
85	AA	1165	C	C1'-N1	-5.60	1.40	1.48
85	AA	1259	U	C2'-C1'	-5.60	1.45	1.53
85	AA	1450	U	O3'-P	-5.60	1.52	1.61
25	AR	13	ASN	C-N	-5.60	1.26	1.33
28	AU	108	THR	CA-C	-5.60	1.45	1.52
34	BA	342	U	O3'-P	-5.60	1.52	1.61
34	BA	1242	A	O3'-P	-5.60	1.52	1.61
34	BA	1545	C	C3'-C2'	-5.60	1.44	1.52
35	BB	665	A	O3'-P	-5.60	1.52	1.61
35	BB	1102	U	O4'-C1'	-5.60	1.33	1.42
39	BF	39	C	C3'-C2'	-5.60	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	BF	39	C	P-O5'	-5.60	1.51	1.59
47	BN	52	PHE	CA-CB	-5.60	1.44	1.53
49	BP	164	VAL	CA-CB	-5.60	1.47	1.54
5	A4	154	LEU	CA-C	-5.60	1.46	1.52
35	BB	1207	C	C4'-O4'	-5.60	1.37	1.45
38	BE	191	U	C3'-C2'	-5.60	1.44	1.52
56	BW	123	GLU	CA-C	-5.60	1.44	1.52
85	AA	679	A	C2'-C1'	-5.60	1.45	1.53
85	AA	1952	C	P-O5'	-5.60	1.51	1.59
15	AG	95	ALA	C-N	-5.59	1.26	1.33
21	AM	16	LEU	CA-C	-5.59	1.45	1.52
34	BA	1529	G	O3'-P	-5.59	1.52	1.61
35	BB	1326	U	C3'-C2'	-5.59	1.44	1.52
65	Bf	251	ALA	N-CA	-5.59	1.39	1.46
73	Bn	58	ARG	CA-C	-5.59	1.45	1.52
83	Bx	260	ARG	N-CA	-5.59	1.38	1.46
85	AA	20	G	C2'-C1'	-5.59	1.45	1.53
85	AA	419	A	C2'-C1'	-5.59	1.45	1.53
85	AA	495	G	C5'-C4'	-5.59	1.42	1.51
85	AA	1098	C	C4'-C3'	-5.59	1.44	1.52
85	AA	2019	G	P-O5'	-5.59	1.51	1.59
34	BA	1499	A	O3'-P	-5.59	1.52	1.61
40	BG	164	U	C2'-C1'	-5.59	1.45	1.53
40	BG	175	G	C5'-C4'	5.59	1.59	1.51
18	AJ	23	ARG	CA-C	-5.59	1.44	1.52
34	BA	755	G	C2'-C1'	-5.59	1.45	1.53
34	BA	755	G	N9-C4	-5.59	1.26	1.38
73	Bn	52	LYS	N-CA	-5.59	1.39	1.46
85	AA	504	U	C2'-C1'	-5.59	1.44	1.53
85	AA	1660	U	O3'-P	-5.59	1.52	1.61
34	BA	461	A	P-O5'	-5.59	1.51	1.59
34	BA	1087	A	C1'-N9	-5.59	1.38	1.47
35	BB	830	G	C3'-C2'	-5.59	1.44	1.52
35	BB	850	U	O4'-C1'	-5.59	1.33	1.42
35	BB	1346	A	P-O5'	-5.59	1.51	1.59
36	BC	168	C	C1'-N1	-5.59	1.40	1.48
41	BH	134	U	C2'-C1'	-5.59	1.45	1.53
50	BQ	68	VAL	CA-C	-5.59	1.44	1.52
54	BU	35	LYS	N-CA	-5.59	1.38	1.46
80	Bu	24	ARG	CA-C	-5.59	1.45	1.52
85	AA	3	U	O3'-P	-5.59	1.52	1.61
85	AA	65	A	O3'-P	-5.59	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1611	A	O3'-P	-5.59	1.52	1.61
15	AG	36	ALA	CA-C	-5.59	1.45	1.52
34	BA	845	U	C2'-C1'	-5.59	1.44	1.53
34	BA	1608	C	C1'-N1	-5.59	1.40	1.48
35	BB	462	G	P-O5'	-5.59	1.51	1.59
38	BE	190	U	P-O5'	-5.59	1.51	1.59
34	BA	777	C	C1'-N1	-5.59	1.40	1.48
34	BA	1223	C	C2'-O2'	-5.59	1.34	1.42
34	BA	1253	G	C1'-N9	-5.59	1.39	1.48
35	BB	1224	C	O3'-P	-5.59	1.52	1.61
37	BD	65	G	C1'-N9	-5.59	1.39	1.48
41	BH	2	U	P-O5'	-5.59	1.51	1.59
55	BV	117	TYR	CA-C	-5.59	1.46	1.52
77	Br	5	PRO	CA-C	-5.59	1.44	1.52
85	AA	94	C	O3'-P	-5.59	1.52	1.61
35	BB	14	C	C1'-N1	-5.58	1.40	1.48
35	BB	42	A	O3'-P	-5.58	1.52	1.61
38	BE	58	U	O3'-P	-5.58	1.52	1.61
68	Bi	25	LEU	CA-C	-5.58	1.45	1.52
72	Bm	61	MET	N-CA	-5.58	1.39	1.46
85	AA	436	G	C3'-C2'	-5.58	1.44	1.52
85	AA	1588	A	P-O5'	-5.58	1.51	1.59
2	A1	139	HIS	N-CA	-5.58	1.39	1.46
34	BA	1067	G	C3'-C2'	-5.58	1.44	1.52
35	BB	816	U	P-O5'	-5.58	1.51	1.59
35	BB	1388	A	P-O5'	-5.58	1.51	1.59
38	BE	110	U	C1'-N1	-5.58	1.40	1.48
44	BK	94	PHE	CA-C	-5.58	1.45	1.52
85	AA	414	C	O3'-P	-5.58	1.52	1.61
85	AA	1651	C	C1'-N1	-5.58	1.40	1.48
34	BA	471	U	C4'-O4'	-5.58	1.37	1.45
35	BB	1155	U	P-O5'	-5.58	1.51	1.59
35	BB	1160	U	P-O5'	-5.58	1.51	1.59
47	BN	112	GLU	N-CA	-5.58	1.39	1.46
52	BS	94	LYS	CA-C	-5.58	1.45	1.52
70	Bk	86	THR	CA-C	-5.58	1.44	1.52
85	AA	182	C	O3'-P	-5.58	1.52	1.61
85	AA	188	G	C1'-N9	-5.58	1.39	1.48
85	AA	940	G	O5'-C5'	5.58	1.50	1.42
85	AA	1604	A	O3'-P	-5.58	1.52	1.61
85	AA	1753	A	C3'-O3'	5.58	1.50	1.42
34	BA	68	A	O3'-P	-5.58	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	812	A	C1'-N9	-5.58	1.39	1.48
34	BA	1331	G	O3'-P	-5.58	1.52	1.61
34	BA	1555	G	C3'-C2'	-5.58	1.44	1.52
35	BB	1104	A	C4'-O4'	-5.58	1.37	1.45
52	BS	42	ARG	CA-C	-5.58	1.45	1.52
62	Bc	109	ARG	CA-C	-5.58	1.45	1.52
85	AA	764	U	C1'-N1	-5.58	1.40	1.48
1	A0	87	LYS	CA-C	-5.58	1.45	1.52
1	A0	88	PHE	CA-C	-5.58	1.46	1.52
33	AZ	38	ALA	N-CA	-5.58	1.38	1.46
34	BA	33	C	C2'-C1'	-5.58	1.45	1.53
34	BA	970	U	O3'-P	-5.58	1.52	1.61
35	BB	499	A	O3'-P	-5.58	1.52	1.61
35	BB	1386	C	C3'-C2'	-5.58	1.44	1.52
36	BC	21	U	O3'-P	-5.58	1.52	1.61
39	BF	19	A	C5'-C4'	5.58	1.59	1.51
40	BG	98	A	P-O5'	-5.58	1.51	1.59
44	BK	75	TYR	CA-C	-5.58	1.45	1.52
52	BS	37	VAL	N-CA	-5.58	1.39	1.46
68	Bi	116	LEU	CA-C	-5.58	1.44	1.52
85	AA	274	A	C2'-C1'	-5.58	1.45	1.53
85	AA	442	G	C3'-C2'	-5.58	1.44	1.52
85	AA	492	C	O3'-P	-5.58	1.52	1.61
85	AA	713	G	C2'-C1'	-5.58	1.45	1.53
35	BB	1076	U	P-O5'	-5.58	1.51	1.59
37	BD	105	G	C2'-C1'	-5.58	1.45	1.53
85	AA	1453	U	C1'-N1	-5.58	1.40	1.48
22	AO	66	ASN	C-N	-5.58	1.27	1.34
34	BA	16	C	O3'-P	-5.58	1.52	1.61
34	BA	1470	G	P-O5'	-5.58	1.51	1.59
34	BA	1658	G	O3'-P	-5.58	1.52	1.61
35	BB	67	A	C1'-N9	-5.58	1.39	1.48
35	BB	401	U	C2'-C1'	-5.58	1.45	1.53
36	BC	61	A	O3'-P	-5.58	1.52	1.61
42	BI	158	HIS	N-CA	-5.58	1.40	1.46
49	BP	32	ASP	N-CA	-5.58	1.39	1.46
57	BX	103	THR	CA-C	-5.58	1.46	1.52
81	Bv	35	ILE	CA-C	-5.58	1.46	1.52
3	A2	93	ASN	CA-C	-5.57	1.47	1.53
4	A3	49	TYR	N-CA	-5.57	1.39	1.46
34	BA	799	A	C4'-C3'	5.57	1.61	1.53
34	BA	906	A	C1'-N9	-5.57	1.39	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	411	A	O3'-P	-5.57	1.52	1.61
37	BD	55	A	C2'-C1'	-5.57	1.45	1.53
80	Bu	215	LYS	N-CA	-5.57	1.39	1.46
83	Bx	50	GLY	CA-C	5.57	1.60	1.51
34	BA	62	A	P-O5'	-5.57	1.51	1.59
85	AA	106	G	C2'-C1'	-5.57	1.45	1.53
85	AA	435	A	O3'-P	-5.57	1.52	1.61
85	AA	553	G	O3'-P	-5.57	1.52	1.61
85	AA	1155	A	C2'-C1'	-5.57	1.45	1.53
34	BA	176	G	O3'-P	-5.57	1.52	1.61
34	BA	517	A	O5'-C5'	-5.57	1.34	1.42
34	BA	927	A	C2'-C1'	-5.57	1.45	1.53
34	BA	1049	G	N9-C4	-5.57	1.26	1.38
34	BA	1711	G	C5'-C4'	-5.57	1.42	1.51
35	BB	54	U	C4'-C3'	-5.57	1.44	1.52
37	BD	112	U	O3'-P	-5.57	1.52	1.61
45	BL	118	ASP	CA-C	-5.57	1.45	1.52
65	Bf	421	SER	CA-C	-5.57	1.45	1.52
85	AA	367	A	C1'-N9	-5.57	1.39	1.48
85	AA	696	G	C2'-C1'	-5.57	1.45	1.53
85	AA	1163	G	P-O5'	-5.57	1.51	1.59
85	AA	2082	C	O3'-P	-5.57	1.52	1.61
85	AA	2116	U	O3'-P	-5.57	1.52	1.61
6	A5	169	HIS	CA-C	-5.57	1.45	1.52
25	AR	24	ALA	N-CA	-5.57	1.39	1.46
35	BB	464	C	P-O5'	-5.57	1.51	1.59
35	BB	1234	G	O3'-P	-5.57	1.52	1.61
85	AA	1129	A	O3'-P	-5.57	1.52	1.61
85	AA	1353	U	C5'-C4'	5.57	1.59	1.51
1	A0	147	LYS	CA-C	-5.57	1.45	1.52
32	AY	5	HIS	C-N	5.57	1.39	1.32
34	BA	210	G	C3'-C2'	-5.57	1.44	1.52
34	BA	263	G	P-O5'	-5.57	1.51	1.59
37	BD	94	C	O3'-P	-5.57	1.52	1.61
40	BG	55	A	P-O5'	-5.57	1.51	1.59
66	Bg	40	GLN	N-CA	-5.57	1.39	1.46
85	AA	322	A	O3'-P	-5.57	1.52	1.61
85	AA	1198	U	C3'-C2'	-5.57	1.44	1.52
85	AA	1228	A	O3'-P	-5.57	1.52	1.61
85	AA	2073	U	C2'-C1'	-5.57	1.45	1.53
25	AR	73	ILE	CA-C	-5.57	1.45	1.52
34	BA	761	U	C2'-C1'	-5.57	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	927	A	O3'-P	-5.57	1.52	1.61
34	BA	1322	A	C1'-N9	-5.57	1.39	1.48
35	BB	375	G	C4'-C3'	-5.57	1.44	1.52
35	BB	617	C	O3'-P	-5.57	1.52	1.61
35	BB	1026	G	C4'-C3'	5.57	1.60	1.52
35	BB	1266	A	P-O5'	-5.57	1.51	1.59
36	BC	34	U	C4'-O4'	-5.57	1.37	1.45
37	BD	8	A	O3'-P	-5.57	1.52	1.61
48	BO	91	HIS	CA-C	-5.57	1.45	1.52
49	BP	155	ASP	N-CA	-5.57	1.39	1.46
85	AA	80	G	O3'-P	-5.57	1.52	1.61
85	AA	962	U	O3'-P	-5.57	1.52	1.61
85	AA	1135	U	C3'-C2'	-5.57	1.44	1.52
85	AA	1144	G	O3'-P	-5.57	1.52	1.61
85	AA	1443	U	C1'-N1	-5.57	1.40	1.48
34	BA	140	C	O3'-P	-5.56	1.52	1.61
34	BA	545	U	C1'-N1	-5.56	1.40	1.48
34	BA	1580	U	C1'-N1	-5.56	1.40	1.48
35	BB	546	A	O4'-C1'	-5.56	1.33	1.42
59	BZ	111	ARG	N-CA	-5.56	1.39	1.46
85	AA	1735	U	O3'-P	-5.56	1.52	1.61
3	A2	7	LYS	CA-C	-5.56	1.46	1.52
34	BA	395	G	C4'-C3'	-5.56	1.44	1.52
34	BA	464	U	O3'-P	-5.56	1.52	1.61
34	BA	1516	G	C1'-N9	-5.56	1.39	1.48
35	BB	131	A	C2'-C1'	-5.56	1.45	1.53
35	BB	692	G	C2'-C1'	-5.56	1.45	1.53
35	BB	1082	A	P-O5'	-5.56	1.51	1.59
35	BB	1168	G	C4'-O4'	-5.56	1.37	1.45
35	BB	1530	U	P-O5'	-5.56	1.51	1.59
36	BC	3	C	C3'-C2'	-5.56	1.44	1.52
40	BG	158	A	O3'-P	-5.56	1.52	1.61
41	BH	31	A	C4'-O4'	-5.56	1.37	1.45
85	AA	272	C	C2'-C1'	-5.56	1.45	1.53
85	AA	687	G	O3'-P	-5.56	1.52	1.61
2	A1	255	ILE	C-N	-5.56	1.25	1.33
47	BN	192	LYS	C-N	-5.56	1.26	1.33
80	Bu	118	LYS	CA-C	-5.56	1.46	1.52
7	A6	100	VAL	CA-C	-5.56	1.47	1.52
11	AC	110	VAL	N-CA	-5.56	1.39	1.46
34	BA	447	U	O3'-P	-5.56	1.52	1.61
34	BA	498	A	C2'-C1'	-5.56	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	589	U	C2'-C1'	-5.56	1.45	1.53
35	BB	777	C	O3'-P	-5.56	1.52	1.61
35	BB	1290	C	C3'-C2'	-5.56	1.44	1.52
35	BB	1521	G	P-O5'	-5.56	1.51	1.59
36	BC	40	A	O3'-P	-5.56	1.52	1.61
52	BS	106	SER	N-CA	-5.56	1.39	1.46
53	BT	89	MET	N-CA	-5.56	1.41	1.46
64	Be	107	ILE	N-CA	-5.56	1.39	1.46
85	AA	11	A	C5'-C4'	-5.56	1.43	1.51
85	AA	63	G	C3'-C2'	-5.56	1.44	1.52
85	AA	1912	U	P-O5'	-5.56	1.51	1.59
34	BA	136	A	C1'-N9	-5.56	1.39	1.48
34	BA	422	C	C3'-C2'	-5.56	1.44	1.52
34	BA	1685	C	C2'-C1'	-5.56	1.45	1.53
35	BB	1182	A	O3'-P	-5.56	1.52	1.61
35	BB	1340	U	O3'-P	-5.56	1.52	1.61
36	BC	89	U	C1'-N1	5.56	1.55	1.47
39	BF	30	C	O3'-P	-5.56	1.52	1.61
41	BH	16	A	N9-C4	-5.56	1.26	1.37
44	BK	48	VAL	N-CA	-5.56	1.39	1.46
53	BT	96	MET	N-CA	-5.56	1.39	1.46
67	Bh	137	HIS	CA-C	-5.56	1.45	1.52
85	AA	588	G	P-O5'	-5.56	1.51	1.59
34	BA	441	A	O3'-P	-5.56	1.52	1.61
35	BB	829	C	P-O5'	-5.56	1.51	1.59
75	Bp	4	GLU	N-CA	-5.56	1.39	1.45
85	AA	557	G	C2'-C1'	-5.56	1.45	1.53
85	AA	1503	G	C2'-C1'	-5.56	1.45	1.53
85	AA	1692	U	O3'-P	-5.56	1.52	1.61
34	BA	839	U	C2'-C1'	-5.55	1.45	1.53
34	BA	1241	U	O3'-P	-5.55	1.52	1.61
34	BA	1403	G	C1'-N9	-5.55	1.38	1.47
35	BB	775	U	C1'-N1	-5.55	1.40	1.48
36	BC	23	G	C3'-C2'	-5.55	1.44	1.52
38	BE	59	U	C2'-C1'	-5.55	1.45	1.53
40	BG	147	U	C1'-N1	-5.55	1.40	1.48
51	BR	94	LEU	CA-C	-5.55	1.45	1.52
64	Be	163	ARG	CA-CB	5.55	1.62	1.53
75	Bp	51	LYS	CA-C	-5.55	1.46	1.52
35	BB	645	C	C2'-C1'	-5.55	1.45	1.53
85	AA	1169	A	C1'-N9	-5.55	1.39	1.48
85	AA	1281	G	C3'-C2'	-5.55	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2146	G	C2-N2	-5.55	1.23	1.34
11	AC	198	PRO	CA-C	-5.55	1.46	1.52
34	BA	327	G	C1'-N9	-5.55	1.39	1.48
34	BA	1479	G	C1'-N9	-5.55	1.39	1.48
34	BA	1610	A	C4'-O4'	-5.55	1.37	1.45
34	BA	1724	G	C5'-C4'	5.55	1.59	1.51
34	BA	1840	C	C2'-C1'	-5.55	1.45	1.53
35	BB	59	U	O4'-C1'	-5.55	1.33	1.41
35	BB	599	U	P-O5'	-5.55	1.51	1.59
62	Bc	12	VAL	C-N	5.55	1.41	1.33
67	Bh	131	LEU	N-CA	-5.55	1.39	1.46
77	Br	187	GLN	CA-C	-5.55	1.45	1.52
85	AA	2239	A	O3'-P	-5.55	1.52	1.61
13	AE	155	VAL	N-CA	-5.55	1.39	1.46
15	AG	138	THR	CA-C	-5.55	1.48	1.53
25	AR	68	GLU	N-CA	-5.55	1.39	1.46
34	BA	410	G	C1'-N9	-5.55	1.39	1.48
34	BA	732	A	C1'-N9	-5.55	1.39	1.48
34	BA	897	U	C4'-C3'	-5.55	1.44	1.52
34	BA	1088	G	C2'-C1'	-5.55	1.44	1.53
34	BA	1160	U	C2'-C1'	-5.55	1.45	1.53
35	BB	134	G	C2'-C1'	-5.55	1.45	1.53
36	BC	143	C	C1'-N1	-5.55	1.40	1.48
38	BE	167	U	C1'-N1	-5.55	1.40	1.48
45	BL	170	PHE	CA-C	-5.55	1.45	1.52
81	Bv	182	LYS	CA-C	-5.55	1.46	1.53
85	AA	653	A	O3'-P	-5.55	1.52	1.61
85	AA	1493	A	C4'-O4'	-5.55	1.37	1.45
85	AA	1517	G	C5'-C4'	-5.55	1.43	1.51
85	AA	2237	G	C3'-C2'	-5.55	1.44	1.52
21	AM	11	GLN	CA-C	-5.55	1.45	1.52
35	BB	101	U	C2'-C1'	-5.55	1.45	1.53
40	BG	144	G	P-O5'	-5.55	1.51	1.59
83	Bx	118	ARG	CD-NE	5.55	1.54	1.46
85	AA	305	A	C4'-C3'	5.55	1.60	1.52
85	AA	1519	A	O3'-P	-5.55	1.52	1.61
85	AA	1728	G	O3'-P	-5.55	1.52	1.61
1	A0	212	LEU	N-CA	-5.55	1.39	1.46
3	A2	149	PHE	CA-C	-5.55	1.45	1.52
5	A4	75	LEU	N-CA	-5.55	1.39	1.46
34	BA	214	A	O4'-C1'	-5.55	1.33	1.41
34	BA	1148	U	O3'-P	-5.55	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	964	G	P-O5'	-5.55	1.51	1.59
35	BB	1115	G	C1'-N9	-5.55	1.39	1.48
37	BD	55	A	O3'-P	-5.55	1.52	1.61
45	BL	39	ARG	N-CA	-5.55	1.39	1.46
52	BS	50	LYS	CA-C	-5.55	1.45	1.52
67	Bh	143	VAL	CA-C	-5.55	1.47	1.52
85	AA	364	C	O3'-P	-5.55	1.52	1.61
85	AA	873	U	C3'-O3'	5.55	1.50	1.42
85	AA	1206	A	C1'-N9	-5.55	1.39	1.48
85	AA	1695	G	C2'-C1'	-5.55	1.45	1.53
17	AI	17	ARG	CD-NE	5.54	1.54	1.46
34	BA	50	G	C3'-C2'	-5.54	1.44	1.52
34	BA	1435	A	C2'-C1'	-5.54	1.44	1.53
35	BB	582	G	C1'-N9	-5.54	1.39	1.48
36	BC	13	U	C1'-N1	-5.54	1.40	1.48
50	BQ	148	GLU	N-CA	-5.54	1.39	1.46
85	AA	497	G	C3'-C2'	-5.54	1.44	1.52
85	AA	841	U	P-O5'	-5.54	1.51	1.59
2	A1	133	ILE	N-CA	-5.54	1.39	1.46
15	AG	98	MET	CA-C	-5.54	1.45	1.52
20	AL	81	ARG	CA-C	-5.54	1.45	1.52
34	BA	487	A	C2'-C1'	-5.54	1.44	1.53
34	BA	613	A	P-O5'	-5.54	1.51	1.59
34	BA	623	U	O3'-P	-5.54	1.52	1.61
34	BA	794	G	P-O5'	-5.54	1.51	1.59
35	BB	888	U	P-O5'	-5.54	1.51	1.59
35	BB	1233	U	C1'-N1	-5.54	1.40	1.48
40	BG	115	C	O3'-P	-5.54	1.52	1.61
49	BP	109	GLU	N-CA	-5.54	1.39	1.46
62	Bc	121	LYS	N-CA	-5.54	1.39	1.46
75	Bp	67	ILE	CA-C	-5.54	1.45	1.52
80	Bu	222	SER	CA-C	-5.54	1.45	1.52
83	Bx	108	LYS	N-CA	-5.54	1.38	1.46
84	By	138	VAL	CA-CB	-5.54	1.48	1.54
85	AA	1004	G	P-O5'	-5.54	1.51	1.59
85	AA	1259	U	C4'-C3'	-5.54	1.44	1.52
85	AA	1373	U	O3'-P	-5.54	1.52	1.61
85	AA	1546	G	P-O5'	-5.54	1.51	1.59
85	AA	1919	G	O3'-P	-5.54	1.52	1.61
7	A6	82	TYR	CA-C	-5.54	1.45	1.52
34	BA	1188	U	O3'-P	-5.54	1.52	1.61
35	BB	1054	G	C3'-C2'	-5.54	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1184	C	C1'-N1	-5.54	1.40	1.48
35	BB	1473	U	P-O5'	-5.54	1.51	1.59
36	BC	35	C	C2'-C1'	-5.54	1.45	1.53
37	BD	8	A	C1'-N9	-5.54	1.39	1.48
41	BH	120	C	C1'-N1	-5.54	1.40	1.48
65	Bf	165	PHE	N-CA	-5.54	1.39	1.46
67	Bh	68	CYS	CA-C	-5.54	1.45	1.52
85	AA	717	G	P-O5'	-5.54	1.51	1.59
85	AA	1144	G	C3'-C2'	-5.54	1.44	1.52
85	AA	1211	C	C4'-C3'	-5.54	1.44	1.52
85	AA	1925	A	O4'-C1'	-5.54	1.33	1.41
85	AA	1928	A	O3'-P	-5.54	1.52	1.61
34	BA	609	G	C1'-N9	-5.54	1.39	1.48
34	BA	1005	C	O3'-P	-5.54	1.52	1.61
36	BC	115	G	C3'-C2'	-5.54	1.44	1.52
37	BD	102	C	C3'-C2'	-5.54	1.44	1.52
44	BK	164	ILE	N-CA	-5.54	1.39	1.46
65	Bf	87	ASP	N-CA	-5.54	1.40	1.46
26	AS	132	ALA	CA-C	-5.54	1.45	1.52
34	BA	185	A	O4'-C1'	-5.54	1.33	1.41
34	BA	718	U	O3'-P	-5.54	1.52	1.61
35	BB	495	A	C2'-C1'	-5.54	1.45	1.53
35	BB	962	U	C2'-C1'	-5.54	1.45	1.53
36	BC	165	U	O3'-P	-5.54	1.52	1.61
47	BN	172	GLU	CA-C	-5.54	1.45	1.52
51	BR	89	VAL	N-CA	-5.54	1.40	1.46
64	Be	168	ILE	CA-C	-5.54	1.46	1.52
75	Bp	21	ARG	N-CA	-5.54	1.39	1.46
80	Bu	151	ILE	CA-CB	-5.54	1.47	1.54
85	AA	410	A	O3'-P	-5.54	1.52	1.61
85	AA	1149	A	C2'-C1'	-5.54	1.45	1.53
85	AA	1704	C	O3'-P	-5.54	1.52	1.61
34	BA	26	C	O3'-P	-5.54	1.52	1.61
80	Bu	95	TYR	N-CA	-5.54	1.39	1.46
85	AA	772	C	P-O5'	-5.54	1.51	1.59
34	BA	47	U	C3'-C2'	-5.54	1.44	1.52
34	BA	99	G	C1'-N9	-5.54	1.39	1.48
35	BB	1348	C	C3'-C2'	-5.54	1.44	1.52
35	BB	1369	A	C3'-C2'	-5.54	1.44	1.52
36	BC	15	G	C2'-C1'	-5.54	1.44	1.53
38	BE	161	G	C4'-O4'	-5.54	1.37	1.45
40	BG	17	A	C4'-O4'	-5.54	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	BO	117	LEU	N-CA	-5.54	1.39	1.46
85	AA	376	C	P-O5'	-5.54	1.51	1.59
85	AA	816	A	C5'-C4'	5.54	1.59	1.51
2	A1	169	LEU	CA-C	-5.53	1.45	1.52
35	BB	511	A	O3'-P	-5.53	1.52	1.61
35	BB	1264	U	O3'-P	-5.53	1.52	1.61
37	BD	9	C	O3'-P	-5.53	1.52	1.61
37	BD	25	G	O3'-P	-5.53	1.52	1.61
53	BT	111	GLU	CA-C	-5.53	1.45	1.52
85	AA	275	A	C1'-N9	-5.53	1.39	1.48
85	AA	475	A	C3'-C2'	-5.53	1.44	1.52
85	AA	903	G	O3'-P	-5.53	1.52	1.61
1	A0	127	VAL	CA-C	-5.53	1.46	1.52
34	BA	987	C	O3'-P	-5.53	1.52	1.61
40	BG	82	U	O4'-C1'	-5.53	1.33	1.41
49	BP	130	GLU	CA-C	-5.53	1.45	1.53
83	Bx	181	THR	CA-C	-5.53	1.45	1.52
85	AA	131	C	O3'-P	-5.53	1.52	1.61
85	AA	673	A	O3'-P	-5.53	1.52	1.61
13	AE	91	VAL	CA-C	-5.53	1.46	1.52
34	BA	1273	U	C2'-C1'	-5.53	1.45	1.53
34	BA	1733	G	C2'-C1'	-5.53	1.45	1.53
35	BB	37	C	C3'-C2'	-5.53	1.44	1.52
35	BB	386	G	O3'-P	-5.53	1.52	1.61
35	BB	625	A	C3'-C2'	-5.53	1.44	1.52
35	BB	1006	C	C2'-C1'	-5.53	1.45	1.53
35	BB	1509	G	P-O5'	-5.53	1.51	1.59
37	BD	52	U	P-O5'	-5.53	1.51	1.59
45	BL	37	LEU	N-CA	-5.53	1.39	1.46
57	BX	102	ASN	CA-C	-5.53	1.45	1.52
74	Bo	38	PHE	CA-C	-5.53	1.45	1.52
83	Bx	179	MET	CA-C	-5.53	1.45	1.52
85	AA	422	G	O3'-P	-5.53	1.52	1.61
85	AA	1091	C	P-O5'	-5.53	1.51	1.59
4	A3	165	VAL	N-CA	-5.53	1.39	1.46
6	A5	93	THR	CA-C	-5.53	1.45	1.52
23	AP	175	VAL	CA-C	-5.53	1.46	1.52
23	AP	198	LEU	CA-C	-5.53	1.45	1.52
34	BA	824	C	C2'-C1'	-5.53	1.45	1.53
35	BB	1335	G	O3'-P	-5.53	1.52	1.61
56	BW	94	VAL	CA-CB	-5.53	1.47	1.53
85	AA	1703	A	O3'-P	-5.53	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	AR	17	TYR	CA-C	-5.53	1.45	1.52
34	BA	110	C	C1'-N1	-5.53	1.40	1.48
34	BA	745	A	O3'-P	-5.53	1.52	1.61
34	BA	1194	G	P-O5'	-5.53	1.51	1.59
35	BB	448	G	C2'-C1'	-5.53	1.45	1.53
35	BB	1132	A	C1'-N9	-5.53	1.39	1.48
36	BC	142	C	O3'-P	-5.53	1.52	1.61
40	BG	76	C	O4'-C1'	-5.53	1.33	1.42
53	BT	13	ASP	N-CA	-5.53	1.39	1.46
85	AA	407	G	C2'-C1'	-5.53	1.45	1.53
85	AA	900	G	O3'-P	-5.53	1.52	1.61
85	AA	2125	A	N9-C4	-5.53	1.26	1.37
4	A3	44	GLU	CA-C	-5.53	1.45	1.52
7	A6	56	ARG	CD-NE	5.53	1.53	1.46
34	BA	357	A	C3'-C2'	-5.53	1.44	1.52
34	BA	1517	U	O3'-P	-5.53	1.52	1.61
35	BB	88	U	C2'-C1'	-5.53	1.45	1.53
35	BB	644	A	C1'-N9	-5.53	1.38	1.47
35	BB	779	C	P-O5'	-5.53	1.51	1.59
35	BB	815	G	C2'-C1'	-5.53	1.45	1.53
35	BB	839	G	C2'-C1'	-5.53	1.45	1.53
35	BB	1014	U	C2'-C1'	-5.53	1.45	1.53
40	BG	46	G	C3'-C2'	-5.53	1.44	1.52
66	Bg	81	TYR	C-N	-5.53	1.25	1.33
80	Bu	256	ILE	CA-CB	-5.53	1.48	1.54
85	AA	2041	G	C1'-N9	-5.53	1.39	1.48
7	A6	21	GLU	CA-C	-5.52	1.45	1.52
7	A6	72	GLY	CA-C	-5.52	1.46	1.52
34	BA	135	G	C1'-N9	-5.52	1.39	1.48
34	BA	1055	U	O3'-P	-5.52	1.52	1.61
35	BB	1001	G	C2'-C1'	-5.52	1.45	1.53
35	BB	1522	G	C2'-C1'	-5.52	1.45	1.53
42	BI	8	VAL	N-CA	-5.52	1.39	1.46
19	AK	91	ILE	CA-C	-5.52	1.46	1.52
34	BA	12	G	C2-N2	-5.52	1.23	1.34
35	BB	672	C	C2'-C1'	-5.52	1.45	1.53
36	BC	132	U	P-O5'	-5.52	1.51	1.59
38	BE	68	U	C3'-C2'	-5.52	1.44	1.52
40	BG	171	A	C1'-N9	5.52	1.56	1.48
51	BR	98	ALA	N-CA	-5.52	1.39	1.46
72	Bm	97	LYS	N-CA	-5.52	1.39	1.46
85	AA	5	U	O3'-P	-5.52	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	480	U	O4'-C1'	-5.52	1.33	1.41
34	BA	505	U	C2'-C1'	-5.52	1.45	1.53
38	BE	96	G	C2-N2	-5.52	1.23	1.34
84	By	67	THR	C-N	-5.52	1.26	1.33
30	AW	37	LYS	N-CA	-5.52	1.39	1.46
34	BA	233	U	O3'-P	-5.52	1.52	1.61
34	BA	761	U	C5'-C4'	-5.52	1.43	1.51
34	BA	1545	C	O4'-C1'	-5.52	1.33	1.41
35	BB	127	U	C2'-O2'	-5.52	1.34	1.42
35	BB	525	U	P-O5'	-5.52	1.51	1.59
35	BB	776	U	C2'-C1'	-5.52	1.45	1.53
38	BE	201	A	O3'-P	-5.52	1.52	1.61
53	BT	87	ALA	CA-C	-5.52	1.45	1.52
60	Ba	24	ILE	CA-CB	-5.52	1.48	1.54
65	Bf	412	ILE	N-CA	-5.52	1.39	1.46
85	AA	835	C	C3'-C2'	-5.52	1.44	1.52
85	AA	902	A	C4'-C3'	-5.52	1.44	1.52
85	AA	1681	G	P-O5'	-5.52	1.51	1.59
85	AA	1964	A	P-O5'	-5.52	1.51	1.59
7	A6	39	ARG	CA-C	-5.52	1.45	1.52
23	AP	165	PRO	CA-C	-5.52	1.46	1.52
34	BA	681	G	O4'-C1'	-5.52	1.33	1.42
34	BA	1289	C	C4'-O4'	-5.52	1.37	1.45
34	BA	1407	C	O3'-P	-5.52	1.52	1.61
34	BA	1666	U	C2'-C1'	-5.52	1.45	1.53
35	BB	1309	A	O3'-P	-5.52	1.52	1.61
37	BD	26	C	O5'-C5'	-5.52	1.34	1.42
38	BE	197	A	C2'-C1'	-5.52	1.45	1.53
40	BG	22	G	C3'-O3'	-5.52	1.33	1.42
40	BG	111	C	C2'-C1'	-5.52	1.45	1.53
65	Bf	230	LYS	CA-C	-5.52	1.44	1.52
85	AA	157	G	C2'-C1'	-5.52	1.45	1.53
85	AA	498	C	C1'-N1	-5.52	1.40	1.48
85	AA	678	A	C2'-C1'	-5.52	1.45	1.53
85	AA	792	A	C1'-N9	-5.52	1.39	1.48
85	AA	2032	G	C2'-C1'	-5.52	1.45	1.53
34	BA	1442	A	P-O5'	-5.52	1.51	1.59
34	BA	1798	G	O4'-C1'	-5.52	1.33	1.42
2	A1	227	LYS	N-CA	-5.51	1.39	1.45
30	AW	68	THR	CA-C	-5.51	1.45	1.52
34	BA	388	A	C1'-N9	-5.51	1.39	1.48
34	BA	1701	U	O3'-P	-5.51	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	136	A	C3'-C2'	-5.51	1.44	1.52
35	BB	647	U	P-O5'	-5.51	1.51	1.59
35	BB	1246	C	C2'-C1'	-5.51	1.45	1.53
35	BB	1403	G	C1'-N9	-5.51	1.39	1.48
36	BC	127	C	O3'-P	-5.51	1.52	1.61
37	BD	111	U	O3'-P	-5.51	1.52	1.61
40	BG	141	A	P-O5'	-5.51	1.51	1.59
42	BI	30	ILE	CA-C	-5.51	1.45	1.52
83	Bx	239	SER	CA-C	-5.51	1.45	1.52
85	AA	776	C	C1'-N1	-5.51	1.40	1.48
8	A7	158	VAL	N-CA	-5.51	1.39	1.46
34	BA	111	U	O4'-C1'	-5.51	1.33	1.42
34	BA	1162	U	C3'-C2'	-5.51	1.44	1.52
35	BB	1376	G	C5'-C4'	-5.51	1.43	1.51
85	AA	739	C	C2'-C1'	-5.51	1.45	1.53
85	AA	1859	C	C1'-N1	-5.51	1.40	1.48
34	BA	398	G	C2'-C1'	-5.51	1.45	1.53
34	BA	466	G	O3'-P	-5.51	1.52	1.61
35	BB	19	C	O3'-P	-5.51	1.52	1.61
35	BB	1304	U	O3'-P	-5.51	1.52	1.61
42	BI	175	SER	CA-C	-5.51	1.45	1.52
85	AA	1152	U	O3'-P	-5.51	1.52	1.61
1	A0	171	THR	CA-C	-5.51	1.45	1.52
25	AR	78	ILE	CA-CB	-5.51	1.48	1.54
34	BA	142	A	P-O5'	-5.51	1.51	1.59
34	BA	169	C	O3'-P	-5.51	1.52	1.61
34	BA	354	G	C2'-C1'	-5.51	1.45	1.53
34	BA	505	U	O3'-P	-5.51	1.52	1.61
34	BA	719	G	C2'-C1'	-5.51	1.45	1.53
34	BA	726	G	C1'-N9	-5.51	1.39	1.48
34	BA	1421	A	C2'-C1'	-5.51	1.45	1.53
35	BB	461	U	P-O5'	-5.51	1.51	1.59
35	BB	653	G	C2'-C1'	-5.51	1.45	1.53
35	BB	1290	C	C2'-C1'	-5.51	1.45	1.53
36	BC	152	C	P-O5'	-5.51	1.51	1.59
38	BE	203	C	O4'-C1'	-5.51	1.33	1.41
40	BG	68	U	P-O5'	-5.51	1.51	1.59
42	BI	108	CYS	N-CA	-5.51	1.39	1.46
47	BN	195	SER	CA-C	-5.51	1.45	1.52
75	Bp	43	TYR	CA-C	-5.51	1.45	1.52
82	Bw	57	LYS	N-CA	-5.51	1.39	1.46
84	By	123	VAL	CA-CB	-5.51	1.48	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	978	U	C2'-C1'	-5.51	1.45	1.53
85	AA	1485	G	O4'-C1'	-5.51	1.33	1.41
85	AA	1724	A	P-O5'	-5.51	1.51	1.59
34	BA	222	C	C3'-C2'	-5.51	1.44	1.52
34	BA	299	C	C1'-N1	-5.51	1.40	1.48
34	BA	683	C	C3'-O3'	5.51	1.50	1.42
40	BG	164	U	P-O5'	-5.51	1.51	1.59
48	BO	93	SER	CA-C	-5.51	1.47	1.53
11	AC	88	HIS	CA-C	-5.51	1.45	1.52
15	AG	66	VAL	CA-CB	-5.51	1.46	1.54
34	BA	257	G	N9-C4	-5.51	1.26	1.38
34	BA	670	U	C4'-C3'	-5.51	1.44	1.52
34	BA	1190	A	O3'-P	-5.51	1.52	1.61
34	BA	1505	G	C3'-C2'	-5.51	1.44	1.52
35	BB	67	A	O3'-P	-5.51	1.52	1.61
35	BB	1120	A	O3'-P	-5.51	1.52	1.61
37	BD	31	U	O3'-P	-5.51	1.52	1.61
57	BX	116	GLU	N-CA	-5.51	1.39	1.46
68	Bi	122	ASN	N-CA	-5.51	1.39	1.46
69	Bj	101	GLN	CA-C	-5.51	1.44	1.52
70	Bk	53	LYS	N-CA	-5.51	1.39	1.46
84	By	131	TYR	CA-C	-5.51	1.45	1.52
85	AA	1207	C	O3'-P	-5.51	1.52	1.61
85	AA	1491	G	C2'-C1'	-5.51	1.45	1.53
85	AA	1657	C	C2'-C1'	-5.51	1.45	1.53
85	AA	2135	A	O3'-P	-5.51	1.52	1.61
34	BA	1262	A	C5'-C4'	-5.50	1.43	1.51
35	BB	658	G	O3'-P	-5.50	1.52	1.61
35	BB	1415	G	O3'-P	-5.50	1.52	1.61
44	BK	136	LEU	N-CA	-5.50	1.39	1.45
85	AA	760	U	C2'-C1'	-5.50	1.44	1.53
85	AA	1147	A	C2'-C1'	-5.50	1.44	1.53
85	AA	2215	C	C3'-C2'	-5.50	1.44	1.52
15	AG	132	VAL	CA-C	-5.50	1.46	1.53
30	AW	20	HIS	CA-C	-5.50	1.45	1.52
34	BA	39	C	C1'-N1	-5.50	1.40	1.48
34	BA	300	C	C1'-N1	-5.50	1.40	1.48
34	BA	972	C	C1'-N1	-5.50	1.40	1.48
34	BA	1003	A	C2'-C1'	-5.50	1.45	1.53
34	BA	1194	G	O3'-P	-5.50	1.52	1.61
34	BA	1477	C	C5'-C4'	-5.50	1.43	1.51
35	BB	1158	C	O3'-P	-5.50	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	BT	140	GLU	CA-C	-5.50	1.45	1.52
81	Bv	144	SER	CA-C	-5.50	1.45	1.52
85	AA	535	G	C1'-N9	-5.50	1.39	1.48
34	BA	253	U	P-O5'	-5.50	1.51	1.59
34	BA	886	G	C1'-N9	-5.50	1.39	1.48
34	BA	1441	C	C3'-C2'	-5.50	1.44	1.52
34	BA	1784	G	C1'-N9	-5.50	1.39	1.48
35	BB	1327	U	C1'-N1	-5.50	1.40	1.48
36	BC	30	U	P-O5'	-5.50	1.51	1.59
41	BH	113	G	C3'-C2'	-5.50	1.44	1.52
57	BX	81	ALA	CA-C	-5.50	1.45	1.52
67	Bh	115	PHE	CA-C	-5.50	1.45	1.52
85	AA	130	G	C2'-C1'	-5.50	1.45	1.53
85	AA	1532	G	P-O5'	-5.50	1.51	1.59
4	A3	74	VAL	CA-C	-5.50	1.46	1.52
34	BA	75	U	C2'-C1'	-5.50	1.45	1.53
34	BA	588	C	P-O5'	-5.50	1.51	1.59
34	BA	723	C	C1'-N1	-5.50	1.39	1.47
44	BK	72	ALA	N-CA	-5.50	1.39	1.46
70	Bk	94	ARG	N-CA	-5.50	1.39	1.46
13	AE	157	GLN	CA-C	-5.50	1.45	1.52
25	AR	69	SER	CA-C	-5.50	1.45	1.52
34	BA	955	G	O3'-P	-5.50	1.52	1.61
34	BA	1642	A	C4'-O4'	-5.50	1.37	1.45
35	BB	553	U	C1'-N1	-5.50	1.39	1.47
35	BB	570	A	P-O5'	-5.50	1.51	1.59
35	BB	1387	C	P-O5'	-5.50	1.51	1.59
41	BH	69	C	C2'-C1'	-5.50	1.45	1.53
47	BN	104	ARG	N-CA	-5.50	1.39	1.46
65	Bf	68	LEU	N-CA	-5.50	1.38	1.45
65	Bf	72	ARG	CA-C	-5.50	1.45	1.52
85	AA	651	G	O3'-P	-5.50	1.52	1.61
85	AA	1205	U	P-O5'	-5.50	1.51	1.59
85	AA	1610	G	P-O5'	-5.50	1.51	1.59
85	AA	1818	C	C2'-C1'	-5.50	1.45	1.53
85	AA	2017	U	O3'-P	-5.50	1.52	1.61
4	A3	201	LYS	N-CA	-5.50	1.39	1.46
34	BA	1233	U	P-O5'	-5.50	1.51	1.59
34	BA	1487	U	O4'-C1'	-5.50	1.33	1.41
34	BA	1574	C	C2'-C1'	-5.50	1.45	1.53
35	BB	550	G	O3'-P	-5.50	1.52	1.61
35	BB	1492	C	O4'-C1'	-5.50	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BD	3	G	C4'-C3'	-5.50	1.44	1.52
70	Bk	59	MET	N-CA	-5.50	1.39	1.46
85	AA	156	G	P-O5'	-5.50	1.51	1.59
85	AA	1067	G	O3'-P	-5.50	1.52	1.61
85	AA	1257	A	O3'-P	-5.50	1.52	1.61
85	AA	1505	G	P-O5'	-5.50	1.51	1.59
85	AA	1529	A	O3'-P	-5.50	1.52	1.61
34	BA	150	C	C2'-C1'	-5.50	1.45	1.53
35	BB	678	U	C1'-N1	-5.50	1.40	1.48
35	BB	1494	G	O3'-P	-5.50	1.52	1.61
53	BT	105	LEU	CA-C	-5.50	1.45	1.52
54	BU	102	GLN	N-CA	-5.50	1.39	1.46
82	Bw	70	TYR	CA-C	-5.50	1.45	1.52
85	AA	481	A	C2'-C1'	-5.50	1.45	1.53
34	BA	1450	G	C1'-N9	-5.49	1.39	1.48
34	BA	1601	C	C4'-O4'	-5.49	1.37	1.45
35	BB	654	C	C3'-C2'	-5.49	1.44	1.52
35	BB	1200	A	C3'-C2'	-5.49	1.44	1.52
35	BB	1404	A	C2'-C1'	-5.49	1.45	1.53
35	BB	1517	G	C5'-C4'	5.49	1.59	1.51
36	BC	102	G	C3'-C2'	-5.49	1.44	1.52
38	BE	2	G	C3'-C2'	-5.49	1.44	1.52
50	BQ	37	ARG	N-CA	-5.49	1.38	1.46
59	BZ	76	VAL	CA-CB	-5.49	1.47	1.54
65	Bf	276	VAL	CA-C	-5.49	1.46	1.52
70	Bk	52	ARG	CA-C	-5.49	1.45	1.52
73	Bn	75	ARG	N-CA	-5.49	1.38	1.46
76	Bq	30	ARG	CA-CB	-5.49	1.44	1.53
77	Br	231	ASN	N-CA	-5.49	1.40	1.46
85	AA	451	G	O3'-P	-5.49	1.52	1.61
85	AA	697	G	C1'-N9	-5.49	1.39	1.48
2	A1	215	PHE	CA-C	-5.49	1.45	1.52
11	AC	74	ILE	CA-C	-5.49	1.47	1.53
24	AQ	19	VAL	CA-C	-5.49	1.45	1.52
34	BA	235	C	O3'-P	-5.49	1.52	1.61
34	BA	312	U	C1'-N1	-5.49	1.40	1.48
34	BA	348	U	C3'-C2'	-5.49	1.44	1.52
34	BA	1399	A	O3'-P	-5.49	1.52	1.61
34	BA	1587	C	P-O5'	-5.49	1.51	1.59
34	BA	1674	G	C2'-C1'	-5.49	1.44	1.53
38	BE	149	A	N9-C4	-5.49	1.26	1.37
40	BG	7	U	O3'-P	-5.49	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	AL	75	GLU	N-CA	-5.49	1.39	1.46
34	BA	80	U	P-O5'	-5.49	1.51	1.59
34	BA	408	U	C1'-N1	-5.49	1.39	1.47
34	BA	949	C	C3'-C2'	-5.49	1.44	1.52
34	BA	1406	U	O3'-P	-5.49	1.52	1.61
35	BB	818	U	C3'-C2'	-5.49	1.44	1.52
35	BB	1324	C	O3'-P	-5.49	1.52	1.61
35	BB	1514	G	O3'-P	-5.49	1.52	1.61
35	BB	1521	G	C2'-C1'	-5.49	1.45	1.53
65	Bf	249	GLU	N-CA	-5.49	1.39	1.46
85	AA	178	U	C2'-C1'	-5.49	1.45	1.53
5	A4	123	SER	CA-C	-5.49	1.45	1.52
34	BA	193	C	C2'-C1'	-5.49	1.45	1.53
34	BA	384	U	O3'-P	-5.49	1.52	1.61
34	BA	681	G	C4'-O4'	-5.49	1.37	1.45
34	BA	743	A	C1'-N9	-5.49	1.39	1.48
34	BA	812	A	C3'-C2'	-5.49	1.44	1.52
34	BA	1829	A	C2'-C1'	-5.49	1.45	1.53
35	BB	817	C	C2'-C1'	-5.49	1.45	1.53
35	BB	1251	G	O4'-C1'	-5.49	1.33	1.41
35	BB	1417	C	C3'-C2'	-5.49	1.44	1.52
39	BF	50	C	O3'-P	-5.49	1.52	1.61
85	AA	654	A	C1'-N9	-5.49	1.39	1.48
23	AP	64	ILE	CA-C	-5.49	1.46	1.52
34	BA	929	A	C2'-C1'	-5.49	1.45	1.53
35	BB	1383	C	C3'-C2'	-5.49	1.44	1.52
47	BN	107	LYS	N-CA	-5.49	1.38	1.46
6	A5	64	ASN	N-CA	-5.49	1.39	1.46
15	AG	92	ILE	CA-CB	-5.49	1.47	1.54
34	BA	431	A	C2'-C1'	-5.49	1.45	1.53
34	BA	1231	C	P-O5'	-5.49	1.51	1.59
34	BA	1433	U	O4'-C1'	-5.49	1.33	1.42
34	BA	1532	G	C2'-C1'	-5.49	1.45	1.53
34	BA	1726	U	P-O5'	-5.49	1.51	1.59
35	BB	1226	G	C2'-C1'	-5.49	1.45	1.53
39	BF	30	C	C1'-N1	-5.49	1.39	1.47
52	BS	75	ASN	CA-C	-5.49	1.46	1.52
85	AA	1656	C	C2'-C1'	-5.49	1.45	1.53
85	AA	2113	U	C2'-C1'	-5.49	1.45	1.53
34	BA	1069	U	C1'-N1	-5.48	1.40	1.48
35	BB	643	G	C1'-N9	-5.48	1.39	1.48
35	BB	1185	G	P-O5'	-5.48	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1465	C	O4'-C1'	-5.48	1.33	1.41
15	AG	40	LEU	N-CA	-5.48	1.39	1.46
20	AL	74	GLN	CA-C	-5.48	1.45	1.52
34	BA	54	A	C3'-C2'	-5.48	1.44	1.52
34	BA	742	C	O4'-C1'	-5.48	1.33	1.41
34	BA	755	G	C3'-C2'	-5.48	1.44	1.52
34	BA	1544	G	O3'-P	-5.48	1.52	1.61
39	BF	60	C	C2'-C1'	-5.48	1.44	1.53
54	BU	63	ILE	CA-CB	-5.48	1.47	1.54
84	By	23	ILE	CA-CB	-5.48	1.47	1.54
85	AA	1251	G	O3'-P	-5.48	1.52	1.61
85	AA	1449	C	P-O5'	-5.48	1.51	1.59
85	AA	1517	G	P-O5'	-5.48	1.51	1.59
85	AA	1751	G	O3'-P	-5.48	1.52	1.61
1	A0	38	PHE	CA-C	-5.48	1.45	1.52
26	AS	101	LEU	CA-C	-5.48	1.46	1.52
34	BA	484	A	C4'-O4'	-5.48	1.37	1.45
34	BA	660	C	C1'-N1	-5.48	1.40	1.48
35	BB	642	G	C1'-N9	-5.48	1.38	1.47
44	BK	160	PRO	CA-CB	-5.48	1.46	1.53
47	BN	189	PHE	CA-C	-5.48	1.45	1.52
53	BT	31	GLU	N-CA	-5.48	1.39	1.46
64	Be	132	ASP	CA-C	-5.48	1.45	1.53
71	Bl	126	PHE	CA-C	-5.48	1.46	1.52
79	Bt	56	PRO	CA-C	-5.48	1.45	1.52
85	AA	1284	A	C4'-C3'	-5.48	1.44	1.52
34	BA	817	U	O3'-P	-5.48	1.52	1.61
34	BA	956	G	P-O5'	-5.48	1.51	1.59
39	BF	62	U	C2'-C1'	-5.48	1.44	1.53
85	AA	600	C	C4'-C3'	5.48	1.60	1.52
85	AA	1845	G	C2'-C1'	-5.48	1.45	1.53
18	AJ	50	PHE	CA-C	-5.48	1.46	1.52
34	BA	32	A	O3'-P	-5.48	1.52	1.61
34	BA	126	G	O3'-P	-5.48	1.52	1.61
34	BA	1154	U	O3'-P	-5.48	1.52	1.61
34	BA	1724	G	C4'-O4'	-5.48	1.37	1.45
35	BB	498	G	C1'-N9	-5.48	1.39	1.48
41	BH	121	A	N9-C4	-5.48	1.26	1.37
50	BQ	40	GLN	CA-C	-5.48	1.45	1.52
53	BT	17	CYS	CA-C	-5.48	1.46	1.52
85	AA	157	G	O3'-P	-5.48	1.52	1.61
85	AA	1257	A	C2'-C1'	-5.48	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2192	A	C2'-C1'	-5.48	1.45	1.53
6	A5	115	LYS	N-CA	-5.48	1.39	1.46
34	BA	992	A	N9-C4	-5.48	1.26	1.37
35	BB	468	U	O3'-P	-5.48	1.52	1.61
35	BB	672	C	P-O5'	-5.48	1.51	1.59
40	BG	160	C	O3'-P	-5.48	1.52	1.61
42	BI	58	ASN	N-CA	-5.48	1.38	1.46
85	AA	195	C	P-O5'	-5.48	1.51	1.59
85	AA	642	G	O3'-P	-5.48	1.52	1.61
85	AA	660	G	C1'-N9	-5.48	1.39	1.48
5	A4	145	TRP	NE1-CE2	-5.47	1.31	1.37
23	AP	145	SER	CA-C	-5.47	1.44	1.52
34	BA	198	U	C2'-C1'	-5.47	1.45	1.53
35	BB	569	G	C1'-N9	-5.47	1.39	1.48
84	By	158	VAL	CA-CB	-5.47	1.48	1.54
34	BA	1529	G	C1'-N9	-5.47	1.39	1.48
34	BA	1689	U	P-O5'	-5.47	1.51	1.59
35	BB	103	C	C1'-N1	-5.47	1.40	1.48
35	BB	1408	G	O3'-P	-5.47	1.52	1.61
37	BD	22	A	O3'-P	-5.47	1.52	1.61
85	AA	765	U	P-O5'	-5.47	1.51	1.59
85	AA	1489	G	C3'-C2'	-5.47	1.44	1.52
85	AA	2130	G	C3'-C2'	-5.47	1.44	1.52
85	AA	2177	C	C3'-C2'	-5.47	1.44	1.52
22	AO	136	ALA	N-CA	-5.47	1.39	1.46
34	BA	347	A	P-O5'	-5.47	1.51	1.59
35	BB	391	G	C1'-N9	-5.47	1.39	1.48
85	AA	289	G	C4'-O4'	5.47	1.53	1.45
85	AA	352	G	O3'-P	-5.47	1.52	1.61
85	AA	547	A	C3'-C2'	-5.47	1.44	1.52
4	A3	15	GLN	CA-C	-5.47	1.46	1.52
23	AP	197	ILE	CA-C	-5.47	1.45	1.52
34	BA	175	G	P-O5'	-5.47	1.51	1.59
34	BA	231	U	C5'-C4'	5.47	1.59	1.51
34	BA	444	A	O3'-P	-5.47	1.52	1.61
34	BA	490	A	O3'-P	-5.47	1.52	1.61
34	BA	1460	U	O3'-P	-5.47	1.52	1.61
36	BC	140	U	P-O5'	-5.47	1.51	1.59
38	BE	96	G	O3'-P	-5.47	1.52	1.61
69	Bj	88	VAL	CA-C	-5.47	1.45	1.53
73	Bn	31	TRP	CA-C	-5.47	1.44	1.52
78	Bs	21	ARG	CA-C	-5.47	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1299	A	C2'-C1'	-5.47	1.45	1.53
85	AA	1511	C	O3'-P	-5.47	1.52	1.61
34	BA	726	G	P-O5'	-5.47	1.51	1.59
34	BA	890	G	O3'-P	-5.47	1.52	1.61
34	BA	941	G	O3'-P	-5.47	1.52	1.61
34	BA	1316	G	P-O5'	-5.47	1.51	1.59
35	BB	1318	U	O3'-P	-5.47	1.52	1.61
85	AA	54	C	C3'-C2'	-5.47	1.44	1.52
85	AA	709	A	C2'-C1'	-5.47	1.45	1.53
85	AA	2129	U	C1'-N1	-5.47	1.40	1.48
19	AK	105	GLU	CA-C	-5.47	1.45	1.52
34	BA	323	C	P-O5'	-5.47	1.51	1.59
34	BA	935	A	C1'-N9	-5.47	1.39	1.48
34	BA	1000	G	C2'-C1'	-5.47	1.45	1.53
34	BA	1415	C	O3'-P	-5.47	1.52	1.61
34	BA	1672	C	C1'-N1	-5.47	1.40	1.48
34	BA	1795	A	O3'-P	-5.47	1.52	1.61
35	BB	422	U	C2'-C1'	-5.47	1.45	1.53
35	BB	645	C	C1'-N1	-5.47	1.40	1.48
73	Bn	36	ALA	N-CA	-5.47	1.39	1.46
82	Bw	149	ILE	N-CA	-5.47	1.40	1.46
83	Bx	49	ILE	N-CA	5.47	1.53	1.46
85	AA	120	C	O3'-P	-5.47	1.52	1.61
85	AA	280	U	O3'-P	-5.47	1.52	1.61
85	AA	898	A	C2'-C1'	-5.47	1.45	1.53
85	AA	978	U	O3'-P	-5.47	1.52	1.61
85	AA	978	U	P-O5'	-5.47	1.51	1.59
85	AA	2176	U	C4'-O4'	-5.47	1.37	1.45
13	AE	19	GLN	CA-C	-5.46	1.45	1.52
34	BA	1109	G	C2'-C1'	-5.46	1.45	1.53
34	BA	1329	U	C2'-C1'	-5.46	1.45	1.53
36	BC	8	C	N1-C2	-5.46	1.29	1.40
37	BD	56	G	O3'-P	-5.46	1.52	1.61
38	BE	27	A	C5'-C4'	-5.46	1.43	1.51
40	BG	21	C	O3'-P	-5.46	1.52	1.61
40	BG	90	G	O3'-P	-5.46	1.52	1.61
49	BP	168	ARG	N-CA	-5.46	1.39	1.46
56	BW	41	VAL	CA-C	-5.46	1.45	1.52
61	Bb	99	ILE	CA-CB	-5.46	1.47	1.54
68	Bi	34	ARG	CA-C	-5.46	1.45	1.52
85	AA	381	A	O4'-C1'	-5.46	1.33	1.41
85	AA	789	A	O3'-P	-5.46	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	837	C	O3'-P	-5.46	1.52	1.61
85	AA	1185	G	C1'-N9	-5.46	1.39	1.48
36	BC	140	U	C3'-C2'	-5.46	1.44	1.52
77	Br	162	LYS	CA-C	-5.46	1.46	1.52
77	Br	231	ASN	C-N	-5.46	1.26	1.33
1	A0	165	TRP	CA-C	-5.46	1.45	1.52
34	BA	655	U	C2'-C1'	-5.46	1.45	1.53
34	BA	1172	C	C2'-C1'	-5.46	1.45	1.53
34	BA	1663	U	P-O5'	-5.46	1.51	1.59
34	BA	1713	U	C2'-C1'	-5.46	1.45	1.53
35	BB	14	C	C2'-C1'	-5.46	1.45	1.53
35	BB	1093	C	C3'-C2'	-5.46	1.44	1.52
35	BB	1457	A	C4'-C3'	-5.46	1.44	1.52
37	BD	37	G	C1'-N9	-5.46	1.39	1.48
51	BR	114	ILE	CA-C	-5.46	1.46	1.52
57	BX	51	ARG	C-N	-5.46	1.26	1.34
65	Bf	151	LYS	CA-C	-5.46	1.45	1.52
85	AA	258	G	O3'-P	-5.46	1.52	1.61
85	AA	444	U	O3'-P	-5.46	1.52	1.61
85	AA	1629	C	C1'-N1	-5.46	1.40	1.48
8	A7	168	VAL	N-CA	-5.46	1.40	1.46
34	BA	1082	U	O4'-C1'	-5.46	1.33	1.41
34	BA	1544	G	C3'-C2'	-5.46	1.44	1.52
39	BF	47	C	C2'-C1'	-5.46	1.45	1.53
62	Bc	79	LYS	CA-C	-5.46	1.46	1.53
80	Bu	245	MET	CA-C	-5.46	1.45	1.52
84	By	102	THR	CA-C	-5.46	1.45	1.53
85	AA	635	G	C3'-C2'	-5.46	1.44	1.52
85	AA	1973	G	C3'-C2'	-5.46	1.44	1.52
34	BA	92	G	C3'-C2'	-5.46	1.44	1.52
34	BA	788	C	C4'-C3'	-5.46	1.44	1.52
34	BA	1532	G	O3'-P	-5.46	1.52	1.61
35	BB	1077	C	O3'-P	-5.46	1.52	1.61
39	BF	44	C	O3'-P	-5.46	1.52	1.61
48	BO	109	TYR	CA-C	-5.46	1.45	1.52
50	BQ	35	VAL	CA-CB	-5.46	1.48	1.54
58	BY	8	PHE	CA-C	-5.46	1.45	1.52
62	Bc	69	THR	C-N	-5.46	1.26	1.33
85	AA	448	G	C1'-N9	-5.46	1.39	1.48
85	AA	1244	A	C2'-C1'	-5.46	1.45	1.53
85	AA	1889	U	P-O5'	-5.46	1.51	1.59
11	AC	110	VAL	CA-CB	-5.46	1.47	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	547	C	C2'-O2'	-5.46	1.34	1.42
34	BA	707	C	C1'-N1	-5.46	1.40	1.48
34	BA	979	G	C2'-C1'	-5.46	1.45	1.53
34	BA	1009	G	C3'-C2'	-5.46	1.44	1.52
34	BA	1556	A	O4'-C1'	-5.46	1.33	1.41
34	BA	1823	A	P-O5'	-5.46	1.51	1.59
35	BB	816	U	C3'-C2'	-5.46	1.44	1.52
35	BB	827	U	C2'-C1'	-5.46	1.45	1.53
35	BB	1485	G	O3'-P	-5.46	1.52	1.61
37	BD	22	A	C2'-C1'	-5.46	1.45	1.53
38	BE	166	G	O3'-P	-5.46	1.52	1.61
42	BI	134	ALA	CA-C	-5.46	1.45	1.52
53	BT	128	LYS	N-CA	-5.46	1.39	1.46
57	BX	132	VAL	CA-C	-5.46	1.45	1.52
72	Bm	48	VAL	CA-CB	-5.46	1.48	1.54
77	Br	283	THR	CA-C	-5.46	1.45	1.52
82	Bw	168	HIS	CB-CG	-5.46	1.42	1.50
85	AA	836	A	C1'-N9	-5.46	1.39	1.48
85	AA	1114	A	C2'-C1'	-5.46	1.45	1.53
85	AA	1465	C	C2'-C1'	-5.46	1.45	1.53
85	AA	1484	G	C4'-C3'	-5.46	1.44	1.52
39	BF	52	A	P-O5'	-5.46	1.51	1.59
78	Bs	45	LEU	CA-C	-5.46	1.46	1.52
5	A4	125	ALA	N-CA	-5.45	1.39	1.46
34	BA	442	G	O3'-P	-5.45	1.52	1.61
34	BA	744	G	C3'-C2'	-5.45	1.44	1.52
34	BA	1685	C	C4'-O4'	-5.45	1.37	1.45
34	BA	1838	U	C1'-N1	-5.45	1.40	1.48
40	BG	167	C	C3'-C2'	-5.45	1.44	1.52
85	AA	1491	G	P-O5'	-5.45	1.51	1.59
85	AA	2143	U	C2'-C1'	-5.45	1.45	1.53
32	AY	60	GLN	C-N	-5.45	1.26	1.33
38	BE	51	C	C1'-N1	-5.45	1.40	1.48
65	Bf	109	ARG	N-CA	-5.45	1.39	1.46
73	Bn	79	LYS	N-CA	-5.45	1.39	1.46
85	AA	338	G	C5'-C4'	-5.45	1.43	1.51
85	AA	688	C	C2'-C1'	-5.45	1.45	1.53
4	A3	15	GLN	N-CA	-5.45	1.39	1.45
6	A5	96	LEU	CA-C	-5.45	1.46	1.52
34	BA	52	G	C3'-C2'	-5.45	1.44	1.52
34	BA	395	G	O3'-P	-5.45	1.52	1.61
35	BB	784	C	O3'-P	-5.45	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	BI	86	ILE	CA-CB	-5.45	1.46	1.53
48	BO	195	VAL	CA-CB	-5.45	1.47	1.54
51	BR	108	ASP	C-N	-5.45	1.28	1.33
71	Bl	71	ASP	CA-C	-5.45	1.45	1.52
74	Bo	64	VAL	CA-C	-5.45	1.45	1.52
79	Bt	44	ASP	N-CA	-5.45	1.39	1.46
79	Bt	47	GLN	N-CA	-5.45	1.39	1.46
85	AA	400	G	O3'-P	-5.45	1.52	1.61
85	AA	455	G	C4'-C3'	-5.45	1.44	1.52
85	AA	1484	G	P-O5'	-5.45	1.51	1.59
1	A0	42	GLN	CA-CB	5.45	1.59	1.52
7	A6	131	ARG	CA-C	-5.45	1.45	1.52
23	AP	158	ILE	CA-C	-5.45	1.45	1.52
35	BB	805	G	C1'-N9	-5.45	1.39	1.48
35	BB	1048	A	C2'-C1'	-5.45	1.45	1.53
35	BB	1201	G	O4'-C1'	-5.45	1.33	1.41
36	BC	114	C	C1'-N1	-5.45	1.40	1.48
40	BG	95	U	C3'-C2'	-5.45	1.44	1.52
40	BG	156	G	O3'-P	-5.45	1.52	1.61
54	BU	105	PHE	N-CA	-5.45	1.39	1.46
77	Br	111	HIS	CA-C	-5.45	1.45	1.52
85	AA	139	G	C2'-C1'	-5.45	1.45	1.53
85	AA	504	U	C4'-O4'	-5.45	1.37	1.45
85	AA	1298	G	C1'-N9	-5.45	1.39	1.48
85	AA	1472	G	C1'-N9	-5.45	1.39	1.48
85	AA	1541	G	C1'-N9	-5.45	1.39	1.48
34	BA	706	C	O3'-P	-5.45	1.52	1.61
34	BA	1233	U	C3'-C2'	-5.45	1.44	1.52
38	BE	28	C	C3'-C2'	-5.45	1.44	1.52
49	BP	184	VAL	C-N	-5.45	1.25	1.33
80	Bu	22	ARG	CA-C	-5.45	1.44	1.52
85	AA	131	C	C2'-C1'	-5.45	1.45	1.53
85	AA	1460	G	O4'-C1'	-5.45	1.33	1.41
34	BA	595	U	C4'-C3'	5.45	1.60	1.52
34	BA	796	G	O3'-P	-5.45	1.52	1.61
34	BA	1710	C	C3'-C2'	-5.45	1.44	1.52
35	BB	988	G	C2'-C1'	-5.45	1.44	1.53
36	BC	28	C	C4'-O4'	-5.45	1.37	1.45
36	BC	66	G	C3'-C2'	-5.45	1.44	1.52
38	BE	148	C	C4'-C3'	-5.45	1.44	1.52
40	BG	41	U	C3'-C2'	-5.45	1.44	1.52
42	BI	77	TRP	N-CA	-5.45	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	BO	121	VAL	CA-CB	-5.45	1.47	1.54
52	BS	141	VAL	CA-C	-5.45	1.45	1.52
85	AA	260	A	C1'-N9	-5.45	1.39	1.48
85	AA	917	A	N9-C4	-5.45	1.26	1.37
13	AE	82	ILE	CA-CB	-5.44	1.47	1.54
34	BA	341	U	C4'-O4'	-5.44	1.37	1.45
35	BB	778	A	C2'-C1'	-5.44	1.45	1.53
77	Br	173	VAL	N-CA	-5.44	1.39	1.46
85	AA	791	C	O3'-P	-5.44	1.52	1.61
85	AA	1199	C	P-O5'	-5.44	1.51	1.59
34	BA	414	A	C4'-O4'	-5.44	1.37	1.45
34	BA	1652	G	O3'-P	-5.44	1.52	1.61
35	BB	1058	U	C1'-N1	-5.44	1.40	1.48
41	BH	38	G	C3'-C2'	-5.44	1.44	1.52
41	BH	133	U	C5'-C4'	-5.44	1.43	1.51
80	Bu	42	THR	CA-C	-5.44	1.46	1.52
85	AA	129	U	C2'-C1'	-5.44	1.45	1.53
85	AA	1508	A	O3'-P	-5.44	1.52	1.61
85	AA	1550	C	O3'-P	-5.44	1.52	1.61
20	AL	56	HIS	CB-CG	-5.44	1.42	1.50
34	BA	7	U	O3'-P	-5.44	1.52	1.61
34	BA	575	U	P-O5'	-5.44	1.51	1.59
34	BA	713	C	C4'-C3'	-5.44	1.44	1.52
39	BF	6	C	C1'-N1	-5.44	1.40	1.48
40	BG	31	G	P-O5'	-5.44	1.51	1.59
44	BK	174	THR	CA-C	-5.44	1.46	1.52
73	Bn	7	SER	N-CA	-5.44	1.38	1.46
75	Bp	11	PHE	N-CA	-5.44	1.40	1.46
83	Bx	109	LYS	CA-C	-5.44	1.45	1.52
85	AA	1657	C	C3'-C2'	-5.44	1.44	1.52
34	BA	142	A	C2'-C1'	-5.44	1.45	1.53
34	BA	354	G	C1'-N9	-5.44	1.39	1.48
34	BA	541	C	O3'-P	-5.44	1.52	1.61
34	BA	1269	C	C3'-C2'	-5.44	1.44	1.52
34	BA	1311	G	C2'-C1'	-5.44	1.45	1.53
34	BA	1520	A	C2'-C1'	-5.44	1.45	1.53
34	BA	1522	G	O3'-P	-5.44	1.52	1.61
35	BB	488	G	C1'-N9	-5.44	1.38	1.47
35	BB	621	C	O3'-P	-5.44	1.52	1.61
35	BB	1307	C	C2'-C1'	-5.44	1.45	1.53
38	BE	39	U	O3'-P	-5.44	1.52	1.61
51	BR	131	ARG	CA-C	-5.44	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
63	Bd	26	PRO	CA-C	-5.44	1.44	1.52
69	Bj	102	ARG	CA-C	-5.44	1.45	1.52
74	Bo	66	GLY	CA-C	-5.44	1.44	1.51
77	Br	271	VAL	CA-CB	-5.44	1.47	1.54
85	AA	1483	A	C3'-C2'	-5.44	1.44	1.52
1	A0	101	GLN	CA-C	-5.44	1.46	1.52
1	A0	135	TYR	C-N	-5.44	1.29	1.33
36	BC	107	C	O3'-P	-5.44	1.52	1.61
42	BI	28	LEU	N-CA	-5.44	1.39	1.46
42	BI	35	PHE	CA-C	-5.44	1.46	1.52
20	AL	70	SER	CA-C	5.43	1.59	1.52
34	BA	293	A	C4'-C3'	-5.43	1.44	1.52
34	BA	746	C	P-O5'	-5.43	1.51	1.59
35	BB	976	U	P-O5'	-5.43	1.51	1.59
35	BB	1143	A	C4'-C3'	-5.43	1.44	1.52
36	BC	40	A	C1'-N9	-5.43	1.39	1.48
38	BE	24	G	O3'-P	-5.43	1.52	1.61
38	BE	52	U	P-O5'	-5.43	1.51	1.59
41	BH	108	U	C3'-O3'	-5.43	1.34	1.43
77	Br	291	MET	N-CA	-5.43	1.39	1.46
85	AA	207	G	P-O5'	-5.43	1.51	1.59
85	AA	521	A	O3'-P	-5.43	1.52	1.61
85	AA	591	A	P-O5'	-5.43	1.51	1.59
85	AA	907	G	O3'-P	-5.43	1.52	1.61
85	AA	1207	C	C5'-C4'	-5.43	1.43	1.51
3	A2	16	ASN	N-CA	-5.43	1.39	1.46
34	BA	467	A	C1'-N9	-5.43	1.38	1.47
44	BK	89	ILE	CA-C	-5.43	1.47	1.53
47	BN	210	LYS	N-CA	-5.43	1.40	1.46
85	AA	83	U	O3'-P	-5.43	1.53	1.61
85	AA	676	U	O3'-P	-5.43	1.53	1.61
85	AA	2219	G	P-O5'	-5.43	1.51	1.59
8	A7	63	LEU	N-CA	-5.43	1.39	1.46
35	BB	404	A	C2'-C1'	-5.43	1.45	1.53
50	BQ	177	GLU	N-CA	-5.43	1.39	1.46
77	Br	20	THR	CA-C	-5.43	1.45	1.52
78	Bs	22	ARG	N-CA	-5.43	1.40	1.46
85	AA	466	A	O3'-P	-5.43	1.53	1.61
85	AA	517	A	C2'-C1'	-5.43	1.45	1.53
1	A0	171	THR	N-CA	-5.43	1.39	1.46
15	AG	34	ILE	N-CA	-5.43	1.40	1.46
23	AP	45	PRO	CA-C	-5.43	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	544	U	C2'-C1'	-5.43	1.45	1.53
35	BB	123	U	P-O5'	-5.43	1.51	1.59
36	BC	114	C	C2'-C1'	-5.43	1.45	1.53
42	BI	141	LYS	CA-C	-5.43	1.45	1.52
48	BO	67	ARG	N-CA	-5.43	1.40	1.46
75	Bp	38	CYS	N-CA	-5.43	1.39	1.46
77	Br	239	ALA	CA-C	-5.43	1.47	1.52
85	AA	1993	C	C3'-O3'	5.43	1.50	1.42
34	BA	171	U	C3'-C2'	-5.43	1.44	1.52
34	BA	195	G	C3'-C2'	-5.43	1.44	1.52
59	BZ	119	LYS	N-CA	-5.43	1.40	1.46
82	Bw	148	TYR	CA-C	-5.43	1.45	1.52
85	AA	548	G	C1'-N9	-5.43	1.39	1.48
85	AA	807	A	O3'-P	-5.43	1.53	1.61
85	AA	858	G	C2'-C1'	-5.43	1.45	1.53
85	AA	2189	U	O3'-P	-5.43	1.53	1.61
5	A4	177	VAL	CA-CB	-5.43	1.48	1.54
34	BA	238	C	C3'-C2'	-5.43	1.44	1.52
34	BA	327	G	P-O5'	-5.43	1.51	1.59
34	BA	1649	A	N9-C4	-5.43	1.26	1.37
34	BA	1693	U	P-O5'	-5.43	1.51	1.59
35	BB	1384	A	C1'-N9	-5.43	1.39	1.48
70	Bk	48	ILE	CA-CB	-5.43	1.47	1.54
85	AA	2022	A	O3'-P	-5.43	1.53	1.61
34	BA	1298	U	P-O5'	-5.42	1.51	1.59
34	BA	1610	A	C1'-N9	-5.42	1.39	1.48
35	BB	1252	G	N9-C4	-5.42	1.27	1.38
35	BB	1461	C	O3'-P	-5.42	1.53	1.61
37	BD	91	U	O3'-P	-5.42	1.53	1.61
65	Bf	146	THR	CA-CB	-5.42	1.47	1.54
65	Bf	148	VAL	N-CA	-5.42	1.39	1.46
69	Bj	67	LEU	CA-C	-5.42	1.45	1.52
77	Br	365	LYS	CA-C	-5.42	1.45	1.52
85	AA	395	G	C4'-O4'	-5.42	1.37	1.45
85	AA	457	G	P-O5'	-5.42	1.51	1.59
85	AA	1631	C	P-O5'	-5.42	1.51	1.59
2	A1	87	VAL	CA-C	-5.42	1.46	1.52
34	BA	895	U	C3'-C2'	-5.42	1.44	1.52
34	BA	1522	G	C3'-C2'	-5.42	1.44	1.52
53	BT	100	ARG	CA-C	-5.42	1.45	1.52
85	AA	101	C	P-O5'	-5.42	1.51	1.59
85	AA	291	G	C2'-C1'	-5.42	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	410	G	O3'-P	-5.42	1.53	1.61
34	BA	580	U	C4'-C3'	-5.42	1.44	1.52
34	BA	1214	U	C4'-C3'	-5.42	1.44	1.52
35	BB	416	U	P-O5'	-5.42	1.51	1.59
35	BB	426	A	C2'-C1'	-5.42	1.45	1.53
35	BB	488	G	C4'-O4'	-5.42	1.37	1.45
37	BD	27	A	C1'-N9	-5.42	1.39	1.48
38	BE	194	A	N9-C4	-5.42	1.27	1.37
40	BG	110	U	C3'-C2'	-5.42	1.44	1.52
75	Bp	68	THR	CA-CB	-5.42	1.45	1.53
85	AA	38	C	C2'-C1'	-5.42	1.45	1.53
85	AA	1260	G	C3'-C2'	-5.42	1.44	1.52
11	AC	111	THR	N-CA	-5.42	1.39	1.46
34	BA	291	C	C5'-C4'	-5.42	1.43	1.51
34	BA	663	U	C2'-C1'	-5.42	1.45	1.53
34	BA	1507	C	C2'-C1'	-5.42	1.45	1.53
53	BT	7	GLN	N-CA	-5.42	1.39	1.46
85	AA	1365	U	O3'-P	-5.42	1.53	1.61
1	A0	75	LYS	CA-C	-5.42	1.46	1.52
34	BA	771	A	C5'-C4'	5.42	1.59	1.51
34	BA	786	U	P-O5'	-5.42	1.51	1.59
34	BA	1095	G	C1'-N9	-5.42	1.39	1.48
34	BA	1596	C	C1'-N1	-5.42	1.39	1.47
35	BB	96	A	P-O5'	-5.42	1.51	1.59
35	BB	695	U	O3'-P	-5.42	1.53	1.61
35	BB	780	U	C2'-C1'	-5.42	1.45	1.53
35	BB	1384	A	C3'-C2'	-5.42	1.44	1.52
35	BB	1488	G	O3'-P	-5.42	1.53	1.61
44	BK	53	VAL	N-CA	-5.42	1.40	1.46
47	BN	68	VAL	CA-CB	-5.42	1.48	1.54
60	Ba	9	VAL	N-CA	-5.42	1.40	1.46
70	Bk	67	ARG	CA-C	-5.42	1.45	1.52
85	AA	139	G	O3'-P	-5.42	1.53	1.61
85	AA	160	A	O3'-P	-5.42	1.53	1.61
85	AA	251	A	O3'-P	-5.42	1.53	1.61
85	AA	1907	U	C2'-C1'	-5.42	1.45	1.53
23	AP	225	PHE	CA-C	-5.42	1.45	1.52
26	AS	100	VAL	CA-CB	-5.42	1.47	1.54
34	BA	56	G	C2'-C1'	-5.42	1.45	1.53
34	BA	445	C	C1'-N1	-5.42	1.40	1.48
34	BA	725	C	O3'-P	-5.42	1.53	1.61
34	BA	959	G	C1'-N9	-5.42	1.39	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1211	G	C4'-O4'	-5.42	1.37	1.45
34	BA	1433	U	C3'-C2'	-5.42	1.44	1.52
34	BA	1642	A	C5'-C4'	-5.42	1.43	1.51
35	BB	126	C	P-O5'	-5.42	1.51	1.59
35	BB	1056	A	O3'-P	-5.42	1.53	1.61
38	BE	63	C	C2'-C1'	-5.42	1.45	1.53
66	Bg	90	THR	CA-C	-5.42	1.46	1.52
85	AA	119	G	O3'-P	-5.42	1.53	1.61
85	AA	1195	U	P-O5'	-5.42	1.51	1.59
85	AA	1789	C	O3'-P	-5.42	1.53	1.61
35	BB	1282	G	C3'-C2'	-5.42	1.44	1.52
35	BB	1519	U	P-O5'	-5.42	1.51	1.59
37	BD	48	G	C4'-O4'	-5.42	1.37	1.45
85	AA	36	U	P-O5'	-5.42	1.51	1.59
85	AA	399	A	P-O5'	-5.42	1.51	1.59
85	AA	461	G	P-O5'	-5.42	1.51	1.59
85	AA	505	U	C5'-C4'	-5.42	1.43	1.51
85	AA	748	C	O3'-P	-5.42	1.53	1.61
4	A3	211	GLU	N-CA	-5.41	1.39	1.46
13	AE	154	ASN	CA-C	-5.41	1.45	1.52
34	BA	75	U	C1'-N1	-5.41	1.40	1.48
34	BA	928	C	P-O5'	-5.41	1.51	1.59
34	BA	959	G	O4'-C1'	-5.41	1.33	1.41
34	BA	1016	A	C2'-C1'	-5.41	1.45	1.53
34	BA	1183	U	C5'-C4'	5.41	1.59	1.51
35	BB	362	A	C2'-C1'	-5.41	1.45	1.53
35	BB	420	U	P-O5'	-5.41	1.51	1.59
35	BB	1018	U	C2'-C1'	-5.41	1.45	1.53
35	BB	1436	U	O3'-P	-5.41	1.53	1.61
36	BC	50	C	P-O5'	-5.41	1.51	1.59
37	BD	87	G	O3'-P	-5.41	1.53	1.61
48	BO	39	ALA	CA-C	-5.41	1.45	1.52
50	BQ	76	TYR	N-CA	-5.41	1.39	1.46
77	Br	299	VAL	CA-CB	-5.41	1.47	1.54
81	Bv	146	GLU	N-CA	-5.41	1.40	1.46
85	AA	1192	C	C1'-N1	-5.41	1.40	1.48
85	AA	1799	C	P-O5'	-5.41	1.51	1.59
85	AA	2149	C	C3'-C2'	-5.41	1.44	1.52
85	AA	2244	G	O3'-P	-5.41	1.53	1.61
34	BA	236	A	C3'-C2'	-5.41	1.44	1.52
34	BA	1457	C	C1'-N1	-5.41	1.39	1.47
35	BB	1512	C	C1'-N1	5.41	1.56	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	709	C	C1'-N1	-5.41	1.40	1.48
34	BA	752	A	O4'-C1'	-5.41	1.33	1.41
34	BA	1516	G	O3'-P	-5.41	1.53	1.61
35	BB	70	A	C5'-C4'	5.41	1.59	1.51
35	BB	1078	U	C5'-C4'	-5.41	1.43	1.51
36	BC	57	C	C1'-N1	-5.41	1.40	1.48
37	BD	3	G	O4'-C1'	-5.41	1.33	1.41
37	BD	56	G	C1'-N9	-5.41	1.39	1.48
65	Bf	212	ARG	CA-C	-5.41	1.46	1.52
83	Bx	38	SER	C-N	-5.41	1.27	1.33
83	Bx	255	SER	N-CA	-5.41	1.39	1.46
3	A2	32	PRO	CA-C	-5.41	1.46	1.52
4	A3	165	VAL	CA-CB	-5.41	1.47	1.54
5	A4	146	ARG	CA-C	-5.41	1.45	1.52
34	BA	1125	G	P-O5'	-5.41	1.51	1.59
35	BB	127	U	O3'-P	-5.41	1.53	1.61
35	BB	428	G	O3'-P	-5.41	1.53	1.61
35	BB	1174	C	O3'-P	-5.41	1.53	1.61
59	BZ	87	ALA	CA-C	-5.41	1.45	1.52
34	BA	1720	U	O4'-C1'	-5.41	1.33	1.41
35	BB	77	A	O4'-C1'	-5.41	1.33	1.41
35	BB	642	G	C3'-C2'	-5.41	1.44	1.52
65	Bf	170	TYR	CA-C	-5.41	1.46	1.52
74	Bo	64	VAL	N-CA	-5.41	1.39	1.46
85	AA	655	U	C4'-C3'	-5.41	1.44	1.52
17	AI	17	ARG	CA-C	5.41	1.60	1.52
23	AP	67	PHE	CA-C	-5.41	1.45	1.52
34	BA	457	A	C1'-N9	-5.41	1.39	1.48
34	BA	903	C	O3'-P	-5.41	1.53	1.61
34	BA	1645	C	C2'-C1'	-5.41	1.45	1.53
35	BB	540	G	O3'-P	-5.41	1.53	1.61
35	BB	577	U	O3'-P	-5.41	1.53	1.61
35	BB	1182	A	C2'-C1'	-5.41	1.45	1.53
38	BE	62	C	O3'-P	-5.41	1.53	1.61
40	BG	6	A	C2'-C1'	-5.41	1.45	1.53
41	BH	53	C	C2'-C1'	-5.41	1.45	1.53
80	Bu	34	ARG	N-CA	-5.41	1.39	1.46
85	AA	2025	A	C1'-N9	-5.41	1.39	1.48
34	BA	858	C	O3'-P	-5.40	1.53	1.61
44	BK	22	PHE	CA-C	-5.40	1.45	1.52
68	Bi	99	HIS	CA-C	-5.40	1.45	1.52
69	Bj	92	ILE	CA-C	-5.40	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	772	C	O3'-P	-5.40	1.53	1.61
85	AA	857	G	C3'-C2'	-5.40	1.44	1.52
85	AA	1932	C	C4'-C3'	5.40	1.60	1.52
34	BA	141	G	C2-N3	-5.40	1.22	1.32
34	BA	568	G	C1'-N9	-5.40	1.39	1.48
34	BA	1743	U	P-O5'	-5.40	1.51	1.59
35	BB	562	A	C2'-C1'	-5.40	1.45	1.53
36	BC	34	U	O3'-P	-5.40	1.53	1.61
38	BE	110	U	C2'-C1'	-5.40	1.45	1.53
56	BW	73	ARG	N-CA	-5.40	1.38	1.46
65	Bf	222	LEU	N-CA	-5.40	1.39	1.46
80	Bu	153	ASP	CA-CB	5.40	1.59	1.53
1	A0	111	ARG	CA-C	-5.40	1.46	1.52
34	BA	146	G	O3'-P	-5.40	1.53	1.61
34	BA	519	G	C4'-C3'	-5.40	1.44	1.52
34	BA	760	G	O3'-P	-5.40	1.53	1.61
34	BA	1827	C	O3'-P	-5.40	1.53	1.61
35	BB	1070	G	O3'-P	-5.40	1.53	1.61
35	BB	1134	G	C1'-N9	-5.40	1.39	1.48
38	BE	55	C	C3'-O3'	5.40	1.50	1.42
38	BE	86	C	C2'-C1'	-5.40	1.45	1.53
47	BN	178	THR	CA-C	-5.40	1.45	1.52
49	BP	8	ARG	CA-C	-5.40	1.47	1.53
68	Bi	36	PRO	CA-C	-5.40	1.45	1.52
85	AA	59	C	O3'-P	-5.40	1.53	1.61
85	AA	257	U	C1'-N1	-5.40	1.40	1.48
2	A1	145	ARG	CA-C	-5.40	1.45	1.52
34	BA	375	C	C1'-N1	-5.40	1.40	1.48
35	BB	1438	U	C2'-C1'	-5.40	1.45	1.53
35	BB	1504	U	C1'-N1	-5.40	1.39	1.47
49	BP	93	ARG	CA-CB	-5.40	1.44	1.53
53	BT	38	ARG	CA-C	-5.40	1.45	1.52
85	AA	1570	A	O3'-P	-5.40	1.53	1.61
11	AC	215	ALA	N-CA	-5.40	1.39	1.46
34	BA	1024	A	P-O5'	-5.40	1.51	1.59
35	BB	13	A	C2'-C1'	-5.40	1.45	1.53
35	BB	112	G	O3'-P	-5.40	1.53	1.61
35	BB	1325	C	P-O5'	-5.40	1.51	1.59
56	BW	106	ASN	C-N	-5.40	1.28	1.34
77	Br	210	MET	C-N	-5.40	1.27	1.34
85	AA	1238	U	C2'-C1'	-5.40	1.45	1.53
85	AA	1361	A	C1'-N9	5.40	1.56	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	225	A	O3'-P	-5.40	1.53	1.61
34	BA	970	U	C2'-C1'	-5.40	1.45	1.53
34	BA	1684	A	O3'-P	-5.40	1.53	1.61
35	BB	1195	A	C2'-C1'	-5.40	1.45	1.53
83	Bx	258	GLU	N-CA	-5.40	1.39	1.46
1	A0	237	VAL	C-N	-5.39	1.25	1.34
4	A3	210	ARG	CA-C	-5.39	1.45	1.52
7	A6	156	ALA	CA-C	-5.39	1.46	1.52
21	AM	107	ARG	CD-NE	5.39	1.53	1.46
23	AP	81	ILE	CA-CB	-5.39	1.47	1.54
34	BA	43	U	O4'-C1'	-5.39	1.33	1.41
34	BA	73	G	C4'-O4'	-5.39	1.37	1.45
34	BA	248	G	O5'-C5'	5.39	1.50	1.42
34	BA	460	G	C1'-N9	-5.39	1.39	1.48
34	BA	1840	C	P-O5'	-5.39	1.51	1.59
35	BB	63	A	C1'-N9	-5.39	1.38	1.47
35	BB	95	A	C2'-C1'	-5.39	1.45	1.53
35	BB	784	C	C3'-C2'	-5.39	1.44	1.52
36	BC	14	G	C3'-C2'	-5.39	1.44	1.52
55	BV	93	LEU	CA-C	-5.39	1.46	1.52
58	BY	15	PRO	CA-C	-5.39	1.43	1.52
68	Bi	32	SER	CA-C	-5.39	1.46	1.52
77	Br	258	LEU	N-CA	-5.39	1.39	1.46
85	AA	35	U	P-O5'	-5.39	1.51	1.59
34	BA	1309	U	C5'-C4'	5.39	1.59	1.51
34	BA	1559	C	P-O5'	-5.39	1.51	1.59
35	BB	454	U	O3'-P	-5.39	1.53	1.61
35	BB	472	C	P-O5'	-5.39	1.51	1.59
35	BB	534	C	C3'-C2'	-5.39	1.44	1.52
48	BO	103	ARG	CA-C	-5.39	1.45	1.52
53	BT	129	GLY	CA-C	-5.39	1.44	1.51
64	Be	150	LEU	CA-C	-5.39	1.47	1.53
72	Bm	46	ARG	CA-C	-5.39	1.46	1.52
85	AA	757	A	C1'-N9	-5.39	1.39	1.48
85	AA	1126	G	O3'-P	-5.39	1.53	1.61
85	AA	2141	G	C4'-O4'	-5.39	1.37	1.45
32	AY	22	SER	CA-C	-5.39	1.45	1.52
34	BA	1303	U	P-O5'	-5.39	1.51	1.59
35	BB	29	C	C2'-C1'	-5.39	1.45	1.53
35	BB	877	A	C2'-C1'	-5.39	1.45	1.53
35	BB	1201	G	O3'-P	5.39	1.69	1.61
52	BS	21	ASN	CA-C	-5.39	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
77	Br	81	GLY	CA-C	-5.39	1.47	1.52
85	AA	1038	U	C5'-C4'	5.39	1.59	1.51
34	BA	736	G	O4'-C1'	-5.39	1.33	1.42
34	BA	1195	G	O4'-C1'	-5.39	1.33	1.41
35	BB	51	U	C3'-C2'	-5.39	1.44	1.52
35	BB	430	A	O3'-P	-5.39	1.53	1.61
35	BB	1247	C	C1'-N1	-5.39	1.40	1.48
38	BE	30	C	O3'-P	-5.39	1.53	1.61
41	BH	37	U	C1'-N1	-5.39	1.40	1.48
47	BN	111	GLU	C-N	-5.39	1.26	1.33
57	BX	49	TYR	CA-C	-5.39	1.46	1.52
72	Bm	40	LEU	C-N	-5.39	1.21	1.33
85	AA	26	A	O3'-P	-5.39	1.53	1.61
85	AA	2197	A	C1'-N9	-5.39	1.39	1.48
34	BA	1606	A	C2'-C1'	-5.39	1.45	1.53
35	BB	1239	A	O3'-P	-5.39	1.53	1.61
37	BD	15	U	C2'-C1'	-5.39	1.45	1.53
57	BX	99	GLU	N-CA	-5.39	1.40	1.46
85	AA	254	G	P-O5'	-5.39	1.51	1.59
34	BA	187	G	O3'-P	-5.39	1.53	1.61
34	BA	968	G	C1'-N9	-5.39	1.39	1.48
35	BB	1113	C	O3'-P	-5.39	1.53	1.61
35	BB	1198	C	C3'-C2'	-5.39	1.44	1.52
69	Bj	44	HIS	CA-C	-5.39	1.45	1.53
85	AA	650	G	P-O5'	-5.39	1.51	1.59
85	AA	1896	G	O3'-P	-5.39	1.53	1.61
24	AQ	88	LEU	CA-C	-5.38	1.46	1.52
34	BA	15	G	O3'-P	-5.38	1.53	1.61
35	BB	1068	G	O3'-P	-5.38	1.53	1.61
35	BB	1489	A	P-O5'	-5.38	1.51	1.59
65	Bf	144	ARG	N-CA	-5.38	1.39	1.45
85	AA	1277	C	O4'-C1'	-5.38	1.33	1.42
34	BA	1710	C	C1'-N1	-5.38	1.40	1.48
35	BB	4	C	C3'-C2'	5.38	1.60	1.52
35	BB	793	A	C3'-C2'	-5.38	1.44	1.52
35	BB	1410	G	O3'-P	-5.38	1.53	1.61
38	BE	108	U	C3'-O3'	-5.38	1.34	1.42
54	BU	12	ARG	CA-C	-5.38	1.46	1.52
85	AA	1734	A	C4'-C3'	5.38	1.60	1.52
34	BA	109	A	O3'-P	-5.38	1.53	1.61
34	BA	257	G	C3'-C2'	-5.38	1.44	1.52
34	BA	324	C	O4'-C1'	-5.38	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1316	G	O3'-P	-5.38	1.53	1.61
34	BA	1702	G	O3'-P	-5.38	1.53	1.61
35	BB	1209	A	C5'-C4'	5.38	1.59	1.51
36	BC	73	U	C2'-C1'	-5.38	1.45	1.53
39	BF	12	U	C5'-C4'	-5.38	1.43	1.51
40	BG	76	C	C5'-C4'	-5.38	1.43	1.51
42	BI	43	PRO	CA-C	-5.38	1.44	1.52
47	BN	35	ALA	CA-C	-5.38	1.45	1.52
50	BQ	175	HIS	CB-CG	-5.38	1.42	1.50
52	BS	62	SER	CA-C	-5.38	1.45	1.52
85	AA	1984	A	C1'-N9	-5.38	1.39	1.48
85	AA	2236	U	C3'-C2'	-5.38	1.44	1.52
4	A3	53	LEU	CA-C	-5.38	1.46	1.52
35	BB	1096	G	C3'-C2'	-5.38	1.44	1.52
35	BB	1120	A	P-O5'	-5.38	1.51	1.59
35	BB	1451	C	O3'-P	-5.38	1.53	1.61
52	BS	36	PHE	N-CA	-5.38	1.39	1.46
85	AA	160	A	C4'-C3'	-5.38	1.44	1.52
85	AA	390	U	P-O5'	-5.38	1.51	1.59
2	A1	202	PHE	CA-C	-5.38	1.45	1.52
34	BA	576	C	O5'-C5'	5.38	1.50	1.42
34	BA	653	U	O3'-P	-5.38	1.53	1.61
34	BA	758	G	C4'-C3'	-5.38	1.44	1.52
34	BA	948	C	C2'-C1'	-5.38	1.45	1.53
34	BA	1054	U	O4'-C1'	-5.38	1.33	1.41
34	BA	1576	C	C1'-N1	-5.38	1.40	1.48
35	BB	544	C	O3'-P	-5.38	1.53	1.61
35	BB	785	G	C1'-N9	-5.38	1.39	1.48
35	BB	803	U	O3'-P	-5.38	1.53	1.61
85	AA	254	G	O3'-P	-5.38	1.53	1.61
85	AA	386	G	C3'-C2'	-5.38	1.44	1.52
85	AA	1665	G	O3'-P	-5.38	1.53	1.61
85	AA	1955	U	C2'-C1'	-5.38	1.45	1.53
7	A6	181	LYS	CA-C	-5.38	1.46	1.52
20	AL	106	LEU	N-CA	-5.38	1.39	1.46
34	BA	127	U	O4'-C1'	-5.38	1.33	1.41
34	BA	180	G	O3'-P	-5.38	1.53	1.61
34	BA	382	G	O3'-P	-5.38	1.53	1.61
34	BA	391	U	C1'-N1	-5.38	1.40	1.48
34	BA	395	G	C4'-O4'	-5.38	1.37	1.45
34	BA	749	G	C2'-C1'	-5.38	1.45	1.53
35	BB	984	U	O3'-P	-5.38	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	1092	G	C1'-N9	-5.38	1.39	1.48
35	BB	1399	A	O3'-P	-5.38	1.53	1.61
60	Ba	98	VAL	CA-C	-5.38	1.46	1.52
62	Bc	19	LEU	N-CA	-5.38	1.39	1.46
79	Bt	74	CYS	CA-CB	-5.38	1.45	1.53
85	AA	553	G	P-O5'	-5.38	1.51	1.59
35	BB	418	G	O3'-P	-5.38	1.53	1.61
35	BB	1201	G	C1'-N9	-5.38	1.39	1.48
37	BD	20	C	P-O5'	-5.38	1.51	1.59
40	BG	81	G	C2'-C1'	-5.38	1.45	1.53
56	BW	47	ARG	CA-C	-5.38	1.46	1.52
58	BY	57	ARG	CA-C	-5.38	1.45	1.52
72	Bm	85	LEU	N-CA	-5.38	1.38	1.46
85	AA	1811	C	C5'-C4'	5.38	1.59	1.51
34	BA	752	A	O3'-P	-5.37	1.53	1.61
34	BA	1305	A	C2'-C1'	-5.37	1.45	1.53
35	BB	787	A	C2'-C1'	-5.37	1.45	1.53
35	BB	972	C	C2'-C1'	-5.37	1.45	1.53
35	BB	1302	C	O3'-P	-5.37	1.53	1.61
35	BB	1500	U	C1'-N1	-5.37	1.40	1.48
40	BG	125	C	C2'-C1'	-5.37	1.45	1.53
49	BP	78	LEU	N-CA	-5.37	1.39	1.46
56	BW	66	LYS	CA-C	-5.37	1.45	1.52
64	Be	140	ASN	CA-C	-5.37	1.46	1.53
65	Bf	112	ASP	CA-C	-5.37	1.45	1.52
85	AA	701	C	C2'-C1'	-5.37	1.45	1.53
6	A5	91	VAL	CA-C	-5.37	1.46	1.52
34	BA	34	U	C1'-N1	-5.37	1.40	1.48
34	BA	1288	U	C3'-C2'	-5.37	1.44	1.52
34	BA	1411	C	C1'-N1	-5.37	1.40	1.48
35	BB	62	C	C1'-N1	-5.37	1.40	1.48
35	BB	362	A	O3'-P	-5.37	1.53	1.61
36	BC	41	A	C3'-C2'	-5.37	1.44	1.52
36	BC	47	C	P-O5'	-5.37	1.51	1.59
36	BC	104	A	C4'-C3'	-5.37	1.45	1.53
44	BK	47	PRO	CA-C	-5.37	1.44	1.52
75	Bp	41	HIS	CA-C	-5.37	1.46	1.52
85	AA	84	C	O3'-P	-5.37	1.53	1.61
34	BA	1644	A	O3'-P	-5.37	1.53	1.61
35	BB	803	U	C1'-N1	-5.37	1.39	1.47
48	BO	111	LYS	N-CA	-5.37	1.39	1.46
85	AA	455	G	N9-C4	-5.37	1.27	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1479	U	O3'-P	-5.37	1.53	1.61
2	A1	248	GLN	N-CA	-5.37	1.39	1.46
7	A6	65	HIS	C-N	-5.37	1.26	1.34
19	AK	113	ASP	CA-C	-5.37	1.45	1.52
20	AL	4	ILE	CA-CB	-5.37	1.47	1.54
34	BA	460	G	C3'-C2'	-5.37	1.44	1.52
34	BA	801	U	O3'-P	-5.37	1.53	1.61
34	BA	1086	A	O3'-P	-5.37	1.53	1.61
34	BA	1520	A	C3'-C2'	-5.37	1.44	1.52
35	BB	681	G	O3'-P	-5.37	1.53	1.61
35	BB	774	C	C1'-N1	-5.37	1.40	1.48
39	BF	37	C	P-O5'	-5.37	1.51	1.59
40	BG	140	G	C1'-N9	-5.37	1.39	1.48
40	BG	153	C	C1'-N1	-5.37	1.40	1.48
69	Bj	73	LYS	N-CA	-5.37	1.37	1.46
81	Bv	162	ILE	CA-C	-5.37	1.46	1.52
85	AA	1105	G	P-O5'	-5.37	1.51	1.59
85	AA	1372	C	C2'-C1'	-5.37	1.45	1.53
85	AA	1693	C	C1'-N1	-5.37	1.40	1.48
35	BB	969	C	C2'-C1'	-5.37	1.45	1.53
35	BB	990	G	P-O5'	-5.37	1.51	1.59
40	BG	34	A	P-O5'	-5.37	1.51	1.59
53	BT	13	ASP	CA-C	-5.37	1.45	1.52
76	Bq	42	ARG	CD-NE	5.37	1.53	1.46
83	Bx	71	MET	CA-C	-5.37	1.46	1.52
85	AA	400	G	P-O5'	-5.37	1.51	1.59
85	AA	1197	U	C2'-C1'	-5.37	1.45	1.53
85	AA	1685	G	O3'-P	-5.37	1.53	1.61
85	AA	1795	C	C2'-C1'	-5.37	1.45	1.53
85	AA	2197	A	C3'-C2'	-5.37	1.44	1.52
6	A5	73	ALA	N-CA	-5.37	1.39	1.46
34	BA	321	G	N7-C5	-5.37	1.28	1.39
34	BA	1488	C	O3'-P	-5.37	1.53	1.61
35	BB	1307	C	C1'-N1	-5.37	1.40	1.48
38	BE	110	U	O3'-P	-5.37	1.53	1.61
40	BG	30	C	C1'-N1	-5.37	1.40	1.48
40	BG	100	G	C2'-C1'	-5.37	1.45	1.53
65	Bf	259	VAL	CA-C	-5.37	1.46	1.52
75	Bp	69	VAL	CA-CB	-5.37	1.45	1.53
77	Br	269	SER	CA-C	-5.37	1.45	1.52
85	AA	567	G	C2'-C1'	-5.37	1.45	1.53
85	AA	1732	G	P-O5'	-5.37	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	89	G	O4'-C1'	-5.36	1.33	1.41
34	BA	240	C	O3'-P	-5.36	1.53	1.61
34	BA	531	C	P-O5'	-5.36	1.51	1.59
34	BA	988	U	O3'-P	-5.36	1.53	1.61
34	BA	998	U	C1'-N1	-5.36	1.40	1.48
34	BA	1408	C	C3'-C2'	-5.36	1.44	1.52
34	BA	1568	A	O3'-P	-5.36	1.53	1.61
35	BB	1149	A	P-O5'	-5.36	1.51	1.59
36	BC	9	G	C4'-C3'	-5.36	1.44	1.52
36	BC	129	C	C2'-C1'	-5.36	1.45	1.53
36	BC	152	C	C4'-O4'	-5.36	1.37	1.45
41	BH	36	C	C4'-O4'	-5.36	1.37	1.45
51	BR	30	PHE	CA-C	-5.36	1.45	1.52
83	Bx	40	PHE	CA-C	-5.36	1.46	1.52
85	AA	756	G	C4'-C3'	-5.36	1.44	1.52
85	AA	1547	G	C2'-C1'	-5.36	1.45	1.53
1	A0	50	LYS	CA-C	-5.36	1.45	1.52
17	AI	109	PHE	CA-C	-5.36	1.47	1.53
34	BA	418	G	P-O5'	-5.36	1.51	1.59
34	BA	1574	C	C1'-N1	-5.36	1.40	1.48
34	BA	1823	A	O3'-P	-5.36	1.53	1.61
85	AA	394	C	P-O5'	-5.36	1.51	1.59
85	AA	964	C	C3'-O3'	5.36	1.50	1.42
34	BA	541	C	C2'-C1'	-5.36	1.45	1.53
34	BA	1742	G	C1'-N9	-5.36	1.40	1.48
35	BB	621	C	C3'-C2'	-5.36	1.44	1.52
35	BB	702	G	O3'-P	-5.36	1.53	1.61
73	Bn	78	PHE	CA-C	-5.36	1.46	1.53
78	Bs	20	CYS	CA-C	-5.36	1.45	1.52
82	Bw	157	SER	CA-C	-5.36	1.45	1.52
85	AA	312	G	O3'-P	-5.36	1.53	1.61
85	AA	1505	G	C1'-N9	-5.36	1.40	1.48
85	AA	1667	C	C3'-C2'	-5.36	1.44	1.52
85	AA	2177	C	P-O5'	-5.36	1.51	1.59
4	A3	193	LYS	N-CA	-5.36	1.39	1.46
12	AD	72	TYR	CA-C	-5.36	1.46	1.53
34	BA	704	G	O3'-P	-5.36	1.53	1.61
34	BA	1516	G	C2'-C1'	-5.36	1.45	1.53
56	BW	29	ASP	CA-C	-5.36	1.45	1.53
77	Br	351	ALA	N-CA	-5.36	1.40	1.46
80	Bu	288	LYS	CA-C	-5.36	1.45	1.52
85	AA	1891	U	O3'-P	-5.36	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	AB	8	U	C2'-C1'	-5.36	1.45	1.53
10	A9	135	ALA	CA-C	-5.36	1.45	1.52
20	AL	32	LYS	CA-C	-5.36	1.46	1.52
32	AY	44	TYR	CA-C	-5.36	1.46	1.52
34	BA	55	G	C2'-C1'	-5.36	1.45	1.53
35	BB	383	U	O3'-P	-5.36	1.53	1.61
35	BB	442	U	C4'-O4'	-5.36	1.37	1.45
35	BB	1457	A	O3'-P	-5.36	1.53	1.61
37	BD	60	C	C1'-N1	-5.36	1.40	1.48
40	BG	4	A	C2'-C1'	-5.36	1.45	1.53
40	BG	21	C	C4'-O4'	5.36	1.53	1.45
48	BO	145	HIS	C-N	-5.36	1.26	1.34
56	BW	90	LYS	CA-C	-5.36	1.47	1.53
64	Be	157	THR	CA-CB	-5.36	1.45	1.53
66	Bg	67	ILE	CA-C	-5.36	1.46	1.52
77	Br	234	ASN	CA-C	-5.36	1.46	1.52
85	AA	2122	A	C2'-O2'	-5.36	1.34	1.42
26	AS	91	LEU	CA-C	-5.36	1.45	1.52
34	BA	123	C	C2'-C1'	-5.36	1.45	1.53
35	BB	562	A	C1'-N9	-5.36	1.39	1.47
38	BE	111	C	C1'-N1	5.36	1.56	1.48
77	Br	210	MET	N-CA	-5.36	1.38	1.45
85	AA	1098	C	C2'-C1'	-5.36	1.45	1.53
34	BA	324	C	C4'-O4'	-5.35	1.37	1.45
35	BB	617	C	C3'-C2'	-5.35	1.44	1.52
35	BB	1359	G	O3'-P	-5.35	1.53	1.61
41	BH	52	G	C1'-N9	-5.35	1.40	1.48
85	AA	596	A	O3'-P	-5.35	1.53	1.61
18	AJ	118	ALA	N-CA	-5.35	1.39	1.46
34	BA	401	A	C2'-C1'	-5.35	1.45	1.53
34	BA	710	A	O3'-P	-5.35	1.53	1.61
34	BA	1511	C	P-O5'	-5.35	1.51	1.59
34	BA	1583	A	O3'-P	-5.35	1.53	1.61
35	BB	439	G	C1'-N9	-5.35	1.40	1.48
35	BB	563	A	P-O5'	-5.35	1.51	1.59
35	BB	1530	U	C1'-N1	-5.35	1.40	1.48
38	BE	82	C	C3'-O3'	5.35	1.50	1.42
42	BI	116	ALA	N-CA	-5.35	1.40	1.46
78	Bs	17	LYS	CA-C	-5.35	1.46	1.52
85	AA	659	A	C3'-C2'	-5.35	1.44	1.52
7	A6	46	MET	N-CA	-5.35	1.40	1.46
34	BA	1619	U	C1'-N1	-5.35	1.40	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BC	26	U	O4'-C1'	-5.35	1.33	1.41
81	Bv	66	MET	N-CA	-5.35	1.40	1.46
85	AA	363	A	C1'-N9	-5.35	1.40	1.48
85	AA	972	G	C1'-N9	-5.35	1.40	1.48
85	AA	1524	A	C3'-C2'	-5.35	1.44	1.52
85	AA	2084	U	C4'-C3'	-5.35	1.44	1.52
34	BA	79	C	C2'-C1'	-5.35	1.45	1.53
34	BA	234	A	C3'-C2'	-5.35	1.44	1.52
34	BA	1456	C	C2'-C1'	-5.35	1.45	1.53
34	BA	1614	G	P-O5'	-5.35	1.51	1.59
35	BB	438	G	P-O5'	-5.35	1.51	1.59
35	BB	1214	U	C3'-C2'	-5.35	1.44	1.52
36	BC	7	U	C4'-C3'	-5.35	1.44	1.52
38	BE	148	C	C5'-C4'	-5.35	1.43	1.51
40	BG	155	A	C1'-N9	-5.35	1.40	1.48
42	BI	137	ALA	N-CA	-5.35	1.38	1.46
51	BR	35	VAL	CA-CB	-5.35	1.46	1.54
53	BT	32	ILE	N-CA	-5.35	1.40	1.46
59	BZ	120	ASP	CA-C	-5.35	1.45	1.52
60	Ba	85	ASN	CA-C	-5.35	1.45	1.52
85	AA	309	G	O3'-P	-5.35	1.53	1.61
85	AA	686	U	C5'-C4'	-5.35	1.43	1.51
85	AA	1143	C	C4'-O4'	-5.35	1.37	1.45
85	AA	1266	C	O3'-P	-5.35	1.53	1.61
32	AY	6	GLY	N-CA	5.35	1.50	1.45
34	BA	1197	U	O4'-C1'	-5.35	1.33	1.41
34	BA	1676	A	C3'-C2'	-5.35	1.44	1.52
35	BB	1330	A	O3'-P	-5.35	1.53	1.61
38	BE	130	G	C2'-C1'	-5.35	1.45	1.53
44	BK	164	ILE	CA-CB	-5.35	1.47	1.54
53	BT	200	LYS	C-N	-5.35	1.25	1.33
85	AA	405	C	O3'-P	-5.35	1.53	1.61
85	AA	1198	U	C1'-N1	-5.35	1.40	1.48
85	AA	1460	G	O3'-P	-5.35	1.53	1.61
85	AA	1629	C	O3'-P	-5.35	1.53	1.61
85	AA	2127	G	N9-C4	-5.35	1.27	1.38
6	A5	101	ILE	N-CA	-5.35	1.40	1.46
30	AW	29	PRO	CA-CB	-5.35	1.46	1.53
34	BA	454	G	P-O5'	-5.35	1.51	1.59
39	BF	57	C	P-O5'	-5.35	1.51	1.59
41	BH	43	G	C4'-O4'	-5.35	1.37	1.45
64	Be	71	ARG	N-CA	5.35	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
65	Bf	288	ARG	N-CA	-5.35	1.39	1.46
66	Bg	86	LEU	N-CA	-5.35	1.40	1.46
5	A4	22	GLU	CA-C	-5.34	1.46	1.52
5	A4	173	LEU	N-CA	-5.34	1.39	1.46
15	AG	121	ARG	CA-C	-5.34	1.46	1.52
18	AJ	28	ARG	CA-C	-5.34	1.46	1.52
34	BA	278	U	O3'-P	-5.34	1.53	1.61
34	BA	995	A	C2'-C1'	-5.34	1.45	1.53
35	BB	365	U	C1'-N1	-5.34	1.40	1.48
35	BB	466	A	C1'-N9	-5.34	1.40	1.48
53	BT	57	VAL	N-CA	-5.34	1.39	1.46
65	Bf	253	SER	CA-C	-5.34	1.45	1.52
83	Bx	72	GLN	CA-C	-5.34	1.45	1.52
84	By	88	PHE	CA-C	-5.34	1.46	1.52
85	AA	76	G	O3'-P	-5.34	1.53	1.61
85	AA	1594	G	C2'-C1'	-5.34	1.45	1.53
2	A1	129	GLY	CA-C	-5.34	1.47	1.52
13	AE	151	ILE	CA-C	-5.34	1.46	1.52
23	AP	144	LEU	CA-C	-5.34	1.45	1.52
34	BA	557	U	C3'-O3'	5.34	1.50	1.42
34	BA	576	C	C1'-N1	-5.34	1.40	1.48
34	BA	811	C	C2'-C1'	-5.34	1.45	1.53
36	BC	160	C	P-O5'	-5.34	1.51	1.59
37	BD	47	U	C5'-C4'	5.34	1.59	1.51
50	BQ	80	ARG	N-CA	-5.34	1.39	1.45
51	BR	25	HIS	CA-CB	-5.34	1.44	1.53
85	AA	423	G	C2'-C1'	-5.34	1.45	1.53
85	AA	543	A	P-O5'	-5.34	1.51	1.59
85	AA	2053	A	C2'-C1'	-5.34	1.45	1.53
85	AA	2182	A	C4'-C3'	-5.34	1.44	1.52
85	AA	2205	A	O3'-P	-5.34	1.53	1.61
11	AC	222	ARG	CD-NE	5.34	1.53	1.46
23	AP	248	ASP	CA-C	-5.34	1.46	1.52
34	BA	821	G	C4'-C3'	5.34	1.60	1.52
34	BA	909	G	C4'-O4'	-5.34	1.37	1.45
34	BA	987	C	C3'-C2'	-5.34	1.44	1.52
35	BB	62	C	O3'-P	-5.34	1.53	1.61
38	BE	6	A	C4'-C3'	-5.34	1.44	1.52
40	BG	86	U	C1'-N1	-5.34	1.40	1.48
40	BG	119	A	O4'-C1'	-5.34	1.33	1.41
40	BG	135	C	C2'-C1'	-5.34	1.45	1.53
59	BZ	114	ALA	N-CA	-5.34	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
71	Bl	113	THR	CA-C	-5.34	1.45	1.52
83	Bx	224	LEU	CA-C	-5.34	1.46	1.52
85	AA	247	G	C2'-C1'	-5.34	1.45	1.53
2	A1	198	HIS	C-N	-5.34	1.27	1.33
5	A4	79	ILE	CA-CB	-5.34	1.48	1.54
34	BA	169	C	C2'-C1'	-5.34	1.45	1.53
34	BA	611	A	P-O5'	-5.34	1.51	1.59
34	BA	1037	C	C1'-N1	-5.34	1.40	1.48
35	BB	1408	G	C2'-C1'	-5.34	1.45	1.53
35	BB	1453	G	C1'-N9	-5.34	1.40	1.48
57	BX	61	ARG	N-CA	-5.34	1.39	1.46
58	BY	58	THR	CA-C	-5.34	1.45	1.52
59	BZ	99	SER	CA-C	-5.34	1.45	1.52
69	Bj	72	GLN	CA-C	-5.34	1.45	1.52
69	Bj	73	LYS	CA-C	-5.34	1.47	1.53
76	Bq	8	ALA	CA-C	-5.34	1.45	1.52
84	By	87	ARG	N-CA	-5.34	1.40	1.46
85	AA	869	A	N9-C4	-5.34	1.27	1.37
85	AA	1127	G	C2'-C1'	-5.34	1.45	1.53
5	A4	192	TRP	C-N	-5.34	1.25	1.33
34	BA	578	C	O3'-P	-5.34	1.53	1.61
34	BA	1515	U	O3'-P	-5.34	1.53	1.61
35	BB	997	G	C1'-N9	-5.34	1.40	1.48
45	BL	50	GLN	CA-C	-5.34	1.45	1.52
72	Bm	6	ARG	CD-NE	5.34	1.53	1.46
85	AA	958	C	C1'-N1	-5.34	1.40	1.48
26	AS	31	HIS	N-CA	-5.34	1.39	1.46
32	AY	63	GLY	CA-C	-5.34	1.44	1.51
34	BA	776	U	C4'-C3'	-5.34	1.44	1.52
34	BA	1057	C	P-O5'	-5.34	1.51	1.59
35	BB	1004	A	C3'-C2'	-5.34	1.44	1.52
40	BG	51	U	C4'-O4'	-5.34	1.37	1.45
51	BR	51	VAL	CA-CB	-5.34	1.48	1.54
65	Bf	245	ALA	N-CA	-5.34	1.40	1.46
85	AA	286	C	C3'-C2'	-5.34	1.44	1.52
85	AA	820	G	P-O5'	-5.34	1.51	1.59
85	AA	1167	G	P-O5'	-5.34	1.51	1.59
85	AA	1847	U	P-O5'	-5.34	1.51	1.59
85	AA	2007	G	O3'-P	-5.34	1.53	1.61
85	AA	2167	A	C2'-C1'	-5.34	1.45	1.53
34	BA	124	G	O3'-P	-5.33	1.53	1.61
34	BA	440	A	C3'-C2'	-5.33	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	433	C	O3'-P	-5.33	1.53	1.61
53	BT	168	GLN	N-CA	-5.33	1.40	1.46
60	Ba	74	VAL	CA-C	-5.33	1.46	1.52
85	AA	2184	A	C2'-C1'	-5.33	1.45	1.53
22	AO	71	TYR	CA-C	-5.33	1.46	1.52
22	AO	105	ARG	C-N	-5.33	1.26	1.33
34	BA	135	G	C2'-C1'	-5.33	1.45	1.53
34	BA	705	C	O3'-P	-5.33	1.53	1.61
35	BB	837	A	C3'-C2'	-5.33	1.44	1.52
41	BH	44	A	C1'-N9	-5.33	1.40	1.48
52	BS	80	ILE	CA-C	-5.33	1.46	1.52
85	AA	1998	A	C2'-C1'	-5.33	1.45	1.53
34	BA	698	U	C2'-C1'	-5.33	1.45	1.53
34	BA	1483	U	C3'-C2'	-5.33	1.44	1.52
34	BA	1661	U	P-O5'	-5.33	1.51	1.59
35	BB	659	C	O3'-P	-5.33	1.53	1.61
35	BB	872	A	C3'-C2'	-5.33	1.44	1.52
35	BB	1038	G	C4'-C3'	-5.33	1.44	1.52
40	BG	65	C	C3'-C2'	-5.33	1.44	1.52
53	BT	58	HIS	N-CA	-5.33	1.40	1.46
58	BY	61	ARG	C-N	-5.33	1.28	1.34
71	Bl	47	TYR	CA-C	-5.33	1.45	1.52
85	AA	107	A	C2'-C1'	-5.33	1.45	1.53
85	AA	982	G	N9-C4	-5.33	1.27	1.38
85	AA	1496	U	C3'-C2'	-5.33	1.44	1.52
11	AC	140	ILE	N-CA	-5.33	1.40	1.46
35	BB	9	G	C1'-N9	-5.33	1.40	1.48
35	BB	27	C	C4'-C3'	-5.33	1.44	1.52
35	BB	575	C	P-O5'	-5.33	1.51	1.59
35	BB	1205	A	O3'-P	-5.33	1.53	1.61
36	BC	97	U	C1'-N1	-5.33	1.40	1.48
44	BK	76	MET	N-CA	-5.33	1.40	1.46
85	AA	597	A	P-O5'	-5.33	1.51	1.59
85	AA	1478	G	C1'-N9	-5.33	1.40	1.48
34	BA	249	A	C5'-C4'	5.33	1.59	1.51
34	BA	542	A	O3'-P	-5.33	1.53	1.61
34	BA	1226	G	P-O5'	-5.33	1.51	1.59
34	BA	1500	G	N9-C4	5.33	1.48	1.38
34	BA	1575	U	C3'-C2'	-5.33	1.44	1.52
35	BB	833	G	C2'-C1'	-5.33	1.45	1.53
35	BB	1395	G	C2'-C1'	-5.33	1.45	1.53
37	BD	12	U	C3'-C2'	-5.33	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	BF	12	U	C4'-C3'	-5.33	1.44	1.52
41	BH	8	C	O3'-P	-5.33	1.53	1.61
42	BI	27	LYS	N-CA	-5.33	1.39	1.46
44	BK	47	PRO	N-CA	-5.33	1.40	1.47
81	Bv	154	ILE	N-CA	-5.33	1.40	1.46
83	Bx	261	LYS	CA-C	-5.33	1.45	1.52
85	AA	492	C	C1'-N1	-5.33	1.40	1.48
85	AA	527	A	O3'-P	-5.33	1.53	1.61
85	AA	1297	G	O3'-P	-5.33	1.53	1.61
85	AA	1548	A	C2'-C1'	-5.33	1.45	1.53
5	A4	78	LYS	N-CA	-5.33	1.40	1.46
34	BA	199	U	O3'-P	-5.33	1.53	1.61
34	BA	1161	G	O3'-P	-5.33	1.53	1.61
35	BB	89	C	P-O5'	-5.33	1.51	1.59
35	BB	828	G	P-O5'	-5.33	1.51	1.59
35	BB	1182	A	C3'-C2'	-5.33	1.44	1.52
40	BG	105	A	C3'-C2'	-5.33	1.44	1.52
42	BI	8	VAL	CA-C	-5.33	1.46	1.52
77	Br	290	ILE	N-CA	-5.33	1.40	1.46
85	AA	876	U	O3'-P	-5.33	1.53	1.61
85	AA	1962	U	P-O5'	-5.33	1.51	1.59
86	AB	70	G	C4'-C3'	-5.33	1.44	1.52
7	A6	62	PRO	CA-C	-5.33	1.46	1.52
34	BA	1515	U	C1'-N1	-5.33	1.40	1.48
35	BB	828	G	O3'-P	-5.33	1.53	1.61
35	BB	1056	A	C1'-N9	-5.33	1.40	1.48
35	BB	1155	U	C3'-C2'	-5.33	1.44	1.52
35	BB	1382	U	C3'-C2'	-5.33	1.44	1.52
36	BC	78	G	P-O5'	-5.33	1.51	1.59
40	BG	118	U	C3'-C2'	-5.33	1.44	1.52
42	BI	13	ARG	CA-C	-5.33	1.46	1.52
62	Bc	67	GLY	CA-C	-5.33	1.44	1.51
72	Bm	11	PRO	CA-C	-5.33	1.48	1.53
78	Bs	23	CYS	CA-C	-5.33	1.45	1.52
85	AA	1695	G	C1'-N9	-5.33	1.40	1.48
2	A1	226	GLY	CA-C	-5.32	1.44	1.51
6	A5	111	LEU	CA-C	-5.32	1.45	1.52
15	AG	26	LEU	CA-C	-5.32	1.45	1.52
34	BA	258	C	P-O5'	-5.32	1.51	1.59
34	BA	358	A	O3'-P	-5.32	1.53	1.61
34	BA	683	C	C4'-C3'	5.32	1.60	1.52
34	BA	802	G	O3'-P	-5.32	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1065	U	P-O5'	-5.32	1.51	1.59
35	BB	1524	G	C2'-C1'	-5.32	1.45	1.53
38	BE	198	A	C2'-C1'	-5.32	1.45	1.53
40	BG	18	U	O3'-P	-5.32	1.53	1.61
57	BX	95	MET	N-CA	-5.32	1.40	1.46
65	Bf	174	LYS	CA-C	-5.32	1.45	1.52
84	By	26	VAL	CA-C	-5.32	1.46	1.52
85	AA	102	A	C2'-C1'	-5.32	1.45	1.53
85	AA	1144	G	P-O5'	-5.32	1.51	1.59
5	A4	87	LEU	CA-C	-5.32	1.46	1.52
6	A5	183	ARG	N-CA	-5.32	1.40	1.46
26	AS	13	LEU	CA-C	-5.32	1.45	1.52
34	BA	830	U	C2'-C1'	-5.32	1.45	1.53
35	BB	1109	A	C2'-C1'	-5.32	1.45	1.53
36	BC	25	C	C1'-N1	-5.32	1.40	1.48
42	BI	50	LYS	N-CA	-5.32	1.39	1.46
85	AA	847	G	C1'-N9	-5.32	1.40	1.48
85	AA	988	C	O3'-P	-5.32	1.53	1.61
85	AA	1116	G	C2'-C1'	-5.32	1.45	1.53
26	AS	28	LYS	N-CA	-5.32	1.40	1.46
34	BA	1156	U	O3'-P	-5.32	1.53	1.61
34	BA	1334	G	C2'-C1'	-5.32	1.45	1.53
35	BB	485	U	C3'-C2'	-5.32	1.44	1.52
35	BB	521	U	O3'-P	-5.32	1.53	1.61
35	BB	598	C	C2'-C1'	-5.32	1.45	1.53
35	BB	648	G	C2'-C1'	-5.32	1.45	1.53
35	BB	1023	G	C2'-C1'	-5.32	1.45	1.53
35	BB	1078	U	P-O5'	-5.32	1.51	1.59
35	BB	1150	A	C4'-C3'	-5.32	1.44	1.52
37	BD	71	G	P-O5'	-5.32	1.51	1.59
49	BP	37	LEU	N-CA	-5.32	1.39	1.46
51	BR	84	PRO	N-CA	-5.32	1.40	1.47
59	BZ	20	PRO	CA-C	-5.32	1.46	1.52
77	Br	196	ARG	N-CA	-5.32	1.40	1.46
82	Bw	160	ARG	CA-C	-5.32	1.45	1.52
86	AB	72	C	C1'-N1	-5.32	1.40	1.48
26	AS	58	GLY	CA-C	-5.32	1.47	1.52
34	BA	932	G	O3'-P	-5.32	1.53	1.61
35	BB	1254	G	P-O5'	-5.32	1.51	1.59
37	BD	10	C	P-O5'	-5.32	1.51	1.59
37	BD	11	A	C1'-N9	-5.32	1.40	1.48
85	AA	736	U	C3'-C2'	-5.32	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1145	U	O3'-P	-5.32	1.53	1.61
85	AA	1191	G	C1'-N9	-5.32	1.40	1.48
85	AA	2152	C	O3'-P	-5.32	1.53	1.61
15	AG	25	TRP	CA-C	-5.32	1.45	1.52
22	AO	38	HIS	CA-C	-5.32	1.45	1.52
31	AX	161	THR	CA-C	-5.32	1.45	1.52
34	BA	121	A	C4'-O4'	-5.32	1.37	1.45
34	BA	690	G	C4'-O4'	-5.32	1.37	1.45
34	BA	900	A	O4'-C1'	-5.32	1.33	1.42
34	BA	1137	U	P-O5'	-5.32	1.51	1.59
35	BB	398	A	O3'-P	-5.32	1.53	1.61
35	BB	675	U	C3'-C2'	-5.32	1.44	1.52
35	BB	1018	U	C3'-C2'	-5.32	1.44	1.52
39	BF	36	G	C1'-N9	-5.32	1.40	1.48
40	BG	109	C	C2'-C1'	-5.32	1.45	1.53
40	BG	138	C	C5'-C4'	-5.32	1.43	1.51
70	Bk	66	GLU	CA-C	-5.32	1.45	1.52
85	AA	667	A	O3'-P	-5.32	1.53	1.61
85	AA	882	C	C1'-N1	-5.32	1.40	1.48
85	AA	1267	A	C2'-C1'	-5.32	1.45	1.53
85	AA	1947	A	P-O5'	-5.32	1.51	1.59
18	AJ	89	TRP	CA-C	-5.32	1.46	1.52
23	AP	214	THR	CA-C	-5.32	1.45	1.52
34	BA	134	U	C2'-C1'	-5.32	1.45	1.53
34	BA	183	G	C2'-C1'	-5.32	1.45	1.53
34	BA	308	C	C3'-C2'	-5.32	1.44	1.52
35	BB	659	C	P-O5'	-5.32	1.51	1.59
35	BB	845	C	C2'-C1'	-5.32	1.45	1.53
48	BO	136	ARG	CA-CB	5.32	1.62	1.53
49	BP	123	TRP	NE1-CE2	-5.32	1.31	1.37
56	BW	122	LYS	N-CA	-5.32	1.39	1.46
57	BX	144	ALA	CA-C	-5.32	1.46	1.52
85	AA	349	C	C1'-N1	-5.32	1.40	1.48
85	AA	1541	G	O4'-C1'	-5.32	1.33	1.41
85	AA	1890	C	P-O5'	-5.32	1.51	1.59
85	AA	2057	G	C1'-N9	-5.32	1.40	1.48
4	A3	22	VAL	CA-CB	-5.31	1.47	1.54
34	BA	71	G	P-O5'	-5.31	1.51	1.59
34	BA	371	U	C3'-C2'	-5.31	1.44	1.52
35	BB	479	U	C1'-N1	-5.31	1.40	1.48
38	BE	64	A	C1'-N9	-5.31	1.39	1.47
38	BE	183	C	C1'-N1	5.31	1.55	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	Bv	60	LEU	N-CA	-5.31	1.39	1.46
85	AA	40	A	O3'-P	-5.31	1.53	1.61
85	AA	321	C	O3'-P	-5.31	1.53	1.61
85	AA	790	A	C1'-N9	-5.31	1.39	1.47
85	AA	885	A	C2'-C1'	-5.31	1.45	1.53
15	AG	117	LEU	CA-C	-5.31	1.46	1.52
35	BB	1051	U	C1'-N1	-5.31	1.40	1.48
35	BB	1387	C	O3'-P	-5.31	1.53	1.61
38	BE	98	C	O3'-P	-5.31	1.53	1.61
40	BG	118	U	C2'-C1'	-5.31	1.45	1.53
41	BH	31	A	C2'-C1'	-5.31	1.45	1.53
45	BL	26	ILE	CA-CB	-5.31	1.48	1.54
85	AA	685	U	O3'-P	-5.31	1.53	1.61
85	AA	1689	G	C1'-N9	-5.31	1.40	1.48
35	BB	14	C	C4'-C3'	-5.31	1.44	1.52
36	BC	35	C	C1'-N1	-5.31	1.40	1.48
37	BD	76	U	C2'-C1'	-5.31	1.45	1.53
38	BE	139	U	O4'-C1'	-5.31	1.33	1.41
48	BO	140	PRO	CA-C	-5.31	1.44	1.52
73	Bn	68	LYS	N-CA	-5.31	1.39	1.46
77	Br	270	THR	CA-C	-5.31	1.45	1.52
84	By	23	ILE	N-CA	-5.31	1.39	1.46
85	AA	45	U	C1'-N1	-5.31	1.40	1.48
85	AA	128	U	C2'-C1'	-5.31	1.45	1.53
85	AA	660	G	C2'-C1'	-5.31	1.45	1.53
85	AA	1148	G	P-O5'	-5.31	1.51	1.59
35	BB	64	U	C1'-N1	-5.31	1.40	1.48
35	BB	1144	A	C1'-N9	-5.31	1.40	1.48
36	BC	52	A	C2'-C1'	-5.31	1.45	1.53
48	BO	208	MET	CA-C	-5.31	1.45	1.52
51	BR	20	ALA	N-CA	-5.31	1.39	1.45
65	Bf	278	LYS	N-CA	-5.31	1.39	1.46
79	Bt	88	THR	CA-C	-5.31	1.46	1.52
83	Bx	254	ARG	N-CA	-5.31	1.39	1.46
85	AA	557	G	O3'-P	-5.31	1.53	1.61
85	AA	2115	G	P-O5'	-5.31	1.51	1.59
18	AJ	85	ASP	N-CA	-5.31	1.39	1.46
34	BA	473	A	C1'-N9	-5.31	1.40	1.48
61	Bb	102	LEU	CA-C	-5.31	1.45	1.52
85	AA	753	U	C5'-C4'	5.31	1.59	1.51
85	AA	2057	G	P-O5'	-5.31	1.51	1.59
85	AA	2176	U	O4'-C1'	-5.31	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	23	A	O3'-P	-5.31	1.53	1.61
31	AX	12	ARG	CA-C	-5.30	1.46	1.52
34	BA	85	C	O3'-P	-5.30	1.53	1.61
34	BA	266	G	O3'-P	-5.30	1.53	1.61
34	BA	1061	A	C1'-N9	-5.30	1.39	1.47
35	BB	113	C	O4'-C1'	-5.30	1.33	1.41
35	BB	369	A	C1'-N9	-5.30	1.40	1.48
35	BB	459	U	O3'-P	-5.30	1.53	1.61
35	BB	993	A	N9-C4	-5.30	1.27	1.37
36	BC	103	A	O3'-P	-5.30	1.53	1.61
38	BE	12	A	O3'-P	-5.30	1.53	1.61
53	BT	58	HIS	CB-CG	-5.30	1.42	1.50
53	BT	62	ARG	CD-NE	5.30	1.53	1.46
59	BZ	54	ARG	CA-C	-5.30	1.46	1.52
83	Bx	85	PRO	C-N	-5.30	1.27	1.33
85	AA	880	A	C1'-N9	-5.30	1.40	1.48
85	AA	927	A	O3'-P	-5.30	1.53	1.61
34	BA	1008	A	P-O5'	-5.30	1.51	1.59
35	BB	558	U	C2'-C1'	-5.30	1.45	1.53
36	BC	6	G	C1'-N9	-5.30	1.40	1.48
85	AA	129	U	P-O5'	-5.30	1.51	1.59
85	AA	1156	A	C2'-C1'	-5.30	1.45	1.53
85	AA	1180	C	C4'-C3'	-5.30	1.45	1.53
13	AE	82	ILE	CA-C	-5.30	1.46	1.52
34	BA	577	U	O3'-P	-5.30	1.53	1.61
35	BB	1035	C	P-O5'	-5.30	1.51	1.59
35	BB	1428	C	P-O5'	-5.30	1.51	1.59
36	BC	52	A	C3'-O3'	-5.30	1.34	1.42
36	BC	106	G	P-O5'	-5.30	1.51	1.59
80	Bu	199	LYS	N-CA	-5.30	1.40	1.46
85	AA	882	C	C2'-C1'	-5.30	1.45	1.53
85	AA	1219	A	O3'-P	-5.30	1.53	1.61
4	A3	26	VAL	CA-C	-5.30	1.45	1.52
34	BA	376	U	C3'-C2'	-5.30	1.44	1.52
34	BA	1320	A	C3'-C2'	-5.30	1.44	1.52
35	BB	543	G	P-O5'	-5.30	1.51	1.59
48	BO	40	ILE	CA-CB	-5.30	1.48	1.54
53	BT	44	LEU	CA-C	-5.30	1.45	1.52
81	Bv	146	GLU	CA-C	-5.30	1.46	1.52
34	BA	361	C	O3'-P	-5.30	1.53	1.61
34	BA	993	C	C2'-C1'	-5.30	1.45	1.53
35	BB	381	C	C2'-C1'	-5.30	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BD	96	C	C3'-C2'	-5.30	1.44	1.52
45	BL	90	GLY	CA-C	-5.30	1.44	1.51
77	Br	33	HIS	C-N	-5.30	1.26	1.33
85	AA	35	U	C3'-C2'	-5.30	1.44	1.52
85	AA	1723	U	P-O5'	-5.30	1.51	1.59
85	AA	1933	G	C5'-C4'	5.30	1.59	1.51
2	A1	58	ALA	CA-C	-5.30	1.46	1.52
34	BA	761	U	C2-N3	-5.30	1.27	1.37
34	BA	1181	G	C3'-C2'	-5.30	1.44	1.52
34	BA	1271	C	C3'-C2'	-5.30	1.44	1.52
34	BA	1646	U	C2'-C1'	-5.30	1.45	1.53
39	BF	53	G	C3'-O3'	-5.30	1.35	1.43
85	AA	372	U	P-O5'	-5.30	1.51	1.59
85	AA	635	G	C1'-N9	-5.30	1.40	1.48
34	BA	1006	G	O3'-P	-5.29	1.53	1.61
35	BB	1093	C	C2'-C1'	-5.29	1.45	1.53
36	BC	46	G	O3'-P	-5.29	1.53	1.61
41	BH	51	C	C2'-C1'	-5.29	1.45	1.53
85	AA	2067	A	C2'-C1'	-5.29	1.45	1.53
18	AJ	18	GLU	CA-C	-5.29	1.45	1.52
31	AX	163	HIS	CA-C	-5.29	1.46	1.52
34	BA	421	G	C3'-C2'	-5.29	1.44	1.52
34	BA	1639	U	C4'-O4'	-5.29	1.37	1.45
35	BB	404	A	N9-C4	-5.29	1.27	1.37
35	BB	574	G	C2'-C1'	-5.29	1.45	1.53
35	BB	1200	A	O3'-P	-5.29	1.53	1.61
37	BD	11	A	C4'-C3'	-5.29	1.44	1.52
38	BE	28	C	C2'-C1'	-5.29	1.45	1.53
40	BG	114	A	C1'-N9	-5.29	1.40	1.48
51	BR	10	VAL	CA-CB	-5.29	1.47	1.54
53	BT	184	GLU	N-CA	-5.29	1.39	1.46
57	BX	143	LYS	CA-C	-5.29	1.46	1.52
77	Br	291	MET	CA-C	-5.29	1.45	1.52
85	AA	930	G	P-O5'	-5.29	1.51	1.59
85	AA	1506	U	O4'-C1'	-5.29	1.33	1.41
85	AA	1712	A	C2'-C1'	-5.29	1.45	1.53
2	A1	166	VAL	CA-C	-5.29	1.46	1.52
8	A7	73	VAL	CA-C	-5.29	1.46	1.52
23	AP	136	ARG	N-CA	-5.29	1.39	1.46
34	BA	527	C	C2'-C1'	-5.29	1.45	1.53
34	BA	891	C	O3'-P	-5.29	1.53	1.61
34	BA	1405	A	O4'-C1'	-5.29	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1437	G	C1'-N9	-5.29	1.40	1.48
35	BB	66	G	C2'-C1'	-5.29	1.45	1.53
35	BB	431	U	C1'-N1	-5.29	1.40	1.48
35	BB	1135	U	C2'-C1'	-5.29	1.45	1.53
35	BB	1258	G	P-O5'	-5.29	1.51	1.59
39	BF	37	C	C2'-C1'	-5.29	1.45	1.53
40	BG	58	G	C1'-N9	-5.29	1.40	1.48
40	BG	65	C	C4'-C3'	-5.29	1.44	1.52
44	BK	51	HIS	CA-C	-5.29	1.46	1.52
48	BO	80	LYS	CA-C	-5.29	1.45	1.53
50	BQ	202	ARG	N-CA	-5.29	1.40	1.46
70	Bk	72	LYS	N-CA	-5.29	1.40	1.46
85	AA	30	G	O3'-P	-5.29	1.53	1.61
85	AA	1299	A	O3'-P	-5.29	1.53	1.61
85	AA	1864	G	O3'-P	-5.29	1.53	1.61
7	A6	158	ALA	N-CA	-5.29	1.39	1.46
8	A7	76	SER	CA-C	-5.29	1.46	1.53
13	AE	141	VAL	CA-CB	-5.29	1.46	1.54
34	BA	1443	U	C1'-N1	-5.29	1.40	1.48
35	BB	595	U	O3'-P	-5.29	1.53	1.61
35	BB	1301	U	C1'-N1	-5.29	1.40	1.48
38	BE	40	C	C4'-O4'	-5.29	1.37	1.45
80	Bu	299	VAL	C-N	-5.29	1.25	1.33
84	By	63	ILE	CA-CB	-5.29	1.47	1.54
85	AA	158	C	C1'-N1	-5.29	1.40	1.48
34	BA	1151	A	O3'-P	-5.29	1.53	1.61
34	BA	1472	G	O3'-P	-5.29	1.53	1.61
34	BA	1496	G	C2'-C1'	-5.29	1.45	1.53
35	BB	80	C	C3'-C2'	-5.29	1.44	1.52
35	BB	508	U	C3'-C2'	-5.29	1.44	1.52
36	BC	65	G	C2'-C1'	-5.29	1.45	1.53
39	BF	15	U	P-O5'	-5.29	1.51	1.59
47	BN	12	HIS	CB-CG	-5.29	1.42	1.50
54	BU	53	PRO	CA-C	-5.29	1.46	1.52
66	Bg	104	THR	N-CA	-5.29	1.39	1.46
77	Br	176	ILE	N-CA	-5.29	1.39	1.46
83	Bx	47	PHE	CA-C	5.29	1.59	1.52
85	AA	494	G	P-O5'	-5.29	1.51	1.59
85	AA	532	G	P-O5'	-5.29	1.51	1.59
85	AA	1470	A	C2'-C1'	-5.29	1.45	1.53
85	AA	1622	G	P-O5'	-5.29	1.51	1.59
85	AA	1872	G	C2'-C1'	-5.29	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	359	A	O3'-P	-5.29	1.53	1.61
35	BB	622	G	O3'-P	-5.29	1.53	1.61
85	AA	894	A	C5'-C4'	5.29	1.59	1.51
15	AG	125	LEU	N-CA	-5.29	1.39	1.46
23	AP	69	MET	N-CA	-5.29	1.38	1.45
33	AZ	65	ALA	N-CA	-5.29	1.39	1.46
34	BA	395	G	P-O5'	-5.29	1.51	1.59
34	BA	557	U	O5'-C5'	5.29	1.50	1.42
35	BB	8	U	O4'-C1'	-5.29	1.33	1.41
35	BB	631	G	P-O5'	-5.29	1.51	1.59
35	BB	659	C	O4'-C1'	-5.29	1.34	1.42
35	BB	1389	C	O3'-P	-5.29	1.53	1.61
35	BB	1504	U	C5'-C4'	5.29	1.59	1.51
65	Bf	345	VAL	CA-CB	-5.29	1.47	1.53
69	Bj	17	ARG	CA-C	-5.29	1.46	1.52
82	Bw	248	LEU	CA-C	-5.29	1.45	1.52
85	AA	535	G	O3'-P	-5.29	1.53	1.61
85	AA	965	G	P-O5'	-5.29	1.51	1.59
85	AA	1213	U	O4'-C1'	-5.29	1.33	1.41
85	AA	1228	A	C1'-N9	-5.29	1.40	1.48
6	A5	58	LEU	CA-C	-5.28	1.46	1.52
22	AO	133	CYS	CA-C	-5.28	1.45	1.52
34	BA	862	C	C1'-N1	-5.28	1.40	1.48
34	BA	1595	G	P-O5'	-5.28	1.51	1.59
34	BA	1794	A	C1'-N9	-5.28	1.40	1.48
38	BE	163	A	N9-C4	-5.28	1.27	1.37
40	BG	142	A	C3'-C2'	-5.28	1.44	1.52
41	BH	125	U	C2'-C1'	-5.28	1.45	1.53
51	BR	86	LYS	C-N	-5.28	1.27	1.33
51	BR	133	HIS	CB-CG	-5.28	1.42	1.50
56	BW	128	TRP	CA-C	-5.28	1.47	1.52
71	Bl	58	THR	CA-C	-5.28	1.46	1.52
80	Bu	185	ARG	CA-C	-5.28	1.45	1.52
85	AA	1167	G	O3'-P	-5.28	1.53	1.61
85	AA	1839	G	C1'-N9	-5.28	1.40	1.48
85	AA	2123	U	C2'-C1'	-5.28	1.45	1.53
34	BA	211	C	O3'-P	-5.28	1.53	1.61
34	BA	1145	U	O3'-P	-5.28	1.53	1.61
40	BG	91	U	C3'-C2'	-5.28	1.44	1.52
69	Bj	93	VAL	N-CA	-5.28	1.40	1.46
77	Br	26	VAL	CA-C	-5.28	1.46	1.52
77	Br	28	THR	CA-C	-5.28	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	155	U	C2'-C1'	-5.28	1.45	1.53
85	AA	546	U	O3'-P	-5.28	1.53	1.61
85	AA	880	A	O3'-P	-5.28	1.53	1.61
4	A3	14	LYS	CA-C	-5.28	1.45	1.52
20	AL	123	ASN	N-CA	-5.28	1.40	1.46
34	BA	264	A	C1'-N9	-5.28	1.40	1.48
34	BA	968	G	O3'-P	-5.28	1.53	1.61
34	BA	1231	C	C2'-C1'	-5.28	1.45	1.53
35	BB	87	G	P-O5'	-5.28	1.51	1.59
35	BB	496	C	C1'-N1	-5.28	1.40	1.48
36	BC	8	C	O3'-P	-5.28	1.53	1.61
36	BC	81	U	P-O5'	-5.28	1.51	1.59
65	Bf	250	LEU	N-CA	-5.28	1.40	1.46
81	Bv	157	ALA	N-CA	-5.28	1.39	1.46
84	By	151	GLN	N-CA	-5.28	1.39	1.46
85	AA	382	G	C1'-N9	-5.28	1.40	1.48
85	AA	1256	C	C1'-N1	-5.28	1.40	1.48
85	AA	1456	A	C2'-C1'	-5.28	1.45	1.53
85	AA	2201	A	O3'-P	-5.28	1.53	1.61
18	AJ	47	ILE	CA-CB	-5.28	1.47	1.54
34	BA	333	A	C2'-C1'	-5.28	1.45	1.53
35	BB	429	C	C1'-N1	-5.28	1.40	1.48
61	Bb	122	LYS	N-CA	-5.28	1.39	1.46
6	A5	12	LYS	CA-C	-5.28	1.45	1.52
23	AP	115	GLY	CA-C	-5.28	1.46	1.51
34	BA	402	G	O3'-P	-5.28	1.53	1.61
34	BA	1747	C	P-O5'	-5.28	1.51	1.59
34	BA	1793	G	O3'-P	-5.28	1.53	1.61
35	BB	625	A	C2'-C1'	-5.28	1.45	1.53
35	BB	1202	G	O3'-P	-5.28	1.53	1.61
35	BB	1421	C	O3'-P	-5.28	1.53	1.61
35	BB	1515	C	O3'-P	-5.28	1.53	1.61
36	BC	116	C	C3'-C2'	-5.28	1.44	1.52
48	BO	120	LEU	CA-C	-5.28	1.46	1.52
48	BO	133	THR	CA-C	-5.28	1.45	1.52
80	Bu	293	LYS	CA-C	-5.28	1.46	1.52
82	Bw	200	VAL	CA-CB	-5.28	1.47	1.54
85	AA	719	C	C2'-C1'	-5.28	1.45	1.53
85	AA	1220	A	P-O5'	-5.28	1.51	1.59
85	AA	2052	U	P-O5'	-5.28	1.51	1.59
2	A1	159	TYR	CA-C	-5.28	1.46	1.52
15	AG	40	LEU	CA-C	-5.28	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	AS	132	ALA	N-CA	-5.28	1.40	1.46
34	BA	575	U	C1'-N1	-5.28	1.39	1.47
34	BA	724	A	C2'-C1'	-5.28	1.45	1.53
34	BA	1272	U	C2'-C1'	-5.28	1.45	1.53
34	BA	1472	G	P-O5'	-5.28	1.51	1.59
35	BB	794	G	C3'-C2'	-5.28	1.44	1.52
51	BR	93	SER	CA-C	-5.28	1.46	1.52
51	BR	155	GLU	C-N	-5.28	1.25	1.33
52	BS	113	ALA	N-CA	-5.28	1.39	1.46
71	Bl	66	VAL	N-CA	-5.28	1.39	1.46
80	Bu	209	HIS	CA-C	-5.28	1.46	1.52
83	Bx	103	LEU	N-CA	-5.28	1.39	1.46
85	AA	1217	U	O4'-C1'	-5.28	1.33	1.41
85	AA	1469	G	C4'-C3'	-5.28	1.44	1.52
35	BB	388	C	C1'-N1	-5.27	1.40	1.48
85	AA	784	C	P-O5'	-5.27	1.51	1.59
7	A6	103	ILE	CA-C	-5.27	1.46	1.52
34	BA	980	C	O3'-P	-5.27	1.53	1.61
34	BA	1363	A	P-O5'	-5.27	1.51	1.59
34	BA	1435	A	C4'-O4'	-5.27	1.38	1.45
34	BA	1488	C	C1'-N1	-5.27	1.40	1.48
35	BB	1470	G	C2'-C1'	-5.27	1.45	1.53
51	BR	3	HIS	CB-CG	-5.27	1.42	1.50
64	Be	105	GLY	CA-C	-5.27	1.45	1.51
65	Bf	364	THR	C-N	-5.27	1.27	1.33
66	Bg	48	GLY	CA-C	-5.27	1.45	1.51
85	AA	31	C	C3'-C2'	-5.27	1.44	1.52
85	AA	897	A	O3'-P	-5.27	1.53	1.61
85	AA	1681	G	C4'-C3'	-5.27	1.44	1.52
34	BA	1550	G	O3'-P	-5.27	1.53	1.61
34	BA	1614	G	O3'-P	-5.27	1.53	1.61
35	BB	1329	G	P-O5'	-5.27	1.51	1.59
37	BD	20	C	O3'-P	-5.27	1.53	1.61
85	AA	409	C	C3'-C2'	-5.27	1.44	1.52
34	BA	1143	U	C1'-N1	-5.27	1.40	1.48
34	BA	1157	A	C2'-C1'	-5.27	1.45	1.53
34	BA	1334	G	C1'-N9	-5.27	1.40	1.48
35	BB	24	C	C2'-C1'	-5.27	1.45	1.53
35	BB	1364	C	O3'-P	-5.27	1.53	1.61
40	BG	40	G	C2'-C1'	-5.27	1.45	1.53
51	BR	111	LYS	N-CA	-5.27	1.42	1.47
57	BX	85	ILE	CA-C	-5.27	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	Be	177	LYS	CA-C	-5.27	1.47	1.53
74	Bo	47	PHE	N-CA	-5.27	1.39	1.46
80	Bu	43	LYS	CA-C	-5.27	1.47	1.53
82	Bw	126	ILE	CA-CB	-5.27	1.49	1.54
85	AA	685	U	C4'-C3'	-5.27	1.44	1.52
23	AP	66	LEU	N-CA	-5.27	1.40	1.46
34	BA	969	A	O4'-C1'	-5.27	1.34	1.42
35	BB	1248	A	C2'-C1'	-5.27	1.45	1.53
37	BD	95	G	O4'-C1'	-5.27	1.33	1.41
41	BH	33	G	C3'-C2'	-5.27	1.44	1.52
75	Bp	31	VAL	CA-C	-5.27	1.46	1.52
83	Bx	203	ILE	CA-C	-5.27	1.44	1.52
85	AA	182	C	P-O5'	-5.27	1.51	1.59
85	AA	671	G	C5'-C4'	-5.27	1.43	1.51
85	AA	971	U	C2'-C1'	-5.27	1.45	1.53
85	AA	1697	C	O3'-P	-5.27	1.53	1.61
85	AA	1998	A	C1'-N9	-5.27	1.40	1.48
8	A7	157	CYS	CA-C	-5.27	1.46	1.52
19	AK	25	ALA	CA-C	5.27	1.59	1.52
34	BA	1224	A	O3'-P	-5.27	1.53	1.61
34	BA	1273	U	O3'-P	-5.27	1.53	1.61
35	BB	366	G	O3'-P	-5.27	1.53	1.61
53	BT	108	LYS	CA-C	-5.27	1.46	1.52
60	Ba	84	TYR	N-CA	-5.27	1.38	1.45
72	Bm	54	ASP	CA-C	-5.27	1.46	1.52
77	Br	149	VAL	CA-C	-5.27	1.47	1.52
83	Bx	241	VAL	CA-CB	-5.27	1.47	1.54
85	AA	1584	U	P-O5'	-5.27	1.51	1.59
6	A5	33	PRO	CA-C	-5.26	1.45	1.52
34	BA	101	G	C2'-C1'	-5.26	1.45	1.53
34	BA	246	G	C4'-O4'	-5.26	1.37	1.45
34	BA	934	G	P-O5'	-5.26	1.51	1.59
34	BA	1213	A	C2'-C1'	-5.26	1.45	1.53
34	BA	1251	A	O3'-P	-5.26	1.53	1.61
34	BA	1704	G	O3'-P	-5.26	1.53	1.61
35	BB	1477	C	P-O5'	-5.26	1.51	1.59
49	BP	31	VAL	CA-C	-5.26	1.46	1.52
52	BS	63	CYS	N-CA	-5.26	1.40	1.46
56	BW	24	VAL	CA-CB	-5.26	1.47	1.54
71	Bl	136	ILE	N-CA	-5.26	1.39	1.46
85	AA	374	C	O5'-C5'	-5.26	1.34	1.42
85	AA	1525	C	O3'-P	-5.26	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	AG	128	TYR	N-CA	-5.26	1.40	1.46
34	BA	268	U	P-O5'	-5.26	1.51	1.59
34	BA	525	A	C2'-C1'	-5.26	1.45	1.53
34	BA	776	U	C1'-N1	-5.26	1.40	1.48
34	BA	1804	A	O3'-P	-5.26	1.53	1.61
35	BB	1118	G	O3'-P	-5.26	1.53	1.61
40	BG	130	G	C2'-C1'	-5.26	1.45	1.53
54	BU	76	ILE	CA-CB	-5.26	1.46	1.55
85	AA	820	G	C5'-C4'	-5.26	1.43	1.51
85	AA	921	C	O3'-P	-5.26	1.53	1.61
85	AA	936	C	O4'-C1'	-5.26	1.33	1.41
85	AA	1174	G	P-O5'	-5.26	1.51	1.59
34	BA	483	A	O5'-C5'	-5.26	1.34	1.42
34	BA	724	A	C1'-N9	-5.26	1.40	1.48
34	BA	811	C	O3'-P	-5.26	1.53	1.61
34	BA	1313	U	P-O5'	-5.26	1.51	1.59
42	BI	113	SER	CA-C	-5.26	1.46	1.52
45	BL	173	VAL	CA-CB	-5.26	1.47	1.54
50	BQ	66	ARG	N-CA	-5.26	1.39	1.46
67	Bh	109	ILE	CA-C	-5.26	1.46	1.52
72	Bm	21	LYS	CA-C	-5.26	1.46	1.52
85	AA	92	G	C1'-N9	-5.26	1.40	1.48
85	AA	393	C	C1'-N1	-5.26	1.40	1.48
85	AA	1692	U	C1'-N1	-5.26	1.40	1.48
85	AA	1963	G	C4'-O4'	-5.26	1.37	1.45
22	AO	111	ARG	CA-C	5.26	1.58	1.52
34	BA	4	A	C3'-C2'	-5.26	1.44	1.52
34	BA	388	A	P-O5'	-5.26	1.51	1.59
34	BA	1118	C	C2'-C1'	-5.26	1.45	1.53
35	BB	837	A	O4'-C1'	-5.26	1.33	1.41
35	BB	1360	A	O3'-P	-5.26	1.53	1.61
36	BC	86	U	O3'-P	-5.26	1.53	1.61
40	BG	87	G	O3'-P	-5.26	1.53	1.61
49	BP	140	HIS	CA-C	-5.26	1.46	1.52
54	BU	94	GLU	N-CA	-5.26	1.39	1.46
77	Br	69	GLY	CA-C	-5.26	1.44	1.51
77	Br	173	VAL	CA-C	-5.26	1.46	1.52
85	AA	305	A	C5'-C4'	5.26	1.59	1.51
85	AA	916	A	C1'-N9	-5.26	1.40	1.48
85	AA	930	G	O3'-P	-5.26	1.53	1.61
85	AA	1031	G	P-O5'	-5.26	1.51	1.59
35	BB	1196	A	C2'-C1'	-5.26	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	210	G	C4'-C3'	-5.26	1.45	1.53
18	AJ	35	VAL	CA-CB	-5.26	1.47	1.54
34	BA	513	U	C5'-C4'	-5.26	1.43	1.51
34	BA	1074	C	C3'-C2'	-5.26	1.44	1.52
34	BA	1832	A	O5'-C5'	-5.26	1.34	1.42
35	BB	101	U	C5'-C4'	-5.26	1.43	1.51
35	BB	1360	A	C1'-N9	-5.26	1.40	1.48
38	BE	170	U	C4'-O4'	-5.26	1.37	1.45
47	BN	198	ARG	CA-C	-5.26	1.46	1.52
50	BQ	76	TYR	CA-C	-5.26	1.46	1.52
69	Bj	32	VAL	CA-C	-5.26	1.46	1.52
70	Bk	65	ASN	CA-C	-5.26	1.46	1.52
77	Br	308	LYS	CA-C	-5.26	1.45	1.52
85	AA	1265	C	C2'-C1'	-5.26	1.45	1.53
85	AA	1885	A	P-O5'	-5.26	1.51	1.59
85	AA	2099	C	P-O5'	-5.26	1.51	1.59
34	BA	1158	A	P-O5'	-5.25	1.51	1.59
35	BB	1489	A	C1'-N9	-5.25	1.39	1.47
40	BG	110	U	O3'-P	-5.25	1.53	1.61
40	BG	146	C	O3'-P	-5.25	1.53	1.61
75	Bp	19	ASP	N-CA	-5.25	1.39	1.46
85	AA	925	G	C2'-C1'	-5.25	1.45	1.53
85	AA	1589	G	P-O5'	-5.25	1.51	1.59
8	A7	314	VAL	C-N	-5.25	1.25	1.33
34	BA	963	G	C1'-N9	-5.25	1.40	1.48
34	BA	1080	U	C5'-C4'	5.25	1.59	1.51
35	BB	794	G	O3'-P	-5.25	1.53	1.61
35	BB	1243	A	C2'-C1'	-5.25	1.45	1.53
38	BE	4	A	C2'-C1'	-5.25	1.45	1.53
83	Bx	125	VAL	CA-C	-5.25	1.46	1.52
83	Bx	192	ILE	CA-CB	-5.25	1.47	1.53
85	AA	150	U	P-O5'	-5.25	1.51	1.59
85	AA	1502	A	C3'-C2'	-5.25	1.44	1.52
85	AA	2192	A	O3'-P	-5.25	1.53	1.61
7	A6	131	ARG	N-CA	-5.25	1.39	1.46
11	AC	88	HIS	N-CA	-5.25	1.40	1.46
23	AP	199	GLU	N-CA	-5.25	1.40	1.46
33	AZ	94	GLU	CA-C	-5.25	1.48	1.53
34	BA	798	G	O3'-P	-5.25	1.53	1.61
34	BA	908	G	O3'-P	-5.25	1.53	1.61
34	BA	1312	A	C4'-O4'	-5.25	1.37	1.45
34	BA	1701	U	C2'-C1'	-5.25	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
77	Br	246	ARG	CA-C	-5.25	1.46	1.52
34	BA	655	U	O4'-C1'	-5.25	1.33	1.41
35	BB	666	A	O4'-C1'	-5.25	1.33	1.41
35	BB	1130	U	C1'-N1	-5.25	1.40	1.48
35	BB	1299	G	C3'-C2'	-5.25	1.44	1.52
41	BH	52	G	O3'-P	-5.25	1.53	1.61
41	BH	114	G	C3'-C2'	-5.25	1.44	1.52
44	BK	135	LEU	N-CA	-5.25	1.39	1.46
71	Bl	103	SER	CA-C	-5.25	1.45	1.52
80	Bu	100	ALA	CA-C	-5.25	1.46	1.52
15	AG	114	ARG	N-CA	-5.25	1.40	1.46
31	AX	134	GLU	N-CA	-5.25	1.39	1.46
34	BA	29	U	C3'-C2'	-5.25	1.44	1.52
34	BA	986	G	C3'-C2'	-5.25	1.44	1.52
34	BA	1744	C	P-O5'	-5.25	1.51	1.59
35	BB	435	A	N9-C4	-5.25	1.27	1.37
35	BB	1221	G	O3'-P	-5.25	1.53	1.61
35	BB	1452	U	O3'-P	-5.25	1.53	1.61
38	BE	33	C	O3'-P	-5.25	1.53	1.61
44	BK	50	VAL	N-CA	-5.25	1.40	1.46
65	Bf	212	ARG	N-CA	-5.25	1.39	1.45
73	Bn	68	LYS	C-N	-5.25	1.27	1.33
74	Bo	50	LYS	N-CA	-5.25	1.39	1.45
81	Bv	153	ALA	CA-C	-5.25	1.46	1.52
82	Bw	213	VAL	N-CA	-5.25	1.40	1.46
85	AA	177	A	C3'-C2'	-5.25	1.44	1.52
85	AA	298	C	C2'-C1'	-5.25	1.45	1.53
85	AA	737	G	O3'-P	-5.25	1.53	1.61
85	AA	748	C	P-O5'	-5.25	1.51	1.59
85	AA	924	A	C2'-C1'	-5.25	1.45	1.53
85	AA	1117	G	O3'-P	-5.25	1.53	1.61
2	A1	137	VAL	CA-C	-5.25	1.46	1.52
11	AC	169	ALA	N-CA	-5.25	1.40	1.46
20	AL	50	ILE	CA-C	-5.25	1.46	1.52
30	AW	5	ASP	CA-C	5.25	1.59	1.52
34	BA	298	G	O3'-P	-5.25	1.53	1.61
34	BA	365	A	C1'-N9	-5.25	1.40	1.48
34	BA	539	C	O3'-P	-5.25	1.53	1.61
34	BA	661	C	O3'-P	-5.25	1.53	1.61
34	BA	901	C	C4'-O4'	-5.25	1.37	1.45
34	BA	1421	A	O3'-P	-5.25	1.53	1.61
35	BB	646	U	O3'-P	-5.25	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	976	U	C3'-C2'	-5.25	1.44	1.52
35	BB	1083	C	P-O5'	-5.25	1.51	1.59
35	BB	1262	A	C2'-C1'	-5.25	1.45	1.53
36	BC	91	G	C2'-C1'	-5.25	1.45	1.53
36	BC	110	A	C2'-C1'	-5.25	1.45	1.53
48	BO	97	VAL	N-CA	-5.25	1.40	1.46
53	BT	3	SER	CA-C	-5.25	1.46	1.53
53	BT	78	THR	CA-C	-5.25	1.46	1.52
84	By	25	THR	CA-C	-5.25	1.46	1.52
85	AA	7	G	C2'-C1'	-5.25	1.45	1.53
85	AA	975	G	C3'-C2'	-5.25	1.44	1.52
85	AA	1120	G	C1'-N9	-5.25	1.40	1.48
85	AA	1166	C	P-O5'	-5.25	1.51	1.59
34	BA	501	U	C3'-O3'	5.25	1.50	1.42
35	BB	1418	C	C1'-N1	-5.25	1.40	1.48
35	BB	1464	G	C3'-O3'	5.25	1.50	1.42
39	BF	50	C	P-O5'	-5.25	1.51	1.59
58	BY	59	TYR	N-CA	-5.25	1.40	1.46
75	Bp	22	CYS	CA-C	-5.25	1.46	1.52
22	AO	110	THR	C-N	5.24	1.40	1.33
33	AZ	81	LYS	N-CA	-5.24	1.39	1.46
34	BA	912	G	C4'-C3'	-5.24	1.44	1.52
34	BA	969	A	C2'-C1'	-5.24	1.45	1.53
34	BA	1847	G	P-O5'	-5.24	1.51	1.59
35	BB	460	C	C1'-N1	-5.24	1.40	1.48
36	BC	4	G	C4'-C3'	-5.24	1.44	1.52
36	BC	144	C	C4'-O4'	-5.24	1.37	1.45
39	BF	38	C	O3'-P	-5.24	1.53	1.61
41	BH	56	C	P-O5'	-5.24	1.51	1.59
48	BO	113	GLY	CA-C	-5.24	1.45	1.52
50	BQ	78	VAL	CA-C	-5.24	1.46	1.52
66	Bg	103	ILE	N-CA	-5.24	1.40	1.46
67	Bh	134	PHE	N-CA	-5.24	1.40	1.46
73	Bn	69	VAL	CA-C	-5.24	1.45	1.52
80	Bu	88	ILE	CA-C	-5.24	1.46	1.52
85	AA	252	G	P-O5'	-5.24	1.51	1.59
85	AA	1599	G	O3'-P	-5.24	1.53	1.61
1	A0	130	LYS	CA-C	-5.24	1.46	1.52
15	AG	76	LYS	N-CA	-5.24	1.40	1.46
34	BA	982	A	C1'-N9	-5.24	1.40	1.48
35	BB	363	A	C2'-C1'	-5.24	1.45	1.53
42	BI	121	THR	CA-CB	-5.24	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	BX	60	TYR	CA-C	-5.24	1.45	1.52
85	AA	4	C	C3'-C2'	-5.24	1.44	1.52
85	AA	249	C	C3'-C2'	-5.24	1.44	1.52
85	AA	522	A	P-O5'	-5.24	1.51	1.59
11	AC	243	PRO	C-N	-5.24	1.26	1.33
34	BA	90	G	P-O5'	-5.24	1.51	1.59
34	BA	103	G	C3'-C2'	-5.24	1.44	1.52
34	BA	448	U	P-O5'	-5.24	1.51	1.59
34	BA	1635	A	O3'-P	-5.24	1.53	1.61
34	BA	1720	U	C2-N3	-5.24	1.27	1.37
35	BB	583	G	O3'-P	-5.24	1.53	1.61
38	BE	38	C	C2'-C1'	-5.24	1.45	1.53
38	BE	62	C	C3'-C2'	-5.24	1.44	1.52
44	BK	21	ARG	CA-C	-5.24	1.46	1.52
68	Bi	97	ILE	CA-C	-5.24	1.46	1.52
85	AA	175	A	O3'-P	-5.24	1.53	1.61
85	AA	1178	A	O3'-P	-5.24	1.53	1.61
85	AA	1975	G	P-O5'	-5.24	1.51	1.59
34	BA	120	A	C5'-C4'	5.24	1.59	1.51
34	BA	546	U	C1'-N1	-5.24	1.40	1.48
34	BA	703	U	C3'-C2'	-5.24	1.44	1.52
34	BA	1711	G	O3'-P	-5.24	1.53	1.61
35	BB	401	U	O3'-P	-5.24	1.53	1.61
35	BB	1515	C	C3'-C2'	-5.24	1.44	1.52
38	BE	60	C	C1'-N1	-5.24	1.40	1.48
44	BK	178	ARG	N-CA	-5.24	1.40	1.46
53	BT	99	LEU	C-N	-5.24	1.26	1.34
77	Br	168	THR	N-CA	-5.24	1.40	1.46
81	Bv	80	TYR	N-CA	-5.24	1.41	1.46
85	AA	432	A	O3'-P	-5.24	1.53	1.61
85	AA	464	A	P-O5'	-5.24	1.51	1.59
85	AA	2026	U	P-O5'	-5.24	1.51	1.59
85	AA	2146	G	C1'-N9	-5.24	1.40	1.48
34	BA	571	G	C1'-N9	5.24	1.55	1.48
42	BI	132	GLN	CA-C	-5.24	1.45	1.52
85	AA	44	C	P-O5'	-5.24	1.51	1.59
85	AA	548	G	C3'-C2'	-5.24	1.44	1.52
85	AA	747	U	C2'-C1'	-5.24	1.45	1.53
85	AA	992	G	C1'-N9	-5.24	1.40	1.48
85	AA	1696	U	P-O5'	-5.24	1.51	1.59
85	AA	1976	G	C1'-N9	-5.24	1.40	1.48
85	AA	2191	C	C2'-C1'	-5.24	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	A5	117	TYR	N-CA	-5.24	1.39	1.46
34	BA	1142	C	O5'-C5'	5.24	1.50	1.42
34	BA	1643	U	O3'-P	-5.24	1.53	1.61
35	BB	1292	G	C5'-C4'	-5.24	1.43	1.51
36	BC	75	G	O3'-P	-5.24	1.53	1.61
37	BD	79	G	C5'-C4'	5.24	1.59	1.51
37	BD	95	G	P-O5'	-5.24	1.51	1.59
41	BH	132	C	C2'-C1'	-5.24	1.45	1.53
47	BN	46	LEU	N-CA	-5.24	1.39	1.46
51	BR	14	THR	CA-C	-5.24	1.46	1.52
75	Bp	75	ALA	CA-C	-5.24	1.46	1.52
85	AA	395	G	C5'-C4'	-5.24	1.43	1.51
85	AA	414	C	C3'-C2'	-5.24	1.44	1.52
85	AA	721	C	O3'-P	-5.24	1.53	1.61
85	AA	920	A	C5'-C4'	5.24	1.59	1.51
34	BA	207	A	O3'-P	-5.23	1.53	1.61
34	BA	496	G	O3'-P	-5.23	1.53	1.61
35	BB	62	C	C2'-C1'	-5.23	1.45	1.53
35	BB	82	G	C1'-N9	-5.23	1.40	1.48
35	BB	559	U	O3'-P	-5.23	1.53	1.61
35	BB	1479	C	C3'-C2'	-5.23	1.44	1.52
36	BC	164	G	C3'-C2'	-5.23	1.44	1.52
40	BG	151	A	P-O5'	-5.23	1.51	1.59
41	BH	66	G	P-O5'	-5.23	1.51	1.59
53	BT	110	ARG	CA-C	-5.23	1.46	1.52
57	BX	157	THR	CA-C	-5.23	1.45	1.52
65	Bf	391	ARG	CD-NE	5.23	1.53	1.46
85	AA	1458	G	C2'-C1'	-5.23	1.45	1.53
85	AA	1832	G	C3'-C2'	-5.23	1.44	1.52
21	AM	89	ARG	CA-C	-5.23	1.45	1.52
32	AY	34	ALA	CA-C	-5.23	1.46	1.52
34	BA	202	A	O3'-P	-5.23	1.53	1.61
34	BA	525	A	C1'-N9	-5.23	1.40	1.48
34	BA	701	G	C2'-C1'	-5.23	1.45	1.53
34	BA	1592	U	C3'-C2'	-5.23	1.45	1.52
34	BA	1668	C	C1'-N1	-5.23	1.40	1.48
35	BB	1040	C	C1'-N1	-5.23	1.40	1.48
35	BB	1104	A	P-O5'	-5.23	1.51	1.59
39	BF	36	G	P-O5'	-5.23	1.51	1.59
67	Bh	120	MET	CA-C	-5.23	1.45	1.52
69	Bj	19	ASN	CA-C	-5.23	1.46	1.52
85	AA	1150	G	P-O5'	-5.23	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1218	C	O3'-P	-5.23	1.53	1.61
85	AA	1357	U	C4'-C3'	-5.23	1.44	1.52
85	AA	1540	A	O3'-P	-5.23	1.53	1.61
11	AC	67	SER	CA-C	-5.23	1.45	1.52
13	AE	99	SER	N-CA	-5.23	1.39	1.46
34	BA	1247	G	C1'-N9	-5.23	1.40	1.48
34	BA	1285	G	C1'-N9	-5.23	1.40	1.48
35	BB	371	C	C1'-N1	-5.23	1.39	1.47
57	BX	72	VAL	N-CA	-5.23	1.39	1.46
66	Bg	24	LYS	C-N	-5.23	1.27	1.33
82	Bw	176	VAL	CA-CB	-5.23	1.47	1.54
83	Bx	159	LYS	N-CA	-5.23	1.38	1.46
83	Bx	226	ASN	CA-C	-5.23	1.46	1.52
85	AA	496	C	O3'-P	-5.23	1.53	1.61
85	AA	965	G	C3'-C2'	-5.23	1.45	1.52
85	AA	1488	G	P-O5'	-5.23	1.51	1.59
85	AA	1503	G	P-O5'	-5.23	1.51	1.59
29	AV	15	CYS	N-CA	-5.23	1.39	1.46
34	BA	372	U	O4'-C1'	-5.23	1.33	1.41
34	BA	588	C	O4'-C1'	-5.23	1.34	1.42
34	BA	1110	A	C3'-C2'	-5.23	1.45	1.52
34	BA	1674	G	C1'-N9	-5.23	1.39	1.47
35	BB	807	U	P-O5'	-5.23	1.51	1.59
35	BB	1014	U	C3'-C2'	-5.23	1.45	1.52
35	BB	1111	C	O3'-P	-5.23	1.53	1.61
38	BE	18	U	C3'-C2'	-5.23	1.45	1.52
38	BE	127	G	C1'-N9	-5.23	1.40	1.48
58	BY	37	ARG	CA-C	-5.23	1.46	1.52
85	AA	466	A	C1'-N9	-5.23	1.40	1.48
85	AA	877	G	P-O5'	-5.23	1.51	1.59
2	A1	190	GLY	N-CA	-5.23	1.37	1.45
7	A6	93	ASP	N-CA	-5.23	1.39	1.46
34	BA	546	U	P-O5'	-5.23	1.51	1.59
34	BA	1826	C	C1'-N1	-5.23	1.40	1.48
35	BB	730	G	P-O5'	-5.23	1.51	1.59
35	BB	1369	A	C1'-N9	-5.23	1.39	1.47
45	BL	52	PRO	C-N	-5.23	1.26	1.33
51	BR	80	LYS	CA-C	-5.23	1.46	1.52
57	BX	91	THR	CA-CB	-5.23	1.45	1.53
60	Ba	43	ALA	N-CA	-5.23	1.39	1.46
81	Bv	108	LYS	C-N	-5.23	1.26	1.33
82	Bw	175	ARG	CA-C	-5.23	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1000	U	C4'-O4'	-5.23	1.37	1.45
85	AA	1363	U	O3'-P	-5.23	1.53	1.61
85	AA	1857	G	C2'-C1'	-5.23	1.45	1.53
1	A0	45	LYS	CA-C	-5.23	1.45	1.52
34	BA	351	A	O3'-P	-5.23	1.53	1.61
37	BD	97	U	P-O5'	-5.23	1.51	1.59
52	BS	123	ILE	N-CA	-5.23	1.40	1.46
80	Bu	117	GLU	CA-C	-5.23	1.46	1.52
85	AA	112	A	O4'-C1'	-5.23	1.33	1.41
85	AA	526	G	O3'-P	-5.23	1.53	1.61
30	AW	34	MET	CA-C	-5.22	1.46	1.52
34	BA	736	G	P-O5'	-5.22	1.51	1.59
34	BA	1686	G	P-O5'	-5.22	1.51	1.59
35	BB	658	G	C2'-C1'	-5.22	1.45	1.53
35	BB	700	C	C1'-N1	-5.22	1.40	1.48
35	BB	1411	U	O3'-P	-5.22	1.53	1.61
36	BC	78	G	C3'-C2'	-5.22	1.45	1.52
38	BE	70	C	O3'-P	-5.22	1.53	1.61
52	BS	35	ASN	N-CA	-5.22	1.40	1.46
61	Bb	39	HIS	CA-C	-5.22	1.45	1.52
66	Bg	65	ALA	N-CA	-5.22	1.40	1.46
72	Bm	103	ARG	N-CA	-5.22	1.40	1.46
85	AA	1123	C	O3'-P	-5.22	1.53	1.61
7	A6	95	VAL	CA-C	-5.22	1.46	1.52
11	AC	146	ASN	N-CA	-5.22	1.39	1.46
11	AC	162	ASP	CA-C	-5.22	1.47	1.52
20	AL	11	ARG	CA-C	-5.22	1.46	1.52
22	AO	32	VAL	CA-C	-5.22	1.45	1.52
34	BA	462	C	O3'-P	-5.22	1.53	1.61
34	BA	748	C	O3'-P	-5.22	1.53	1.61
34	BA	930	A	C2'-C1'	-5.22	1.45	1.53
35	BB	124	G	P-O5'	-5.22	1.51	1.59
35	BB	132	G	O3'-P	-5.22	1.53	1.61
35	BB	782	A	C3'-C2'	-5.22	1.45	1.52
35	BB	1548	C	C2'-C1'	-5.22	1.45	1.53
38	BE	124	G	C3'-C2'	-5.22	1.45	1.52
39	BF	53	G	C4'-O4'	-5.22	1.38	1.45
44	BK	92	HIS	CA-C	-5.22	1.45	1.52
48	BO	145	HIS	CB-CG	-5.22	1.42	1.50
51	BR	118	GLN	N-CA	-5.22	1.40	1.46
85	AA	507	C	C1'-N1	-5.22	1.40	1.48
85	AA	1197	U	C1'-N1	-5.22	1.40	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	104	A	C3'-C2'	-5.22	1.45	1.52
34	BA	1097	G	C1'-N9	-5.22	1.39	1.47
34	BA	1277	G	C3'-C2'	-5.22	1.45	1.52
40	BG	44	G	C2'-C1'	-5.22	1.45	1.53
60	Ba	127	PHE	N-CA	-5.22	1.39	1.46
72	Bm	104	GLN	CA-C	-5.22	1.45	1.52
85	AA	767	A	C2'-C1'	-5.22	1.45	1.53
34	BA	1036	G	C2'-C1'	-5.22	1.45	1.53
34	BA	1323	G	C2'-C1'	-5.22	1.45	1.53
35	BB	736	G	C2'-C1'	-5.22	1.45	1.53
35	BB	1018	U	O3'-P	-5.22	1.53	1.61
35	BB	1044	U	P-O5'	-5.22	1.51	1.59
35	BB	1164	U	C3'-C2'	-5.22	1.45	1.52
35	BB	1213	U	C4'-O4'	-5.22	1.37	1.45
35	BB	1428	C	C1'-N1	-5.22	1.40	1.48
40	BG	67	A	P-O5'	-5.22	1.51	1.59
41	BH	10	U	C1'-N1	-5.22	1.40	1.48
42	BI	67	ILE	CA-CB	-5.22	1.48	1.54
70	Bk	61	VAL	N-CA	-5.22	1.40	1.46
85	AA	1495	G	O5'-C5'	-5.22	1.34	1.42
85	AA	2186	U	P-O5'	-5.22	1.51	1.59
85	AA	2189	U	P-O5'	-5.22	1.51	1.59
34	BA	465	A	C4'-C3'	-5.22	1.44	1.52
34	BA	719	G	C1'-N9	-5.22	1.40	1.48
34	BA	1258	G	O3'-P	-5.22	1.53	1.61
39	BF	39	C	C4'-C3'	-5.22	1.44	1.52
85	AA	404	A	C2'-C1'	-5.22	1.45	1.53
85	AA	1217	U	C4'-C3'	-5.22	1.44	1.52
34	BA	124	G	C3'-C2'	-5.22	1.45	1.52
34	BA	800	G	C4'-C3'	-5.22	1.44	1.52
34	BA	1097	G	P-O5'	-5.22	1.51	1.59
35	BB	32	C	C1'-N1	-5.22	1.39	1.47
35	BB	122	U	C1'-N1	-5.22	1.40	1.48
35	BB	426	A	C1'-N9	-5.22	1.39	1.47
35	BB	776	U	C4'-C3'	-5.22	1.44	1.52
36	BC	110	A	C1'-N9	-5.22	1.39	1.47
51	BR	57	CYS	CA-C	-5.22	1.45	1.52
64	Be	224	THR	CA-C	-5.22	1.46	1.52
65	Bf	196	ALA	CA-C	-5.22	1.45	1.52
85	AA	539	A	C1'-N9	-5.22	1.40	1.48
85	AA	2039	G	P-O5'	-5.22	1.51	1.59
85	AA	2110	U	C3'-C2'	-5.22	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	624	G	C1'-N9	-5.21	1.40	1.48
34	BA	813	C	C1'-N1	-5.21	1.40	1.48
35	BB	27	C	C3'-C2'	-5.21	1.45	1.52
59	BZ	24	ARG	CA-C	-5.21	1.46	1.52
62	Bc	92	LYS	N-CA	-5.21	1.40	1.46
85	AA	304	G	C3'-O3'	5.21	1.50	1.42
85	AA	530	A	O3'-P	-5.21	1.53	1.61
85	AA	1203	G	C3'-C2'	-5.21	1.45	1.52
85	AA	2187	G	P-O5'	-5.21	1.51	1.59
23	AP	158	ILE	CA-CB	-5.21	1.47	1.54
34	BA	1409	A	C3'-C2'	-5.21	1.45	1.52
35	BB	842	G	C2'-C1'	-5.21	1.45	1.53
35	BB	1037	A	O3'-P	-5.21	1.53	1.61
35	BB	1366	C	C4'-C3'	-5.21	1.44	1.52
37	BD	77	A	O3'-P	-5.21	1.53	1.61
85	AA	434	U	P-O5'	-5.21	1.51	1.59
85	AA	2214	A	C1'-N9	-5.21	1.40	1.48
5	A4	124	VAL	CA-CB	-5.21	1.48	1.54
8	A7	172	GLY	CA-C	-5.21	1.47	1.52
34	BA	144	C	C3'-C2'	-5.21	1.45	1.52
35	BB	619	A	C2'-C1'	-5.21	1.45	1.53
35	BB	1461	C	C4'-O4'	-5.21	1.38	1.45
50	BQ	35	VAL	CA-C	-5.21	1.46	1.52
53	BT	170	ARG	N-CA	-5.21	1.40	1.46
77	Br	85	MET	N-CA	-5.21	1.39	1.46
85	AA	349	C	C2'-C1'	-5.21	1.45	1.53
85	AA	393	C	C5'-C4'	-5.21	1.43	1.51
85	AA	2147	A	C1'-N9	-5.21	1.40	1.48
34	BA	307	C	O3'-P	-5.21	1.53	1.61
34	BA	459	U	C2'-C1'	-5.21	1.45	1.53
34	BA	1153	C	C2'-C1'	-5.21	1.45	1.53
35	BB	534	C	P-O5'	-5.21	1.51	1.59
35	BB	599	U	O3'-P	-5.21	1.53	1.61
35	BB	1274	G	O3'-P	-5.21	1.53	1.61
73	Bn	12	HIS	CB-CG	-5.21	1.42	1.50
85	AA	351	C	C2'-C1'	-5.21	1.45	1.53
85	AA	675	A	C2'-C1'	-5.21	1.45	1.53
85	AA	1181	U	P-O5'	-5.21	1.51	1.59
16	AH	38	THR	CA-C	-5.21	1.46	1.52
22	AO	157	LEU	CA-C	5.21	1.59	1.52
34	BA	88	C	C3'-C2'	-5.21	1.45	1.52
34	BA	125	G	C2'-C1'	-5.21	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	522	C	O3'-P	-5.21	1.53	1.61
40	BG	58	G	O4'-C1'	-5.21	1.33	1.41
47	BN	88	ALA	CA-C	-5.21	1.45	1.52
51	BR	58	ILE	N-CA	-5.21	1.41	1.46
4	A3	94	GLU	N-CA	-5.21	1.39	1.46
6	A5	108	PRO	CA-C	-5.21	1.44	1.52
34	BA	790	G	C1'-N9	-5.21	1.40	1.48
34	BA	1270	G	C2'-C1'	-5.21	1.45	1.53
34	BA	1504	A	C2'-C1'	-5.21	1.45	1.53
35	BB	400	C	P-O5'	-5.21	1.51	1.59
35	BB	812	G	C2'-C1'	-5.21	1.45	1.53
35	BB	1016	C	O3'-P	-5.21	1.53	1.61
37	BD	5	A	C1'-N9	-5.21	1.40	1.48
40	BG	176	G	C2'-C1'	-5.21	1.45	1.53
57	BX	105	THR	N-CA	-5.21	1.39	1.46
77	Br	230	VAL	CA-C	-5.21	1.46	1.52
85	AA	884	A	C5'-C4'	5.21	1.59	1.51
85	AA	1657	C	C1'-N1	-5.21	1.40	1.48
85	AA	2055	G	C2'-C1'	-5.21	1.45	1.53
2	A1	165	LYS	N-CA	-5.21	1.39	1.46
34	BA	351	A	C1'-N9	-5.21	1.40	1.48
35	BB	403	U	C3'-C2'	-5.21	1.45	1.52
60	Ba	119	TYR	N-CA	-5.21	1.40	1.46
85	AA	313	A	C3'-C2'	-5.21	1.45	1.52
85	AA	976	G	C1'-N9	-5.21	1.40	1.48
85	AA	982	G	O3'-P	-5.21	1.53	1.61
2	A1	135	VAL	N-CA	-5.20	1.40	1.46
34	BA	211	C	P-O5'	-5.20	1.51	1.59
34	BA	263	G	C1'-N9	-5.20	1.39	1.47
34	BA	396	U	C2'-C1'	-5.20	1.45	1.53
34	BA	1550	G	O4'-C1'	-5.20	1.33	1.41
34	BA	1592	U	C1'-N1	-5.20	1.40	1.48
35	BB	1227	G	C3'-C2'	-5.20	1.45	1.52
37	BD	51	G	C1'-N9	-5.20	1.40	1.48
38	BE	64	A	C2'-C1'	-5.20	1.45	1.53
45	BL	75	HIS	CA-C	-5.20	1.46	1.52
50	BQ	105	GLY	CA-C	-5.20	1.44	1.51
53	BT	53	LYS	C-N	-5.20	1.27	1.33
80	Bu	109	MET	N-CA	-5.20	1.40	1.46
85	AA	486	G	C2'-C1'	-5.20	1.45	1.53
85	AA	1127	G	O4'-C1'	-5.20	1.33	1.41
85	AA	1542	A	C1'-N9	-5.20	1.40	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	AC	77	ARG	CD-NE	5.20	1.53	1.46
34	BA	931	G	P-O5'	-5.20	1.51	1.59
34	BA	1027	C	C2'-C1'	-5.20	1.45	1.53
34	BA	1051	A	C1'-N9	-5.20	1.40	1.48
34	BA	1330	G	C1'-N9	-5.20	1.40	1.48
35	BB	500	C	C2'-C1'	-5.20	1.45	1.53
57	BX	73	SER	CA-C	-5.20	1.46	1.52
57	BX	94	ALA	CA-C	-5.20	1.46	1.52
85	AA	161	A	P-O5'	-5.20	1.51	1.59
85	AA	1679	U	C2'-C1'	-5.20	1.45	1.53
7	A6	53	ARG	CA-C	-5.20	1.46	1.52
34	BA	88	C	C1'-N1	-5.20	1.40	1.48
34	BA	991	U	O3'-P	-5.20	1.53	1.61
34	BA	1292	A	O3'-P	-5.20	1.53	1.61
34	BA	1630	A	C1'-N9	-5.20	1.40	1.48
34	BA	1681	U	P-O5'	-5.20	1.51	1.59
35	BB	18	A	C1'-N9	-5.20	1.40	1.48
35	BB	408	U	C4'-O4'	-5.20	1.37	1.45
35	BB	867	C	O3'-P	-5.20	1.53	1.61
35	BB	1478	G	C1'-N9	-5.20	1.40	1.48
38	BE	195	G	P-O5'	-5.20	1.51	1.59
41	BH	57	A	P-O5'	-5.20	1.51	1.59
41	BH	111	U	C3'-C2'	-5.20	1.45	1.52
47	BN	201	ARG	CD-NE	5.20	1.53	1.46
48	BO	180	ILE	CA-CB	-5.20	1.48	1.54
52	BS	76	TYR	CA-C	-5.20	1.46	1.52
53	BT	76	GLU	N-CA	-5.20	1.42	1.47
56	BW	124	ALA	CA-C	-5.20	1.46	1.52
60	Ba	87	ASP	CA-C	-5.20	1.46	1.52
64	Be	117	GLU	N-CA	-5.20	1.39	1.46
69	Bj	47	TRP	CA-C	-5.20	1.45	1.52
85	AA	396	U	C4'-O4'	-5.20	1.37	1.45
85	AA	1585	A	C1'-N9	-5.20	1.40	1.48
85	AA	1633	A	O3'-P	-5.20	1.53	1.61
13	AE	16	LEU	CA-C	-5.20	1.46	1.53
23	AP	155	GLY	CA-C	-5.20	1.44	1.51
34	BA	251	U	C1'-N1	-5.20	1.40	1.48
35	BB	550	G	C1'-N9	-5.20	1.39	1.47
35	BB	1302	C	C2'-C1'	-5.20	1.45	1.53
35	BB	1321	G	C2'-C1'	-5.20	1.45	1.53
41	BH	131	A	P-O5'	-5.20	1.51	1.59
48	BO	173	GLU	N-CA	-5.20	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
50	BQ	144	PHE	CA-C	-5.20	1.46	1.52
60	Ba	5	LYS	CA-C	-5.20	1.46	1.52
85	AA	430	G	P-O5'	-5.20	1.51	1.59
85	AA	971	U	O3'-P	-5.20	1.53	1.61
85	AA	1112	G	P-O5'	-5.20	1.51	1.59
85	AA	1506	U	C4'-O4'	-5.20	1.37	1.45
85	AA	1962	U	C3'-C2'	-5.20	1.45	1.52
86	AB	1	G	C1'-N9	-5.20	1.40	1.48
34	BA	1150	A	C2'-C1'	-5.20	1.45	1.53
35	BB	673	C	C1'-N1	-5.20	1.40	1.48
35	BB	1221	G	C2'-C1'	-5.20	1.45	1.53
36	BC	23	G	C4'-C3'	5.20	1.60	1.52
41	BH	4	U	C2'-C1'	-5.20	1.45	1.53
41	BH	35	G	C3'-C2'	-5.20	1.45	1.52
85	AA	290	G	C1'-N9	-5.20	1.40	1.48
1	A0	226	ASP	N-CA	-5.20	1.39	1.46
34	BA	351	A	P-O5'	-5.20	1.51	1.59
34	BA	527	C	P-O5'	-5.20	1.51	1.59
34	BA	1338	G	C1'-N9	-5.20	1.39	1.47
47	BN	120	ARG	C-N	-5.20	1.27	1.33
69	Bj	31	LEU	CA-C	-5.20	1.46	1.52
73	Bn	54	ILE	CA-CB	-5.20	1.47	1.54
80	Bu	171	GLY	CA-C	-5.20	1.46	1.52
82	Bw	214	THR	CA-C	-5.20	1.46	1.52
83	Bx	126	ALA	N-CA	-5.20	1.40	1.46
85	AA	613	G	O3'-P	-5.20	1.53	1.61
85	AA	789	A	O5'-C5'	5.20	1.50	1.42
85	AA	852	C	O3'-P	-5.20	1.53	1.61
85	AA	937	G	O3'-P	-5.20	1.53	1.61
11	AC	87	ILE	CA-C	-5.19	1.45	1.52
34	BA	561	U	O3'-P	-5.19	1.53	1.61
34	BA	1807	G	C2'-C1'	-5.19	1.45	1.53
35	BB	1478	G	C2'-C1'	-5.19	1.45	1.53
79	Bt	12	CYS	C-N	-5.19	1.28	1.34
85	AA	1209	U	C2'-C1'	-5.19	1.45	1.53
5	A4	43	LEU	CA-C	-5.19	1.46	1.52
18	AJ	33	VAL	CA-C	-5.19	1.46	1.52
34	BA	10	G	O4'-C1'	-5.19	1.33	1.41
34	BA	1177	C	C3'-C2'	-5.19	1.45	1.52
35	BB	1189	C	P-O5'	-5.19	1.51	1.59
37	BD	77	A	C2'-C1'	-5.19	1.45	1.53
48	BO	195	VAL	N-CA	-5.19	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
61	Bb	16	PHE	CA-C	-5.19	1.45	1.52
70	Bk	82	ALA	N-CA	-5.19	1.39	1.46
84	By	179	VAL	CA-C	-5.19	1.47	1.52
85	AA	110	U	O3'-P	-5.19	1.53	1.61
2	A1	110	ARG	CA-C	-5.19	1.46	1.52
6	A5	211	TYR	CA-C	-5.19	1.45	1.52
18	AJ	124	LYS	CA-C	-5.19	1.46	1.52
23	AP	98	LYS	CA-C	-5.19	1.46	1.52
34	BA	64	A	C4'-O4'	-5.19	1.37	1.45
34	BA	296	G	C3'-O3'	5.19	1.50	1.42
34	BA	807	U	O4'-C1'	-5.19	1.33	1.41
34	BA	1416	C	C2'-C1'	-5.19	1.45	1.53
35	BB	8	U	C4'-C3'	-5.19	1.44	1.52
36	BC	153	C	C1'-N1	-5.19	1.40	1.48
37	BD	43	U	C3'-C2'	-5.19	1.45	1.52
38	BE	104	G	C5'-C4'	5.19	1.59	1.51
51	BR	91	MET	N-CA	-5.19	1.40	1.46
77	Br	271	VAL	N-CA	-5.19	1.39	1.46
81	Bv	38	ILE	CA-CB	-5.19	1.47	1.53
84	By	145	GLU	CA-C	-5.19	1.46	1.52
85	AA	41	G	C3'-C2'	-5.19	1.45	1.52
85	AA	1988	A	C1'-N9	-5.19	1.40	1.48
35	BB	615	A	P-O5'	-5.19	1.51	1.59
35	BB	1426	G	C2'-C1'	-5.19	1.45	1.53
53	BT	155	LEU	N-CA	-5.19	1.40	1.46
85	AA	248	U	P-O5'	-5.19	1.51	1.59
22	AO	84	ARG	CD-NE	5.19	1.53	1.46
34	BA	1476	G	O3'-P	-5.19	1.53	1.61
34	BA	1668	C	C4'-O4'	-5.19	1.37	1.45
35	BB	144	G	P-O5'	-5.19	1.51	1.59
35	BB	415	A	N9-C4	-5.19	1.27	1.37
35	BB	522	A	C4'-O4'	-5.19	1.37	1.45
35	BB	728	A	O3'-P	-5.19	1.53	1.61
35	BB	1147	G	C2'-C1'	-5.19	1.45	1.53
35	BB	1343	C	C2'-C1'	-5.19	1.45	1.53
37	BD	3	G	C3'-C2'	-5.19	1.45	1.52
45	BL	69	ASN	CA-C	-5.19	1.45	1.53
73	Bn	16	HIS	N-CA	-5.19	1.39	1.46
77	Br	168	THR	CA-CB	-5.19	1.45	1.53
80	Bu	111	ALA	N-CA	-5.19	1.39	1.46
83	Bx	150	GLN	N-CA	-5.19	1.40	1.46
85	AA	439	U	C2'-C1'	-5.19	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1133	C	C3'-C2'	-5.19	1.45	1.52
85	AA	1460	G	C1'-N9	-5.19	1.40	1.48
85	AA	1538	C	C4'-C3'	-5.19	1.44	1.52
85	AA	1790	G	O3'-P	-5.19	1.53	1.61
85	AA	2218	G	C4'-O4'	-5.19	1.38	1.45
34	BA	686	U	O3'-P	-5.19	1.53	1.61
34	BA	927	A	C3'-C2'	-5.19	1.45	1.52
35	BB	597	C	C3'-C2'	-5.19	1.45	1.52
35	BB	1263	A	P-O5'	-5.19	1.51	1.59
66	Bg	76	THR	CA-C	-5.19	1.47	1.53
67	Bh	150	ARG	CA-C	-5.19	1.46	1.52
83	Bx	220	ASP	N-CA	-5.19	1.39	1.46
6	A5	56	ARG	N-CA	-5.18	1.39	1.46
10	A9	148	LEU	CA-C	-5.18	1.46	1.52
16	AH	79	LYS	CA-C	-5.18	1.46	1.52
23	AP	62	GLU	N-CA	-5.18	1.39	1.46
34	BA	108	A	C2'-C1'	-5.18	1.45	1.53
34	BA	522	C	P-O5'	-5.18	1.51	1.59
34	BA	660	C	O3'-P	-5.18	1.53	1.61
34	BA	1585	A	O4'-C1'	-5.18	1.33	1.41
35	BB	612	A	C3'-C2'	-5.18	1.45	1.52
37	BD	56	G	C3'-C2'	-5.18	1.45	1.52
48	BO	70	ILE	CA-CB	-5.18	1.48	1.54
66	Bg	34	TYR	C-N	-5.18	1.26	1.33
85	AA	367	A	N9-C4	-5.18	1.27	1.37
85	AA	2131	C	O3'-P	-5.18	1.53	1.61
34	BA	44	U	C4'-O4'	-5.18	1.37	1.45
34	BA	371	U	C4'-O4'	-5.18	1.37	1.45
34	BA	727	G	P-O5'	-5.18	1.51	1.59
35	BB	111	C	C2'-C1'	-5.18	1.45	1.53
35	BB	977	G	P-O5'	-5.18	1.51	1.59
35	BB	1172	U	C4'-O4'	-5.18	1.37	1.45
40	BG	166	C	C3'-C2'	-5.18	1.45	1.52
44	BK	96	VAL	N-CA	-5.18	1.39	1.46
44	BK	134	ILE	C-N	-5.18	1.27	1.33
47	BN	127	LYS	N-CA	-5.18	1.40	1.46
49	BP	165	GLU	N-CA	-5.18	1.40	1.46
60	Ba	81	PRO	N-CA	-5.18	1.40	1.47
62	Bc	21	LYS	C-N	5.18	1.40	1.33
85	AA	993	G	C1'-N9	-5.18	1.40	1.48
38	BE	151	C	O3'-P	-5.18	1.53	1.61
67	Bh	142	GLY	N-CA	-5.18	1.39	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1634	A	O3'-P	-5.18	1.53	1.61
34	BA	1736	A	P-O5'	-5.18	1.51	1.59
35	BB	555	G	O3'-P	-5.18	1.53	1.61
36	BC	107	C	C3'-C2'	-5.18	1.45	1.52
38	BE	142	A	O3'-P	-5.18	1.53	1.61
40	BG	84	U	O3'-P	-5.18	1.53	1.61
85	AA	634	U	O3'-P	-5.18	1.53	1.61
34	BA	335	C	C3'-C2'	-5.18	1.45	1.52
34	BA	977	G	C2'-C1'	-5.18	1.45	1.53
34	BA	1055	U	C3'-C2'	-5.18	1.45	1.52
39	BF	8	C	O3'-P	-5.18	1.53	1.61
53	BT	18	GLY	CA-C	-5.18	1.47	1.52
65	Bf	134	PRO	C-N	-5.18	1.25	1.33
68	Bi	63	ARG	N-CA	-5.18	1.40	1.46
85	AA	11	A	C3'-C2'	-5.18	1.45	1.52
85	AA	573	U	C2'-C1'	-5.18	1.45	1.53
11	AC	56	ALA	CA-C	-5.18	1.46	1.52
23	AP	86	LEU	CA-C	-5.18	1.47	1.52
34	BA	1473	A	C3'-C2'	-5.18	1.45	1.52
36	BC	67	U	O4'-C1'	-5.18	1.33	1.41
40	BG	111	C	C3'-C2'	-5.18	1.45	1.52
41	BH	18	C	O3'-P	-5.18	1.53	1.61
41	BH	37	U	C4'-C3'	-5.18	1.44	1.52
74	Bo	24	LYS	N-CA	-5.18	1.40	1.46
85	AA	552	C	O3'-P	-5.18	1.53	1.61
85	AA	600	C	C2'-C1'	-5.18	1.45	1.53
85	AA	738	C	C1'-N1	5.18	1.55	1.47
85	AA	824	C	O3'-P	-5.18	1.53	1.61
85	AA	1662	U	P-O5'	-5.18	1.51	1.59
85	AA	1874	G	O3'-P	-5.18	1.53	1.61
34	BA	43	U	C3'-C2'	-5.17	1.45	1.52
34	BA	246	G	P-O5'	-5.17	1.51	1.59
34	BA	538	G	C2-N2	-5.17	1.24	1.34
34	BA	1731	A	P-O5'	-5.17	1.51	1.59
35	BB	2	C	O3'-P	-5.17	1.53	1.61
35	BB	112	G	C4'-C3'	-5.17	1.44	1.52
35	BB	547	A	P-O5'	-5.17	1.51	1.59
35	BB	957	A	O3'-P	-5.17	1.53	1.61
38	BE	149	A	O3'-P	-5.17	1.53	1.61
42	BI	72	ARG	CA-C	-5.17	1.45	1.52
85	AA	1809	G	C2'-C1'	-5.17	1.45	1.53
6	A5	66	ALA	N-CA	-5.17	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	952	G	O3'-P	-5.17	1.53	1.61
35	BB	666	A	P-O5'	-5.17	1.51	1.59
85	AA	1452	C	C1'-N1	-5.17	1.40	1.48
6	A5	194	GLN	N-CA	-5.17	1.39	1.46
13	AE	154	ASN	C-N	-5.17	1.27	1.33
15	AG	96	THR	CA-CB	-5.17	1.45	1.53
34	BA	131	A	P-O5'	-5.17	1.51	1.59
34	BA	1191	C	C1'-N1	-5.17	1.40	1.48
34	BA	1236	U	O3'-P	-5.17	1.53	1.61
34	BA	1701	U	C4'-C3'	-5.17	1.44	1.52
34	BA	1817	G	C1'-N9	-5.17	1.40	1.48
35	BB	446	U	O4'-C1'	-5.17	1.34	1.42
35	BB	1027	U	P-O5'	-5.17	1.51	1.59
35	BB	1453	G	C4'-C3'	-5.17	1.44	1.52
40	BG	66	C	C3'-C2'	-5.17	1.45	1.52
59	BZ	103	ILE	CA-CB	-5.17	1.47	1.54
85	AA	1189	A	C1'-N9	-5.17	1.40	1.48
85	AA	1462	A	C4'-C3'	-5.17	1.44	1.52
85	AA	1517	G	C3'-C2'	-5.17	1.45	1.52
26	AS	72	VAL	CA-C	-5.17	1.46	1.52
34	BA	47	U	O3'-P	-5.17	1.53	1.61
34	BA	300	C	P-O5'	-5.17	1.51	1.59
34	BA	973	U	P-O5'	-5.17	1.51	1.59
34	BA	1029	C	P-O5'	-5.17	1.51	1.59
34	BA	1127	U	P-O5'	-5.17	1.51	1.59
35	BB	614	U	C2'-C1'	-5.17	1.45	1.53
35	BB	1178	A	C4'-C3'	-5.17	1.44	1.52
74	Bo	30	GLU	CA-C	-5.17	1.46	1.52
82	Bw	52	ALA	CA-C	-5.17	1.46	1.52
82	Bw	198	ASP	CA-C	-5.17	1.46	1.52
85	AA	1898	C	O3'-P	-5.17	1.53	1.61
34	BA	76	U	P-O5'	-5.17	1.51	1.59
34	BA	798	G	N9-C4	-5.17	1.27	1.38
34	BA	1682	A	P-O5'	-5.17	1.51	1.59
34	BA	1687	A	C4'-O4'	-5.17	1.37	1.45
35	BB	429	C	O3'-P	-5.17	1.53	1.61
53	BT	146	LYS	CA-C	-5.17	1.45	1.52
71	Bl	52	HIS	CA-C	-5.17	1.45	1.52
77	Br	249	ILE	N-CA	-5.17	1.39	1.46
80	Bu	54	ARG	CA-C	5.17	1.58	1.52
85	AA	15	U	P-O5'	-5.17	1.51	1.59
85	AA	153	C	C2'-C1'	-5.17	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2125	A	C1'-N9	-5.17	1.39	1.47
6	A5	62	THR	CA-C	-5.17	1.46	1.52
34	BA	922	C	C3'-O3'	-5.17	1.34	1.42
34	BA	1455	C	C2'-C1'	-5.17	1.45	1.53
34	BA	1668	C	O4'-C1'	-5.17	1.33	1.41
34	BA	1716	A	P-O5'	5.17	1.67	1.59
35	BB	114	A	P-O5'	-5.17	1.51	1.59
35	BB	661	G	P-O5'	-5.17	1.52	1.59
41	BH	44	A	O3'-P	-5.17	1.53	1.61
44	BK	130	ARG	N-CA	-5.17	1.39	1.45
51	BR	81	GLY	CA-C	-5.17	1.46	1.51
64	Be	143	THR	CA-C	-5.17	1.45	1.52
69	Bj	46	PRO	N-CA	-5.17	1.40	1.47
80	Bu	77	ALA	N-CA	-5.17	1.39	1.46
85	AA	334	A	C3'-C2'	-5.17	1.45	1.52
85	AA	652	U	P-O5'	-5.17	1.52	1.59
34	BA	504	A	C3'-C2'	-5.17	1.45	1.52
35	BB	1140	C	O3'-P	-5.17	1.53	1.61
35	BB	1375	G	C3'-C2'	-5.17	1.45	1.52
38	BE	114	G	O3'-P	-5.17	1.53	1.61
41	BH	38	G	P-O5'	-5.17	1.52	1.59
85	AA	1106	A	O3'-P	-5.17	1.53	1.61
85	AA	1231	G	C1'-N9	-5.17	1.40	1.48
2	A1	38	CYS	N-CA	-5.16	1.39	1.45
34	BA	70	C	C2'-C1'	-5.16	1.45	1.53
34	BA	306	G	C2'-C1'	-5.16	1.45	1.53
34	BA	743	A	O3'-P	-5.16	1.53	1.61
34	BA	1428	G	O3'-P	-5.16	1.53	1.61
34	BA	1500	G	C2'-C1'	-5.16	1.45	1.53
34	BA	1795	A	C3'-C2'	-5.16	1.45	1.52
35	BB	377	A	P-O5'	-5.16	1.52	1.59
41	BH	33	G	C3'-O3'	-5.16	1.34	1.42
47	BN	19	PRO	CA-C	-5.16	1.45	1.52
54	BU	73	GLY	CA-C	-5.16	1.48	1.52
73	Bn	70	VAL	N-CA	-5.16	1.40	1.46
81	Bv	82	ILE	CA-CB	-5.16	1.48	1.54
85	AA	99	U	C4'-C3'	-5.16	1.44	1.52
85	AA	2088	U	P-O5'	-5.16	1.52	1.59
8	A7	39	THR	CA-C	-5.16	1.46	1.52
25	AR	62	TYR	C-N	-5.16	1.27	1.34
34	BA	1638	U	O3'-P	-5.16	1.53	1.61
34	BA	1724	G	C4'-C3'	5.16	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BG	148	C	O4'-C1'	-5.16	1.33	1.41
64	Be	155	LYS	CA-C	-5.16	1.46	1.52
65	Bf	145	GLN	C-N	-5.16	1.25	1.33
80	Bu	216	GLN	CA-C	-5.16	1.45	1.52
85	AA	1119	A	C1'-N9	-5.16	1.40	1.48
85	AA	1894	G	O4'-C1'	-5.16	1.33	1.41
32	AY	18	THR	C-N	-5.16	1.26	1.33
34	BA	1543	A	C3'-C2'	-5.16	1.45	1.52
35	BB	30	A	P-O5'	-5.16	1.52	1.59
35	BB	607	G	C3'-C2'	-5.16	1.45	1.52
35	BB	648	G	C4'-O4'	-5.16	1.37	1.45
38	BE	28	C	C3'-O3'	-5.16	1.35	1.43
45	BL	154	ARG	CD-NE	5.16	1.53	1.46
50	BQ	36	MET	N-CA	-5.16	1.39	1.46
65	Bf	428	PHE	CA-C	-5.16	1.48	1.53
67	Bh	71	ALA	CA-C	-5.16	1.45	1.52
81	Bv	71	VAL	CA-C	-5.16	1.47	1.52
84	By	32	THR	CA-C	-5.16	1.46	1.52
85	AA	97	A	N9-C4	-5.16	1.27	1.37
85	AA	456	A	C3'-C2'	-5.16	1.45	1.52
34	BA	102	G	O3'-P	-5.16	1.53	1.61
34	BA	924	U	C2'-C1'	-5.16	1.45	1.53
34	BA	962	U	P-O5'	-5.16	1.52	1.59
34	BA	1738	G	C2'-C1'	-5.16	1.45	1.53
35	BB	481	A	C2'-C1'	-5.16	1.45	1.53
40	BG	53	C	P-O5'	-5.16	1.52	1.59
70	Bk	50	THR	CA-C	-5.16	1.46	1.52
74	Bo	40	SER	N-CA	-5.16	1.39	1.46
81	Bv	73	ILE	CA-CB	-5.16	1.49	1.54
82	Bw	163	VAL	N-CA	-5.16	1.40	1.46
85	AA	56	U	O3'-P	-5.16	1.53	1.61
85	AA	1107	A	C5'-C4'	-5.16	1.43	1.51
85	AA	1221	G	N9-C4	-5.16	1.27	1.38
85	AA	1482	C	C2'-C1'	-5.16	1.45	1.53
32	AY	14	VAL	CA-C	-5.16	1.45	1.52
34	BA	493	G	C3'-C2'	-5.16	1.45	1.52
35	BB	1400	C	P-O5'	-5.16	1.52	1.59
40	BG	98	A	C1'-N9	-5.16	1.40	1.48
42	BI	143	THR	CA-C	-5.16	1.46	1.52
53	BT	78	THR	CA-CB	-5.16	1.45	1.53
54	BU	62	GLY	CA-C	-5.16	1.44	1.51
65	Bf	165	PHE	CA-C	-5.16	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
65	Bf	360	ALA	CA-C	-5.16	1.45	1.52
85	AA	1513	U	C2'-C1'	-5.16	1.45	1.53
6	A5	34	ALA	N-CA	-5.16	1.39	1.46
21	AM	14	VAL	CA-C	-5.16	1.46	1.52
27	AT	51	ALA	CA-C	-5.16	1.46	1.52
34	BA	182	U	C1'-N1	-5.16	1.40	1.48
34	BA	427	G	C1'-N9	-5.16	1.40	1.48
34	BA	1207	A	O3'-P	-5.16	1.53	1.61
34	BA	1237	U	O3'-P	-5.16	1.53	1.61
35	BB	360	C	O3'-P	-5.16	1.53	1.61
36	BC	100	U	C3'-C2'	-5.16	1.45	1.52
39	BF	66	C	O3'-P	-5.16	1.53	1.61
41	BH	20	A	C2'-C1'	-5.16	1.45	1.53
41	BH	20	A	C3'-C2'	-5.16	1.45	1.52
48	BO	187	HIS	N-CA	-5.16	1.40	1.46
65	Bf	128	THR	CA-C	-5.16	1.46	1.52
66	Bg	21	ILE	CA-C	-5.16	1.46	1.52
85	AA	96	C	C2'-C1'	-5.16	1.45	1.53
85	AA	124	A	C1'-N9	5.16	1.54	1.47
85	AA	171	U	O3'-P	-5.16	1.53	1.61
85	AA	324	U	C1'-N1	-5.16	1.40	1.48
85	AA	452	A	P-O5'	-5.16	1.52	1.59
35	BB	81	A	C1'-N9	-5.15	1.40	1.48
35	BB	596	C	O3'-P	-5.15	1.53	1.61
35	BB	1013	U	C2'-C1'	-5.15	1.45	1.53
5	A4	89	LYS	N-CA	-5.15	1.40	1.46
5	A4	128	GLU	CA-C	-5.15	1.45	1.52
11	AC	225	ILE	CA-CB	-5.15	1.45	1.53
34	BA	469	C	O5'-C5'	-5.15	1.35	1.42
34	BA	922	C	C4'-C3'	-5.15	1.44	1.52
34	BA	1059	U	O5'-C5'	5.15	1.50	1.42
35	BB	689	C	C2'-C1'	-5.15	1.45	1.53
35	BB	1437	U	P-O5'	-5.15	1.52	1.59
36	BC	83	A	O3'-P	-5.15	1.53	1.61
37	BD	70	C	O3'-P	-5.15	1.53	1.61
39	BF	45	G	C2'-C1'	-5.15	1.45	1.53
51	BR	72	GLN	CA-C	-5.15	1.45	1.52
85	AA	2056	C	O3'-P	-5.15	1.53	1.61
85	AA	2123	U	O3'-P	-5.15	1.53	1.61
34	BA	1095	G	C4'-C3'	-5.15	1.44	1.52
34	BA	1102	A	P-O5'	-5.15	1.52	1.59
35	BB	582	G	P-O5'	-5.15	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BC	26	U	C1'-N1	-5.15	1.40	1.48
36	BC	62	A	P-O5'	-5.15	1.52	1.59
38	BE	115	U	C2'-C1'	-5.15	1.45	1.53
40	BG	114	A	O3'-P	-5.15	1.53	1.61
48	BO	77	ARG	N-CA	-5.15	1.40	1.46
48	BO	159	ASN	CA-C	-5.15	1.46	1.52
50	BQ	139	ASN	CA-C	-5.15	1.46	1.52
51	BR	25	HIS	CB-CG	-5.15	1.43	1.50
68	Bi	95	GLY	CA-C	-5.15	1.46	1.52
80	Bu	249	TYR	CA-C	-5.15	1.46	1.52
85	AA	123	A	C2'-C1'	-5.15	1.45	1.53
85	AA	170	C	C3'-C2'	-5.15	1.45	1.52
85	AA	380	C	C2'-C1'	-5.15	1.45	1.53
85	AA	2012	G	O3'-P	-5.15	1.53	1.61
34	BA	166	G	C3'-C2'	-5.15	1.45	1.52
34	BA	455	A	C1'-N9	-5.15	1.40	1.48
34	BA	1179	U	P-O5'	-5.15	1.52	1.59
34	BA	1844	U	O3'-P	-5.15	1.53	1.61
35	BB	57	G	C3'-C2'	-5.15	1.45	1.52
35	BB	408	U	O3'-P	-5.15	1.53	1.61
35	BB	1092	G	C5'-C4'	5.15	1.58	1.51
85	AA	1176	C	C1'-N1	-5.15	1.40	1.48
15	AG	102	LEU	CA-C	-5.15	1.45	1.52
34	BA	114	U	C4'-O4'	-5.15	1.37	1.45
34	BA	359	G	C5'-C4'	5.15	1.58	1.51
34	BA	557	U	P-OP2	-5.15	1.38	1.49
34	BA	622	G	C1'-N9	-5.15	1.40	1.48
34	BA	729	C	O3'-P	-5.15	1.53	1.61
35	BB	501	G	C2'-C1'	-5.15	1.45	1.53
35	BB	1027	U	C2'-C1'	-5.15	1.45	1.53
36	BC	71	A	O3'-P	-5.15	1.53	1.61
41	BH	108	U	P-O5'	-5.15	1.52	1.59
81	Bv	152	ASN	N-CA	-5.15	1.40	1.46
85	AA	64	A	C3'-O3'	5.15	1.49	1.42
85	AA	1719	C	O3'-P	-5.15	1.53	1.61
86	AB	70	G	C2'-C1'	-5.15	1.45	1.53
1	A0	236	GLU	CA-C	-5.15	1.46	1.52
34	BA	216	C	C3'-C2'	-5.15	1.45	1.52
34	BA	1417	C	C1'-N1	-5.15	1.40	1.48
34	BA	1649	A	P-O5'	-5.15	1.52	1.59
35	BB	663	G	C1'-N9	-5.15	1.40	1.48
38	BE	46	G	O4'-C1'	-5.15	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
65	Bf	93	HIS	CB-CG	-5.15	1.43	1.50
85	AA	149	A	C2'-C1'	-5.15	1.45	1.53
85	AA	335	G	C3'-C2'	-5.15	1.45	1.52
85	AA	557	G	O5'-C5'	-5.15	1.34	1.42
1	A0	171	THR	CA-CB	-5.14	1.45	1.53
2	A1	188	ARG	CA-C	-5.14	1.46	1.52
34	BA	47	U	P-O5'	-5.14	1.52	1.59
34	BA	369	A	P-O5'	-5.14	1.52	1.59
34	BA	741	A	O4'-C1'	-5.14	1.33	1.41
34	BA	944	G	P-O5'	-5.14	1.52	1.59
34	BA	961	C	C1'-N1	-5.14	1.40	1.48
34	BA	968	G	P-O5'	-5.14	1.52	1.59
34	BA	1015	G	C2'-C1'	-5.14	1.45	1.53
34	BA	1243	A	P-O5'	-5.14	1.52	1.59
34	BA	1302	C	P-O5'	-5.14	1.52	1.59
35	BB	65	A	P-O5'	-5.14	1.52	1.59
35	BB	139	G	C2'-C1'	-5.14	1.45	1.53
35	BB	369	A	O3'-P	-5.14	1.53	1.61
35	BB	1248	A	O3'-P	-5.14	1.53	1.61
42	BI	120	ILE	CA-CB	-5.14	1.48	1.54
49	BP	22	ASN	N-CA	-5.14	1.39	1.46
52	BS	38	VAL	N-CA	-5.14	1.40	1.46
77	Br	314	ARG	CD-NE	5.14	1.53	1.46
85	AA	19	A	C2'-C1'	-5.14	1.45	1.53
85	AA	178	U	C1'-N1	-5.14	1.40	1.48
85	AA	510	A	C1'-N9	-5.14	1.40	1.48
85	AA	660	G	P-O5'	-5.14	1.52	1.59
85	AA	1497	U	C3'-C2'	-5.14	1.45	1.52
86	AB	15	G	C5'-C4'	5.14	1.58	1.51
7	A6	128	ILE	N-CA	-5.14	1.40	1.46
29	AV	66	PHE	CA-CB	5.14	1.61	1.53
34	BA	236	A	C4'-O4'	-5.14	1.37	1.45
34	BA	1094	U	C3'-C2'	-5.14	1.45	1.52
34	BA	1634	A	C5'-C4'	5.14	1.59	1.51
36	BC	63	G	P-O5'	-5.14	1.52	1.59
38	BE	189	A	C1'-N9	-5.14	1.39	1.47
40	BG	76	C	C1'-N1	-5.14	1.39	1.47
45	BL	55	SER	N-CA	-5.14	1.39	1.46
61	Bb	77	ASN	N-CA	-5.14	1.39	1.46
64	Be	126	LEU	N-CA	-5.14	1.39	1.46
65	Bf	339	TYR	N-CA	-5.14	1.39	1.46
79	Bt	70	LEU	CA-C	-5.14	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	89	C	O3'-P	-5.14	1.53	1.61
85	AA	307	G	O3'-P	5.14	1.68	1.61
85	AA	478	U	C1'-N1	-5.14	1.40	1.48
85	AA	1951	U	O3'-P	-5.14	1.53	1.61
15	AG	22	PRO	CA-C	-5.14	1.48	1.52
21	AM	83	TRP	CA-C	-5.14	1.45	1.52
27	AT	85	ASP	CA-C	-5.14	1.46	1.52
31	AX	100	GLN	CA-C	-5.14	1.45	1.52
35	BB	46	U	O3'-P	-5.14	1.53	1.61
37	BD	113	G	C3'-C2'	-5.14	1.45	1.52
77	Br	369	LYS	C-N	-5.14	1.26	1.33
85	AA	98	U	C1'-N1	-5.14	1.40	1.48
85	AA	361	U	O3'-P	-5.14	1.53	1.61
85	AA	1496	U	O4'-C1'	-5.14	1.33	1.41
3	A2	86	ILE	CA-CB	-5.14	1.48	1.54
34	BA	322	U	P-O5'	-5.14	1.52	1.59
34	BA	1667	G	O3'-P	-5.14	1.53	1.61
35	BB	596	C	P-O5'	-5.14	1.52	1.59
35	BB	986	C	P-O5'	-5.14	1.52	1.59
36	BC	97	U	C3'-C2'	-5.14	1.45	1.52
44	BK	131	ILE	CA-C	-5.14	1.46	1.52
48	BO	174	LYS	CA-C	-5.14	1.46	1.52
53	BT	142	ILE	N-CA	-5.14	1.40	1.46
65	Bf	120	LYS	CA-C	-5.14	1.45	1.52
65	Bf	207	LYS	CA-C	-5.14	1.46	1.52
85	AA	1184	A	O3'-P	-5.14	1.53	1.61
85	AA	1537	A	C2'-C1'	-5.14	1.45	1.53
85	AA	1726	G	C1'-N9	-5.14	1.40	1.48
37	BD	75	G	C2'-C1'	-5.14	1.45	1.53
40	BG	110	U	C1'-N1	-5.14	1.40	1.48
42	BI	47	LEU	N-CA	-5.14	1.40	1.46
59	BZ	90	THR	CA-C	-5.14	1.46	1.52
82	Bw	42	LYS	CA-C	-5.14	1.45	1.52
84	By	73	SER	CA-C	-5.14	1.46	1.52
85	AA	140	C	O3'-P	-5.14	1.53	1.61
85	AA	504	U	C3'-O3'	-5.14	1.35	1.43
85	AA	852	C	P-O5'	-5.14	1.52	1.59
8	A7	216	LYS	CA-C	-5.14	1.46	1.52
24	AQ	18	LEU	N-CA	-5.14	1.40	1.46
34	BA	1333	G	C2'-C1'	-5.14	1.45	1.53
35	BB	458	U	C3'-C2'	-5.14	1.45	1.52
35	BB	1025	A	P-O5'	5.14	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BD	87	G	C1'-N9	-5.14	1.40	1.48
40	BG	13	A	O3'-P	-5.14	1.53	1.61
41	BH	53	C	O3'-P	-5.14	1.53	1.61
42	BI	51	ARG	CA-C	-5.14	1.45	1.52
48	BO	76	LEU	CA-C	-5.14	1.45	1.52
59	BZ	17	PHE	CA-C	-5.14	1.45	1.52
77	Br	56	LEU	N-CA	-5.14	1.38	1.46
83	Bx	240	ASP	N-CA	-5.14	1.40	1.46
85	AA	374	C	O3'-P	-5.14	1.53	1.61
85	AA	906	U	O3'-P	-5.14	1.53	1.61
85	AA	2011	C	O3'-P	-5.14	1.53	1.61
7	A6	137	LYS	CA-C	-5.13	1.45	1.52
15	AG	120	SER	CA-C	-5.13	1.46	1.52
34	BA	475	A	P-O5'	-5.13	1.52	1.59
39	BF	33	C	C1'-N1	-5.13	1.40	1.48
44	BK	74	LYS	CA-C	-5.13	1.46	1.52
49	BP	36	VAL	N-CA	-5.13	1.40	1.46
52	BS	155	GLN	CA-C	-5.13	1.45	1.52
73	Bn	12	HIS	CA-C	-5.13	1.44	1.52
85	AA	385	A	C3'-C2'	-5.13	1.45	1.52
85	AA	536	C	O3'-P	-5.13	1.53	1.61
85	AA	1169	A	C2'-C1'	-5.13	1.45	1.53
34	BA	57	A	N9-C4	-5.13	1.27	1.37
34	BA	348	U	C1'-N1	-5.13	1.40	1.48
37	BD	29	C	C3'-C2'	-5.13	1.45	1.52
40	BG	4	A	C3'-C2'	-5.13	1.45	1.52
64	Be	152	SER	N-CA	-5.13	1.39	1.46
85	AA	117	C	O3'-P	-5.13	1.53	1.61
34	BA	140	C	C4'-O4'	-5.13	1.37	1.45
34	BA	380	A	C2'-C1'	-5.13	1.45	1.53
34	BA	386	A	O3'-P	-5.13	1.53	1.61
34	BA	450	G	C1'-N9	-5.13	1.40	1.48
34	BA	906	A	C4'-C3'	-5.13	1.44	1.52
34	BA	1006	G	O4'-C1'	-5.13	1.34	1.42
34	BA	1107	A	C4'-C3'	-5.13	1.44	1.52
34	BA	1330	G	C3'-C2'	-5.13	1.45	1.52
34	BA	1656	A	O3'-P	-5.13	1.53	1.61
35	BB	609	G	C1'-N9	-5.13	1.40	1.48
37	BD	10	C	C1'-N1	-5.13	1.39	1.47
42	BI	18	HIS	N-CA	5.13	1.53	1.46
42	BI	91	GLY	CA-C	-5.13	1.45	1.51
67	Bh	69	THR	CA-CB	-5.13	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	By	114	LEU	CA-C	-5.13	1.45	1.53
85	AA	29	U	C2'-C1'	-5.13	1.45	1.53
85	AA	585	G	C1'-N9	-5.13	1.40	1.48
7	A6	99	THR	CA-C	-5.13	1.46	1.52
15	AG	52	MET	N-CA	-5.13	1.40	1.46
27	AT	22	LEU	CA-C	-5.13	1.46	1.52
34	BA	277	A	C3'-C2'	-5.13	1.45	1.52
34	BA	1409	A	O3'-P	-5.13	1.53	1.61
52	BS	32	PHE	CA-C	-5.13	1.46	1.52
85	AA	479	C	C2'-C1'	-5.13	1.45	1.53
5	A4	132	ASN	CA-C	-5.13	1.46	1.52
13	AE	27	GLN	N-CA	-5.13	1.39	1.46
34	BA	714	G	O3'-P	-5.13	1.53	1.61
34	BA	974	G	O3'-P	-5.13	1.53	1.61
34	BA	1090	A	C1'-N9	-5.13	1.40	1.48
34	BA	1115	A	P-O5'	-5.13	1.52	1.59
34	BA	1703	A	P-O5'	-5.13	1.52	1.59
34	BA	1832	A	C2'-C1'	-5.13	1.45	1.53
35	BB	664	A	C4'-O4'	-5.13	1.37	1.45
35	BB	1030	U	P-O5'	-5.13	1.52	1.59
35	BB	1199	A	C4'-O4'	-5.13	1.37	1.45
40	BG	117	C	O3'-P	-5.13	1.53	1.61
40	BG	177	U	C3'-C2'	-5.13	1.45	1.52
60	Ba	65	SER	N-CA	-5.13	1.40	1.46
85	AA	6	G	O3'-P	-5.13	1.53	1.61
85	AA	17	C	C2'-C1'	-5.13	1.45	1.53
85	AA	608	A	C2'-C1'	-5.13	1.45	1.53
6	A5	73	ALA	CA-C	-5.13	1.46	1.52
34	BA	151	A	C5'-C4'	5.13	1.59	1.51
34	BA	564	C	C2'-C1'	-5.13	1.45	1.53
34	BA	1467	U	C2'-C1'	-5.13	1.45	1.53
34	BA	1578	A	O4'-C1'	-5.13	1.34	1.42
35	BB	691	A	C1'-N9	-5.13	1.40	1.48
35	BB	1046	C	P-O5'	-5.13	1.52	1.59
35	BB	1048	A	O3'-P	-5.13	1.53	1.61
35	BB	1422	G	N9-C4	-5.13	1.27	1.38
48	BO	221	LEU	C-N	-5.13	1.26	1.33
50	BQ	115	ASN	N-CA	-5.13	1.40	1.46
57	BX	118	LYS	N-CA	-5.13	1.40	1.46
73	Bn	36	ALA	CA-C	-5.13	1.45	1.52
85	AA	246	C	P-O5'	-5.13	1.52	1.59
85	AA	432	A	C1'-N9	-5.13	1.40	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	432	A	O4'-C1'	-5.13	1.33	1.41
16	AH	41	SER	N-CA	-5.12	1.39	1.46
34	BA	457	A	O3'-P	-5.12	1.53	1.61
35	BB	642	G	P-O5'	-5.12	1.52	1.59
37	BD	37	G	O3'-P	-5.12	1.53	1.61
40	BG	91	U	O3'-P	-5.12	1.53	1.61
2	A1	148	ASP	C-N	-5.12	1.26	1.33
34	BA	68	A	C4'-C3'	-5.12	1.45	1.53
34	BA	1435	A	O4'-C1'	-5.12	1.34	1.42
34	BA	1578	A	C3'-C2'	-5.12	1.45	1.52
34	BA	1605	G	O4'-C1'	-5.12	1.34	1.42
35	BB	1163	U	O3'-P	-5.12	1.53	1.61
38	BE	97	G	C2'-C1'	-5.12	1.45	1.53
41	BH	41	A	O3'-P	-5.12	1.53	1.61
50	BQ	217	PHE	CA-C	-5.12	1.45	1.52
65	Bf	216	HIS	CA-C	-5.12	1.46	1.52
82	Bw	45	ILE	N-CA	-5.12	1.40	1.46
85	AA	496	C	C2'-C1'	-5.12	1.45	1.53
85	AA	498	C	P-O5'	-5.12	1.52	1.59
85	AA	639	C	C4'-O4'	-5.12	1.38	1.45
85	AA	849	A	C1'-N9	-5.12	1.40	1.48
15	AG	65	ASN	CA-C	-5.12	1.45	1.52
34	BA	61	G	C3'-C2'	-5.12	1.45	1.52
34	BA	207	A	C2'-C1'	-5.12	1.45	1.53
34	BA	381	A	P-O5'	-5.12	1.52	1.59
34	BA	1021	U	P-O5'	-5.12	1.52	1.59
34	BA	1660	A	O3'-P	-5.12	1.53	1.61
35	BB	584	A	P-O5'	-5.12	1.52	1.59
50	BQ	106	VAL	CA-CB	-5.12	1.48	1.54
65	Bf	383	LYS	CA-C	-5.12	1.46	1.52
82	Bw	66	TYR	C-N	-5.12	1.27	1.33
83	Bx	214	THR	CA-C	-5.12	1.46	1.53
84	By	72	LEU	CA-C	-5.12	1.46	1.52
85	AA	329	G	C2'-C1'	-5.12	1.45	1.53
85	AA	349	C	P-O5'	-5.12	1.52	1.59
85	AA	491	G	C4'-C3'	-5.12	1.44	1.52
86	AB	50	U	P-O5'	-5.12	1.52	1.59
23	AP	262	LYS	C-N	-5.12	1.26	1.33
35	BB	1247	C	C2'-C1'	-5.12	1.45	1.53
37	BD	46	G	C2'-C1'	-5.12	1.45	1.53
85	AA	243	A	O5'-C5'	5.12	1.50	1.42
85	AA	1618	G	P-O5'	-5.12	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	117	C	C4'-C3'	-5.12	1.44	1.52
34	BA	451	A	C1'-N9	-5.12	1.40	1.48
34	BA	1330	G	P-O5'	-5.12	1.52	1.59
37	BD	13	A	C1'-N9	-5.12	1.39	1.47
41	BH	19	G	C2'-C1'	-5.12	1.45	1.53
50	BQ	38	PHE	N-CA	-5.12	1.40	1.46
52	BS	33	ALA	N-CA	-5.12	1.41	1.45
62	Bc	72	LYS	N-CA	-5.12	1.41	1.45
83	Bx	48	GLY	C-N	5.12	1.40	1.33
85	AA	596	A	C1'-N9	-5.12	1.40	1.48
85	AA	2239	A	C2'-C1'	-5.12	1.45	1.53
23	AP	250	THR	CA-C	-5.12	1.46	1.52
34	BA	146	G	C1'-N9	-5.12	1.40	1.48
34	BA	425	G	P-O5'	-5.12	1.52	1.59
34	BA	1472	G	C3'-C2'	-5.12	1.45	1.52
35	BB	28	G	C1'-N9	-5.12	1.40	1.48
35	BB	878	G	C5'-C4'	5.12	1.58	1.51
41	BH	58	C	O3'-P	-5.12	1.53	1.61
50	BQ	136	TYR	CA-C	-5.12	1.46	1.52
53	BT	166	ASP	CA-C	-5.12	1.46	1.52
85	AA	66	U	O3'-P	-5.12	1.53	1.61
20	AL	53	TYR	CA-C	-5.12	1.45	1.52
34	BA	428	C	C3'-C2'	-5.12	1.45	1.52
35	BB	433	C	C3'-C2'	-5.12	1.45	1.52
36	BC	118	U	C1'-N1	-5.12	1.40	1.48
49	BP	65	ILE	N-CA	-5.12	1.40	1.46
65	Bf	269	GLU	CA-C	-5.12	1.46	1.52
72	Bm	6	ARG	CA-C	5.12	1.58	1.52
79	Bt	20	HIS	CA-CB	-5.12	1.45	1.53
79	Bt	43	TYR	CA-C	-5.12	1.46	1.52
85	AA	533	C	O3'-P	-5.12	1.53	1.61
85	AA	1200	A	C2'-C1'	-5.12	1.45	1.53
34	BA	177	G	P-O5'	-5.11	1.52	1.59
34	BA	547	C	P-O5'	5.11	1.67	1.59
34	BA	742	C	O3'-P	-5.11	1.53	1.61
34	BA	913	U	C2'-C1'	-5.11	1.45	1.53
34	BA	1154	U	C1'-N1	-5.11	1.40	1.48
35	BB	562	A	C4'-O4'	-5.11	1.38	1.45
35	BB	1136	G	O4'-C1'	-5.11	1.34	1.42
40	BG	153	C	P-O5'	-5.11	1.52	1.59
67	Bh	135	ILE	CA-C	-5.11	1.46	1.52
85	AA	776	C	O3'-P	-5.11	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	1444	U	O3'-P	-5.11	1.53	1.61
34	BA	965	A	P-O5'	-5.11	1.52	1.59
35	BB	1250	A	C3'-C2'	-5.11	1.45	1.52
69	Bj	20	ARG	CA-C	-5.11	1.46	1.52
72	Bm	40	LEU	CA-C	-5.11	1.46	1.52
85	AA	1261	U	P-O5'	-5.11	1.52	1.59
85	AA	2091	C	C1'-N1	-5.11	1.40	1.48
5	A4	183	HIS	N-CA	-5.11	1.39	1.46
6	A5	26	LYS	CA-C	-5.11	1.45	1.52
34	BA	567	U	P-O5'	-5.11	1.52	1.59
34	BA	755	G	O4'-C1'	-5.11	1.33	1.41
35	BB	474	G	C2'-C1'	-5.11	1.45	1.53
35	BB	1156	U	O3'-P	-5.11	1.53	1.61
38	BE	128	G	C3'-C2'	-5.11	1.45	1.52
42	BI	52	LEU	N-CA	-5.11	1.40	1.46
45	BL	58	ARG	CA-C	-5.11	1.47	1.53
49	BP	120	ARG	N-CA	-5.11	1.40	1.46
77	Br	6	SER	N-CA	-5.11	1.39	1.46
85	AA	190	A	P-O5'	-5.11	1.52	1.59
85	AA	475	A	O4'-C1'	-5.11	1.33	1.41
85	AA	502	A	P-O5'	-5.11	1.52	1.59
85	AA	1496	U	O3'-P	-5.11	1.53	1.61
85	AA	1497	U	C2'-C1'	-5.11	1.45	1.53
85	AA	1752	C	O3'-P	-5.11	1.53	1.61
85	AA	2123	U	C4'-O4'	-5.11	1.37	1.45
85	AA	2176	U	N1-C2	-5.11	1.28	1.38
34	BA	1500	G	O3'-P	-5.11	1.53	1.61
40	BG	1	G	C3'-C2'	-5.11	1.45	1.52
40	BG	55	A	C2'-C1'	-5.11	1.45	1.53
49	BP	96	HIS	CA-C	-5.11	1.45	1.52
51	BR	96	LYS	CA-C	-5.11	1.46	1.52
59	BZ	73	LEU	CA-C	-5.11	1.46	1.52
80	Bu	104	LEU	CA-C	-5.11	1.46	1.52
86	AB	51	U	O3'-P	-5.11	1.53	1.61
25	AR	53	THR	C-N	-5.11	1.26	1.33
34	BA	401	A	C1'-N9	-5.11	1.40	1.48
35	BB	1102	U	C2'-C1'	-5.11	1.45	1.53
35	BB	1316	U	P-O5'	-5.11	1.52	1.59
36	BC	164	G	C2'-C1'	-5.11	1.45	1.53
41	BH	107	A	O3'-P	-5.11	1.53	1.61
49	BP	102	PHE	CA-C	-5.11	1.45	1.52
50	BQ	33	SER	CA-C	-5.11	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	BS	89	TYR	CA-CB	5.11	1.61	1.53
63	Bd	17	HIS	CA-C	-5.11	1.45	1.52
64	Be	74	GLU	C-N	5.11	1.40	1.33
72	Bm	55	LEU	CA-C	-5.11	1.45	1.52
85	AA	367	A	O3'-P	-5.11	1.53	1.61
85	AA	513	G	C2'-C1'	-5.11	1.45	1.53
85	AA	1155	A	P-O5'	-5.11	1.52	1.59
15	AG	74	ILE	CA-CB	-5.11	1.48	1.54
34	BA	174	A	C3'-O3'	-5.11	1.34	1.42
34	BA	785	G	C1'-N9	-5.11	1.40	1.48
34	BA	1221	A	C2'-C1'	-5.11	1.45	1.53
34	BA	1722	U	C2'-C1'	-5.11	1.45	1.53
35	BB	104	G	O3'-P	-5.11	1.53	1.61
35	BB	1071	G	C3'-C2'	-5.11	1.45	1.52
35	BB	1511	U	O4'-C1'	-5.11	1.33	1.41
38	BE	192	A	C4'-C3'	-5.11	1.44	1.52
52	BS	22	PRO	N-CA	-5.11	1.41	1.47
77	Br	108	ARG	CA-C	-5.11	1.46	1.53
85	AA	517	A	C3'-C2'	-5.11	1.45	1.52
85	AA	1128	G	O3'-P	-5.11	1.53	1.61
85	AA	1287	C	C4'-C3'	-5.11	1.44	1.52
85	AA	1800	U	P-O5'	-5.11	1.52	1.59
85	AA	1890	C	C1'-N1	-5.11	1.40	1.48
34	BA	32	A	C2'-C1'	-5.10	1.45	1.53
34	BA	1101	A	O3'-P	-5.10	1.53	1.61
35	BB	1106	G	P-O5'	-5.10	1.52	1.59
40	BG	125	C	C3'-C2'	-5.10	1.45	1.52
75	Bp	28	ASN	CA-C	-5.10	1.46	1.52
85	AA	1227	A	O3'-P	-5.10	1.53	1.61
34	BA	5	C	C2'-C1'	-5.10	1.45	1.53
34	BA	269	G	C2-N2	-5.10	1.24	1.34
34	BA	317	U	P-O5'	-5.10	1.52	1.59
34	BA	1047	U	P-O5'	-5.10	1.52	1.59
34	BA	1402	C	P-O5'	-5.10	1.52	1.59
35	BB	93	A	C1'-N9	-5.10	1.40	1.48
35	BB	985	A	P-O5'	-5.10	1.52	1.59
35	BB	1471	A	P-O5'	-5.10	1.52	1.59
41	BH	10	U	O3'-P	-5.10	1.53	1.61
48	BO	143	GLN	N-CA	-5.10	1.40	1.46
59	BZ	79	ILE	C-N	-5.10	1.26	1.33
77	Br	116	LEU	CA-C	-5.10	1.46	1.52
85	AA	683	U	C1'-N1	-5.10	1.39	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	927	A	C2'-C1'	-5.10	1.45	1.53
85	AA	1431	U	P-O5'	-5.10	1.52	1.59
85	AA	1490	A	C4'-O4'	-5.10	1.38	1.45
2	A1	104	GLY	CA-C	-5.10	1.44	1.51
34	BA	91	C	C3'-C2'	-5.10	1.45	1.52
34	BA	502	U	C1'-N1	-5.10	1.40	1.48
34	BA	742	C	C4'-C3'	-5.10	1.44	1.52
34	BA	818	G	C2'-C1'	-5.10	1.45	1.53
34	BA	1219	G	P-O5'	-5.10	1.52	1.59
40	BG	119	A	C1'-N9	-5.10	1.40	1.48
85	AA	1128	G	P-O5'	-5.10	1.52	1.59
85	AA	1214	C	C1'-N1	-5.10	1.40	1.48
2	A1	153	ARG	CA-C	-5.10	1.46	1.52
15	AG	51	GLY	CA-C	-5.10	1.46	1.52
18	AJ	17	ALA	CA-C	-5.10	1.46	1.52
30	AW	35	ASP	CA-C	-5.10	1.46	1.52
32	AY	23	LYS	N-CA	-5.10	1.40	1.46
34	BA	141	G	N3-C4	-5.10	1.25	1.35
34	BA	569	C	C3'-C2'	-5.10	1.45	1.52
34	BA	1695	G	C2'-C1'	-5.10	1.45	1.53
35	BB	92	C	O3'-P	-5.10	1.53	1.61
35	BB	1028	C	C1'-N1	-5.10	1.40	1.48
38	BE	155	C	O3'-P	-5.10	1.53	1.61
47	BN	212	ALA	N-CA	-5.10	1.40	1.46
49	BP	137	VAL	CA-CB	-5.10	1.49	1.54
54	BU	89	ILE	CA-CB	-5.10	1.48	1.54
66	Bg	76	THR	C-N	-5.10	1.27	1.33
77	Br	178	ASP	N-CA	-5.10	1.40	1.46
85	AA	318	A	C4'-O4'	-5.10	1.38	1.45
85	AA	412	G	C1'-N9	-5.10	1.40	1.48
85	AA	992	G	O5'-C5'	5.10	1.50	1.42
85	AA	1829	C	C3'-C2'	-5.10	1.45	1.52
85	AA	2222	G	P-O5'	-5.10	1.52	1.59
23	AP	106	THR	CA-C	-5.10	1.46	1.52
31	AX	41	THR	CA-C	-5.10	1.46	1.52
34	BA	247	U	C3'-O3'	5.10	1.50	1.43
34	BA	745	A	P-O5'	-5.10	1.52	1.59
39	BF	40	U	O3'-P	-5.10	1.53	1.61
39	BF	65	U	C4'-O4'	-5.10	1.38	1.45
40	BG	79	U	C3'-C2'	-5.10	1.45	1.52
40	BG	125	C	O3'-P	-5.10	1.53	1.61
41	BH	118	U	C4'-O4'	-5.10	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BP	19	PRO	CA-C	-5.10	1.43	1.52
65	Bf	284	GLY	CA-C	-5.10	1.44	1.51
85	AA	2051	G	C2'-C1'	-5.10	1.45	1.53
34	BA	744	G	C1'-N9	-5.10	1.40	1.48
34	BA	1454	G	P-O5'	-5.10	1.52	1.59
41	BH	17	A	C5'-C4'	-5.10	1.43	1.51
85	AA	1173	A	O3'-P	-5.10	1.53	1.61
8	A7	252	MET	CA-C	-5.09	1.46	1.52
34	BA	1617	U	P-O5'	-5.09	1.52	1.59
35	BB	114	A	O3'-P	-5.09	1.53	1.61
35	BB	1094	A	O3'-P	-5.09	1.53	1.61
35	BB	1461	C	C1'-N1	-5.09	1.39	1.47
38	BE	131	C	C3'-C2'	-5.09	1.45	1.52
38	BE	205	G	C1'-N9	-5.09	1.40	1.48
44	BK	144	TYR	CA-C	-5.09	1.45	1.52
65	Bf	303	ARG	CA-C	-5.09	1.46	1.52
85	AA	2126	U	C4'-O4'	-5.09	1.38	1.45
20	AL	78	ARG	CA-C	-5.09	1.46	1.52
34	BA	776	U	P-O5'	-5.09	1.52	1.59
35	BB	788	U	C3'-C2'	-5.09	1.45	1.52
36	BC	123	G	P-O5'	-5.09	1.52	1.59
38	BE	15	A	P-O5'	-5.09	1.52	1.59
85	AA	86	G	O3'-P	-5.09	1.53	1.61
35	BB	575	C	C1'-N1	-5.09	1.40	1.48
35	BB	1155	U	O3'-P	-5.09	1.53	1.61
38	BE	49	A	C3'-C2'	-5.09	1.45	1.52
42	BI	126	GLU	N-CA	-5.09	1.40	1.46
47	BN	78	ARG	CD-NE	5.09	1.53	1.46
85	AA	1672	G	C2'-C1'	-5.09	1.45	1.53
85	AA	1989	A	P-O5'	-5.09	1.52	1.59
27	AT	38	CYS	CA-C	-5.09	1.46	1.53
34	BA	68	A	P-O5'	-5.09	1.52	1.59
34	BA	257	G	C5'-C4'	-5.09	1.43	1.51
34	BA	773	A	O3'-P	-5.09	1.53	1.61
35	BB	390	G	C2'-C1'	-5.09	1.45	1.53
35	BB	498	G	C2'-C1'	-5.09	1.45	1.53
35	BB	1508	G	O3'-P	-5.09	1.53	1.61
38	BE	137	A	C1'-N9	-5.09	1.40	1.48
40	BG	156	G	N9-C4	-5.09	1.27	1.38
44	BK	115	MET	CA-C	-5.09	1.46	1.52
80	Bu	86	PHE	N-CA	-5.09	1.39	1.46
84	By	25	THR	N-CA	-5.09	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	41	G	C1'-N9	-5.09	1.40	1.48
85	AA	494	G	C1'-N9	-5.09	1.40	1.48
85	AA	1127	G	C4'-C3'	-5.09	1.45	1.52
85	AA	1156	A	O3'-P	-5.09	1.53	1.61
85	AA	1713	A	C1'-N9	-5.09	1.40	1.48
3	A2	181	GLU	CA-C	-5.09	1.46	1.52
19	AK	116	LEU	N-CA	-5.09	1.40	1.46
33	AZ	53	ARG	CA-C	-5.09	1.45	1.52
34	BA	34	U	C3'-C2'	-5.09	1.45	1.52
34	BA	1039	G	C2'-C1'	-5.09	1.45	1.53
34	BA	1214	U	C3'-C2'	-5.09	1.45	1.52
36	BC	139	A	C3'-C2'	-5.09	1.45	1.52
81	Bv	13	ALA	N-CA	-5.09	1.39	1.46
83	Bx	37	PRO	C-N	-5.09	1.27	1.33
1	A0	228	GLN	N-CA	-5.09	1.40	1.46
34	BA	469	C	C4'-C3'	-5.09	1.45	1.53
34	BA	522	C	C1'-N1	-5.09	1.40	1.48
34	BA	733	G	O3'-P	-5.09	1.53	1.61
34	BA	825	G	O3'-P	-5.09	1.53	1.61
34	BA	1195	G	O3'-P	-5.09	1.53	1.61
34	BA	1412	G	C3'-O3'	-5.09	1.35	1.43
35	BB	558	U	C3'-C2'	-5.09	1.45	1.52
35	BB	1179	C	C3'-C2'	-5.09	1.45	1.52
35	BB	1442	C	C2'-C1'	-5.09	1.45	1.53
35	BB	1519	U	O3'-P	-5.09	1.53	1.61
44	BK	66	GLU	CA-C	-5.09	1.46	1.52
63	Bd	19	ASN	N-CA	-5.09	1.39	1.46
73	Bn	69	VAL	N-CA	-5.09	1.39	1.46
85	AA	400	G	C4'-O4'	-5.09	1.38	1.45
85	AA	1267	A	C1'-N9	-5.09	1.40	1.48
85	AA	2217	A	O3'-P	-5.09	1.53	1.61
21	AM	142	ARG	CA-C	-5.08	1.46	1.52
41	BH	104	U	O4'-C1'	-5.08	1.34	1.41
85	AA	493	A	C3'-C2'	-5.08	1.45	1.52
85	AA	732	G	O3'-P	-5.08	1.53	1.61
85	AA	1262	A	C3'-C2'	-5.08	1.45	1.52
8	A7	210	LEU	N-CA	-5.08	1.39	1.45
34	BA	953	G	C1'-N9	-5.08	1.40	1.48
34	BA	1702	G	C4'-C3'	-5.08	1.45	1.52
35	BB	1254	G	N9-C4	-5.08	1.27	1.38
35	BB	1277	A	C2'-C1'	-5.08	1.45	1.53
35	BB	1376	G	C4'-C3'	-5.08	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BG	161	C	O4'-C1'	-5.08	1.34	1.41
47	BN	99	GLY	CA-C	-5.08	1.44	1.51
50	BQ	144	PHE	N-CA	-5.08	1.39	1.45
58	BY	22	VAL	CA-C	-5.08	1.49	1.53
72	Bm	47	ALA	CA-C	-5.08	1.46	1.52
85	AA	937	G	C3'-C2'	-5.08	1.45	1.52
85	AA	1269	A	C2'-C1'	-5.08	1.45	1.53
1	A0	133	ASP	N-CA	-5.08	1.40	1.46
8	A7	224	ASP	N-CA	-5.08	1.39	1.46
13	AE	53	LYS	CA-C	-5.08	1.46	1.52
34	BA	472	G	O3'-P	-5.08	1.53	1.61
34	BA	906	A	O4'-C1'	-5.08	1.34	1.41
34	BA	1830	A	C2'-C1'	-5.08	1.45	1.53
35	BB	750	G	C2'-C1'	-5.08	1.45	1.53
35	BB	1191	G	C1'-N9	-5.08	1.40	1.48
39	BF	14	C	C4'-O4'	-5.08	1.38	1.45
40	BG	5	G	C2'-C1'	-5.08	1.45	1.53
48	BO	191	GLU	N-CA	-5.08	1.40	1.46
56	BW	50	ARG	N-CA	-5.08	1.39	1.46
65	Bf	113	ARG	CA-C	-5.08	1.46	1.52
85	AA	23	G	C4'-C3'	5.08	1.60	1.52
85	AA	198	U	O3'-P	-5.08	1.53	1.61
85	AA	448	G	P-O5'	-5.08	1.52	1.59
85	AA	842	G	O3'-P	-5.08	1.53	1.61
85	AA	2065	U	P-O5'	-5.08	1.52	1.59
85	AA	2240	G	C3'-C2'	-5.08	1.45	1.52
34	BA	258	C	C3'-C2'	-5.08	1.45	1.52
34	BA	350	C	C3'-C2'	-5.08	1.45	1.52
34	BA	1096	C	C1'-N1	-5.08	1.39	1.47
35	BB	814	A	C2'-C1'	-5.08	1.45	1.53
36	BC	56	G	C2'-C1'	-5.08	1.45	1.53
48	BO	98	PHE	C-N	-5.08	1.27	1.33
49	BP	12	LEU	CA-C	-5.08	1.46	1.52
77	Br	248	ILE	CA-CB	-5.08	1.48	1.54
34	BA	59	A	C1'-N9	-5.08	1.40	1.48
34	BA	1445	U	O3'-P	-5.08	1.53	1.61
34	BA	1527	G	C3'-C2'	-5.08	1.45	1.52
34	BA	1646	U	C3'-C2'	-5.08	1.45	1.52
35	BB	1107	C	C3'-C2'	-5.08	1.45	1.52
35	BB	1265	U	O3'-P	-5.08	1.53	1.61
35	BB	1440	A	P-O5'	-5.08	1.52	1.59
48	BO	179	ARG	CA-C	-5.08	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	BS	108	ALA	CA-C	-5.08	1.46	1.52
64	Be	204	ARG	CD-NE	5.08	1.53	1.46
74	Bo	88	GLU	N-CA	-5.08	1.40	1.46
77	Br	118	GLN	N-CA	-5.08	1.40	1.46
78	Bs	23	CYS	N-CA	-5.08	1.40	1.46
80	Bu	170	LYS	N-CA	-5.08	1.40	1.46
85	AA	480	U	C4'-C3'	-5.08	1.45	1.52
34	BA	767	U	O3'-P	-5.08	1.53	1.61
34	BA	1205	A	C4'-O4'	-5.08	1.38	1.45
34	BA	1255	G	P-O5'	-5.08	1.52	1.59
36	BC	30	U	C4'-O4'	-5.08	1.38	1.45
36	BC	55	U	C1'-N1	-5.08	1.40	1.48
44	BK	46	PHE	CA-CB	-5.08	1.47	1.53
64	Be	186	PHE	N-CA	-5.08	1.40	1.46
5	A4	130	ILE	CA-C	-5.08	1.46	1.52
25	AR	49	VAL	CA-C	-5.08	1.46	1.52
34	BA	309	U	O3'-P	-5.08	1.53	1.61
34	BA	475	A	C2'-C1'	-5.08	1.45	1.53
35	BB	32	C	C4'-O4'	-5.08	1.38	1.45
35	BB	878	G	C2'-C1'	-5.08	1.45	1.53
35	BB	1268	C	P-O5'	-5.08	1.52	1.59
40	BG	19	C	O3'-P	-5.08	1.53	1.61
41	BH	33	G	N9-C4	-5.08	1.27	1.38
70	Bk	117	LYS	N-CA	-5.08	1.40	1.46
72	Bm	89	LYS	CA-C	-5.08	1.46	1.52
85	AA	679	A	N9-C4	-5.08	1.27	1.37
11	AC	106	ASN	N-CA	-5.07	1.40	1.46
15	AG	89	TYR	N-CA	-5.07	1.40	1.46
19	AK	144	PHE	CA-CB	5.07	1.62	1.53
33	AZ	54	GLY	CA-C	-5.07	1.44	1.51
34	BA	95	C	O4'-C1'	-5.07	1.34	1.41
34	BA	456	G	O3'-P	-5.07	1.53	1.61
34	BA	1088	G	O3'-P	-5.07	1.53	1.61
35	BB	570	A	C1'-N9	-5.07	1.40	1.48
40	BG	172	C	C2'-C1'	-5.07	1.45	1.53
44	BK	87	MET	N-CA	-5.07	1.39	1.46
48	BO	89	PHE	CA-C	-5.07	1.46	1.52
64	Be	169	VAL	CA-CB	-5.07	1.48	1.54
77	Br	38	PHE	N-CA	-5.07	1.40	1.46
85	AA	75	U	P-O5'	-5.07	1.52	1.59
85	AA	178	U	O3'-P	-5.07	1.53	1.61
85	AA	588	G	O4'-C1'	-5.07	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	541	C	C3'-C2'	-5.07	1.45	1.52
41	BH	3	U	C1'-N1	-5.07	1.40	1.48
85	AA	661	C	C2'-C1'	-5.07	1.45	1.53
85	AA	989	U	C3'-C2'	-5.07	1.45	1.52
85	AA	2070	C	O3'-P	-5.07	1.53	1.61
34	BA	236	A	C2'-O2'	-5.07	1.34	1.42
34	BA	922	C	C3'-C2'	-5.07	1.45	1.52
34	BA	1363	A	C1'-N9	-5.07	1.39	1.47
35	BB	823	G	C2'-C1'	-5.07	1.45	1.53
35	BB	967	G	C3'-C2'	-5.07	1.45	1.52
35	BB	1203	C	C4'-C3'	-5.07	1.45	1.52
47	BN	93	ARG	CA-C	-5.07	1.46	1.52
80	Bu	25	GLU	CA-C	-5.07	1.46	1.52
84	By	154	ARG	CA-C	-5.07	1.46	1.52
85	AA	389	A	C2'-C1'	-5.07	1.45	1.53
6	A5	56	ARG	CA-C	-5.07	1.46	1.53
16	AH	40	MET	CA-C	-5.07	1.46	1.52
35	BB	90	G	P-O5'	-5.07	1.52	1.59
35	BB	1103	A	O4'-C1'	-5.07	1.34	1.42
35	BB	1173	C	C1'-N1	-5.07	1.40	1.48
40	BG	149	U	C2'-C1'	-5.07	1.45	1.53
49	BP	43	GLU	CA-C	-5.07	1.45	1.52
70	Bk	77	LYS	N-CA	-5.07	1.39	1.46
83	Bx	116	LYS	N-CA	-5.07	1.40	1.46
85	AA	363	A	C4'-O4'	-5.07	1.38	1.45
5	A4	179	LYS	CA-C	-5.07	1.46	1.52
34	BA	1178	U	C2'-C1'	-5.07	1.45	1.53
34	BA	1600	G	C1'-N9	-5.07	1.40	1.48
34	BA	1650	G	C3'-C2'	-5.07	1.45	1.52
35	BB	95	A	O3'-P	-5.07	1.53	1.61
35	BB	115	A	C1'-N9	-5.07	1.39	1.47
35	BB	391	G	C2'-C1'	-5.07	1.45	1.53
35	BB	528	G	P-O5'	-5.07	1.52	1.59
35	BB	1327	U	C4'-C3'	-5.07	1.45	1.52
37	BD	81	C	C5'-C4'	-5.07	1.43	1.51
53	BT	144	LYS	CA-C	-5.07	1.46	1.52
63	Bd	22	LYS	C-N	-5.07	1.27	1.33
85	AA	1573	A	P-O5'	-5.07	1.52	1.59
85	AA	1665	G	C3'-C2'	-5.07	1.45	1.52
85	AA	1677	A	C2'-C1'	-5.07	1.45	1.53
8	A7	153	ASP	CA-C	-5.07	1.46	1.52
19	AK	81	VAL	CA-CB	-5.07	1.47	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	60	A	C2'-C1'	-5.07	1.45	1.53
34	BA	952	G	C1'-N9	-5.07	1.40	1.48
34	BA	957	A	C2'-C1'	-5.07	1.45	1.53
34	BA	1253	G	O3'-P	-5.07	1.53	1.61
34	BA	1425	G	P-O5'	-5.07	1.52	1.59
34	BA	1428	G	C2'-C1'	-5.07	1.45	1.53
34	BA	1532	G	P-O5'	-5.07	1.52	1.59
34	BA	1834	A	C1'-N9	-5.07	1.40	1.48
35	BB	1433	U	P-O5'	-5.07	1.52	1.59
49	BP	72	LYS	N-CA	-5.07	1.40	1.46
65	Bf	408	LEU	CA-C	-5.07	1.46	1.52
74	Bo	73	THR	CA-C	-5.07	1.46	1.52
77	Br	21	CYS	CA-C	-5.07	1.46	1.52
77	Br	35	VAL	N-CA	-5.07	1.40	1.46
83	Bx	221	GLN	CA-C	-5.07	1.46	1.52
8	A7	263	PHE	N-CA	-5.06	1.40	1.45
34	BA	822	U	C2'-C1'	-5.06	1.45	1.53
61	Bb	5	PHE	CA-C	-5.06	1.45	1.52
16	AH	23	VAL	CA-C	-5.06	1.46	1.52
20	AL	15	GLN	CA-C	-5.06	1.46	1.52
34	BA	3	G	C2'-C1'	-5.06	1.45	1.53
34	BA	129	U	O3'-P	-5.06	1.53	1.61
34	BA	545	U	O3'-P	-5.06	1.53	1.61
34	BA	671	C	O3'-P	-5.06	1.53	1.61
34	BA	807	U	P-O5'	-5.06	1.52	1.59
39	BF	54	U	C5'-C4'	5.06	1.58	1.51
49	BP	164	VAL	CA-C	-5.06	1.45	1.52
50	BQ	25	ASN	N-CA	-5.06	1.40	1.46
85	AA	579	U	O3'-P	-5.06	1.53	1.61
85	AA	1458	G	C3'-C2'	-5.06	1.45	1.52
34	BA	148	G	O3'-P	-5.06	1.53	1.61
34	BA	862	C	O3'-P	5.06	1.68	1.61
34	BA	1474	G	P-O5'	-5.06	1.52	1.59
34	BA	1642	A	C3'-C2'	-5.06	1.45	1.52
38	BE	7	U	C1'-N1	-5.06	1.40	1.48
82	Bw	184	ILE	CA-C	-5.06	1.46	1.52
85	AA	1473	U	O3'-P	-5.06	1.53	1.61
30	AW	13	VAL	N-CA	-5.06	1.40	1.46
34	BA	290	G	C2'-C1'	-5.06	1.45	1.53
34	BA	583	G	P-O5'	-5.06	1.52	1.59
34	BA	853	A	O4'-C1'	-5.06	1.34	1.41
34	BA	1161	G	C5'-C4'	5.06	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1468	U	C1'-N1	-5.06	1.40	1.48
34	BA	1837	U	C2'-C1'	-5.06	1.45	1.53
35	BB	611	U	C1'-N1	-5.06	1.40	1.48
35	BB	807	U	O3'-P	-5.06	1.53	1.61
35	BB	1086	G	P-O5'	-5.06	1.52	1.59
37	BD	30	A	C2'-C1'	-5.06	1.45	1.53
37	BD	100	A	N9-C4	-5.06	1.27	1.37
41	BH	16	A	O3'-P	-5.06	1.53	1.61
47	BN	152	THR	N-CA	-5.06	1.39	1.45
77	Br	75	ILE	CA-CB	-5.06	1.47	1.54
81	Bv	79	ARG	N-CA	-5.06	1.39	1.46
85	AA	1793	A	O3'-P	-5.06	1.53	1.61
85	AA	2231	G	O3'-P	-5.06	1.53	1.61
16	AH	9	TYR	CA-C	-5.06	1.46	1.52
18	AJ	115	GLU	N-CA	-5.06	1.39	1.46
34	BA	24	C	C2'-C1'	-5.06	1.45	1.53
34	BA	76	U	C3'-C2'	-5.06	1.45	1.52
34	BA	87	G	C3'-C2'	-5.06	1.45	1.52
35	BB	434	A	C4'-C3'	-5.06	1.45	1.52
35	BB	1036	G	C4'-C3'	-5.06	1.45	1.52
36	BC	19	A	C1'-N9	-5.06	1.40	1.48
36	BC	124	A	O5'-C5'	5.06	1.50	1.42
37	BD	42	A	O3'-P	-5.06	1.53	1.61
56	BW	74	LYS	CA-C	-5.06	1.46	1.52
77	Br	61	HIS	CB-CG	-5.06	1.43	1.50
85	AA	1130	G	P-O5'	-5.06	1.52	1.59
85	AA	2121	G	P-O5'	-5.06	1.52	1.59
34	BA	1718	C	C4'-O4'	-5.06	1.38	1.45
73	Bn	28	HIS	N-CA	-5.06	1.39	1.46
81	Bv	81	ILE	CA-CB	-5.06	1.46	1.55
6	A5	72	SER	N-CA	-5.05	1.39	1.45
16	AH	85	ALA	N-CA	-5.05	1.39	1.45
28	AU	111	ALA	C-N	-5.05	1.26	1.33
34	BA	223	U	C3'-C2'	-5.05	1.45	1.52
35	BB	900	C	C1'-N1	-5.05	1.40	1.48
35	BB	1104	A	C1'-N9	-5.05	1.39	1.47
45	BL	44	LEU	N-CA	-5.05	1.40	1.46
53	BT	161	ALA	N-CA	-5.05	1.39	1.46
84	By	111	ARG	CA-C	-5.05	1.46	1.52
85	AA	117	C	P-O5'	-5.05	1.52	1.59
85	AA	194	U	O3'-P	-5.05	1.53	1.61
85	AA	513	G	P-O5'	-5.05	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2155	U	O3'-P	-5.05	1.53	1.61
23	AP	141	ALA	N-CA	-5.05	1.40	1.46
35	BB	456	A	C2'-C1'	-5.05	1.45	1.53
35	BB	788	U	O4'-C1'	-5.05	1.34	1.41
57	BX	99	GLU	CA-C	-5.05	1.46	1.52
82	Bw	99	ALA	CA-C	-5.05	1.46	1.52
83	Bx	92	THR	N-CA	-5.05	1.39	1.46
85	AA	1567	C	P-O5'	-5.05	1.52	1.59
13	AE	89	GLY	CA-C	-5.05	1.46	1.51
34	BA	706	C	P-O5'	-5.05	1.52	1.59
34	BA	1401	C	O3'-P	-5.05	1.53	1.61
34	BA	1552	C	P-O5'	-5.05	1.52	1.59
34	BA	1666	U	C3'-C2'	-5.05	1.45	1.52
35	BB	1167	C	C2'-C1'	5.05	1.60	1.53
35	BB	1322	A	C1'-N9	-5.05	1.40	1.48
36	BC	62	A	O3'-P	-5.05	1.53	1.61
36	BC	159	U	O4'-C1'	-5.05	1.34	1.42
41	BH	72	G	O5'-C5'	5.05	1.50	1.42
65	Bf	445	ARG	N-CA	-5.05	1.40	1.47
77	Br	362	LYS	N-CA	-5.05	1.40	1.46
79	Bt	26	VAL	N-CA	-5.05	1.40	1.46
85	AA	186	U	C3'-C2'	-5.05	1.45	1.52
85	AA	655	U	C1'-N1	-5.05	1.40	1.48
85	AA	867	G	P-O5'	-5.05	1.52	1.59
85	AA	1485	G	C2'-C1'	-5.05	1.45	1.53
85	AA	1645	G	C3'-C2'	-5.05	1.45	1.52
1	A0	174	ILE	CA-CB	-5.05	1.48	1.54
2	A1	232	VAL	CA-C	-5.05	1.47	1.52
23	AP	57	LYS	N-CA	-5.05	1.39	1.46
34	BA	894	G	C2-N2	-5.05	1.24	1.34
34	BA	1081	U	O3'-P	-5.05	1.53	1.61
34	BA	1708	A	O3'-P	-5.05	1.53	1.61
35	BB	1052	G	C2'-C1'	-5.05	1.45	1.53
35	BB	1069	C	C3'-C2'	-5.05	1.45	1.52
35	BB	1079	G	C3'-C2'	-5.05	1.45	1.52
35	BB	1335	G	C2'-C1'	-5.05	1.45	1.53
36	BC	14	G	O3'-P	-5.05	1.53	1.61
85	AA	1994	G	C1'-N9	-5.05	1.40	1.48
86	AB	69	G	C1'-N9	-5.05	1.40	1.48
34	BA	1593	U	C3'-C2'	-5.05	1.45	1.52
35	BB	73	G	C1'-N9	-5.05	1.40	1.48
35	BB	654	C	C4'-C3'	-5.05	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BB	825	U	C4'-C3'	-5.05	1.45	1.52
53	BT	68	LEU	N-CA	-5.05	1.40	1.46
54	BU	122	GLY	N-CA	-5.05	1.40	1.44
69	Bj	15	ALA	CA-C	-5.05	1.46	1.53
85	AA	1204	A	C1'-N9	-5.05	1.40	1.48
23	AP	237	PRO	CA-C	-5.05	1.45	1.52
34	BA	1108	U	C1'-N1	-5.05	1.40	1.48
34	BA	1329	U	C3'-C2'	-5.05	1.45	1.52
35	BB	395	U	C2'-C1'	-5.05	1.45	1.53
35	BB	639	A	O4'-C1'	-5.05	1.34	1.42
35	BB	1245	A	P-O5'	-5.05	1.52	1.59
40	BG	130	G	C3'-C2'	-5.05	1.45	1.52
40	BG	158	A	C2'-C1'	-5.05	1.45	1.53
67	Bh	187	GLU	N-CA	-5.05	1.39	1.46
80	Bu	168	VAL	CA-CB	-5.05	1.48	1.54
83	Bx	225	LYS	N-CA	-5.05	1.40	1.46
85	AA	1560	A	O3'-P	-5.05	1.53	1.61
8	A7	263	PHE	CA-C	-5.04	1.46	1.52
34	BA	826	C	C3'-C2'	-5.04	1.45	1.52
52	BS	114	SER	N-CA	-5.04	1.40	1.46
63	Bd	32	SER	N-CA	-5.04	1.40	1.46
85	AA	1540	A	C1'-N9	-5.04	1.40	1.48
34	BA	461	A	C1'-N9	-5.04	1.40	1.48
34	BA	547	C	O4'-C1'	-5.04	1.34	1.41
34	BA	709	C	P-O5'	-5.04	1.52	1.59
34	BA	804	G	C6-N1	-5.04	1.29	1.39
34	BA	1193	A	C3'-C2'	-5.04	1.45	1.52
34	BA	1210	A	C2'-C1'	-5.04	1.45	1.53
35	BB	604	C	C2'-C1'	-5.04	1.45	1.53
39	BF	33	C	C2'-C1'	-5.04	1.45	1.53
39	BF	34	C	O4'-C1'	-5.04	1.34	1.41
42	BI	64	LEU	N-CA	-5.04	1.40	1.46
48	BO	144	ARG	CA-C	-5.04	1.46	1.52
49	BP	128	PHE	CA-C	-5.04	1.46	1.53
58	BY	30	LYS	C-N	-5.04	1.26	1.33
82	Bw	104	ILE	CA-C	-5.04	1.46	1.52
85	AA	285	C	C2'-C1'	-5.04	1.45	1.53
85	AA	584	G	C1'-N9	-5.04	1.40	1.48
85	AA	1677	A	C1'-N9	-5.04	1.40	1.48
11	AC	234	LYS	CA-C	-5.04	1.46	1.52
23	AP	164	ILE	C-N	-5.04	1.29	1.33
34	BA	260	A	C3'-C2'	-5.04	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	355	U	C3'-C2'	-5.04	1.45	1.52
34	BA	1703	A	C4'-O4'	-5.04	1.38	1.45
35	BB	44	C	O3'-P	-5.04	1.53	1.61
38	BE	201	A	C1'-N9	-5.04	1.40	1.48
41	BH	21	G	O3'-P	-5.04	1.53	1.61
41	BH	130	G	C1'-N9	-5.04	1.40	1.48
44	BK	48	VAL	CA-C	-5.04	1.46	1.52
52	BS	132	PRO	N-CA	-5.04	1.40	1.47
57	BX	111	ARG	CA-C	-5.04	1.45	1.52
65	Bf	216	HIS	C-N	-5.04	1.26	1.33
85	AA	705	G	P-O5'	-5.04	1.52	1.59
85	AA	1459	C	O3'-P	-5.04	1.53	1.61
85	AA	1681	G	C4'-O4'	-5.04	1.38	1.45
5	A4	49	ASN	N-CA	-5.04	1.39	1.46
34	BA	770	G	O3'-P	-5.04	1.53	1.61
34	BA	1685	C	O4'-C1'	-5.04	1.34	1.41
80	Bu	105	VAL	CA-C	-5.04	1.45	1.52
85	AA	614	U	O4'-C1'	-5.04	1.34	1.41
85	AA	2123	U	C5'-C4'	-5.04	1.43	1.51
34	BA	612	U	O3'-P	-5.04	1.53	1.61
35	BB	70	A	C1'-N9	-5.04	1.40	1.48
35	BB	385	C	C3'-C2'	-5.04	1.45	1.52
35	BB	1059	U	C1'-N1	-5.04	1.40	1.48
35	BB	1496	C	C3'-C2'	-5.04	1.45	1.52
36	BC	140	U	C1'-N1	-5.04	1.40	1.48
36	BC	151	G	C1'-N9	-5.04	1.40	1.48
40	BG	29	U	C3'-C2'	-5.04	1.45	1.52
40	BG	44	G	O3'-P	-5.04	1.53	1.61
44	BK	174	THR	N-CA	-5.04	1.40	1.46
48	BO	116	ALA	N-CA	-5.04	1.40	1.46
75	Bp	55	LYS	CA-C	-5.04	1.46	1.52
81	Bv	149	GLN	CA-C	-5.04	1.46	1.52
81	Bv	188	HIS	CB-CG	-5.04	1.43	1.50
82	Bw	253	LEU	N-CA	-5.04	1.40	1.46
85	AA	1243	G	C1'-N9	-5.04	1.40	1.48
34	BA	762	A	O3'-P	-5.04	1.53	1.61
34	BA	1673	G	C4'-C3'	-5.04	1.45	1.52
35	BB	72	G	C2'-C1'	-5.04	1.45	1.53
35	BB	1204	C	C3'-C2'	-5.04	1.45	1.52
35	BB	1246	C	C5'-C4'	-5.04	1.43	1.51
49	BP	125	ARG	CA-C	-5.04	1.46	1.52
66	Bg	31	SER	CA-C	-5.04	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
76	Bq	46	ARG	N-CA	-5.04	1.39	1.46
85	AA	2	A	O3'-P	-5.04	1.53	1.61
85	AA	1296	G	P-O5'	-5.04	1.52	1.59
85	AA	1910	A	C1'-N9	-5.04	1.40	1.48
7	A6	44	VAL	CA-C	-5.04	1.46	1.52
15	AG	58	MET	N-CA	-5.04	1.40	1.46
34	BA	34	U	C2'-C1'	-5.04	1.45	1.53
34	BA	200	C	C2'-C1'	-5.04	1.45	1.53
34	BA	438	A	C1'-N9	-5.04	1.40	1.48
34	BA	955	G	C3'-C2'	-5.04	1.45	1.52
34	BA	998	U	O3'-P	-5.04	1.53	1.61
34	BA	1070	G	C3'-C2'	-5.04	1.45	1.52
35	BB	1121	A	C4'-C3'	-5.04	1.45	1.52
36	BC	19	A	N9-C4	-5.04	1.27	1.37
40	BG	129	G	C3'-C2'	-5.04	1.45	1.52
41	BH	123	G	C3'-C2'	-5.04	1.45	1.52
44	BK	138	MET	N-CA	-5.04	1.39	1.46
83	Bx	73	ARG	CA-C	-5.04	1.46	1.52
85	AA	82	A	C4'-C3'	-5.04	1.45	1.52
85	AA	478	U	P-O5'	-5.04	1.52	1.59
85	AA	654	A	C4'-O4'	-5.04	1.38	1.45
85	AA	1250	A	C1'-N9	-5.04	1.40	1.48
85	AA	1480	C	C4'-C3'	-5.04	1.45	1.52
85	AA	1621	U	C2'-C1'	-5.04	1.45	1.53
3	A2	87	HIS	N-CA	-5.03	1.40	1.46
3	A2	145	ARG	CA-C	-5.03	1.46	1.52
34	BA	736	G	N9-C4	-5.03	1.27	1.38
35	BB	2	C	C2'-C1'	-5.03	1.45	1.53
35	BB	810	G	P-O5'	-5.03	1.52	1.59
35	BB	1467	A	C4'-C3'	5.03	1.60	1.52
40	BG	59	G	C2'-C1'	-5.03	1.45	1.53
41	BH	54	U	C2'-C1'	-5.03	1.45	1.53
64	Be	70	ARG	C-N	5.03	1.40	1.33
80	Bu	212	ASP	N-CA	-5.03	1.40	1.46
85	AA	523	U	O3'-P	-5.03	1.53	1.61
85	AA	689	U	C3'-C2'	-5.03	1.45	1.52
85	AA	1441	G	C1'-N9	-5.03	1.40	1.48
85	AA	2020	C	P-O5'	-5.03	1.52	1.59
85	AA	2124	G	P-O5'	-5.03	1.52	1.59
34	BA	596	G	C4'-C3'	5.03	1.60	1.53
34	BA	1103	G	C3'-C2'	-5.03	1.45	1.52
37	BD	94	C	C2'-C1'	-5.03	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	30	G	C3'-C2'	-5.03	1.45	1.52
85	AA	1474	U	C2'-C1'	-5.03	1.45	1.53
1	A0	135	TYR	CA-C	-5.03	1.46	1.52
6	A5	44	SER	CA-C	-5.03	1.47	1.52
34	BA	531	C	C1'-N1	-5.03	1.41	1.48
34	BA	1119	A	P-O5'	-5.03	1.52	1.59
34	BA	1630	A	C4'-C3'	5.03	1.60	1.52
35	BB	55	C	O3'-P	-5.03	1.53	1.61
35	BB	1391	G	C1'-N9	-5.03	1.40	1.48
39	BF	40	U	P-O5'	-5.03	1.52	1.59
39	BF	57	C	O3'-P	-5.03	1.53	1.61
40	BG	131	U	P-O5'	-5.03	1.52	1.59
49	BP	48	ARG	N-CA	-5.03	1.40	1.46
49	BP	69	CYS	CA-C	-5.03	1.46	1.52
56	BW	106	ASN	N-CA	-5.03	1.39	1.45
60	Ba	91	GLU	N-CA	-5.03	1.39	1.46
85	AA	18	C	O3'-P	-5.03	1.53	1.61
6	A5	103	VAL	CA-CB	-5.03	1.47	1.54
34	BA	577	U	P-O5'	-5.03	1.52	1.59
34	BA	1111	U	P-O5'	-5.03	1.52	1.59
34	BA	1502	G	O3'-P	-5.03	1.53	1.61
35	BB	1398	A	P-O5'	-5.03	1.52	1.59
35	BB	1504	U	O3'-P	-5.03	1.53	1.61
37	BD	37	G	C2'-C1'	-5.03	1.45	1.53
37	BD	46	G	C1'-N9	-5.03	1.40	1.48
38	BE	25	U	O5'-C5'	-5.03	1.34	1.42
85	AA	605	A	P-O5'	-5.03	1.52	1.59
23	AP	48	LYS	CA-C	-5.03	1.45	1.52
34	BA	107	C	O3'-P	-5.03	1.53	1.61
34	BA	1157	A	C1'-N9	-5.03	1.40	1.48
35	BB	68	G	C4'-O4'	-5.03	1.38	1.45
35	BB	110	U	C2'-C1'	-5.03	1.45	1.53
35	BB	1141	A	C3'-C2'	-5.03	1.45	1.52
40	BG	162	A	O3'-P	-5.03	1.53	1.61
41	BH	14	C	P-O5'	-5.03	1.52	1.59
59	BZ	111	ARG	CA-C	-5.03	1.46	1.52
69	Bj	20	ARG	N-CA	-5.03	1.39	1.45
80	Bu	142	ASP	C-N	5.03	1.39	1.33
83	Bx	98	SER	N-CA	-5.03	1.40	1.46
85	AA	186	U	C2'-C1'	-5.03	1.45	1.53
85	AA	268	A	C4'-C3'	-5.03	1.45	1.52
85	AA	470	C	C2'-C1'	-5.03	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	765	U	C4'-C3'	-5.03	1.45	1.52
85	AA	1648	G	C2'-C1'	-5.03	1.45	1.53
31	AX	199	VAL	CA-C	-5.03	1.48	1.53
34	BA	371	U	C2'-C1'	-5.03	1.45	1.53
34	BA	715	U	C1'-N1	-5.03	1.41	1.48
34	BA	821	G	C3'-O3'	5.03	1.49	1.42
34	BA	1412	G	C6-N1	-5.03	1.29	1.39
35	BB	399	A	P-O5'	-5.03	1.52	1.59
35	BB	528	G	O3'-P	-5.03	1.53	1.61
35	BB	606	C	C3'-C2'	-5.03	1.45	1.52
35	BB	1220	A	C3'-O3'	-5.03	1.34	1.42
53	BT	50	VAL	N-CA	-5.03	1.40	1.46
61	Bb	54	GLY	CA-C	-5.03	1.44	1.51
62	Bc	7	LEU	N-CA	-5.03	1.40	1.46
77	Br	110	TRP	CA-C	-5.03	1.46	1.52
82	Bw	58	LEU	CA-C	-5.03	1.46	1.52
85	AA	408	C	C2'-C1'	-5.03	1.45	1.53
85	AA	533	C	C3'-C2'	-5.03	1.45	1.52
85	AA	651	G	P-O5'	-5.03	1.52	1.59
85	AA	2205	A	C1'-N9	-5.03	1.40	1.48
23	AP	164	ILE	N-CA	-5.02	1.40	1.46
34	BA	757	G	C3'-O3'	-5.02	1.34	1.42
34	BA	943	G	C3'-C2'	-5.02	1.45	1.52
34	BA	1024	A	O3'-P	-5.02	1.53	1.61
34	BA	1242	A	C2'-C1'	-5.02	1.45	1.53
34	BA	1836	A	C3'-C2'	-5.02	1.45	1.52
35	BB	902	C	O3'-P	-5.02	1.53	1.61
35	BB	986	C	C4'-O4'	-5.02	1.38	1.45
35	BB	1117	G	C2'-C1'	-5.02	1.45	1.53
38	BE	143	A	O3'-P	-5.02	1.53	1.61
50	BQ	109	ARG	CD-NE	5.02	1.53	1.46
85	AA	17	C	O3'-P	-5.02	1.53	1.61
85	AA	2109	G	C2'-C1'	-5.02	1.45	1.53
85	AA	2183	U	C1'-N1	-5.02	1.41	1.48
6	A5	101	ILE	CA-CB	-5.02	1.48	1.53
12	AD	19	THR	CA-C	-5.02	1.46	1.52
34	BA	31	A	C2'-C1'	-5.02	1.45	1.53
34	BA	51	C	C2'-C1'	-5.02	1.45	1.53
34	BA	93	A	O4'-C1'	-5.02	1.34	1.41
34	BA	501	U	P-O5'	-5.02	1.52	1.59
34	BA	1230	G	C1'-N9	-5.02	1.40	1.48
34	BA	1458	A	O3'-P	-5.02	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1484	A	C3'-C2'	-5.02	1.45	1.52
35	BB	1244	U	C2'-C1'	-5.02	1.45	1.53
35	BB	1286	G	C4'-C3'	-5.02	1.45	1.52
35	BB	1424	G	O4'-C1'	-5.02	1.34	1.41
38	BE	144	A	C2'-C1'	-5.02	1.45	1.53
40	BG	21	C	C5'-C4'	5.02	1.58	1.51
40	BG	118	U	C4'-C3'	-5.02	1.45	1.52
79	Bt	2	VAL	CA-C	-5.02	1.42	1.52
85	AA	116	G	O3'-P	-5.02	1.53	1.61
85	AA	260	A	P-O5'	-5.02	1.52	1.59
85	AA	710	A	C5'-C4'	-5.02	1.43	1.51
85	AA	1509	A	C3'-C2'	-5.02	1.45	1.52
85	AA	1655	G	C3'-C2'	-5.02	1.45	1.52
7	A6	113	PHE	N-CA	-5.02	1.40	1.46
11	AC	229	VAL	N-CA	-5.02	1.40	1.46
20	AL	122	PRO	CA-C	-5.02	1.45	1.52
26	AS	92	HIS	N-CA	-5.02	1.39	1.46
34	BA	1279	U	O3'-P	-5.02	1.53	1.61
83	Bx	259	LEU	CA-C	-5.02	1.45	1.52
4	A3	207	ALA	CA-C	-5.02	1.46	1.52
32	AY	39	LYS	N-CA	-5.02	1.40	1.46
34	BA	23	A	P-O5'	-5.02	1.52	1.59
34	BA	295	G	P-O5'	-5.02	1.52	1.59
34	BA	472	G	C4'-C3'	-5.02	1.45	1.53
34	BA	629	G	P-O5'	-5.02	1.52	1.59
34	BA	699	G	O3'-P	-5.02	1.53	1.61
34	BA	857	C	P-O5'	-5.02	1.52	1.59
34	BA	973	U	C5'-C4'	-5.02	1.43	1.51
34	BA	1211	G	N7-C5	-5.02	1.29	1.39
34	BA	1226	G	C2'-C1'	-5.02	1.45	1.53
35	BB	110	U	C1'-N1	-5.02	1.40	1.47
35	BB	643	G	C2'-C1'	-5.02	1.45	1.53
35	BB	1408	G	C1'-N9	-5.02	1.39	1.47
51	BR	87	SER	N-CA	-5.02	1.40	1.46
68	Bi	64	THR	CA-CB	-5.02	1.46	1.53
85	AA	1251	G	P-O5'	-5.02	1.52	1.59
85	AA	2110	U	C2'-C1'	-5.02	1.45	1.53
30	AW	54	GLU	CA-C	-5.02	1.46	1.52
34	BA	617	G	C3'-C2'	-5.02	1.45	1.52
34	BA	802	G	C2'-C1'	-5.02	1.45	1.53
34	BA	908	G	C2'-C1'	-5.02	1.45	1.53
34	BA	1456	C	C4'-O4'	-5.02	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	1490	U	C3'-O3'	5.02	1.49	1.42
35	BB	1336	G	C2'-C1'	-5.02	1.45	1.53
35	BB	1497	C	C2'-C1'	-5.02	1.45	1.53
37	BD	99	G	N9-C4	-5.02	1.27	1.38
45	BL	44	LEU	CA-C	-5.02	1.45	1.52
68	Bi	122	ASN	CA-C	-5.02	1.46	1.52
77	Br	27	PHE	N-CA	-5.02	1.39	1.46
80	Bu	198	ALA	N-CA	-5.02	1.40	1.46
85	AA	732	G	C1'-N9	-5.02	1.40	1.48
85	AA	807	A	C2'-C1'	-5.02	1.45	1.53
85	AA	1128	G	C1'-N9	-5.02	1.40	1.48
85	AA	1549	G	O4'-C1'	-5.02	1.34	1.41
86	AB	5	G	P-O5'	-5.02	1.52	1.59
34	BA	401	A	O3'-P	-5.02	1.53	1.61
34	BA	710	A	C4'-C3'	-5.02	1.45	1.52
34	BA	825	G	C2'-C1'	-5.02	1.45	1.53
35	BB	1031	G	C4'-C3'	-5.02	1.45	1.53
37	BD	117	U	O3'-P	-5.02	1.53	1.61
1	A0	234	HIS	N-CA	-5.01	1.40	1.46
11	AC	171	ARG	CA-C	-5.01	1.46	1.52
34	BA	702	G	O3'-P	-5.01	1.53	1.61
36	BC	38	U	C1'-N1	-5.01	1.40	1.47
36	BC	101	U	C3'-C2'	-5.01	1.45	1.52
38	BE	150	G	O5'-C5'	5.01	1.50	1.42
40	BG	172	C	C4'-C3'	-5.01	1.45	1.53
41	BH	125	U	C3'-C2'	-5.01	1.45	1.52
42	BI	180	ARG	CA-C	-5.01	1.46	1.52
77	Br	320	ILE	CA-C	-5.01	1.45	1.52
85	AA	1145	U	C4'-C3'	-5.01	1.45	1.52
85	AA	1258	U	O3'-P	-5.01	1.53	1.61
35	BB	1201	G	C2'-C1'	-5.01	1.45	1.53
37	BD	98	G	C4'-C3'	-5.01	1.45	1.52
77	Br	329	LEU	N-CA	-5.01	1.40	1.46
85	AA	535	G	C2'-C1'	-5.01	1.45	1.53
85	AA	635	G	O3'-P	-5.01	1.53	1.61
85	AA	636	G	C2'-C1'	-5.01	1.45	1.53
85	AA	801	U	P-O5'	-5.01	1.52	1.59
85	AA	887	A	O4'-C1'	-5.01	1.34	1.41
85	AA	915	G	C1'-N9	-5.01	1.40	1.48
5	A4	126	VAL	N-CA	-5.01	1.40	1.46
11	AC	84	ILE	CA-C	-5.01	1.46	1.52
29	AV	96	ARG	CD-NE	5.01	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BA	373	G	O3'-P	-5.01	1.53	1.61
34	BA	1204	U	C1'-N1	-5.01	1.41	1.48
34	BA	1213	A	C3'-C2'	-5.01	1.45	1.52
34	BA	1320	A	O3'-P	-5.01	1.53	1.61
35	BB	431	U	C4'-C3'	-5.01	1.45	1.52
35	BB	503	G	O3'-P	-5.01	1.53	1.61
35	BB	600	C	C2'-C1'	-5.01	1.45	1.53
35	BB	1075	A	O3'-P	-5.01	1.53	1.61
35	BB	1221	G	P-O5'	-5.01	1.52	1.59
40	BG	65	C	C4'-O4'	-5.01	1.38	1.45
41	BH	128	G	C2'-C1'	-5.01	1.45	1.53
42	BI	32	LEU	N-CA	-5.01	1.40	1.46
62	Bc	139	LYS	N-CA	-5.01	1.40	1.46
64	Be	185	SER	N-CA	-5.01	1.39	1.46
85	AA	678	A	C3'-C2'	-5.01	1.45	1.52
85	AA	1185	G	O3'-P	-5.01	1.53	1.61
85	AA	1499	G	C3'-C2'	-5.01	1.45	1.52
13	AE	94	THR	CA-C	-5.01	1.46	1.52
31	AX	78	TYR	CA-C	-5.01	1.46	1.52
34	BA	202	A	P-O5'	-5.01	1.52	1.59
34	BA	231	U	C1'-N1	5.01	1.55	1.48
34	BA	372	U	C1'-N1	-5.01	1.41	1.48
34	BA	423	G	C3'-C2'	-5.01	1.45	1.52
34	BA	580	U	C4'-O4'	-5.01	1.38	1.45
34	BA	849	G	O3'-P	-5.01	1.53	1.61
34	BA	1587	C	C3'-C2'	-5.01	1.45	1.52
34	BA	1822	U	C2'-C1'	-5.01	1.45	1.53
35	BB	19	C	C4'-O4'	-5.01	1.38	1.45
35	BB	1059	U	C2'-C1'	-5.01	1.45	1.53
35	BB	1456	G	C4'-C3'	-5.01	1.45	1.52
49	BP	21	GLN	CA-C	-5.01	1.46	1.52
85	AA	192	G	O3'-P	-5.01	1.53	1.61
85	AA	595	A	O3'-P	-5.01	1.53	1.61
85	AA	1190	G	O4'-C1'	-5.01	1.34	1.41
2	A1	111	VAL	N-CA	-5.01	1.40	1.46
35	BB	432	C	C3'-C2'	-5.01	1.45	1.52
38	BE	109	C	C2'-C1'	-5.01	1.45	1.53
73	Bn	74	ILE	CA-CB	-5.01	1.48	1.54
73	Bn	78	PHE	N-CA	-5.01	1.39	1.46
80	Bu	25	GLU	N-CA	-5.01	1.40	1.46
6	A5	78	ILE	CA-CB	-5.01	1.48	1.53
16	AH	53	MET	CA-C	-5.01	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	AR	85	ILE	C-N	-5.01	1.26	1.33
34	BA	263	G	O3'-P	-5.01	1.53	1.61
35	BB	118	A	C2'-C1'	-5.01	1.45	1.53
35	BB	696	G	P-O5'	-5.01	1.52	1.59
35	BB	861	C	C2'-C1'	-5.01	1.45	1.53
38	BE	126	G	C1'-N9	-5.01	1.40	1.48
40	BG	90	G	P-O5'	-5.01	1.52	1.59
41	BH	108	U	C1'-N1	-5.01	1.40	1.47
50	BQ	83	VAL	CA-C	-5.01	1.46	1.52
54	BU	79	PRO	CA-C	-5.01	1.47	1.52
62	Bc	81	VAL	CA-CB	-5.01	1.47	1.54
68	Bi	19	THR	CA-CB	-5.01	1.47	1.53
84	By	23	ILE	CA-C	-5.01	1.46	1.52
85	AA	367	A	C3'-C2'	-5.01	1.45	1.52
85	AA	1733	G	C4'-C3'	5.01	1.60	1.52
29	AV	82	ALA	N-CA	-5.00	1.40	1.46
34	BA	326	A	O4'-C1'	-5.00	1.34	1.41
34	BA	932	G	P-O5'	-5.00	1.52	1.59
44	BK	100	ASN	N-CA	-5.00	1.39	1.46
72	Bm	98	VAL	CA-C	-5.00	1.46	1.52
77	Br	176	ILE	CA-CB	-5.00	1.47	1.54
81	Bv	155	ASP	CA-C	-5.00	1.46	1.52
85	AA	156	G	C2'-C1'	-5.00	1.45	1.53
85	AA	1520	A	C1'-N9	-5.00	1.40	1.48
7	A6	71	GLU	N-CA	-5.00	1.40	1.46
34	BA	48	C	C2'-C1'	-5.00	1.45	1.53
34	BA	686	U	C3'-C2'	-5.00	1.45	1.52
34	BA	1380	G	P-O5'	-5.00	1.52	1.59
34	BA	1514	A	O3'-P	-5.00	1.53	1.61
35	BB	785	G	O3'-P	-5.00	1.53	1.61
35	BB	1116	U	C3'-C2'	-5.00	1.45	1.52
35	BB	1363	A	P-O5'	-5.00	1.52	1.59
35	BB	1426	G	P-O5'	-5.00	1.52	1.59
35	BB	1540	U	C3'-C2'	-5.00	1.45	1.52
40	BG	71	C	C4'-C3'	-5.00	1.45	1.52
44	BK	23	CYS	N-CA	-5.00	1.40	1.46
48	BO	74	GLN	N-CA	-5.00	1.40	1.46
50	BQ	211	ARG	N-CA	-5.00	1.40	1.46
53	BT	43	LYS	N-CA	-5.00	1.40	1.46
85	AA	504	U	P-O5'	-5.00	1.52	1.59
85	AA	993	G	C2'-C1'	-5.00	1.45	1.53
85	AA	1839	G	C2'-C1'	-5.00	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	AA	2114	U	O3'-P	-5.00	1.53	1.61
12	AD	39	GLY	CA-C	-5.00	1.46	1.51
30	AW	46	VAL	CA-C	-5.00	1.46	1.52
34	BA	96	G	C3'-C2'	-5.00	1.45	1.52
34	BA	527	C	C1'-N1	-5.00	1.41	1.48
34	BA	1600	G	O4'-C1'	-5.00	1.34	1.41
35	BB	564	U	O3'-P	-5.00	1.53	1.61
35	BB	637	G	C1'-N9	-5.00	1.40	1.48
35	BB	688	U	C1'-N1	-5.00	1.41	1.48
36	BC	152	C	N1-C2	-5.00	1.30	1.40
40	BG	57	A	P-O5'	-5.00	1.52	1.59
56	BW	105	VAL	CA-CB	-5.00	1.48	1.55
70	Bk	121	ARG	CD-NE	5.00	1.53	1.46
80	Bu	21	ARG	N-CA	-5.00	1.40	1.46
85	AA	1866	A	O3'-P	-5.00	1.53	1.61
85	AA	2236	U	C1'-N1	-5.00	1.41	1.48

All (17796) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BF	32	G	P-O3'-C3'	32.58	169.07	120.20
34	BA	692	U	P-O3'-C3'	30.17	165.46	120.20
34	BA	517	A	P-O5'-C5'	29.31	164.87	120.90
38	BE	175	U	P-O3'-C3'	28.24	162.56	120.20
34	BA	557	U	C4'-C3'-C2'	-27.90	74.70	102.60
34	BA	647	U	P-O3'-C3'	-27.33	79.20	120.20
34	BA	605	G	P-O5'-C5'	26.32	160.38	120.90
35	BB	2	C	P-O5'-C5'	26.31	160.36	120.90
34	BA	1523	U	P-O3'-C3'	26.30	159.65	120.20
34	BA	777	C	P-O5'-C5'	26.27	160.31	120.90
40	BG	9	G	P-O3'-C3'	26.25	159.58	120.20
34	BA	766	A	P-O5'-C5'	26.06	159.99	120.90
85	AA	24	U	P-O3'-C3'	25.98	159.17	120.20
34	BA	280	A	P-O5'-C5'	25.89	159.74	120.90
85	AA	164	G	P-O5'-C5'	25.78	159.56	120.90
38	BE	23	G	P-O5'-C5'	25.54	159.21	120.90
34	BA	557	U	C4'-C3'-O3'	25.14	150.71	113.00
40	BG	23	C	P-O5'-C5'	25.12	158.58	120.90
34	BA	633	G	P-O3'-C3'	24.75	157.33	120.20
85	AA	1371	C	P-O3'-C3'	24.58	157.07	120.20
85	AA	1921	G	C5'-C4'-C3'	24.07	152.11	116.00
35	BB	1024	G	P-O3'-C3'	23.63	155.65	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	61	A	P-O3'-C3'	23.41	155.32	120.20
85	AA	1973	G	P-O3'-C3'	23.36	155.24	120.20
40	BG	22	G	P-O3'-C3'	22.82	154.43	120.20
34	BA	578	C	P-O3'-C3'	22.40	153.80	120.20
35	BB	972	C	P-O3'-C3'	22.00	153.21	120.20
85	AA	787	U	P-O5'-C5'	21.99	153.89	120.90
85	AA	902	A	P-O5'-C5'	21.95	153.82	120.90
35	BB	5	A	P-O5'-C5'	21.84	153.67	120.90
85	AA	1018	G	P-O5'-C5'	21.78	153.57	120.90
34	BA	315	U	P-O5'-C5'	21.49	153.14	120.90
36	BC	148	C	P-O5'-C5'	21.35	152.93	120.90
38	BE	18	U	P-O3'-C3'	21.28	152.12	120.20
36	BC	81	U	P-O5'-C5'	21.21	152.72	120.90
34	BA	768	G	P-O3'-C3'	21.15	151.92	120.20
35	BB	1494	G	P-O3'-C3'	20.94	151.61	120.20
35	BB	838	G	P-O3'-C3'	20.89	151.54	120.20
34	BA	689	C	P-O3'-C3'	20.88	151.51	120.20
37	BD	83	A	P-O3'-C3'	20.74	151.31	120.20
34	BA	296	G	C5'-C4'-C3'	20.70	147.05	116.00
85	AA	523	U	P-O5'-C5'	20.49	151.64	120.90
41	BH	102	C	O3'-P-O5'	20.45	134.68	104.00
35	BB	766	G	P-O5'-C5'	20.26	151.28	120.90
34	BA	205	G	P-O3'-C3'	20.25	150.58	120.20
34	BA	1787	U	P-O3'-C3'	20.11	150.37	120.20
34	BA	606	G	P-O3'-C3'	20.04	150.26	120.20
34	BA	591	G	P-O5'-C5'	19.58	150.27	120.90
34	BA	598	G	P-O3'-C3'	19.49	149.44	120.20
35	BB	5	A	C5'-C4'-C3'	19.39	145.09	116.00
34	BA	1831	A	P-O3'-C3'	19.21	149.01	120.20
34	BA	1494	G	P-O3'-C3'	19.19	148.99	120.20
34	BA	771	A	P-O3'-C3'	19.16	148.94	120.20
85	AA	862	U	P-O3'-C3'	18.89	148.53	120.20
85	AA	1454	U	P-O5'-C5'	18.75	149.02	120.90
40	BG	24	A	P-O3'-C3'	18.68	148.23	120.20
34	BA	598	G	P-O5'-C5'	18.68	148.91	120.90
85	AA	1535	C	P-O3'-C3'	18.48	147.92	120.20
51	BR	50	GLN	N-CA-C	18.47	131.49	111.36
41	BH	101	A	P-O5'-C5'	18.42	148.53	120.90
85	AA	529	G	P-O3'-C3'	18.42	147.83	120.20
36	BC	131	C	P-O5'-C5'	18.12	148.07	120.90
34	BA	1506	C	P-O5'-C5'	18.06	147.99	120.90
34	BA	231	U	O3'-P-O5'	18.01	131.01	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	797	C	P-O3'-C3'	17.99	147.18	120.20
85	AA	300	C	P-O3'-C3'	17.98	147.17	120.20
35	BB	784	C	P-O5'-C5'	17.96	147.84	120.90
34	BA	1832	A	P-O5'-C5'	17.92	147.78	120.90
34	BA	597	C	P-O5'-C5'	17.92	147.78	120.90
38	BE	31	A	C5'-C4'-C3'	-17.91	89.14	116.00
35	BB	641	C	P-O5'-C5'	17.90	147.75	120.90
85	AA	2244	G	P-O3'-C3'	17.86	146.99	120.20
34	BA	316	G	P-O5'-C5'	17.85	147.68	120.90
35	BB	870	C	P-O5'-C5'	17.85	147.67	120.90
85	AA	1107	A	P-O5'-C5'	17.77	147.55	120.90
85	AA	80	G	P-O3'-C3'	17.75	146.83	120.20
36	BC	125	A	P-O5'-C5'	17.73	147.49	120.90
34	BA	570	G	P-O3'-C3'	17.72	146.78	120.20
35	BB	839	G	P-O5'-C5'	17.71	147.46	120.90
85	AA	136	U	P-O5'-C5'	17.69	147.44	120.90
85	AA	890	U	P-O3'-C3'	17.58	146.56	120.20
85	AA	867	G	P-O3'-C3'	17.56	146.54	120.20
38	BE	108	U	C5'-C4'-C3'	17.49	142.24	116.00
41	BH	71	C	P-O3'-C3'	17.46	146.39	120.20
36	BC	123	G	P-O3'-C3'	17.45	146.38	120.20
35	BB	970	C	P-O3'-C3'	17.45	146.37	120.20
57	BX	82	PHE	CA-CB-CG	17.44	131.24	113.80
85	AA	1789	C	C5'-C4'-C3'	17.41	142.11	116.00
35	BB	2	C	O5'-C5'-C4'	-17.40	85.41	111.50
35	BB	995	C	P-O5'-C5'	17.35	146.92	120.90
39	BF	51	C	P-O3'-C3'	17.31	146.17	120.20
85	AA	1110	A	P-O5'-C5'	17.28	146.82	120.90
34	BA	547	C	C4'-C3'-O3'	17.27	138.90	113.00
39	BF	32	G	C5'-C4'-C3'	-17.25	89.32	115.20
85	AA	360	C	P-O5'-C5'	17.21	146.71	120.90
34	BA	516	U	C5'-C4'-C3'	17.19	141.79	116.00
85	AA	1301	C	P-O3'-C3'	17.15	145.92	120.20
41	BH	26	C	P-O3'-C3'	17.14	145.91	120.20
85	AA	1495	G	P-O5'-C5'	17.11	146.56	120.90
85	AA	735	G	P-O3'-C3'	17.08	145.81	120.20
38	BE	134	A	P-O3'-C3'	17.05	145.78	120.20
85	AA	45	U	P-O3'-C3'	17.05	145.77	120.20
85	AA	913	U	P-O5'-C5'	17.04	146.47	120.90
69	Bj	62	HIS	CA-CB-CG	17.03	130.83	113.80
56	BW	87	TRP	CB-CG-CD2	-16.99	103.01	126.80
38	BE	31	A	P-O5'-C5'	16.95	146.33	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1538	G	O3'-P-O5'	16.87	129.31	104.00
35	BB	1167	C	P-O3'-C3'	16.86	145.50	120.20
34	BA	888	G	P-O5'-C5'	16.86	146.19	120.90
39	BF	33	C	O3'-P-O5'	16.84	129.26	104.00
85	AA	2063	C	P-O5'-C5'	16.82	146.12	120.90
35	BB	878	G	P-O5'-C5'	16.76	146.04	120.90
34	BA	561	U	O3'-P-O5'	16.75	129.13	104.00
38	BE	16	C	P-O5'-C5'	16.75	146.02	120.90
35	BB	795	A	P-O3'-C3'	16.68	145.22	120.20
85	AA	809	A	P-O5'-C5'	16.68	145.91	120.90
34	BA	1787	U	O3'-P-O5'	16.64	128.96	104.00
34	BA	289	A	O3'-P-O5'	16.61	128.92	104.00
85	AA	65	A	C5'-C4'-C3'	16.55	140.82	116.00
85	AA	1368	G	P-O5'-C5'	16.55	145.72	120.90
34	BA	515	U	O3'-P-O5'	16.46	128.69	104.00
34	BA	185	A	P-O5'-C5'	16.43	145.55	120.90
83	Bx	51	ARG	N-CA-C	16.43	133.92	111.24
34	BA	1307	U	P-O3'-C3'	16.38	144.77	120.20
34	BA	1295	U	C5'-C4'-C3'	16.36	139.75	115.20
34	BA	875	G	P-O5'-C5'	16.32	145.39	120.90
85	AA	1921	G	P-O5'-C5'	-16.29	96.46	120.90
35	BB	652	G	P-O3'-C3'	-16.27	95.79	120.20
34	BA	692	U	P-O5'-C5'	16.27	145.31	120.90
36	BC	113	G	P-O5'-C5'	16.27	145.30	120.90
35	BB	957	A	O3'-P-O5'	-16.27	79.60	104.00
85	AA	2218	G	C5'-C4'-C3'	16.24	139.56	115.20
36	BC	108	A	P-O5'-C5'	16.11	145.06	120.90
34	BA	1422	A	P-O3'-C3'	16.10	144.35	120.20
85	AA	603	C	P-O5'-C5'	16.09	145.03	120.90
34	BA	801	U	P-O5'-C5'	16.06	144.99	120.90
62	Bc	12	VAL	N-CA-C	16.05	128.72	112.83
5	A4	91	PHE	CA-CB-CG	-16.05	97.75	113.80
34	BA	1790	U	P-O5'-C5'	16.05	144.97	120.90
85	AA	710	A	P-O3'-C3'	16.04	144.26	120.20
85	AA	1275	A	P-O5'-C5'	16.03	144.94	120.90
85	AA	267	U	P-O5'-C5'	15.96	144.84	120.90
35	BB	975	G	P-O5'-C5'	15.93	144.79	120.90
36	BC	139	A	O3'-P-O5'	15.88	127.83	104.00
34	BA	827	A	P-O3'-C3'	15.88	144.02	120.20
68	Bi	103	ALA	N-CA-C	15.88	128.59	111.28
37	BD	64	A	P-O5'-C5'	15.85	144.67	120.90
34	BA	1801	G	C5'-C4'-C3'	15.84	139.76	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1209	U	P-O5'-C5'	15.84	144.66	120.90
37	BD	83	A	O3'-P-O5'	-15.83	80.26	104.00
35	BB	778	A	C5'-C4'-C3'	-15.79	92.31	116.00
85	AA	47	A	P-O3'-C3'	15.78	143.87	120.20
85	AA	100	A	P-O5'-C5'	15.76	144.54	120.90
85	AA	1090	A	P-O3'-C3'	15.76	143.84	120.20
34	BA	774	A	P-O5'-C5'	15.74	144.51	120.90
85	AA	56	U	P-O3'-C3'	15.72	143.78	120.20
34	BA	230	A	C5'-C4'-C3'	15.71	139.57	116.00
85	AA	1362	A	C5'-C4'-C3'	15.71	139.56	116.00
34	BA	593	G	P-O5'-C5'	15.70	144.45	120.90
85	AA	1354	A	O3'-P-O5'	15.68	127.51	104.00
35	BB	1024	G	O3'-P-O5'	15.67	127.50	104.00
34	BA	587	U	C5'-C4'-C3'	-15.65	92.53	116.00
29	AV	24	HIS	CA-CB-CG	15.63	129.43	113.80
77	Br	262	PHE	CA-CB-CG	-15.63	98.17	113.80
85	AA	2216	A	P-O3'-C3'	15.57	143.56	120.20
39	BF	10	A	O3'-P-O5'	15.52	127.28	104.00
85	AA	687	G	C2'-C3'-O3'	15.51	132.77	109.50
48	BO	128	VAL	N-CA-C	15.48	125.32	110.30
34	BA	206	C	P-O3'-C3'	15.48	143.42	120.20
34	BA	793	A	P-O5'-C5'	15.48	144.12	120.90
34	BA	769	U	P-O3'-C3'	15.45	143.38	120.20
39	BF	23	G	O5'-C5'-C4'	15.45	134.67	111.50
50	BQ	79	PHE	CA-CB-CG	-15.44	98.36	113.80
34	BA	548	G	P-O5'-C5'	15.42	144.03	120.90
34	BA	780	U	P-O5'-C5'	15.42	144.03	120.90
4	A3	38	ASP	CA-CB-CG	-15.41	97.19	112.60
41	BH	31	A	C5'-C4'-C3'	15.41	139.11	116.00
41	BH	32	U	C5'-C4'-C3'	-15.35	92.98	116.00
38	BE	25	U	P-O5'-C5'	15.34	143.91	120.90
85	AA	1535	C	O3'-P-O5'	15.33	127.00	104.00
34	BA	433	G	C5'-C4'-C3'	15.29	138.94	116.00
85	AA	26	A	P-O5'-C5'	15.25	143.78	120.90
85	AA	745	C	P-O5'-C5'	15.24	143.76	120.90
85	AA	766	G	C5'-C4'-C3'	-15.20	93.20	116.00
34	BA	712	C	P-O3'-C3'	15.17	142.96	120.20
85	AA	599	C	O3'-P-O5'	15.15	126.73	104.00
85	AA	525	C	O3'-P-O5'	-15.14	81.29	104.00
18	AJ	64	ASN	CA-CB-CG	-15.13	97.47	112.60
34	BA	515	U	P-O5'-C5'	15.08	143.52	120.90
85	AA	1183	C	P-O3'-C3'	15.05	142.78	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	443	A	O3'-P-O5'	-15.04	81.44	104.00
34	BA	546	U	P-O5'-C5'	15.02	143.43	120.90
38	BE	107	U	C5'-C4'-C3'	-15.02	93.47	116.00
85	AA	269	G	P-O5'-C5'	15.00	143.40	120.90
85	AA	1466	U	C5'-C4'-C3'	14.99	138.49	116.00
85	AA	65	A	P-O5'-C5'	14.98	143.37	120.90
38	BE	107	U	P-O5'-C5'	14.98	143.37	120.90
35	BB	894	A	P-O3'-C3'	14.97	142.66	120.20
34	BA	557	U	C3'-C2'-O2'	14.95	133.12	110.70
85	AA	314	C	P-O5'-C5'	14.93	143.30	120.90
34	BA	507	U	C5'-C4'-C3'	14.92	138.38	116.00
34	BA	547	C	C4'-C3'-C2'	-14.91	87.69	102.60
34	BA	1565	U	C5'-C4'-C3'	14.91	138.36	116.00
3	A2	64	PHE	CA-CB-CG	-14.90	98.90	113.80
34	BA	625	U	P-O3'-C3'	14.81	142.42	120.20
38	BE	72	C	P-O5'-C5'	14.81	143.11	120.90
85	AA	1396	C	P-O3'-C3'	14.80	142.39	120.20
34	BA	646	C	P-O3'-C3'	14.79	142.39	120.20
34	BA	605	G	C5'-C4'-C3'	-14.75	93.88	116.00
41	BH	72	G	O5'-C5'-C4'	14.74	133.60	111.50
34	BA	1181	G	P-O5'-C5'	14.73	143.00	120.90
34	BA	756	A	P-O5'-C5'	14.73	142.99	120.90
85	AA	1208	C	P-O3'-C3'	14.72	142.28	120.20
34	BA	778	U	P-O3'-C3'	14.70	142.25	120.20
35	BB	1490	G	O4'-C4'-C3'	-14.70	89.30	104.00
34	BA	711	C	P-O3'-C3'	14.67	142.21	120.20
40	BG	22	G	O3'-P-O5'	-14.67	82.00	104.00
85	AA	1355	U	C5'-C4'-C3'	14.66	137.99	116.00
35	BB	878	G	C5'-C4'-C3'	14.65	137.98	116.00
74	Bo	47	PHE	CA-CB-CG	-14.64	99.16	113.80
34	BA	862	C	P-O3'-C3'	14.62	142.13	120.20
42	BI	18	HIS	CA-C-N	14.62	149.47	121.54
42	BI	18	HIS	C-N-CA	14.62	149.47	121.54
85	AA	985	G	C5'-C4'-C3'	-14.62	94.07	116.00
85	AA	1067	G	P-O3'-C3'	14.60	142.09	120.20
85	AA	2197	A	C5'-C4'-C3'	14.59	137.89	116.00
85	AA	1976	G	C5'-C4'-C3'	-14.57	94.14	116.00
34	BA	189	G	C5'-C4'-C3'	-14.56	94.16	116.00
85	AA	185	A	P-O5'-C5'	14.54	142.70	120.90
35	BB	561	C	C1'-O4'-C4'	-14.52	95.38	109.90
85	AA	924	A	C5'-C4'-C3'	-14.51	94.24	116.00
56	BW	81	ILE	CB-CA-C	14.50	125.12	110.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	684	G	O5'-C5'-C4'	14.48	133.42	111.70
36	BC	33	U	C5'-C4'-C3'	-14.45	93.52	115.20
35	BB	765	G	O3'-P-O5'	-14.45	82.33	104.00
85	AA	520	A	O5'-C5'-C4'	14.44	133.36	111.70
34	BA	1440	C	C5'-C4'-C3'	-14.42	94.37	116.00
25	AR	43	ASN	CA-CB-CG	-14.41	98.19	112.60
34	BA	1676	A	P-O5'-C5'	14.40	142.50	120.90
39	BF	16	C	P-O5'-C5'	14.39	142.49	120.90
34	BA	1217	A	P-O5'-C5'	14.39	142.49	120.90
37	BD	14	C	P-O5'-C5'	14.39	142.49	120.90
85	AA	165	C	P-O5'-C5'	-14.39	99.32	120.90
34	BA	1478	G	C5'-C4'-C3'	14.36	137.54	116.00
85	AA	1493	A	C4'-C3'-C2'	-14.36	88.24	102.60
34	BA	1227	U	C5'-C4'-C3'	14.35	137.53	116.00
34	BA	1592	U	C5'-C4'-C3'	-14.31	94.53	116.00
34	BA	896	U	O4'-C1'-C2'	-14.28	93.32	107.60
35	BB	768	A	C2'-C3'-O3'	14.28	130.91	109.50
35	BB	487	A	C5'-C4'-C3'	14.27	137.40	116.00
85	AA	2215	C	O3'-P-O5'	14.27	125.40	104.00
34	BA	548	G	C5'-C4'-C3'	14.22	137.33	116.00
85	AA	2234	C	P-O5'-C5'	14.21	142.22	120.90
35	BB	837	A	P-O5'-C5'	14.19	142.18	120.90
36	BC	31	A	P-O3'-C3'	14.19	141.48	120.20
60	Ba	52	VAL	N-CA-C	14.18	125.04	110.72
34	BA	896	U	C4'-C3'-C2'	-14.17	88.43	102.60
34	BA	453	A	C5'-C4'-C3'	-14.15	94.78	116.00
34	BA	673	U	C5'-C4'-C3'	14.14	137.22	116.00
11	AC	201	ASN	CA-CB-CG	-14.13	98.47	112.60
65	Bf	157	TRP	CB-CG-CD2	-14.12	107.03	126.80
85	AA	901	C	P-O3'-C3'	14.10	141.35	120.20
85	AA	125	A	C2'-C3'-O3'	14.10	130.64	109.50
85	AA	2085	C	C2'-C3'-O3'	14.08	130.62	109.50
85	AA	1277	C	P-O3'-C3'	14.06	141.30	120.20
35	BB	1201	G	C4'-C3'-C2'	-14.06	88.54	102.60
85	AA	1598	A	O3'-P-O5'	-14.05	82.92	104.00
35	BB	59	U	P-O3'-C3'	14.04	141.26	120.20
85	AA	424	A	C4'-C3'-O3'	14.04	134.06	113.00
85	AA	830	A	C5'-C4'-C3'	14.03	137.05	116.00
72	Bm	36	ASP	CA-CB-CG	-14.03	98.57	112.60
85	AA	84	C	C5'-C4'-C3'	-14.03	94.96	116.00
49	BP	151	ALA	N-CA-C	-14.01	96.09	111.36
36	BC	111	C	P-O5'-C5'	14.01	141.91	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	850	U	C5'-C4'-C3'	-14.00	95.00	116.00
34	BA	588	C	P-O3'-C3'	14.00	141.20	120.20
85	AA	556	C	O3'-P-O5'	-13.99	83.01	104.00
35	BB	875	G	C5'-C4'-C3'	13.96	136.93	116.00
34	BA	1562	G	P-O3'-C3'	13.94	141.12	120.20
59	BZ	41	ASN	CA-CB-CG	-13.94	98.66	112.60
67	Bh	35	ASP	CA-CB-CG	13.94	126.54	112.60
34	BA	797	A	P-O3'-C3'	13.93	141.10	120.20
69	Bj	71	HIS	CA-CB-CG	13.93	127.73	113.80
30	AW	5	ASP	N-CA-C	13.92	128.00	111.02
35	BB	772	U	P-O5'-C5'	13.90	141.75	120.90
85	AA	854	A	O5'-C5'-C4'	13.90	132.35	111.50
84	By	3	ILE	N-CA-C	13.90	126.75	108.12
36	BC	141	C	P-O5'-C5'	13.90	141.75	120.90
85	AA	1825	A	P-O3'-C3'	13.89	141.04	120.20
34	BA	882	G	P-O3'-C3'	13.89	141.03	120.20
35	BB	1229	A	P-O5'-C5'	13.89	141.73	120.90
34	BA	13	U	P-O5'-C5'	13.88	141.71	120.90
75	Bp	27	HIS	CA-CB-CG	-13.88	99.92	113.80
57	BX	101	ASN	CA-CB-CG	-13.87	98.73	112.60
34	BA	1204	U	P-O3'-C3'	13.86	140.99	120.20
38	BE	136	G	P-O5'-C5'	13.86	141.69	120.90
48	BO	146	ASN	CA-CB-CG	-13.86	98.74	112.60
85	AA	1514	A	P-O3'-C3'	13.85	140.98	120.20
40	BG	98	A	C5'-C4'-C3'	-13.84	95.25	116.00
34	BA	589	A	P-O3'-C3'	13.83	140.94	120.20
35	BB	802	G	C5'-C4'-C3'	-13.82	95.26	116.00
34	BA	1775	U	P-O3'-C3'	13.81	140.91	120.20
34	BA	606	G	P-O5'-C5'	13.80	141.59	120.90
41	BH	129	G	C5'-C4'-C3'	-13.79	94.51	115.20
34	BA	1724	G	C5'-C4'-C3'	13.79	136.68	116.00
50	BQ	50	GLN	N-CA-C	13.78	129.09	110.35
34	BA	305	C	P-O5'-C5'	13.78	141.56	120.90
38	BE	9	C	O3'-P-O5'	13.78	124.67	104.00
85	AA	1455	C	P-O3'-C3'	-13.78	99.54	120.20
5	A4	158	PHE	CA-CB-CG	-13.77	100.03	113.80
35	BB	365	U	P-O5'-C5'	13.71	141.47	120.90
35	BB	831	C	C5'-C4'-C3'	-13.71	95.44	116.00
85	AA	514	U	P-O5'-C5'	13.71	141.46	120.90
85	AA	1374	A	P-O5'-C5'	13.69	141.44	120.90
5	A4	188	PHE	CA-CB-CG	-13.69	100.11	113.80
41	BH	128	G	P-O3'-C3'	13.68	140.72	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BC	81	U	P-O3'-C3'	13.64	140.66	120.20
85	AA	615	A	P-O5'-C5'	13.60	141.31	120.90
34	BA	584	A	C5'-C4'-C3'	13.58	136.37	116.00
36	BC	23	G	C5'-C4'-C3'	-13.58	95.63	116.00
85	AA	837	C	P-O3'-C3'	13.57	140.56	120.20
38	BE	103	C	P-O3'-C3'	13.57	140.55	120.20
85	AA	370	A	C5'-C4'-C3'	13.54	136.32	116.00
41	BH	48	G	P-O3'-C3'	13.54	140.50	120.20
41	BH	72	G	C4'-C3'-O3'	13.53	133.30	113.00
34	BA	1809	G	C1'-O4'-C4'	-13.53	96.37	109.90
85	AA	1921	G	O5'-C5'-C4'	13.52	131.78	111.50
34	BA	1330	G	P-O3'-C3'	13.52	140.47	120.20
35	BB	850	U	P-O5'-C5'	13.51	141.17	120.90
38	BE	115	U	O3'-P-O5'	-13.49	83.77	104.00
34	BA	281	C	P-O3'-C3'	13.48	140.42	120.20
71	Bl	126	PHE	CA-CB-CG	-13.48	100.32	113.80
85	AA	1789	C	P-O3'-C3'	13.48	140.41	120.20
25	AR	26	ASN	CA-CB-CG	-13.47	99.13	112.60
38	BE	108	U	O4'-C4'-C3'	-13.47	90.53	104.00
34	BA	297	A	P-O5'-C5'	13.46	141.09	120.90
35	BB	797	C	C5'-C4'-C3'	13.45	136.18	116.00
85	AA	305	A	C5'-C4'-C3'	13.45	136.18	116.00
85	AA	1604	A	P-O3'-C3'	13.45	140.38	120.20
62	Bc	88	SER	N-CA-C	13.45	127.42	111.02
34	BA	524	G	O3'-P-O5'	13.44	124.17	104.00
34	BA	572	G	O3'-P-O5'	13.44	124.16	104.00
85	AA	374	C	C5'-C4'-C3'	-13.43	95.85	116.00
39	BF	51	C	O3'-P-O5'	-13.43	83.86	104.00
34	BA	1003	A	C4'-C3'-C2'	13.42	116.02	102.60
35	BB	1229	A	O3'-P-O5'	13.42	124.13	104.00
85	AA	526	G	P-O5'-C5'	13.40	141.01	120.90
34	BA	497	U	C5'-C4'-C3'	13.40	136.10	116.00
35	BB	730	G	P-O5'-C5'	13.39	140.98	120.90
35	BB	518	G	C5'-C4'-C3'	-13.38	95.92	116.00
85	AA	82	A	O3'-P-O5'	-13.37	83.94	104.00
34	BA	685	C	P-O3'-C3'	-13.36	100.16	120.20
34	BA	89	G	P-O3'-C3'	13.35	140.22	120.20
34	BA	1475	G	P-O3'-C3'	13.34	140.22	120.20
35	BB	1502	U	P-O3'-C3'	13.34	140.22	120.20
71	Bl	95	TRP	CA-C-N	13.34	145.71	121.70
71	Bl	95	TRP	C-N-CA	13.34	145.71	121.70
34	BA	1626	U	C5'-C4'-C3'	13.33	135.99	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BF	34	C	C5'-C4'-C3'	13.33	135.99	116.00
85	AA	2078	A	C5'-C4'-C3'	13.32	135.97	116.00
35	BB	504	C	C5'-C4'-C3'	-13.31	96.04	116.00
34	BA	1721	U	O4'-C1'-C2'	-13.28	94.33	107.60
16	AH	30	PHE	CA-CB-CG	-13.26	100.54	113.80
85	AA	509	C	P-O3'-C3'	13.26	140.09	120.20
85	AA	276	C	C5'-C4'-C3'	13.26	135.88	116.00
41	BH	72	G	P-O3'-C3'	13.25	140.08	120.20
34	BA	1649	A	C5'-C4'-C3'	-13.24	95.34	115.20
34	BA	186	G	P-O5'-C5'	13.23	140.75	120.90
38	BE	110	U	C5'-C4'-C3'	-13.22	96.16	116.00
35	BB	1202	G	C5'-C4'-C3'	-13.22	96.17	116.00
34	BA	84	U	P-O3'-C3'	13.22	140.03	120.20
85	AA	1730	C	O3'-P-O5'	-13.22	84.18	104.00
85	AA	1495	G	O5'-C5'-C4'	-13.21	91.69	111.50
34	BA	891	C	P-O5'-C5'	13.20	140.70	120.90
85	AA	2119	C	C5'-C4'-C3'	13.20	135.80	116.00
34	BA	837	U	O3'-P-O5'	-13.17	84.25	104.00
34	BA	1723	U	O4'-C1'-C2'	-13.16	92.64	105.80
39	BF	21	C	P-O3'-C3'	-13.15	100.47	120.20
83	Bx	38	SER	N-CA-C	-13.15	96.36	108.07
34	BA	174	A	P-O3'-C3'	13.15	139.93	120.20
85	AA	1691	U	P-O3'-C3'	13.13	139.90	120.20
85	AA	606	A	P-O3'-C3'	13.13	139.89	120.20
34	BA	1489	U	P-O5'-C5'	13.13	140.59	120.90
85	AA	264	A	P-O5'-C5'	13.12	140.58	120.90
85	AA	1052	C	P-O5'-C5'	13.12	140.57	120.90
85	AA	334	A	P-O5'-C5'	13.11	140.56	120.90
35	BB	384	A	C5'-C4'-C3'	-13.10	95.54	115.20
85	AA	1211	C	P-O3'-C3'	-13.10	100.55	120.20
36	BC	157	U	C5'-C4'-C3'	13.10	134.84	115.20
34	BA	1636	C	P-O3'-C3'	13.09	139.83	120.20
85	AA	989	U	P-O5'-C5'	13.09	140.53	120.90
45	BL	124	ASP	CA-CB-CG	-13.07	99.53	112.60
34	BA	91	C	C1'-O4'-C4'	-13.05	96.85	109.90
38	BE	133	C	P-O3'-C3'	13.04	139.75	120.20
85	AA	603	C	P-O3'-C3'	13.04	139.76	120.20
85	AA	454	G	P-O3'-C3'	13.03	139.75	120.20
35	BB	1498	G	P-O3'-C3'	13.03	139.74	120.20
19	AK	144	PHE	CA-CB-CG	13.02	126.82	113.80
85	AA	1421	U	P-O3'-C3'	13.01	139.71	120.20
85	AA	1271	U	P-O3'-C3'	13.00	139.70	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1549	U	C5'-C4'-C3'	-13.00	96.50	116.00
15	AG	32	ASP	CA-CB-CG	-12.99	99.61	112.60
34	BA	1809	G	P-O5'-C5'	12.99	140.39	120.90
34	BA	1487	U	P-O3'-C3'	12.98	139.67	120.20
34	BA	1696	G	P-O3'-C3'	12.96	139.64	120.20
77	Br	61	HIS	CA-CB-CG	-12.96	100.84	113.80
35	BB	802	G	C4'-C3'-C2'	-12.96	89.64	102.60
34	BA	635	G	P-O5'-C5'	12.95	140.32	120.90
85	AA	1466	U	P-O3'-C3'	12.95	139.62	120.20
42	BI	58	ASN	CA-CB-CG	-12.94	99.66	112.60
35	BB	799	A	P-O3'-C3'	12.93	139.59	120.20
85	AA	1197	U	C5'-C4'-C3'	-12.92	96.63	116.00
37	BD	77	A	P-O5'-C5'	12.91	140.27	120.90
77	Br	226	ASP	CA-CB-CG	-12.90	99.70	112.60
34	BA	94	G	P-O5'-C5'	-12.90	101.56	120.90
85	AA	1719	C	P-O5'-C5'	12.90	140.24	120.90
34	BA	606	G	O3'-P-O5'	12.88	123.33	104.00
85	AA	1699	A	P-O5'-C5'	12.87	140.21	120.90
34	BA	615	A	C5'-C4'-C3'	-12.86	96.70	116.00
34	BA	1619	U	C4'-C3'-O3'	-12.86	93.71	113.00
34	BA	1319	A	P-O3'-C3'	12.85	139.48	120.20
34	BA	56	G	P-O3'-C3'	12.85	139.47	120.20
34	BA	1697	U	P-O3'-C3'	12.85	139.47	120.20
34	BA	683	C	C4'-C3'-O3'	12.83	132.25	113.00
85	AA	1430	A	P-O5'-C5'	12.82	140.14	120.90
38	BE	190	U	P-O3'-C3'	12.82	139.43	120.20
37	BD	49	A	C5'-C4'-C3'	-12.82	96.77	116.00
37	BD	84	U	P-O5'-C5'	12.81	140.12	120.90
85	AA	1828	C	P-O5'-C5'	12.80	140.10	120.90
61	Bb	45	PHE	CA-CB-CG	-12.80	101.00	113.80
5	A4	163	ASP	CA-CB-CG	-12.79	99.81	112.60
85	AA	920	A	P-O5'-C5'	12.79	140.08	120.90
34	BA	1443	U	P-O3'-C3'	12.77	139.35	120.20
5	A4	79	ILE	N-CA-C	12.75	122.34	110.74
34	BA	817	U	C5'-C4'-C3'	-12.75	96.88	116.00
34	BA	21	C	P-O5'-C5'	12.74	140.01	120.90
34	BA	848	U	P-O3'-C3'	12.73	139.30	120.20
38	BE	144	A	P-O5'-C5'	12.73	140.00	120.90
39	BF	33	C	P-O3'-C3'	12.73	139.30	120.20
34	BA	1537	G	P-O5'-C5'	12.73	139.99	120.90
35	BB	818	U	P-O3'-C3'	12.73	139.29	120.20
38	BE	9	C	P-O3'-C3'	12.72	139.28	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1063	C	P-O3'-C3'	12.70	139.26	120.20
85	AA	992	G	P-O5'-C5'	-12.70	101.85	120.90
24	AQ	42	ASN	CA-CB-CG	-12.70	99.91	112.60
34	BA	1563	G	C2'-C3'-O3'	12.69	128.54	109.50
34	BA	1648	G	C5'-C4'-C3'	-12.68	96.97	116.00
34	BA	113	G	C5'-C4'-C3'	12.68	135.02	116.00
85	AA	691	U	O3'-P-O5'	12.68	123.02	104.00
41	BH	85	C	P-O3'-C3'	12.68	139.21	120.20
85	AA	2004	U	P-O3'-C3'	12.68	139.21	120.20
34	BA	279	U	P-O3'-C3'	12.67	139.21	120.20
19	AK	126	ASP	CA-CB-CG	-12.66	99.94	112.60
84	By	128	VAL	N-CA-C	-12.66	89.88	108.12
85	AA	1226	A	P-O5'-C5'	12.66	139.90	120.90
35	BB	981	A	P-O3'-C3'	12.66	139.19	120.20
34	BA	7	U	O3'-P-O5'	12.65	122.98	104.00
35	BB	798	A	C5'-C4'-C3'	12.65	134.98	116.00
59	BZ	22	HIS	CA-CB-CG	12.64	126.44	113.80
38	BE	171	U	C5'-C4'-C3'	-12.63	97.06	116.00
39	BF	39	C	O3'-P-O5'	-12.62	85.07	104.00
40	BG	25	G	C5'-C4'-C3'	-12.61	97.08	116.00
38	BE	128	G	O3'-P-O5'	-12.60	85.09	104.00
38	BE	135	A	P-O3'-C3'	12.59	139.09	120.20
34	BA	1818	A	O5'-C5'-C4'	12.59	130.38	111.50
37	BD	88	U	C1'-O4'-C4'	-12.59	97.11	109.70
65	Bf	112	ASP	CA-CB-CG	-12.59	100.01	112.60
34	BA	547	C	O5'-C5'-C4'	12.58	130.37	111.50
35	BB	905	C	P-O3'-C3'	12.58	139.07	120.20
40	BG	64	C	P-O5'-C5'	12.58	139.77	120.90
38	BE	8	G	C4'-C3'-C2'	12.58	115.18	102.60
85	AA	1457	C	P-O5'-C5'	12.57	139.76	120.90
34	BA	739	A	C2'-C3'-O3'	12.57	128.36	109.50
34	BA	20	A	O3'-P-O5'	-12.57	85.15	104.00
35	BB	958	C	C5'-C4'-C3'	12.56	134.84	116.00
82	Bw	192	ASP	CA-CB-CG	-12.56	100.04	112.60
85	AA	181	A	P-O3'-C3'	12.56	139.04	120.20
83	Bx	213	PHE	CA-CB-CG	-12.55	101.25	113.80
34	BA	1175	G	O3'-P-O5'	-12.54	85.19	104.00
34	BA	156	U	P-O3'-C3'	12.53	139.00	120.20
34	BA	210	G	C5'-C4'-C3'	12.53	134.79	116.00
34	BA	1192	A	O3'-P-O5'	-12.52	85.22	104.00
35	BB	1511	U	C5'-C4'-C3'	12.50	134.75	116.00
35	BB	1201	G	C4'-C3'-O3'	12.49	131.73	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	AD	81	ASN	CA-CB-CG	-12.48	100.12	112.60
35	BB	4	C	P-O3'-C3'	12.47	138.91	120.20
54	BU	77	ASN	CA-CB-CG	-12.47	100.13	112.60
34	BA	1581	G	O3'-P-O5'	12.47	122.70	104.00
35	BB	6	A	P-O5'-C5'	12.46	139.59	120.90
84	By	74	HIS	CA-CB-CG	-12.45	101.35	113.80
86	AB	4	C	P-O3'-C3'	12.45	138.88	120.20
41	BH	135	U	P-O5'-C5'	12.45	139.58	120.90
85	AA	114	C	C5'-C4'-C3'	-12.45	97.32	116.00
34	BA	383	G	C5'-C4'-C3'	-12.43	97.36	116.00
51	BR	133	HIS	CA-CB-CG	-12.43	101.37	113.80
85	AA	708	G	P-O3'-C3'	12.42	138.84	120.20
85	AA	2060	G	P-O5'-C5'	12.42	139.53	120.90
40	BG	169	A	P-O3'-C3'	12.40	138.80	120.20
41	BH	39	G	P-O5'-C5'	12.40	139.50	120.90
22	AO	149	ASP	CA-CB-CG	12.40	125.00	112.60
34	BA	1194	G	C4'-C3'-C2'	12.38	114.98	102.60
85	AA	1921	G	C5'-C4'-O4'	-12.38	91.23	109.80
40	BG	85	C	P-O3'-C3'	12.38	138.77	120.20
34	BA	1509	U	C5'-C4'-C3'	12.37	134.56	116.00
34	BA	1699	A	O4'-C4'-C3'	-12.37	91.63	104.00
36	BC	140	U	P-O5'-C5'	12.36	139.44	120.90
85	AA	47	A	C5'-C4'-C3'	-12.36	96.67	115.20
34	BA	1412	G	O3'-P-O5'	-12.35	85.47	104.00
35	BB	1202	G	C5'-C4'-O4'	12.35	128.32	109.80
85	AA	1133	C	C5'-C4'-C3'	-12.35	97.48	116.00
85	AA	509	C	O3'-P-O5'	12.34	122.52	104.00
1	A0	101	GLN	CA-C-N	12.34	138.30	120.90
1	A0	101	GLN	C-N-CA	12.34	138.30	120.90
34	BA	574	U	P-O3'-C3'	12.34	138.71	120.20
85	AA	1562	U	P-O3'-C3'	12.34	138.71	120.20
85	AA	726	U	P-O5'-C5'	12.33	139.40	120.90
11	AC	118	PHE	CA-CB-CG	-12.32	101.48	113.80
75	Bp	34	PHE	CA-CB-CG	-12.32	101.48	113.80
85	AA	789	A	O5'-C5'-C4'	12.31	129.97	111.50
66	Bg	79	HIS	CA-CB-CG	-12.31	101.49	113.80
67	Bh	75	LYS	N-CA-C	12.30	126.81	111.69
85	AA	1985	C	C5'-C4'-C3'	-12.29	97.56	116.00
34	BA	115	U	C4'-C3'-C2'	-12.29	90.31	102.60
34	BA	401	A	O5'-C5'-C4'	-12.29	93.07	111.50
39	BF	11	C	O5'-C5'-C4'	12.28	130.12	111.70
85	AA	830	A	P-O3'-C3'	12.28	138.62	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	870	U	P-O5'-C5'	12.27	139.31	120.90
85	AA	1553	G	C5'-C4'-C3'	-12.27	97.60	116.00
38	BE	129	G	C5'-C4'-C3'	-12.26	97.61	116.00
85	AA	192	G	P-O3'-C3'	12.25	138.58	120.20
85	AA	518	A	P-O5'-C5'	12.25	139.28	120.90
35	BB	1510	G	C5'-C4'-C3'	-12.24	97.64	116.00
37	BD	82	G	C4'-C3'-C2'	12.23	114.83	102.60
85	AA	35	U	C5'-C4'-C3'	-12.23	97.65	116.00
85	AA	802	A	P-O5'-C5'	12.23	139.24	120.90
35	BB	976	U	P-O3'-C3'	12.23	138.54	120.20
85	AA	76	G	P-O3'-C3'	-12.23	101.86	120.20
85	AA	1338	C	O3'-P-O5'	-12.23	85.66	104.00
34	BA	129	U	O3'-P-O5'	-12.22	85.67	104.00
34	BA	1454	G	P-O5'-C5'	12.21	139.22	120.90
37	BD	83	A	P-O5'-C5'	12.21	139.21	120.90
34	BA	568	G	P-O3'-C3'	12.21	138.51	120.20
34	BA	1485	U	P-O3'-C3'	12.20	138.51	120.20
85	AA	970	U	C5'-C4'-C3'	-12.20	97.70	116.00
34	BA	1808	A	C5'-C4'-C3'	-12.19	97.72	116.00
36	BC	134	G	P-O5'-C5'	12.19	139.18	120.90
34	BA	187	G	P-O3'-C3'	12.18	138.47	120.20
34	BA	742	C	C5'-C4'-C3'	-12.18	97.73	116.00
34	BA	603	U	C4'-C3'-C2'	-12.17	90.43	102.60
35	BB	685	G	P-O3'-C3'	12.17	138.45	120.20
40	BG	2	U	C5'-C4'-C3'	-12.17	97.75	116.00
38	BE	25	U	O3'-P-O5'	12.17	122.25	104.00
62	Bc	70	ASN	N-CA-C	-12.16	86.77	107.80
27	AT	121	ASN	N-CA-C	12.15	125.91	111.82
39	BF	23	G	C5'-C4'-C3'	12.15	134.22	116.00
34	BA	757	G	P-O3'-C3'	-12.14	101.99	120.20
34	BA	546	U	P-O3'-C3'	12.13	138.40	120.20
64	Be	221	HIS	CA-CB-CG	-12.12	101.68	113.80
77	Br	231	ASN	CA-CB-CG	-12.12	100.48	112.60
39	BF	34	C	P-O5'-C5'	12.12	139.08	120.90
41	BH	72	G	C5'-C4'-C3'	12.12	134.18	116.00
85	AA	1662	U	P-O3'-C3'	12.11	138.37	120.20
34	BA	1795	A	P-O3'-C3'	12.11	138.36	120.20
35	BB	877	A	C4'-C3'-C2'	12.11	114.71	102.60
37	BD	21	G	P-O3'-C3'	12.11	138.36	120.20
85	AA	1994	G	C5'-C4'-C3'	12.11	134.16	116.00
85	AA	1526	G	P-O3'-C3'	12.10	138.35	120.20
62	Bc	137	HIS	CA-CB-CG	12.10	125.90	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	AM	127	ALA	N-CA-C	12.09	124.15	110.97
36	BC	139	A	P-O3'-C3'	12.09	138.34	120.20
41	BH	81	U	P-O3'-C3'	12.08	138.32	120.20
35	BB	1231	U	P-O3'-C3'	12.08	138.32	120.20
35	BB	1308	G	P-O3'-C3'	12.07	138.31	120.20
82	Bw	46	ALA	N-CA-C	12.07	124.44	111.28
85	AA	488	G	P-O3'-C3'	12.05	138.27	120.20
1	A0	88	PHE	CA-CB-CG	-12.04	101.76	113.80
35	BB	630	A	O5'-C5'-C4'	-12.04	93.44	111.50
4	A3	159	TYR	N-CA-C	12.04	124.14	111.14
85	AA	92	G	P-O5'-C5'	12.03	138.95	120.90
35	BB	1063	C	C2'-C3'-O3'	12.02	127.53	109.50
65	Bf	265	PHE	CA-CB-CG	-12.01	101.79	113.80
85	AA	504	U	P-O3'-C3'	12.01	138.22	120.20
85	AA	1496	U	O3'-P-O5'	12.00	122.00	104.00
38	BE	195	G	C5'-C4'-C3'	-11.99	98.01	116.00
41	BH	4	U	P-O5'-C5'	11.99	138.88	120.90
53	BT	75	HIS	CA-CB-CG	-11.99	101.81	113.80
34	BA	679	U	C5'-C4'-C3'	11.98	133.98	116.00
64	Be	73	LYS	N-CA-C	11.98	125.63	111.02
65	Bf	150	HIS	CA-CB-CG	-11.98	101.82	113.80
85	AA	174	U	P-O3'-C3'	11.97	138.16	120.20
86	AB	56	C	C5'-C4'-C3'	-11.97	98.05	116.00
35	BB	378	C	C5'-C4'-C3'	-11.96	98.06	116.00
85	AA	1931	C	C5'-C4'-C3'	11.96	133.94	116.00
77	Br	237	HIS	CA-CB-CG	-11.95	101.85	113.80
85	AA	1730	C	P-O5'-C5'	11.95	138.82	120.90
36	BC	33	U	P-O5'-C5'	11.95	138.82	120.90
41	BH	133	U	C5'-C4'-C3'	-11.94	98.09	116.00
35	BB	1029	U	C2'-C3'-O3'	11.94	127.40	109.50
85	AA	24	U	P-O5'-C5'	11.93	138.79	120.90
85	AA	510	A	P-O5'-C5'	-11.93	103.01	120.90
35	BB	1541	G	P-O5'-C5'	11.91	138.77	120.90
35	BB	1226	G	C5'-C4'-C3'	11.91	133.86	116.00
2	A1	54	ASN	CA-CB-CG	11.91	124.51	112.60
85	AA	1163	G	C5'-C4'-C3'	-11.90	98.15	116.00
37	BD	86	A	C5'-C4'-C3'	11.90	133.84	116.00
22	AO	157	LEU	N-CA-C	11.89	125.39	111.71
38	BE	87	U	C5'-C4'-C3'	-11.89	98.17	116.00
48	BO	208	MET	N-CA-C	-11.89	96.46	110.13
83	Bx	46	ASP	CA-C-N	11.89	144.25	121.54
83	Bx	46	ASP	C-N-CA	11.89	144.25	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BH	58	C	P-O3'-C3'	11.89	138.03	120.20
65	Bf	342	GLY	N-CA-C	11.87	127.73	112.54
34	BA	587	U	C4'-C3'-O3'	-11.86	95.21	113.00
35	BB	1138	A	O5'-C5'-C4'	-11.86	93.71	111.50
34	BA	690	G	C5'-C4'-C3'	-11.85	98.22	116.00
34	BA	1500	G	C5'-C4'-C3'	11.85	133.78	116.00
35	BB	29	C	P-O3'-C3'	11.84	137.96	120.20
40	BG	113	G	P-O3'-C3'	11.83	137.95	120.20
2	A1	96	PHE	CA-CB-CG	-11.83	101.97	113.80
34	BA	246	G	P-O3'-C3'	11.83	137.94	120.20
34	BA	1477	C	C1'-O4'-C4'	-11.83	98.07	109.90
34	BA	839	U	O3'-P-O5'	-11.81	86.28	104.00
35	BB	12	G	C5'-C4'-C3'	11.81	133.72	116.00
34	BA	1619	U	P-O3'-C3'	11.80	137.91	120.20
85	AA	52	U	C5'-C4'-C3'	-11.80	98.31	116.00
39	BF	63	U	P-O3'-C3'	11.79	137.89	120.20
85	AA	207	G	P-O5'-C5'	11.79	138.59	120.90
85	AA	578	U	C5'-C4'-C3'	-11.79	98.32	116.00
38	BE	184	G	C5'-C4'-C3'	11.78	133.68	116.00
84	By	47	ASN	CB-CA-C	11.78	127.60	109.34
85	AA	1090	A	O3'-P-O5'	-11.78	86.33	104.00
35	BB	1018	U	C5'-C4'-C3'	-11.77	98.34	116.00
85	AA	277	G	P-O5'-C5'	11.77	138.56	120.90
34	BA	280	A	C2'-C3'-O3'	11.77	131.35	113.70
35	BB	1466	A	P-O5'-C5'	11.76	138.54	120.90
85	AA	2125	A	C2'-C3'-O3'	11.76	127.14	109.50
85	AA	265	A	P-O3'-C3'	11.75	137.83	120.20
80	Bu	253	HIS	CA-CB-CG	-11.75	102.05	113.80
35	BB	490	G	C5'-C4'-C3'	-11.74	98.39	116.00
34	BA	105	U	C5'-C4'-C3'	-11.74	98.39	116.00
56	BW	134	HIS	CA-CB-CG	-11.73	102.07	113.80
35	BB	314	A	P-O3'-C3'	11.72	137.78	120.20
35	BB	1328	C	P-O5'-C5'	11.71	138.47	120.90
59	BZ	124	LYS	N-CA-C	11.71	124.05	111.28
35	BB	1045	G	C5'-C4'-C3'	11.71	133.56	116.00
35	BB	1044	U	P-O3'-C3'	11.70	137.75	120.20
85	AA	99	U	O3'-P-O5'	-11.70	86.45	104.00
23	AP	120	HIS	CA-CB-CG	-11.69	102.11	113.80
35	BB	1143	A	C5'-C4'-C3'	-11.69	98.46	116.00
65	Bf	157	TRP	N-CA-C	11.69	128.54	109.95
26	AS	97	ASN	CA-CB-CG	-11.69	100.91	112.60
85	AA	682	C	P-O3'-C3'	11.68	137.71	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	896	U	C5'-C4'-C3'	-11.67	98.49	116.00
39	BF	11	C	P-O3'-C3'	11.67	137.71	120.20
34	BA	250	G	C5'-C4'-C3'	-11.67	97.70	115.20
34	BA	692	U	O3'-P-O5'	11.66	121.50	104.00
35	BB	261	C	P-O3'-C3'	11.66	137.70	120.20
34	BA	340	U	P-O5'-C5'	11.66	138.39	120.90
34	BA	1294	C	C4'-C3'-C2'	-11.65	90.95	102.60
85	AA	252	G	P-O3'-C3'	11.65	137.67	120.20
35	BB	653	G	C5'-C4'-C3'	11.64	133.46	116.00
77	Br	33	HIS	CA-CB-CG	-11.64	102.16	113.80
85	AA	487	G	P-O5'-C5'	11.64	138.36	120.90
85	AA	1896	G	P-O3'-C3'	11.64	137.66	120.20
39	BF	32	G	C2'-C3'-O3'	11.63	126.95	109.50
38	BE	151	C	P-O5'-C5'	11.63	138.35	120.90
35	BB	896	C	P-O3'-C3'	11.63	137.64	120.20
38	BE	170	U	P-O3'-C3'	-11.62	102.76	120.20
34	BA	875	G	C2'-C3'-O3'	11.62	126.92	109.50
22	AO	31	TRP	N-CA-C	11.61	123.68	111.14
35	BB	1413	U	P-O5'-C5'	11.61	138.32	120.90
84	By	9	ILE	N-CA-C	11.61	125.76	108.46
35	BB	454	U	C5'-C4'-C3'	-11.60	98.60	116.00
65	Bf	312	HIS	CA-CB-CG	-11.59	102.21	113.80
7	A6	177	ASN	CA-CB-CG	-11.59	101.01	112.60
34	BA	483	A	P-O5'-C5'	11.59	138.28	120.90
35	BB	560	C	C4'-C3'-C2'	11.59	114.19	102.60
35	BB	147	C	P-O3'-C3'	11.59	137.58	120.20
38	BE	10	G	O4'-C1'-C2'	-11.58	94.22	105.80
35	BB	1100	C	C5'-C4'-C3'	-11.57	98.64	116.00
67	Bh	115	PHE	CA-CB-CG	-11.57	102.23	113.80
40	BG	11	G	P-O5'-C5'	11.56	138.25	120.90
85	AA	967	C	P-O5'-C5'	11.56	138.25	120.90
27	AT	34	HIS	CA-CB-CG	11.56	125.36	113.80
41	BH	30	C	P-O5'-C5'	11.56	138.24	120.90
81	Bv	89	ASP	CA-CB-CG	-11.56	101.04	112.60
35	BB	703	U	P-O5'-C5'	11.56	138.23	120.90
24	AQ	76	THR	N-CA-C	11.55	130.38	107.62
35	BB	995	C	O5'-C5'-C4'	11.55	128.83	111.50
23	AP	78	ASP	N-CA-CB	-11.55	93.15	110.12
34	BA	398	G	C5'-C4'-C3'	11.54	133.32	116.00
49	BP	160	ALA	N-CA-C	11.54	127.24	111.54
38	BE	85	G	C5'-C4'-C3'	11.53	133.29	116.00
85	AA	788	G	O3'-P-O5'	-11.53	86.71	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	68	G	P-O3'-C3'	11.52	137.48	120.20
34	BA	1491	U	O5'-C5'-C4'	11.52	128.77	111.50
34	BA	13	U	C2'-C3'-O3'	11.51	126.76	109.50
47	BN	18	ASN	CA-CB-CG	-11.51	101.09	112.60
34	BA	1835	A	C5'-C4'-C3'	-11.50	98.75	116.00
34	BA	764	G	C5'-C4'-C3'	11.50	133.24	116.00
85	AA	2084	U	P-O5'-C5'	11.49	138.14	120.90
36	BC	87	C	C5'-C4'-C3'	-11.49	98.77	116.00
58	BY	39	LYS	N-CA-C	-11.49	98.78	111.07
77	Br	234	ASN	CA-CB-CG	-11.49	101.11	112.60
85	AA	743	C	P-O3'-C3'	11.48	137.43	120.20
40	BG	171	A	O5'-C5'-C4'	-11.48	94.28	111.50
34	BA	1725	U	C2'-C3'-O3'	11.48	126.72	109.50
34	BA	579	U	P-O3'-C3'	11.48	137.42	120.20
36	BC	116	C	P-O3'-C3'	11.47	137.41	120.20
36	BC	168	C	C5'-C4'-C3'	-11.47	98.79	116.00
34	BA	556	A	P-O3'-C3'	-11.47	103.00	120.20
85	AA	2231	G	P-O5'-C5'	11.47	138.10	120.90
27	AT	32	VAL	N-CA-C	11.46	124.34	107.37
85	AA	1057	G	P-O3'-C3'	11.46	137.40	120.20
85	AA	961	U	C5'-C4'-C3'	-11.46	98.81	116.00
35	BB	651	G	P-O3'-C3'	11.46	137.38	120.20
62	Bc	142	ARG	N-CA-C	11.46	128.14	113.25
38	BE	101	C	P-O5'-C5'	11.45	138.08	120.90
35	BB	973	G	P-O3'-C3'	11.45	137.38	120.20
77	Br	121	PHE	CA-CB-CG	-11.45	102.35	113.80
85	AA	1106	A	O3'-P-O5'	-11.45	86.83	104.00
65	Bf	278	LYS	N-CA-CB	-11.44	92.55	109.83
85	AA	900	G	P-O3'-C3'	11.44	137.36	120.20
34	BA	681	G	C4'-C3'-C2'	-11.44	91.16	102.60
35	BB	669	A	P-O5'-C5'	11.44	138.05	120.90
34	BA	1705	C	O3'-P-O5'	11.43	121.15	104.00
85	AA	972	G	C5'-C4'-C3'	11.43	133.15	116.00
62	Bc	21	LYS	CA-C-O	-11.43	108.60	120.71
85	AA	374	C	O5'-C5'-C4'	-11.42	94.36	111.50
45	BL	159	HIS	CA-CB-CG	-11.42	102.38	113.80
85	AA	630	A	P-O3'-C3'	11.42	137.33	120.20
1	A0	49	ASN	CA-CB-CG	-11.41	101.19	112.60
34	BA	6	C	P-O5'-C5'	11.41	138.02	120.90
59	BZ	5	LYS	N-CA-C	11.41	122.91	108.19
85	AA	895	C	C1'-O4'-C4'	-11.41	98.49	109.90
34	BA	174	A	O3'-P-O5'	-11.41	86.89	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	AT	29	VAL	N-CA-C	11.40	125.29	109.55
34	BA	856	G	P-O5'-C5'	11.40	138.00	120.90
81	Bv	176	HIS	CA-CB-CG	-11.40	102.40	113.80
85	AA	211	C	C5'-C4'-C3'	11.39	133.09	116.00
1	A0	108	THR	CA-C-N	11.39	135.25	120.44
1	A0	108	THR	C-N-CA	11.39	135.25	120.44
85	AA	303	A	C5'-C4'-C3'	11.39	133.08	116.00
35	BB	1202	G	O4'-C1'-N9	11.38	125.56	108.50
40	BG	14	G	C5'-C4'-C3'	11.37	133.06	116.00
34	BA	232	U	P-O5'-C5'	11.37	137.96	120.90
34	BA	530	A	C2'-C3'-O3'	11.37	126.56	109.50
34	BA	1204	U	C5'-C4'-C3'	-11.37	98.95	116.00
34	BA	1182	U	P-O5'-C5'	11.36	137.93	120.90
34	BA	1599	A	C5'-C4'-C3'	-11.35	98.98	116.00
34	BA	1097	G	C5'-C4'-C3'	11.34	132.21	115.20
85	AA	1016	G	P-O3'-C3'	11.34	137.21	120.20
34	BA	573	U	C5'-C4'-C3'	11.34	133.00	116.00
79	Bt	90	HIS	CA-CB-CG	-11.33	102.47	113.80
36	BC	123	G	O3'-P-O5'	11.33	120.99	104.00
38	BE	20	C	C1'-O4'-C4'	-11.33	98.57	109.90
38	BE	175	U	C4'-C3'-O3'	11.33	129.99	113.00
37	BD	91	U	O3'-P-O5'	-11.33	87.01	104.00
34	BA	702	G	C4'-C3'-C2'	11.32	113.92	102.60
35	BB	975	G	C5'-C4'-C3'	11.32	132.99	116.00
41	BH	20	A	C5'-C4'-C3'	-11.32	99.02	116.00
38	BE	117	A	O5'-C5'-C4'	-11.32	94.52	111.50
34	BA	1730	A	P-O5'-C5'	11.31	137.87	120.90
44	BK	200	ILE	N-CA-C	11.31	123.44	109.30
58	BY	5	ASP	CA-CB-CG	-11.31	101.29	112.60
50	BQ	102	ASN	N-CA-C	11.31	124.71	111.71
57	BX	87	TYR	N-CA-C	-11.30	93.53	108.11
34	BA	91	C	O4'-C1'-N1	11.30	125.45	108.50
40	BG	175	G	P-O5'-C5'	11.30	137.85	120.90
65	Bf	170	TYR	N-CA-C	-11.29	91.67	109.50
85	AA	1923	A	C1'-O4'-C4'	-11.29	98.41	109.70
35	BB	901	U	P-O5'-C5'	11.28	137.82	120.90
84	By	184	ASN	CA-CB-CG	-11.28	101.32	112.60
44	BK	46	PHE	CA-CB-CG	-11.28	102.52	113.80
85	AA	2075	C	P-O5'-C5'	11.28	137.82	120.90
63	Bd	6	ASN	CA-CB-CG	-11.27	101.33	112.60
34	BA	875	G	O5'-C5'-C4'	-11.26	94.81	111.70
34	BA	1069	U	C4'-C3'-C2'	11.26	113.86	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1535	G	P-O5'-C5'	-11.26	104.02	120.90
86	AB	67	C	C5'-C4'-C3'	-11.26	99.11	116.00
34	BA	65	A	P-O5'-C5'	11.25	137.78	120.90
34	BA	763	U	C4'-C3'-C2'	-11.25	91.35	102.60
34	BA	1166	A	C4'-C3'-C2'	11.25	113.85	102.60
35	BB	17	U	P-O5'-C5'	11.25	137.77	120.90
40	BG	9	G	C4'-C3'-O3'	-11.24	96.14	113.00
35	BB	3	C	O4'-C1'-N1	11.23	125.34	108.50
35	BB	800	U	P-O5'-C5'	11.23	137.75	120.90
20	AL	124	VAL	CA-C-N	11.23	141.91	121.70
20	AL	124	VAL	C-N-CA	11.23	141.91	121.70
83	Bx	91	PHE	CA-CB-CG	-11.22	102.58	113.80
40	BG	24	A	P-O5'-C5'	-11.22	104.08	120.90
40	BG	105	A	P-O5'-C5'	11.22	137.73	120.90
85	AA	599	C	P-O3'-C3'	11.21	137.02	120.20
78	Bs	14	ASN	CA-CB-CG	11.21	123.81	112.60
35	BB	1026	G	P-O5'-C5'	11.21	137.71	120.90
85	AA	1989	A	P-O3'-C3'	11.21	137.02	120.20
64	Be	115	ASN	CA-CB-CG	-11.21	101.39	112.60
77	Br	105	LYS	N-CA-C	11.20	126.86	110.28
35	BB	610	U	O3'-P-O5'	11.19	120.79	104.00
41	BH	33	G	P-O3'-C3'	11.18	136.97	120.20
85	AA	984	A	C5'-C4'-C3'	-11.18	99.23	116.00
80	Bu	184	ASN	CA-CB-CG	-11.18	101.42	112.60
35	BB	957	A	P-O3'-C3'	11.17	136.96	120.20
36	BC	10	C	O4'-C4'-C3'	-11.17	92.83	104.00
34	BA	926	A	O5'-C5'-C4'	-11.17	94.74	111.50
85	AA	1860	A	P-O3'-C3'	11.17	136.96	120.20
34	BA	151	A	O5'-C5'-C4'	11.17	128.45	111.70
34	BA	482	C	C2'-C3'-O3'	11.17	126.25	109.50
34	BA	690	G	P-O3'-C3'	11.16	136.94	120.20
77	Br	350	GLU	N-CA-C	11.16	123.19	111.14
34	BA	1711	G	C5'-C4'-C3'	-11.15	99.27	116.00
35	BB	1509	G	C5'-C4'-C3'	-11.15	99.27	116.00
67	Bh	50	ARG	N-CA-C	11.15	123.44	111.28
35	BB	1137	G	C5'-C4'-C3'	-11.14	99.28	116.00
37	BD	47	U	C5'-C4'-C3'	11.14	132.71	116.00
41	BH	34	G	C5'-C4'-C3'	-11.14	99.29	116.00
85	AA	455	G	C5'-C4'-C3'	-11.14	99.29	116.00
35	BB	1312	U	P-O5'-C5'	11.13	137.60	120.90
85	AA	1539	A	P-O3'-C3'	11.13	136.90	120.20
34	BA	1675	C	O5'-C5'-C4'	-11.13	94.81	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BN	7	ALA	CA-C-N	11.12	142.69	122.13
34	BA	1080	U	C5'-C4'-C3'	11.11	132.67	116.00
35	BB	1235	A	P-O5'-C5'	-11.12	104.23	120.90
47	BN	7	ALA	C-N-CA	11.12	142.69	122.13
85	AA	1718	C	P-O3'-C3'	11.12	136.87	120.20
62	Bc	33	ASN	CA-CB-CG	-11.11	101.49	112.60
35	BB	1489	A	C2'-C3'-O3'	11.11	126.16	109.50
34	BA	255	G	C5'-C4'-C3'	-11.11	99.34	116.00
85	AA	801	U	P-O5'-C5'	11.11	137.56	120.90
35	BB	1436	U	P-O3'-C3'	11.10	136.85	120.20
38	BE	191	U	P-O5'-C5'	-11.10	104.25	120.90
85	AA	68	A	C5'-C4'-C3'	-11.10	99.35	116.00
35	BB	132	G	P-O3'-C3'	11.10	136.85	120.20
85	AA	1935	G	P-O5'-C5'	11.10	137.55	120.90
34	BA	1468	U	C5'-C4'-C3'	-11.10	99.36	116.00
35	BB	771	U	O3'-P-O5'	-11.09	87.36	104.00
52	BS	130	SER	CA-C-N	11.09	130.58	122.59
52	BS	130	SER	C-N-CA	11.09	130.58	122.59
52	BS	157	ARG	CA-C-N	11.09	141.94	121.97
52	BS	157	ARG	C-N-CA	11.09	141.94	121.97
7	A6	113	PHE	CA-CB-CG	-11.09	102.71	113.80
51	BR	3	HIS	CA-CB-CG	-11.09	102.71	113.80
38	BE	130	G	C5'-C4'-C3'	11.08	132.63	116.00
35	BB	1410	G	C5'-C4'-C3'	-11.08	99.38	116.00
23	AP	253	HIS	CA-CB-CG	-11.08	102.72	113.80
35	BB	599	U	C5'-C4'-C3'	-11.08	99.38	116.00
39	BF	16	C	C5'-C4'-C3'	11.08	132.61	116.00
42	BI	19	THR	N-CA-C	11.07	134.37	110.80
40	BG	33	G	C5'-C4'-C3'	11.06	131.80	115.20
35	BB	555	G	C5'-C4'-C3'	-11.06	99.41	116.00
65	Bf	346	SER	CA-C-O	-11.06	108.82	120.55
34	BA	557	U	O4'-C4'-C3'	-11.06	92.94	104.00
35	BB	6	A	C5'-C4'-C3'	-11.06	99.42	116.00
64	Be	132	ASP	CA-CB-CG	-11.06	101.54	112.60
34	BA	2	A	C2'-C3'-O3'	11.05	130.28	113.70
85	AA	1447	U	P-O3'-C3'	11.05	136.77	120.20
36	BC	33	U	P-O3'-C3'	11.04	136.77	120.20
85	AA	243	A	O5'-C5'-C4'	11.04	128.07	111.50
56	BW	26	ASN	CA-CB-CG	-11.04	101.56	112.60
35	BB	995	C	P-O3'-C3'	11.04	136.76	120.20
13	AE	105	ASN	CA-CB-CG	-11.03	101.57	112.60
34	BA	1474	G	C5'-C4'-C3'	-11.03	99.45	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	528	C	C5'-C4'-C3'	11.03	132.54	116.00
85	AA	2200	A	C5'-C4'-C3'	-11.02	99.47	116.00
34	BA	1493	U	O3'-P-O5'	11.02	120.53	104.00
34	BA	1410	C	C5'-C4'-C3'	-11.01	99.49	116.00
80	Bu	126	ASP	CA-CB-CG	-11.01	101.59	112.60
41	BH	22	A	C4'-C3'-O3'	-11.00	96.50	113.00
85	AA	658	C	C5'-C4'-C3'	-11.00	99.50	116.00
35	BB	781	U	P-O5'-C5'	11.00	137.40	120.90
63	Bd	8	THR	CA-C-N	11.00	140.69	122.54
63	Bd	8	THR	C-N-CA	11.00	140.69	122.54
44	BK	60	ILE	N-CA-C	10.99	123.95	108.12
5	A4	47	HIS	CA-CB-CG	-10.99	102.81	113.80
35	BB	490	G	P-O5'-C5'	-10.99	104.42	120.90
34	BA	1416	C	C5'-C4'-C3'	10.99	132.48	116.00
34	BA	1458	A	C4'-C3'-C2'	10.98	113.58	102.60
34	BA	297	A	C2'-C3'-O3'	10.98	130.16	113.70
61	Bb	63	LYS	N-CA-C	10.98	124.33	111.71
35	BB	530	C	P-O5'-C5'	10.97	137.35	120.90
35	BB	1465	U	P-O5'-C5'	-10.97	104.45	120.90
19	AK	104	ASN	CA-CB-CG	-10.96	101.64	112.60
57	BX	51	ARG	N-CA-C	-10.96	98.35	108.22
35	BB	1537	C	P-O5'-C5'	10.96	137.34	120.90
38	BE	111	C	P-O3'-C3'	10.95	136.63	120.20
34	BA	143	A	O5'-C5'-C4'	-10.95	95.27	111.70
34	BA	484	A	P-O3'-C3'	10.95	136.62	120.20
85	AA	861	G	P-O3'-C3'	10.95	136.62	120.20
36	BC	124	A	C5'-C4'-C3'	10.95	132.42	116.00
59	BZ	67	VAL	CB-CA-C	-10.94	99.42	111.23
34	BA	591	G	O5'-C5'-C4'	-10.94	95.09	111.50
36	BC	110	A	P-O3'-C3'	10.94	136.60	120.20
85	AA	308	U	P-O3'-C3'	-10.93	103.80	120.20
49	BP	5	ASN	CA-CB-CG	10.93	123.53	112.60
34	BA	1574	C	C5'-C4'-C3'	10.92	132.38	116.00
85	AA	942	A	O5'-C5'-C4'	10.91	127.87	111.50
85	AA	87	C	C5'-C4'-C3'	-10.91	99.63	116.00
35	BB	1087	A	O3'-P-O5'	10.91	120.37	104.00
54	BU	34	PHE	CA-CB-CG	-10.91	102.89	113.80
22	AO	58	HIS	CB-CG-CD2	-10.91	117.02	131.20
7	A6	157	PHE	CA-CB-CG	-10.90	102.89	113.80
41	BH	50	A	P-O5'-C5'	10.90	137.26	120.90
38	BE	32	U	C4'-C3'-O3'	-10.90	96.65	113.00
85	AA	1011	G	P-O3'-C3'	10.90	136.55	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BD	99	G	P-O5'-C5'	10.90	137.25	120.90
38	BE	133	C	C4'-C3'-C2'	-10.89	91.71	102.60
34	BA	658	C	P-O5'-C5'	10.89	137.24	120.90
40	BG	35	G	P-O5'-C5'	10.89	137.23	120.90
67	Bh	91	HIS	CA-CB-CG	-10.88	102.92	113.80
85	AA	485	A	C5'-C4'-C3'	-10.88	99.67	116.00
24	AQ	75	ASP	N-CA-C	10.88	126.59	109.07
6	A5	65	PHE	CA-CB-CG	-10.88	102.92	113.80
35	BB	1202	G	C1'-O4'-C4'	-10.88	99.02	109.90
35	BB	1347	C	P-O5'-C5'	10.88	137.22	120.90
85	AA	778	C	C5'-C4'-C3'	10.87	132.31	116.00
85	AA	1473	U	P-O3'-C3'	10.87	136.51	120.20
35	BB	1503	U	P-O3'-C3'	10.87	136.50	120.20
34	BA	323	C	O4'-C4'-C3'	-10.87	95.23	106.10
39	BF	23	G	O4'-C4'-C3'	-10.86	93.14	104.00
34	BA	502	U	P-O5'-C5'	-10.86	104.62	120.90
34	BA	924	U	P-O5'-C5'	10.86	137.19	120.90
34	BA	1176	C	O5'-C5'-C4'	-10.86	95.21	111.50
35	BB	62	C	O3'-P-O5'	10.86	120.29	104.00
40	BG	174	G	C5'-C4'-C3'	10.86	132.28	116.00
85	AA	743	C	O3'-P-O5'	10.86	120.28	104.00
32	AY	58	ASN	CA-CB-CG	-10.85	101.75	112.60
38	BE	208	G	P-O3'-C3'	10.85	136.48	120.20
85	AA	908	C	C5'-C4'-C3'	-10.85	98.92	115.20
34	BA	1295	U	C4'-C3'-O3'	10.85	125.67	109.40
41	BH	72	G	C4'-C3'-C2'	-10.85	91.75	102.60
85	AA	1468	G	C5'-C4'-C3'	10.85	132.28	116.00
34	BA	1145	U	C5'-C4'-C3'	-10.85	99.73	116.00
35	BB	560	C	C5'-C4'-C3'	10.84	132.26	116.00
35	BB	1497	C	P-O5'-C5'	10.84	137.16	120.90
41	BH	126	C	C5'-C4'-C3'	-10.84	99.74	116.00
85	AA	112	A	C5'-C4'-C3'	-10.84	99.74	116.00
35	BB	1132	A	P-O5'-C5'	10.84	137.15	120.90
85	AA	280	U	P-O3'-C3'	10.84	136.46	120.20
85	AA	639	C	C5'-C4'-C3'	10.84	131.46	115.20
85	AA	1463	A	C5'-C4'-C3'	-10.84	99.74	116.00
85	AA	1524	A	P-O5'-C5'	10.84	137.16	120.90
35	BB	1141	A	O5'-C5'-C4'	10.83	127.75	111.50
67	Bh	83	ASN	CA-CB-CG	-10.83	101.77	112.60
85	AA	609	U	P-O5'-C5'	-10.83	104.66	120.90
36	BC	34	U	P-O5'-C5'	-10.82	104.66	120.90
36	BC	17	U	C5'-C4'-C3'	-10.82	99.78	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	260	A	P-O3'-C3'	-10.81	103.98	120.20
65	Bf	392	ARG	N-CA-C	10.81	125.75	110.50
34	BA	1202	G	C5'-C4'-C3'	-10.81	99.78	116.00
35	BB	60	A	P-O3'-C3'	10.81	136.41	120.20
49	BP	46	MET	CG-SD-CE	-10.81	77.12	100.90
85	AA	2149	C	C5'-C4'-C3'	-10.80	99.80	116.00
85	AA	465	A	C2'-C3'-O3'	10.79	125.69	109.50
85	AA	940	G	P-O5'-C5'	-10.79	104.71	120.90
85	AA	1731	G	O3'-P-O5'	-10.80	87.81	104.00
34	BA	410	G	O3'-P-O5'	-10.79	87.82	104.00
36	BC	121	G	O3'-P-O5'	-10.79	87.82	104.00
85	AA	542	G	P-O5'-C5'	10.79	137.08	120.90
35	BB	1259	A	C5'-C4'-C3'	10.78	131.37	115.20
42	BI	135	MET	N-CA-CB	-10.78	93.88	109.94
56	BW	49	ASN	CA-CB-CG	-10.78	101.82	112.60
85	AA	567	G	O3'-P-O5'	-10.78	87.84	104.00
5	A4	145	TRP	CB-CG-CD1	10.77	143.05	126.90
35	BB	24	C	P-O5'-C5'	10.77	137.05	120.90
85	AA	1759	U	P-O3'-C3'	10.77	136.35	120.20
34	BA	684	G	O3'-P-O5'	10.76	120.14	104.00
5	A4	145	TRP	CB-CG-CD2	-10.76	111.74	126.80
34	BA	878	G	C5'-C4'-C3'	10.76	132.14	116.00
34	BA	1747	C	P-O5'-C5'	10.76	137.04	120.90
85	AA	388	G	P-O3'-C3'	10.76	136.34	120.20
34	BA	1005	C	P-O3'-C3'	-10.76	104.07	120.20
34	BA	1565	U	O5'-C5'-C4'	10.76	127.63	111.50
85	AA	382	G	C5'-C4'-C3'	10.76	132.13	116.00
85	AA	709	A	P-O3'-C3'	-10.75	104.07	120.20
2	A1	89	ILE	N-CA-C	-10.75	97.51	108.15
34	BA	546	U	C5'-C4'-C3'	-10.75	99.88	116.00
35	BB	1200	A	O4'-C4'-C3'	-10.75	95.35	106.10
21	AM	126	HIS	CA-CB-CG	10.75	124.55	113.80
34	BA	251	U	O3'-P-O5'	-10.75	87.88	104.00
36	BC	84	U	P-O3'-C3'	10.75	136.32	120.20
34	BA	687	G	P-O3'-C3'	10.75	136.32	120.20
36	BC	80	A	P-O3'-C3'	10.74	136.31	120.20
34	BA	575	U	C4'-C3'-C2'	10.73	113.33	102.60
39	BF	70	A	P-O5'-C5'	10.73	137.00	120.90
40	BG	171	A	O4'-C4'-C3'	-10.73	93.27	104.00
67	Bh	90	ILE	N-CA-C	10.73	123.19	108.17
34	BA	1846	G	C5'-C4'-C3'	-10.73	99.91	116.00
55	BV	53	ASP	N-CA-C	10.72	122.93	111.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	25	C	P-O3'-C3'	10.72	136.28	120.20
34	BA	780	U	O4'-C4'-C3'	-10.72	93.28	104.00
35	BB	1393	C	P-O3'-C3'	10.71	136.27	120.20
85	AA	1599	G	C5'-C4'-C3'	-10.71	99.93	116.00
85	AA	1096	G	C5'-C4'-C3'	-10.71	99.94	116.00
85	AA	2198	G	C5'-C4'-C3'	-10.71	99.94	116.00
86	AB	56	C	P-O3'-C3'	10.71	136.26	120.20
34	BA	486	G	O3'-P-O5'	10.71	120.06	104.00
85	AA	767	A	O5'-C5'-C4'	10.71	127.56	111.50
34	BA	468	A	O3'-P-O5'	-10.70	87.95	104.00
34	BA	674	G	C1'-O4'-C4'	-10.70	99.20	109.90
38	BE	113	C	P-O5'-C5'	10.70	136.95	120.90
65	Bf	57	PHE	CA-CB-CG	-10.70	103.10	113.80
34	BA	1200	U	P-O3'-C3'	10.70	136.25	120.20
85	AA	597	A	C5'-C4'-C3'	-10.70	99.95	116.00
15	AG	136	PRO	N-CA-C	-10.70	97.65	110.70
41	BH	27	A	P-O3'-C3'	10.70	136.24	120.20
34	BA	488	C	P-O3'-C3'	10.69	136.23	120.20
85	AA	2010	C	C5'-C4'-C3'	-10.69	99.97	116.00
85	AA	2002	A	C5'-C4'-C3'	10.68	132.02	116.00
34	BA	1620	U	C5'-C4'-C3'	-10.68	99.98	116.00
85	AA	1268	C	C5'-C4'-C3'	-10.68	99.99	116.00
41	BH	57	A	O3'-P-O5'	-10.67	87.99	104.00
85	AA	1824	G	P-O3'-C3'	10.67	136.21	120.20
85	AA	1239	C	C5'-C4'-C3'	-10.67	100.00	116.00
64	Be	100	ASN	CA-CB-CG	10.67	123.27	112.60
65	Bf	416	PHE	CA-CB-CG	-10.66	103.14	113.80
85	AA	68	A	P-O3'-C3'	-10.66	104.22	120.20
85	AA	1819	U	P-O5'-C5'	10.65	136.88	120.90
3	A2	189	ASN	CA-CB-CG	-10.65	101.95	112.60
55	BV	87	LYS	CA-C-N	10.65	134.97	120.38
55	BV	87	LYS	C-N-CA	10.65	134.97	120.38
67	Bh	139	GLY	N-CA-C	-10.64	99.45	112.33
34	BA	1657	A	C5'-C4'-C3'	10.64	131.96	116.00
85	AA	251	A	P-O5'-C5'	10.64	136.86	120.90
17	AI	40	PHE	CA-CB-CG	10.64	124.44	113.80
34	BA	279	U	P-O5'-C5'	-10.63	104.96	120.90
34	BA	1321	A	C5'-C4'-C3'	-10.63	100.06	116.00
34	BA	1460	U	P-O5'-C5'	10.63	136.84	120.90
34	BA	1496	G	C2'-C3'-O3'	10.63	125.44	109.50
34	BA	1616	A	O5'-C5'-C4'	10.63	127.64	111.70
34	BA	272	A	C5'-C4'-C3'	10.63	131.14	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1161	G	C5'-C4'-C3'	10.62	131.94	116.00
85	AA	1898	C	P-O3'-C3'	10.62	136.13	120.20
34	BA	1052	G	P-O3'-C3'	10.62	136.13	120.20
85	AA	965	G	P-O5'-C5'	10.62	136.83	120.90
34	BA	1830	A	C5'-C4'-C3'	-10.62	99.27	115.20
34	BA	202	A	O5'-C5'-C4'	-10.62	95.58	111.50
34	BA	985	C	C4'-C3'-C2'	10.61	113.21	102.60
85	AA	1225	C	P-O5'-C5'	-10.61	104.98	120.90
65	Bf	209	ASP	CA-CB-CG	-10.61	101.99	112.60
34	BA	1634	A	P-O3'-C3'	10.61	136.11	120.20
5	A4	158	PHE	CA-C-N	10.60	137.59	120.94
5	A4	158	PHE	C-N-CA	10.60	137.59	120.94
35	BB	380	G	P-O3'-C3'	10.60	136.10	120.20
34	BA	219	U	P-O3'-C3'	-10.60	104.30	120.20
18	AJ	54	ASP	CA-CB-CG	10.60	123.20	112.60
39	BF	54	U	C4'-C3'-C2'	-10.59	92.01	102.60
47	BN	204	ASN	CA-C-N	10.59	134.47	120.28
47	BN	204	ASN	C-N-CA	10.59	134.47	120.28
85	AA	2133	A	P-O5'-C5'	-10.59	105.02	120.90
41	BH	116	A	P-O3'-C3'	10.59	136.08	120.20
53	BT	161	ALA	N-CA-C	-10.59	100.86	113.88
34	BA	482	C	O3'-P-O5'	10.58	119.87	104.00
35	BB	991	C	C5'-C4'-C3'	10.58	131.87	116.00
34	BA	1477	C	P-O5'-C5'	-10.58	105.04	120.90
85	AA	1440	C	P-O3'-C3'	10.57	136.06	120.20
35	BB	41	A	P-O5'-C5'	-10.57	105.05	120.90
85	AA	1955	U	P-O3'-C3'	-10.57	104.35	120.20
85	AA	2001	C	P-O3'-C3'	10.57	136.06	120.20
34	BA	572	G	P-O3'-C3'	10.56	136.05	120.20
40	BG	27	C	C5'-C4'-C3'	-10.56	100.15	116.00
41	BH	30	C	C1'-O4'-C4'	-10.56	99.34	109.90
85	AA	817	G	O3'-P-O5'	-10.56	88.15	104.00
85	AA	100	A	C5'-C4'-C3'	-10.56	100.16	116.00
34	BA	1776	G	P-O5'-C5'	10.56	136.74	120.90
1	A0	57	ALA	N-CA-C	10.56	122.79	111.28
34	BA	315	U	O3'-P-O5'	-10.55	88.17	104.00
41	BH	128	G	P-O5'-C5'	-10.55	105.07	120.90
40	BG	16	G	C5'-C4'-C3'	10.55	131.82	116.00
35	BB	993	A	C5'-C4'-C3'	-10.54	100.19	116.00
35	BB	1475	U	C5'-C4'-C3'	-10.54	100.19	116.00
66	Bg	21	ILE	N-CA-C	-10.54	100.63	110.53
85	AA	775	C	P-O5'-C5'	10.53	136.70	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1832	G	C5'-C4'-C3'	-10.53	100.20	116.00
34	BA	184	C	C5'-C4'-C3'	-10.53	100.20	116.00
34	BA	1335	A	O5'-C5'-C4'	-10.53	95.71	111.50
34	BA	557	U	P-O5'-C5'	10.52	136.68	120.90
34	BA	1532	G	P-O5'-C5'	10.52	136.68	120.90
85	AA	1716	U	P-O3'-C3'	10.51	135.97	120.20
34	BA	692	U	C5'-C4'-O4'	10.51	124.87	109.10
34	BA	1620	U	C4'-C3'-O3'	-10.51	97.24	113.00
34	BA	111	U	P-O3'-C3'	10.50	135.95	120.20
36	BC	10	C	C5'-C4'-C3'	10.50	131.75	116.00
38	BE	15	A	O3'-P-O5'	10.50	119.75	104.00
38	BE	130	G	P-O5'-C5'	-10.50	105.16	120.90
62	Bc	75	LEU	N-CA-C	-10.50	95.50	111.56
2	A1	185	ASN	CA-CB-CG	-10.49	102.11	112.60
39	BF	33	C	O5'-C5'-C4'	-10.49	95.76	111.50
51	BR	155	GLU	N-CA-CB	10.49	128.34	110.50
58	BY	63	HIS	N-CA-C	10.49	125.39	112.59
85	AA	58	C	P-O3'-C3'	10.49	135.94	120.20
40	BG	13	A	P-O3'-C3'	10.49	135.93	120.20
35	BB	839	G	O3'-P-O5'	10.48	119.72	104.00
85	AA	149	A	C5'-C4'-C3'	10.48	131.73	116.00
6	A5	78	ILE	CB-CA-C	-10.48	97.94	111.25
34	BA	687	G	P-O5'-C5'	-10.48	105.18	120.90
38	BE	210	G	P-O5'-C5'	10.48	136.62	120.90
37	BD	26	C	C5'-C4'-C3'	-10.48	100.29	116.00
85	AA	1459	C	P-O5'-C5'	10.48	136.62	120.90
38	BE	148	C	O5'-C5'-C4'	-10.47	95.79	111.50
38	BE	32	U	C2'-C3'-O3'	10.46	129.40	113.70
34	BA	131	A	P-O3'-C3'	10.46	135.90	120.20
23	AP	220	PHE	CA-CB-CG	10.46	124.26	113.80
85	AA	608	A	C1'-O4'-C4'	-10.46	99.44	109.90
85	AA	1886	U	P-O3'-C3'	10.46	135.89	120.20
35	BB	1391	G	C5'-C4'-C3'	-10.46	100.31	116.00
35	BB	667	G	P-O5'-C5'	10.46	136.58	120.90
85	AA	1022	G	P-O3'-C3'	10.45	135.88	120.20
38	BE	18	U	C2'-C3'-O3'	10.45	125.18	109.50
85	AA	607	U	P-O5'-C5'	10.45	136.58	120.90
35	BB	134	G	C5'-C4'-C3'	10.45	131.67	116.00
38	BE	13	A	C4'-C3'-C2'	10.45	113.05	102.60
51	BR	124	ARG	N-CA-C	10.45	124.97	110.24
34	BA	804	G	C4'-C3'-C2'	-10.44	92.16	102.60
40	BG	21	C	O4'-C1'-C2'	-10.44	97.16	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	237	A	P-O5'-C5'	-10.44	105.24	120.90
39	BF	33	C	P-O5'-C5'	-10.44	105.25	120.90
35	BB	836	U	P-O5'-C5'	-10.44	105.25	120.90
34	BA	118	C	P-O5'-C5'	10.43	136.55	120.90
35	BB	448	G	C5'-C4'-C3'	-10.43	100.36	116.00
85	AA	970	U	P-O5'-C5'	10.43	136.55	120.90
34	BA	1615	A	O3'-P-O5'	10.43	119.64	104.00
85	AA	288	G	P-O5'-C5'	10.43	136.54	120.90
35	BB	776	U	P-O5'-C5'	-10.42	105.27	120.90
34	BA	757	G	C3'-C2'-C1'	-10.42	90.88	101.30
15	AG	135	LEU	N-CA-C	-10.42	96.40	110.36
34	BA	557	U	O3'-P-O5'	10.42	119.63	104.00
85	AA	23	G	P-O3'-C3'	10.42	135.83	120.20
35	BB	736	G	O3'-P-O5'	-10.42	88.37	104.00
38	BE	129	G	O4'-C1'-C2'	-10.41	97.19	107.60
34	BA	1294	C	C1'-O4'-C4'	-10.40	99.50	109.90
55	BV	54	ASN	CA-CB-CG	10.40	123.00	112.60
35	BB	700	C	P-O5'-C5'	10.39	136.49	120.90
41	BH	24	U	C1'-O4'-C4'	-10.39	99.31	109.70
38	BE	36	U	C5'-C4'-C3'	10.39	131.59	116.00
41	BH	130	G	P-O5'-C5'	-10.39	105.31	120.90
34	BA	81	C	C4'-C3'-C2'	10.39	112.99	102.60
34	BA	280	A	O5'-C5'-C4'	-10.39	95.92	111.50
35	BB	690	C	C5'-C4'-C3'	-10.39	100.42	116.00
85	AA	765	U	P-O5'-C5'	10.39	136.48	120.90
85	AA	357	C	C5'-C4'-C3'	-10.39	100.42	116.00
35	BB	798	A	P-O5'-C5'	-10.38	105.32	120.90
40	BG	86	U	P-O3'-C3'	-10.38	104.63	120.20
68	Bi	114	HIS	CA-CB-CG	10.38	124.18	113.80
84	By	7	ASP	CA-CB-CG	10.37	122.97	112.60
34	BA	1175	G	P-O5'-C5'	10.37	136.46	120.90
38	BE	40	C	C4'-C3'-O3'	-10.37	97.44	113.00
69	Bj	114	VAL	O-C-N	-10.37	108.15	121.84
34	BA	315	U	O5'-C5'-C4'	10.37	127.05	111.50
9	A8	44	PHE	CA-CB-CG	-10.37	103.44	113.80
34	BA	559	C	P-O3'-C3'	10.37	135.75	120.20
34	BA	1800	G	P-O3'-C3'	-10.37	104.65	120.20
35	BB	833	G	C5'-C4'-C3'	-10.37	100.45	116.00
5	A4	94	ASN	CA-CB-CG	-10.36	102.24	112.60
85	AA	854	A	C5'-C4'-O4'	10.36	125.34	109.80
85	AA	1883	C	C5'-C4'-C3'	-10.36	100.46	116.00
34	BA	12	G	C5'-C4'-C3'	10.35	131.53	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1445	A	O3'-P-O5'	10.35	119.52	104.00
36	BC	145	G	C5'-C4'-C3'	-10.35	100.48	116.00
1	A0	23	ALA	N-CA-C	10.34	122.13	111.07
34	BA	862	C	OP1-P-O3'	10.34	139.02	108.00
85	AA	1469	G	P-O3'-C3'	10.34	135.71	120.20
34	BA	1510	C	P-O5'-C5'	-10.33	105.40	120.90
85	AA	242	G	P-O5'-C5'	-10.33	105.40	120.90
85	AA	2224	U	C5'-C4'-C3'	-10.33	100.50	116.00
34	BA	1493	U	O5'-C5'-C4'	10.33	127.19	111.70
37	BD	48	G	C4'-C3'-O3'	10.32	124.89	109.40
35	BB	353	G	P-O3'-C3'	10.32	135.68	120.20
85	AA	1728	G	P-O3'-C3'	10.32	135.69	120.20
85	AA	2078	A	P-O3'-C3'	10.32	135.69	120.20
85	AA	1005	C	P-O5'-C5'	10.32	136.38	120.90
85	AA	2020	C	C5'-C4'-C3'	-10.32	100.52	116.00
34	BA	426	A	C5'-C4'-C3'	-10.32	100.52	116.00
39	BF	31	U	O3'-P-O5'	-10.32	88.52	104.00
35	BB	1218	G	P-O3'-C3'	-10.31	104.74	120.20
85	AA	285	C	O5'-C5'-C4'	10.30	126.96	111.50
65	Bf	163	VAL	CA-C-N	10.30	134.09	120.28
65	Bf	163	VAL	C-N-CA	10.30	134.09	120.28
85	AA	2074	G	P-O3'-C3'	10.30	135.66	120.20
1	A0	153	SER	CA-C-N	10.30	135.11	120.28
1	A0	153	SER	C-N-CA	10.30	135.11	120.28
62	Bc	22	ARG	N-CA-C	10.30	125.62	107.80
85	AA	1538	C	P-O5'-C5'	10.30	136.35	120.90
85	AA	2123	U	C5'-C4'-C3'	10.30	131.45	116.00
78	Bs	2	MET	N-CA-C	-10.30	100.79	113.97
34	BA	1310	C	P-O5'-C5'	10.30	136.35	120.90
41	BH	90	C	P-O5'-C5'	10.30	136.34	120.90
85	AA	790	A	O5'-C5'-C4'	10.30	127.14	111.70
85	AA	1467	U	P-O5'-C5'	10.30	136.34	120.90
85	AA	1098	C	O5'-C5'-C4'	-10.29	96.06	111.50
35	BB	1114	A	C5'-C4'-C3'	-10.29	100.56	116.00
34	BA	1240	G	C5'-C4'-C3'	10.29	131.44	116.00
47	BN	214	GLU	N-CA-C	10.29	122.58	111.36
27	AT	19	VAL	N-CA-C	10.29	121.91	108.12
34	BA	765	U	O5'-C5'-C4'	10.29	126.93	111.50
38	BE	26	G	C5'-C4'-C3'	10.29	131.43	116.00
85	AA	315	U	P-O5'-C5'	10.29	136.33	120.90
85	AA	2104	C	C2'-C3'-O3'	10.29	124.93	109.50
85	AA	254	G	P-O5'-C5'	10.28	136.32	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1455	C	C4'-C3'-C2'	10.28	112.88	102.60
85	AA	847	G	C5'-C4'-C3'	-10.28	100.58	116.00
85	AA	2058	C	C3'-C2'-C1'	-10.28	91.02	101.30
85	AA	327	G	O4'-C4'-C3'	-10.27	93.73	104.00
34	BA	688	G	C5'-C4'-C3'	-10.27	100.59	116.00
35	BB	1227	G	P-O3'-C3'	10.27	135.60	120.20
85	AA	2099	C	C5'-C4'-C3'	-10.27	100.60	116.00
73	Bn	16	HIS	N-CA-C	-10.27	92.10	109.24
34	BA	777	C	P-O3'-C3'	10.26	135.59	120.20
34	BA	972	C	P-O3'-C3'	10.26	135.59	120.20
35	BB	1097	U	C5'-C4'-C3'	-10.26	100.61	116.00
85	AA	1464	G	C5'-C4'-C3'	-10.26	100.61	116.00
34	BA	788	C	P-O5'-C5'	-10.26	105.51	120.90
40	BG	148	C	P-O5'-C5'	-10.26	105.51	120.90
67	Bh	38	TRP	CB-CA-C	-10.26	93.76	110.79
34	BA	605	G	C4-N9-C1'	10.25	157.26	126.50
34	BA	648	C	P-O5'-C5'	10.25	136.28	120.90
34	BA	761	U	P-O5'-C5'	-10.25	105.52	120.90
34	BA	557	U	C1'-O4'-C4'	-10.25	99.65	109.90
34	BA	692	U	C2'-C3'-O3'	10.25	124.87	109.50
35	BB	427	U	P-O5'-C5'	-10.25	105.53	120.90
34	BA	890	G	C5'-C4'-C3'	10.24	131.36	116.00
52	BS	110	ASN	CA-CB-CG	-10.24	102.36	112.60
35	BB	979	G	C5'-C4'-C3'	-10.24	100.64	116.00
42	BI	64	LEU	N-CA-C	10.24	122.03	111.07
85	AA	788	G	C4'-C3'-C2'	10.24	112.84	102.60
85	AA	1645	G	P-O5'-C5'	10.24	136.26	120.90
34	BA	690	G	C2'-C3'-O3'	10.24	129.06	113.70
37	BD	19	C	C5'-C4'-C3'	-10.24	100.64	116.00
85	AA	806	G	P-O5'-C5'	10.23	136.25	120.90
85	AA	1682	U	O3'-P-O5'	-10.23	88.65	104.00
85	AA	2202	G	C5'-C4'-C3'	10.23	131.35	116.00
34	BA	302	A	C5'-C4'-C3'	-10.23	99.86	115.20
34	BA	1124	U	C5'-C4'-C3'	-10.22	100.67	116.00
85	AA	2134	U	C5'-C4'-C3'	-10.22	100.67	116.00
67	Bh	30	ARG	CA-C-N	10.22	133.98	120.28
67	Bh	30	ARG	C-N-CA	10.22	133.98	120.28
66	Bg	60	PRO	CA-C-N	10.22	131.32	119.47
66	Bg	60	PRO	C-N-CA	10.22	131.32	119.47
77	Br	288	THR	N-CA-CB	-10.22	95.10	110.12
64	Be	154	GLN	CA-C-N	10.21	139.31	122.87
64	Be	154	GLN	C-N-CA	10.21	139.31	122.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	AS	119	ARG	N-CA-CB	-10.21	95.59	110.80
85	AA	989	U	O5'-C5'-C4'	-10.21	96.39	111.70
34	BA	1704	G	C5'-C4'-C3'	-10.21	100.69	116.00
52	BS	32	PHE	CA-CB-CG	-10.21	103.59	113.80
35	BB	1025	A	O5'-C5'-C4'	10.20	126.80	111.50
34	BA	1454	G	P-O3'-C3'	10.20	135.50	120.20
85	AA	2131	C	C5'-C4'-C3'	-10.20	100.70	116.00
85	AA	723	U	P-O5'-C5'	10.19	136.18	120.90
38	BE	20	C	O4'-C1'-N1	10.19	123.78	108.50
6	A5	199	ASP	CA-CB-CG	-10.18	102.42	112.60
34	BA	1190	A	O3'-P-O5'	-10.18	88.72	104.00
35	BB	1129	C	P-O5'-C5'	10.18	136.17	120.90
85	AA	1911	A	P-O3'-C3'	10.18	135.47	120.20
34	BA	819	G	C5'-C4'-C3'	-10.18	100.73	116.00
41	BH	22	A	P-O3'-C3'	10.18	135.47	120.20
85	AA	932	A	O5'-C5'-C4'	-10.18	96.24	111.50
85	AA	1521	U	C4'-C3'-O3'	-10.18	97.74	113.00
34	BA	1496	G	C5'-C4'-C3'	-10.17	99.94	115.20
35	BB	423	G	C5'-C4'-C3'	-10.17	100.74	116.00
36	BC	31	A	C1'-O4'-C4'	-10.17	99.73	109.90
85	AA	617	C	C2'-C3'-O3'	10.16	124.75	109.50
3	A2	165	ASN	CA-CB-CG	-10.16	102.44	112.60
85	AA	1855	U	C4'-C3'-O3'	-10.16	97.75	113.00
35	BB	453	C	C5'-C4'-C3'	10.16	131.24	116.00
85	AA	1797	U	P-O5'-C5'	10.16	136.14	120.90
34	BA	874	G	P-O5'-C5'	10.16	136.13	120.90
85	AA	1794	U	P-O5'-C5'	-10.16	105.67	120.90
34	BA	621	G	O3'-P-O5'	10.15	119.23	104.00
15	AG	22	PRO	O-C-N	-10.15	116.38	121.15
34	BA	1215	U	P-O5'-C5'	10.15	136.13	120.90
48	BO	53	VAL	N-CA-C	10.15	123.25	108.53
50	BQ	170	ASN	CA-CB-CG	-10.14	102.45	112.60
35	BB	1203	C	C5'-C4'-C3'	-10.14	100.79	116.00
34	BA	1658	G	C5'-C4'-C3'	-10.14	100.80	116.00
85	AA	736	U	P-O3'-C3'	-10.14	105.00	120.20
35	BB	1133	C	P-O5'-C5'	-10.13	105.70	120.90
27	AT	120	ARG	N-CA-C	10.13	122.40	111.36
52	BS	140	ASN	CA-CB-CG	-10.13	102.47	112.60
61	Bb	59	ASN	CA-CB-CG	-10.13	102.47	112.60
15	AG	91	LEU	CB-CA-C	10.13	126.90	110.90
82	Bw	8	LEU	N-CA-CB	10.13	124.92	110.24
77	Br	219	PHE	CA-CB-CG	-10.12	103.68	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	850	U	C5'-C4'-C3'	10.11	130.37	115.20
62	Bc	13	ARG	N-CA-CB	10.11	126.26	109.78
34	BA	1716	A	C5'-C4'-C3'	10.11	131.16	116.00
85	AA	974	U	O5'-C5'-C4'	10.11	126.66	111.50
65	Bf	346	SER	N-CA-C	10.11	122.30	111.28
34	BA	220	U	P-O5'-C5'	10.10	136.06	120.90
85	AA	434	U	P-O5'-C5'	-10.10	105.75	120.90
85	AA	1252	A	C4'-C3'-C2'	-10.10	92.50	102.60
34	BA	1480	C	P-O3'-C3'	10.10	135.34	120.20
40	BG	59	G	C5'-C4'-C3'	-10.10	100.85	116.00
85	AA	28	A	C5'-C4'-O4'	-10.10	94.66	109.80
85	AA	1878	C	P-O5'-C5'	10.09	136.04	120.90
20	AL	123	ASN	CA-CB-CG	-10.09	102.51	112.60
85	AA	494	G	C5'-C4'-C3'	-10.09	100.86	116.00
34	BA	615	A	O3'-P-O5'	-10.09	88.87	104.00
34	BA	1733	G	P-O5'-C5'	10.09	136.03	120.90
52	BS	131	ILE	CA-C-O	10.09	125.10	119.15
34	BA	683	C	P-O3'-C3'	10.07	135.31	120.20
35	BB	996	G	P-O5'-C5'	-10.07	105.79	120.90
20	AL	70	SER	N-CA-C	10.07	123.30	108.60
66	Bg	84	ASN	CA-CB-CG	-10.07	102.53	112.60
40	BG	9	G	P-O5'-C5'	-10.07	105.80	120.90
85	AA	302	C	O5'-C5'-C4'	10.07	126.60	111.50
52	BS	35	ASN	CA-CB-CG	-10.06	102.54	112.60
30	AW	58	ASN	CA-CB-CG	-10.06	102.54	112.60
77	Br	258	LEU	N-CA-CB	-10.06	94.97	110.06
85	AA	1536	C	O5'-C5'-C4'	10.06	126.59	111.50
85	AA	262	G	C5'-C4'-C3'	10.06	130.29	115.20
85	AA	2126	U	C5'-C4'-C3'	10.06	131.09	116.00
34	BA	1411	C	C4'-C3'-O3'	-10.05	97.92	113.00
79	Bt	16	ARG	N-CA-C	-10.04	98.56	110.41
85	AA	96	C	C4'-C3'-C2'	10.05	112.65	102.60
85	AA	924	A	O3'-P-O5'	10.04	119.07	104.00
34	BA	1041	U	P-O5'-C5'	10.04	135.96	120.90
85	AA	889	G	O5'-C5'-C4'	-10.04	96.44	111.50
34	BA	1631	U	C5'-C4'-C3'	10.04	131.06	116.00
4	A3	148	PHE	CA-CB-CG	-10.04	103.76	113.80
34	BA	611	A	C5'-C4'-C3'	-10.04	100.95	116.00
41	BH	132	C	O3'-P-O5'	-10.04	88.95	104.00
85	AA	1245	U	C5'-C4'-C3'	-10.04	100.95	116.00
34	BA	1493	U	C5'-C4'-C3'	10.03	130.25	115.20
85	AA	2245	A	C2'-C3'-O3'	10.03	124.55	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BF	23	G	O3'-P-O5'	10.03	119.04	104.00
59	BZ	106	LEU	CA-C-N	10.03	135.68	121.24
59	BZ	106	LEU	C-N-CA	10.03	135.68	121.24
61	Bb	112	ASN	CA-CB-CG	-10.03	102.57	112.60
85	AA	351	C	O3'-P-O5'	10.03	119.04	104.00
35	BB	1193	G	C5'-C4'-C3'	10.02	131.04	116.00
51	BR	86	LYS	N-CA-CB	-10.02	95.47	110.01
4	A3	231	HIS	CA-CB-CG	-10.02	103.78	113.80
85	AA	1719	C	O5'-C5'-C4'	10.02	126.52	111.50
13	AE	113	TYR	CA-CB-CG	-10.01	95.88	113.90
34	BA	599	U	C5'-C4'-O4'	10.01	124.82	109.80
34	BA	192	G	C5'-C4'-C3'	10.01	131.01	116.00
37	BD	29	C	C5'-C4'-C3'	-10.01	100.99	116.00
34	BA	1505	G	P-O3'-C3'	10.00	135.20	120.20
5	A4	46	PHE	CA-CB-CG	-10.00	103.80	113.80
35	BB	797	C	C4'-C3'-C2'	-10.00	92.60	102.60
38	BE	129	G	C4'-C3'-C2'	-9.99	92.61	102.60
85	AA	671	G	P-O5'-C5'	-9.99	105.91	120.90
85	AA	1558	U	C5'-C4'-C3'	9.99	130.99	116.00
34	BA	741	A	C4'-C3'-C2'	-9.99	92.61	102.60
37	BD	100	A	C5'-C4'-C3'	9.99	130.99	116.00
34	BA	1498	A	C5'-C4'-C3'	-9.99	101.02	116.00
85	AA	1676	G	C4'-C3'-O3'	-9.99	98.02	113.00
85	AA	1676	G	C5'-C4'-C3'	-9.99	101.02	116.00
34	BA	328	A	P-O3'-C3'	-9.98	105.22	120.20
85	AA	807	A	C5'-C4'-C3'	-9.98	101.03	116.00
38	BE	173	G	O3'-P-O5'	9.98	118.97	104.00
40	BG	87	G	O3'-P-O5'	-9.98	89.03	104.00
86	AB	16	U	O5'-C5'-C4'	9.98	126.47	111.50
34	BA	468	A	P-O3'-C3'	9.98	135.16	120.20
85	AA	277	G	C5'-C4'-C3'	-9.98	101.04	116.00
34	BA	388	A	P-O3'-C3'	9.97	135.16	120.20
80	Bu	146	PHE	CA-CB-CG	-9.97	103.83	113.80
85	AA	1611	A	P-O5'-C5'	-9.97	105.94	120.90
85	AA	253	C	C5'-C4'-C3'	-9.97	101.04	116.00
40	BG	147	U	P-O5'-C5'	9.96	135.84	120.90
34	BA	1508	C	O3'-P-O5'	9.96	118.94	104.00
73	Bn	28	HIS	CA-CB-CG	-9.96	103.84	113.80
55	BV	97	PHE	CA-CB-CG	9.96	123.75	113.80
81	Bv	176	HIS	N-CA-C	9.96	122.13	111.28
7	A6	7	PHE	CA-CB-CG	9.95	123.75	113.80
34	BA	303	C	P-O3'-C3'	9.95	135.13	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
77	Br	223	PHE	CA-CB-CG	9.95	123.75	113.80
34	BA	1379	G	O3'-P-O5'	-9.95	89.08	104.00
85	AA	2092	A	P-O5'-C5'	9.94	135.81	120.90
35	BB	797	C	O5'-C5'-C4'	9.94	126.41	111.50
42	BI	172	HIS	CA-CB-CG	9.94	123.74	113.80
1	A0	38	PHE	CA-CB-CG	-9.94	103.86	113.80
34	BA	680	C	P-O3'-C3'	9.94	135.11	120.20
34	BA	1176	C	C4'-C3'-O3'	-9.94	98.09	113.00
35	BB	432	C	C5'-C4'-C3'	9.94	130.91	116.00
85	AA	2171	A	O3'-P-O5'	-9.94	89.09	104.00
85	AA	787	U	C5'-C4'-C3'	-9.94	101.10	116.00
34	BA	141	G	C5'-C4'-C3'	-9.93	101.10	116.00
85	AA	2002	A	C4'-C3'-C2'	9.93	112.53	102.60
85	AA	450	A	C5'-C4'-C3'	-9.93	101.11	116.00
85	AA	2237	G	C4'-C3'-C2'	9.93	112.53	102.60
4	A3	3	LEU	CA-C-O	-9.92	110.19	120.71
35	BB	68	G	O3'-P-O5'	9.92	118.88	104.00
35	BB	1472	U	P-O3'-C3'	9.91	135.07	120.20
37	BD	51	G	O5'-C5'-C4'	-9.91	96.63	111.50
85	AA	964	C	O3'-P-O5'	-9.91	89.13	104.00
85	AA	741	G	P-O3'-C3'	-9.91	105.34	120.20
53	BT	24	LEU	N-CA-C	9.91	124.36	108.41
34	BA	666	C	C5'-C4'-C3'	-9.90	101.14	116.00
1	A0	226	ASP	CA-CB-CG	-9.90	102.70	112.60
25	AR	71	HIS	CA-CB-CG	-9.90	103.90	113.80
35	BB	878	G	O4'-C4'-C3'	-9.90	94.10	104.00
85	AA	1372	C	P-O3'-C3'	-9.90	105.35	120.20
48	BO	83	ASN	CA-CB-CG	-9.90	102.70	112.60
67	Bh	149	VAL	N-CA-C	9.90	124.31	108.97
35	BB	638	G	C4'-C3'-C2'	9.90	112.50	102.60
52	BS	120	TYR	N-CA-C	9.90	122.07	111.28
34	BA	1789	A	C5'-C4'-C3'	-9.89	101.17	116.00
5	A4	155	MET	CB-CA-C	9.88	126.01	109.80
38	BE	18	U	O3'-P-O5'	9.88	118.83	104.00
34	BA	516	U	P-O5'-C5'	9.88	135.72	120.90
42	BI	44	PHE	CA-CB-CG	-9.88	103.92	113.80
35	BB	618	U	C4'-C3'-C2'	9.88	112.47	102.60
39	BF	10	A	P-O3'-C3'	-9.88	105.39	120.20
40	BG	16	G	C4'-C3'-C2'	9.88	112.48	102.60
44	BK	186	ASP	CA-CB-CG	-9.87	102.73	112.60
4	A3	42	PHE	CA-CB-CG	-9.87	103.93	113.80
36	BC	157	U	P-O3'-C3'	9.87	135.01	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BD	13	A	C5'-C4'-C3'	-9.87	100.39	115.20
85	AA	84	C	P-O5'-C5'	9.87	135.71	120.90
34	BA	1110	A	P-O3'-C3'	9.87	135.00	120.20
34	BA	1516	G	C5'-C4'-C3'	-9.87	101.20	116.00
37	BD	118	C	P-O5'-C5'	9.87	135.70	120.90
65	Bf	62	HIS	CA-CB-CG	-9.87	103.93	113.80
34	BA	159	U	C5'-C4'-C3'	9.87	130.80	116.00
35	BB	800	U	O5'-C5'-C4'	9.87	126.30	111.50
62	Bc	28	SER	N-CA-C	9.87	125.09	109.50
85	AA	304	G	O3'-P-O5'	9.87	118.80	104.00
34	BA	12	G	P-O5'-C5'	9.86	135.70	120.90
34	BA	1475	G	C5'-C4'-C3'	9.87	130.80	116.00
34	BA	1809	G	O3'-P-O5'	9.86	118.79	104.00
80	Bu	81	HIS	CB-CG-CD2	-9.86	118.38	131.20
35	BB	789	G	P-O5'-C5'	-9.86	106.11	120.90
10	A9	127	ASN	CA-CB-CG	-9.86	102.74	112.60
34	BA	557	U	C1'-C2'-O2'	-9.86	93.61	108.40
38	BE	32	U	P-O5'-C5'	-9.86	106.11	120.90
54	BU	84	THR	N-CA-CB	9.86	127.24	110.68
5	A4	67	LEU	N-CA-CB	-9.85	95.98	110.17
44	BK	44	ASP	CA-CB-CG	9.85	122.45	112.60
3	A2	43	GLN	N-CA-C	9.85	131.77	110.80
49	BP	30	ILE	CA-C-N	-9.85	110.02	122.43
49	BP	30	ILE	C-N-CA	-9.85	110.02	122.43
36	BC	156	A	C4'-C3'-C2'	9.84	112.44	102.60
84	By	6	HIS	CA-C-N	9.84	139.42	121.70
84	By	6	HIS	C-N-CA	9.84	139.42	121.70
85	AA	78	A	C5'-C4'-C3'	-9.84	101.24	116.00
85	AA	768	C	C4'-C3'-O3'	-9.84	98.24	113.00
34	BA	758	G	C4'-C3'-C2'	-9.84	92.76	102.60
38	BE	68	U	C5'-C4'-C3'	9.84	130.76	116.00
34	BA	116	G	P-O5'-C5'	-9.84	106.15	120.90
34	BA	1197	U	C4'-C3'-O3'	-9.84	98.25	113.00
35	BB	1540	U	P-O3'-C3'	-9.84	105.45	120.20
34	BA	1721	U	C4'-C3'-C2'	-9.83	92.77	102.60
35	BB	59	U	C5'-C4'-C3'	-9.83	101.26	116.00
38	BE	109	C	O5'-C5'-C4'	9.83	126.24	111.50
34	BA	803	U	C4'-C3'-O3'	-9.83	98.26	113.00
34	BA	1119	A	O5'-C5'-C4'	-9.83	96.96	111.70
34	BA	1787	U	C5'-C4'-C3'	9.83	130.74	116.00
35	BB	704	G	O5'-C5'-C4'	-9.83	96.76	111.50
34	BA	1648	G	P-O5'-C5'	-9.82	106.16	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1459	U	P-O5'-C5'	-9.82	106.17	120.90
38	BE	82	C	O3'-P-O5'	-9.82	89.27	104.00
80	Bu	41	LYS	CA-C-N	9.82	133.79	120.44
80	Bu	41	LYS	C-N-CA	9.82	133.79	120.44
25	AR	78	ILE	N-CA-CB	9.82	122.04	110.55
85	AA	578	U	P-O5'-C5'	-9.82	106.17	120.90
35	BB	621	C	O3'-P-O5'	9.81	118.72	104.00
39	BF	40	U	C2'-C3'-O3'	9.81	124.22	109.50
85	AA	463	G	O3'-P-O5'	-9.81	89.28	104.00
85	AA	1102	C	P-O3'-C3'	9.81	134.92	120.20
34	BA	1620	U	P-O3'-C3'	9.81	134.91	120.20
36	BC	32	U	P-O5'-C5'	9.81	135.61	120.90
85	AA	2075	C	C5'-C4'-C3'	-9.81	101.29	116.00
35	BB	805	G	O5'-C5'-C4'	-9.80	96.80	111.50
6	A5	42	ARG	N-CA-C	-9.80	90.43	107.49
15	AG	50	ILE	CB-CA-C	-9.80	99.42	111.97
85	AA	24	U	O5'-C5'-C4'	-9.80	96.80	111.50
35	BB	1287	U	C5'-C4'-C3'	-9.79	101.31	116.00
85	AA	869	A	C5'-C4'-C3'	-9.79	101.31	116.00
25	AR	52	GLY	N-CA-C	-9.79	103.04	114.69
85	AA	1964	A	C1'-O4'-C4'	-9.79	100.11	109.90
42	BI	96	ASP	CA-CB-CG	9.79	122.39	112.60
83	Bx	48	GLY	N-CA-C	9.79	136.37	113.18
38	BE	183	C	O5'-C5'-C4'	9.78	126.37	111.70
85	AA	1702	G	O5'-C5'-C4'	-9.78	96.83	111.50
51	BR	123	PRO	CA-C-N	9.78	134.69	120.90
51	BR	123	PRO	C-N-CA	9.78	134.69	120.90
85	AA	1982	C	P-O3'-C3'	9.78	134.87	120.20
35	BB	830	G	P-O3'-C3'	-9.78	105.54	120.20
35	BB	1326	U	P-O5'-C5'	9.78	135.56	120.90
6	A5	119	ILE	N-CA-C	9.77	123.75	108.89
35	BB	1303	A	C5'-C4'-C3'	-9.77	101.34	116.00
35	BB	1361	A	C5'-C4'-C3'	-9.77	101.34	116.00
26	AS	98	ASP	CA-CB-CG	-9.77	102.83	112.60
35	BB	1475	U	P-O5'-C5'	-9.77	106.25	120.90
38	BE	11	A	P-O5'-C5'	-9.77	106.25	120.90
34	BA	1535	G	C5'-C4'-C3'	-9.77	101.35	116.00
34	BA	1197	U	P-O3'-C3'	9.77	134.85	120.20
85	AA	282	C	C5'-C4'-C3'	-9.77	101.35	116.00
34	BA	798	G	O4'-C4'-C3'	-9.76	94.24	104.00
34	BA	1832	A	C4'-C3'-O3'	-9.76	98.36	113.00
34	BA	1711	G	C1'-O4'-C4'	-9.76	100.14	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	62	C	P-O3'-C3'	9.75	134.82	120.20
54	BU	8	LYS	N-CA-C	-9.75	99.26	112.03
34	BA	281	C	O5'-C5'-C4'	-9.75	96.88	111.50
37	BD	40	C	P-O3'-C3'	9.75	134.82	120.20
67	Bh	73	LEU	CA-C-O	-9.75	110.22	120.55
23	AP	52	LEU	CA-C-N	9.74	132.61	120.72
23	AP	52	LEU	C-N-CA	9.74	132.61	120.72
35	BB	1023	G	P-O3'-C3'	9.74	134.81	120.20
38	BE	67	A	O3'-P-O5'	9.74	118.61	104.00
35	BB	1035	C	C5'-C4'-C3'	-9.74	101.39	116.00
85	AA	1755	U	C5'-C4'-C3'	9.74	130.61	116.00
34	BA	778	U	P-O5'-C5'	-9.74	106.29	120.90
41	BH	31	A	C4'-C3'-C2'	9.74	112.34	102.60
35	BB	726	A	C5'-C4'-C3'	-9.74	101.40	116.00
35	BB	1026	G	P-O3'-C3'	-9.74	105.60	120.20
65	Bf	350	ASN	CA-CB-CG	9.74	122.34	112.60
34	BA	228	A	C4'-C3'-O3'	-9.73	98.40	113.00
85	AA	443	A	C4'-C3'-O3'	-9.73	98.40	113.00
85	AA	975	G	P-O5'-C5'	-9.73	106.30	120.90
35	BB	887	G	O3'-P-O5'	-9.73	89.40	104.00
13	AE	147	LEU	N-CA-C	-9.73	101.97	114.04
37	BD	98	G	C5'-C4'-C3'	-9.73	101.41	116.00
85	AA	2153	G	C4'-C3'-C2'	-9.73	92.87	102.60
34	BA	1699	A	C3'-C2'-C1'	-9.72	91.58	101.30
34	BA	521	C	P-O3'-C3'	-9.72	105.62	120.20
34	BA	1189	A	P-O5'-C5'	9.72	135.48	120.90
51	BR	58	ILE	N-CA-C	9.72	118.81	107.73
85	AA	1826	U	C5'-C4'-C3'	-9.72	101.42	116.00
59	BZ	55	VAL	CB-CA-C	-9.72	100.76	111.35
85	AA	70	U	C5'-C4'-C3'	-9.72	101.42	116.00
85	AA	2186	U	C5'-C4'-C3'	-9.72	101.42	116.00
34	BA	227	C	C5'-C4'-C3'	-9.72	101.43	116.00
80	Bu	94	ASN	CA-CB-CG	-9.71	102.89	112.60
25	AR	51	ASP	N-CA-C	-9.71	94.47	109.52
35	BB	622	G	C5'-C4'-C3'	9.71	130.57	116.00
85	AA	939	A	O3'-P-O5'	9.71	118.57	104.00
35	BB	833	G	C4'-C3'-C2'	-9.71	92.89	102.60
41	BH	71	C	O3'-P-O5'	9.71	118.56	104.00
85	AA	743	C	O4'-C4'-C3'	-9.71	94.30	104.00
34	BA	729	C	C4'-C3'-C2'	9.70	112.30	102.60
34	BA	1247	G	C5'-C4'-C3'	-9.70	101.45	116.00
85	AA	206	U	P-O3'-C3'	9.69	134.74	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1292	A	P-O5'-C5'	-9.69	106.36	120.90
34	BA	250	G	P-O3'-C3'	-9.69	105.67	120.20
35	BB	1231	U	O5'-C5'-C4'	9.68	126.02	111.50
85	AA	1541	G	O5'-C5'-C4'	-9.68	96.97	111.50
34	BA	91	C	P-O5'-C5'	9.68	135.41	120.90
44	BK	34	PHE	CA-CB-CG	-9.68	104.12	113.80
34	BA	1083	A	C2'-C3'-O3'	9.67	124.01	109.50
38	BE	117	A	C5'-C4'-C3'	-9.67	101.49	116.00
85	AA	252	G	C5'-C4'-C3'	9.66	130.50	116.00
86	AB	7	A	P-O5'-C5'	9.66	135.40	120.90
85	AA	1363	U	C4'-C3'-O3'	-9.66	98.51	113.00
25	AR	29	ILE	N-CA-CB	9.66	122.51	111.21
35	BB	768	A	C4'-C3'-C2'	-9.66	92.94	102.60
38	BE	20	C	P-O3'-C3'	-9.66	105.71	120.20
85	AA	1278	C	P-O5'-C5'	-9.66	106.41	120.90
11	AC	177	ASN	CA-CB-CG	9.65	122.25	112.60
34	BA	1616	A	P-O5'-C5'	-9.65	106.43	120.90
34	BA	327	G	P-O3'-C3'	9.65	134.67	120.20
34	BA	996	U	C4'-C3'-C2'	9.65	112.25	102.60
48	BO	23	ASP	CA-CB-CG	9.65	122.25	112.60
85	AA	1110	A	C4'-C3'-C2'	-9.65	92.95	102.60
34	BA	1192	A	C5'-C4'-C3'	-9.64	101.53	116.00
85	AA	201	U	P-O5'-C5'	9.64	135.37	120.90
34	BA	470	C	O3'-P-O5'	-9.64	89.54	104.00
83	Bx	46	ASP	N-CA-C	9.64	126.53	112.94
64	Be	80	GLU	N-CA-C	9.64	131.33	110.80
22	AO	68	ASP	CA-CB-CG	-9.63	102.97	112.60
52	BS	134	HIS	CA-CB-CG	-9.63	104.17	113.80
64	Be	190	ARG	N-CA-C	9.63	124.08	111.75
77	Br	303	LYS	N-CA-C	9.63	123.78	109.24
85	AA	1320	G	P-O3'-C3'	9.63	134.64	120.20
85	AA	2089	G	C5'-C4'-C3'	9.63	130.44	116.00
34	BA	763	U	O4'-C1'-C2'	-9.63	97.97	107.60
35	BB	267	C	P-O3'-C3'	9.63	134.64	120.20
85	AA	2095	U	C5'-C4'-C3'	9.63	130.44	116.00
34	BA	27	G	C5'-C4'-C3'	-9.62	101.56	116.00
80	Bu	190	ASN	CB-CA-C	-9.62	95.83	110.26
67	Bh	91	HIS	CB-CG-CD2	-9.62	118.69	131.20
39	BF	54	U	P-O3'-C3'	9.62	134.63	120.20
85	AA	383	C	P-O5'-C5'	9.62	135.32	120.90
34	BA	583	G	P-O3'-C3'	9.61	134.62	120.20
35	BB	840	C	P-O5'-C5'	9.61	135.32	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	Be	83	PHE	CA-C-N	9.61	139.89	121.54
64	Be	83	PHE	C-N-CA	9.61	139.89	121.54
85	AA	785	C	P-O5'-C5'	9.61	135.31	120.90
85	AA	251	A	C2'-C3'-O3'	9.61	128.11	113.70
35	BB	1259	A	O5'-C5'-C4'	9.60	126.11	111.70
85	AA	100	A	N9-C1'-C2'	9.60	126.40	112.00
85	AA	790	A	P-O3'-C3'	-9.60	105.80	120.20
63	Bd	19	ASN	CA-CB-CG	-9.60	103.00	112.60
34	BA	212	A	P-O5'-C5'	9.60	135.29	120.90
67	Bh	125	ASN	CA-CB-CG	-9.60	103.00	112.60
34	BA	593	G	C5'-C4'-O4'	9.59	123.49	109.10
34	BA	535	G	P-O3'-C3'	9.59	134.58	120.20
34	BA	559	C	P-O5'-C5'	9.59	135.28	120.90
35	BB	28	G	P-O5'-C5'	9.59	135.28	120.90
85	AA	1441	G	C5'-C4'-C3'	-9.59	101.62	116.00
13	AE	66	ASN	CA-CB-CG	-9.59	103.02	112.60
85	AA	1997	G	O3'-P-O5'	9.59	118.38	104.00
35	BB	659	C	C2'-C3'-O3'	9.58	123.88	109.50
35	BB	768	A	O4'-C1'-C2'	-9.58	96.22	105.80
34	BA	842	U	C5'-C4'-C3'	9.58	130.37	116.00
85	AA	1225	C	P-O3'-C3'	9.58	134.57	120.20
85	AA	2084	U	C5'-C4'-C3'	-9.58	101.63	116.00
34	BA	213	A	C5'-C4'-C3'	9.58	130.37	116.00
35	BB	415	A	C5'-C4'-C3'	-9.58	101.63	116.00
41	BH	120	C	C5'-C4'-C3'	9.57	130.36	116.00
85	AA	688	C	C5'-C4'-C3'	-9.57	101.64	116.00
85	AA	926	C	P-O3'-C3'	9.57	134.56	120.20
33	AZ	44	ILE	N-CA-C	-9.57	104.15	111.90
34	BA	1495	A	C2'-C3'-O3'	9.57	123.86	109.50
34	BA	1	C	O3'-P-O5'	-9.57	89.65	104.00
36	BC	5	U	C5'-C4'-C3'	-9.57	101.64	116.00
77	Br	279	ALA	N-CA-C	9.57	121.80	109.64
80	Bu	86	PHE	CA-CB-CG	-9.57	104.23	113.80
85	AA	1731	G	C5'-C4'-C3'	-9.57	101.65	116.00
40	BG	180	C	C5'-C4'-C3'	-9.57	101.65	116.00
82	Bw	23	ALA	N-CA-C	9.56	116.58	108.07
35	BB	139	G	P-O5'-C5'	-9.56	106.56	120.90
1	A0	80	ASP	CA-CB-CG	-9.56	103.04	112.60
34	BA	777	C	O3'-P-O5'	9.56	118.34	104.00
83	Bx	47	PHE	N-CA-C	9.56	131.17	110.80
85	AA	10	G	C5'-C4'-C3'	-9.56	101.66	116.00
35	BB	1319	U	O5'-C5'-C4'	9.56	125.84	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BW	3	LYS	CA-C-N	9.56	139.80	121.54
56	BW	3	LYS	C-N-CA	9.56	139.80	121.54
85	AA	2183	U	C5'-C4'-C3'	-9.56	101.66	116.00
2	A1	14	ASP	CA-CB-CG	9.55	122.15	112.60
8	A7	251	TRP	N-CA-C	-9.55	94.21	109.59
34	BA	386	A	P-O5'-C5'	9.55	135.23	120.90
73	Bn	39	TYR	N-CA-C	-9.55	95.28	109.42
86	AB	16	U	C5'-C4'-C3'	9.55	130.32	116.00
57	BX	59	THR	CA-C-N	9.54	139.77	121.54
57	BX	59	THR	C-N-CA	9.54	139.77	121.54
83	Bx	113	GLU	N-CA-C	9.54	122.73	109.18
80	Bu	186	PHE	CA-CB-CG	-9.54	104.26	113.80
24	AQ	69	ASN	CA-CB-CG	9.54	122.14	112.60
34	BA	957	A	C4'-C3'-O3'	-9.54	98.69	113.00
38	BE	102	U	P-O3'-C3'	9.54	134.51	120.20
80	Bu	141	ASP	CA-C-N	9.54	139.77	121.54
80	Bu	141	ASP	C-N-CA	9.54	139.77	121.54
34	BA	238	C	P-O5'-C5'	9.54	135.21	120.90
34	BA	1433	U	O4'-C1'-C2'	9.54	115.34	105.80
40	BG	110	U	C5'-C4'-C3'	9.54	130.30	116.00
3	A2	72	LYS	CA-C-N	9.53	133.41	120.54
3	A2	72	LYS	C-N-CA	9.53	133.41	120.54
17	AI	130	TYR	N-CA-C	9.54	124.98	109.72
37	BD	51	G	C5'-C4'-C3'	-9.54	101.70	116.00
47	BN	214	GLU	N-CA-CB	-9.53	96.05	110.16
85	AA	785	C	C2'-C3'-O3'	9.53	123.80	109.50
85	AA	2168	C	C5'-C4'-C3'	-9.53	101.70	116.00
30	AW	6	SER	CA-C-N	9.53	139.74	121.54
30	AW	6	SER	C-N-CA	9.53	139.74	121.54
79	Bt	84	VAL	N-CA-C	9.53	122.30	108.58
85	AA	1595	G	C5'-C4'-C3'	-9.53	101.71	116.00
85	AA	773	G	C5'-C4'-C3'	-9.52	101.72	116.00
85	AA	1157	U	P-O3'-C3'	9.52	134.48	120.20
85	AA	2036	A	P-O5'-C5'	9.52	135.18	120.90
30	AW	50	HIS	CA-CB-CG	-9.52	104.28	113.80
35	BB	1482	A	O3'-P-O5'	-9.52	89.72	104.00
35	BB	635	A	P-O3'-C3'	-9.52	105.92	120.20
38	BE	117	A	O4'-C4'-C3'	9.52	113.52	104.00
85	AA	18	C	O3'-P-O5'	9.52	118.27	104.00
25	AR	18	ILE	N-CA-C	-9.51	98.90	107.56
38	BE	41	C	C5'-C4'-C3'	9.51	130.27	116.00
70	Bk	46	GLY	CA-C-N	9.51	134.27	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	Bk	46	GLY	C-N-CA	9.51	134.27	120.38
34	BA	942	G	C5'-C4'-C3'	-9.51	101.74	116.00
74	Bo	38	PHE	CA-CB-CG	-9.51	104.29	113.80
34	BA	268	U	P-O3'-C3'	9.51	134.46	120.20
35	BB	287	C	P-O3'-C3'	9.51	134.46	120.20
85	AA	302	C	O3'-P-O5'	9.51	118.26	104.00
47	BN	171	ARG	N-CA-C	9.50	122.67	109.18
34	BA	127	U	P-O3'-C3'	9.50	134.45	120.20
34	BA	414	A	P-O3'-C3'	-9.50	105.95	120.20
34	BA	585	G	P-O5'-C5'	-9.50	106.65	120.90
34	BA	1674	G	C1'-O4'-C4'	-9.50	100.20	109.70
35	BB	835	C	C4'-C3'-O3'	-9.50	98.75	113.00
35	BB	845	C	P-O3'-C3'	9.50	134.45	120.20
85	AA	1325	C	P-O3'-C3'	9.50	134.44	120.20
77	Br	85	MET	N-CA-C	-9.49	100.58	113.30
34	BA	524	G	P-O5'-C5'	9.49	135.14	120.90
40	BG	21	C	O4'-C1'-N1	9.49	122.74	108.50
85	AA	862	U	C4'-C3'-O3'	-9.49	98.76	113.00
62	Bc	18	PHE	N-CA-C	-9.49	100.93	114.12
18	AJ	76	CYS	CB-CA-C	-9.49	98.28	109.47
82	Bw	168	HIS	CB-CG-CD2	-9.49	118.87	131.20
34	BA	470	C	O5'-C5'-C4'	-9.48	97.27	111.50
85	AA	112	A	C4'-C3'-O3'	-9.48	98.77	113.00
85	AA	1661	U	C5'-C4'-C3'	-9.48	100.97	115.20
65	Bf	273	VAL	N-CA-C	9.48	121.38	108.11
38	BE	133	C	C5'-C4'-C3'	-9.48	101.78	116.00
85	AA	1698	A	P-O5'-C5'	-9.47	106.69	120.90
85	AA	388	G	O3'-P-O5'	9.47	118.20	104.00
7	A6	15	ARG	N-CA-C	9.47	124.65	110.64
34	BA	63	A	P-O5'-C5'	-9.47	106.70	120.90
37	BD	79	G	C5'-C4'-C3'	9.47	130.20	116.00
85	AA	2048	C	C5'-C4'-C3'	9.46	130.20	116.00
85	AA	2132	A	P-O5'-C5'	-9.46	106.70	120.90
36	BC	157	U	P-O5'-C5'	-9.46	106.71	120.90
34	BA	1312	A	P-O3'-C3'	-9.46	106.01	120.20
37	BD	83	A	C4'-C3'-C2'	-9.46	93.14	102.60
34	BA	980	C	P-O5'-C5'	-9.46	106.72	120.90
85	AA	208	U	P-O3'-C3'	9.46	134.38	120.20
34	BA	131	A	C2'-C3'-O3'	9.45	123.68	109.50
36	BC	60	U	P-O3'-C3'	9.45	134.38	120.20
34	BA	4	A	C5'-C4'-C3'	9.45	130.18	116.00
40	BG	140	G	C5'-C4'-C3'	-9.45	101.82	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	445	U	C1'-O4'-C4'	-9.45	100.25	109.70
11	AC	104	VAL	CA-C-N	9.45	133.32	120.38
11	AC	104	VAL	C-N-CA	9.45	133.32	120.38
19	AK	34	ASN	CA-C-N	9.45	138.97	121.97
19	AK	34	ASN	C-N-CA	9.45	138.97	121.97
34	BA	112	C	P-O3'-C3'	-9.45	106.03	120.20
34	BA	568	G	C5'-C4'-C3'	-9.45	101.83	116.00
34	BA	1097	G	P-O3'-C3'	9.45	134.37	120.20
34	BA	1731	A	C5'-C4'-C3'	9.45	130.17	116.00
85	AA	1426	G	C5'-C4'-C3'	-9.45	101.83	116.00
25	AR	14	VAL	N-CA-C	-9.44	95.89	108.35
17	AI	39	GLU	CA-C-N	9.44	133.28	120.44
17	AI	39	GLU	C-N-CA	9.44	133.28	120.44
34	BA	917	C	C5'-C4'-C3'	-9.44	101.84	116.00
48	BO	166	TRP	CB-CG-CD2	-9.44	113.58	126.80
34	BA	526	C	C4'-C3'-C2'	-9.44	93.16	102.60
34	BA	608	G	P-O3'-C3'	-9.44	106.04	120.20
34	BA	685	C	O4'-C4'-C3'	-9.44	94.56	104.00
21	AM	43	TYR	CA-C-N	9.44	132.93	120.28
21	AM	43	TYR	C-N-CA	9.44	132.93	120.28
35	BB	708	C	P-O5'-C5'	-9.43	106.76	120.90
83	Bx	96	ASP	CA-CB-CG	-9.43	103.17	112.60
2	A1	127	TYR	CA-CB-CG	-9.43	96.93	113.90
85	AA	557	G	P-O5'-C5'	9.43	135.04	120.90
35	BB	1546	C	C5'-C4'-C3'	-9.42	101.87	116.00
74	Bo	44	LYS	N-CA-C	-9.42	95.66	108.38
85	AA	305	A	P-O5'-C5'	9.42	135.03	120.90
34	BA	1503	U	C2'-C3'-O3'	-9.41	99.58	113.70
34	BA	1506	C	O5'-C5'-C4'	9.41	125.62	111.50
35	BB	1506	C	P-O5'-C5'	9.41	135.02	120.90
85	AA	327	G	O4'-C1'-N9	9.41	122.62	108.50
12	AD	96	ASN	CA-CB-CG	-9.41	103.19	112.60
69	Bj	82	VAL	N-CA-CB	-9.41	101.38	112.39
38	BE	30	C	C5'-C4'-C3'	9.41	130.11	116.00
38	BE	177	U	P-O5'-C5'	9.40	135.01	120.90
85	AA	860	C	P-O3'-C3'	9.40	134.30	120.20
34	BA	1629	A	O3'-P-O5'	9.40	118.10	104.00
15	AG	22	PRO	CA-C-O	-9.40	113.31	120.73
68	Bi	99	HIS	CA-C-N	9.39	139.48	121.54
68	Bi	99	HIS	C-N-CA	9.39	139.48	121.54
71	Bl	95	TRP	O-C-N	-9.39	111.90	123.36
77	Br	92	GLY	CA-C-N	9.39	139.48	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
77	Br	92	GLY	C-N-CA	9.39	139.48	121.54
85	AA	1543	C	C5'-C4'-C3'	9.39	130.09	116.00
34	BA	1503	U	O3'-P-O5'	-9.39	89.92	104.00
85	AA	1540	A	C5'-C4'-C3'	-9.39	101.92	116.00
34	BA	114	U	C5'-C4'-C3'	9.39	130.08	116.00
35	BB	768	A	P-O3'-C3'	9.39	134.28	120.20
33	AZ	39	GLN	N-CA-C	-9.38	92.90	108.76
50	BQ	206	ARG	N-CA-C	9.38	121.51	111.28
64	Be	156	LYS	N-CA-C	-9.38	94.68	109.23
85	AA	1179	A	P-O3'-C3'	9.39	134.28	120.20
34	BA	857	C	C5'-C4'-C3'	9.38	130.07	116.00
34	BA	1197	U	C2'-C3'-O3'	9.38	127.77	113.70
38	BE	184	G	P-O5'-C5'	9.38	134.97	120.90
34	BA	990	G	C5'-C4'-C3'	-9.38	101.93	116.00
85	AA	707	U	C5'-C4'-C3'	-9.38	101.93	116.00
35	BB	1458	U	C5'-C4'-C3'	-9.38	101.93	116.00
85	AA	820	G	C4'-C3'-C2'	-9.37	93.23	102.60
34	BA	161	U	C2'-C3'-O3'	9.37	123.56	109.50
34	BA	1142	C	C5'-C4'-C3'	-9.37	101.94	116.00
65	Bf	181	PHE	CA-CB-CG	-9.37	104.43	113.80
7	A6	64	ASN	CA-CB-CG	-9.37	103.23	112.60
34	BA	762	A	C4'-C3'-O3'	-9.37	98.95	113.00
35	BB	768	A	P-O5'-C5'	9.37	134.95	120.90
38	BE	16	C	O5'-C5'-C4'	9.36	125.55	111.50
34	BA	294	C	O5'-C5'-C4'	-9.36	97.66	111.70
34	BA	547	C	C5'-C4'-O4'	-9.36	95.76	109.80
34	BA	606	G	C4'-C3'-O3'	-9.36	98.96	113.00
35	BB	61	A	O3'-P-O5'	-9.36	89.96	104.00
85	AA	1457	C	P-O3'-C3'	9.36	134.24	120.20
35	BB	769	C	C5'-C4'-C3'	-9.36	101.17	115.20
40	BG	106	G	O4'-C1'-N9	9.36	122.23	108.20
35	BB	1140	C	P-O3'-C3'	9.35	134.22	120.20
85	AA	2092	A	O5'-C5'-C4'	-9.35	97.48	111.50
29	AV	99	ARG	N-CA-C	9.34	123.43	110.35
34	BA	146	G	C4'-C3'-C2'	-9.34	93.26	102.60
35	BB	522	A	C4'-C3'-C2'	9.34	111.94	102.60
85	AA	909	C	C2'-C3'-O3'	9.34	123.51	109.50
35	BB	439	G	C5'-C4'-C3'	-9.34	101.99	116.00
85	AA	1363	U	C5'-C4'-C3'	-9.34	101.99	116.00
35	BB	574	G	P-O3'-C3'	-9.34	106.19	120.20
35	BB	1475	U	O3'-P-O5'	9.34	118.00	104.00
85	AA	942	A	P-O5'-C5'	-9.34	106.90	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1840	C	P-O5'-C5'	9.34	134.90	120.90
85	AA	2121	G	P-O3'-C3'	9.34	134.20	120.20
19	AK	55	MET	N-CA-C	9.33	122.64	111.82
35	BB	993	A	O3'-P-O5'	-9.33	90.00	104.00
85	AA	52	U	C4'-C3'-O3'	-9.33	99.00	113.00
34	BA	1257	U	P-O5'-C5'	-9.33	106.91	120.90
47	BN	33	GLN	CA-C-O	-9.33	110.05	118.63
61	Bb	5	PHE	CA-CB-CG	-9.33	104.47	113.80
85	AA	2029	G	C5'-C4'-C3'	-9.33	102.01	116.00
47	BN	150	ALA	CA-C-N	9.32	132.77	120.28
47	BN	150	ALA	C-N-CA	9.32	132.77	120.28
65	Bf	163	VAL	N-CA-C	9.32	120.13	110.62
85	AA	529	G	O3'-P-O5'	-9.32	90.02	104.00
34	BA	110	C	O3'-P-O5'	9.32	117.98	104.00
85	AA	1650	G	C5'-C4'-C3'	-9.32	102.02	116.00
35	BB	637	G	C5'-C4'-C3'	-9.32	102.02	116.00
41	BH	118	U	O3'-P-O5'	9.32	117.98	104.00
36	BC	32	U	O3'-P-O5'	9.32	117.97	104.00
85	AA	1274	A	O3'-P-O5'	9.32	117.97	104.00
34	BA	299	C	C5'-C4'-C3'	-9.31	102.03	116.00
65	Bf	425	HIS	CA-CB-CG	-9.31	104.48	113.80
34	BA	299	C	P-O3'-C3'	-9.31	106.23	120.20
85	AA	207	G	O4'-C1'-N9	9.31	122.47	108.50
85	AA	1720	C	P-O5'-C5'	-9.31	106.93	120.90
34	BA	1616	A	P-O3'-C3'	9.31	134.16	120.20
50	BQ	173	HIS	CA-CB-CG	-9.31	104.49	113.80
85	AA	1962	U	C4'-C3'-C2'	9.31	111.91	102.60
35	BB	712	U	P-O3'-C3'	9.31	134.16	120.20
37	BD	78	C	C5'-C4'-C3'	-9.31	102.04	116.00
67	Bh	142	GLY	N-CA-C	-9.30	97.56	111.14
34	BA	1832	A	C5'-C4'-C3'	-9.30	102.05	116.00
85	AA	64	A	O3'-P-O5'	9.30	117.95	104.00
86	AB	8	U	C5'-C4'-C3'	9.30	129.15	115.20
79	Bt	3	ASN	CA-CB-CG	-9.30	103.30	112.60
70	Bk	118	PHE	CA-CB-CG	-9.30	104.50	113.80
85	AA	1900	C	C5'-C4'-C3'	-9.30	102.06	116.00
47	BN	194	HIS	CA-CB-CG	9.29	123.09	113.80
34	BA	977	G	C5'-C4'-C3'	-9.29	102.06	116.00
25	AR	54	THR	N-CA-C	-9.29	94.83	109.23
35	BB	405	U	C4'-C3'-C2'	-9.29	93.31	102.60
35	BB	1132	A	O5'-C5'-C4'	-9.29	97.56	111.50
34	BA	117	C	C1'-O4'-C4'	-9.29	100.61	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	236	A	C4'-C3'-C2'	9.29	111.89	102.60
35	BB	853	U	C4'-C3'-O3'	9.29	123.33	109.40
34	BA	480	G	C5'-C4'-C3'	-9.29	102.07	116.00
86	AB	66	U	O3'-P-O5'	-9.29	90.07	104.00
35	BB	878	G	O3'-P-O5'	9.28	117.92	104.00
35	BB	605	C	C4'-C3'-C2'	9.28	111.88	102.60
85	AA	1240	A	C4'-C3'-C2'	9.28	111.88	102.60
85	AA	977	U	C5'-C4'-C3'	-9.28	102.09	116.00
85	AA	1242	A	C5'-C4'-C3'	-9.28	102.08	116.00
40	BG	6	A	C5'-C4'-C3'	9.27	129.91	116.00
85	AA	307	G	C4'-C3'-O3'	9.27	126.91	113.00
35	BB	1220	A	O3'-P-O5'	-9.27	90.09	104.00
48	BO	127	PRO	CA-C-N	9.27	132.29	120.70
48	BO	127	PRO	C-N-CA	9.27	132.29	120.70
35	BB	850	U	P-O3'-C3'	9.27	134.10	120.20
35	BB	1045	G	O5'-C5'-C4'	9.27	125.40	111.50
39	BF	39	C	C4'-C3'-C2'	9.27	111.87	102.60
34	BA	1097	G	O3'-P-O5'	-9.27	90.10	104.00
35	BB	1424	G	C5'-C4'-C3'	-9.27	102.10	116.00
3	A2	97	VAL	N-CA-C	-9.26	102.77	111.48
85	AA	1116	G	C5'-C4'-C3'	-9.26	102.10	116.00
34	BA	323	C	C4'-C3'-O3'	9.26	123.29	109.40
34	BA	769	U	C2'-C3'-O3'	9.26	123.39	109.50
68	Bi	55	ASN	CA-CB-CG	-9.26	103.34	112.60
34	BA	94	G	C5'-C4'-C3'	-9.26	102.11	116.00
34	BA	557	U	O4'-C1'-N1	9.26	122.38	108.50
85	AA	2057	G	C5'-C4'-C3'	-9.26	102.12	116.00
34	BA	1711	G	O5'-C5'-C4'	-9.25	97.62	111.50
85	AA	1956	C	P-O5'-C5'	-9.25	107.02	120.90
85	AA	2017	U	O3'-P-O5'	-9.25	90.12	104.00
34	BA	606	G	C5'-C4'-C3'	-9.25	102.12	116.00
85	AA	796	U	C5'-C4'-C3'	9.25	129.87	116.00
85	AA	1730	C	P-O3'-C3'	9.25	134.07	120.20
16	AH	124	ASP	N-CA-CB	9.25	125.49	110.42
34	BA	81	C	O5'-C5'-C4'	-9.25	97.63	111.50
34	BA	1828	A	P-O3'-C3'	-9.25	106.33	120.20
47	BN	80	PHE	CA-CB-CG	-9.25	104.55	113.80
65	Bf	193	GLY	N-CA-C	-9.25	97.41	110.63
85	AA	1720	C	C2'-C3'-O3'	9.25	127.57	113.70
34	BA	672	G	P-O3'-C3'	9.24	134.07	120.20
86	AB	3	C	C1'-O4'-C4'	-9.24	100.66	109.90
41	BH	118	U	C2'-C3'-O3'	9.24	123.36	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A0	109	SER	CA-C-N	9.24	133.01	120.54
1	A0	109	SER	C-N-CA	9.24	133.01	120.54
38	BE	127	G	C5'-C4'-C3'	9.24	129.86	116.00
84	By	11	PHE	N-CA-C	9.24	116.29	108.07
85	AA	671	G	C5'-C4'-C3'	-9.24	102.14	116.00
85	AA	1158	U	C1'-O4'-C4'	-9.24	100.66	109.90
85	AA	368	C	C1'-O4'-C4'	-9.24	100.66	109.90
34	BA	1137	U	C5'-C4'-C3'	-9.24	102.15	116.00
85	AA	1053	A	P-O3'-C3'	9.24	134.06	120.20
5	A4	10	LEU	N-CA-CB	-9.23	94.62	110.32
29	AV	54	ASP	CA-CB-CG	-9.23	103.36	112.60
38	BE	75	C	P-O5'-C5'	9.23	134.75	120.90
34	BA	581	U	C2'-C3'-O3'	9.23	123.35	109.50
34	BA	588	C	C5'-C4'-C3'	-9.23	101.35	115.20
35	BB	1486	C	C4'-C3'-O3'	-9.23	99.16	113.00
34	BA	576	C	P-O5'-C5'	-9.23	107.06	120.90
41	BH	41	A	O4'-C1'-C2'	9.23	115.03	105.80
48	BO	199	ASN	CA-CB-CG	-9.23	103.37	112.60
85	AA	681	G	O5'-C5'-C4'	9.23	125.34	111.50
85	AA	1469	G	C4'-C3'-O3'	-9.23	99.16	113.00
34	BA	135	G	P-O3'-C3'	-9.22	106.36	120.20
85	AA	732	G	P-O5'-C5'	-9.22	107.06	120.90
85	AA	1763	G	P-O5'-C5'	9.22	134.74	120.90
85	AA	1784	G	P-O3'-C3'	9.22	134.03	120.20
34	BA	348	U	C5'-C4'-C3'	-9.22	102.17	116.00
35	BB	1202	G	P-O3'-C3'	-9.22	106.37	120.20
85	AA	2062	U	P-O5'-C5'	-9.22	107.07	120.90
4	A3	58	ASP	N-CA-C	9.22	124.17	109.79
85	AA	904	U	C5'-C4'-C3'	-9.22	102.17	116.00
34	BA	546	U	O3'-P-O5'	9.22	117.83	104.00
34	BA	1537	G	C5'-C4'-C3'	-9.21	102.18	116.00
34	BA	387	A	P-O5'-C5'	9.21	134.72	120.90
35	BB	13	A	P-O3'-C3'	-9.21	106.38	120.20
27	AT	59	GLU	N-CA-C	-9.21	101.57	113.17
35	BB	901	U	O5'-C5'-C4'	-9.21	97.69	111.50
85	AA	707	U	P-O3'-C3'	-9.21	106.39	120.20
38	BE	111	C	C5'-C4'-C3'	-9.21	102.19	116.00
53	BT	65	GLN	N-CA-CB	-9.21	96.59	110.12
6	A5	188	ILE	N-CA-C	9.20	121.80	109.37
74	Bo	41	PHE	CA-CB-CG	9.21	123.00	113.80
85	AA	1458	G	C2'-C3'-O3'	9.21	127.51	113.70
34	BA	300	C	O4'-C1'-N1	9.20	122.30	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	818	G	C5'-C4'-C3'	9.20	129.80	116.00
42	BI	104	ALA	CA-C-N	9.20	139.12	121.54
42	BI	104	ALA	C-N-CA	9.20	139.12	121.54
85	AA	505	U	O5'-C5'-C4'	-9.20	97.90	111.70
8	A7	275	ALA	N-CA-C	9.20	116.26	108.07
34	BA	1620	U	C2'-C3'-O3'	9.20	127.50	113.70
35	BB	1474	A	C4'-C3'-C2'	-9.20	93.40	102.60
11	AC	86	ASP	CA-CB-CG	-9.20	103.40	112.60
25	AR	7	TYR	N-CA-C	-9.20	95.09	109.07
34	BA	9	A	C5'-C4'-C3'	-9.20	102.21	116.00
34	BA	244	A	C5'-C4'-C3'	-9.20	102.21	116.00
34	BA	1659	G	C5'-C4'-C3'	-9.20	102.20	116.00
34	BA	853	A	P-O5'-C5'	9.20	134.69	120.90
47	BN	18	ASN	CA-C-N	9.20	131.34	119.84
47	BN	18	ASN	C-N-CA	9.20	131.34	119.84
85	AA	1367	C	O5'-C5'-C4'	-9.20	97.71	111.50
85	AA	1991	C	P-O5'-C5'	9.19	134.69	120.90
66	Bg	84	ASN	N-CA-C	9.19	123.87	109.81
34	BA	1041	U	P-O3'-C3'	9.19	133.98	120.20
85	AA	207	G	C1'-O4'-C4'	-9.19	100.72	109.90
85	AA	1577	G	P-O3'-C3'	9.18	133.97	120.20
58	BY	35	PHE	CA-CB-CG	-9.18	104.62	113.80
34	BA	115	U	O4'-C1'-C2'	-9.17	96.63	105.80
36	BC	147	G	P-O5'-C5'	9.17	134.66	120.90
54	BU	122	GLY	N-CA-C	-9.17	96.68	112.64
26	AS	59	ALA	N-CA-C	9.17	122.82	110.35
36	BC	38	U	C1'-O4'-C4'	-9.17	100.53	109.70
34	BA	1442	A	P-O3'-C3'	9.17	133.95	120.20
35	BB	4	C	C4'-C3'-C2'	-9.17	93.43	102.60
40	BG	171	A	O4'-C1'-C2'	-9.17	98.43	107.60
85	AA	999	A	O3'-P-O5'	9.17	117.75	104.00
85	AA	1869	U	P-O5'-C5'	9.17	134.65	120.90
34	BA	527	C	C5'-C4'-C3'	-9.16	102.25	116.00
35	BB	1138	A	P-O3'-C3'	-9.16	106.45	120.20
85	AA	1098	C	P-O5'-C5'	-9.16	107.16	120.90
85	AA	1922	A	O4'-C1'-C2'	-9.16	98.44	107.60
34	BA	489	A	P-O5'-C5'	9.16	134.64	120.90
6	A5	160	ARG	CB-CA-C	9.16	124.67	109.56
60	Ba	97	ASN	CA-CB-CG	-9.16	103.44	112.60
36	BC	114	C	C5'-C4'-C3'	-9.16	102.26	116.00
1	A0	74	ASN	CA-CB-CG	-9.16	103.44	112.60
4	A3	95	ARG	N-CA-C	-9.15	95.04	109.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	748	C	C5'-C4'-C3'	-9.15	102.27	116.00
34	BA	816	G	P-O3'-C3'	-9.15	106.47	120.20
35	BB	1511	U	C4'-C3'-C2'	-9.15	93.44	102.60
35	BB	363	A	O4'-C1'-N9	9.15	122.23	108.50
39	BF	20	U	P-O3'-C3'	9.15	133.93	120.20
34	BA	125	G	P-O3'-C3'	-9.15	106.47	120.20
53	BT	134	ASN	CA-C-N	9.15	132.54	120.28
53	BT	134	ASN	C-N-CA	9.15	132.54	120.28
85	AA	211	C	O3'-P-O5'	9.15	117.73	104.00
62	Bc	18	PHE	N-CA-CB	-9.15	98.25	110.88
37	BD	52	U	C5'-C4'-C3'	-9.14	102.28	116.00
59	BZ	78	HIS	CA-CB-CG	-9.14	104.66	113.80
38	BE	20	C	C5'-C4'-O4'	9.14	123.51	109.80
29	AV	55	VAL	CA-C-N	9.14	133.27	120.29
29	AV	55	VAL	C-N-CA	9.14	133.27	120.29
35	BB	1001	G	O3'-P-O5'	9.14	117.71	104.00
40	BG	30	C	O5'-C5'-C4'	-9.14	97.79	111.50
40	BG	112	C	C5'-C4'-C3'	-9.14	102.29	116.00
85	AA	1371	C	C5'-C4'-C3'	9.14	129.71	116.00
23	AP	261	ARG	N-CA-C	-9.14	94.63	108.52
34	BA	373	G	P-O5'-C5'	-9.14	107.19	120.90
34	BA	469	C	C5'-C4'-C3'	-9.14	101.49	115.20
35	BB	65	A	C5'-C4'-C3'	9.14	129.71	116.00
42	BI	87	ALA	N-CA-C	9.14	123.58	109.96
62	Bc	141	VAL	CA-C-N	9.13	134.49	120.97
62	Bc	141	VAL	C-N-CA	9.13	134.49	120.97
85	AA	1035	C	C5'-C4'-C3'	-9.13	101.50	115.20
16	AH	126	THR	CA-C-N	9.13	129.07	120.03
16	AH	126	THR	C-N-CA	9.13	129.07	120.03
35	BB	34	G	C5'-C4'-C3'	-9.13	102.31	116.00
40	BG	169	A	O4'-C1'-C2'	-9.13	96.67	105.80
85	AA	771	A	C5'-C4'-C3'	-9.13	102.31	116.00
34	BA	657	C	O5'-C5'-C4'	9.13	125.19	111.50
62	Bc	127	ARG	CD-NE-CZ	-9.12	111.63	124.40
85	AA	2212	U	C5'-C4'-C3'	-9.12	102.31	116.00
57	BX	82	PHE	N-CA-C	-9.12	101.41	112.54
85	AA	581	A	C5'-C4'-C3'	-9.12	102.32	116.00
67	Bh	182	THR	CA-C-N	9.12	133.66	120.71
67	Bh	182	THR	C-N-CA	9.12	133.66	120.71
85	AA	265	A	O4'-C1'-C2'	-9.12	98.48	107.60
37	BD	89	G	P-O3'-C3'	-9.12	106.53	120.20
66	Bg	79	HIS	CB-CG-CD2	-9.12	119.35	131.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1751	G	C2'-C3'-O3'	9.12	123.18	109.50
34	BA	561	U	P-O3'-C3'	-9.12	106.53	120.20
85	AA	2061	C	P-O3'-C3'	9.12	133.87	120.20
34	BA	1240	G	C4'-C3'-C2'	9.11	111.71	102.60
35	BB	1306	G	O3'-P-O5'	-9.11	90.33	104.00
37	BD	14	C	O5'-C5'-C4'	-9.11	97.83	111.50
35	BB	12	G	C4'-C3'-C2'	9.11	111.71	102.60
35	BB	713	U	P-O3'-C3'	9.11	133.87	120.20
3	A2	91	ASP	CA-CB-CG	-9.11	103.50	112.60
34	BA	878	G	C4'-C3'-C2'	9.11	111.70	102.60
65	Bf	233	HIS	CA-C-N	9.11	135.56	122.45
65	Bf	233	HIS	C-N-CA	9.11	135.56	122.45
59	BZ	80	ASP	N-CA-CB	-9.10	96.28	109.85
34	BA	297	A	C4'-C3'-O3'	-9.10	99.35	113.00
38	BE	90	G	C2'-C3'-O3'	9.10	127.35	113.70
52	BS	144	PHE	CA-CB-CG	-9.10	104.70	113.80
69	Bj	85	HIS	CA-CB-CG	9.10	122.90	113.80
84	By	35	LYS	CA-C-N	9.10	134.88	122.77
84	By	35	LYS	C-N-CA	9.10	134.88	122.77
34	BA	310	C	P-O5'-C5'	9.10	134.55	120.90
34	BA	1725	U	C1'-O4'-C4'	-9.10	100.60	109.70
34	BA	1811	A	P-O5'-C5'	9.10	134.55	120.90
37	BD	59	G	C5'-C4'-C3'	-9.10	102.35	116.00
85	AA	516	G	P-O5'-C5'	-9.10	107.25	120.90
85	AA	1573	A	P-O5'-C5'	9.10	134.54	120.90
85	AA	2070	C	C5'-C4'-C3'	-9.10	102.36	116.00
35	BB	444	U	C5'-C4'-C3'	9.09	129.64	116.00
63	Bd	55	ALA	CA-C-O	9.09	130.59	119.31
85	AA	1830	U	C5'-C4'-C3'	-9.09	102.36	116.00
34	BA	1017	C	O5'-C5'-C4'	-9.09	97.86	111.50
65	Bf	350	ASN	CA-C-N	9.09	138.90	121.54
65	Bf	350	ASN	C-N-CA	9.09	138.90	121.54
47	BN	109	LYS	N-CA-C	9.09	121.18	111.28
85	AA	2231	G	O3'-P-O5'	-9.09	90.37	104.00
31	AX	76	PHE	CA-CB-CG	-9.08	104.72	113.80
85	AA	1378	U	P-O3'-C3'	9.08	133.82	120.20
34	BA	1202	G	C4'-C3'-C2'	-9.08	93.52	102.60
35	BB	3	C	P-O3'-C3'	9.08	133.82	120.20
61	Bb	10	HIS	CA-CB-CG	-9.08	104.72	113.80
85	AA	979	U	C4'-C3'-O3'	-9.08	99.38	113.00
85	AA	1644	G	P-O5'-C5'	9.08	134.52	120.90
85	AA	28	A	C5'-C4'-C3'	9.08	129.61	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	753	U	P-O3'-C3'	9.07	133.81	120.20
37	BD	48	G	P-O3'-C3'	9.07	133.81	120.20
47	BN	12	HIS	CA-CB-CG	-9.07	104.73	113.80
85	AA	2054	G	C5'-C4'-C3'	-9.07	102.40	116.00
85	AA	2154	C	O3'-P-O5'	-9.07	90.40	104.00
35	BB	1167	C	O4'-C4'-C3'	9.07	113.07	104.00
34	BA	129	U	C5'-C4'-C3'	9.06	129.59	116.00
34	BA	1081	U	P-O5'-C5'	9.06	134.49	120.90
35	BB	560	C	O4'-C1'-C2'	9.06	116.66	107.60
35	BB	1227	G	O3'-P-O5'	9.06	117.59	104.00
85	AA	1660	U	C4'-C3'-C2'	9.06	111.66	102.60
34	BA	515	U	C4'-C3'-C2'	9.06	111.66	102.60
85	AA	769	C	P-O3'-C3'	9.06	133.78	120.20
85	AA	412	G	C5'-C4'-C3'	-9.05	102.42	116.00
85	AA	516	G	C4'-C3'-O3'	-9.06	99.42	113.00
85	AA	122	A	C5'-C4'-C3'	9.05	129.58	116.00
77	Br	79	HIS	CA-CB-CG	-9.05	104.75	113.80
85	AA	1584	U	P-O3'-C3'	9.05	133.78	120.20
85	AA	330	C	P-O3'-C3'	9.05	133.78	120.20
35	BB	687	C	P-O5'-C5'	9.05	134.47	120.90
85	AA	579	U	P-O5'-C5'	-9.05	107.33	120.90
34	BA	155	U	O4'-C4'-C3'	-9.04	94.96	104.00
34	BA	501	U	O4'-C1'-N1	9.04	122.06	108.50
68	Bi	78	ASN	CA-CB-CG	9.04	121.64	112.60
83	Bx	43	ARG	N-CA-C	-9.04	100.02	108.07
34	BA	1830	A	C2'-C3'-O3'	9.04	123.06	109.50
35	BB	847	U	P-O5'-C5'	9.04	134.46	120.90
85	AA	123	A	P-O3'-C3'	9.04	133.75	120.20
37	BD	106	G	C5'-C4'-C3'	-9.04	102.45	116.00
85	AA	510	A	O3'-P-O5'	-9.04	90.45	104.00
85	AA	653	A	P-O3'-C3'	9.04	133.75	120.20
85	AA	940	G	O5'-C5'-C4'	9.04	125.06	111.50
85	AA	2084	U	P-O3'-C3'	-9.03	106.65	120.20
39	BF	32	G	C4'-C3'-C2'	9.03	111.63	102.60
39	BF	60	C	P-O5'-C5'	9.03	134.45	120.90
67	Bh	122	THR	N-CA-C	-9.03	91.56	110.80
3	A2	9	PHE	CA-CB-CG	-9.03	104.77	113.80
34	BA	538	G	P-O3'-C3'	9.03	133.74	120.20
34	BA	603	U	P-O3'-C3'	-9.03	106.66	120.20
35	BB	1334	C	C4'-C3'-C2'	9.03	111.63	102.60
34	BA	678	C	C4'-C3'-C2'	-9.02	93.58	102.60
34	BA	1699	A	O4'-C1'-N9	9.02	122.04	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BC	39	G	P-O5'-C5'	9.02	134.44	120.90
85	AA	347	U	P-O5'-C5'	-9.02	107.36	120.90
8	A7	211	CYS	N-CA-C	-9.02	92.25	108.48
34	BA	897	U	P-O3'-C3'	9.02	133.72	120.20
34	BA	1497	A	P-O3'-C3'	9.02	133.72	120.20
85	AA	551	C	C4'-C3'-C2'	-9.02	93.58	102.60
34	BA	1488	C	C5'-C4'-C3'	9.02	129.52	116.00
35	BB	778	A	C4'-C3'-O3'	-9.02	99.48	113.00
44	BK	56	GLU	N-CA-C	9.01	119.82	108.19
85	AA	900	G	P-O5'-C5'	9.01	134.42	120.90
85	AA	1997	G	C5'-C4'-C3'	9.01	129.52	116.00
9	A8	26	SER	CA-C-N	9.01	134.35	120.75
9	A8	26	SER	C-N-CA	9.01	134.35	120.75
55	BV	109	ILE	N-CA-C	9.01	121.46	109.21
81	Bv	179	PHE	CA-CB-CG	9.01	122.81	113.80
34	BA	1335	A	C4'-C3'-O3'	-9.00	99.50	113.00
45	BL	69	ASN	CA-CB-CG	-9.00	103.60	112.60
34	BA	593	G	P-O3'-C3'	9.00	133.70	120.20
85	AA	1715	C	C5'-C4'-C3'	-9.00	102.50	116.00
34	BA	1160	U	C4'-C3'-O3'	-9.00	99.50	113.00
34	BA	1311	G	C5'-C4'-C3'	8.99	129.49	116.00
40	BG	66	C	C4'-C3'-C2'	8.99	111.59	102.60
52	BS	120	TYR	N-CA-CB	-8.99	96.90	110.12
34	BA	1819	U	P-O5'-C5'	-8.99	107.42	120.90
28	AU	104	PHE	CA-CB-CG	-8.99	104.81	113.80
34	BA	1630	A	O3'-P-O5'	8.99	117.48	104.00
58	BY	5	ASP	N-CA-C	-8.99	94.25	108.90
85	AA	1727	U	O3'-P-O5'	8.99	117.48	104.00
34	BA	843	G	C5'-C4'-C3'	-8.98	102.52	116.00
37	BD	98	G	O3'-P-O5'	-8.98	90.53	104.00
38	BE	24	G	P-O5'-C5'	-8.98	107.43	120.90
85	AA	2056	C	O3'-P-O5'	-8.98	90.53	104.00
3	A2	63	MET	N-CA-C	8.98	122.72	109.07
38	BE	116	U	P-O3'-C3'	-8.98	106.73	120.20
34	BA	1078	U	C5'-C4'-C3'	-8.98	102.53	116.00
66	Bg	48	GLY	N-CA-C	-8.98	104.01	114.69
31	AX	166	PHE	CA-CB-CG	-8.97	104.83	113.80
34	BA	216	C	P-O3'-C3'	-8.97	106.74	120.20
52	BS	151	PHE	N-CA-C	8.97	116.06	108.07
85	AA	1310	G	C2'-C3'-O3'	8.97	122.96	109.50
35	BB	1166	A	P-O3'-C3'	8.97	133.66	120.20
37	BD	73	U	P-O3'-C3'	8.97	133.66	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1720	C	C5'-C4'-C3'	-8.97	102.55	116.00
34	BA	959	G	O3'-P-O5'	-8.96	90.55	104.00
39	BF	11	C	O4'-C4'-C3'	-8.96	97.14	106.10
51	BR	125	VAL	N-CA-C	8.96	121.49	108.58
85	AA	1103	A	C2'-C3'-O3'	8.96	122.94	109.50
70	Bk	45	LEU	N-CA-C	-8.96	90.19	107.57
40	BG	164	U	C5'-C4'-C3'	-8.96	102.56	116.00
35	BB	1483	A	C5'-C4'-C3'	-8.96	102.57	116.00
85	AA	1051	A	P-O3'-C3'	8.95	133.63	120.20
41	BH	10	U	P-O5'-C5'	-8.95	107.47	120.90
85	AA	1493	A	P-O3'-C3'	-8.95	106.78	120.20
34	BA	1617	U	O3'-P-O5'	-8.95	90.58	104.00
63	Bd	29	MET	N-CA-C	-8.95	91.74	110.80
83	Bx	215	ASP	CA-CB-CG	-8.95	103.65	112.60
85	AA	994	A	P-O3'-C3'	-8.95	106.78	120.20
34	BA	295	G	O3'-P-O5'	8.94	117.41	104.00
40	BG	168	A	C2'-C3'-O3'	8.94	122.91	109.50
42	BI	88	VAL	N-CA-C	8.94	120.63	108.11
35	BB	1376	G	O5'-C5'-C4'	-8.94	98.09	111.50
85	AA	282	C	P-O5'-C5'	-8.94	107.50	120.90
85	AA	604	C	P-O5'-C5'	8.93	134.30	120.90
85	AA	2189	U	C5'-C4'-C3'	-8.93	102.60	116.00
21	AM	6	GLN	N-CA-C	8.93	123.18	110.23
22	AO	123	SER	N-CA-C	8.93	121.09	111.36
35	BB	561	C	O4'-C1'-N1	8.93	121.90	108.50
35	BB	872	A	P-O5'-C5'	-8.93	107.51	120.90
37	BD	48	G	P-O5'-C5'	-8.93	107.51	120.90
85	AA	488	G	P-O5'-C5'	8.93	134.29	120.90
85	AA	1116	G	C4'-C3'-O3'	-8.93	99.61	113.00
35	BB	1490	G	O4'-C1'-N9	8.93	121.89	108.50
35	BB	1511	U	P-O5'-C5'	-8.93	107.51	120.90
34	BA	325	A	O3'-P-O5'	8.93	117.39	104.00
85	AA	899	A	P-O3'-C3'	-8.93	106.81	120.20
34	BA	1829	A	P-O3'-C3'	-8.92	106.81	120.20
80	Bu	197	ASN	CA-CB-CG	-8.92	103.68	112.60
34	BA	323	C	C3'-C2'-C1'	-8.92	92.58	101.50
35	BB	127	U	P-O5'-C5'	8.92	134.28	120.90
8	A7	273	GLU	CA-C-N	8.92	134.65	121.72
8	A7	273	GLU	C-N-CA	8.92	134.65	121.72
85	AA	1731	G	C4'-C3'-C2'	-8.92	93.68	102.60
34	BA	1661	U	P-O5'-C5'	-8.92	107.52	120.90
36	BC	31	A	O4'-C1'-N9	8.92	121.88	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1022	G	C2'-C3'-O3'	8.92	127.08	113.70
34	BA	1613	G	P-O3'-C3'	-8.91	106.83	120.20
35	BB	1230	A	O3'-P-O5'	8.91	117.37	104.00
65	Bf	216	HIS	CA-CB-CG	-8.91	104.89	113.80
36	BC	146	U	P-O3'-C3'	8.91	133.57	120.20
85	AA	55	A	P-O5'-C5'	-8.91	107.53	120.90
85	AA	62	A	P-O5'-C5'	-8.91	107.53	120.90
85	AA	1578	G	O5'-C5'-C4'	8.91	125.07	111.70
21	AM	33	MET	N-CA-C	8.91	121.82	110.24
85	AA	487	G	O5'-C5'-C4'	-8.91	98.13	111.50
35	BB	513	G	O5'-C5'-C4'	-8.91	98.14	111.50
38	BE	8	G	N9-C1'-C2'	-8.90	98.64	112.00
38	BE	67	A	C5'-C4'-C3'	-8.90	102.64	116.00
85	AA	83	U	P-O3'-C3'	8.90	133.56	120.20
85	AA	1139	G	C4'-C3'-C2'	-8.90	93.70	102.60
86	AB	71	G	C2'-C3'-O3'	8.90	127.05	113.70
85	AA	1520	A	O3'-P-O5'	-8.90	90.65	104.00
85	AA	2076	C	C5'-C4'-C3'	8.90	129.35	116.00
5	A4	75	LEU	N-CA-CB	-8.90	97.17	110.07
34	BA	357	A	O3'-P-O5'	8.89	117.34	104.00
35	BB	788	U	C5'-C4'-C3'	8.89	129.34	116.00
41	BH	112	U	C4'-C3'-O3'	-8.89	99.66	113.00
34	BA	300	C	C4'-C3'-C2'	-8.89	93.71	102.60
85	AA	2080	U	C2'-C3'-O3'	8.89	122.83	109.50
34	BA	1506	C	C4'-C3'-C2'	8.89	111.49	102.60
35	BB	1424	G	C4'-C3'-O3'	-8.89	99.67	113.00
40	BG	148	C	O4'-C4'-C3'	8.89	112.89	104.00
40	BG	179	C	C4'-C3'-C2'	8.89	111.49	102.60
85	AA	1927	G	P-O3'-C3'	8.89	133.53	120.20
34	BA	174	A	C5'-C4'-C3'	-8.88	102.68	116.00
34	BA	1846	G	P-O5'-C5'	-8.88	107.58	120.90
35	BB	1203	C	O3'-P-O5'	-8.88	90.68	104.00
85	AA	464	A	C5'-C4'-C3'	-8.88	102.68	116.00
85	AA	699	U	C4'-C3'-O3'	-8.88	99.67	113.00
85	AA	1521	U	C5'-C4'-C3'	-8.88	102.68	116.00
35	BB	1328	C	C5'-C4'-C3'	8.88	129.31	116.00
35	BB	792	G	P-O3'-C3'	8.88	133.51	120.20
34	BA	1598	U	O3'-P-O5'	-8.87	90.69	104.00
52	BS	156	ARG	CA-C-N	8.87	138.49	121.54
52	BS	156	ARG	C-N-CA	8.87	138.49	121.54
47	BN	117	ASN	CA-CB-CG	-8.87	103.73	112.60
83	Bx	50	GLY	CA-C-N	8.87	135.72	122.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	Bx	50	GLY	C-N-CA	8.87	135.72	122.68
85	AA	444	U	P-O5'-C5'	8.87	134.21	120.90
47	BN	5	ASN	CA-C-N	8.87	138.48	121.54
47	BN	5	ASN	C-N-CA	8.87	138.48	121.54
34	BA	1808	A	P-O3'-C3'	-8.87	106.90	120.20
48	BO	216	LEU	N-CA-C	-8.87	101.89	112.89
85	AA	927	A	C5'-C4'-C3'	-8.87	102.70	116.00
85	AA	1516	A	C4'-C3'-C2'	8.87	111.47	102.60
85	AA	788	G	P-O5'-C5'	8.87	134.20	120.90
35	BB	717	A	C5'-C4'-C3'	-8.86	102.70	116.00
35	BB	1102	U	C1'-O4'-C4'	-8.86	100.84	109.70
48	BO	96	ASP	CA-CB-CG	-8.86	103.74	112.60
34	BA	623	U	P-O5'-C5'	-8.86	107.61	120.90
34	BA	958	G	C4'-C3'-C2'	-8.86	93.74	102.60
35	BB	1474	A	C5'-C4'-C3'	8.86	129.29	116.00
46	BM	133	LEU	CA-C-N	8.86	129.95	120.03
46	BM	133	LEU	C-N-CA	8.86	129.95	120.03
56	BW	81	ILE	N-CA-CB	-8.86	99.76	111.90
64	Be	196	TRP	N-CA-C	-8.86	100.25	108.22
35	BB	993	A	P-O3'-C3'	-8.86	106.92	120.20
37	BD	57	C	C5'-C4'-C3'	-8.86	102.72	116.00
38	BE	57	U	P-O5'-C5'	8.86	134.18	120.90
85	AA	1180	C	C4'-C3'-C2'	8.86	111.45	102.60
35	BB	902	C	P-O5'-C5'	-8.85	107.62	120.90
34	BA	100	A	C5'-C4'-C3'	8.85	129.27	116.00
35	BB	784	C	O5'-C5'-C4'	-8.85	98.23	111.50
85	AA	1180	C	C2'-C3'-O3'	8.85	122.77	109.50
85	AA	262	G	P-O3'-C3'	8.85	133.47	120.20
34	BA	201	A	C4'-C3'-O3'	-8.84	99.73	113.00
80	Bu	145	ARG	N-CA-C	-8.84	93.34	107.93
85	AA	1465	C	O3'-P-O5'	8.84	117.26	104.00
85	AA	1828	C	C5'-C4'-C3'	-8.84	102.74	116.00
63	Bd	58	ALA	CA-C-O	8.84	130.70	119.12
85	AA	124	A	O3'-P-O5'	-8.84	90.74	104.00
85	AA	636	G	C5'-C4'-C3'	-8.84	102.74	116.00
34	BA	765	U	O4'-C1'-N1	8.84	121.76	108.50
38	BE	186	C	C1'-O4'-C4'	-8.84	100.86	109.70
34	BA	17	A	C4'-C3'-C2'	8.84	111.44	102.60
37	BD	108	G	C5'-C4'-C3'	-8.84	102.74	116.00
85	AA	1207	C	C5'-C4'-C3'	-8.84	102.74	116.00
34	BA	502	U	C5'-C4'-C3'	-8.84	102.75	116.00
77	Br	295	GLU	N-CA-C	-8.84	100.93	112.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1508	G	O3'-P-O5'	-8.84	90.75	104.00
54	BU	19	PHE	CA-CB-CG	-8.84	104.97	113.80
34	BA	1809	G	O4'-C1'-N9	8.83	121.75	108.50
37	BD	72	U	C4'-C3'-O3'	-8.83	99.75	113.00
49	BP	150	ASN	CA-CB-CG	-8.83	103.77	112.60
40	BG	64	C	O5'-C5'-C4'	-8.83	98.25	111.50
83	Bx	144	CYS	CA-C-N	8.83	132.63	120.35
83	Bx	144	CYS	C-N-CA	8.83	132.63	120.35
85	AA	407	G	P-O5'-C5'	8.83	134.15	120.90
8	A7	88	ASP	N-CA-C	-8.83	102.52	113.38
38	BE	129	G	P-O5'-C5'	8.83	134.14	120.90
18	AJ	79	PHE	CA-CB-CG	-8.83	104.97	113.80
34	BA	204	U	P-O5'-C5'	-8.83	107.66	120.90
34	BA	1549	U	C4'-C3'-O3'	-8.83	99.76	113.00
81	Bv	75	ARG	CB-CA-C	-8.82	95.45	109.84
34	BA	840	U	C5'-C4'-C3'	-8.82	102.77	116.00
34	BA	501	U	C5'-C4'-C3'	8.82	129.23	116.00
35	BB	388	C	C5'-C4'-C3'	-8.82	102.77	116.00
85	AA	1199	C	P-O5'-C5'	-8.82	107.67	120.90
85	AA	1801	U	P-O3'-C3'	8.82	133.43	120.20
85	AA	424	A	P-O3'-C3'	-8.82	106.97	120.20
34	BA	1608	C	O5'-C5'-C4'	-8.81	98.28	111.50
85	AA	771	A	P-O5'-C5'	8.81	134.12	120.90
85	AA	2014	G	P-O5'-C5'	-8.81	107.68	120.90
38	BE	77	C	P-O3'-C3'	8.81	133.41	120.20
38	BE	136	G	P-O3'-C3'	-8.81	106.99	120.20
38	BE	191	U	C5'-C4'-C3'	-8.81	102.79	116.00
85	AA	493	A	P-O5'-C5'	-8.81	107.69	120.90
54	BU	35	LYS	N-CA-C	-8.81	96.59	108.74
84	By	39	HIS	CA-CB-CG	8.81	122.61	113.80
34	BA	1224	A	C4'-C3'-C2'	8.80	111.40	102.60
34	BA	1699	A	C4'-C3'-O3'	8.80	126.20	113.00
54	BU	133	ARG	O-C-N	-8.80	114.00	123.42
85	AA	788	G	C5'-C4'-C3'	8.80	129.20	116.00
85	AA	863	C	P-O5'-C5'	-8.80	107.70	120.90
34	BA	702	G	O3'-P-O5'	8.80	117.19	104.00
40	BG	58	G	O5'-C5'-C4'	-8.80	98.31	111.50
35	BB	834	U	O5'-C5'-C4'	8.79	124.69	111.50
85	AA	1973	G	C5'-C4'-C3'	-8.79	102.81	116.00
47	BN	187	TYR	CA-CB-CG	8.79	129.72	113.90
35	BB	866	A	C5'-C4'-C3'	-8.79	102.82	116.00
85	AA	982	G	C5'-C4'-C3'	-8.79	102.82	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	Bx	232	ASN	CA-CB-CG	-8.79	103.81	112.60
34	BA	588	C	P-O5'-C5'	8.78	134.07	120.90
2	A1	66	LEU	N-CA-C	8.78	129.50	110.80
38	BE	206	G	P-O3'-C3'	8.78	133.37	120.20
69	Bj	77	ARG	N-CA-C	-8.78	96.79	108.11
8	A7	243	ILE	N-CA-CB	-8.78	97.69	112.44
85	AA	1351	U	P-O3'-C3'	8.78	133.37	120.20
34	BA	400	A	C5'-C4'-C3'	-8.78	102.84	116.00
85	AA	505	U	C1'-O4'-C4'	-8.78	100.92	109.70
85	AA	619	A	C5'-C4'-O4'	8.78	122.26	109.10
34	BA	1451	A	P-O5'-C5'	-8.77	107.74	120.90
17	AI	121	HIS	CA-CB-CG	-8.77	105.03	113.80
34	BA	1262	A	C4'-C3'-C2'	-8.77	93.83	102.60
34	BA	326	A	P-O3'-C3'	-8.77	107.04	120.20
35	BB	76	C	P-O3'-C3'	-8.77	107.05	120.20
85	AA	916	A	P-O5'-C5'	-8.77	107.75	120.90
34	BA	1485	U	O5'-C5'-C4'	-8.77	98.35	111.50
85	AA	210	G	P-O5'-C5'	8.77	134.05	120.90
85	AA	974	U	C4'-C3'-C2'	8.77	111.37	102.60
35	BB	60	A	C4'-C3'-O3'	8.77	122.55	109.40
63	Bd	23	PRO	N-CA-C	-8.77	100.00	110.70
13	AE	32	GLU	N-CA-C	8.76	124.00	109.46
34	BA	440	A	O5'-C5'-C4'	-8.76	98.56	111.70
85	AA	130	G	O3'-P-O5'	-8.76	90.86	104.00
34	BA	672	G	C4'-C3'-C2'	-8.75	93.85	102.60
35	BB	1303	A	C4'-C3'-C2'	8.75	111.35	102.60
36	BC	139	A	C5'-C4'-C3'	8.75	129.13	116.00
26	AS	4	THR	N-CA-C	8.75	123.42	110.30
34	BA	300	C	O3'-P-O5'	-8.75	90.88	104.00
34	BA	1131	G	P-O3'-C3'	8.75	133.33	120.20
85	AA	600	C	C5'-C4'-C3'	8.75	129.13	116.00
77	Br	42	ASN	CA-CB-CG	-8.75	103.85	112.60
34	BA	137	C	C4'-C3'-C2'	-8.75	93.85	102.60
34	BA	1723	U	O5'-C5'-C4'	8.74	124.81	111.70
39	BF	22	U	P-O5'-C5'	8.74	134.02	120.90
35	BB	1199	A	O3'-P-O5'	-8.74	90.89	104.00
85	AA	307	G	C5'-C4'-C3'	8.74	129.11	116.00
1	A0	197	ASP	CA-CB-CG	-8.74	103.86	112.60
34	BA	592	G	O3'-P-O5'	8.74	117.11	104.00
5	A4	107	ARG	CA-C-N	8.73	130.76	119.84
5	A4	107	ARG	C-N-CA	8.73	130.76	119.84
34	BA	1234	U	P-O5'-C5'	-8.73	107.80	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1295	U	C2'-C3'-O3'	8.73	122.60	109.50
35	BB	732	G	C5'-C4'-C3'	-8.73	102.90	116.00
65	Bf	143	TYR	N-CA-CB	8.73	124.83	110.85
27	AT	24	ASN	CA-CB-CG	-8.73	103.87	112.60
27	AT	111	ARG	NE-CZ-NH2	8.73	127.06	119.20
30	AW	13	VAL	N-CA-CB	-8.73	98.67	110.54
34	BA	1434	U	O5'-C5'-C4'	-8.73	98.40	111.50
82	Bw	140	ASN	N-CA-C	8.73	121.95	111.82
85	AA	1107	A	C4'-C3'-O3'	-8.73	99.91	113.00
34	BA	1829	A	C2'-C3'-O3'	-8.73	100.61	113.70
35	BB	42	A	C5'-C4'-C3'	8.73	129.09	116.00
35	BB	658	G	P-O5'-C5'	8.73	133.99	120.90
39	BF	24	G	P-O5'-C5'	-8.73	107.81	120.90
85	AA	417	U	P-O5'-C5'	-8.73	107.81	120.90
85	AA	989	U	C5'-C4'-C3'	8.73	128.29	115.20
85	AA	1667	C	C5'-C4'-C3'	-8.73	102.91	116.00
38	BE	90	G	C4'-C3'-C2'	8.72	111.33	102.60
38	BE	10	G	C4'-C3'-C2'	-8.72	93.88	102.60
62	Bc	70	ASN	CA-CB-CG	-8.72	103.88	112.60
1	A0	31	ASP	CA-CB-CG	8.72	121.32	112.60
34	BA	138	C	O5'-C5'-C4'	-8.72	98.42	111.50
34	BA	1454	G	C4'-C3'-C2'	-8.72	93.88	102.60
34	BA	1677	C	P-O5'-C5'	-8.72	107.82	120.90
35	BB	426	A	P-O3'-C3'	8.72	133.28	120.20
85	AA	1440	C	O3'-P-O5'	8.72	117.08	104.00
85	AA	1457	C	O3'-P-O5'	8.72	117.08	104.00
35	BB	970	C	O3'-P-O5'	8.72	117.08	104.00
35	BB	1228	A	P-O5'-C5'	8.72	133.98	120.90
26	AS	63	ASN	CA-CB-CG	-8.72	103.88	112.60
34	BA	805	A	P-O5'-C5'	8.72	133.98	120.90
34	BA	1477	C	C4'-C3'-C2'	-8.72	93.88	102.60
34	BA	232	U	C5'-C4'-C3'	8.72	129.08	116.00
34	BA	559	C	OP1-P-OP2	-8.72	93.44	119.60
85	AA	205	A	P-O3'-C3'	-8.72	107.12	120.20
85	AA	456	A	P-O3'-C3'	-8.72	107.12	120.20
85	AA	756	G	C4'-C3'-O3'	-8.72	99.92	113.00
34	BA	804	G	P-O5'-C5'	-8.72	107.83	120.90
35	BB	168	U	P-O5'-C5'	8.72	133.98	120.90
40	BG	96	C	P-O5'-C5'	-8.72	107.83	120.90
85	AA	403	G	P-O3'-C3'	8.72	133.28	120.20
34	BA	547	C	P-O3'-C3'	8.71	133.27	120.20
44	BK	136	LEU	N-CA-C	-8.72	95.77	109.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	Bh	88	ALA	N-CA-C	8.72	123.62	109.85
34	BA	1160	U	C5'-C4'-C3'	-8.71	102.93	116.00
85	AA	1215	A	O3'-P-O5'	-8.71	90.93	104.00
85	AA	1528	A	O5'-C5'-C4'	-8.71	98.43	111.50
34	BA	196	A	C4'-C3'-C2'	8.71	111.31	102.60
35	BB	1105	G	O3'-P-O5'	-8.71	90.93	104.00
35	BB	1260	A	P-O5'-C5'	-8.71	107.83	120.90
62	Bc	72	LYS	N-CA-C	-8.71	98.14	108.25
41	BH	119	U	C4'-C3'-C2'	-8.71	93.89	102.60
80	Bu	56	THR	N-CA-CB	8.71	123.66	110.42
38	BE	28	C	C5'-C4'-O4'	8.71	122.16	109.10
57	BX	162	GLY	N-CA-C	-8.71	101.73	116.01
85	AA	389	A	P-O5'-C5'	-8.71	107.84	120.90
47	BN	121	LEU	N-CA-CB	-8.71	97.39	110.01
34	BA	876	C	C5'-C4'-C3'	8.70	129.05	116.00
35	BB	1376	G	C5'-C4'-C3'	-8.70	102.95	116.00
27	AT	68	LYS	N-CA-C	-8.70	97.49	108.45
35	BB	801	G	O3'-P-O5'	-8.70	90.95	104.00
82	Bw	250	ASN	CA-CB-CG	-8.70	103.90	112.60
85	AA	520	A	C5'-C4'-C3'	8.70	128.25	115.20
34	BA	1203	G	P-O5'-C5'	-8.70	107.86	120.90
85	AA	1647	G	O5'-C5'-C4'	8.70	124.55	111.50
7	A6	141	THR	N-CA-C	-8.69	101.51	112.90
34	BA	721	A	O3'-P-O5'	-8.69	90.96	104.00
65	Bf	406	ARG	N-CA-C	-8.70	101.00	111.69
85	AA	1226	A	O4'-C4'-C3'	-8.69	95.31	104.00
35	BB	1102	U	O4'-C1'-N1	8.69	121.24	108.20
34	BA	548	G	P-O3'-C3'	8.69	133.24	120.20
38	BE	34	C	P-O5'-C5'	-8.69	107.86	120.90
40	BG	106	G	C1'-O4'-C4'	-8.69	101.01	109.70
85	AA	2230	U	O3'-P-O5'	8.69	117.03	104.00
34	BA	1533	G	C5'-C4'-C3'	8.69	129.03	116.00
35	BB	1371	G	C4'-C3'-O3'	-8.69	99.97	113.00
49	BP	158	PRO	N-CA-C	-8.69	94.57	112.47
27	AT	30	VAL	N-CA-C	8.69	120.43	107.75
67	Bh	134	PHE	CA-CB-CG	-8.69	105.11	113.80
35	BB	381	C	C2'-C3'-O3'	8.68	122.53	109.50
20	AL	29	TYR	CA-CB-CG	8.68	129.53	113.90
34	BA	114	U	C5'-C4'-O4'	-8.68	96.78	109.80
35	BB	831	C	O3'-P-O5'	-8.68	90.98	104.00
34	BA	1002	U	C1'-O4'-C4'	-8.68	101.22	109.90
35	BB	1039	A	C2'-C3'-O3'	8.67	122.51	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1247	A	P-O5'-C5'	-8.67	107.89	120.90
85	AA	1700	C	P-O5'-C5'	8.67	133.91	120.90
34	BA	127	U	C2'-C3'-O3'	8.67	126.71	113.70
34	BA	547	C	C3'-C2'-C1'	8.67	109.97	101.30
34	BA	1809	G	C2'-C3'-O3'	-8.67	100.69	113.70
35	BB	1306	G	O5'-C5'-C4'	-8.67	98.49	111.50
34	BA	1441	C	C5'-C4'-C3'	8.67	129.00	116.00
68	Bi	5	PHE	CA-CB-CG	8.67	122.47	113.80
27	AT	74	GLY	CA-C-N	8.67	138.09	121.54
27	AT	74	GLY	C-N-CA	8.67	138.09	121.54
38	BE	112	G	C4'-C3'-O3'	8.67	126.00	113.00
50	BQ	33	SER	CA-C-N	8.67	131.89	120.28
50	BQ	33	SER	C-N-CA	8.67	131.89	120.28
34	BA	110	C	C5'-C4'-C3'	-8.66	103.01	116.00
48	BO	55	ARG	CA-C-N	8.66	131.89	120.28
48	BO	55	ARG	C-N-CA	8.66	131.89	120.28
86	AB	14	A	C5'-C4'-C3'	8.66	128.99	116.00
34	BA	165	C	O4'-C1'-C2'	-8.66	97.14	105.80
34	BA	938	C	C4'-C3'-C2'	8.66	111.26	102.60
35	BB	144	G	P-O5'-C5'	8.66	133.89	120.90
35	BB	817	C	C5'-C4'-C3'	-8.66	103.01	116.00
85	AA	994	A	C5'-C4'-C3'	-8.66	103.01	116.00
34	BA	1316	G	P-O5'-C5'	-8.66	107.91	120.90
20	AL	101	VAL	CA-C-N	8.66	133.00	120.71
20	AL	101	VAL	C-N-CA	8.66	133.00	120.71
34	BA	668	G	P-O3'-C3'	-8.66	107.22	120.20
37	BD	78	C	O3'-P-O5'	-8.66	91.01	104.00
38	BE	32	U	C5'-C4'-C3'	-8.65	103.02	116.00
47	BN	208	ALA	N-CA-C	8.65	120.79	111.36
84	By	126	ASP	CA-CB-CG	-8.65	103.94	112.60
85	AA	1211	C	O3'-P-O5'	-8.65	91.02	104.00
5	A4	139	ASP	N-CA-C	8.65	123.38	108.76
35	BB	261	C	O3'-P-O5'	-8.65	91.02	104.00
35	BB	973	G	C5'-C4'-C3'	-8.65	103.03	116.00
77	Br	198	ARG	N-CA-C	-8.65	100.12	111.71
85	AA	619	A	C1'-O4'-C4'	-8.65	101.05	109.70
15	AG	105	ASN	CA-C-N	8.65	140.48	121.80
15	AG	105	ASN	C-N-CA	8.65	140.48	121.80
34	BA	1320	A	P-O5'-C5'	8.65	133.87	120.90
35	BB	1082	A	O3'-P-O5'	8.65	116.97	104.00
35	BB	1458	U	P-O5'-C5'	-8.65	107.93	120.90
44	BK	32	ARG	N-CA-C	8.65	123.79	112.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	358	U	C5'-C4'-C3'	8.65	128.97	116.00
2	A1	78	LYS	N-CA-C	-8.64	102.73	113.28
31	AX	151	PHE	CA-CB-CG	-8.64	105.16	113.80
34	BA	1730	A	O4'-C4'-C3'	-8.64	95.36	104.00
35	BB	652	G	C5'-C4'-C3'	-8.64	102.23	115.20
35	BB	858	U	C5'-C4'-C3'	-8.64	103.03	116.00
77	Br	75	ILE	N-CA-C	8.64	127.55	108.88
85	AA	753	U	O5'-C5'-C4'	8.64	124.46	111.50
34	BA	998	U	C5'-C4'-C3'	8.64	128.96	116.00
35	BB	1534	U	C5'-C4'-C3'	8.64	128.96	116.00
40	BG	58	G	C5'-C4'-C3'	-8.64	103.04	116.00
53	BT	165	LYS	CB-CA-C	-8.64	96.00	110.68
85	AA	1361	A	O3'-P-O5'	-8.64	91.04	104.00
85	AA	2030	U	O3'-P-O5'	-8.64	91.04	104.00
27	AT	66	GLY	N-CA-C	-8.64	101.38	115.46
35	BB	1489	A	O3'-P-O5'	8.64	116.95	104.00
34	BA	1585	A	C4'-C3'-O3'	-8.63	100.05	113.00
35	BB	41	A	C5'-C4'-C3'	-8.63	102.25	115.20
44	BK	49	CYS	N-CA-C	8.64	122.50	108.34
35	BB	1432	U	P-O5'-C5'	-8.63	107.95	120.90
57	BX	103	THR	N-CA-C	8.63	122.97	108.90
83	Bx	239	SER	CA-C-N	8.63	132.55	120.29
83	Bx	239	SER	C-N-CA	8.63	132.55	120.29
60	Ba	79	PHE	CA-CB-CG	-8.63	105.17	113.80
85	AA	699	U	C5'-C4'-C3'	-8.63	103.05	116.00
29	AV	98	ARG	CA-C-N	8.63	134.17	121.31
29	AV	98	ARG	C-N-CA	8.63	134.17	121.31
34	BA	221	G	C5'-C4'-C3'	-8.63	103.05	116.00
35	BB	768	A	O4'-C1'-N9	8.63	121.15	108.20
62	Bc	32	PHE	CA-CB-CG	-8.63	105.17	113.80
65	Bf	362	THR	N-CA-C	-8.63	96.61	109.81
35	BB	912	C	P-O3'-C3'	8.63	133.14	120.20
40	BG	149	U	O4'-C1'-C2'	8.63	114.43	105.80
85	AA	1992	A	C5'-C4'-C3'	8.63	128.94	116.00
38	BE	126	G	C4'-C3'-C2'	-8.62	93.98	102.60
74	Bo	56	ARG	N-CA-CB	8.62	124.65	110.85
17	AI	42	ALA	CA-C-N	8.62	134.40	120.60
17	AI	42	ALA	C-N-CA	8.62	134.40	120.60
34	BA	1434	U	P-O3'-C3'	8.62	133.13	120.20
35	BB	1167	C	C2'-C3'-O3'	8.62	126.63	113.70
37	BD	84	U	C5'-C4'-C3'	-8.62	103.07	116.00
34	BA	628	U	C1'-O4'-C4'	-8.62	101.08	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1288	G	C5'-C4'-C3'	8.62	128.93	116.00
35	BB	1512	C	P-O5'-C5'	8.62	133.83	120.90
25	AR	82	ILE	N-CA-C	8.62	119.58	111.48
81	Bv	7	LYS	CA-C-N	8.62	132.95	120.71
81	Bv	7	LYS	C-N-CA	8.62	132.95	120.71
34	BA	764	G	O3'-P-O5'	8.62	116.92	104.00
85	AA	1235	G	C5'-C4'-C3'	-8.62	103.08	116.00
85	AA	1517	G	C5'-C4'-C3'	-8.61	103.08	116.00
8	A7	274	LEU	N-CA-C	8.61	122.43	109.25
35	BB	619	A	P-O3'-C3'	-8.61	107.28	120.20
35	BB	893	U	O3'-P-O5'	8.61	116.92	104.00
85	AA	902	A	O4'-C1'-C2'	-8.61	98.99	107.60
36	BC	10	C	O4'-C1'-N1	8.61	121.42	108.50
36	BC	55	U	C5'-C4'-C3'	-8.61	103.08	116.00
31	AX	155	TYR	N-CA-C	-8.61	96.31	109.14
37	BD	88	U	O4'-C1'-N1	8.61	121.11	108.20
45	BL	29	CYS	CA-C-N	8.61	131.14	122.96
45	BL	29	CYS	C-N-CA	8.61	131.14	122.96
85	AA	626	G	O3'-P-O5'	-8.61	91.09	104.00
34	BA	502	U	C4'-C3'-O3'	-8.61	100.09	113.00
34	BA	762	A	C5'-C4'-C3'	-8.61	103.09	116.00
34	BA	784	C	C4'-C3'-C2'	8.61	111.21	102.60
34	BA	1725	U	P-O3'-C3'	8.61	133.11	120.20
79	Bt	32	LYS	CA-C-N	8.61	137.98	121.54
79	Bt	32	LYS	C-N-CA	8.61	137.98	121.54
85	AA	143	U	P-O3'-C3'	8.61	133.11	120.20
85	AA	836	A	P-O3'-C3'	8.61	133.11	120.20
37	BD	94	C	P-O5'-C5'	-8.60	107.99	120.90
39	BF	17	U	P-O3'-C3'	8.60	133.10	120.20
39	BF	19	A	C4'-C3'-C2'	8.60	111.20	102.60
47	BN	19	PRO	N-CA-C	8.60	130.19	112.47
35	BB	1030	U	C1'-O4'-C4'	-8.60	101.30	109.90
80	Bu	42	THR	N-CA-C	-8.60	101.85	111.14
34	BA	294	C	C2'-C3'-O3'	8.60	122.39	109.50
85	AA	484	G	P-O5'-C5'	8.60	133.80	120.90
34	BA	1673	G	P-O3'-C3'	-8.59	107.31	120.20
65	Bf	164	GLU	CA-C-O	8.59	129.66	120.55
85	AA	1277	C	O3'-P-O5'	8.59	116.89	104.00
85	AA	1839	G	C5'-C4'-C3'	-8.59	103.11	116.00
34	BA	847	U	P-O5'-C5'	8.59	133.79	120.90
34	BA	1798	G	P-O5'-C5'	8.59	133.79	120.90
35	BB	706	G	C5'-C4'-C3'	8.59	128.89	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1141	A	P-O5'-C5'	-8.59	108.01	120.90
41	BH	25	A	O3'-P-O5'	-8.59	91.12	104.00
65	Bf	172	ASN	CA-CB-CG	-8.59	104.01	112.60
85	AA	1466	U	O5'-C5'-C4'	8.59	124.39	111.50
85	AA	874	A	O5'-C5'-C4'	8.59	124.38	111.50
35	BB	109	U	C5'-C4'-C3'	-8.59	103.12	116.00
34	BA	246	G	C2'-C3'-O3'	8.58	126.58	113.70
35	BB	1230	A	P-O5'-C5'	-8.58	108.03	120.90
47	BN	187	TYR	N-CA-C	-8.58	92.29	108.17
86	AB	19	G	P-O5'-C5'	-8.58	108.03	120.90
34	BA	65	A	C5'-C4'-C3'	8.58	128.86	116.00
34	BA	517	A	O5'-C5'-C4'	-8.58	98.63	111.50
34	BA	691	A	P-O3'-C3'	-8.58	107.33	120.20
34	BA	1193	A	C4'-C3'-O3'	-8.58	100.13	113.00
34	BA	1626	U	C5'-C4'-O4'	-8.58	96.94	109.80
85	AA	2220	U	P-O3'-C3'	-8.58	107.33	120.20
35	BB	816	U	P-O5'-C5'	-8.57	108.04	120.90
38	BE	176	G	C5'-C4'-C3'	8.57	128.86	116.00
62	Bc	7	LEU	N-CA-CB	-8.57	97.51	110.12
51	BR	81	GLY	N-CA-C	-8.57	98.14	110.91
85	AA	1674	G	C4'-C3'-C2'	8.57	111.17	102.60
35	BB	1	U	C5'-C4'-C3'	8.57	128.86	116.00
7	A6	88	ASP	CA-CB-CG	-8.57	104.03	112.60
34	BA	696	A	P-O5'-C5'	-8.57	108.05	120.90
65	Bf	111	VAL	CB-CA-C	-8.57	98.91	111.68
81	Bv	165	ASP	CA-CB-CG	-8.57	104.03	112.60
34	BA	175	G	C5'-C4'-O4'	-8.57	96.95	109.80
34	BA	1011	G	O5'-C5'-C4'	-8.57	98.65	111.50
34	BA	1693	U	O3'-P-O5'	-8.57	91.15	104.00
35	BB	703	U	O5'-C5'-C4'	-8.57	98.65	111.50
55	BV	60	ARG	CA-C-N	8.57	137.90	121.54
55	BV	60	ARG	C-N-CA	8.57	137.90	121.54
57	BX	80	ASP	CA-CB-CG	-8.57	104.03	112.60
34	BA	801	U	P-O3'-C3'	-8.56	107.36	120.20
35	BB	101	U	C4'-C3'-O3'	-8.56	100.16	113.00
15	AG	71	ILE	CB-CA-C	-8.56	100.58	112.14
85	AA	565	G	C5'-C4'-C3'	-8.56	103.16	116.00
85	AA	2187	G	P-O5'-C5'	-8.56	108.06	120.90
34	BA	247	U	O3'-P-O5'	8.56	116.84	104.00
85	AA	1185	G	C5'-C4'-C3'	8.56	128.84	116.00
34	BA	1165	A	C5'-C4'-C3'	-8.56	103.17	116.00
34	BA	1482	A	C5'-C4'-C3'	8.56	128.84	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1528	U	P-O5'-C5'	8.56	133.74	120.90
34	BA	1561	C	P-O5'-C5'	8.56	133.74	120.90
40	BG	128	U	C5'-C4'-C3'	8.56	128.04	115.20
34	BA	1313	U	C1'-O4'-C4'	-8.56	101.34	109.90
35	BB	1416	A	C4'-C3'-C2'	8.56	111.16	102.60
35	BB	1461	C	C5'-C4'-C3'	8.56	128.03	115.20
85	AA	898	A	O3'-P-O5'	8.56	116.83	104.00
35	BB	521	U	P-O3'-C3'	8.55	133.03	120.20
85	AA	1623	U	P-O5'-C5'	-8.55	108.07	120.90
85	AA	2122	A	C2'-C3'-O3'	8.55	126.53	113.70
34	BA	480	G	P-O3'-C3'	-8.55	107.37	120.20
40	BG	163	G	P-O5'-C5'	-8.55	108.07	120.90
34	BA	806	U	O3'-P-O5'	8.55	116.83	104.00
34	BA	919	A	O5'-C5'-C4'	-8.55	98.67	111.50
41	BH	38	G	C4'-C3'-C2'	8.55	111.15	102.60
34	BA	780	U	O4'-C1'-N1	8.55	121.32	108.50
35	BB	709	G	C4'-C3'-C2'	8.55	111.15	102.60
85	AA	406	U	P-O5'-C5'	-8.55	108.08	120.90
35	BB	1042	U	C5'-C4'-C3'	8.55	128.82	116.00
39	BF	36	G	C5'-C4'-C3'	-8.55	103.18	116.00
86	AB	70	G	P-O3'-C3'	-8.55	107.38	120.20
1	A0	72	ASP	CA-CB-CG	-8.54	104.06	112.60
35	BB	840	C	O3'-P-O5'	8.54	116.82	104.00
35	BB	1379	U	O3'-P-O5'	8.54	116.81	104.00
54	BU	5	HIS	CA-CB-CG	-8.54	105.25	113.80
85	AA	970	U	C4'-C3'-C2'	-8.54	94.06	102.60
85	AA	1346	C	P-O5'-C5'	8.54	133.72	120.90
34	BA	1651	C	C2'-C3'-O3'	8.54	122.31	109.50
36	BC	156	A	P-O3'-C3'	8.54	133.01	120.20
41	BH	115	A	P-O5'-C5'	8.54	133.71	120.90
85	AA	1622	G	C5'-C4'-C3'	-8.54	103.19	116.00
35	BB	472	C	O3'-P-O5'	8.54	116.81	104.00
8	A7	206	PRO	CA-C-N	8.54	134.37	120.63
8	A7	206	PRO	C-N-CA	8.54	134.37	120.63
85	AA	450	A	C1'-O4'-C4'	-8.54	101.36	109.90
49	BP	106	THR	N-CA-CB	8.53	124.60	111.46
36	BC	3	C	O5'-C5'-C4'	-8.53	98.70	111.50
40	BG	33	G	O4'-C1'-C2'	8.53	114.33	105.80
40	BG	148	C	C5'-C4'-C3'	-8.53	103.20	116.00
62	Bc	9	TRP	CA-C-N	8.53	132.57	120.28
62	Bc	9	TRP	C-N-CA	8.53	132.57	120.28
34	BA	1281	U	O3'-P-O5'	8.53	116.79	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	627	A	C4'-C3'-O3'	-8.53	100.21	113.00
38	BE	83	U	P-O3'-C3'	-8.52	107.42	120.20
35	BB	133	G	P-O3'-C3'	-8.52	107.42	120.20
85	AA	1926	A	C5'-C4'-C3'	-8.52	103.22	116.00
1	A0	121	THR	CA-C-N	8.52	134.48	122.72
1	A0	121	THR	C-N-CA	8.52	134.48	122.72
34	BA	481	A	C5'-C4'-C3'	-8.52	103.22	116.00
34	BA	1736	A	P-O3'-C3'	-8.52	107.42	120.20
2	A1	61	ILE	CB-CA-C	-8.52	101.07	111.97
34	BA	1084	A	O5'-C5'-C4'	8.52	124.28	111.50
47	BN	10	HIS	CA-CB-CG	8.52	122.32	113.80
65	Bf	377	ASN	N-CA-CB	8.52	124.89	110.49
85	AA	1426	G	P-O5'-C5'	8.52	133.68	120.90
34	BA	1119	A	C5'-C4'-C3'	-8.52	102.43	115.20
41	BH	133	U	P-O5'-C5'	-8.52	108.13	120.90
85	AA	1251	G	P-O3'-C3'	-8.52	107.42	120.20
21	AM	114	ARG	CA-C-N	8.51	131.51	120.44
21	AM	114	ARG	C-N-CA	8.51	131.51	120.44
35	BB	564	U	P-O5'-C5'	8.51	133.67	120.90
64	Be	161	SER	CA-C-N	8.51	137.80	121.54
64	Be	161	SER	C-N-CA	8.51	137.80	121.54
82	Bw	210	PHE	N-CA-CB	-8.51	96.88	109.82
4	A3	63	PRO	CA-C-N	8.51	133.49	121.24
4	A3	63	PRO	C-N-CA	8.51	133.49	121.24
34	BA	232	U	O4'-C4'-C3'	-8.51	95.49	104.00
61	Bb	29	PRO	N-CA-C	8.51	125.36	113.53
34	BA	122	U	P-O5'-C5'	-8.51	108.14	120.90
35	BB	1254	G	O5'-C5'-C4'	-8.51	98.94	111.70
67	Bh	90	ILE	CA-C-N	8.51	135.95	122.17
67	Bh	90	ILE	C-N-CA	8.51	135.95	122.17
34	BA	405	C	C5'-C4'-C3'	8.51	128.76	116.00
85	AA	1464	G	C1'-O4'-C4'	-8.51	101.39	109.90
34	BA	231	U	C5'-C4'-C3'	8.50	128.75	116.00
35	BB	1129	C	C5'-C4'-C3'	-8.50	103.24	116.00
38	BE	10	G	C5'-C4'-C3'	-8.50	102.44	115.20
67	Bh	64	ARG	N-CA-CB	8.50	123.46	110.28
85	AA	817	G	P-O3'-C3'	8.50	132.96	120.20
36	BC	16	A	P-O5'-C5'	-8.50	108.15	120.90
85	AA	483	G	P-O5'-C5'	8.50	133.65	120.90
35	BB	1475	U	C4'-C3'-C2'	-8.50	94.10	102.60
38	BE	160	C	P-O3'-C3'	-8.50	107.45	120.20
62	Bc	87	LYS	CA-C-N	8.50	132.60	120.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	Bc	87	LYS	C-N-CA	8.50	132.60	120.79
86	AB	3	C	O4'-C1'-N1	8.50	121.25	108.50
21	AM	27	VAL	N-CA-CB	8.50	123.11	111.21
34	BA	1204	U	C4'-C3'-O3'	-8.50	100.25	113.00
34	BA	545	U	C5'-C4'-C3'	-8.49	103.26	116.00
37	BD	36	C	C5'-C4'-C3'	-8.49	103.26	116.00
40	BG	168	A	P-O3'-C3'	8.49	132.94	120.20
85	AA	2143	U	C5'-C4'-C3'	-8.49	103.26	116.00
23	AP	108	PHE	CA-CB-CG	-8.49	105.31	113.80
72	Bm	80	PHE	CA-CB-CG	-8.49	105.31	113.80
34	BA	21	C	O5'-C5'-C4'	-8.49	98.77	111.50
34	BA	1666	U	C5'-C4'-C3'	-8.49	103.27	116.00
34	BA	1704	G	O3'-P-O5'	8.49	116.73	104.00
44	BK	86	HIS	CB-CG-CD2	-8.49	120.17	131.20
34	BA	1619	U	C2'-C3'-O3'	8.48	126.43	113.70
66	Bg	23	THR	CA-C-N	8.48	131.65	120.28
66	Bg	23	THR	C-N-CA	8.48	131.65	120.28
85	AA	1132	A	P-O3'-C3'	-8.48	107.47	120.20
38	BE	31	A	C5'-C4'-O4'	8.48	122.52	109.80
59	BZ	98	THR	N-CA-C	8.48	120.14	111.07
34	BA	431	A	P-O5'-C5'	-8.48	108.18	120.90
85	AA	57	G	C5'-C4'-C3'	-8.48	103.28	116.00
35	BB	93	A	P-O5'-C5'	8.47	133.61	120.90
35	BB	1416	A	P-O5'-C5'	8.47	133.61	120.90
85	AA	1016	G	O3'-P-O5'	-8.47	91.29	104.00
36	BC	110	A	C1'-O4'-C4'	-8.47	101.23	109.70
85	AA	2188	C	C4'-C3'-C2'	8.47	111.07	102.60
6	A5	78	ILE	N-CA-C	-8.47	94.52	107.73
34	BA	1180	A	P-O3'-C3'	8.47	132.91	120.20
86	AB	19	G	C5'-C4'-C3'	-8.47	102.49	115.20
34	BA	1721	U	O4'-C4'-C3'	-8.47	95.53	104.00
34	BA	1789	A	C4'-C3'-O3'	-8.47	100.30	113.00
85	AA	1801	U	O3'-P-O5'	-8.47	91.30	104.00
34	BA	1730	A	C5'-C4'-C3'	8.47	128.70	116.00
36	BC	35	C	C5'-C4'-C3'	8.47	128.70	116.00
65	Bf	432	LYS	N-CA-CB	-8.47	97.73	110.01
85	AA	86	G	C5'-C4'-C3'	8.47	128.70	116.00
85	AA	327	G	C4'-C3'-O3'	8.47	125.70	113.00
85	AA	1831	U	C5'-C4'-C3'	-8.47	103.30	116.00
85	AA	2153	G	C5'-C4'-C3'	-8.47	103.30	116.00
6	A5	102	VAL	CA-C-N	8.46	135.00	122.98
6	A5	102	VAL	C-N-CA	8.46	135.00	122.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1206	G	C5'-C4'-C3'	-8.47	103.30	116.00
36	BC	133	C	P-O5'-C5'	8.47	133.60	120.90
85	AA	760	U	O4'-C1'-N1	8.47	120.90	108.20
5	A4	67	LEU	N-CA-C	8.46	122.43	110.50
34	BA	1735	G	P-O5'-C5'	-8.46	108.21	120.90
85	AA	553	G	C5'-C4'-C3'	-8.46	103.31	116.00
34	BA	135	G	C5'-C4'-C3'	-8.46	103.31	116.00
85	AA	424	A	C3'-C2'-C1'	-8.46	92.84	101.30
85	AA	1302	A	O5'-C5'-C4'	8.46	124.39	111.70
85	AA	842	G	P-O5'-C5'	-8.46	108.21	120.90
35	BB	1506	C	C5'-C4'-C3'	8.46	128.69	116.00
35	BB	1482	A	C4'-C3'-C2'	-8.46	94.14	102.60
84	By	54	THR	N-CA-CB	8.46	124.92	111.56
85	AA	2107	C	O5'-C5'-C4'	-8.46	98.82	111.50
85	AA	1588	A	P-O5'-C5'	8.45	133.58	120.90
27	AT	72	GLY	CA-C-N	8.45	137.97	121.41
27	AT	72	GLY	C-N-CA	8.45	137.97	121.41
85	AA	973	U	O3'-P-O5'	8.45	116.68	104.00
28	AU	62	LYS	N-CA-C	8.45	120.11	111.07
34	BA	608	G	C5'-C4'-C3'	8.45	128.67	116.00
34	BA	1425	G	O3'-P-O5'	-8.45	91.33	104.00
34	BA	1661	U	O4'-C1'-C2'	-8.45	97.35	105.80
35	BB	1347	C	P-O3'-C3'	-8.45	107.53	120.20
38	BE	117	A	C8-N9-C1'	-8.45	102.35	127.70
28	AU	41	ALA	N-CA-C	8.45	121.84	110.35
34	BA	304	G	O3'-P-O5'	8.44	116.67	104.00
35	BB	847	U	O4'-C4'-C3'	-8.44	95.56	104.00
36	BC	33	U	O4'-C1'-N1	8.45	120.87	108.20
85	AA	25	C	O3'-P-O5'	8.44	116.67	104.00
85	AA	2100	A	C5'-C4'-C3'	8.44	127.87	115.20
34	BA	1440	C	P-O5'-C5'	-8.44	108.24	120.90
35	BB	580	A	P-O5'-C5'	8.44	133.56	120.90
85	AA	964	C	P-O3'-C3'	-8.44	107.54	120.20
47	BN	181	GLU	N-CA-C	8.44	122.56	111.75
64	Be	136	ILE	N-CA-CB	8.44	119.73	110.53
35	BB	384	A	P-O5'-C5'	-8.44	108.24	120.90
35	BB	1362	G	C5'-C4'-C3'	8.44	128.66	116.00
35	BB	1372	G	C5'-C4'-C3'	-8.44	103.34	116.00
53	BT	6	LEU	N-CA-CB	8.44	122.72	110.06
62	Bc	78	LYS	CG-CD-CE	8.44	130.71	111.30
77	Br	333	GLN	N-CA-CB	-8.44	97.72	110.12
85	AA	926	C	P-O5'-C5'	-8.44	108.24	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AP	78	ASP	CB-CA-C	8.44	124.80	110.79
34	BA	91	C	C3'-C2'-C1'	-8.44	92.86	101.30
65	Bf	280	HIS	CB-CA-C	-8.44	95.24	109.75
85	AA	1259	U	O5'-C5'-C4'	-8.44	98.85	111.50
25	AR	61	GLY	N-CA-C	8.43	122.85	112.73
7	A6	89	LYS	N-CA-C	-8.43	99.98	111.87
34	BA	377	G	P-O5'-C5'	-8.43	108.26	120.90
34	BA	967	C	P-O3'-C3'	-8.43	107.56	120.20
38	BE	70	C	C5'-C4'-C3'	-8.43	103.36	116.00
85	AA	267	U	O4'-C1'-N1	8.43	121.14	108.50
85	AA	1698	A	P-O3'-C3'	8.43	132.84	120.20
36	BC	89	U	P-O5'-C5'	-8.43	108.26	120.90
34	BA	863	G	P-O3'-C3'	8.43	132.84	120.20
34	BA	1435	A	O5'-C5'-C4'	-8.43	99.06	111.70
34	BA	86	A	P-O5'-C5'	8.42	133.54	120.90
40	BG	24	A	C5'-C4'-C3'	-8.42	102.56	115.20
69	Bj	108	LEU	CA-C-O	8.42	129.67	120.82
31	AX	175	HIS	CA-CB-CG	-8.42	105.38	113.80
34	BA	116	G	C1'-O4'-C4'	-8.42	101.28	109.70
47	BN	173	ALA	CA-C-N	8.42	130.37	119.84
47	BN	173	ALA	C-N-CA	8.42	130.37	119.84
65	Bf	320	VAL	N-CA-C	-8.42	96.50	108.80
80	Bu	285	GLY	N-CA-C	8.42	124.27	113.24
85	AA	983	A	C5'-C4'-C3'	-8.42	103.36	116.00
34	BA	1595	G	P-O3'-C3'	8.42	132.83	120.20
35	BB	1468	A	C2'-C3'-O3'	8.42	122.13	109.50
37	BD	22	A	P-O3'-C3'	-8.42	107.57	120.20
85	AA	1754	G	P-O5'-C5'	8.42	133.53	120.90
40	BG	94	G	P-O5'-C5'	8.42	133.53	120.90
34	BA	206	C	O5'-C5'-C4'	8.42	124.13	111.50
35	BB	870	C	C5'-C4'-C3'	-8.42	103.38	116.00
80	Bu	235	PHE	CA-CB-CG	-8.42	105.38	113.80
85	AA	2062	U	C4'-C3'-C2'	8.42	111.02	102.60
34	BA	1802	C	C5'-C4'-C3'	8.41	128.62	116.00
85	AA	504	U	C1'-O4'-C4'	-8.41	101.29	109.70
85	AA	731	U	O3'-P-O5'	-8.41	91.38	104.00
34	BA	177	G	N9-C1'-C2'	-8.41	101.39	114.00
34	BA	468	A	C4'-C3'-O3'	8.41	122.02	109.40
35	BB	367	C	C5'-C4'-C3'	-8.41	103.38	116.00
35	BB	1231	U	O4'-C4'-C3'	-8.41	95.59	104.00
38	BE	50	G	P-O3'-C3'	-8.41	107.58	120.20
85	AA	1190	G	P-O5'-C5'	-8.41	108.29	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AL	102	ASP	N-CA-C	8.41	122.42	110.23
15	AG	37	VAL	N-CA-CB	8.41	120.39	110.55
34	BA	111	U	O4'-C1'-C2'	8.41	114.21	105.80
34	BA	661	C	C5'-C4'-C3'	8.41	128.61	116.00
35	BB	852	G	C5'-C4'-C3'	-8.41	103.39	116.00
80	Bu	57	ASN	CA-C-N	8.41	137.60	121.54
80	Bu	57	ASN	C-N-CA	8.41	137.60	121.54
85	AA	919	U	O3'-P-O5'	8.41	116.61	104.00
85	AA	2204	A	C5'-C4'-C3'	-8.41	103.39	116.00
2	A1	202	PHE	CA-CB-CG	-8.40	105.39	113.80
5	A4	3	ALA	N-CA-C	-8.40	92.90	110.80
85	AA	2085	C	O5'-C5'-C4'	-8.40	99.09	111.70
35	BB	833	G	C1'-O4'-C4'	-8.40	101.50	109.90
71	Bl	112	ILE	N-CA-C	8.40	121.14	109.55
85	AA	2217	A	P-O5'-C5'	-8.40	108.30	120.90
73	Bn	66	TYR	CB-CA-C	8.40	122.36	109.34
74	Bo	50	LYS	N-CA-C	-8.40	96.50	109.52
85	AA	678	A	O3'-P-O5'	-8.40	91.40	104.00
85	AA	959	C	P-O5'-C5'	-8.40	108.30	120.90
15	AG	50	ILE	CA-C-N	8.40	129.44	120.03
15	AG	50	ILE	C-N-CA	8.40	129.44	120.03
34	BA	485	C	C5'-C4'-C3'	8.40	128.60	116.00
34	BA	1469	G	C5'-C4'-C3'	8.40	128.60	116.00
34	BA	1699	A	O3'-P-O5'	8.40	116.60	104.00
40	BG	52	A	C5'-C4'-C3'	-8.40	103.40	116.00
82	Bw	140	ASN	CB-CA-C	-8.40	94.55	110.67
34	BA	493	G	P-O5'-C5'	-8.39	108.31	120.90
47	BN	149	LYS	N-CA-C	-8.39	96.45	108.96
34	BA	214	A	P-O3'-C3'	8.39	132.79	120.20
35	BB	857	G	O3'-P-O5'	8.39	116.59	104.00
38	BE	194	A	P-O5'-C5'	8.39	133.49	120.90
62	Bc	6	ASP	CA-C-N	8.39	131.53	120.28
37	BD	82	G	O4'-C1'-C2'	8.39	115.99	107.60
52	BS	89	TYR	CA-CB-CG	8.39	129.00	113.90
62	Bc	6	ASP	C-N-CA	8.39	131.53	120.28
82	Bw	48	ASN	CA-CB-CG	-8.39	104.21	112.60
29	AV	32	VAL	CA-C-N	8.39	128.40	119.76
29	AV	32	VAL	C-N-CA	8.39	128.40	119.76
32	AY	47	LYS	N-CA-CB	-8.39	99.34	111.84
34	BA	1172	C	C4'-C3'-C2'	8.39	110.99	102.60
84	By	24	VAL	CB-CA-C	-8.39	99.44	110.84
27	AT	117	ARG	N-CA-CB	8.38	122.44	110.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1252	A	P-O5'-C5'	-8.38	108.33	120.90
85	AA	1509	A	C5'-C4'-C3'	8.38	128.57	116.00
35	BB	361	A	P-O3'-C3'	8.38	132.77	120.20
85	AA	1720	C	O4'-C4'-C3'	8.38	112.38	104.00
34	BA	1722	U	C1'-O4'-C4'	-8.38	101.32	109.70
38	BE	204	U	P-O5'-C5'	-8.38	108.33	120.90
84	By	21	ASP	CA-CB-CG	-8.38	104.22	112.60
85	AA	686	U	C5'-C4'-C3'	-8.38	103.44	116.00
85	AA	737	G	C5'-C4'-C3'	-8.38	103.44	116.00
85	AA	766	G	P-O5'-C5'	8.38	133.47	120.90
36	BC	107	C	P-O3'-C3'	-8.38	107.64	120.20
65	Bf	134	PRO	N-CA-CB	8.38	112.04	103.25
34	BA	1563	G	P-O3'-C3'	8.37	132.76	120.20
35	BB	68	G	C4'-C3'-O3'	-8.37	100.44	113.00
35	BB	1426	G	C5'-C4'-C3'	-8.37	103.44	116.00
85	AA	527	A	P-O5'-C5'	8.37	133.46	120.90
85	AA	771	A	C4'-C3'-O3'	-8.37	100.44	113.00
1	A0	185	ASP	CA-CB-CG	-8.37	104.23	112.60
83	Bx	81	ARG	N-CA-C	8.37	120.03	111.07
85	AA	83	U	O5'-C5'-C4'	-8.37	98.94	111.50
85	AA	802	A	C5'-C4'-C3'	8.37	128.55	116.00
85	AA	2001	C	C2'-C3'-O3'	8.37	122.05	109.50
85	AA	980	U	C5'-C4'-C3'	-8.37	103.45	116.00
85	AA	798	A	P-O3'-C3'	-8.36	107.66	120.20
44	BK	92	HIS	N-CA-C	-8.36	97.69	110.32
57	BX	137	ARG	CA-C-N	8.36	129.40	120.12
57	BX	137	ARG	C-N-CA	8.36	129.40	120.12
82	Bw	33	PHE	N-CA-C	-8.36	103.19	112.72
85	AA	115	U	C5'-C4'-C3'	8.36	128.54	116.00
85	AA	145	C	P-O5'-C5'	8.36	133.44	120.90
85	AA	611	G	P-O5'-C5'	-8.36	108.36	120.90
85	AA	1799	C	C5'-C4'-C3'	-8.36	103.46	116.00
85	AA	1146	C	C5'-C4'-C3'	-8.36	103.46	116.00
13	AE	44	ARG	N-CA-C	-8.36	101.93	108.78
35	BB	840	C	C4'-C3'-C2'	8.36	110.96	102.60
34	BA	72	U	P-O5'-C5'	8.36	133.44	120.90
67	Bh	148	ARG	CD-NE-CZ	-8.36	112.70	124.40
85	AA	686	U	C4'-C3'-C2'	-8.36	94.24	102.60
1	A0	32	VAL	N-CA-C	8.36	120.21	108.93
34	BA	157	U	C5'-C4'-C3'	8.36	128.53	116.00
34	BA	898	G	O4'-C1'-C2'	-8.36	99.24	107.60
34	BA	1288	U	P-O5'-C5'	-8.36	108.37	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1130	U	O5'-C5'-C4'	-8.36	98.97	111.50
82	Bw	41	PHE	CA-CB-CG	-8.36	105.44	113.80
85	AA	427	G	P-O5'-C5'	8.36	133.43	120.90
85	AA	1468	G	P-O5'-C5'	8.36	133.43	120.90
85	AA	581	A	P-O3'-C3'	-8.35	107.67	120.20
85	AA	1140	G	P-O5'-C5'	-8.35	108.37	120.90
85	AA	2173	A	P-O5'-C5'	8.35	133.43	120.90
34	BA	241	U	C5'-C4'-C3'	-8.35	103.47	116.00
85	AA	1864	G	C5'-C4'-C3'	-8.35	103.47	116.00
34	BA	798	G	O3'-P-O5'	8.35	116.53	104.00
38	BE	83	U	C4'-C3'-C2'	-8.35	94.25	102.60
35	BB	956	G	P-O5'-C5'	8.35	133.42	120.90
35	BB	1024	G	O5'-C5'-C4'	-8.35	98.98	111.50
41	BH	3	U	C4'-C3'-C2'	8.35	110.95	102.60
35	BB	1500	U	C5'-C4'-C3'	8.34	128.51	116.00
47	BN	131	PHE	CA-CB-CG	-8.34	105.46	113.80
47	BN	206	ARG	CB-CA-C	8.34	125.03	110.85
3	A2	25	ASN	CA-CB-CG	-8.34	104.26	112.60
34	BA	1580	U	P-O3'-C3'	-8.34	107.69	120.20
34	BA	1724	G	O3'-P-O5'	8.34	116.51	104.00
83	Bx	49	ILE	CA-C-N	8.34	140.43	122.66
83	Bx	49	ILE	C-N-CA	8.34	140.43	122.66
38	BE	70	C	P-O3'-C3'	8.34	132.71	120.20
72	Bm	44	LYS	N-CA-CB	-8.34	97.92	110.01
85	AA	1476	C	C4'-C3'-C2'	8.34	110.94	102.60
7	A6	110	THR	N-CA-C	-8.33	100.87	112.45
34	BA	1705	C	C5'-C4'-C3'	8.33	128.50	116.00
35	BB	1423	U	O4'-C1'-N1	8.33	121.00	108.50
51	BR	12	SER	N-CA-C	8.33	120.14	111.14
85	AA	1111	A	P-O3'-C3'	8.33	132.70	120.20
85	AA	2121	G	C2'-C3'-O3'	8.33	126.20	113.70
34	BA	651	U	C3'-C2'-C1'	-8.33	92.97	101.30
34	BA	1219	G	C5'-C4'-C3'	-8.33	103.50	116.00
85	AA	2133	A	C4'-C3'-O3'	-8.33	100.51	113.00
34	BA	141	G	C2'-C3'-O3'	8.33	126.19	113.70
39	BF	16	C	O5'-C5'-C4'	8.33	123.99	111.50
35	BB	949	G	P-O3'-C3'	8.33	132.69	120.20
35	BB	1507	U	O5'-C5'-C4'	-8.33	99.01	111.50
38	BE	100	U	O3'-P-O5'	8.33	116.49	104.00
57	BX	71	ASN	CA-CB-CG	-8.33	104.27	112.60
85	AA	1576	G	C2'-C3'-O3'	8.33	121.99	109.50
34	BA	1294	C	N1-C1'-C2'	8.32	124.49	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	438	G	O5'-C5'-C4'	-8.32	99.02	111.50
34	BA	870	C	O5'-P-OP2	-8.32	83.04	108.00
34	BA	1220	C	O5'-C5'-C4'	-8.32	99.02	111.50
35	BB	23	U	O3'-P-O5'	8.32	116.48	104.00
34	BA	950	C	C5'-C4'-C3'	-8.32	103.52	116.00
67	Bh	33	ARG	N-CA-C	-8.32	102.29	111.36
85	AA	492	C	C5'-C4'-C3'	-8.32	103.52	116.00
38	BE	63	C	C5'-C4'-C3'	8.32	128.48	116.00
52	BS	53	VAL	N-CA-C	8.32	120.85	108.54
85	AA	80	G	P-O5'-C5'	-8.32	108.42	120.90
34	BA	980	C	C5'-C4'-C3'	-8.32	103.52	116.00
38	BE	7	U	O3'-P-O5'	8.32	116.48	104.00
77	Br	315	GLN	CB-CG-CD	-8.32	98.46	112.60
80	Bu	134	THR	N-CA-CB	8.32	123.97	110.41
84	By	169	ASP	N-CA-C	8.32	128.51	110.80
34	BA	587	U	C2'-C3'-O3'	8.31	126.17	113.70
42	BI	158	HIS	CA-CB-CG	-8.31	105.49	113.80
34	BA	248	G	P-O3'-C3'	-8.31	107.73	120.20
35	BB	38	C	C5'-C4'-C3'	-8.31	103.53	116.00
57	BX	146	ILE	N-CA-C	8.31	119.85	107.80
85	AA	1955	U	C4'-C3'-C2'	-8.31	94.29	102.60
85	AA	2216	A	C2'-C3'-O3'	8.31	121.97	109.50
34	BA	500	C	C2'-C3'-O3'	-8.31	101.24	113.70
34	BA	1300	G	C5'-C4'-C3'	-8.31	103.54	116.00
85	AA	589	A	P-O3'-C3'	8.31	132.66	120.20
2	A1	24	PHE	N-CA-C	-8.31	97.55	110.42
57	BX	87	TYR	N-CA-CB	8.31	122.32	110.77
34	BA	1711	G	P-O3'-C3'	-8.30	107.74	120.20
35	BB	446	U	C5'-C4'-C3'	8.30	127.66	115.20
41	BH	111	U	O5'-C5'-C4'	-8.30	99.05	111.50
65	Bf	418	ASP	CA-CB-CG	-8.30	104.30	112.60
4	A3	160	VAL	N-CA-C	8.30	119.79	108.17
34	BA	1799	G	P-O3'-C3'	-8.30	107.75	120.20
35	BB	1048	A	P-O3'-C3'	-8.30	107.75	120.20
26	AS	55	ILE	N-CA-C	8.30	121.50	108.89
34	BA	565	U	C5'-C4'-C3'	-8.30	103.55	116.00
20	AL	58	MET	N-CA-CB	8.29	122.04	110.01
34	BA	594	G	O4'-C1'-N9	8.30	120.94	108.50
34	BA	601	A	C5'-C4'-C3'	8.30	128.44	116.00
34	BA	1792	U	P-O3'-C3'	8.29	132.64	120.20
35	BB	21	C	O5'-C5'-C4'	-8.29	99.06	111.50
35	BB	1211	C	P-O5'-C5'	8.29	133.34	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Ba	64	ARG	CD-NE-CZ	-8.29	112.79	124.40
85	AA	755	G	O5'-C5'-C4'	-8.29	99.06	111.50
7	A6	108	LEU	N-CA-CB	-8.29	97.93	110.12
34	BA	1494	G	C5'-C4'-C3'	-8.29	102.76	115.20
35	BB	365	U	C4'-C3'-C2'	8.29	110.89	102.60
35	BB	993	A	P-O5'-C5'	8.29	133.34	120.90
85	AA	355	G	P-O3'-C3'	8.29	132.64	120.20
13	AE	92	HIS	CA-CB-CG	-8.29	105.51	113.80
34	BA	1519	G	P-O3'-C3'	-8.29	107.77	120.20
40	BG	10	U	P-O3'-C3'	-8.29	107.77	120.20
85	AA	2213	A	P-O3'-C3'	-8.29	107.77	120.20
34	BA	111	U	C3'-C2'-C1'	-8.29	93.21	101.50
67	Bh	60	ALA	N-CA-C	8.29	122.65	112.54
35	BB	852	G	C4'-C3'-C2'	-8.28	94.32	102.60
39	BF	56	C	O5'-C5'-C4'	-8.29	99.07	111.50
47	BN	66	PRO	N-CA-C	8.29	129.54	112.47
85	AA	370	A	O4'-C4'-C3'	-8.28	95.72	104.00
6	A5	105	ASP	N-CA-C	8.28	119.93	111.07
34	BA	756	A	C5'-C4'-C3'	8.28	128.42	116.00
42	BI	114	LYS	CA-C-N	8.28	131.58	120.65
42	BI	114	LYS	C-N-CA	8.28	131.58	120.65
85	AA	649	C	P-O5'-C5'	-8.28	108.48	120.90
35	BB	901	U	C5'-C4'-C3'	-8.28	103.58	116.00
85	AA	963	U	C1'-O4'-C4'	-8.28	101.62	109.90
85	AA	1432	C	C5'-C4'-C3'	8.28	128.42	116.00
41	BH	7	C	P-O5'-C5'	-8.28	108.48	120.90
68	Bi	128	ARG	N-CA-C	8.28	125.04	112.54
85	AA	45	U	P-O5'-C5'	-8.28	108.49	120.90
85	AA	966	G	C5'-C4'-C3'	-8.28	103.59	116.00
85	AA	1622	G	O3'-P-O5'	8.28	116.41	104.00
32	AY	3	LYS	CA-C-N	8.27	136.86	121.97
32	AY	3	LYS	C-N-CA	8.27	136.86	121.97
34	BA	1411	C	C5'-C4'-C3'	-8.27	103.59	116.00
34	BA	1436	A	O3'-P-O5'	8.27	116.41	104.00
34	BA	1721	U	P-O5'-C5'	-8.27	108.49	120.90
35	BB	776	U	O3'-P-O5'	-8.27	91.59	104.00
34	BA	1616	A	O3'-P-O5'	-8.27	91.59	104.00
35	BB	60	A	C1'-O4'-C4'	-8.27	101.43	109.70
40	BG	35	G	C5'-C4'-C3'	-8.27	103.59	116.00
41	BH	118	U	C4'-C3'-C2'	8.27	110.87	102.60
34	BA	543	A	C5'-C4'-C3'	-8.27	103.60	116.00
35	BB	827	U	P-O5'-C5'	8.27	133.30	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	Bn	14	ARG	CA-C-N	8.27	137.34	121.54
73	Bn	14	ARG	C-N-CA	8.27	137.34	121.54
85	AA	509	C	C5'-C4'-C3'	-8.27	102.80	115.20
34	BA	1506	C	C5'-C4'-C3'	8.27	128.40	116.00
34	BA	1797	A	P-O3'-C3'	8.26	132.59	120.20
27	AT	41	VAL	CA-C-N	8.26	130.17	119.84
27	AT	41	VAL	C-N-CA	8.26	130.17	119.84
35	BB	451	A	C4'-C3'-O3'	-8.26	100.61	113.00
35	BB	1532	C	C5'-C4'-C3'	8.26	128.39	116.00
39	BF	62	U	P-O5'-C5'	8.26	133.29	120.90
34	BA	505	U	P-O5'-C5'	-8.26	108.51	120.90
73	Bn	66	TYR	N-CA-C	-8.26	103.14	113.55
85	AA	1734	A	C5'-C4'-C3'	8.26	128.39	116.00
85	AA	895	C	O4'-C1'-N1	8.26	120.89	108.50
85	AA	1491	G	P-O3'-C3'	8.26	132.59	120.20
85	AA	918	U	C4'-C3'-O3'	-8.26	100.61	113.00
34	BA	1041	U	O5'-C5'-C4'	-8.26	99.12	111.50
82	Bw	172	ASN	CA-CB-CG	-8.26	104.34	112.60
48	BO	134	GLY	CA-C-N	8.26	134.01	122.29
48	BO	134	GLY	C-N-CA	8.26	134.01	122.29
62	Bc	77	TYR	N-CA-C	-8.25	102.23	111.14
66	Bg	20	THR	N-CA-CB	8.25	122.23	109.94
85	AA	803	C	C5'-C4'-C3'	-8.25	103.62	116.00
34	BA	532	C	C5'-C4'-C3'	-8.25	103.62	116.00
34	BA	895	U	O4'-C4'-C3'	-8.25	95.75	104.00
36	BC	7	U	C4'-C3'-C2'	-8.25	94.35	102.60
38	BE	16	C	P-O3'-C3'	-8.25	107.83	120.20
85	AA	968	U	C5'-C4'-C3'	8.25	128.38	116.00
60	Ba	25	VAL	N-CA-C	-8.25	105.19	112.12
34	BA	134	U	P-O3'-C3'	-8.25	107.83	120.20
34	BA	194	G	P-O3'-C3'	-8.25	107.83	120.20
34	BA	1443	U	C4'-C3'-C2'	-8.25	94.35	102.60
35	BB	567	G	C5'-C4'-C3'	-8.25	103.63	116.00
62	Bc	124	CYS	N-CA-CB	8.25	122.24	110.12
34	BA	1636	C	P-O5'-C5'	-8.24	108.53	120.90
34	BA	1419	A	P-O5'-C5'	-8.24	108.53	120.90
38	BE	26	G	C5'-C4'-O4'	-8.24	97.43	109.80
85	AA	820	G	C4'-C3'-O3'	-8.24	100.63	113.00
38	BE	57	U	P-O3'-C3'	-8.24	107.84	120.20
59	BZ	96	VAL	N-CA-C	8.24	117.75	107.70
34	BA	301	U	O5'-C5'-C4'	8.24	123.86	111.50
34	BA	593	G	O3'-P-O5'	-8.24	91.64	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1202	G	O3'-P-O5'	-8.24	91.64	104.00
85	AA	510	A	O5'-C5'-C4'	8.24	123.86	111.50
34	BA	1113	A	C5'-C4'-C3'	8.24	128.36	116.00
37	BD	26	C	C3'-C2'-C1'	-8.24	93.06	101.30
41	BH	35	G	C5'-C4'-C3'	-8.24	103.64	116.00
62	Bc	66	SER	N-CA-C	-8.24	93.26	110.80
84	By	100	SER	N-CA-C	8.24	122.33	109.07
85	AA	899	A	O4'-C4'-C3'	-8.24	95.76	104.00
85	AA	1098	C	C4'-C3'-O3'	-8.24	100.64	113.00
50	BQ	192	ARG	CD-NE-CZ	-8.23	112.87	124.40
69	Bj	81	GLY	CA-C-N	8.23	132.47	122.26
69	Bj	81	GLY	C-N-CA	8.23	132.47	122.26
6	A5	61	ASP	N-CA-CB	-8.23	98.17	111.18
28	AU	108	THR	N-CA-C	-8.23	96.76	109.52
68	Bi	114	HIS	N-CA-C	-8.23	102.39	111.36
16	AH	129	PRO	N-CA-C	8.23	124.30	111.21
35	BB	431	U	C2'-C3'-O3'	8.23	126.05	113.70
66	Bg	79	HIS	CA-C-N	-8.23	109.73	121.99
66	Bg	79	HIS	C-N-CA	-8.23	109.73	121.99
6	A5	72	SER	N-CA-C	-8.22	96.48	109.23
34	BA	293	A	C4'-C3'-O3'	-8.22	100.66	113.00
34	BA	1644	A	C5'-C4'-C3'	-8.22	103.66	116.00
35	BB	537	A	P-O5'-C5'	-8.22	108.56	120.90
85	AA	150	U	P-O5'-C5'	8.22	133.24	120.90
34	BA	1297	G	P-O5'-C5'	8.22	133.23	120.90
35	BB	145	G	P-O3'-C3'	8.22	132.53	120.20
35	BB	566	A	O3'-P-O5'	-8.22	91.67	104.00
85	AA	417	U	C4'-C3'-C2'	-8.22	94.38	102.60
4	A3	85	PHE	CA-C-N	8.22	135.74	122.10
4	A3	85	PHE	C-N-CA	8.22	135.74	122.10
35	BB	1091	C	P-O3'-C3'	-8.22	107.87	120.20
35	BB	1448	U	O5'-C5'-C4'	-8.22	99.17	111.50
36	BC	70	C	O4'-C1'-C2'	8.22	114.02	105.80
77	Br	20	THR	N-CA-C	-8.22	96.71	108.96
34	BA	210	G	C4'-C3'-C2'	8.21	110.81	102.60
85	AA	8	U	C4'-C3'-C2'	8.22	110.82	102.60
34	BA	312	U	C5'-C4'-C3'	8.21	128.32	116.00
34	BA	578	C	C3'-C2'-O2'	8.21	123.02	110.70
83	Bx	218	ALA	CA-C-N	8.21	132.10	120.28
83	Bx	218	ALA	C-N-CA	8.21	132.10	120.28
85	AA	942	A	C1'-O4'-C4'	-8.21	101.69	109.90
85	AA	2029	G	C4'-C3'-O3'	-8.21	100.69	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1108	G	C5'-C4'-C3'	8.21	128.31	116.00
35	BB	1201	G	C5'-C4'-C3'	8.21	128.31	116.00
30	AW	12	THR	CA-C-N	8.21	131.70	120.46
30	AW	12	THR	C-N-CA	8.21	131.70	120.46
34	BA	130	U	O5'-C5'-C4'	-8.20	99.19	111.50
38	BE	185	G	C5'-C4'-C3'	-8.20	103.69	116.00
85	AA	1243	G	C5'-C4'-C3'	8.21	128.31	116.00
34	BA	383	G	C1'-C2'-O2'	8.20	120.70	108.40
34	BA	1428	G	P-O5'-C5'	-8.20	108.60	120.90
38	BE	135	A	O4'-C1'-C2'	-8.20	99.40	107.60
51	BR	66	LYS	N-CA-C	-8.20	97.66	109.96
85	AA	8	U	P-O3'-C3'	8.20	132.50	120.20
85	AA	936	C	C2'-C3'-O3'	8.20	126.00	113.70
86	AB	8	U	O5'-C5'-C4'	8.20	124.00	111.70
34	BA	1721	U	O3'-P-O5'	-8.20	91.70	104.00
85	AA	743	C	C5'-C4'-C3'	8.20	128.30	116.00
35	BB	807	U	O3'-P-O5'	8.20	116.30	104.00
37	BD	4	U	C5'-C4'-C3'	-8.20	103.71	116.00
65	Bf	72	ARG	N-CA-CB	8.20	122.62	110.49
85	AA	1797	U	P-O3'-C3'	-8.20	107.91	120.20
34	BA	156	U	C2'-C3'-O3'	8.19	121.79	109.50
34	BA	587	U	P-O3'-C3'	8.19	132.49	120.20
59	BZ	51	ASP	N-CA-CB	-8.19	96.64	110.49
34	BA	836	U	P-O5'-C5'	-8.19	108.61	120.90
35	BB	406	A	O4'-C1'-C2'	-8.19	97.61	105.80
77	Br	232	SER	N-CA-C	-8.19	93.35	110.80
85	AA	853	G	P-O3'-C3'	-8.19	107.91	120.20
35	BB	580	A	C5'-C4'-C3'	8.19	127.49	115.20
35	BB	709	G	O4'-C1'-C2'	8.19	115.79	107.60
85	AA	556	C	C4'-C3'-C2'	8.19	110.79	102.60
85	AA	886	A	P-O3'-C3'	-8.19	107.91	120.20
29	AV	59	SER	N-CA-CB	8.19	122.09	110.46
34	BA	12	G	O5'-C5'-C4'	-8.19	99.22	111.50
34	BA	115	U	C3'-C2'-C1'	-8.18	93.32	101.50
34	BA	1094	U	C5'-C4'-C3'	-8.18	103.72	116.00
71	Bl	96	SER	CA-C-N	8.18	137.17	121.54
71	Bl	96	SER	C-N-CA	8.18	137.17	121.54
40	BG	171	A	O4'-C1'-N9	8.18	120.77	108.50
85	AA	635	G	O5'-C5'-C4'	-8.18	99.23	111.50
34	BA	1408	C	P-O5'-C5'	-8.18	108.63	120.90
35	BB	1507	U	O4'-C1'-N1	8.18	120.77	108.50
38	BE	113	C	C2'-C3'-O3'	8.18	121.77	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	AC	66	SER	N-CA-C	-8.18	97.45	108.74
27	AT	98	LYS	CA-C-N	8.18	131.90	120.29
27	AT	98	LYS	C-N-CA	8.18	131.90	120.29
42	BI	29	LEU	CB-CA-C	-8.18	97.22	110.79
61	Bb	37	GLY	N-CA-C	-8.18	102.30	112.77
85	AA	2156	C	P-O5'-C5'	8.18	133.16	120.90
34	BA	1090	A	C5'-C4'-C3'	8.18	128.26	116.00
38	BE	23	G	C1'-O4'-C4'	-8.17	101.73	109.90
60	Ba	87	ASP	CA-CB-CG	8.17	120.77	112.60
65	Bf	438	TYR	CA-CB-CG	-8.17	99.19	113.90
34	BA	803	U	O3'-P-O5'	-8.17	91.74	104.00
34	BA	684	G	C5'-C4'-C3'	8.17	127.45	115.20
35	BB	1261	U	C5'-C4'-C3'	8.17	127.45	115.20
41	BH	36	C	P-O5'-C5'	8.17	133.15	120.90
34	BA	741	A	P-O5'-C5'	-8.17	108.65	120.90
35	BB	799	A	C4'-C3'-C2'	8.17	110.77	102.60
85	AA	2004	U	C2'-C3'-O3'	8.17	121.75	109.50
34	BA	683	C	P-O5'-C5'	8.16	133.15	120.90
35	BB	1494	G	O3'-P-O5'	8.16	116.25	104.00
41	BH	39	G	C5'-C4'-C3'	8.16	128.25	116.00
85	AA	1469	G	C1'-O4'-C4'	8.16	118.06	109.90
34	BA	842	U	O3'-P-O5'	-8.16	91.76	104.00
34	BA	1314	A	O3'-P-O5'	-8.16	91.76	104.00
85	AA	368	C	O3'-P-O5'	8.16	116.24	104.00
34	BA	56	G	P-O5'-C5'	8.16	133.14	120.90
34	BA	1295	U	P-O5'-C5'	8.16	133.14	120.90
85	AA	479	C	P-O5'-C5'	8.16	133.14	120.90
85	AA	1368	G	C5'-C4'-C3'	-8.16	103.76	116.00
34	BA	1665	G	C5'-C4'-C3'	-8.16	103.77	116.00
35	BB	1532	C	P-O5'-C5'	-8.16	108.66	120.90
79	Bt	15	GLU	N-CA-CB	8.16	120.73	110.45
34	BA	1487	U	C5'-C4'-C3'	8.15	128.23	116.00
34	BA	113	G	P-O3'-C3'	-8.15	107.97	120.20
34	BA	469	C	C2'-C3'-O3'	8.15	121.73	109.50
85	AA	57	G	O5'-C5'-C4'	-8.15	99.27	111.50
85	AA	2100	A	C2'-C3'-O3'	8.15	121.73	109.50
85	AA	2189	U	P-O3'-C3'	-8.15	107.97	120.20
85	AA	325	C	P-O3'-C3'	8.15	132.43	120.20
85	AA	731	U	C4'-C3'-O3'	-8.15	100.77	113.00
85	AA	1647	G	C5'-C4'-C3'	-8.15	103.78	116.00
35	BB	1471	A	P-O5'-C5'	8.15	133.12	120.90
85	AA	2209	U	C5'-C4'-C3'	-8.15	103.78	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1668	C	C5'-C4'-C3'	-8.15	103.78	116.00
35	BB	1484	A	C5'-C4'-C3'	-8.15	103.78	116.00
37	BD	8	A	O5'-C5'-C4'	-8.15	99.28	111.50
72	Bm	75	LYS	N-CA-C	-8.15	102.48	111.36
85	AA	2124	G	C4'-C3'-O3'	-8.15	100.78	113.00
34	BA	164	C	O4'-C1'-N1	8.14	120.72	108.50
34	BA	764	G	O4'-C4'-C3'	-8.14	95.86	104.00
47	BN	9	PRO	N-CA-CB	-8.14	94.70	103.25
34	BA	483	A	C2'-C3'-O3'	8.14	125.91	113.70
40	BG	63	U	O3'-P-O5'	-8.14	91.79	104.00
61	Bb	122	LYS	N-CA-C	-8.14	92.61	107.75
34	BA	614	A	P-O5'-C5'	8.14	133.11	120.90
34	BA	1562	G	P-O5'-C5'	-8.14	108.69	120.90
35	BB	1238	A	C5'-C4'-C3'	-8.14	103.79	116.00
23	AP	89	GLU	N-CA-C	8.14	122.89	109.06
77	Br	296	VAL	N-CA-C	-8.14	102.61	110.42
34	BA	1483	U	C4'-C3'-C2'	8.14	110.74	102.60
38	BE	148	C	C5'-C4'-C3'	-8.14	103.80	116.00
47	BN	214	GLU	CB-CG-CD	-8.14	98.77	112.60
82	Bw	163	VAL	N-CA-C	-8.14	102.50	110.72
35	BB	380	G	C5'-C4'-C3'	-8.14	103.00	115.20
35	BB	825	U	P-O5'-C5'	-8.13	108.70	120.90
65	Bf	277	THR	N-CA-CB	8.13	121.89	110.26
34	BA	1551	G	C5'-C4'-C3'	8.13	128.19	116.00
35	BB	841	U	P-O3'-C3'	-8.13	108.00	120.20
38	BE	94	U	C5'-C4'-C3'	8.13	128.20	116.00
83	Bx	186	ASN	CA-CB-CG	-8.13	104.47	112.60
85	AA	668	A	P-O3'-C3'	8.13	132.40	120.20
85	AA	1055	U	P-O5'-C5'	8.13	133.10	120.90
1	A0	224	LYS	N-CA-C	8.13	122.07	109.96
25	AR	47	ASN	CA-CB-CG	-8.13	104.47	112.60
34	BA	661	C	C4'-C3'-C2'	8.13	110.73	102.60
38	BE	139	U	O5'-C5'-C4'	-8.13	99.31	111.50
43	BJ	154	PHE	CA-CB-CG	-8.13	105.67	113.80
36	BC	121	G	P-O3'-C3'	8.13	132.39	120.20
41	BH	24	U	C3'-C2'-C1'	-8.13	93.37	101.50
52	BS	96	PHE	CA-CB-CG	-8.13	105.67	113.80
83	Bx	60	SER	N-CA-C	8.13	122.15	111.75
34	BA	201	A	O3'-P-O5'	-8.12	91.81	104.00
34	BA	894	G	C5'-C4'-C3'	8.12	128.19	116.00
40	BG	8	U	P-O3'-C3'	-8.13	108.01	120.20
67	Bh	73	LEU	N-CA-C	8.13	120.14	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	300	C	O5'-C5'-C4'	-8.12	99.31	111.50
85	AA	1535	C	C5'-C4'-C3'	-8.12	103.01	115.20
34	BA	696	A	C4'-C3'-O3'	-8.12	100.82	113.00
34	BA	979	G	O3'-P-O5'	8.12	116.18	104.00
35	BB	493	U	C5'-C4'-C3'	-8.12	103.82	116.00
35	BB	1385	C	C4'-C3'-O3'	-8.12	100.82	113.00
39	BF	32	G	O4'-C1'-C2'	8.12	113.92	105.80
84	By	86	PHE	CA-CB-CG	-8.12	105.68	113.80
85	AA	750	A	O3'-P-O5'	8.12	116.18	104.00
85	AA	1515	A	C4'-C3'-C2'	-8.12	94.48	102.60
31	AX	200	LEU	CA-C-N	8.12	129.99	119.84
31	AX	200	LEU	C-N-CA	8.12	129.99	119.84
80	Bu	6	VAL	N-CA-C	8.12	122.61	109.78
85	AA	82	A	P-O5'-C5'	-8.12	108.72	120.90
35	BB	991	C	P-O3'-C3'	8.12	132.38	120.20
35	BB	1483	A	C2'-C3'-O3'	8.12	125.88	113.70
85	AA	9	U	P-O5'-C5'	-8.12	108.72	120.90
85	AA	327	G	C5'-C4'-C3'	8.12	128.18	116.00
7	A6	132	HIS	CB-CG-CD2	-8.11	120.65	131.20
32	AY	18	THR	N-CA-CB	8.12	122.84	110.02
85	AA	333	A	P-O3'-C3'	8.12	132.38	120.20
34	BA	260	A	O4'-C1'-C2'	8.11	113.91	105.80
34	BA	323	C	O3'-P-O5'	-8.11	91.83	104.00
34	BA	867	C	O3'-P-O5'	-8.11	91.83	104.00
37	BD	47	U	P-O3'-C3'	8.11	132.37	120.20
34	BA	543	A	P-O3'-C3'	-8.11	108.03	120.20
34	BA	1689	U	P-O3'-C3'	8.11	132.37	120.20
35	BB	1148	U	P-O3'-C3'	8.11	132.37	120.20
40	BG	105	A	O5'-C5'-C4'	-8.11	99.33	111.50
85	AA	974	U	O3'-P-O5'	8.11	116.17	104.00
13	AE	71	ASP	CA-CB-CG	-8.11	104.49	112.60
34	BA	481	A	C4'-C3'-O3'	-8.11	100.84	113.00
40	BG	175	G	C5'-C4'-C3'	8.11	128.16	116.00
51	BR	45	GLN	N-CA-C	8.11	119.90	111.14
34	BA	542	A	P-O3'-C3'	-8.11	108.04	120.20
36	BC	92	C	O3'-P-O5'	-8.11	91.84	104.00
85	AA	996	A	C4'-C3'-O3'	-8.11	100.84	113.00
85	AA	2107	C	O3'-P-O5'	8.11	116.16	104.00
34	BA	214	A	C3'-C2'-C1'	-8.11	93.19	101.30
35	BB	1141	A	O4'-C4'-C3'	-8.11	95.89	104.00
85	AA	510	A	P-O3'-C3'	8.11	132.36	120.20
85	AA	610	C	C4'-C3'-C2'	-8.11	94.49	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1955	U	P-O5'-C5'	8.11	133.06	120.90
35	BB	879	G	C5'-C4'-C3'	8.10	128.16	116.00
67	Bh	9	LYS	CA-C-N	8.10	130.83	120.70
67	Bh	9	LYS	C-N-CA	8.10	130.83	120.70
85	AA	131	C	O3'-P-O5'	-8.10	91.85	104.00
35	BB	512	C	C5'-C4'-C3'	-8.10	103.85	116.00
42	BI	18	HIS	CA-CB-CG	8.10	121.90	113.80
80	Bu	244	ASP	CA-C-N	8.10	137.01	121.54
80	Bu	244	ASP	C-N-CA	8.10	137.01	121.54
85	AA	375	C	C4'-C3'-C2'	8.10	110.70	102.60
34	BA	1599	A	P-O5'-C5'	8.10	133.05	120.90
66	Bg	43	LYS	CB-CA-C	-8.10	97.35	110.79
34	BA	1116	G	P-O5'-C5'	8.09	133.04	120.90
35	BB	42	A	C4'-C3'-C2'	8.09	110.69	102.60
35	BB	882	U	P-O3'-C3'	8.09	132.34	120.20
35	BB	1206	G	P-O5'-C5'	8.09	133.04	120.90
85	AA	1603	G	P-O5'-C5'	-8.09	108.76	120.90
34	BA	958	G	C2'-C3'-O3'	8.09	121.64	109.50
35	BB	901	U	O4'-C1'-N1	8.09	120.63	108.50
85	AA	179	G	P-O5'-C5'	8.09	133.03	120.90
35	BB	468	U	O5'-C5'-C4'	-8.09	99.37	111.50
37	BD	119	U	P-O5'-C5'	-8.09	108.77	120.90
85	AA	575	G	O4'-C1'-C2'	8.09	115.69	107.60
85	AA	1367	C	O4'-C1'-N1	8.09	120.63	108.50
34	BA	433	G	O5'-C5'-C4'	8.09	123.63	111.50
34	BA	899	G	P-O5'-C5'	8.09	133.03	120.90
34	BA	1120	U	P-O3'-C3'	-8.09	108.07	120.20
35	BB	1314	G	C5'-C4'-C3'	-8.09	103.87	116.00
38	BE	16	C	O4'-C4'-C3'	-8.09	95.92	104.00
85	AA	110	U	O3'-P-O5'	8.09	116.13	104.00
38	BE	104	G	C4'-C3'-C2'	-8.08	94.52	102.60
85	AA	1497	U	C5'-C4'-C3'	8.08	128.13	116.00
34	BA	1655	G	C5'-C4'-C3'	8.08	128.12	116.00
48	BO	44	GLN	N-CA-C	8.08	120.09	111.28
85	AA	39	A	P-O3'-C3'	-8.08	108.08	120.20
85	AA	717	G	C5'-C4'-C3'	-8.08	103.88	116.00
34	BA	62	A	C5'-C4'-C3'	-8.08	103.08	115.20
34	BA	1723	U	O4'-C1'-N1	8.08	120.32	108.20
35	BB	653	G	P-O5'-C5'	8.08	133.01	120.90
35	BB	1228	A	O5'-C5'-C4'	8.08	123.62	111.50
38	BE	10	G	P-O3'-C3'	-8.08	108.08	120.20
2	A1	169	LEU	CA-C-N	-8.07	111.97	123.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A1	169	LEU	C-N-CA	-8.07	111.97	123.11
34	BA	835	U	P-O5'-C5'	-8.07	108.79	120.90
34	BA	1612	C	C4'-C3'-O3'	-8.07	100.89	113.00
65	Bf	332	THR	CA-C-N	8.07	132.97	121.42
65	Bf	332	THR	C-N-CA	8.07	132.97	121.42
66	Bg	98	ALA	N-CA-C	8.07	121.57	108.41
73	Bn	66	TYR	N-CA-CB	-8.07	98.69	110.40
85	AA	728	U	O3'-P-O5'	-8.07	91.89	104.00
35	BB	811	C	P-O3'-C3'	-8.07	108.09	120.20
40	BG	103	C	C4'-C3'-O3'	-8.07	100.89	113.00
85	AA	272	C	C5'-C4'-C3'	-8.07	103.89	116.00
85	AA	618	A	P-O3'-C3'	-8.07	108.10	120.20
85	AA	760	U	O4'-C4'-C3'	-8.07	98.03	106.10
34	BA	926	A	C2'-C3'-O3'	8.07	125.80	113.70
35	BB	652	G	C4'-C3'-C2'	-8.07	94.53	102.60
68	Bi	58	TYR	CA-CB-CG	-8.07	99.38	113.90
85	AA	1869	U	P-O3'-C3'	-8.07	108.10	120.20
38	BE	127	G	C4'-C3'-C2'	8.06	110.66	102.60
44	BK	134	ILE	N-CA-C	-8.06	99.18	109.58
85	AA	416	U	C2'-C3'-O3'	8.06	121.60	109.50
85	AA	1661	U	C2'-C3'-O3'	8.06	121.60	109.50
85	AA	2094	U	P-O5'-C5'	-8.06	108.80	120.90
85	AA	2131	C	P-O3'-C3'	-8.06	108.10	120.20
7	A6	34	GLY	CA-C-N	8.06	136.94	121.54
7	A6	34	GLY	C-N-CA	8.06	136.94	121.54
79	Bt	95	ASP	CA-CB-CG	-8.06	104.54	112.60
85	AA	856	G	C5'-C4'-C3'	8.06	128.09	116.00
21	AM	84	PHE	N-CA-C	-8.06	96.27	109.40
34	BA	1014	A	C4'-C3'-O3'	-8.06	100.91	113.00
35	BB	1212	C	C4'-C3'-C2'	8.06	110.66	102.60
34	BA	141	G	P-O5'-C5'	-8.06	108.81	120.90
34	BA	501	U	C3'-C2'-C1'	8.05	109.35	101.30
34	BA	1547	G	C5'-C4'-C3'	-8.05	103.92	116.00
35	BB	1071	G	C5'-C4'-C3'	-8.06	103.92	116.00
58	BY	24	PHE	CA-CB-CG	-8.05	105.75	113.80
64	Be	133	TYR	N-CA-C	-8.05	95.90	108.14
79	Bt	101	ASN	N-CA-C	8.05	122.36	111.24
32	AY	13	LYS	N-CA-C	8.05	119.68	111.07
34	BA	349	G	P-O5'-C5'	-8.05	108.82	120.90
34	BA	557	U	N1-C1'-C2'	-8.05	99.92	112.00
34	BA	1059	U	P-O5'-C5'	-8.05	108.82	120.90
50	BQ	30	LYS	N-CA-C	8.05	122.47	113.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1564	U	C5'-C4'-C3'	8.05	128.08	116.00
85	AA	112	A	O5'-C5'-C4'	8.05	123.58	111.50
34	BA	1176	C	C5'-C4'-C3'	-8.05	103.93	116.00
34	BA	1818	A	O3'-P-O5'	8.05	116.07	104.00
59	BZ	6	CYS	O-C-N	-8.05	113.92	122.94
85	AA	1466	U	O3'-P-O5'	8.05	116.07	104.00
34	BA	357	A	P-O5'-C5'	8.05	132.97	120.90
34	BA	1642	A	P-O5'-C5'	-8.04	108.83	120.90
36	BC	26	U	C4'-C3'-O3'	-8.05	100.93	113.00
34	BA	1699	A	C5'-C4'-C3'	8.04	128.07	116.00
35	BB	1292	G	O5'-C5'-C4'	-8.04	99.43	111.50
36	BC	65	G	C5'-C4'-C3'	-8.04	103.93	116.00
85	AA	251	A	P-O3'-C3'	-8.04	108.13	120.20
34	BA	579	U	C2'-C3'-O3'	8.04	125.76	113.70
34	BA	1046	G	C5'-C4'-C3'	8.04	128.06	116.00
81	Bv	169	LYS	N-CA-C	-8.04	96.36	108.99
40	BG	181	C	O4'-C1'-N1	8.04	120.56	108.50
3	A2	164	VAL	N-CA-C	-8.04	102.70	110.42
34	BA	436	U	C5'-C4'-C3'	-8.04	103.94	116.00
85	AA	896	C	P-O3'-C3'	-8.04	108.14	120.20
35	BB	830	G	P-O5'-C5'	-8.04	108.84	120.90
84	By	48	LYS	CA-C-N	8.04	131.39	120.38
84	By	48	LYS	C-N-CA	8.04	131.39	120.38
85	AA	1355	U	P-O5'-C5'	8.04	132.96	120.90
35	BB	37	C	P-O3'-C3'	-8.03	108.15	120.20
35	BB	652	G	P-O5'-C5'	8.04	132.95	120.90
35	BB	1039	A	C5'-C4'-C3'	-8.03	103.15	115.20
82	Bw	8	LEU	CB-CA-C	-8.04	97.47	111.05
85	AA	1789	C	C5'-C4'-O4'	-8.04	97.75	109.80
34	BA	682	A	P-O3'-C3'	-8.03	108.15	120.20
34	BA	1716	A	O5'-C5'-C4'	8.03	123.55	111.50
36	BC	122	A	C4'-C3'-O3'	-8.03	100.95	113.00
41	BH	134	U	O4'-C4'-C3'	-8.03	95.97	104.00
34	BA	1080	U	C4'-C3'-C2'	-8.03	94.57	102.60
40	BG	67	A	C5'-C4'-C3'	-8.03	103.95	116.00
22	AO	60	ARG	N-CA-C	8.03	122.48	108.75
34	BA	923	C	C3'-C2'-C1'	-8.03	93.27	101.30
34	BA	1842	U	C5'-C4'-C3'	-8.03	103.96	116.00
37	BD	93	G	O3'-P-O5'	-8.03	91.96	104.00
85	AA	1574	C	O3'-P-O5'	-8.03	91.96	104.00
3	A2	166	ALA	N-CA-C	8.03	120.03	111.28
23	AP	135	ILE	CB-CA-C	-8.03	101.69	111.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	602	G	C2'-C3'-O3'	8.03	125.74	113.70
34	BA	1495	A	O4'-C4'-C3'	-8.03	98.07	106.10
67	Bh	28	GLU	CA-C-N	8.03	135.73	122.73
67	Bh	28	GLU	C-N-CA	8.03	135.73	122.73
71	Bl	93	VAL	N-CA-CB	-8.03	97.99	111.23
85	AA	1237	A	C1'-O4'-C4'	-8.03	101.88	109.90
34	BA	851	C	O5'-C5'-C4'	-8.02	99.47	111.50
35	BB	793	A	C5'-C4'-C3'	-8.02	103.97	116.00
37	BD	46	G	C5'-C4'-C3'	-8.02	103.96	116.00
85	AA	577	U	C5'-C4'-C3'	-8.02	103.97	116.00
35	BB	839	G	O5'-C5'-C4'	8.02	123.53	111.50
40	BG	12	A	P-O3'-C3'	-8.02	108.17	120.20
85	AA	131	C	C5'-C4'-C3'	-8.02	103.97	116.00
85	AA	241	U	C5'-C4'-C3'	-8.02	103.97	116.00
2	A1	88	GLU	N-CA-CB	8.02	125.51	111.00
34	BA	91	C	O4'-C1'-C2'	-8.02	99.58	107.60
34	BA	482	C	C4'-C3'-C2'	8.02	110.62	102.60
34	BA	1742	G	C5'-C4'-C3'	8.02	128.02	116.00
38	BE	71	A	P-O3'-C3'	8.02	132.22	120.20
85	AA	769	C	P-O5'-C5'	8.02	132.92	120.90
85	AA	1731	G	P-O5'-C5'	8.02	132.92	120.90
35	BB	654	C	P-O5'-C5'	-8.01	108.88	120.90
38	BE	170	U	O3'-P-O5'	-8.01	91.98	104.00
34	BA	1558	C	O5'-C5'-C4'	-8.01	99.48	111.50
77	Br	169	PHE	CA-CB-CG	-8.01	105.79	113.80
34	BA	863	G	C2'-C3'-O3'	8.01	121.52	109.50
47	BN	79	GLY	N-CA-C	8.01	125.59	111.73
85	AA	738	C	O4'-C1'-C2'	-8.01	97.79	105.80
85	AA	1020	C	P-O5'-C5'	-8.01	108.89	120.90
85	AA	2126	U	P-O3'-C3'	-8.01	108.18	120.20
10	A9	104	PHE	CA-CB-CG	-8.01	105.79	113.80
85	AA	43	A	O5'-C5'-C4'	-8.01	99.49	111.50
85	AA	1457	C	C4'-C3'-C2'	-8.01	94.59	102.60
34	BA	1736	A	O3'-P-O5'	-8.01	91.99	104.00
35	BB	816	U	O3'-P-O5'	-8.01	91.99	104.00
85	AA	1947	A	P-O5'-C5'	8.01	132.91	120.90
34	BA	516	U	C4'-C3'-C2'	8.00	110.60	102.60
34	BA	779	U	C5'-C4'-C3'	8.00	128.00	116.00
34	BA	958	G	O3'-P-O5'	8.00	116.00	104.00
77	Br	275	PHE	N-CA-CB	-8.00	96.87	109.19
85	AA	2058	C	C1'-O4'-C4'	-8.00	101.90	109.90
34	BA	4	A	C4'-C3'-C2'	8.00	110.60	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	766	G	C4'-C3'-O3'	-8.00	101.00	113.00
85	AA	1200	A	O3'-P-O5'	8.00	115.99	104.00
85	AA	1436	A	P-O5'-C5'	8.00	132.89	120.90
34	BA	968	G	C5'-C4'-C3'	8.00	127.99	116.00
35	BB	51	U	C5'-C4'-C3'	-8.00	104.01	116.00
35	BB	866	A	C4'-C3'-C2'	-8.00	94.61	102.60
21	AM	33	MET	CA-C-N	7.99	136.36	121.97
21	AM	33	MET	C-N-CA	7.99	136.36	121.97
60	Ba	11	ILE	CA-C-N	7.99	132.06	120.71
60	Ba	11	ILE	C-N-CA	7.99	132.06	120.71
80	Bu	190	ASN	N-CA-CB	7.99	122.02	109.71
35	BB	731	U	P-O5'-C5'	7.99	132.89	120.90
85	AA	533	C	C5'-C4'-C3'	-7.99	104.02	116.00
85	AA	555	C	C4'-C3'-O3'	-7.99	101.01	113.00
79	Bt	96	LYS	N-CA-C	-7.99	97.84	109.18
34	BA	1549	U	O5'-C5'-C4'	-7.99	99.52	111.50
85	AA	307	G	P-O3'-C3'	-7.99	108.22	120.20
35	BB	413	A	C5'-C4'-C3'	-7.99	104.02	116.00
35	BB	423	G	P-O5'-C5'	7.99	132.88	120.90
37	BD	113	G	P-O5'-C5'	7.99	132.88	120.90
85	AA	541	A	O5'-C5'-C4'	-7.99	99.52	111.50
35	BB	1231	U	O3'-P-O5'	7.98	115.97	104.00
36	BC	158	U	O4'-C4'-C3'	-7.98	96.02	104.00
85	AA	204	U	C5'-C4'-C3'	7.98	127.97	116.00
27	AT	28	PHE	N-CA-C	7.98	120.65	108.52
85	AA	789	A	C5'-C4'-C3'	7.98	127.97	116.00
85	AA	983	A	O3'-P-O5'	-7.98	92.03	104.00
34	BA	1539	A	N9-C1'-C2'	-7.98	102.03	114.00
35	BB	589	U	C3'-C2'-C1'	-7.98	93.32	101.30
68	Bi	75	PHE	CA-CB-CG	-7.98	105.82	113.80
85	AA	99	U	C4'-C3'-O3'	-7.98	101.04	113.00
34	BA	605	G	C5'-C4'-O4'	7.97	121.76	109.80
34	BA	1696	G	O3'-P-O5'	7.97	115.96	104.00
50	BQ	100	LYS	N-CA-C	-7.97	100.96	110.13
85	AA	696	G	P-O3'-C3'	7.97	132.16	120.20
85	AA	1655	G	C4'-C3'-C2'	7.97	110.57	102.60
85	AA	2218	G	C4'-C3'-O3'	7.97	121.36	109.40
34	BA	426	A	C4'-C3'-O3'	-7.97	101.04	113.00
34	BA	691	A	O3'-P-O5'	7.97	115.96	104.00
34	BA	1491	U	C5'-C4'-C3'	-7.97	104.04	116.00
38	BE	188	C	C1'-O4'-C4'	-7.97	101.73	109.70
85	AA	1964	A	O4'-C1'-N9	7.97	120.46	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2227	A	O5'-C5'-C4'	-7.97	99.54	111.50
1	A0	231	ILE	N-CA-CB	7.97	119.88	110.55
34	BA	485	C	O3'-P-O5'	7.97	115.95	104.00
58	BY	8	PHE	CA-CB-CG	-7.97	105.83	113.80
85	AA	1252	A	C5'-C4'-C3'	-7.97	104.05	116.00
45	BL	118	ASP	CA-CB-CG	-7.97	104.63	112.60
69	Bj	58	LYS	N-CA-C	7.97	123.34	109.96
35	BB	39	C	C1'-O4'-C4'	-7.96	101.94	109.90
65	Bf	349	PRO	CA-N-CD	-7.96	100.85	112.00
85	AA	1650	G	P-O3'-C3'	7.96	132.15	120.20
34	BA	316	G	O5'-C5'-C4'	-7.96	99.56	111.50
53	BT	181	ARG	N-CA-C	-7.96	101.69	111.40
77	Br	352	ARG	N-CA-CB	-7.96	98.42	110.12
5	A4	57	PRO	N-CA-C	-7.96	103.12	114.18
13	AE	99	SER	N-CA-C	-7.96	95.66	108.55
35	BB	635	A	O3'-P-O5'	7.96	115.94	104.00
44	BK	196	HIS	CA-CB-CG	7.96	121.76	113.80
34	BA	10	G	O4'-C1'-C2'	7.96	115.56	107.60
85	AA	867	G	C5'-C4'-C3'	-7.96	104.06	116.00
11	AC	193	VAL	N-CA-CB	7.96	123.14	111.52
52	BS	175	ARG	N-CA-C	7.96	122.42	109.85
32	AY	37	ARG	N-CA-CB	-7.96	98.47	110.01
34	BA	862	C	P-O5'-C5'	-7.95	108.97	120.90
34	BA	1210	A	P-O5'-C5'	7.95	132.83	120.90
35	BB	384	A	P-O3'-C3'	-7.95	108.27	120.20
71	Bl	124	VAL	CA-C-N	7.95	135.30	122.81
71	Bl	124	VAL	C-N-CA	7.95	135.30	122.81
34	BA	1488	C	O5'-C5'-C4'	7.95	123.43	111.50
51	BR	52	LEU	CB-CA-C	7.95	125.70	110.27
85	AA	806	G	O5'-C5'-C4'	-7.95	99.57	111.50
35	BB	834	U	C5'-C4'-C3'	-7.95	104.07	116.00
38	BE	90	G	C5'-C4'-C3'	7.95	127.92	116.00
67	Bh	70	ARG	CA-C-N	7.95	134.20	120.68
67	Bh	70	ARG	C-N-CA	7.95	134.20	120.68
85	AA	1896	G	C2'-C3'-O3'	7.95	125.63	113.70
85	AA	2209	U	C3'-C2'-C1'	-7.95	93.35	101.30
34	BA	519	G	P-O5'-C5'	7.95	132.82	120.90
35	BB	894	A	O3'-P-O5'	7.95	115.92	104.00
36	BC	89	U	O5'-C5'-C4'	-7.95	99.78	111.70
65	Bf	233	HIS	N-CA-C	7.95	121.47	108.99
86	AB	15	G	O5'-C5'-C4'	7.95	123.42	111.50
31	AX	173	HIS	CA-CB-CG	-7.95	105.85	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	322	U	C5'-C4'-C3'	-7.95	104.08	116.00
4	A3	239	GLN	N-CA-C	7.95	121.09	111.40
40	BG	33	G	N9-C1'-C2'	-7.95	102.08	114.00
77	Br	336	GLU	CA-C-N	7.95	130.93	120.28
77	Br	336	GLU	C-N-CA	7.95	130.93	120.28
34	BA	815	C	C4'-C3'-C2'	7.94	110.54	102.60
85	AA	700	U	C5'-C4'-C3'	-7.94	104.08	116.00
38	BE	110	U	P-O3'-C3'	-7.94	108.29	120.20
40	BG	170	G	P-O3'-C3'	-7.94	108.28	120.20
85	AA	478	U	P-O5'-C5'	-7.94	108.98	120.90
35	BB	379	U	C1'-O4'-C4'	-7.94	101.96	109.90
35	BB	1196	A	C4'-C3'-C2'	7.94	110.54	102.60
38	BE	66	A	C5'-C4'-C3'	7.94	127.91	116.00
34	BA	526	C	P-O3'-C3'	7.94	132.11	120.20
38	BE	63	C	C4'-C3'-C2'	7.94	110.54	102.60
85	AA	1235	G	P-O3'-C3'	-7.94	108.29	120.20
34	BA	157	U	P-O3'-C3'	7.94	132.10	120.20
35	BB	1511	U	C5'-C4'-O4'	-7.93	97.90	109.80
85	AA	764	U	O3'-P-O5'	7.93	115.90	104.00
34	BA	739	A	O3'-P-O5'	7.93	115.90	104.00
40	BG	181	C	O5'-C5'-C4'	-7.93	99.60	111.50
80	Bu	206	PHE	CA-CB-CG	-7.93	105.87	113.80
49	BP	68	ASN	CA-CB-CG	-7.93	104.67	112.60
83	Bx	220	ASP	N-CA-C	-7.93	103.73	113.41
85	AA	556	C	C2'-C3'-O3'	7.93	125.59	113.70
85	AA	1063	U	O5'-C5'-C4'	7.93	123.39	111.50
85	AA	941	C	P-O3'-C3'	7.93	132.09	120.20
43	BJ	5	PRO	N-CA-C	7.93	120.37	110.70
63	Bd	21	ILE	N-CA-CB	7.93	124.31	111.23
85	AA	179	G	C4'-C3'-C2'	-7.93	94.67	102.60
85	AA	1149	A	C5'-C4'-C3'	-7.93	104.11	116.00
34	BA	89	G	O5'-C5'-C4'	-7.92	99.61	111.50
36	BC	7	U	C4'-C3'-O3'	-7.92	101.11	113.00
65	Bf	341	LEU	CA-C-N	7.92	129.49	120.53
65	Bf	341	LEU	C-N-CA	7.92	129.49	120.53
1	A0	122	THR	N-CA-C	7.92	122.15	109.24
40	BG	17	A	P-O5'-C5'	-7.92	109.02	120.90
40	BG	45	G	C5'-C4'-C3'	7.92	127.88	116.00
13	AE	51	SER	N-CA-C	-7.92	97.34	109.14
34	BA	508	C	P-O3'-C3'	7.92	132.08	120.20
34	BA	1042	U	P-O3'-C3'	7.92	132.08	120.20
38	BE	21	C	C2'-C3'-O3'	7.92	125.57	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	Bt	103	ASP	N-CA-CB	-7.92	96.28	110.37
85	AA	1889	U	C5'-C4'-C3'	-7.92	104.12	116.00
84	By	180	GLN	N-CA-CB	-7.92	99.10	110.81
35	BB	1224	C	C5'-C4'-C3'	-7.91	104.13	116.00
37	BD	73	U	C4'-C3'-C2'	7.91	110.51	102.60
9	A8	21	HIS	CA-CB-CG	-7.91	105.89	113.80
5	A4	173	LEU	N-CA-C	-7.91	100.65	112.04
18	AJ	63	VAL	N-CA-CB	-7.91	101.49	111.46
83	Bx	58	ASP	CA-CB-CG	-7.91	104.69	112.60
85	AA	71	G	O3'-P-O5'	-7.91	92.14	104.00
34	BA	574	U	O4'-C4'-C3'	-7.91	96.09	104.00
34	BA	1142	C	C4'-C3'-O3'	-7.91	101.14	113.00
34	BA	1223	C	C4'-C3'-C2'	7.91	110.51	102.60
34	BA	1253	G	O3'-P-O5'	-7.91	92.14	104.00
34	BA	1143	U	O5'-C5'-C4'	-7.91	99.64	111.50
85	AA	390	U	C5'-C4'-C3'	-7.91	104.14	116.00
34	BA	847	U	O4'-C1'-C2'	-7.91	99.69	107.60
51	BR	9	GLN	N-CA-C	7.91	122.18	110.48
15	AG	74	ILE	CB-CA-C	-7.90	101.85	111.97
33	AZ	38	ALA	N-CA-C	-7.90	96.34	109.46
34	BA	862	C	O3'-P-O5'	-7.90	92.14	104.00
34	BA	1226	G	P-O3'-C3'	-7.90	108.35	120.20
35	BB	1510	G	C4'-C3'-C2'	-7.90	94.70	102.60
35	BB	1084	A	C4'-C3'-C2'	-7.90	94.70	102.60
35	BB	1481	C	O5'-C5'-C4'	7.90	123.35	111.50
34	BA	289	A	P-O3'-C3'	7.90	132.05	120.20
34	BA	1006	G	O5'-C5'-C4'	-7.90	99.86	111.70
34	BA	1179	U	C5'-C4'-C3'	-7.90	104.16	116.00
34	BA	1834	A	C5'-C4'-C3'	-7.90	104.16	116.00
62	Bc	89	SER	CA-C-N	7.90	131.12	120.77
62	Bc	89	SER	C-N-CA	7.90	131.12	120.77
65	Bf	449	GLU	N-CA-CB	7.90	121.73	110.12
85	AA	1840	C	O5'-C5'-C4'	-7.90	99.65	111.50
85	AA	103	U	C5'-C4'-C3'	-7.90	104.16	116.00
10	A9	93	HIS	CA-CB-CG	-7.89	105.91	113.80
35	BB	729	G	C5'-C4'-C3'	7.89	127.84	116.00
85	AA	2197	A	O5'-C5'-C4'	7.89	123.34	111.50
34	BA	787	A	P-O3'-C3'	7.89	132.04	120.20
34	BA	1200	U	C1'-O4'-C4'	-7.89	102.01	109.90
85	AA	1929	G	P-O5'-C5'	-7.89	109.06	120.90
34	BA	1049	G	O3'-P-O5'	7.89	115.84	104.00
34	BA	1166	A	O4'-C1'-C2'	7.89	115.49	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	80	C	C4'-C3'-O3'	-7.89	101.17	113.00
36	BC	9	G	O3'-P-O5'	-7.89	92.17	104.00
44	BK	195	LEU	CA-C-N	7.89	134.20	120.87
44	BK	195	LEU	C-N-CA	7.89	134.20	120.87
5	A4	146	ARG	CB-CA-C	-7.89	97.59	109.90
35	BB	460	C	C5'-C4'-C3'	7.89	127.83	116.00
62	Bc	137	HIS	CB-CA-C	-7.89	97.69	110.79
34	BA	1610	A	P-O5'-C5'	-7.89	109.07	120.90
35	BB	781	U	C5'-C4'-C3'	7.89	127.03	115.20
85	AA	967	C	C5'-C4'-C3'	-7.88	104.17	116.00
35	BB	1458	U	C1'-O4'-C4'	-7.88	102.02	109.90
34	BA	417	A	O3'-P-O5'	-7.88	92.18	104.00
34	BA	1601	C	C4'-C3'-C2'	7.88	110.48	102.60
85	AA	262	G	C2'-C3'-O3'	7.88	121.32	109.50
85	AA	2209	U	C1'-O4'-C4'	-7.88	102.02	109.90
38	BE	100	U	O4'-C1'-N1	7.88	120.02	108.20
85	AA	1909	C	P-O3'-C3'	7.88	132.02	120.20
34	BA	576	C	P-O3'-C3'	7.88	132.02	120.20
85	AA	1924	C	P-O5'-C5'	7.88	132.72	120.90
22	AO	110	THR	CA-C-N	7.87	133.87	123.00
22	AO	110	THR	C-N-CA	7.87	133.87	123.00
37	BD	111	U	C5'-C4'-C3'	-7.87	104.19	116.00
85	AA	780	U	P-O5'-C5'	7.87	132.71	120.90
85	AA	1983	C	O3'-P-O5'	-7.87	92.19	104.00
34	BA	296	G	N9-C1'-C2'	7.87	123.81	112.00
35	BB	1141	A	C4'-C3'-O3'	-7.87	101.19	113.00
37	BD	97	U	C4'-C3'-C2'	7.87	110.47	102.60
57	BX	81	ALA	N-CA-C	7.87	119.86	111.28
66	Bg	78	ILE	N-CA-C	-7.87	97.10	108.36
34	BA	677	U	C5'-C4'-C3'	-7.87	103.39	115.20
36	BC	27	U	P-O5'-C5'	7.87	132.70	120.90
48	BO	89	PHE	CA-CB-CG	-7.87	105.93	113.80
49	BP	52	ASN	CA-CB-CG	-7.87	104.73	112.60
34	BA	1824	U	O5'-C5'-C4'	7.87	123.50	111.70
82	Bw	40	ASN	N-CA-C	-7.87	102.64	111.14
85	AA	270	A	P-O3'-C3'	-7.87	108.40	120.20
85	AA	1622	G	C2'-C3'-O3'	7.87	125.50	113.70
18	AJ	92	ASN	CA-C-N	-7.86	111.79	122.72
18	AJ	92	ASN	C-N-CA	-7.86	111.79	122.72
68	Bi	21	HIS	N-CA-C	-7.86	98.58	110.14
71	Bl	95	TRP	N-CA-C	-7.86	94.77	108.69
77	Br	225	LEU	N-CA-C	-7.86	94.05	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	744	C	C5'-C4'-C3'	-7.86	104.21	116.00
41	BH	123	G	N9-C1'-C2'	-7.86	100.21	112.00
48	BO	179	ARG	CD-NE-CZ	-7.86	113.40	124.40
85	AA	266	U	P-O3'-C3'	7.86	131.99	120.20
34	BA	719	G	C5'-C4'-C3'	-7.86	104.21	116.00
34	BA	961	C	P-O5'-C5'	-7.86	109.11	120.90
38	BE	20	C	O4'-C4'-C3'	-7.86	96.14	104.00
16	AH	128	VAL	CA-C-N	7.86	127.87	119.78
16	AH	128	VAL	C-N-CA	7.86	127.87	119.78
35	BB	629	C	P-O5'-C5'	7.86	132.68	120.90
35	BB	799	A	P-O5'-C5'	-7.86	109.12	120.90
85	AA	2188	C	C5'-C4'-C3'	-7.86	104.22	116.00
36	BC	87	C	C4'-C3'-O3'	-7.85	101.22	113.00
34	BA	932	G	C4'-C3'-C2'	-7.85	94.75	102.60
39	BF	21	C	O3'-P-O5'	-7.85	92.22	104.00
49	BP	16	LEU	N-CA-C	7.85	122.86	113.28
85	AA	559	G	C5'-C4'-C3'	-7.85	104.22	116.00
13	AE	54	ILE	CA-C-N	7.85	136.80	121.41
13	AE	54	ILE	C-N-CA	7.85	136.80	121.41
34	BA	655	U	P-O5'-C5'	-7.85	109.13	120.90
35	BB	57	G	N9-C1'-C2'	-7.85	100.22	112.00
6	A5	32	LEU	CA-C-N	7.85	129.65	119.84
6	A5	32	LEU	C-N-CA	7.85	129.65	119.84
83	Bx	209	THR	N-CA-C	7.85	123.57	111.56
85	AA	965	G	C1'-O4'-C4'	-7.85	102.05	109.90
85	AA	1542	A	C4'-C3'-O3'	-7.85	101.23	113.00
36	BC	153	C	P-O5'-C5'	7.84	132.67	120.90
62	Bc	73	PRO	CA-C-O	-7.84	113.03	121.27
81	Bv	6	LYS	CA-C-N	7.84	136.52	121.54
81	Bv	6	LYS	C-N-CA	7.84	136.52	121.54
85	AA	1291	A	O3'-P-O5'	-7.84	92.23	104.00
36	BC	154	A	P-O5'-C5'	-7.84	109.14	120.90
85	AA	21	U	C4'-C3'-C2'	7.84	110.44	102.60
34	BA	165	C	C5'-C4'-O4'	7.84	120.86	109.10
34	BA	265	A	O5'-C5'-C4'	-7.84	99.74	111.50
34	BA	1829	A	C4'-C3'-C2'	-7.84	94.76	102.60
37	BD	81	C	C1'-O4'-C4'	-7.84	102.06	109.90
43	BJ	110	SER	N-CA-C	7.84	121.01	110.35
72	Bm	51	ILE	N-CA-CB	7.84	119.72	110.55
85	AA	875	C	C5'-C4'-C3'	-7.84	104.24	116.00
34	BA	573	U	C4'-C3'-C2'	-7.84	94.76	102.60
40	BG	54	G	P-O3'-C3'	-7.84	108.45	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	Bw	223	ALA	N-CA-C	7.84	122.35	109.58
13	AE	109	PHE	CA-CB-CG	-7.83	105.97	113.80
34	BA	973	U	P-O5'-C5'	-7.83	109.15	120.90
76	Bq	5	LYS	CA-C-N	7.83	129.63	119.84
76	Bq	5	LYS	C-N-CA	7.83	129.63	119.84
77	Br	250	TRP	CB-CG-CD2	-7.83	115.83	126.80
77	Br	303	LYS	CA-C-N	7.83	136.50	121.54
77	Br	303	LYS	C-N-CA	7.83	136.50	121.54
2	A1	18	SER	N-CA-C	7.83	120.04	108.60
34	BA	1651	C	P-O3'-C3'	7.83	131.95	120.20
67	Bh	74	PHE	N-CA-CB	7.83	122.33	110.19
84	By	74	HIS	CB-CA-C	7.83	123.79	110.79
85	AA	1905	A	C5'-C4'-C3'	-7.83	104.25	116.00
56	BW	127	LEU	N-CA-CB	-7.83	99.04	110.47
85	AA	2196	G	O5'-C5'-C4'	-7.83	99.75	111.50
53	BT	27	ASN	CA-CB-CG	-7.83	104.77	112.60
85	AA	1490	A	C1'-O4'-C4'	-7.83	101.87	109.70
31	AX	193	MET	N-CA-C	-7.83	103.75	113.38
34	BA	370	U	P-O3'-C3'	7.83	131.94	120.20
34	BA	1299	G	P-O3'-C3'	7.83	131.94	120.20
38	BE	21	C	P-O5'-C5'	-7.83	109.16	120.90
47	BN	44	ARG	N-CA-CB	-7.83	98.66	110.01
41	BH	129	G	P-O5'-C5'	7.83	132.64	120.90
63	Bd	17	HIS	CA-CB-CG	-7.83	105.97	113.80
80	Bu	80	SER	N-CA-C	7.83	120.71	111.71
85	AA	210	G	O3'-P-O5'	-7.83	92.26	104.00
85	AA	722	G	O3'-P-O5'	-7.83	92.26	104.00
35	BB	504	C	C4'-C3'-O3'	-7.83	101.26	113.00
35	BB	717	A	P-O5'-C5'	-7.83	109.16	120.90
35	BB	1183	U	O3'-P-O5'	7.83	115.74	104.00
40	BG	169	A	O4'-C1'-N9	7.83	119.94	108.20
85	AA	64	A	C4'-C3'-C2'	-7.83	94.78	102.60
85	AA	1140	G	O5'-C5'-C4'	7.83	123.24	111.50
34	BA	1526	C	C5'-C4'-C3'	-7.82	104.27	116.00
34	BA	1845	G	P-O3'-C3'	-7.82	108.46	120.20
36	BC	168	C	P-O3'-C3'	-7.82	108.47	120.20
67	Bh	31	LYS	N-CA-C	7.82	119.81	111.28
85	AA	1966	C	P-O5'-C5'	7.82	132.63	120.90
34	BA	487	A	O4'-C1'-C2'	-7.82	97.98	105.80
43	BJ	179	ASN	CA-CB-CG	-7.82	104.78	112.60
85	AA	2211	G	O3'-P-O5'	7.82	115.73	104.00
20	AL	90	HIS	N-CA-C	-7.82	103.81	112.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	740	A	O4'-C4'-C3'	-7.82	96.18	104.00
34	BA	860	G	C5'-C4'-C3'	-7.82	104.27	116.00
40	BG	78	C	C5'-C4'-C3'	-7.82	104.27	116.00
85	AA	831	C	C4'-C3'-C2'	-7.82	94.78	102.60
26	AS	136	GLN	N-CA-CB	7.82	123.70	110.49
34	BA	1732	A	C5'-C4'-O4'	7.82	121.52	109.80
85	AA	376	C	C4'-C3'-O3'	-7.82	101.28	113.00
16	AH	24	VAL	N-CA-CB	7.81	121.52	111.67
34	BA	1385	U	P-O5'-C5'	7.81	132.62	120.90
38	BE	134	A	C2'-C3'-O3'	7.81	121.22	109.50
5	A4	132	ASN	CA-CB-CG	-7.81	104.79	112.60
34	BA	531	C	O4'-C4'-C3'	-7.81	96.19	104.00
61	Bb	106	TYR	CB-CA-C	-7.81	106.49	115.79
85	AA	100	A	O4'-C4'-C3'	7.81	111.81	104.00
45	BL	74	VAL	N-CA-CB	7.81	121.24	112.34
85	AA	1593	C	O4'-C1'-C2'	7.81	113.61	105.80
85	AA	132	G	C5'-C4'-C3'	-7.81	104.29	116.00
85	AA	170	C	C2'-C3'-O3'	7.81	125.42	113.70
34	BA	1215	U	O5'-C5'-C4'	-7.81	99.79	111.50
35	BB	59	U	O5'-C5'-C4'	-7.81	99.79	111.50
36	BC	1	A	P-O3'-C3'	7.81	131.91	120.20
85	AA	1100	U	O3'-P-O5'	-7.81	92.29	104.00
85	AA	1179	A	C4'-C3'-C2'	-7.81	94.79	102.60
34	BA	1273	U	O3'-P-O5'	-7.81	92.29	104.00
85	AA	1525	C	C2'-C3'-O3'	7.81	125.41	113.70
34	BA	1691	G	O3'-P-O5'	7.80	115.71	104.00
65	Bf	67	PHE	CA-CB-CG	-7.80	106.00	113.80
85	AA	47	A	C2'-C3'-O3'	7.80	121.21	109.50
85	AA	523	U	P-O3'-C3'	7.80	131.91	120.20
85	AA	736	U	C4'-C3'-O3'	7.80	124.71	113.00
34	BA	335	C	O5'-C5'-C4'	-7.80	99.80	111.50
35	BB	653	G	O4'-C1'-N9	7.80	120.20	108.50
35	BB	837	A	O3'-P-O5'	7.80	115.70	104.00
37	BD	62	A	P-O3'-C3'	7.80	131.90	120.20
45	BL	26	ILE	N-CA-C	7.80	120.31	109.55
52	BS	95	GLU	N-CA-CB	-7.80	98.53	110.77
25	AR	42	ALA	CA-C-N	7.80	132.53	120.75
25	AR	42	ALA	C-N-CA	7.80	132.53	120.75
64	Be	179	VAL	N-CA-C	7.80	117.91	110.42
34	BA	177	G	P-O3'-C3'	7.80	131.90	120.20
34	BA	1286	C	C4'-C3'-O3'	-7.80	101.31	113.00
35	BB	995	C	C5'-C4'-C3'	-7.80	104.31	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	469	C	C1'-O4'-C4'	-7.79	101.91	109.70
34	BA	1415	C	P-O5'-C5'	7.79	132.59	120.90
37	BD	64	A	O5'-C5'-C4'	-7.79	99.81	111.50
85	AA	441	C	C5'-C4'-C3'	-7.79	104.31	116.00
85	AA	1823	G	C4'-C3'-C2'	7.79	110.39	102.60
85	AA	2176	U	O5'-C5'-C4'	-7.79	99.81	111.50
39	BF	51	C	C5'-C4'-C3'	-7.79	103.51	115.20
40	BG	162	A	P-O5'-C5'	-7.79	109.21	120.90
85	AA	706	U	O5'-C5'-C4'	-7.79	99.81	111.50
85	AA	1300	A	P-O3'-C3'	-7.79	108.51	120.20
34	BA	1177	C	C5'-C4'-C3'	-7.79	104.32	116.00
34	BA	1188	U	P-O3'-C3'	7.79	131.88	120.20
34	BA	1747	C	O3'-P-O5'	7.79	115.68	104.00
36	BC	75	G	P-O3'-C3'	-7.79	108.52	120.20
60	Ba	91	GLU	CB-CG-CD	7.79	125.84	112.60
85	AA	162	A	C5'-C4'-C3'	-7.79	103.52	115.20
85	AA	688	C	C1'-O4'-C4'	-7.79	102.11	109.90
34	BA	1668	C	P-O3'-C3'	-7.79	108.52	120.20
35	BB	1542	C	P-O5'-C5'	7.79	132.58	120.90
65	Bf	165	PHE	N-CA-CB	-7.79	98.60	110.20
4	A3	62	PHE	CA-CB-CG	-7.78	106.02	113.80
20	AL	91	VAL	N-CA-C	-7.78	96.93	108.45
34	BA	26	C	C5'-C4'-C3'	-7.78	104.33	116.00
35	BB	1226	G	O4'-C1'-C2'	7.78	115.38	107.60
35	BB	1390	U	P-O5'-C5'	-7.78	109.22	120.90
61	Bb	71	PRO	CA-C-N	-7.78	111.64	122.93
61	Bb	71	PRO	C-N-CA	-7.78	111.64	122.93
35	BB	667	G	O5'-C5'-C4'	-7.78	99.83	111.50
65	Bf	150	HIS	CB-CG-CD2	-7.78	121.08	131.20
85	AA	809	A	O5'-C5'-C4'	-7.78	99.83	111.50
80	Bu	151	ILE	CA-C-N	7.78	132.53	121.02
80	Bu	151	ILE	C-N-CA	7.78	132.53	121.02
35	BB	505	G	O5'-C5'-C4'	-7.78	99.83	111.50
34	BA	1365	U	O3'-P-O5'	-7.78	92.34	104.00
35	BB	29	C	C1'-O4'-C4'	-7.78	102.12	109.90
35	BB	872	A	C1'-O4'-C4'	-7.78	102.12	109.90
85	AA	115	U	O3'-P-O5'	-7.78	92.34	104.00
85	AA	1521	U	O3'-P-O5'	-7.78	92.34	104.00
29	AV	97	LYS	N-CA-C	7.77	122.94	113.38
34	BA	294	C	O3'-P-O5'	7.77	115.66	104.00
34	BA	1058	C	O3'-P-O5'	7.77	115.66	104.00
85	AA	1515	A	O5'-C5'-C4'	-7.77	99.84	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1721	A	P-O5'-C5'	-7.77	109.24	120.90
29	AV	60	LEU	N-CA-C	-7.77	101.68	112.25
85	AA	909	C	P-O3'-C3'	7.77	131.86	120.20
85	AA	1291	A	O4'-C4'-C3'	-7.77	96.23	104.00
85	AA	1699	A	O5'-C5'-C4'	-7.77	99.84	111.50
34	BA	22	C	C5'-C4'-C3'	-7.77	104.35	116.00
35	BB	677	U	C4'-C3'-C2'	7.77	110.37	102.60
50	BQ	174	LYS	CA-C-N	7.77	136.38	121.54
50	BQ	174	LYS	C-N-CA	7.77	136.38	121.54
82	Bw	209	HIS	N-CA-C	-7.77	102.31	112.41
85	AA	865	G	C5'-C4'-C3'	-7.77	104.35	116.00
26	AS	137	LYS	N-CA-C	-7.77	103.11	112.59
35	BB	1249	G	P-O3'-C3'	7.77	131.85	120.20
85	AA	147	G	C5'-C4'-C3'	-7.77	104.35	116.00
34	BA	1631	U	O5'-C5'-C4'	7.77	123.15	111.50
35	BB	1463	A	C5'-C4'-C3'	7.77	127.65	116.00
79	Bt	30	ALA	N-CA-C	7.77	122.11	109.76
85	AA	384	C	C4'-C3'-O3'	-7.77	101.35	113.00
85	AA	854	A	O4'-C4'-C3'	-7.77	96.23	104.00
34	BA	42	A	C5'-C4'-C3'	-7.76	104.35	116.00
34	BA	1210	A	P-O3'-C3'	-7.76	108.55	120.20
35	BB	1208	G	O4'-C1'-C2'	-7.76	98.04	105.80
85	AA	1540	A	P-O5'-C5'	7.76	132.55	120.90
85	AA	1608	U	C5'-C4'-C3'	-7.76	104.35	116.00
39	BF	3	A	P-O5'-C5'	7.76	132.54	120.90
62	Bc	40	LYS	CA-C-N	7.76	136.37	121.54
62	Bc	40	LYS	C-N-CA	7.76	136.37	121.54
86	AB	10	G	O3'-P-O5'	-7.76	92.36	104.00
35	BB	380	G	C2'-C3'-O3'	7.76	121.14	109.50
35	BB	43	G	P-O3'-C3'	-7.76	108.56	120.20
35	BB	1179	C	C5'-C4'-C3'	7.76	127.64	116.00
85	AA	21	U	C2'-C3'-O3'	7.76	125.34	113.70
26	AS	125	VAL	N-CA-C	-7.76	98.67	109.45
34	BA	1198	U	P-O3'-C3'	7.76	131.84	120.20
35	BB	333	C	P-O5'-C5'	7.76	132.54	120.90
34	BA	590	U	C5'-C4'-C3'	-7.76	104.36	116.00
85	AA	970	U	O5'-C5'-C4'	-7.76	99.86	111.50
85	AA	1465	C	C1'-O4'-C4'	-7.76	102.14	109.90
1	A0	117	ARG	N-CA-C	-7.75	95.88	109.06
35	BB	1315	C	C4'-C3'-O3'	-7.75	101.37	113.00
47	BN	168	THR	CA-C-O	-7.75	113.54	119.59
49	BP	28	VAL	N-CA-C	-7.75	105.93	113.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	AK	25	ALA	N-CA-C	7.75	122.04	109.40
34	BA	482	C	P-O5'-C5'	-7.75	109.27	120.90
34	BA	117	C	O4'-C1'-N1	7.75	120.13	108.50
38	BE	136	G	C5'-C4'-C3'	7.75	126.83	115.20
62	Bc	127	ARG	CB-CA-C	-7.75	98.71	110.88
85	AA	2249	U	O4'-C1'-N1	7.75	119.83	108.20
80	Bu	241	SER	CA-C-N	7.75	129.53	119.84
80	Bu	241	SER	C-N-CA	7.75	129.53	119.84
85	AA	422	G	O5'-C5'-C4'	-7.75	99.87	111.50
85	AA	1035	C	O4'-C1'-N1	7.75	119.82	108.20
27	AT	24	ASN	N-CA-C	-7.75	101.54	111.92
34	BA	241	U	O3'-P-O5'	-7.75	92.38	104.00
35	BB	1404	A	C5'-C4'-C3'	-7.75	104.38	116.00
36	BC	44	A	P-O5'-C5'	-7.75	109.28	120.90
85	AA	587	G	C5'-C4'-C3'	7.75	127.62	116.00
35	BB	2	C	C4'-C3'-C2'	-7.74	94.86	102.60
85	AA	1287	C	P-O5'-C5'	-7.74	109.28	120.90
86	AB	52	G	C5'-C4'-C3'	-7.74	104.39	116.00
85	AA	146	U	O5'-C5'-C4'	7.74	123.11	111.50
70	Bk	53	LYS	CB-CA-C	7.74	125.53	110.67
85	AA	753	U	C1'-O4'-C4'	-7.74	102.16	109.90
35	BB	824	C	O4'-C4'-C3'	-7.74	96.26	104.00
85	AA	1520	A	P-O5'-C5'	-7.74	109.29	120.90
34	BA	1295	U	O5'-C5'-C4'	7.74	123.31	111.70
52	BS	121	HIS	CA-CB-CG	-7.74	106.06	113.80
34	BA	512	U	C2'-C3'-O3'	7.73	125.30	113.70
42	BI	130	PHE	CA-CB-CG	-7.73	106.07	113.80
1	A0	84	ARG	CA-C-N	7.73	134.95	122.81
1	A0	84	ARG	C-N-CA	7.73	134.95	122.81
11	AC	70	MET	N-CA-C	-7.73	102.93	111.36
34	BA	145	U	C5'-C4'-C3'	-7.73	103.60	115.20
39	BF	45	G	P-O3'-C3'	-7.73	108.60	120.20
85	AA	1237	A	O4'-C1'-N9	7.73	120.10	108.50
85	AA	1930	U	P-O3'-C3'	7.73	131.80	120.20
34	BA	124	G	P-O3'-C3'	-7.73	108.60	120.20
34	BA	585	G	P-O3'-C3'	-7.73	108.60	120.20
35	BB	26	C	C5'-C4'-C3'	-7.73	104.41	116.00
50	BQ	133	LEU	N-CA-C	-7.73	100.91	112.04
68	Bi	15	THR	N-CA-C	-7.73	102.72	114.16
85	AA	173	A	C5'-C4'-C3'	-7.73	104.40	116.00
85	AA	251	A	O4'-C1'-N9	7.73	120.10	108.50
27	AT	26	LYS	N-CA-C	7.73	121.51	109.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	230	A	C5'-C4'-O4'	-7.73	98.21	109.80
34	BA	1019	C	P-O3'-C3'	-7.73	108.61	120.20
39	BF	52	A	O3'-P-O5'	-7.73	92.41	104.00
53	BT	100	ARG	CB-CA-C	7.73	125.51	110.67
56	BW	73	ARG	CA-C-O	-7.73	112.99	122.03
68	Bi	90	ASN	CA-CB-CG	-7.73	104.87	112.60
73	Bn	72	ARG	CD-NE-CZ	-7.73	113.58	124.40
21	AM	20	ASN	CA-CB-CG	-7.72	104.88	112.60
36	BC	10	C	O5'-C5'-C4'	7.72	123.09	111.50
38	BE	182	U	C5'-C4'-C3'	-7.72	104.41	116.00
77	Br	286	ASP	CA-C-O	7.72	130.50	121.54
85	AA	1527	G	P-O3'-C3'	-7.72	108.61	120.20
34	BA	67	A	C5'-C4'-C3'	-7.72	104.42	116.00
34	BA	1503	U	O4'-C4'-C3'	-7.72	96.28	104.00
35	BB	1345	A	P-O3'-C3'	7.72	131.78	120.20
38	BE	72	C	O5'-C5'-C4'	7.72	123.08	111.50
85	AA	2215	C	C5'-C4'-O4'	-7.72	98.22	109.80
34	BA	584	A	P-O3'-C3'	7.72	131.78	120.20
34	BA	889	U	C4'-C3'-C2'	7.72	110.32	102.60
85	AA	311	U	C4'-C3'-C2'	7.72	110.32	102.60
52	BS	99	VAL	N-CA-C	-7.72	105.67	113.47
74	Bo	32	SER	N-CA-C	7.72	119.69	111.28
7	A6	4	TYR	N-CA-C	7.72	127.23	110.80
18	AJ	64	ASN	N-CA-C	7.72	121.23	108.96
32	AY	47	LYS	CA-CB-CG	7.72	129.53	114.10
34	BA	780	U	O5'-C5'-C4'	7.72	123.08	111.50
34	BA	1103	G	C4'-C3'-O3'	-7.72	101.43	113.00
85	AA	70	U	P-O5'-C5'	-7.72	109.33	120.90
85	AA	331	G	C4'-C3'-C2'	-7.72	94.88	102.60
8	A7	74	ALA	N-CA-C	-7.71	96.88	108.99
35	BB	1124	G	P-O5'-C5'	7.71	132.47	120.90
38	BE	135	A	C4'-C3'-C2'	-7.71	94.89	102.60
85	AA	359	A	C5'-C4'-C3'	7.71	127.57	116.00
85	AA	597	A	P-O5'-C5'	-7.71	109.33	120.90
35	BB	1079	G	P-O3'-C3'	-7.71	108.63	120.20
35	BB	1162	A	C5'-C4'-O4'	7.71	120.67	109.10
85	AA	1825	A	C4'-C3'-C2'	7.71	110.31	102.60
34	BA	185	A	O5'-C5'-C4'	-7.71	99.94	111.50
35	BB	838	G	O3'-P-O5'	7.71	115.57	104.00
41	BH	36	C	C5'-C4'-C3'	-7.71	104.44	116.00
34	BA	63	A	O4'-C1'-C2'	-7.71	98.09	105.80
34	BA	686	U	O4'-C4'-C3'	-7.71	96.29	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1326	U	P-O3'-C3'	7.71	131.76	120.20
34	BA	1440	C	C1'-O4'-C4'	-7.71	102.19	109.90
85	AA	878	U	O5'-C5'-C4'	-7.71	99.94	111.50
40	BG	140	G	P-O5'-C5'	7.71	132.46	120.90
85	AA	771	A	O5'-C5'-C4'	-7.71	99.94	111.50
52	BS	71	LEU	N-CA-C	7.71	127.21	110.80
81	Bv	50	ILE	N-CA-CB	7.71	121.19	110.56
85	AA	57	G	P-O5'-C5'	-7.71	109.34	120.90
85	AA	1955	U	O3'-P-O5'	7.71	115.56	104.00
4	A3	71	PRO	CA-C-N	7.70	136.25	121.54
4	A3	71	PRO	C-N-CA	7.70	136.25	121.54
34	BA	82	A	P-O3'-C3'	-7.70	108.65	120.20
41	BH	4	U	P-O3'-C3'	-7.70	108.65	120.20
83	Bx	114	THR	CA-C-N	7.70	131.63	120.38
83	Bx	114	THR	C-N-CA	7.70	131.63	120.38
34	BA	103	G	P-O3'-C3'	-7.70	108.65	120.20
34	BA	1317	U	P-O3'-C3'	-7.70	108.65	120.20
35	BB	1134	G	P-O5'-C5'	7.70	132.45	120.90
84	By	96	HIS	CA-CB-CG	-7.70	106.10	113.80
85	AA	489	C	P-O3'-C3'	-7.70	108.65	120.20
85	AA	1176	C	C5'-C4'-C3'	7.70	127.55	116.00
85	AA	1484	G	C4'-C3'-O3'	-7.70	101.45	113.00
85	AA	2118	U	O3'-P-O5'	7.70	115.55	104.00
86	AB	8	U	O3'-P-O5'	-7.70	92.45	104.00
35	BB	1194	A	P-O3'-C3'	-7.70	108.66	120.20
39	BF	37	C	P-O3'-C3'	7.70	131.74	120.20
77	Br	180	ASN	CA-CB-CG	-7.70	104.90	112.60
85	AA	473	C	O3'-P-O5'	7.69	115.54	104.00
8	A7	21	CYS	N-CA-C	-7.69	97.64	109.64
35	BB	1393	C	O3'-P-O5'	-7.69	92.46	104.00
36	BC	85	U	P-O3'-C3'	-7.69	108.66	120.20
41	BH	67	G	C5'-C4'-C3'	-7.69	104.46	116.00
85	AA	842	G	P-O3'-C3'	7.69	131.74	120.20
23	AP	178	ARG	CA-C-N	7.69	133.00	122.77
23	AP	178	ARG	C-N-CA	7.69	133.00	122.77
39	BF	65	U	O5'-C5'-C4'	-7.69	99.96	111.50
48	BO	206	LYS	N-CA-C	-7.69	103.72	113.72
64	Be	106	GLN	N-CA-C	-7.69	103.46	112.92
70	Bk	59	MET	N-CA-CB	-7.69	98.82	110.12
85	AA	586	G	P-O5'-C5'	7.69	132.44	120.90
35	BB	56	U	P-O5'-C5'	7.69	132.43	120.90
34	BA	1425	G	O4'-C1'-N9	7.69	119.73	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	BT	63	TRP	N-CA-CB	7.69	123.48	110.49
85	AA	1501	A	C5'-C4'-C3'	-7.69	104.47	116.00
2	A1	32	PRO	N-CA-C	7.69	128.30	112.47
38	BE	43	A	C5'-C4'-C3'	7.69	127.53	116.00
85	AA	929	G	C2'-C3'-O3'	7.69	125.23	113.70
34	BA	386	A	C4'-C3'-C2'	7.68	110.28	102.60
34	BA	1013	A	C5'-C4'-C3'	-7.68	103.67	115.20
34	BA	1309	U	O5'-C5'-C4'	7.68	123.23	111.70
35	BB	703	U	C5'-C4'-C3'	-7.68	104.47	116.00
38	BE	180	G	C5'-C4'-C3'	-7.68	104.47	116.00
60	Ba	28	THR	N-CA-CB	7.68	124.85	110.56
85	AA	1294	U	C4'-C3'-C2'	-7.68	94.92	102.60
19	AK	115	TYR	CA-CB-CG	-7.68	100.07	113.90
34	BA	140	C	C5'-C4'-C3'	-7.68	104.47	116.00
34	BA	1225	A	P-O3'-C3'	-7.68	108.68	120.20
35	BB	829	C	C5'-C4'-C3'	7.68	127.52	116.00
35	BB	1220	A	P-O3'-C3'	7.68	131.72	120.20
36	BC	23	G	C4'-C3'-C2'	-7.68	94.92	102.60
77	Br	270	THR	CA-CB-OG1	7.68	121.12	109.60
77	Br	329	LEU	O-C-N	-7.68	113.98	122.12
20	AL	108	MET	N-CA-C	-7.68	102.99	111.36
40	BG	24	A	C4'-C3'-O3'	-7.68	97.88	109.40
54	BU	102	GLN	N-CA-C	-7.68	104.44	113.88
34	BA	432	A	C5'-C4'-C3'	-7.68	104.48	116.00
35	BB	77	A	C5'-C4'-C3'	7.68	127.52	116.00
41	BH	23	G	P-O3'-C3'	7.68	131.72	120.20
85	AA	644	A	C4'-C3'-O3'	-7.68	101.48	113.00
1	A0	155	ASN	CA-CB-CG	7.68	120.28	112.60
8	A7	46	ASN	N-CA-C	-7.68	91.69	108.81
34	BA	252	A	C5'-C4'-C3'	-7.68	104.49	116.00
38	BE	162	U	P-O5'-C5'	7.68	132.41	120.90
34	BA	241	U	P-O3'-C3'	-7.67	108.69	120.20
35	BB	1315	C	P-O5'-C5'	7.67	132.41	120.90
40	BG	32	U	C5'-C4'-C3'	-7.67	104.49	116.00
57	BX	107	ILE	CB-CA-C	-7.67	102.10	111.08
35	BB	1474	A	C5'-C4'-O4'	-7.67	98.29	109.80
37	BD	50	A	C5'-C4'-C3'	7.67	127.51	116.00
85	AA	41	G	C5'-C4'-C3'	-7.67	104.49	116.00
34	BA	201	A	C5'-C4'-C3'	-7.67	104.49	116.00
34	BA	214	A	C1'-O4'-C4'	-7.67	102.23	109.90
35	BB	839	G	C5'-C4'-C3'	7.67	127.51	116.00
38	BE	171	U	P-O3'-C3'	7.67	131.71	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BE	180	G	P-O3'-C3'	7.67	131.71	120.20
51	BR	10	VAL	CA-C-N	7.67	132.87	120.60
51	BR	10	VAL	C-N-CA	7.67	132.87	120.60
85	AA	1682	U	P-O3'-C3'	7.67	131.70	120.20
2	A1	240	GLN	CA-C-N	7.67	136.44	121.41
2	A1	240	GLN	C-N-CA	7.67	136.44	121.41
34	BA	151	A	P-O5'-C5'	-7.67	109.40	120.90
37	BD	67	C	C3'-C2'-C1'	-7.67	93.63	101.30
38	BE	6	A	C5'-C4'-C3'	-7.67	104.50	116.00
54	BU	108	LYS	N-CA-CB	-7.67	98.49	110.30
59	BZ	52	GLU	N-CA-C	7.67	121.94	109.59
85	AA	161	A	C5'-C4'-C3'	-7.67	104.50	116.00
26	AS	13	LEU	CB-CA-C	-7.67	98.06	110.79
34	BA	689	C	C5'-C4'-C3'	7.67	127.50	116.00
34	BA	1178	U	C5'-C4'-C3'	-7.67	104.50	116.00
35	BB	1142	C	P-O3'-C3'	7.67	131.70	120.20
85	AA	1106	A	O4'-C4'-C3'	-7.67	96.33	104.00
85	AA	1465	C	C4'-C3'-C2'	-7.67	94.94	102.60
20	AL	120	VAL	N-CA-CB	-7.66	102.92	111.66
33	AZ	65	ALA	N-CA-C	-7.66	96.65	108.76
34	BA	1538	G	C5'-C4'-C3'	7.66	127.50	116.00
85	AA	2180	C	C5'-C4'-C3'	7.66	127.49	116.00
34	BA	251	U	C5'-C4'-C3'	-7.66	104.51	116.00
35	BB	804	U	P-O5'-C5'	-7.66	109.41	120.90
85	AA	714	U	C4'-C3'-C2'	-7.66	94.94	102.60
85	AA	1553	G	C4'-C3'-C2'	-7.66	94.94	102.60
17	AI	73	ASN	N-CA-C	7.66	120.52	111.71
25	AR	83	VAL	N-CA-C	-7.66	96.43	107.77
34	BA	147	U	O5'-C5'-C4'	-7.66	100.01	111.50
85	AA	767	A	O3'-P-O5'	-7.66	92.51	104.00
86	AB	8	U	O4'-C4'-C3'	-7.66	98.44	106.10
38	BE	8	G	O4'-C4'-C3'	-7.66	96.34	104.00
41	BH	72	G	C1'-O4'-C4'	-7.66	102.24	109.90
34	BA	590	U	P-O3'-C3'	-7.66	108.72	120.20
35	BB	1352	C	C1'-O4'-C4'	-7.66	102.24	109.90
36	BC	41	A	C5'-C4'-C3'	7.66	127.48	116.00
44	BK	85	PHE	N-CA-C	-7.66	98.05	108.38
60	Ba	60	SER	N-CA-CB	7.66	123.43	110.49
85	AA	111	A	C2'-C3'-O3'	7.66	120.98	109.50
85	AA	736	U	C3'-C2'-C1'	-7.66	93.64	101.30
34	BA	758	G	P-O5'-C5'	-7.65	109.42	120.90
35	BB	971	A	C3'-C2'-C1'	-7.65	93.65	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1539	A	C4'-C3'-C2'	-7.65	94.95	102.60
34	BA	589	A	O3'-P-O5'	-7.65	92.52	104.00
36	BC	169	G	C2'-C3'-O3'	7.65	125.18	113.70
85	AA	295	U	P-O3'-C3'	7.65	131.68	120.20
35	BB	577	U	P-O5'-C5'	7.65	132.38	120.90
85	AA	1882	U	P-O3'-C3'	7.65	131.68	120.20
66	Bg	59	CYS	N-CA-C	7.65	118.98	109.57
5	A4	155	MET	N-CA-CB	-7.65	97.54	110.16
85	AA	861	G	C5'-C4'-C3'	-7.65	104.53	116.00
34	BA	1635	A	C2'-C3'-O3'	7.64	120.97	109.50
85	AA	201	U	P-O3'-C3'	-7.64	108.73	120.20
85	AA	975	G	C5'-C4'-C3'	-7.64	104.53	116.00
20	AL	93	GLN	N-CA-C	-7.64	103.03	111.36
34	BA	575	U	P-O3'-C3'	7.64	131.66	120.20
67	Bh	29	ALA	N-CA-C	-7.64	96.48	109.24
77	Br	364	ARG	N-CA-C	7.64	119.25	111.07
85	AA	392	G	O4'-C1'-C2'	7.64	115.24	107.60
85	AA	710	A	C4'-C3'-O3'	-7.64	101.54	113.00
85	AA	767	A	P-O5'-C5'	7.64	132.37	120.90
85	AA	1892	G	C5'-C4'-C3'	-7.64	104.54	116.00
34	BA	996	U	P-O5'-C5'	7.64	132.36	120.90
5	A4	162	ARG	N-CA-CB	7.64	121.36	109.83
8	A7	153	ASP	CA-CB-CG	-7.64	104.96	112.60
23	AP	118	ASN	CA-CB-CG	-7.64	104.96	112.60
85	AA	386	G	P-O3'-C3'	-7.64	108.74	120.20
85	AA	1192	C	P-O5'-C5'	-7.64	109.44	120.90
30	AW	18	MET	N-CA-C	7.64	120.68	111.82
35	BB	1514	G	C5'-C4'-C3'	-7.64	104.54	116.00
38	BE	172	U	C4'-C3'-C2'	7.64	110.24	102.60
78	Bs	30	ARG	N-CA-CB	-7.64	99.39	110.47
85	AA	2050	C	C4'-C3'-C2'	-7.64	94.96	102.60
25	AR	15	ASP	CA-CB-CG	-7.64	104.96	112.60
34	BA	1294	C	O4'-C4'-C3'	7.64	111.64	104.00
35	BB	1315	C	O5'-C5'-C4'	-7.64	100.05	111.50
41	BH	129	G	O4'-C1'-C2'	7.64	113.44	105.80
42	BI	134	ALA	CA-C-N	7.64	130.85	120.54
42	BI	134	ALA	C-N-CA	7.64	130.85	120.54
82	Bw	189	HIS	CA-C-N	7.64	132.82	120.60
82	Bw	189	HIS	C-N-CA	7.64	132.82	120.60
85	AA	681	G	C4'-C3'-C2'	7.64	110.24	102.60
34	BA	683	C	C4'-C3'-C2'	-7.63	94.97	102.60
38	BE	14	C	O3'-P-O5'	-7.63	92.55	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BF	4	A	P-O3'-C3'	-7.63	108.75	120.20
58	BY	64	ARG	N-CA-CB	7.63	123.39	110.49
37	BD	92	G	C4'-C3'-C2'	-7.63	94.97	102.60
35	BB	779	C	C4'-C3'-C2'	7.63	110.23	102.60
41	BH	2	U	O4'-C4'-C3'	-7.63	96.37	104.00
65	Bf	145	GLN	N-CA-CB	7.63	121.78	109.95
85	AA	2208	G	C3'-C2'-C1'	-7.63	93.67	101.30
34	BA	486	G	C5'-C4'-C3'	7.63	127.45	116.00
19	AK	105	GLU	N-CA-C	7.63	119.23	111.07
29	AV	68	MET	CG-SD-CE	-7.63	84.11	100.90
34	BA	1200	U	O4'-C1'-C2'	-7.63	99.97	107.60
79	Bt	11	HIS	N-CA-C	7.63	121.47	110.10
82	Bw	218	TRP	CB-CG-CD2	-7.63	116.12	126.80
85	AA	405	C	P-O5'-C5'	7.63	132.34	120.90
34	BA	248	G	C4'-C3'-O3'	7.63	124.44	113.00
85	AA	374	C	O4'-C1'-N1	7.63	119.94	108.50
35	BB	1400	C	P-O5'-C5'	7.62	132.34	120.90
85	AA	84	C	C3'-C2'-C1'	-7.62	93.67	101.30
37	BD	31	U	C5'-C4'-C3'	-7.62	104.56	116.00
34	BA	504	A	O5'-C5'-C4'	-7.62	100.07	111.50
85	AA	503	A	C2'-C3'-O3'	7.62	120.93	109.50
18	AJ	99	PHE	CA-CB-CG	-7.62	106.18	113.80
38	BE	109	C	O4'-C4'-C3'	-7.62	96.38	104.00
85	AA	2213	A	C5'-C4'-C3'	7.62	127.43	116.00
35	BB	577	U	C5'-C4'-C3'	-7.62	104.57	116.00
40	BG	167	C	P-O3'-C3'	-7.62	108.78	120.20
41	BH	106	G	C4'-C3'-O3'	-7.62	101.57	113.00
27	AT	118	ARG	CD-NE-CZ	-7.62	113.74	124.40
34	BA	622	G	C5'-C4'-C3'	-7.62	104.58	116.00
38	BE	19	G	O3'-P-O5'	7.62	115.42	104.00
65	Bf	133	PRO	CB-CA-C	7.62	120.21	110.92
34	BA	781	U	P-O3'-C3'	-7.61	108.78	120.20
35	BB	878	G	N9-C1'-C2'	-7.61	100.58	112.00
85	AA	10	G	C4'-C3'-O3'	-7.61	101.58	113.00
38	BE	1	U	C4'-C3'-C2'	-7.61	94.99	102.60
34	BA	1429	A	C5'-C4'-C3'	-7.61	104.59	116.00
85	AA	1714	G	P-O5'-C5'	-7.61	109.49	120.90
34	BA	84	U	C4'-C3'-O3'	-7.61	101.59	113.00
34	BA	130	U	P-O5'-C5'	7.61	132.31	120.90
35	BB	1222	A	P-O3'-C3'	-7.61	108.79	120.20
39	BF	53	G	O3'-P-O5'	-7.61	92.59	104.00
59	BZ	78	HIS	CB-CA-C	-7.61	96.56	109.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	Bf	364	THR	CB-CA-C	-7.61	97.79	109.20
85	AA	1468	G	C5'-C4'-O4'	-7.61	98.39	109.80
34	BA	882	G	C1'-O4'-C4'	-7.61	102.29	109.90
34	BA	1274	A	O3'-P-O5'	-7.61	92.59	104.00
35	BB	822	G	C5'-C4'-C3'	7.61	127.41	116.00
35	BB	1334	C	O4'-C4'-C3'	-7.61	96.39	104.00
51	BR	3	HIS	CB-CG-CD2	-7.61	121.31	131.20
34	BA	228	A	C5'-C4'-C3'	-7.60	104.59	116.00
34	BA	630	U	O3'-P-O5'	-7.60	92.59	104.00
16	AH	33	THR	CA-C-N	7.60	133.21	122.72
16	AH	33	THR	C-N-CA	7.60	133.21	122.72
22	AO	110	THR	N-CA-C	7.60	121.61	110.59
31	AX	98	MET	CB-CA-C	-7.60	98.94	110.88
34	BA	186	G	C5'-C4'-C3'	-7.60	104.60	116.00
34	BA	1125	G	O3'-P-O5'	-7.60	92.60	104.00
40	BG	133	C	O3'-P-O5'	-7.60	92.60	104.00
65	Bf	405	SER	N-CA-C	7.60	126.99	110.80
85	AA	1928	A	C4'-C3'-C2'	7.60	110.20	102.60
43	BJ	92	LYS	N-CA-C	7.60	122.82	111.04
85	AA	369	A	O5'-C5'-C4'	-7.60	100.10	111.50
34	BA	192	G	O3'-P-O5'	7.60	115.40	104.00
35	BB	1367	U	C4'-C3'-O3'	-7.60	101.60	113.00
38	BE	116	U	C5'-C4'-C3'	-7.60	104.60	116.00
53	BT	166	ASP	CA-CB-CG	-7.60	105.00	112.60
35	BB	483	C	O5'-C5'-C4'	-7.60	100.11	111.50
85	AA	2010	C	C4'-C3'-C2'	-7.60	95.00	102.60
40	BG	94	G	C4'-C3'-C2'	7.59	110.19	102.60
85	AA	1426	G	C4'-C3'-C2'	-7.59	95.01	102.60
32	AY	6	GLY	N-CA-C	7.59	120.89	110.56
34	BA	1175	G	C5'-C4'-C3'	-7.59	103.81	115.20
35	BB	295	U	P-O3'-C3'	7.59	131.59	120.20
54	BU	134	ASN	CA-CB-CG	-7.59	105.01	112.60
49	BP	106	THR	CA-C-N	7.59	130.79	120.54
49	BP	106	THR	C-N-CA	7.59	130.79	120.54
84	By	8	GLN	N-CA-CB	7.59	123.32	110.49
20	AL	17	VAL	N-CA-CB	7.59	120.86	110.54
35	BB	1330	A	P-O5'-C5'	-7.59	109.52	120.90
36	BC	34	U	C2'-C3'-O3'	7.59	120.88	109.50
67	Bh	177	SER	CA-C-N	7.59	130.78	120.54
67	Bh	177	SER	C-N-CA	7.59	130.78	120.54
85	AA	917	A	C5'-C4'-C3'	-7.59	104.62	116.00
2	A1	100	TYR	CB-CA-C	-7.59	96.71	109.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	751	A	P-O3'-C3'	7.59	131.58	120.20
84	By	4	LYS	CA-C-N	7.59	136.03	121.54
84	By	4	LYS	C-N-CA	7.59	136.03	121.54
35	BB	971	A	C5'-C4'-O4'	-7.58	98.42	109.80
34	BA	829	U	C5'-C4'-C3'	-7.58	104.62	116.00
41	BH	12	U	P-O3'-C3'	-7.58	108.83	120.20
64	Be	158	VAL	N-CA-C	-7.58	99.35	108.45
81	Bv	101	GLU	CA-C-N	7.58	130.85	120.46
81	Bv	101	GLU	C-N-CA	7.58	130.85	120.46
5	A4	185	THR	N-CA-C	7.58	120.84	108.26
85	AA	495	G	C5'-C4'-O4'	-7.58	98.43	109.80
34	BA	877	U	C4'-C3'-C2'	7.58	110.18	102.60
59	BZ	100	ASN	CA-CB-CG	-7.58	105.02	112.60
80	Bu	194	ASP	CA-CB-CG	-7.58	105.02	112.60
85	AA	117	C	C5'-C4'-C3'	-7.58	104.63	116.00
34	BA	62	A	C4'-C3'-O3'	7.58	120.77	109.40
82	Bw	42	LYS	N-CA-C	-7.58	94.66	110.80
34	BA	371	U	P-O3'-C3'	-7.58	108.84	120.20
34	BA	1737	A	O3'-P-O5'	-7.58	92.64	104.00
36	BC	90	U	O4'-C4'-C3'	-7.58	96.42	104.00
34	BA	1676	A	O4'-C4'-C3'	-7.57	96.43	104.00
85	AA	2176	U	P-O5'-C5'	7.57	132.26	120.90
47	BN	102	VAL	N-CA-CB	-7.57	98.74	111.23
16	AH	13	SER	CA-C-N	7.57	135.33	121.70
16	AH	13	SER	C-N-CA	7.57	135.33	121.70
34	BA	3	G	P-O5'-C5'	-7.57	109.54	120.90
34	BA	785	G	C4'-C3'-C2'	-7.57	95.03	102.60
35	BB	363	A	C1'-O4'-C4'	-7.57	102.33	109.90
35	BB	842	G	C5'-C4'-C3'	7.57	127.35	116.00
36	BC	88	A	O3'-P-O5'	-7.57	92.64	104.00
59	BZ	123	THR	CA-C-N	7.57	130.43	120.28
59	BZ	123	THR	C-N-CA	7.57	130.43	120.28
77	Br	342	GLY	CA-C-N	7.57	131.46	120.71
77	Br	342	GLY	C-N-CA	7.57	131.46	120.71
85	AA	742	U	O5'-C5'-C4'	-7.57	100.14	111.50
35	BB	1454	G	P-O5'-C5'	7.57	132.25	120.90
65	Bf	93	HIS	CA-CB-CG	-7.57	106.23	113.80
1	A0	132	ALA	CA-C-N	7.57	131.18	120.28
1	A0	132	ALA	C-N-CA	7.57	131.18	120.28
2	A1	41	LEU	N-CA-C	7.57	120.49	111.33
35	BB	677	U	C5'-C4'-C3'	-7.57	104.65	116.00
34	BA	1043	C	O5'-C5'-C4'	7.57	122.85	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1781	A	P-O3'-C3'	-7.57	108.85	120.20
35	BB	1442	C	C4'-C3'-C2'	7.57	110.17	102.60
85	AA	786	G	P-O3'-C3'	7.57	131.55	120.20
85	AA	894	A	O4'-C1'-N9	7.57	119.85	108.50
83	Bx	183	CYS	CA-C-N	7.56	130.42	120.28
83	Bx	183	CYS	C-N-CA	7.56	130.42	120.28
35	BB	366	G	C5'-C4'-C3'	-7.56	104.66	116.00
85	AA	505	U	C2'-C3'-O3'	7.56	120.84	109.50
50	BQ	52	THR	N-CA-C	7.56	120.62	111.40
85	AA	2078	A	P-O5'-C5'	7.56	132.24	120.90
1	A0	193	ASN	CA-CB-CG	-7.56	105.04	112.60
40	BG	110	U	C4'-C3'-C2'	7.56	110.16	102.60
85	AA	240	A	P-O3'-C3'	-7.56	108.86	120.20
85	AA	1279	A	P-O5'-C5'	7.56	132.24	120.90
85	AA	73	A	P-O3'-C3'	7.56	131.53	120.20
13	AE	58	PHE	CA-CB-CG	-7.55	106.25	113.80
15	AG	71	ILE	N-CA-CB	7.55	120.81	110.54
38	BE	18	U	O5'-C5'-C4'	-7.55	100.37	111.70
85	AA	1557	U	O3'-P-O5'	7.55	115.33	104.00
70	Bk	77	LYS	N-CA-C	-7.55	94.71	110.80
85	AA	1106	A	P-O3'-C3'	7.55	131.53	120.20
37	BD	63	C	P-O3'-C3'	-7.55	108.88	120.20
45	BL	138	LEU	CA-C-N	7.55	136.21	121.41
45	BL	138	LEU	C-N-CA	7.55	136.21	121.41
85	AA	157	G	C4'-C3'-C2'	-7.55	95.05	102.60
85	AA	267	U	O4'-C1'-C2'	-7.55	100.05	107.60
15	AG	60	ILE	N-CA-C	-7.55	97.28	108.45
85	AA	341	C	O5'-C5'-C4'	-7.55	100.18	111.50
5	A4	145	TRP	N-CA-C	7.55	122.00	107.44
57	BX	137	ARG	N-CA-C	7.55	120.33	109.84
85	AA	894	A	O5'-C5'-C4'	7.55	122.82	111.50
85	AA	927	A	P-O5'-C5'	-7.55	109.58	120.90
34	BA	1390	C	C5'-C4'-C3'	-7.54	104.68	116.00
85	AA	723	U	O5'-C5'-C4'	-7.54	100.18	111.50
38	BE	132	U	P-O3'-C3'	-7.54	108.89	120.20
58	BY	37	ARG	N-CA-CB	7.54	123.80	110.37
85	AA	867	G	C4'-C3'-C2'	-7.54	95.06	102.60
15	AG	129	TYR	CA-CB-CG	-7.54	100.33	113.90
34	BA	568	G	O3'-P-O5'	7.54	115.31	104.00
34	BA	799	A	C4'-C3'-O3'	7.54	120.71	109.40
34	BA	557	U	C3'-C2'-C1'	-7.54	93.76	101.30
35	BB	1512	C	C2'-C3'-O3'	7.54	125.01	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BE	203	C	P-O3'-C3'	7.54	131.51	120.20
20	AL	44	LYS	CA-C-N	7.54	130.72	120.54
20	AL	44	LYS	C-N-CA	7.54	130.72	120.54
34	BA	1104	C	C2'-C3'-O3'	7.54	120.81	109.50
45	BL	143	GLU	CA-C-N	7.54	131.38	120.38
45	BL	143	GLU	C-N-CA	7.54	131.38	120.38
82	Bw	34	LYS	CA-C-N	7.54	130.38	120.28
82	Bw	34	LYS	C-N-CA	7.54	130.38	120.28
85	AA	2125	A	C4'-C3'-O3'	-7.54	98.09	109.40
35	BB	628	A	C5'-C4'-C3'	-7.54	104.69	116.00
37	BD	35	C	O5'-C5'-C4'	-7.54	100.19	111.50
34	BA	1489	U	C4'-C3'-C2'	-7.53	95.07	102.60
85	AA	1485	G	P-O3'-C3'	7.53	131.50	120.20
38	BE	135	A	O3'-P-O5'	7.53	115.30	104.00
85	AA	913	U	C5'-C4'-C3'	-7.53	104.70	116.00
6	A5	64	ASN	CA-CB-CG	-7.53	105.07	112.60
38	BE	155	C	O4'-C1'-N1	7.53	119.49	108.20
56	BW	73	ARG	CD-NE-CZ	7.53	134.94	124.40
34	BA	811	C	P-O5'-C5'	-7.53	109.61	120.90
35	BB	70	A	O3'-P-O5'	7.53	115.29	104.00
47	BN	177	VAL	CA-C-N	7.53	131.75	120.31
47	BN	177	VAL	C-N-CA	7.53	131.75	120.31
53	BT	38	ARG	CA-CB-CG	7.53	129.15	114.10
59	BZ	50	ASP	CA-C-N	7.53	135.92	121.54
59	BZ	50	ASP	C-N-CA	7.53	135.92	121.54
85	AA	187	C	C5'-C4'-C3'	-7.53	104.71	116.00
85	AA	438	G	C5'-C4'-C3'	-7.53	104.71	116.00
34	BA	224	G	O3'-P-O5'	-7.53	92.71	104.00
36	BC	132	U	O3'-P-O5'	7.53	115.29	104.00
24	AQ	101	PHE	CA-CB-CG	7.52	121.32	113.80
38	BE	56	U	C4'-C3'-C2'	-7.52	95.08	102.60
40	BG	176	G	O5'-C5'-C4'	-7.52	100.21	111.50
85	AA	45	U	C4'-C3'-O3'	-7.52	101.71	113.00
85	AA	136	U	C5'-C4'-C3'	7.52	127.28	116.00
6	A5	204	GLU	CA-C-N	7.52	136.15	121.41
6	A5	204	GLU	C-N-CA	7.52	136.15	121.41
14	AF	25	MET	N-CA-C	7.52	119.19	109.64
42	BI	89	ILE	CA-C-O	7.52	127.69	120.25
52	BS	67	LYS	N-CA-C	7.52	121.94	109.46
21	AM	126	HIS	CA-C-N	7.52	130.57	120.65
21	AM	126	HIS	C-N-CA	7.52	130.57	120.65
85	AA	2238	C	O4'-C1'-C2'	7.52	115.12	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	685	C	O5'-C5'-C4'	7.52	122.78	111.50
35	BB	1148	U	O5'-C5'-C4'	-7.52	100.22	111.50
86	AB	3	C	C5'-C4'-O4'	7.52	121.08	109.80
19	AK	131	GLU	N-CA-C	7.52	126.42	109.81
27	AT	78	GLY	N-CA-C	7.52	123.35	112.60
34	BA	1724	G	C4-N9-C1'	-7.52	103.95	126.50
34	BA	777	C	C5'-C4'-C3'	-7.51	104.73	116.00
35	BB	424	U	C4'-C3'-C2'	-7.51	95.08	102.60
38	BE	202	C	O4'-C1'-N1	7.51	119.47	108.20
39	BF	6	C	P-O5'-C5'	7.51	132.17	120.90
62	Bc	25	ILE	CB-CA-C	7.51	121.93	110.96
73	Bn	78	PHE	CA-CB-CG	-7.51	106.29	113.80
53	BT	61	SER	N-CA-C	7.51	120.13	111.11
26	AS	131	TYR	N-CA-CB	-7.51	98.40	109.82
34	BA	102	G	P-O3'-C3'	-7.51	108.93	120.20
35	BB	1038	G	C4'-C3'-O3'	-7.51	101.73	113.00
85	AA	1595	G	C2'-C3'-O3'	7.51	124.97	113.70
34	BA	1466	U	P-O3'-C3'	-7.51	108.94	120.20
39	BF	62	U	C1'-C2'-O2'	7.51	123.06	111.80
53	BT	25	ASP	CA-CB-CG	-7.51	105.09	112.60
85	AA	879	G	C5'-C4'-C3'	-7.51	104.73	116.00
34	BA	108	A	P-O5'-C5'	-7.51	109.64	120.90
35	BB	1099	U	O3'-P-O5'	-7.51	92.74	104.00
35	BB	1173	C	P-O5'-C5'	-7.51	109.64	120.90
85	AA	1449	C	C4'-C3'-C2'	-7.51	95.09	102.60
77	Br	333	GLN	CB-CG-CD	-7.51	99.84	112.60
84	By	23	ILE	N-CA-C	7.51	118.68	107.80
84	By	56	VAL	CA-C-N	7.51	135.88	121.54
84	By	56	VAL	C-N-CA	7.51	135.88	121.54
85	AA	424	A	C1'-O4'-C4'	-7.50	102.39	109.90
2	A1	233	PRO	N-CA-C	-7.50	105.08	114.68
35	BB	17	U	O5'-C5'-C4'	-7.50	100.45	111.70
35	BB	1458	U	C4'-C3'-C2'	-7.50	95.10	102.60
38	BE	207	G	P-O3'-C3'	7.50	131.46	120.20
44	BK	166	VAL	N-CA-C	7.50	118.67	108.17
79	Bt	100	GLY	N-CA-C	7.50	125.67	115.32
86	AB	15	G	O3'-P-O5'	7.50	115.25	104.00
48	BO	91	HIS	CA-CB-CG	-7.50	106.30	113.80
62	Bc	55	THR	N-CA-C	7.50	120.55	111.40
85	AA	42	G	C2'-C3'-O3'	7.50	120.75	109.50
34	BA	5	C	P-O5'-C5'	7.50	132.15	120.90
34	BA	813	C	P-O5'-C5'	7.50	132.15	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1293	C	P-O3'-C3'	-7.50	108.95	120.20
36	BC	166	G	P-O5'-C5'	-7.50	109.65	120.90
44	BK	119	TYR	CA-C-N	7.50	136.10	121.41
44	BK	119	TYR	C-N-CA	7.50	136.10	121.41
85	AA	155	U	C5'-C4'-C3'	-7.50	104.75	116.00
85	AA	1866	A	P-O5'-C5'	-7.50	109.66	120.90
35	BB	798	A	C4'-C3'-O3'	-7.50	101.76	113.00
21	AM	33	MET	CG-SD-CE	-7.49	84.42	100.90
35	BB	799	A	C1'-O4'-C4'	7.49	117.39	109.90
35	BB	845	C	C4'-C3'-O3'	7.49	124.24	113.00
66	Bg	63	ARG	N-CA-C	-7.49	103.19	111.36
34	BA	115	U	O5'-C5'-C4'	-7.49	100.46	111.70
34	BA	1542	A	C5'-C4'-C3'	7.49	127.24	116.00
35	BB	1322	A	P-O5'-C5'	-7.49	109.66	120.90
35	BB	1527	A	P-O5'-C5'	7.49	132.14	120.90
50	BQ	27	LEU	N-CA-C	-7.49	103.11	111.28
85	AA	587	G	P-O5'-C5'	-7.49	109.66	120.90
35	BB	807	U	P-O3'-C3'	-7.49	108.96	120.20
37	BD	3	G	P-O5'-C5'	-7.49	109.66	120.90
38	BE	106	C	P-O5'-C5'	-7.49	109.66	120.90
85	AA	711	C	P-O5'-C5'	-7.49	109.67	120.90
85	AA	1506	U	C2'-C3'-O3'	7.49	124.94	113.70
34	BA	574	U	C5'-C4'-C3'	7.49	127.23	116.00
34	BA	1461	A	C5'-C4'-C3'	-7.49	104.77	116.00
35	BB	433	C	C5'-C4'-C3'	7.49	127.23	116.00
35	BB	654	C	C4'-C3'-O3'	-7.49	101.77	113.00
85	AA	660	G	C4'-C3'-C2'	-7.49	95.11	102.60
85	AA	895	C	C5'-C4'-O4'	7.49	121.03	109.80
85	AA	1031	G	P-O5'-C5'	7.49	132.13	120.90
85	AA	1982	C	P-O5'-C5'	-7.49	109.67	120.90
34	BA	1189	A	C4'-C3'-C2'	-7.49	95.11	102.60
38	BE	131	C	P-O5'-C5'	7.49	132.13	120.90
62	Bc	100	PRO	CA-C-N	7.49	130.17	120.44
62	Bc	100	PRO	C-N-CA	7.49	130.17	120.44
2	A1	245	ASN	CA-C-N	7.49	131.09	120.53
2	A1	245	ASN	C-N-CA	7.49	131.09	120.53
70	Bk	88	ARG	N-CA-CB	-7.49	100.43	111.51
77	Br	215	GLY	CA-C-N	7.49	135.84	121.54
77	Br	215	GLY	C-N-CA	7.49	135.84	121.54
85	AA	2104	C	P-O3'-C3'	7.49	131.43	120.20
38	BE	108	U	O4'-C1'-N1	7.48	119.73	108.50
40	BG	98	A	C5'-C4'-O4'	7.48	121.03	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	383	C	P-O3'-C3'	-7.48	108.97	120.20
26	AS	51	VAL	CB-CA-C	-7.48	101.30	111.33
34	BA	820	C	P-O3'-C3'	-7.48	108.98	120.20
37	BD	32	A	O4'-C1'-C2'	7.48	113.28	105.80
82	Bw	111	PRO	N-CA-C	7.48	119.83	110.70
34	BA	575	U	O4'-C4'-C3'	-7.48	98.62	106.10
34	BA	699	G	C5'-C4'-C3'	-7.48	104.78	116.00
35	BB	1507	U	C5'-C4'-C3'	-7.48	104.78	116.00
38	BE	58	U	O3'-P-O5'	-7.48	92.78	104.00
39	BF	32	G	C5'-C4'-O4'	7.48	120.32	109.10
34	BA	520	G	P-O5'-C5'	7.48	132.12	120.90
40	BG	7	U	P-O3'-C3'	-7.48	108.98	120.20
47	BN	46	LEU	N-CA-CB	-7.48	98.69	110.28
15	AG	91	LEU	N-CA-CB	-7.48	99.23	110.07
34	BA	1547	G	C4'-C3'-O3'	-7.48	101.78	113.00
35	BB	799	A	C2'-C3'-O3'	7.48	124.92	113.70
85	AA	360	C	C5'-C4'-C3'	7.48	127.22	116.00
35	BB	1138	A	C5'-C4'-C3'	-7.48	104.79	116.00
85	AA	779	G	P-O3'-C3'	-7.48	108.99	120.20
37	BD	40	C	P-O5'-C5'	-7.47	109.69	120.90
38	BE	20	C	P-O5'-C5'	-7.47	109.69	120.90
2	A1	47	ASN	CA-CB-CG	-7.47	105.13	112.60
34	BA	288	U	P-O5'-C5'	-7.47	109.69	120.90
75	Bp	48	ALA	CA-C-N	7.47	135.81	121.54
75	Bp	48	ALA	C-N-CA	7.47	135.81	121.54
85	AA	1109	G	P-O3'-C3'	-7.47	108.99	120.20
34	BA	696	A	C5'-C4'-C3'	7.47	127.21	116.00
34	BA	609	G	P-O5'-C5'	7.47	132.10	120.90
34	BA	760	G	O3'-P-O5'	-7.47	92.80	104.00
38	BE	4	A	P-O5'-C5'	-7.47	109.70	120.90
85	AA	604	C	C4'-C3'-C2'	-7.47	95.13	102.60
5	A4	191	MET	N-CA-C	7.47	126.71	110.80
35	BB	1294	C	C4'-C3'-O3'	-7.47	101.80	113.00
85	AA	210	G	P-O3'-C3'	-7.47	109.00	120.20
85	AA	1246	G	P-O3'-C3'	7.47	131.40	120.20
2	A1	86	VAL	CA-C-O	7.47	129.40	120.66
25	AR	71	HIS	N-CA-C	7.47	119.06	111.07
34	BA	110	C	N1-C1'-C2'	-7.47	100.80	112.00
35	BB	710	A	P-O5'-C5'	-7.47	109.70	120.90
35	BB	879	G	O5'-C5'-C4'	7.47	122.70	111.50
35	BB	1032	U	O4'-C1'-C2'	-7.47	98.33	105.80
35	BB	1274	G	O4'-C1'-C2'	-7.47	98.33	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BH	19	G	C4'-C3'-C2'	7.46	110.06	102.60
85	AA	663	C	C5'-C4'-C3'	-7.46	104.80	116.00
34	BA	1794	A	O5'-C5'-C4'	7.46	122.69	111.50
39	BF	25	G	P-O5'-C5'	-7.46	109.71	120.90
41	BH	119	U	O5'-C5'-C4'	-7.46	100.31	111.50
34	BA	1324	G	O5'-C5'-C4'	-7.46	100.31	111.50
35	BB	680	A	C4'-C3'-C2'	7.46	110.06	102.60
35	BB	797	C	O4'-C4'-C3'	-7.46	96.54	104.00
35	BB	1290	C	O3'-P-O5'	7.46	115.19	104.00
34	BA	701	G	C1'-O4'-C4'	-7.46	102.44	109.90
62	Bc	25	ILE	O-C-N	-7.46	114.37	123.10
69	Bj	86	GLU	N-CA-C	7.46	119.41	111.28
85	AA	2019	G	C5'-C4'-C3'	-7.46	104.81	116.00
85	AA	2070	C	C4'-C3'-O3'	-7.46	101.81	113.00
85	AA	2206	A	P-O3'-C3'	-7.46	109.01	120.20
20	AL	48	ASN	CA-CB-CG	-7.46	105.14	112.60
35	BB	93	A	O5'-C5'-C4'	-7.46	100.32	111.50
36	BC	106	G	C5'-C4'-C3'	-7.45	104.82	116.00
38	BE	31	A	O3'-P-O5'	-7.45	92.82	104.00
85	AA	92	G	O3'-P-O5'	-7.45	92.82	104.00
34	BA	1458	A	C5'-C4'-C3'	7.45	127.18	116.00
35	BB	16	G	C5'-C4'-C3'	7.45	127.18	116.00
36	BC	105	C	C5'-C4'-C3'	-7.45	104.03	115.20
59	BZ	106	LEU	N-CA-C	7.45	121.58	109.59
85	AA	2077	G	O3'-P-O5'	7.45	115.18	104.00
34	BA	1499	A	O5'-C5'-C4'	-7.45	100.33	111.50
39	BF	8	C	C1'-O4'-C4'	-7.45	102.25	109.70
2	A1	85	ASP	CA-CB-CG	-7.45	105.16	112.60
34	BA	466	G	O5'-C5'-C4'	7.45	122.87	111.70
34	BA	1620	U	C4'-C3'-C2'	-7.45	95.16	102.60
85	AA	1971	G	C5'-C4'-C3'	-7.45	104.83	116.00
15	AG	67	THR	N-CA-C	-7.44	97.74	109.50
34	BA	702	G	N9-C1'-C2'	-7.44	100.83	112.00
75	Bp	41	HIS	N-CA-C	7.44	119.01	108.74
34	BA	634	U	P-O5'-C5'	7.44	132.06	120.90
34	BA	674	G	C5'-C4'-O4'	7.44	120.96	109.80
35	BB	477	U	C2'-C3'-O3'	7.44	120.66	109.50
38	BE	141	A	O5'-C5'-C4'	-7.44	100.54	111.70
41	BH	28	U	P-O5'-C5'	7.44	132.06	120.90
85	AA	1198	U	C4'-C3'-O3'	-7.44	101.84	113.00
34	BA	1315	C	C5'-C4'-C3'	-7.44	104.84	116.00
34	BA	1434	U	C4'-C3'-C2'	-7.44	95.16	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BC	141	C	O3'-P-O5'	-7.44	92.84	104.00
38	BE	178	G	P-O3'-C3'	-7.44	109.04	120.20
85	AA	2112	G	C5'-C4'-C3'	-7.44	104.84	116.00
40	BG	36	G	P-O5'-C5'	-7.44	109.74	120.90
1	A0	102	PHE	N-CA-CB	-7.44	97.86	109.69
34	BA	1222	C	C5'-C4'-C3'	-7.44	104.84	116.00
41	BH	41	A	C3'-C2'-C1'	-7.44	94.06	101.50
85	AA	760	U	C3'-C2'-C1'	-7.44	94.06	101.50
34	BA	246	G	C4'-C3'-O3'	-7.44	101.85	113.00
34	BA	1693	U	P-O3'-C3'	7.44	131.35	120.20
36	BC	113	G	C4'-C3'-O3'	-7.44	101.85	113.00
85	AA	57	G	C4'-C3'-C2'	-7.44	95.16	102.60
34	BA	741	A	C1'-O4'-C4'	-7.43	102.47	109.90
34	BA	1491	U	P-O5'-C5'	-7.43	109.75	120.90
34	BA	1809	G	C3'-C2'-C1'	-7.43	93.87	101.30
35	BB	147	C	C2'-C3'-O3'	7.43	120.65	109.50
63	Bd	45	ARG	CA-C-O	7.43	128.43	120.55
85	AA	1329	U	P-O3'-C3'	7.43	131.35	120.20
85	AA	1812	C	O5'-C5'-C4'	-7.43	100.35	111.50
34	BA	1794	A	C5'-C4'-C3'	7.43	127.15	116.00
85	AA	168	A	O5'-C5'-C4'	-7.43	100.35	111.50
85	AA	645	C	C4'-C3'-C2'	7.43	110.03	102.60
21	AM	61	SER	CA-C-N	7.43	127.30	119.05
21	AM	61	SER	C-N-CA	7.43	127.30	119.05
34	BA	1411	C	P-O3'-C3'	-7.43	109.06	120.20
34	BA	1841	A	O3'-P-O5'	7.43	115.14	104.00
85	AA	571	G	C5'-C4'-C3'	7.43	127.14	116.00
85	AA	1535	C	O4'-C1'-N1	7.43	119.34	108.20
1	A0	42	GLN	CB-CG-CD	7.43	125.22	112.60
34	BA	483	A	C1'-O4'-C4'	7.43	117.33	109.90
35	BB	741	A	C5'-C4'-C3'	-7.43	104.86	116.00
40	BG	43	U	C5'-C4'-C3'	7.43	127.14	116.00
80	Bu	66	HIS	CB-CA-C	-7.43	96.87	109.72
85	AA	351	C	C5'-C4'-C3'	-7.43	104.86	116.00
22	AO	109	THR	N-CA-C	7.42	121.00	110.23
31	AX	195	GLU	N-CA-C	-7.42	103.27	111.36
34	BA	1411	C	P-O5'-C5'	7.42	132.04	120.90
36	BC	98	C	O3'-P-O5'	-7.42	92.86	104.00
47	BN	65	CYS	CA-C-N	7.42	129.12	119.84
47	BN	65	CYS	C-N-CA	7.42	129.12	119.84
85	AA	1231	G	P-O3'-C3'	7.42	131.34	120.20
35	BB	879	G	O4'-C4'-C3'	-7.42	96.58	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BG	44	G	O3'-P-O5'	7.42	115.13	104.00
48	BO	156	VAL	N-CA-C	7.42	120.47	108.97
86	AB	17	C	C5'-C4'-C3'	-7.42	104.06	115.20
4	A3	102	GLY	CA-C-N	7.42	135.10	122.26
4	A3	102	GLY	C-N-CA	7.42	135.10	122.26
34	BA	302	A	C2'-C3'-O3'	7.42	120.63	109.50
49	BP	61	PHE	N-CA-C	-7.42	96.17	108.34
53	BT	63	TRP	CA-CB-CG	7.42	127.70	113.60
5	A4	111	VAL	N-CA-C	7.42	124.77	109.34
34	BA	745	A	C5'-C4'-C3'	-7.42	104.87	116.00
35	BB	363	A	P-O5'-C5'	7.42	132.03	120.90
38	BE	73	A	C5'-C4'-C3'	7.42	127.13	116.00
42	BI	19	THR	CA-C-N	7.42	135.71	121.54
42	BI	19	THR	C-N-CA	7.42	135.71	121.54
85	AA	919	U	P-O3'-C3'	-7.42	109.07	120.20
69	Bj	54	LEU	N-CA-C	7.42	119.39	110.19
85	AA	1536	C	P-O5'-C5'	-7.42	109.78	120.90
34	BA	896	U	C2-N1-C1'	7.42	139.95	117.70
85	AA	1991	C	N1-C1'-C2'	7.42	123.12	112.00
35	BB	1454	G	C4'-C3'-C2'	-7.41	95.19	102.60
35	BB	1295	A	P-O3'-C3'	-7.41	109.08	120.20
85	AA	1752	C	O5'-C5'-C4'	-7.41	100.58	111.70
7	A6	149	VAL	N-CA-C	7.41	124.75	109.34
21	AM	119	ARG	N-CA-C	7.41	126.58	110.80
34	BA	840	U	C1'-O4'-C4'	-7.41	102.49	109.90
34	BA	1054	U	C4'-C3'-O3'	-7.41	101.88	113.00
35	BB	995	C	O3'-P-O5'	7.41	115.12	104.00
38	BE	142	A	C2'-C3'-O3'	7.41	120.62	109.50
47	BN	142	ASP	CA-CB-CG	-7.41	105.19	112.60
49	BP	145	LYS	CA-C-N	7.41	130.21	120.28
49	BP	145	LYS	C-N-CA	7.41	130.21	120.28
56	BW	87	TRP	N-CA-CB	7.41	123.69	111.31
69	Bj	103	ILE	CB-CA-C	7.41	122.14	112.14
85	AA	2154	C	P-O5'-C5'	-7.41	109.78	120.90
34	BA	103	G	P-O5'-C5'	-7.41	109.79	120.90
34	BA	114	U	P-O5'-C5'	-7.41	109.79	120.90
34	BA	994	G	C5'-C4'-C3'	-7.41	104.89	116.00
36	BC	148	C	O5'-C5'-C4'	-7.41	100.39	111.50
82	Bw	180	ASP	CA-C-O	7.41	129.29	120.99
34	BA	237	A	C1'-O4'-C4'	-7.41	102.49	109.90
6	A5	157	LYS	N-CA-C	-7.41	104.49	113.97
34	BA	310	C	C5'-C4'-C3'	-7.41	104.89	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	447	U	O5'-C5'-C4'	-7.41	100.39	111.50
34	BA	1456	C	O3'-P-O5'	7.41	115.11	104.00
35	BB	411	A	P-O3'-C3'	-7.41	109.09	120.20
34	BA	1793	G	C2'-C3'-O3'	7.40	120.61	109.50
71	Bl	114	ARG	CA-C-N	7.40	127.36	120.03
71	Bl	114	ARG	C-N-CA	7.40	127.36	120.03
7	A6	158	ALA	N-CA-C	-7.40	96.49	108.41
40	BG	20	U	C4'-C3'-O3'	-7.40	101.89	113.00
81	Bv	178	VAL	N-CA-C	-7.40	97.50	108.45
82	Bw	209	HIS	CA-C-N	7.40	131.08	120.79
82	Bw	209	HIS	C-N-CA	7.40	131.08	120.79
34	BA	1282	G	C5'-C4'-C3'	-7.40	104.90	116.00
35	BB	1000	U	P-O5'-C5'	-7.40	109.80	120.90
85	AA	267	U	C2-N1-C1'	-7.40	95.50	117.70
85	AA	504	U	C4'-C3'-O3'	-7.40	98.30	109.40
85	AA	763	U	C1'-O4'-C4'	-7.40	102.50	109.90
34	BA	527	C	P-O3'-C3'	-7.40	109.10	120.20
35	BB	1467	A	C5'-C4'-C3'	7.40	127.09	116.00
36	BC	38	U	O4'-C1'-C2'	-7.40	98.40	105.80
41	BH	26	C	C5'-C4'-C3'	7.40	126.30	115.20
73	Bn	28	HIS	N-CA-CB	7.40	122.99	110.49
85	AA	476	C	C1'-O4'-C4'	-7.40	102.50	109.90
34	BA	570	G	O4'-C1'-N9	7.40	119.59	108.50
67	Bh	1	MET	CG-SD-CE	-7.39	84.63	100.90
34	BA	430	A	O3'-P-O5'	-7.39	92.91	104.00
36	BC	31	A	C3'-C2'-C1'	-7.39	93.91	101.30
34	BA	435	U	C5'-C4'-C3'	7.39	127.09	116.00
34	BA	1477	C	N1-C1'-C2'	-7.39	100.92	112.00
34	BA	1504	A	P-O5'-C5'	7.39	131.99	120.90
65	Bf	410	GLU	CA-C-N	7.39	137.55	122.55
65	Bf	410	GLU	C-N-CA	7.39	137.55	122.55
85	AA	306	C	O3'-P-O5'	7.39	115.08	104.00
85	AA	2060	G	C4'-C3'-O3'	-7.39	101.92	113.00
63	Bd	20	GLY	CA-C-N	7.39	135.27	121.97
63	Bd	20	GLY	C-N-CA	7.39	135.27	121.97
71	Bl	141	ARG	CG-CD-NE	-7.39	95.75	112.00
85	AA	866	U	C4'-C3'-C2'	7.39	109.99	102.60
5	A4	190	PHE	N-CA-C	7.39	120.96	109.07
34	BA	231	U	P-O5'-C5'	7.39	131.98	120.90
34	BA	1694	C	C4'-C3'-O3'	-7.39	101.92	113.00
35	BB	676	G	O3'-P-O5'	7.39	115.08	104.00
85	AA	66	U	P-O3'-C3'	7.39	131.28	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	217	C	O5'-C5'-C4'	-7.38	100.62	111.70
34	BA	930	A	C5'-C4'-C3'	-7.38	104.92	116.00
34	BA	1458	A	O5'-C5'-C4'	7.38	122.58	111.50
34	BA	1615	A	C4'-C3'-C2'	-7.38	95.22	102.60
40	BG	59	G	C4'-C3'-C2'	-7.38	95.22	102.60
34	BA	286	C	C5'-C4'-C3'	7.38	127.07	116.00
38	BE	17	U	C5'-C4'-C3'	-7.38	104.93	116.00
85	AA	164	G	C5'-C4'-C3'	-7.38	104.93	116.00
85	AA	1612	C	P-O5'-C5'	-7.38	109.83	120.90
35	BB	76	C	P-O5'-C5'	7.38	131.97	120.90
35	BB	1385	C	P-O3'-C3'	7.38	131.27	120.20
45	BL	96	PHE	CA-CB-CG	-7.38	106.42	113.80
57	BX	138	PRO	CA-C-N	7.38	130.49	120.38
57	BX	138	PRO	C-N-CA	7.38	130.49	120.38
85	AA	2039	G	P-O3'-C3'	-7.38	109.13	120.20
23	AP	55	ASP	CB-CA-C	-7.38	102.15	111.22
34	BA	257	G	C4'-C3'-O3'	-7.38	101.94	113.00
34	BA	517	A	C1'-O4'-C4'	-7.38	102.52	109.90
34	BA	684	G	C4'-C3'-C2'	-7.38	95.22	102.60
34	BA	1477	C	O4'-C1'-N1	7.38	119.56	108.50
35	BB	778	A	O5'-C5'-C4'	-7.38	100.44	111.50
35	BB	996	G	N9-C1'-C2'	-7.38	100.94	112.00
3	A2	31	THR	CA-C-N	7.37	127.42	119.90
3	A2	31	THR	C-N-CA	7.37	127.42	119.90
35	BB	1200	A	O3'-P-O5'	7.37	115.06	104.00
34	BA	455	A	P-O5'-C5'	-7.37	109.84	120.90
47	BN	173	ALA	N-CA-C	7.37	121.28	108.75
75	Bp	70	THR	CA-C-N	7.37	135.62	121.54
75	Bp	70	THR	C-N-CA	7.37	135.62	121.54
81	Bv	175	LEU	N-CA-CB	-7.37	98.39	110.40
85	AA	1206	A	C4'-C3'-O3'	-7.37	101.94	113.00
16	AH	62	SER	CA-C-N	7.37	131.87	120.60
16	AH	62	SER	C-N-CA	7.37	131.87	120.60
34	BA	1257	U	P-O3'-C3'	7.37	131.25	120.20
34	BA	1433	U	P-O5'-C5'	-7.37	109.85	120.90
35	BB	831	C	C5'-C4'-O4'	7.37	120.85	109.80
38	BE	27	A	P-O5'-C5'	-7.37	109.85	120.90
53	BT	136	ARG	N-CA-CB	-7.37	99.29	110.12
85	AA	907	G	C1'-O4'-C4'	-7.37	102.33	109.70
85	AA	1362	A	O5'-C5'-C4'	7.37	122.55	111.50
34	BA	594	G	O4'-C1'-C2'	-7.37	100.23	107.60
35	BB	877	A	O4'-C4'-C3'	-7.37	96.63	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	Bw	146	GLU	O-C-N	-7.37	113.41	120.70
35	BB	37	C	O3'-P-O5'	7.37	115.05	104.00
36	BC	104	A	C2'-C3'-O3'	7.37	120.55	109.50
38	BE	91	G	O5'-C5'-C4'	-7.37	100.65	111.70
40	BG	138	C	C4'-C3'-C2'	-7.37	95.23	102.60
34	BA	1821	A	C4'-C3'-C2'	-7.36	95.24	102.60
35	BB	1211	C	C4'-C3'-O3'	-7.36	101.95	113.00
36	BC	94	C	C3'-C2'-C1'	-7.36	94.14	101.50
72	Bm	26	THR	CA-C-N	7.36	135.60	121.54
72	Bm	26	THR	C-N-CA	7.36	135.60	121.54
85	AA	455	G	C4'-C3'-O3'	-7.36	101.95	113.00
85	AA	108	C	O4'-C1'-N1	7.36	119.54	108.50
3	A2	182	VAL	N-CA-C	7.36	118.13	110.62
6	A5	52	ASN	CA-CB-CG	-7.36	105.24	112.60
34	BA	610	A	P-O3'-C3'	-7.36	109.16	120.20
35	BB	1404	A	C5'-C4'-O4'	7.36	120.84	109.80
35	BB	1519	U	P-O3'-C3'	-7.36	109.16	120.20
40	BG	175	G	O3'-P-O5'	7.36	115.04	104.00
51	BR	141	ARG	N-CA-C	7.36	121.53	109.24
56	BW	58	ASP	CB-CA-C	7.36	122.09	109.51
68	Bi	48	LYS	N-CA-C	7.36	119.09	111.14
85	AA	1248	U	C4'-C3'-C2'	7.36	109.96	102.60
35	BB	1032	U	C4'-C3'-C2'	-7.36	95.24	102.60
85	AA	1168	C	C4'-C3'-C2'	7.36	109.96	102.60
34	BA	871	G	O4'-C1'-N9	7.36	119.54	108.50
36	BC	88	A	C4'-C3'-O3'	-7.36	101.97	113.00
42	BI	142	ASN	CA-CB-CG	-7.36	105.24	112.60
72	Bm	20	ASN	N-CA-C	-7.36	98.13	109.24
85	AA	726	U	C5'-C4'-C3'	-7.36	104.96	116.00
35	BB	871	C	C3'-C2'-C1'	-7.36	93.94	101.30
35	BB	1336	G	O3'-P-O5'	-7.36	92.97	104.00
59	BZ	17	PHE	CA-CB-CG	-7.36	106.44	113.80
72	Bm	104	GLN	CB-CG-CD	-7.36	100.09	112.60
34	BA	164	C	C1'-O4'-C4'	-7.35	102.55	109.90
34	BA	1262	A	O5'-C5'-C4'	-7.35	100.47	111.50
41	BH	109	G	C5'-C4'-C3'	-7.35	104.97	116.00
85	AA	850	U	P-O3'-C3'	-7.35	109.17	120.20
85	AA	1232	U	P-O5'-C5'	7.35	131.93	120.90
85	AA	2020	C	C4'-C3'-O3'	-7.35	101.97	113.00
35	BB	858	U	P-O5'-C5'	7.35	131.93	120.90
52	BS	135	GLU	O-C-N	-7.35	114.55	123.30
70	Bk	108	THR	CA-C-N	7.35	130.45	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	Bk	108	THR	C-N-CA	7.35	130.45	120.38
73	Bn	68	LYS	N-CA-CB	-7.35	97.80	109.78
34	BA	1003	A	O4'-C1'-C2'	7.35	114.95	107.60
56	BW	106	ASN	CB-CA-C	7.35	120.98	109.96
85	AA	132	G	C4'-C3'-O3'	-7.35	101.98	113.00
85	AA	1185	G	O5'-C5'-C4'	7.35	122.52	111.50
34	BA	1564	A	P-O5'-C5'	-7.35	109.88	120.90
35	BB	1218	G	O4'-C4'-C3'	-7.35	96.65	104.00
59	BZ	42	VAL	N-CA-C	-7.35	98.07	108.80
85	AA	655	U	P-O3'-C3'	-7.35	109.18	120.20
34	BA	1127	U	P-O5'-C5'	7.35	131.92	120.90
35	BB	638	G	O5'-C5'-C4'	-7.35	100.48	111.50
62	Bc	53	ILE	CA-C-N	7.35	134.41	122.29
62	Bc	53	ILE	C-N-CA	7.35	134.41	122.29
25	AR	68	GLU	N-CA-C	-7.34	103.41	112.88
34	BA	487	A	P-O5'-C5'	7.34	131.91	120.90
34	BA	667	U	P-O3'-C3'	7.34	131.22	120.20
34	BA	793	A	C5'-C4'-C3'	-7.34	104.98	116.00
34	BA	1222	C	C4'-C3'-O3'	-7.34	101.98	113.00
34	BA	1277	G	C5'-C4'-C3'	-7.34	104.98	116.00
35	BB	825	U	C4'-C3'-O3'	-7.34	101.98	113.00
35	BB	1428	C	C4'-C3'-O3'	-7.34	101.98	113.00
40	BG	128	U	C3'-C2'-C1'	-7.34	94.16	101.50
85	AA	130	G	C4'-C3'-C2'	-7.34	95.26	102.60
67	Bh	171	SER	N-CA-C	7.34	121.10	109.50
85	AA	2152	C	C5'-C4'-C3'	-7.34	104.98	116.00
1	A0	60	PHE	CA-CB-CG	-7.34	106.46	113.80
7	A6	159	ASP	N-CA-C	-7.34	103.36	111.36
34	BA	867	C	C3'-C2'-O2'	7.34	121.71	110.70
62	Bc	94	ALA	N-CA-C	7.34	119.92	111.11
85	AA	923	A	C1'-O4'-C4'	-7.34	102.56	109.90
85	AA	1004	G	P-O3'-C3'	-7.34	109.19	120.20
85	AA	1151	G	C5'-C4'-C3'	7.34	127.01	116.00
85	AA	1860	A	P-O5'-C5'	7.34	131.91	120.90
35	BB	119	G	C4'-C3'-C2'	7.34	109.94	102.60
37	BD	78	C	P-O5'-C5'	-7.34	109.89	120.90
85	AA	1177	G	P-O3'-C3'	7.34	131.21	120.20
85	AA	2176	U	C4'-C3'-C2'	7.34	109.94	102.60
34	BA	1200	U	O4'-C1'-N1	7.34	119.51	108.50
36	BC	114	C	C4'-C3'-O3'	-7.34	101.99	113.00
84	By	141	GLU	N-CA-C	7.34	120.86	108.90
85	AA	768	C	C5'-C4'-C3'	-7.34	104.99	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	771	A	C2'-C3'-O3'	7.34	120.50	109.50
34	BA	1260	G	C3'-C2'-C1'	-7.34	93.96	101.30
35	BB	705	C	P-O3'-C3'	-7.34	109.19	120.20
39	BF	12	U	P-O5'-C5'	-7.34	109.90	120.90
85	AA	1009	G	P-O3'-C3'	7.34	131.21	120.20
85	AA	1457	C	O4'-C1'-C2'	-7.34	100.26	107.60
34	BA	1123	G	P-O5'-C5'	7.33	131.90	120.90
34	BA	1493	U	O4'-C1'-N1	7.33	119.20	108.20
34	BA	838	U	O5'-C5'-C4'	-7.33	100.50	111.50
34	BA	1295	U	O4'-C1'-C2'	7.33	113.13	105.80
51	BR	63	TYR	CA-CB-CG	-7.33	100.70	113.90
65	Bf	338	ILE	CB-CA-C	-7.33	103.36	111.35
85	AA	1371	C	P-O5'-C5'	7.33	131.90	120.90
20	AL	82	MET	CA-C-N	7.33	135.54	121.54
20	AL	82	MET	C-N-CA	7.33	135.54	121.54
38	BE	89	G	C5'-C4'-C3'	7.33	127.00	116.00
54	BU	132	THR	CA-C-N	7.33	135.04	121.62
54	BU	132	THR	C-N-CA	7.33	135.04	121.62
57	BX	101	ASN	CB-CA-C	7.33	122.75	109.99
65	Bf	160	HIS	N-CA-C	-7.33	96.21	108.75
77	Br	259	ASP	CA-CB-CG	-7.33	105.27	112.60
85	AA	670	C	P-O3'-C3'	-7.33	109.20	120.20
16	AH	61	GLU	N-CA-C	7.33	126.41	110.80
40	BG	14	G	C4'-C3'-C2'	-7.33	95.27	102.60
77	Br	216	THR	N-CA-CB	7.33	122.88	110.49
85	AA	1955	U	C5'-C4'-C3'	-7.33	105.00	116.00
34	BA	363	G	P-O5'-C5'	-7.33	109.91	120.90
34	BA	1518	A	N9-C1'-C2'	-7.33	101.01	112.00
48	BO	52	THR	N-CA-C	7.33	121.66	108.69
52	BS	73	ALA	N-CA-C	7.33	121.13	110.28
73	Bn	16	HIS	CA-CB-CG	7.33	121.13	113.80
85	AA	662	U	N1-C1'-C2'	-7.33	101.01	112.00
34	BA	201	A	C4'-C3'-C2'	7.33	109.93	102.60
34	BA	290	G	O5'-C5'-C4'	-7.33	100.51	111.50
34	BA	1505	G	P-O5'-C5'	-7.33	109.91	120.90
36	BC	81	U	O5'-C5'-C4'	-7.33	100.51	111.50
37	BD	14	C	C4'-C3'-C2'	7.33	109.93	102.60
16	AH	13	SER	O-C-N	-7.33	112.85	122.59
34	BA	900	A	P-O5'-C5'	-7.33	109.91	120.90
35	BB	817	C	C5'-C4'-O4'	7.33	120.79	109.80
35	BB	1346	A	P-O5'-C5'	7.33	131.89	120.90
45	BL	75	HIS	N-CA-C	-7.33	97.58	108.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	BT	117	ARG	N-CA-C	7.33	119.27	111.28
85	AA	1103	A	P-O5'-C5'	7.33	131.89	120.90
85	AA	1136	A	C5'-C4'-C3'	7.33	126.99	116.00
35	BB	1433	U	O5'-C5'-C4'	-7.32	100.51	111.50
62	Bc	93	ARG	N-CA-C	7.32	119.05	111.14
82	Bw	70	TYR	CA-CB-CG	-7.32	100.72	113.90
34	BA	140	C	O5'-C5'-C4'	7.32	122.48	111.50
85	AA	1735	U	P-O3'-C3'	7.32	131.18	120.20
34	BA	44	U	C4'-C3'-O3'	-7.32	102.02	113.00
34	BA	111	U	C1'-O4'-C4'	-7.32	102.38	109.70
34	BA	583	G	C5'-C4'-C3'	-7.32	105.02	116.00
35	BB	802	G	O4'-C1'-N9	7.32	119.48	108.50
35	BB	823	G	C4'-C3'-C2'	-7.32	95.28	102.60
36	BC	75	G	P-O5'-C5'	7.32	131.88	120.90
34	BA	297	A	C5'-C4'-C3'	-7.32	105.02	116.00
39	BF	11	C	C4'-C3'-O3'	7.32	120.38	109.40
41	BH	1	U	P-O3'-C3'	-7.32	109.22	120.20
85	AA	1855	U	C2'-C3'-O3'	7.32	124.68	113.70
52	BS	38	VAL	CB-CA-C	-7.32	102.12	112.22
69	Bj	66	ARG	CA-C-O	7.32	128.34	119.49
80	Bu	193	SER	CA-C-N	7.32	135.52	121.54
80	Bu	193	SER	C-N-CA	7.32	135.52	121.54
85	AA	249	C	C5'-C4'-C3'	-7.32	105.03	116.00
57	BX	68	PRO	CA-C-N	7.31	135.51	121.54
57	BX	68	PRO	C-N-CA	7.31	135.51	121.54
35	BB	1331	U	C5'-C4'-C3'	-7.31	104.23	115.20
52	BS	54	LYS	N-CA-C	7.31	120.99	110.24
85	AA	873	U	O3'-P-O5'	7.31	114.97	104.00
85	AA	1464	G	C3'-C2'-C1'	-7.31	93.99	101.30
21	AM	78	PHE	CA-CB-CG	-7.31	106.49	113.80
35	BB	416	U	C4'-C3'-O3'	-7.31	102.03	113.00
64	Be	132	ASP	N-CA-C	7.31	120.79	109.60
74	Bo	58	ASP	N-CA-C	-7.31	98.14	109.76
84	By	10	THR	N-CA-C	7.31	121.34	110.52
3	A2	54	ILE	N-CA-CB	-7.31	99.17	111.23
31	AX	63	ARG	CA-C-N	7.31	135.50	121.54
31	AX	63	ARG	C-N-CA	7.31	135.50	121.54
34	BA	1058	C	C4'-C3'-C2'	7.31	109.91	102.60
35	BB	1313	C	O5'-C5'-C4'	7.31	122.46	111.50
77	Br	277	LEU	N-CA-CB	7.31	121.57	110.02
85	AA	117	C	C1'-O4'-C4'	-7.31	102.59	109.90
85	AA	2054	G	C4'-C3'-O3'	-7.31	102.04	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BE	49	A	P-O5'-C5'	-7.31	109.94	120.90
74	Bo	14	TYR	CA-CB-CG	-7.31	100.75	113.90
78	Bs	41	HIS	CA-CB-CG	-7.31	106.49	113.80
85	AA	1260	G	P-O3'-C3'	-7.31	109.24	120.20
85	AA	1447	U	C4'-C3'-C2'	-7.31	95.29	102.60
2	A1	110	ARG	CB-CA-C	-7.30	97.16	109.65
36	BC	6	G	C4'-C3'-O3'	-7.30	102.04	113.00
38	BE	190	U	C4'-C3'-C2'	7.30	109.91	102.60
85	AA	577	U	P-O5'-C5'	7.30	131.86	120.90
85	AA	1540	A	O3'-P-O5'	-7.30	93.04	104.00
34	BA	1647	G	O5'-C5'-C4'	-7.30	100.75	111.70
35	BB	539	G	N9-C1'-C2'	-7.30	103.05	114.00
42	BI	11	LYS	CA-C-N	7.30	135.49	121.54
42	BI	11	LYS	C-N-CA	7.30	135.49	121.54
18	AJ	75	ILE	N-CA-C	7.30	117.98	106.88
34	BA	790	G	P-O5'-C5'	-7.30	109.95	120.90
35	BB	427	U	C1'-O4'-C4'	-7.30	102.40	109.70
40	BG	164	U	P-O5'-C5'	7.30	131.85	120.90
82	Bw	26	SER	CA-C-N	7.30	134.28	121.80
82	Bw	26	SER	C-N-CA	7.30	134.28	121.80
85	AA	840	A	P-O3'-C3'	-7.30	109.25	120.20
85	AA	2089	G	O3'-P-O5'	7.30	114.95	104.00
34	BA	1105	A	O3'-P-O5'	-7.30	93.05	104.00
34	BA	1318	G	O4'-C1'-N9	7.30	119.45	108.50
34	BA	1527	G	P-O5'-C5'	-7.30	109.95	120.90
70	Bk	76	ASP	CA-CB-CG	-7.30	105.30	112.60
70	Bk	57	ARG	O-C-N	-7.30	114.38	122.12
85	AA	278	C	C4'-C3'-C2'	-7.30	95.30	102.60
19	AK	71	VAL	N-CA-CB	7.30	121.74	111.82
34	BA	465	A	P-O5'-C5'	-7.30	109.95	120.90
34	BA	1147	C	C4'-C3'-O3'	-7.30	102.06	113.00
35	BB	88	U	O3'-P-O5'	7.30	114.94	104.00
85	AA	1437	G	C5'-C4'-C3'	7.30	126.94	116.00
5	A4	67	LEU	CB-CA-C	7.29	122.96	109.54
34	BA	578	C	C3'-C2'-C1'	7.29	108.59	101.30
37	BD	71	G	C1'-O4'-C4'	-7.29	102.61	109.90
40	BG	35	G	P-O3'-C3'	-7.29	109.26	120.20
52	BS	128	VAL	O-C-N	-7.29	115.59	123.18
77	Br	265	PHE	CA-CB-CG	-7.29	106.51	113.80
85	AA	1427	A	C5'-C4'-C3'	7.29	126.94	116.00
85	AA	90	A	O4'-C1'-C2'	-7.29	98.51	105.80
85	AA	156	G	C5'-C4'-C3'	-7.29	105.06	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	Bd	61	GLU	CG-CD-OE1	-7.29	101.63	118.40
65	Bf	264	VAL	N-CA-C	-7.29	106.03	113.10
24	AQ	65	THR	N-CA-CB	-7.29	97.39	110.37
34	BA	291	C	P-O5'-C5'	-7.29	109.97	120.90
35	BB	1304	U	C5'-C4'-C3'	-7.29	105.07	116.00
34	BA	349	G	C5'-C4'-C3'	7.29	126.93	116.00
34	BA	847	U	O4'-C1'-N1	7.29	119.43	108.50
85	AA	260	A	C4'-C3'-C2'	-7.29	95.31	102.60
85	AA	463	G	C5'-C4'-C3'	-7.29	105.07	116.00
3	A2	76	VAL	CB-CA-C	7.28	121.97	112.14
34	BA	610	A	O3'-P-O5'	-7.28	93.08	104.00
34	BA	616	G	O3'-P-O5'	7.28	114.93	104.00
77	Br	181	ARG	N-CA-C	-7.28	103.28	111.14
27	AT	79	PHE	CA-C-N	7.28	127.22	121.61
27	AT	79	PHE	C-N-CA	7.28	127.22	121.61
34	BA	232	U	P-O3'-C3'	-7.28	109.28	120.20
41	BH	117	U	O3'-P-O5'	7.28	114.92	104.00
73	Bn	34	CYS	N-CA-C	-7.28	97.39	108.96
85	AA	2121	G	O3'-P-O5'	7.28	114.92	104.00
34	BA	888	G	O5'-C5'-C4'	-7.28	100.58	111.50
35	BB	1441	C	C3'-C2'-C1'	-7.28	94.22	101.50
83	Bx	236	LEU	N-CA-C	7.28	118.91	110.97
85	AA	509	C	C4'-C3'-C2'	7.28	109.88	102.60
85	AA	928	U	C5'-C4'-C3'	7.28	126.92	116.00
85	AA	1892	G	C4'-C3'-O3'	-7.28	102.08	113.00
34	BA	6	C	O5'-C5'-C4'	-7.28	100.58	111.50
35	BB	656	A	P-O3'-C3'	-7.28	109.28	120.20
65	Bf	165	PHE	N-CA-C	-7.28	102.74	111.69
85	AA	1241	A	C4'-C3'-C2'	-7.28	95.32	102.60
34	BA	816	G	C5'-C4'-C3'	7.28	126.91	116.00
34	BA	1658	G	P-O3'-C3'	-7.28	109.29	120.20
57	BX	125	TYR	CA-CB-CG	-7.28	100.81	113.90
85	AA	2245	A	P-O5'-C5'	7.27	131.81	120.90
16	AH	35	VAL	CA-C-O	-7.27	112.48	120.48
19	AK	42	ILE	N-CA-C	7.27	120.14	111.05
40	BG	25	G	O4'-C1'-N9	7.27	119.41	108.50
85	AA	119	G	C5'-C4'-C3'	7.27	126.91	116.00
85	AA	465	A	P-O3'-C3'	7.27	131.11	120.20
2	A1	129	GLY	N-CA-C	-7.27	100.52	111.14
34	BA	1004	U	C5'-C4'-C3'	7.27	126.91	116.00
36	BC	108	A	C5'-C4'-C3'	-7.27	105.09	116.00
85	AA	374	C	C1'-O4'-C4'	-7.27	102.63	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1295	G	O3'-P-O5'	7.27	114.91	104.00
34	BA	652	C	C5'-C4'-C3'	-7.27	105.10	116.00
63	Bd	48	ARG	CA-C-O	7.27	128.17	119.59
86	AB	2	C	P-O5'-C5'	7.27	131.80	120.90
8	A7	271	ILE	N-CA-C	-7.27	106.13	113.47
35	BB	888	U	P-O5'-C5'	7.27	131.80	120.90
47	BN	191	LYS	N-CA-C	-7.27	104.22	113.23
66	Bg	37	GLY	CA-C-N	7.27	129.89	120.44
66	Bg	37	GLY	C-N-CA	7.27	129.89	120.44
72	Bm	85	LEU	N-CA-C	-7.27	104.44	113.38
85	AA	508	C	O3'-P-O5'	-7.27	93.10	104.00
85	AA	1482	C	P-O3'-C3'	-7.27	109.30	120.20
6	A5	39	GLY	O-C-N	-7.27	114.50	121.77
34	BA	27	G	P-O3'-C3'	-7.27	109.30	120.20
34	BA	1181	G	C4'-C3'-C2'	7.27	109.87	102.60
85	AA	504	U	C2'-C3'-O3'	7.27	120.40	109.50
85	AA	2200	A	P-O5'-C5'	-7.27	110.00	120.90
4	A3	152	ARG	CA-C-N	7.26	135.41	121.54
4	A3	152	ARG	C-N-CA	7.26	135.41	121.54
34	BA	548	G	C5'-C4'-O4'	-7.26	98.90	109.80
35	BB	14	C	P-O3'-C3'	-7.26	109.30	120.20
37	BD	73	U	C2'-C3'-O3'	7.26	124.60	113.70
85	AA	620	U	P-O5'-C5'	-7.26	110.00	120.90
16	AH	36	HIS	CA-CB-CG	-7.26	106.54	113.80
34	BA	113	G	C4'-C3'-O3'	7.26	123.89	113.00
40	BG	43	U	O3'-P-O5'	7.26	114.89	104.00
85	AA	303	A	O4'-C4'-C3'	-7.26	96.74	104.00
85	AA	2216	A	O3'-P-O5'	7.26	114.89	104.00
34	BA	530	A	P-O3'-C3'	7.26	131.09	120.20
34	BA	1307	U	C2'-C3'-O3'	7.26	120.39	109.50
35	BB	381	C	C5'-C4'-C3'	7.26	126.09	115.20
35	BB	545	C	N1-C1'-C2'	7.26	122.89	112.00
85	AA	541	A	C1'-O4'-C4'	-7.26	102.64	109.90
34	BA	186	G	P-O3'-C3'	-7.26	109.31	120.20
34	BA	894	G	C4'-C3'-C2'	7.26	109.86	102.60
85	AA	2244	G	C2'-C3'-O3'	7.26	120.39	109.50
25	AR	47	ASN	CA-C-N	-7.26	111.66	120.51
25	AR	47	ASN	C-N-CA	-7.26	111.66	120.51
79	Bt	14	ASP	CA-CB-CG	-7.26	105.34	112.60
85	AA	482	C	P-O3'-C3'	-7.26	109.31	120.20
85	AA	894	A	C5'-C4'-O4'	7.26	120.69	109.80
30	AW	55	VAL	N-CA-C	-7.26	98.03	108.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2200	A	P-O3'-C3'	-7.26	109.31	120.20
34	BA	1157	A	P-O3'-C3'	-7.25	109.32	120.20
38	BE	127	G	C4-N9-C1'	-7.25	104.73	126.50
85	AA	1227	A	C5'-C4'-C3'	-7.25	105.12	116.00
34	BA	154	A	P-O5'-C5'	7.25	131.78	120.90
34	BA	1482	A	C4'-C3'-C2'	7.25	109.85	102.60
35	BB	1038	G	O3'-P-O5'	-7.25	93.12	104.00
84	By	68	ILE	N-CA-CB	-7.25	100.67	110.54
85	AA	1353	U	O5'-C5'-C4'	7.25	122.38	111.50
38	BE	111	C	P-O5'-C5'	-7.25	110.02	120.90
85	AA	1793	A	C4'-C3'-O3'	-7.25	102.12	113.00
85	AA	2099	C	P-O5'-C5'	7.25	131.78	120.90
22	AO	106	PRO	CA-C-N	7.25	135.52	122.62
22	AO	106	PRO	C-N-CA	7.25	135.52	122.62
35	BB	971	A	C2'-C3'-O3'	7.25	124.57	113.70
35	BB	1475	U	P-O3'-C3'	7.25	131.07	120.20
80	Bu	109	MET	CG-SD-CE	-7.25	84.95	100.90
85	AA	560	C	O3'-P-O5'	-7.25	93.13	104.00
15	AG	135	LEU	N-CA-CB	7.25	118.15	109.74
17	AI	103	ILE	CB-CA-C	-7.25	101.88	111.81
35	BB	1205	A	C5'-C4'-C3'	-7.25	105.13	116.00
85	AA	958	C	P-O5'-C5'	-7.25	110.03	120.90
38	BE	30	C	O3'-P-O5'	-7.25	93.13	104.00
85	AA	790	A	C1'-O4'-C4'	7.25	116.94	109.70
26	AS	27	TRP	N-CA-C	-7.24	103.47	111.36
34	BA	1275	G	C5'-C4'-C3'	-7.24	105.14	116.00
34	BA	1822	U	P-O3'-C3'	-7.24	109.33	120.20
41	BH	41	A	C1'-O4'-C4'	-7.24	102.46	109.70
42	BI	71	MET	N-CA-CB	-7.24	99.29	111.17
53	BT	38	ARG	N-CA-CB	-7.24	99.05	110.28
58	BY	64	ARG	CA-CB-CG	7.24	128.59	114.10
65	Bf	408	LEU	N-CA-C	-7.24	100.29	110.50
85	AA	239	G	P-O3'-C3'	-7.24	109.34	120.20
34	BA	254	U	O3'-P-O5'	-7.24	93.14	104.00
45	BL	147	HIS	CA-CB-CG	-7.24	106.56	113.80
49	BP	126	LYS	N-CA-C	-7.24	103.08	110.97
85	AA	2063	C	O5'-C5'-C4'	-7.24	100.64	111.50
8	A7	241	ASN	CA-CB-CG	-7.24	105.36	112.60
66	Bg	70	TYR	N-CA-C	7.24	119.17	111.28
34	BA	203	U	C5'-C4'-C3'	-7.24	105.14	116.00
34	BA	1702	G	P-O3'-C3'	-7.24	109.34	120.20
34	BA	605	G	O5'-C5'-C4'	7.24	122.36	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	378	C	C4'-C3'-C2'	-7.24	95.36	102.60
35	BB	781	U	O4'-C4'-C3'	-7.24	98.86	106.10
44	BK	175	ASN	CA-CB-CG	-7.24	105.36	112.60
34	BA	1587	C	O3'-P-O5'	-7.23	93.15	104.00
62	Bc	47	ASN	CA-CB-CG	7.23	119.83	112.60
79	Bt	23	PHE	CA-CB-CG	-7.23	106.57	113.80
85	AA	1843	A	P-O5'-C5'	-7.23	110.05	120.90
35	BB	1224	C	P-O3'-C3'	-7.23	109.35	120.20
80	Bu	56	THR	CA-CB-OG1	7.23	120.45	109.60
85	AA	209	C	C5'-C4'-C3'	7.23	126.85	116.00
14	AF	71	CYS	CA-C-N	7.23	130.56	120.29
14	AF	71	CYS	C-N-CA	7.23	130.56	120.29
38	BE	112	G	O5'-C5'-C4'	7.23	122.34	111.50
70	Bk	65	ASN	CA-CB-CG	-7.23	105.37	112.60
85	AA	767	A	C5'-C4'-C3'	7.23	126.85	116.00
40	BG	105	A	C4'-C3'-C2'	7.23	109.83	102.60
85	AA	267	U	C4'-C3'-O3'	7.23	123.84	113.00
2	A1	241	GLY	N-CA-C	7.23	130.31	113.18
61	Bb	131	ASP	N-CA-CB	-7.23	98.27	110.41
85	AA	888	A	P-O3'-C3'	7.23	131.04	120.20
85	AA	1852	U	P-O3'-C3'	7.23	131.04	120.20
56	BW	19	LEU	N-CA-C	-7.23	92.01	108.27
6	A5	76	ALA	N-CA-C	7.22	119.15	108.60
34	BA	180	G	P-O3'-C3'	-7.22	109.36	120.20
34	BA	424	U	C5'-C4'-C3'	-7.22	105.16	116.00
41	BH	135	U	C5'-C4'-C3'	-7.22	104.36	115.20
53	BT	141	HIS	CA-CB-CG	-7.22	106.58	113.80
85	AA	972	G	O5'-C5'-C4'	7.22	122.34	111.50
34	BA	685	C	O4'-C1'-N1	7.22	119.33	108.50
77	Br	286	ASP	CA-CB-CG	-7.22	105.38	112.60
85	AA	473	C	C1'-O4'-C4'	-7.22	102.68	109.90
85	AA	552	C	P-O5'-C5'	-7.22	110.07	120.90
86	AB	56	C	P-O5'-C5'	-7.22	110.07	120.90
34	BA	744	G	C3'-C2'-C1'	-7.22	94.08	101.30
35	BB	1482	A	P-O3'-C3'	7.22	131.03	120.20
85	AA	870	U	O5'-C5'-C4'	-7.22	100.67	111.50
44	BK	201	THR	N-CA-CB	7.22	120.03	110.29
26	AS	124	LYS	N-CA-C	-7.22	97.66	108.99
85	AA	1923	A	O4'-C1'-C2'	-7.22	98.58	105.80
34	BA	1189	A	O3'-P-O5'	-7.22	93.18	104.00
48	BO	213	VAL	N-CA-C	7.22	124.35	109.34
67	Bh	186	ILE	N-CA-CB	7.22	120.19	111.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	Bu	5	LYS	CA-C-N	7.22	130.38	120.35
80	Bu	5	LYS	C-N-CA	7.22	130.38	120.35
85	AA	364	C	P-O5'-C5'	7.22	131.72	120.90
34	BA	1200	U	C2'-C3'-O3'	7.21	124.52	113.70
37	BD	71	G	P-O3'-C3'	7.21	131.02	120.20
52	BS	53	VAL	CB-CA-C	-7.21	102.64	111.08
34	BA	744	G	C1'-O4'-C4'	-7.21	102.69	109.90
34	BA	1410	C	C5'-C4'-O4'	7.21	120.62	109.80
72	Bm	76	ARG	N-CA-CB	7.21	120.72	109.83
35	BB	1041	A	C4'-C3'-O3'	7.21	123.82	113.00
50	BQ	170	ASN	N-CA-C	7.21	121.54	110.36
62	Bc	16	SER	N-CA-CB	7.21	122.68	110.49
85	AA	694	A	C4'-C3'-O3'	-7.21	102.18	113.00
85	AA	1935	G	C5'-C4'-C3'	-7.21	105.18	116.00
75	Bp	36	VAL	CB-CA-C	-7.21	99.85	110.81
34	BA	303	C	C2'-C3'-O3'	7.21	120.31	109.50
34	BA	651	U	O3'-P-O5'	-7.21	93.19	104.00
34	BA	1207	A	P-O3'-C3'	7.21	131.01	120.20
51	BR	36	ILE	CB-CA-C	-7.21	102.27	112.22
34	BA	813	C	C5'-C4'-C3'	7.21	126.81	116.00
80	Bu	140	GLY	N-CA-C	7.21	119.36	112.08
85	AA	1098	C	C1'-O4'-C4'	-7.21	102.69	109.90
85	AA	2033	C	P-O3'-C3'	-7.21	109.39	120.20
35	BB	432	C	O3'-P-O5'	7.21	114.81	104.00
47	BN	204	ASN	N-CA-C	7.21	121.27	109.24
34	BA	681	G	O4'-C4'-C3'	7.20	113.30	106.10
34	BA	1148	U	O5'-C5'-C4'	-7.20	100.69	111.50
35	BB	1467	A	C4'-C3'-O3'	7.20	123.81	113.00
40	BG	51	U	O3'-P-O5'	-7.20	93.19	104.00
69	Bj	29	ASN	CA-CB-CG	-7.20	105.40	112.60
85	AA	715	G	O4'-C4'-C3'	-7.20	96.80	104.00
85	AA	1264	U	C5'-C4'-C3'	-7.20	105.19	116.00
5	A4	36	HIS	CA-CB-CG	-7.20	106.60	113.80
34	BA	676	G	P-O5'-C5'	-7.20	110.10	120.90
35	BB	1431	G	O5'-C5'-C4'	-7.20	100.70	111.50
40	BG	110	U	P-O3'-C3'	-7.20	109.40	120.20
12	AD	39	GLY	N-CA-C	-7.20	98.61	110.56
34	BA	1060	C	P-O3'-C3'	7.20	131.00	120.20
62	Bc	18	PHE	CB-CA-C	7.20	121.48	109.38
85	AA	1109	G	P-O5'-C5'	7.20	131.70	120.90
85	AA	1921	G	O4'-C4'-C3'	-7.20	96.80	104.00
85	AA	2120	C	C5'-C4'-C3'	-7.20	105.20	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	AB	47	U	P-O5'-C5'	7.20	131.70	120.90
34	BA	115	U	C1'-O4'-C4'	-7.20	102.50	109.70
34	BA	1012	A	O3'-P-O5'	-7.20	93.20	104.00
35	BB	876	G	P-O5'-C5'	7.20	131.70	120.90
38	BE	41	C	P-O5'-C5'	-7.20	110.10	120.90
40	BG	156	G	C2'-C3'-O3'	7.20	124.50	113.70
35	BB	945	U	P-O3'-C3'	7.20	131.00	120.20
38	BE	171	U	C2'-C3'-O3'	7.20	124.49	113.70
38	BE	202	C	C5'-C4'-C3'	7.20	125.99	115.20
85	AA	207	G	C5'-C4'-O4'	7.20	120.59	109.80
85	AA	616	A	C5'-C4'-C3'	-7.20	105.21	116.00
51	BR	67	ILE	N-CA-C	-7.19	98.41	108.27
11	AC	124	PHE	CB-CA-C	-7.19	98.85	110.79
34	BA	1618	A	O3'-P-O5'	-7.19	93.21	104.00
35	BB	1457	A	P-O3'-C3'	-7.19	109.41	120.20
35	BB	1512	C	O4'-C1'-N1	7.19	119.29	108.50
85	AA	85	U	O5'-C5'-C4'	-7.19	100.71	111.50
85	AA	686	U	P-O5'-C5'	-7.19	110.11	120.90
34	BA	166	G	N9-C1'-C2'	-7.19	101.22	112.00
34	BA	197	A	P-O3'-C3'	-7.19	109.42	120.20
34	BA	365	A	C4'-C3'-C2'	7.19	109.79	102.60
34	BA	1457	C	O4'-C1'-C2'	7.19	112.99	105.80
85	AA	1499	G	C4'-C3'-O3'	-7.19	102.21	113.00
34	BA	691	A	P-O5'-C5'	-7.19	110.12	120.90
35	BB	878	G	P-O3'-C3'	7.19	130.98	120.20
85	AA	7	G	O3'-P-O5'	7.19	114.78	104.00
85	AA	614	U	C4'-C3'-C2'	-7.19	95.41	102.60
86	AB	13	C	C4'-C3'-C2'	-7.19	95.41	102.60
85	AA	751	C	C4'-C3'-C2'	-7.19	95.41	102.60
35	BB	34	G	P-O3'-C3'	-7.18	109.42	120.20
35	BB	1086	G	P-O5'-C5'	-7.18	110.12	120.90
38	BE	160	C	C5'-C4'-C3'	-7.18	105.22	116.00
64	Be	216	HIS	CA-C-N	7.18	135.26	121.54
64	Be	216	HIS	C-N-CA	7.18	135.26	121.54
85	AA	8	U	P-O5'-C5'	-7.18	110.12	120.90
28	AU	35	LYS	N-CA-C	7.18	118.75	111.07
40	BG	20	U	C5'-C4'-C3'	-7.18	105.23	116.00
85	AA	1978	G	P-O5'-C5'	-7.18	110.13	120.90
34	BA	931	G	N9-C1'-C2'	-7.18	101.23	112.00
34	BA	1563	G	O5'-C5'-C4'	-7.18	100.93	111.70
35	BB	1113	C	C3'-C2'-C1'	-7.18	94.12	101.30
52	BS	20	LYS	N-CA-C	-7.18	103.18	112.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
76	Bq	50	HIS	CA-CB-CG	-7.18	106.62	113.80
27	AT	86	LEU	N-CA-C	-7.18	103.18	112.23
38	BE	158	U	P-O3'-C3'	7.18	130.97	120.20
40	BG	171	A	P-O5'-C5'	7.18	131.67	120.90
34	BA	662	U	P-O3'-C3'	-7.18	109.43	120.20
34	BA	1526	C	C3'-C2'-C1'	-7.18	94.12	101.30
34	BA	1579	G	O4'-C1'-C2'	-7.18	98.62	105.80
36	BC	153	C	C2'-C3'-O3'	7.18	124.47	113.70
85	AA	1251	G	C5'-C4'-C3'	-7.18	105.23	116.00
35	BB	504	C	C5'-C4'-O4'	7.18	120.56	109.80
85	AA	830	A	O5'-C5'-C4'	7.18	122.27	111.50
34	BA	805	A	C4'-C3'-C2'	-7.17	95.42	102.60
35	BB	1204	C	P-O3'-C3'	7.17	130.96	120.20
41	BH	37	U	C4'-C3'-O3'	-7.17	102.24	113.00
47	BN	158	TYR	CA-C-N	7.17	129.11	120.14
47	BN	158	TYR	C-N-CA	7.17	129.11	120.14
52	BS	33	ALA	O-C-N	-7.17	117.12	121.71
65	Bf	305	VAL	CA-C-N	7.17	130.12	120.65
65	Bf	305	VAL	C-N-CA	7.17	130.12	120.65
85	AA	1106	A	C3'-C2'-C1'	-7.17	94.12	101.30
85	AA	2112	G	P-O3'-C3'	-7.17	109.44	120.20
34	BA	712	C	P-O5'-C5'	7.17	131.66	120.90
34	BA	1218	G	C5'-C4'-C3'	7.17	126.76	116.00
35	BB	1303	A	O3'-P-O5'	-7.17	93.24	104.00
36	BC	33	U	C5'-C4'-O4'	7.17	119.86	109.10
78	Bs	14	ASN	CB-CA-C	-7.17	96.90	110.67
85	AA	1647	G	C4'-C3'-C2'	-7.17	95.43	102.60
34	BA	1591	G	O5'-C5'-C4'	-7.17	100.75	111.50
40	BG	23	C	O3'-P-O5'	-7.17	93.25	104.00
34	BA	318	U	O3'-P-O5'	-7.17	93.25	104.00
85	AA	968	U	P-O5'-C5'	-7.17	110.15	120.90
38	BE	139	U	C1'-O4'-C4'	-7.17	102.73	109.90
59	BZ	78	HIS	N-CA-C	-7.17	97.53	109.07
85	AA	882	C	C4'-C3'-O3'	-7.17	102.25	113.00
85	AA	1215	A	C5'-C4'-C3'	-7.17	105.25	116.00
36	BC	155	C	O3'-P-O5'	-7.17	93.25	104.00
34	BA	1176	C	C2'-C3'-O3'	7.16	124.45	113.70
34	BA	1395	C	C2'-C3'-O3'	7.16	120.25	109.50
34	BA	1651	C	O3'-P-O5'	-7.16	93.25	104.00
35	BB	687	C	O5'-C5'-C4'	-7.16	100.75	111.50
38	BE	208	G	N9-C1'-C2'	-7.16	103.26	114.00
85	AA	476	C	P-O5'-C5'	-7.16	110.15	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	515	C	P-O5'-C5'	-7.16	110.15	120.90
34	BA	1451	A	P-O3'-C3'	-7.16	109.46	120.20
37	BD	104	C	C3'-C2'-C1'	-7.16	94.14	101.30
85	AA	1	G	P-O3'-C3'	-7.16	109.46	120.20
85	AA	589	A	C2'-C3'-O3'	7.16	120.24	109.50
34	BA	121	A	C3'-C2'-C1'	-7.16	94.34	101.50
41	BH	133	U	O5'-C5'-C4'	-7.16	100.76	111.50
82	Bw	41	PHE	CA-C-O	7.16	128.89	120.58
85	AA	2151	U	O3'-P-O5'	-7.16	93.26	104.00
5	A4	76	VAL	CB-CA-C	-7.16	102.48	112.14
34	BA	165	C	O3'-P-O5'	-7.16	93.26	104.00
34	BA	866	C	O4'-C1'-N1	7.16	119.24	108.50
35	BB	59	U	C4'-C3'-C2'	-7.16	95.44	102.60
77	Br	307	PRO	CA-C-N	7.16	135.21	121.54
77	Br	307	PRO	C-N-CA	7.16	135.21	121.54
35	BB	853	U	P-O3'-C3'	7.16	130.94	120.20
37	BD	16	U	C5'-C4'-C3'	-7.16	105.26	116.00
85	AA	627	A	P-O5'-C5'	-7.16	110.17	120.90
5	A4	118	GLN	CB-CA-C	-7.16	98.74	109.90
35	BB	434	A	P-O5'-C5'	-7.16	110.17	120.90
51	BR	86	LYS	CA-C-O	7.16	128.33	120.82
82	Bw	220	PHE	N-CA-C	7.16	120.69	109.96
85	AA	1872	G	P-O3'-C3'	-7.16	109.47	120.20
40	BG	105	A	C2'-C3'-O3'	7.15	124.43	113.70
25	AR	50	ILE	CA-C-O	7.15	127.94	120.36
27	AT	101	LEU	CA-C-N	7.15	135.43	121.41
27	AT	101	LEU	C-N-CA	7.15	135.43	121.41
34	BA	313	C	P-O5'-C5'	7.15	131.62	120.90
34	BA	921	G	P-O3'-C3'	-7.15	109.47	120.20
34	BA	961	C	C5'-C4'-C3'	-7.15	105.28	116.00
35	BB	824	C	O4'-C1'-N1	7.15	119.23	108.50
35	BB	1369	A	C5'-C4'-C3'	7.15	125.92	115.20
37	BD	95	G	C5'-C4'-C3'	7.15	126.73	116.00
41	BH	72	G	P-O5'-C5'	-7.15	110.17	120.90
85	AA	432	A	C4'-C3'-O3'	-7.15	102.28	113.00
85	AA	1117	G	O3'-P-O5'	-7.15	93.27	104.00
85	AA	1816	C	P-O5'-C5'	7.15	131.62	120.90
85	AA	368	C	C3'-C2'-C1'	-7.15	94.15	101.30
35	BB	36	U	O5'-C5'-C4'	-7.15	100.78	111.50
35	BB	878	G	C1'-O4'-C4'	7.15	117.05	109.90
47	BN	73	LYS	CA-C-N	7.15	133.66	122.94
47	BN	73	LYS	C-N-CA	7.15	133.66	122.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	Bf	350	ASN	N-CA-CB	7.15	122.57	110.49
16	AH	130	THR	CA-C-N	7.15	134.56	121.70
16	AH	130	THR	C-N-CA	7.15	134.56	121.70
65	Bf	175	GLN	N-CA-C	-7.15	104.17	113.17
6	A5	113	TYR	CA-C-O	7.14	128.12	120.55
11	AC	192	PHE	CA-CB-CG	-7.14	106.66	113.80
34	BA	504	A	O3'-P-O5'	7.14	114.72	104.00
34	BA	1054	U	O3'-P-O5'	7.14	114.72	104.00
35	BB	60	A	C2'-C3'-O3'	7.14	120.22	109.50
38	BE	32	U	O4'-C4'-C3'	7.14	111.14	104.00
85	AA	887	A	C1'-O4'-C4'	-7.14	102.75	109.90
85	AA	991	G	C2'-C3'-O3'	7.14	124.42	113.70
38	BE	40	C	C2'-C3'-O3'	7.14	124.41	113.70
65	Bf	410	GLU	CA-C-O	7.14	129.17	120.60
80	Bu	242	PRO	CA-C-N	7.14	129.85	120.28
80	Bu	242	PRO	C-N-CA	7.14	129.85	120.28
85	AA	34	G	O3'-P-O5'	-7.14	93.29	104.00
85	AA	1480	C	C5'-C4'-C3'	-7.14	105.28	116.00
34	BA	223	U	P-O5'-C5'	-7.14	110.19	120.90
38	BE	136	G	O4'-C1'-C2'	7.14	112.94	105.80
60	Ba	51	LYS	N-CA-C	7.14	126.01	110.80
34	BA	30	A	O5'-C5'-C4'	-7.14	100.79	111.50
34	BA	1598	U	C4'-C3'-C2'	-7.14	95.46	102.60
35	BB	25	A	O5'-C5'-C4'	-7.14	100.99	111.70
3	A2	47	PHE	N-CA-C	7.14	119.06	111.28
34	BA	543	A	O5'-C5'-C4'	7.14	122.21	111.50
34	BA	1259	C	O3'-P-O5'	-7.14	93.29	104.00
34	BA	1730	A	C2'-C3'-O3'	-7.14	102.99	113.70
5	A4	190	PHE	CA-C-N	7.14	135.17	121.54
5	A4	190	PHE	C-N-CA	7.14	135.17	121.54
19	AK	121	PHE	N-CA-C	7.14	121.51	111.52
34	BA	1224	A	C2'-C3'-O3'	7.14	124.40	113.70
35	BB	1377	A	O3'-P-O5'	-7.14	93.29	104.00
36	BC	86	U	O4'-C1'-N1	7.14	119.21	108.50
44	BK	83	GLU	CB-CA-C	-7.14	98.66	110.72
47	BN	206	ARG	CA-C-N	-7.14	111.16	120.44
47	BN	206	ARG	C-N-CA	-7.14	111.16	120.44
56	BW	120	VAL	O-C-N	-7.14	113.65	122.57
62	Bc	64	THR	N-CA-CB	7.14	120.18	109.19
85	AA	1854	U	C4'-C3'-O3'	-7.14	102.30	113.00
34	BA	3	G	C3'-C2'-C1'	-7.13	94.17	101.30
34	BA	1202	G	P-O3'-C3'	-7.13	109.50	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BH	31	A	C2'-C3'-O3'	7.13	124.40	113.70
81	Bv	179	PHE	N-CA-CB	7.13	122.55	110.49
85	AA	62	A	C4'-C3'-O3'	-7.13	102.30	113.00
85	AA	1703	A	O5'-C5'-C4'	-7.13	100.80	111.50
85	AA	1876	U	C5'-C4'-C3'	7.13	126.70	116.00
34	BA	1477	C	C5'-C4'-O4'	7.13	120.50	109.80
35	BB	983	C	C1'-O4'-C4'	-7.13	102.57	109.70
85	AA	1276	A	O3'-P-O5'	7.13	114.70	104.00
23	AP	87	ARG	N-CA-CB	7.13	122.54	110.49
34	BA	108	A	P-O3'-C3'	7.13	130.90	120.20
34	BA	228	A	C4'-C3'-C2'	-7.13	95.47	102.60
35	BB	1057	G	O5'-C5'-C4'	-7.13	100.80	111.50
85	AA	23	G	C5'-C4'-C3'	7.13	126.70	116.00
85	AA	445	U	O4'-C4'-C3'	-7.13	98.97	106.10
3	A2	163	ILE	CA-C-N	7.13	129.54	120.56
3	A2	163	ILE	C-N-CA	7.13	129.54	120.56
6	A5	77	ARG	CB-CA-C	-7.13	96.86	109.62
7	A6	140	VAL	N-CA-C	-7.13	94.51	109.34
19	AK	81	VAL	N-CA-C	-7.13	104.02	111.58
34	BA	381	A	C4'-C3'-C2'	7.13	109.73	102.60
34	BA	1367	G	C5'-C4'-C3'	-7.13	105.31	116.00
40	BG	181	C	O4'-C4'-C3'	-7.13	96.87	104.00
79	Bt	62	ALA	N-CA-C	7.13	125.99	110.80
34	BA	860	G	C4'-C3'-O3'	-7.13	102.31	113.00
34	BA	991	U	C4'-C3'-C2'	7.13	109.73	102.60
65	Bf	351	GLN	N-CA-CB	7.13	122.54	110.49
84	By	39	HIS	N-CA-C	-7.13	104.58	113.20
85	AA	527	A	C4'-C3'-C2'	-7.13	95.47	102.60
85	AA	680	U	C4'-C3'-C2'	-7.13	95.47	102.60
85	AA	1585	A	P-O5'-C5'	-7.13	110.21	120.90
4	A3	156	VAL	N-CA-C	-7.13	105.40	112.17
36	BC	38	U	C3'-C2'-C1'	-7.13	94.37	101.50
82	Bw	13	ARG	N-CA-C	7.13	120.03	108.41
85	AA	578	U	O3'-P-O5'	-7.12	93.31	104.00
13	AE	95	LYS	CA-C-N	7.12	131.51	120.75
13	AE	95	LYS	C-N-CA	7.12	131.51	120.75
34	BA	39	C	P-O5'-C5'	7.12	131.59	120.90
34	BA	803	U	C4'-C3'-C2'	-7.12	95.48	102.60
34	BA	1577	U	O5'-C5'-C4'	-7.12	100.81	111.50
35	BB	490	G	C5'-C4'-O4'	7.12	120.49	109.80
57	BX	77	ASN	CA-CB-CG	-7.12	105.48	112.60
63	Bd	14	ARG	N-CA-CB	-7.12	99.65	110.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
71	Bl	53	GLY	CA-C-N	7.12	134.78	122.81
71	Bl	53	GLY	C-N-CA	7.12	134.78	122.81
85	AA	982	G	C4'-C3'-O3'	-7.12	102.31	113.00
85	AA	1581	C	P-O3'-C3'	-7.12	109.52	120.20
85	AA	1717	G	P-O3'-C3'	7.12	130.88	120.20
85	AA	1832	G	C1'-O4'-C4'	-7.12	102.78	109.90
34	BA	1284	G	P-O5'-C5'	-7.12	110.22	120.90
34	BA	1610	A	P-O3'-C3'	-7.12	109.52	120.20
35	BB	552	C	O5'-C5'-C4'	-7.12	100.82	111.50
56	BW	17	LEU	CA-C-N	7.12	135.14	121.54
56	BW	17	LEU	C-N-CA	7.12	135.14	121.54
34	BA	140	C	C2'-C3'-O3'	-7.12	103.02	113.70
34	BA	1368	G	P-O5'-C5'	7.12	131.58	120.90
35	BB	689	C	C5'-C4'-C3'	7.12	126.68	116.00
85	AA	511	A	P-O3'-C3'	-7.12	109.52	120.20
85	AA	1637	C	C4'-C3'-O3'	-7.12	102.32	113.00
35	BB	1509	G	O3'-P-O5'	-7.12	93.32	104.00
40	BG	112	C	C4'-C3'-C2'	7.12	109.72	102.60
85	AA	96	C	C2'-C3'-O3'	7.12	120.18	109.50
85	AA	969	U	O5'-C5'-C4'	7.12	122.18	111.50
34	BA	387	A	C4'-C3'-O3'	-7.12	102.32	113.00
34	BA	595	U	P-O3'-C3'	7.12	130.88	120.20
35	BB	1439	U	C5'-C4'-C3'	7.12	126.68	116.00
34	BA	608	G	C1'-O4'-C4'	7.12	117.02	109.90
34	BA	961	C	C1'-O4'-C4'	-7.12	102.78	109.90
34	BA	1221	A	C5'-C4'-C3'	7.12	126.67	116.00
35	BB	835	C	C2'-C3'-O3'	7.12	124.38	113.70
85	AA	1159	C	C5'-C4'-O4'	-7.12	99.13	109.80
35	BB	370	A	C4'-C3'-C2'	7.11	109.71	102.60
35	BB	545	C	P-O3'-C3'	7.11	130.87	120.20
41	BH	11	C	O5'-C5'-C4'	7.11	122.37	111.70
52	BS	43	PHE	CA-C-O	7.11	128.29	120.82
85	AA	1637	C	O3'-P-O5'	-7.11	93.33	104.00
85	AA	2033	C	C5'-C4'-C3'	-7.11	105.33	116.00
35	BB	653	G	O4'-C4'-C3'	-7.11	96.89	104.00
85	AA	340	G	C4'-C3'-O3'	-7.11	102.33	113.00
34	BA	1676	A	C4'-C3'-C2'	7.11	109.71	102.60
34	BA	1694	C	C5'-C4'-C3'	-7.11	105.33	116.00
36	BC	95	A	P-O3'-C3'	-7.11	109.53	120.20
85	AA	597	A	C4'-C3'-C2'	-7.11	95.49	102.60
34	BA	1329	U	C3'-C2'-C1'	-7.11	94.19	101.30
85	AA	560	C	C5'-C4'-C3'	7.11	126.66	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2249	U	C5'-C4'-C3'	-7.11	104.54	115.20
34	BA	103	G	C5'-C4'-C3'	-7.11	105.34	116.00
34	BA	1604	A	C4'-C3'-O3'	-7.11	102.34	113.00
35	BB	413	A	C4'-C3'-O3'	-7.11	102.34	113.00
38	BE	130	G	C3'-C2'-C1'	-7.11	94.19	101.30
38	BE	141	A	P-O3'-C3'	-7.11	109.54	120.20
41	BH	125	U	P-O3'-C3'	-7.11	109.54	120.20
44	BK	51	HIS	CB-CG-CD2	-7.11	121.96	131.20
85	AA	363	A	C3'-C2'-C1'	-7.11	94.19	101.30
7	A6	66	PRO	N-CA-C	7.11	123.63	113.47
34	BA	214	A	C4'-C3'-C2'	-7.11	95.49	102.60
34	BA	1426	A	C5'-C4'-C3'	-7.11	104.54	115.20
34	BA	1561	C	O5'-C5'-C4'	-7.11	100.84	111.50
85	AA	492	C	C4'-C3'-O3'	-7.11	102.34	113.00
85	AA	898	A	C4'-C3'-C2'	-7.11	95.49	102.60
34	BA	1146	U	O5'-C5'-C4'	-7.10	100.84	111.50
77	Br	115	ASN	CA-CB-CG	-7.10	105.50	112.60
34	BA	1223	C	O5'-C5'-C4'	-7.10	100.85	111.50
34	BA	1315	C	C4'-C3'-O3'	-7.10	102.34	113.00
34	BA	1321	A	O5'-C5'-C4'	-7.10	100.85	111.50
35	BB	484	G	O5'-C5'-C4'	7.10	122.15	111.50
40	BG	54	G	C5'-C4'-C3'	-7.10	105.34	116.00
82	Bw	89	ASN	CA-CB-CG	-7.10	105.50	112.60
39	BF	45	G	P-O5'-C5'	7.10	131.55	120.90
7	A6	111	VAL	CB-CA-C	-7.10	102.56	112.14
35	BB	706	G	P-O5'-C5'	7.10	131.55	120.90
35	BB	1203	C	C4'-C3'-C2'	-7.10	95.50	102.60
47	BN	207	ALA	N-CA-C	7.10	118.67	111.07
83	Bx	62	PHE	CA-CB-CG	-7.10	106.70	113.80
85	AA	1182	A	P-O5'-C5'	7.10	131.55	120.90
19	AK	78	SER	N-CA-CB	7.10	122.21	110.85
34	BA	400	A	C4'-C3'-C2'	7.10	109.70	102.60
39	BF	61	A	O5'-C5'-C4'	7.10	122.35	111.70
49	BP	22	ASN	CA-CB-CG	-7.10	105.50	112.60
72	Bm	87	SER	N-CA-C	7.10	125.92	110.80
47	BN	207	ALA	CB-CA-C	-7.10	99.74	110.88
34	BA	1438	C	O5'-C5'-C4'	-7.09	100.86	111.50
35	BB	643	G	C4'-C3'-O3'	-7.09	102.36	113.00
35	BB	1539	C	P-O5'-C5'	-7.09	110.26	120.90
38	BE	113	C	C4'-C3'-C2'	-7.09	95.51	102.60
85	AA	2091	C	C5'-C4'-C3'	7.09	126.64	116.00
42	BI	189	ALA	N-CA-C	7.09	125.91	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1435	C	O4'-C1'-C2'	-7.09	100.51	107.60
85	AA	1826	U	C2'-C3'-O3'	7.09	124.34	113.70
2	A1	43	ILE	CA-C-N	7.09	129.56	120.70
2	A1	43	ILE	C-N-CA	7.09	129.56	120.70
4	A3	2	LYS	N-CA-CB	-7.09	98.82	110.52
34	BA	34	U	P-O5'-C5'	-7.09	110.26	120.90
34	BA	290	G	N9-C1'-C2'	-7.09	101.36	112.00
70	Bk	79	LEU	CA-C-N	7.09	135.08	121.54
70	Bk	79	LEU	C-N-CA	7.09	135.08	121.54
77	Br	301	LYS	N-CA-CB	-7.09	97.68	110.23
85	AA	423	G	P-O3'-C3'	-7.09	109.56	120.20
13	AE	82	ILE	N-CA-C	7.09	118.50	108.36
34	BA	575	U	O3'-P-O5'	-7.09	93.37	104.00
34	BA	992	A	P-O3'-C3'	-7.09	109.56	120.20
34	BA	1695	G	C5'-C4'-C3'	-7.09	105.37	116.00
35	BB	1313	C	P-O5'-C5'	-7.09	110.27	120.90
35	BB	1452	U	C4'-C3'-C2'	7.09	109.69	102.60
44	BK	85	PHE	CA-CB-CG	-7.09	106.71	113.80
85	AA	71	G	C4'-C3'-O3'	-7.09	102.36	113.00
85	AA	891	G	O5'-C5'-C4'	7.09	122.13	111.50
85	AA	1181	U	P-O5'-C5'	7.09	131.54	120.90
3	A2	42	TRP	CA-C-N	7.09	135.08	121.54
3	A2	42	TRP	C-N-CA	7.09	135.08	121.54
19	AK	105	GLU	CB-CA-C	-7.09	99.75	110.88
34	BA	593	G	N9-C1'-C2'	7.09	124.63	114.00
34	BA	1197	U	O5'-C5'-C4'	-7.09	100.87	111.50
34	BA	1634	A	O5'-C5'-C4'	7.09	122.33	111.70
35	BB	1346	A	C5'-C4'-C3'	7.09	125.83	115.20
38	BE	67	A	P-O3'-C3'	-7.09	109.57	120.20
40	BG	91	U	O3'-P-O5'	7.09	114.63	104.00
85	AA	469	G	N3-C4-N9	7.09	147.26	126.00
85	AA	805	A	O4'-C1'-N9	7.09	118.83	108.20
85	AA	859	G	C3'-C2'-C1'	-7.09	94.21	101.30
85	AA	1934	A	P-O5'-C5'	7.08	131.53	120.90
39	BF	56	C	C3'-C2'-O2'	-7.08	100.07	110.70
70	Bk	67	ARG	CD-NE-CZ	-7.08	114.48	124.40
85	AA	186	U	P-O5'-C5'	-7.08	110.28	120.90
34	BA	640	U	C3'-C2'-O2'	7.08	121.32	110.70
34	BA	1233	U	C4'-C3'-C2'	7.08	109.68	102.60
34	BA	1592	U	P-O3'-C3'	-7.08	109.58	120.20
35	BB	1225	A	P-O3'-C3'	7.08	130.82	120.20
85	AA	2158	U	C5'-C4'-C3'	-7.08	105.38	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	280	A	C5'-C4'-C3'	-7.08	105.38	116.00
34	BA	1305	A	C5'-C4'-C3'	-7.08	105.38	116.00
40	BG	27	C	C4'-C3'-O3'	-7.08	102.38	113.00
85	AA	509	C	O4'-C1'-N1	7.08	118.82	108.20
7	A6	77	ARG	N-CA-C	7.08	119.00	111.28
80	Bu	7	VAL	N-CA-C	7.08	117.84	110.62
85	AA	38	C	C1'-O4'-C4'	-7.08	102.82	109.90
85	AA	86	G	C5'-C4'-O4'	-7.08	99.18	109.80
4	A3	85	PHE	CA-CB-CG	7.08	120.88	113.80
34	BA	1611	A	C5'-C4'-C3'	-7.08	105.38	116.00
40	BG	148	C	C4'-C3'-C2'	-7.08	95.52	102.60
40	BG	180	C	O4'-C4'-C3'	7.08	111.08	104.00
85	AA	82	A	O4'-C4'-C3'	-7.08	96.92	104.00
2	A1	254	LEU	N-CA-C	7.08	121.35	113.21
10	A9	127	ASN	N-CA-C	-7.08	104.68	113.38
34	BA	229	C	P-O3'-C3'	7.08	130.81	120.20
35	BB	81	A	P-O5'-C5'	7.08	131.51	120.90
35	BB	486	G	C5'-C4'-C3'	7.08	126.61	116.00
35	BB	713	U	C2'-C3'-O3'	7.08	124.31	113.70
35	BB	1507	U	C1'-O4'-C4'	-7.08	102.82	109.90
82	Bw	252	PHE	N-CA-CB	-7.08	99.81	110.07
85	AA	124	A	C2'-C3'-O3'	7.08	120.11	109.50
85	AA	451	G	C5'-C4'-C3'	-7.08	105.39	116.00
85	AA	863	C	C4'-C3'-C2'	-7.08	95.53	102.60
5	A4	79	ILE	CA-C-N	7.07	135.05	121.54
5	A4	79	ILE	C-N-CA	7.07	135.05	121.54
34	BA	577	U	P-O3'-C3'	7.07	130.81	120.20
34	BA	802	G	O5'-C5'-C4'	-7.07	100.89	111.50
3	A2	95	ILE	CB-CA-C	-7.07	102.46	112.22
36	BC	99	U	O3'-P-O5'	-7.07	93.39	104.00
85	AA	1284	A	P-O3'-C3'	-7.07	109.59	120.20
34	BA	814	C	P-O3'-C3'	-7.07	109.60	120.20
34	BA	117	C	P-O3'-C3'	-7.07	109.60	120.20
35	BB	1185	G	O5'-C5'-C4'	-7.07	100.90	111.50
37	BD	80	G	P-O3'-C3'	-7.07	109.60	120.20
62	Bc	21	LYS	N-CA-CB	-7.07	99.31	110.69
85	AA	967	C	P-O3'-C3'	-7.07	109.60	120.20
85	AA	974	U	P-O5'-C5'	7.07	131.50	120.90
34	BA	784	C	C5'-C4'-C3'	7.07	126.60	116.00
34	BA	1135	U	P-O3'-C3'	-7.07	109.60	120.20
85	AA	699	U	C3'-C2'-C1'	-7.07	94.23	101.30
85	AA	1976	G	O5'-C5'-C4'	-7.07	100.90	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AQ	91	PRO	N-CA-C	7.07	121.91	111.03
85	AA	1721	A	C4'-C3'-C2'	-7.07	95.53	102.60
5	A4	59	HIS	N-CA-C	7.06	122.90	113.72
26	AS	84	PHE	N-CA-C	7.06	120.94	110.48
62	Bc	80	THR	N-CA-C	-7.06	97.89	109.40
11	AC	73	TYR	CB-CA-C	7.06	121.88	110.09
23	AP	154	TRP	CB-CG-CD2	-7.06	116.91	126.80
34	BA	1260	G	P-O3'-C3'	-7.06	109.61	120.20
35	BB	62	C	C4'-C3'-O3'	7.06	123.59	113.00
34	BA	579	U	O3'-P-O5'	-7.06	93.41	104.00
34	BA	1724	G	C3'-C2'-C1'	-7.06	94.24	101.30
61	Bb	7	LYS	CA-C-N	7.06	130.07	120.54
61	Bb	7	LYS	C-N-CA	7.06	130.07	120.54
67	Bh	77	THR	N-CA-CB	7.06	121.91	110.40
85	AA	171	U	C2'-C3'-O3'	7.06	124.29	113.70
85	AA	2015	U	P-O5'-C5'	-7.06	110.31	120.90
27	AT	10	VAL	CB-CA-C	-7.06	99.72	111.29
35	BB	4	C	C5'-C4'-C3'	7.06	126.58	116.00
35	BB	1176	G	C1'-O4'-C4'	-7.06	102.64	109.70
42	BI	158	HIS	N-CA-C	-7.06	104.59	112.57
66	Bg	28	VAL	CB-CA-C	-7.06	102.61	112.14
67	Bh	164	LYS	N-CA-C	7.06	120.61	110.24
85	AA	1258	U	P-O5'-C5'	7.06	131.49	120.90
83	Bx	252	SER	CA-C-N	7.06	129.74	120.28
83	Bx	252	SER	C-N-CA	7.06	129.74	120.28
85	AA	751	C	O4'-C1'-C2'	-7.06	100.54	107.60
6	A5	12	LYS	N-CA-C	-7.05	99.38	109.96
34	BA	1126	U	C5'-C4'-C3'	7.05	126.58	116.00
38	BE	97	G	P-O5'-C5'	-7.05	110.32	120.90
38	BE	109	C	P-O5'-C5'	7.05	131.48	120.90
39	BF	3	A	P-O3'-C3'	-7.05	109.62	120.20
41	BH	120	C	P-O5'-C5'	-7.05	110.32	120.90
47	BN	9	PRO	N-CA-C	7.05	127.00	112.47
85	AA	332	A	P-O3'-C3'	7.05	130.78	120.20
31	AX	122	ILE	CB-CA-C	7.05	121.95	112.22
34	BA	280	A	C4'-C3'-O3'	-7.05	102.42	113.00
34	BA	297	A	C5'-C4'-O4'	7.05	120.38	109.80
35	BB	16	G	C1'-C2'-O2'	7.05	118.98	108.40
35	BB	1374	U	C4'-C3'-C2'	7.05	109.65	102.60
60	Ba	133	PHE	CA-CB-CG	-7.05	106.75	113.80
85	AA	1104	G	O5'-C5'-C4'	-7.05	100.92	111.50
85	AA	1285	C	P-O3'-C3'	-7.05	109.62	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	A5	191	ARG	CA-C-N	7.05	127.36	119.32
6	A5	191	ARG	C-N-CA	7.05	127.36	119.32
35	BB	678	U	P-O3'-C3'	-7.05	109.62	120.20
35	BB	1232	A	C3'-C2'-C1'	-7.05	94.25	101.30
80	Bu	119	PHE	CA-CB-CG	7.05	120.85	113.80
80	Bu	153	ASP	CA-CB-CG	7.05	119.65	112.60
85	AA	68	A	P-O5'-C5'	-7.05	110.32	120.90
85	AA	744	C	P-O3'-C3'	-7.05	109.62	120.20
85	AA	1456	A	C4'-C3'-C2'	-7.05	95.55	102.60
34	BA	689	C	O3'-P-O5'	7.05	114.57	104.00
34	BA	690	G	C4'-C3'-O3'	-7.05	102.42	113.00
34	BA	1736	A	P-O5'-C5'	7.05	131.47	120.90
85	AA	695	A	O3'-P-O5'	-7.05	93.43	104.00
85	AA	1494	C	C2'-C3'-O3'	7.05	120.08	109.50
85	AA	354	C	P-O5'-C5'	-7.05	110.33	120.90
85	AA	2000	C	O3'-P-O5'	-7.05	93.43	104.00
29	AV	42	VAL	O-C-N	-7.05	115.43	122.76
34	BA	83	G	O4'-C1'-N9	7.05	118.77	108.20
34	BA	571	G	C5'-C4'-C3'	7.05	126.57	116.00
65	Bf	331	ARG	N-CA-C	-7.05	96.70	108.75
77	Br	206	PRO	N-CA-C	7.05	126.99	112.47
85	AA	292	C	C5'-C4'-C3'	7.05	126.57	116.00
85	AA	537	G	P-O3'-C3'	-7.05	109.63	120.20
85	AA	1655	G	P-O3'-C3'	-7.05	109.63	120.20
2	A1	71	GLY	N-CA-C	-7.04	98.97	110.95
34	BA	527	C	C1'-O4'-C4'	-7.04	102.86	109.90
34	BA	567	U	C5'-C4'-C3'	-7.04	105.43	116.00
34	BA	619	U	O3'-P-O5'	-7.04	93.44	104.00
35	BB	775	U	P-O5'-C5'	7.04	131.47	120.90
37	BD	42	A	C5'-C4'-C3'	-7.04	105.44	116.00
38	BE	88	G	O3'-P-O5'	7.04	114.56	104.00
34	BA	480	G	C4'-C3'-O3'	-7.04	102.44	113.00
34	BA	1213	A	O5'-C5'-C4'	-7.04	100.94	111.50
40	BG	148	C	C1'-O4'-C4'	-7.04	102.86	109.90
40	BG	176	G	P-O5'-C5'	7.04	131.46	120.90
50	BQ	80	ARG	N-CA-C	-7.04	98.75	109.95
85	AA	252	G	N9-C1'-C2'	7.04	122.56	112.00
85	AA	624	A	P-O3'-C3'	7.04	130.76	120.20
85	AA	851	G	P-O5'-C5'	-7.04	110.34	120.90
85	AA	993	G	C5'-C4'-C3'	-7.04	105.44	116.00
85	AA	1024	G	P-O3'-C3'	-7.04	109.64	120.20
22	AO	40	LYS	CA-C-N	7.04	129.71	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AO	40	LYS	C-N-CA	7.04	129.71	120.28
25	AR	50	ILE	N-CA-CB	7.04	121.80	111.52
34	BA	136	A	C5'-C4'-C3'	-7.04	105.44	116.00
34	BA	869	C	P-O5'-C5'	-7.04	110.34	120.90
34	BA	1120	U	O4'-C4'-C3'	-7.04	96.96	104.00
18	AJ	74	ALA	CA-C-N	7.04	131.68	122.95
18	AJ	74	ALA	C-N-CA	7.04	131.68	122.95
20	AL	78	ARG	CA-C-N	7.04	129.59	120.44
20	AL	78	ARG	C-N-CA	7.04	129.59	120.44
34	BA	295	G	C5'-C4'-C3'	-7.04	105.44	116.00
34	BA	745	A	P-O3'-C3'	-7.04	109.64	120.20
35	BB	639	A	O4'-C1'-C2'	-7.04	98.76	105.80
35	BB	715	G	C4'-C3'-C2'	-7.04	95.56	102.60
35	BB	1092	G	P-O5'-C5'	7.04	131.46	120.90
85	AA	390	U	O3'-P-O5'	-7.04	93.44	104.00
85	AA	641	A	C4'-C3'-O3'	-7.04	102.44	113.00
62	Bc	71	ASN	CA-CB-CG	-7.04	105.56	112.60
85	AA	1966	C	C4'-C3'-C2'	-7.04	95.56	102.60
35	BB	848	A	C4'-C3'-C2'	-7.04	95.56	102.60
39	BF	69	A	P-O3'-C3'	-7.04	109.64	120.20
49	BP	84	LEU	CA-C-N	7.04	129.71	120.28
49	BP	84	LEU	C-N-CA	7.04	129.71	120.28
85	AA	293	A	P-O3'-C3'	7.04	130.75	120.20
85	AA	424	A	O4'-C4'-C3'	-7.04	96.96	104.00
85	AA	1912	U	P-O3'-C3'	7.04	130.75	120.20
22	AO	117	LEU	CB-CA-C	-7.03	99.84	110.88
31	AX	119	MET	N-CA-CB	-7.03	99.39	110.22
34	BA	1685	C	O5'-C5'-C4'	-7.03	100.95	111.50
40	BG	13	A	P-O5'-C5'	-7.03	110.35	120.90
54	BU	66	ASN	CA-CB-CG	-7.03	105.57	112.60
85	AA	48	G	C1'-O4'-C4'	-7.03	102.87	109.90
34	BA	1208	U	O4'-C1'-C2'	7.03	112.83	105.80
34	BA	1322	A	C3'-C2'-C1'	-7.03	94.27	101.30
35	BB	110	U	O5'-C5'-C4'	-7.03	101.16	111.70
35	BB	576	A	O3'-P-O5'	-7.03	93.45	104.00
37	BD	36	C	C3'-C2'-C1'	-7.03	94.27	101.30
38	BE	105	A	C4'-C3'-O3'	-7.03	102.46	113.00
41	BH	36	C	C4'-C3'-O3'	-7.03	102.45	113.00
60	Ba	59	ARG	CB-CA-C	7.03	122.57	111.39
67	Bh	34	ASP	CB-CA-C	7.03	122.80	110.85
75	Bp	47	MET	N-CA-C	7.03	120.32	108.23
80	Bu	24	ARG	N-CA-C	-7.03	103.70	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	944	C	P-O3'-C3'	-7.03	109.66	120.20
85	AA	1765	G	O3'-P-O5'	-7.03	93.45	104.00
85	AA	2107	C	P-O5'-C5'	7.03	131.44	120.90
35	BB	767	A	O3'-P-O5'	-7.03	93.46	104.00
35	BB	1464	G	P-O5'-C5'	7.03	131.44	120.90
47	BN	52	PHE	CA-C-N	7.03	128.63	119.84
47	BN	52	PHE	C-N-CA	7.03	128.63	119.84
4	A3	117	GLU	CB-CA-C	7.03	120.23	109.34
34	BA	594	G	C5'-C4'-C3'	7.03	126.54	116.00
35	BB	659	C	O5'-C5'-C4'	-7.03	101.16	111.70
36	BC	155	C	C5'-C4'-C3'	-7.03	105.46	116.00
20	AL	34	ILE	CB-CA-C	7.03	120.96	111.97
34	BA	296	G	C5'-C4'-O4'	-7.03	99.26	109.80
34	BA	495	A	C1'-O4'-C4'	-7.03	102.88	109.90
34	BA	1609	U	C2'-C3'-O3'	7.03	124.24	113.70
35	BB	1098	G	O4'-C1'-C2'	7.03	112.83	105.80
55	BV	113	GLY	N-CA-C	-7.03	101.44	111.42
73	Bn	12	HIS	CA-CB-CG	-7.03	106.77	113.80
85	AA	19	A	P-O5'-C5'	7.03	131.44	120.90
34	BA	953	G	C4'-C3'-C2'	-7.02	95.58	102.60
69	Bj	145	ALA	CA-C-N	7.02	134.34	121.70
69	Bj	145	ALA	C-N-CA	7.02	134.34	121.70
7	A6	172	LYS	CA-C-N	7.02	130.26	120.29
7	A6	172	LYS	C-N-CA	7.02	130.26	120.29
35	BB	29	C	C5'-C4'-C3'	7.02	126.53	116.00
36	BC	42	G	O5'-C5'-C4'	-7.02	100.97	111.50
67	Bh	69	THR	N-CA-C	7.02	121.47	112.34
85	AA	701	C	C5'-C4'-C3'	7.02	126.53	116.00
25	AR	53	THR	N-CA-C	-7.02	95.52	108.02
31	AX	197	ASP	N-CA-C	7.02	119.63	110.43
60	Ba	46	LYS	N-CA-C	-7.02	104.34	113.12
80	Bu	9	ASN	CA-CB-CG	-7.02	105.58	112.60
85	AA	1879	U	C4'-C3'-O3'	-7.02	102.47	113.00
4	A3	161	ILE	N-CA-C	7.02	123.94	109.34
71	Bl	98	ALA	O-C-N	7.02	129.39	121.32
34	BA	81	C	O4'-C1'-C2'	7.02	114.62	107.60
34	BA	1568	A	P-O3'-C3'	7.02	130.73	120.20
35	BB	1506	C	O5'-C5'-C4'	7.02	122.03	111.50
62	Bc	46	LEU	N-CA-CB	-7.02	99.75	110.13
22	AO	140	VAL	N-CA-C	7.02	120.61	110.09
35	BB	1371	G	C5'-C4'-C3'	-7.01	105.48	116.00
44	BK	139	ARG	CD-NE-CZ	-7.01	114.58	124.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	BZ	79	ILE	CA-C-O	7.01	128.88	120.67
66	Bg	107	GLY	N-CA-C	-7.01	96.56	113.18
34	BA	1585	A	C2'-C3'-O3'	7.01	124.22	113.70
25	AR	45	ASP	CA-CB-CG	-7.01	105.59	112.60
37	BD	73	U	O5'-C5'-C4'	-7.01	100.98	111.50
85	AA	272	C	C1'-O4'-C4'	-7.01	102.89	109.90
85	AA	1549	G	C4'-C3'-O3'	-7.01	102.48	113.00
85	AA	1903	G	C5'-C4'-C3'	-7.01	105.48	116.00
18	AJ	120	ASN	CA-CB-CG	-7.01	105.59	112.60
35	BB	139	G	O5'-C5'-C4'	7.01	122.01	111.50
85	AA	984	A	C3'-C2'-C1'	-7.01	94.29	101.30
39	BF	37	C	O3'-P-O5'	-7.01	93.49	104.00
64	Be	95	PRO	CA-C-N	7.01	134.93	121.54
64	Be	95	PRO	C-N-CA	7.01	134.93	121.54
83	Bx	86	PRO	N-CA-C	-7.01	104.19	113.65
85	AA	1842	C	C5'-C4'-C3'	7.01	126.51	116.00
34	BA	544	U	C5'-C4'-C3'	-7.01	105.49	116.00
34	BA	1601	C	P-O5'-C5'	-7.01	110.39	120.90
35	BB	808	U	C5'-C4'-C3'	7.01	126.51	116.00
40	BG	75	C	C2'-C3'-O3'	7.01	124.21	113.70
85	AA	2164	G	P-O3'-C3'	-7.01	109.69	120.20
35	BB	1486	C	O3'-P-O5'	-7.00	93.49	104.00
65	Bf	299	HIS	CA-CB-CG	-7.00	106.80	113.80
34	BA	1737	A	C5'-C4'-C3'	-7.00	105.50	116.00
35	BB	74	U	O5'-C5'-C4'	-7.00	100.99	111.50
35	BB	767	A	C5'-C4'-C3'	-7.00	104.69	115.20
85	AA	1699	A	C4'-C3'-O3'	-7.00	102.50	113.00
34	BA	584	A	O4'-C4'-C3'	-7.00	97.00	104.00
34	BA	1406	U	P-O3'-C3'	-7.00	109.70	120.20
34	BA	1502	G	P-O3'-C3'	-7.00	109.70	120.20
37	BD	97	U	C2'-C3'-O3'	7.00	124.20	113.70
85	AA	1540	A	C4'-C3'-O3'	-7.00	102.50	113.00
24	AQ	101	PHE	O-C-N	-7.00	115.56	121.23
34	BA	304	G	P-O5'-C5'	-7.00	110.40	120.90
6	A5	25	MET	N-CA-C	7.00	125.71	110.80
11	AC	82	THR	N-CA-C	7.00	117.51	108.34
12	AD	18	PHE	CA-CB-CG	7.00	120.80	113.80
34	BA	26	C	C4'-C3'-O3'	-7.00	102.50	113.00
64	Be	134	CYS	N-CA-C	7.00	120.37	109.52
77	Br	272	LYS	N-CA-C	-7.00	98.28	109.76
85	AA	1238	U	C4'-C3'-O3'	-7.00	102.50	113.00
85	AA	2105	G	C4'-C3'-O3'	-7.00	102.50	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	AB	8	U	C4'-C3'-C2'	7.00	109.60	102.60
5	A4	107	ARG	N-CA-C	7.00	125.27	109.81
17	AI	144	HIS	CA-CB-CG	7.00	120.80	113.80
34	BA	1438	C	O3'-P-O5'	-7.00	93.51	104.00
35	BB	1486	C	C5'-C4'-C3'	-7.00	105.51	116.00
40	BG	2	U	C5'-C4'-O4'	7.00	120.29	109.80
62	Bc	23	ASN	N-CA-C	7.00	121.31	111.52
85	AA	105	A	C1'-O4'-C4'	-7.00	102.90	109.90
85	AA	448	G	P-O3'-C3'	-7.00	109.70	120.20
85	AA	2020	C	C2'-C3'-O3'	7.00	124.19	113.70
34	BA	773	A	P-O3'-C3'	-7.00	109.71	120.20
85	AA	485	A	P-O3'-C3'	-7.00	109.71	120.20
25	AR	11	GLY	N-CA-C	-6.99	99.54	112.62
30	AW	39	PRO	N-CA-C	-6.99	104.46	114.18
34	BA	499	C	O3'-P-O5'	6.99	114.49	104.00
34	BA	1580	U	O3'-P-O5'	6.99	114.49	104.00
42	BI	49	HIS	CB-CA-C	6.99	122.00	110.81
85	AA	1189	A	C4'-C3'-C2'	-6.99	95.61	102.60
35	BB	796	C	P-O3'-C3'	-6.99	109.71	120.20
85	AA	486	G	C2'-C3'-O3'	6.99	124.19	113.70
34	BA	1196	C	C5'-C4'-C3'	-6.99	105.52	116.00
35	BB	1363	A	C5'-C4'-C3'	-6.99	105.51	116.00
36	BC	21	U	O4'-C1'-C2'	6.99	112.79	105.80
36	BC	76	C	O3'-P-O5'	6.99	114.49	104.00
54	BU	148	ARG	CA-C-N	6.99	134.89	121.54
54	BU	148	ARG	C-N-CA	6.99	134.89	121.54
61	Bb	15	THR	CA-C-N	6.99	131.78	120.60
61	Bb	15	THR	C-N-CA	6.99	131.78	120.60
85	AA	495	G	C4'-C3'-O3'	-6.99	102.51	113.00
85	AA	519	A	P-O3'-C3'	6.99	130.69	120.20
85	AA	1637	C	C5'-C4'-C3'	-6.99	105.51	116.00
5	A4	114	LEU	N-CA-C	6.99	125.69	110.80
34	BA	1496	G	C1'-O4'-C4'	-6.99	102.71	109.70
35	BB	472	C	P-O3'-C3'	-6.99	109.72	120.20
35	BB	999	G	P-O3'-C3'	-6.99	109.72	120.20
40	BG	58	G	O3'-P-O5'	-6.99	93.52	104.00
47	BN	15	LYS	CA-C-N	6.99	134.89	121.54
47	BN	15	LYS	C-N-CA	6.99	134.89	121.54
85	AA	627	A	C5'-C4'-C3'	-6.99	105.52	116.00
85	AA	689	U	C4'-C3'-O3'	-6.99	102.52	113.00
85	AA	1669	G	C4'-C3'-O3'	-6.99	102.52	113.00
5	A4	6	HIS	CA-CB-CG	6.99	120.79	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	A7	30	LYS	CA-C-N	-6.99	112.77	122.69
8	A7	30	LYS	C-N-CA	-6.99	112.77	122.69
34	BA	1232	C	C5'-C4'-C3'	-6.99	105.52	116.00
36	BC	26	U	C5'-C4'-C3'	6.99	126.48	116.00
85	AA	2031	C	C4'-C3'-O3'	-6.99	102.52	113.00
23	AP	181	PRO	N-CA-C	6.99	122.27	110.95
25	AR	71	HIS	CB-CG-CD2	-6.99	122.12	131.20
36	BC	52	A	O5'-C5'-C4'	-6.99	101.02	111.50
38	BE	32	U	C4'-C3'-C2'	-6.99	95.61	102.60
40	BG	57	A	C5'-C4'-C3'	-6.99	105.52	116.00
43	BJ	91	ASN	N-CA-C	6.99	119.74	111.71
73	Bn	68	LYS	CA-C-O	6.99	128.74	120.92
20	AL	61	LEU	CA-C-N	6.98	131.78	120.60
20	AL	61	LEU	C-N-CA	6.98	131.78	120.60
34	BA	467	A	O3'-P-O5'	-6.98	93.53	104.00
35	BB	690	C	P-O3'-C3'	-6.98	109.72	120.20
35	BB	1310	C	C4'-C3'-O3'	-6.98	102.53	113.00
77	Br	99	ARG	CB-CA-C	-6.98	96.52	110.42
80	Bu	74	VAL	CB-CA-C	-6.98	102.38	111.25
11	AC	129	LEU	N-CA-CB	-6.98	99.80	110.20
34	BA	1619	U	O3'-P-O5'	-6.98	93.53	104.00
35	BB	401	U	P-O5'-C5'	-6.98	110.43	120.90
35	BB	898	U	P-O5'-C5'	6.98	131.37	120.90
85	AA	42	G	O4'-C4'-C3'	-6.98	99.12	106.10
85	AA	366	A	P-O3'-C3'	-6.98	109.73	120.20
85	AA	1479	U	P-O3'-C3'	-6.98	109.73	120.20
34	BA	513	U	O3'-P-O5'	-6.98	93.53	104.00
34	BA	765	U	C5'-C4'-C3'	6.98	126.47	116.00
36	BC	53	A	C5'-C4'-C3'	-6.98	105.53	116.00
38	BE	204	U	C3'-C2'-C1'	-6.98	94.32	101.30
85	AA	464	A	O5'-C5'-C4'	-6.98	101.03	111.50
85	AA	1440	C	P-O5'-C5'	-6.98	110.43	120.90
85	AA	1612	C	O3'-P-O5'	-6.98	93.53	104.00
35	BB	701	U	C5'-C4'-C3'	-6.98	104.74	115.20
57	BX	54	PHE	N-CA-C	6.98	120.27	109.60
61	Bb	131	ASP	CA-C-O	6.98	128.04	119.11
34	BA	1168	C	P-O3'-C3'	6.97	130.66	120.20
34	BA	1194	G	C5'-C4'-C3'	6.97	126.46	116.00
38	BE	107	U	O4'-C4'-C3'	-6.97	97.03	104.00
38	BE	183	C	C6-N1-C1'	-6.97	99.88	120.80
42	BI	67	ILE	CA-C-O	6.97	125.90	119.20
49	BP	144	LEU	N-CA-CB	-6.97	99.90	110.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	Bv	74	ARG	N-CA-C	6.97	119.12	108.52
85	AA	402	G	O3'-P-O5'	6.97	114.46	104.00
85	AA	781	G	P-O3'-C3'	-6.97	109.74	120.20
34	BA	1660	A	P-O5'-C5'	-6.97	110.44	120.90
36	BC	44	A	C5'-C4'-C3'	-6.97	105.54	116.00
36	BC	137	C	C5'-C4'-C3'	-6.97	105.54	116.00
56	BW	13	PHE	N-CA-C	-6.97	96.91	108.34
85	AA	299	A	O4'-C4'-C3'	-6.97	99.13	106.10
85	AA	1163	G	C1'-O4'-C4'	-6.97	102.93	109.90
34	BA	587	U	O3'-P-O5'	-6.97	93.54	104.00
34	BA	1211	G	O4'-C4'-C3'	6.97	110.97	104.00
63	Bd	4	SER	N-CA-C	6.97	121.27	108.58
34	BA	129	U	C4'-C3'-C2'	6.97	109.57	102.60
34	BA	686	U	P-O5'-C5'	-6.97	110.44	120.90
34	BA	1014	A	C5'-C4'-C3'	-6.97	105.55	116.00
34	BA	1344	G	C1'-O4'-C4'	-6.97	102.93	109.90
35	BB	743	C	C4'-C3'-C2'	-6.97	95.63	102.60
35	BB	782	A	C4'-C3'-O3'	-6.97	102.55	113.00
35	BB	815	G	P-O5'-C5'	-6.97	110.44	120.90
71	Bl	42	GLY	N-CA-C	-6.97	97.49	110.73
85	AA	178	U	C5'-C4'-C3'	-6.97	105.55	116.00
85	AA	2174	G	C4'-C3'-O3'	-6.97	102.55	113.00
85	AA	807	A	O4'-C1'-N9	6.97	118.95	108.50
22	AO	118	HIS	CA-CB-CG	-6.97	106.83	113.80
34	BA	25	C	P-O5'-C5'	-6.97	110.45	120.90
34	BA	122	U	C5'-C4'-C3'	-6.97	105.55	116.00
34	BA	739	A	C5'-C4'-C3'	6.97	125.65	115.20
34	BA	1650	G	C3'-C2'-C1'	-6.97	94.53	101.50
40	BG	170	G	O4'-C1'-N9	6.97	118.65	108.20
64	Be	196	TRP	CA-C-O	-6.97	113.64	120.26
80	Bu	226	ASP	CA-CB-CG	-6.97	105.63	112.60
6	A5	185	LEU	N-CA-C	6.96	121.20	110.20
8	A7	96	LEU	CA-C-N	6.96	129.61	120.28
8	A7	96	LEU	C-N-CA	6.96	129.61	120.28
19	AK	75	VAL	N-CA-C	6.96	118.84	108.46
35	BB	1333	U	C5'-C4'-C3'	-6.96	105.56	116.00
37	BD	83	A	C1'-O4'-C4'	-6.96	102.94	109.90
85	AA	588	G	C4'-C3'-C2'	-6.96	95.64	102.60
85	AA	1499	G	C3'-C2'-C1'	-6.96	94.34	101.30
29	AV	13	PRO	N-CA-C	6.96	119.19	110.70
39	BF	35	C	C5'-C4'-C3'	-6.96	105.56	116.00
47	BN	116	ILE	CB-CA-C	6.96	121.54	112.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1626	U	C5'-C4'-C3'	-6.96	105.56	116.00
85	AA	1683	U	O3'-P-O5'	-6.96	93.56	104.00
86	AB	16	U	O4'-C4'-C3'	-6.96	97.04	104.00
34	BA	29	U	C5'-C4'-C3'	6.96	126.44	116.00
34	BA	1489	U	P-O3'-C3'	-6.96	109.76	120.20
85	AA	1463	A	C4'-C3'-O3'	-6.96	102.56	113.00
6	A5	79	LEU	N-CA-C	-6.96	102.02	112.04
34	BA	614	A	P-O3'-C3'	-6.96	109.76	120.20
60	Ba	20	LYS	O-C-N	-6.96	115.17	123.03
61	Bb	41	HIS	CA-CB-CG	-6.96	106.84	113.80
85	AA	637	U	C4'-C3'-O3'	-6.96	102.56	113.00
2	A1	172	ILE	CA-C-N	6.96	132.32	121.32
2	A1	172	ILE	C-N-CA	6.96	132.32	121.32
34	BA	508	C	C5'-C4'-O4'	6.96	119.54	109.10
85	AA	390	U	C4'-C3'-C2'	-6.96	95.64	102.60
22	AO	40	LYS	N-CA-C	6.96	118.75	111.03
34	BA	880	G	P-O5'-C5'	-6.96	110.47	120.90
34	BA	1344	G	C5'-C4'-C3'	-6.96	105.56	116.00
35	BB	46	U	C4'-C3'-C2'	6.96	109.56	102.60
21	AM	103	MET	N-CA-C	-6.95	103.79	112.90
34	BA	78	U	C4'-C3'-O3'	-6.95	102.57	113.00
83	Bx	226	ASN	CA-CB-CG	-6.95	105.65	112.60
85	AA	788	G	O4'-C4'-C3'	-6.95	97.05	104.00
34	BA	1202	G	C1'-O4'-C4'	-6.95	102.95	109.90
35	BB	1478	G	P-O3'-C3'	-6.95	109.77	120.20
35	BB	1492	C	C4'-C3'-O3'	-6.95	102.57	113.00
83	Bx	110	TYR	CA-CB-CG	-6.95	101.39	113.90
85	AA	519	A	C4'-C3'-C2'	-6.95	95.65	102.60
4	A3	2	LYS	O-C-N	-6.95	115.06	123.19
11	AC	205	HIS	N-CA-C	-6.95	104.68	113.72
35	BB	606	C	O4'-C1'-C2'	6.95	112.75	105.80
35	BB	1492	C	C5'-C4'-C3'	-6.95	105.58	116.00
35	BB	507	G	C5'-C4'-C3'	6.95	126.42	116.00
85	AA	385	A	C3'-C2'-C1'	-6.95	94.55	101.50
85	AA	1662	U	C2'-C3'-O3'	6.95	119.92	109.50
69	Bj	37	GLY	CA-C-N	6.95	130.57	120.71
69	Bj	37	GLY	C-N-CA	6.95	130.57	120.71
34	BA	386	A	O5'-C5'-C4'	6.95	121.92	111.50
34	BA	1017	C	P-O5'-C5'	6.95	131.32	120.90
35	BB	66	G	P-O3'-C3'	-6.95	109.78	120.20
38	BE	127	G	O4'-C1'-C2'	6.95	114.55	107.60
39	BF	34	C	C4'-C3'-C2'	-6.95	95.65	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BH	48	G	O3'-P-O5'	-6.95	93.58	104.00
58	BY	64	ARG	CA-C-N	6.95	130.52	120.38
58	BY	64	ARG	C-N-CA	6.95	130.52	120.38
85	AA	115	U	P-O3'-C3'	6.95	130.62	120.20
85	AA	334	A	O3'-P-O5'	6.95	114.42	104.00
35	BB	1489	A	C1'-O4'-C4'	-6.94	102.76	109.70
85	AA	1062	U	C5'-C4'-C3'	-6.94	104.78	115.20
1	A0	76	THR	N-CA-C	-6.94	104.84	113.38
34	BA	226	A	P-O3'-C3'	6.94	130.61	120.20
34	BA	316	G	P-O3'-C3'	6.94	130.61	120.20
85	AA	471	U	C2'-C3'-O3'	6.94	124.11	113.70
34	BA	1603	A	C4'-C3'-C2'	-6.94	95.66	102.60
34	BA	1716	A	C1'-O4'-C4'	-6.94	102.96	109.90
85	AA	1913	G	P-O5'-C5'	6.94	131.31	120.90
4	A3	4	ASN	CA-CB-CG	-6.94	105.66	112.60
18	AJ	34	VAL	CB-CA-C	6.94	121.51	112.14
22	AO	118	HIS	CB-CG-CD2	-6.94	122.18	131.20
34	BA	966	G	P-O3'-C3'	6.94	130.61	120.20
82	Bw	164	TYR	CA-CB-CG	-6.94	101.41	113.90
2	A1	68	CYS	CA-C-O	6.94	128.92	120.60
56	BW	34	LYS	N-CA-C	-6.94	104.95	113.41
85	AA	1134	G	C4'-C3'-O3'	-6.94	102.60	113.00
34	BA	1457	C	C4'-C3'-O3'	6.93	119.80	109.40
38	BE	121	G	P-O3'-C3'	-6.93	109.80	120.20
81	Bv	50	ILE	CB-CA-C	-6.93	101.71	111.21
85	AA	1044	G	P-O5'-C5'	6.93	131.30	120.90
6	A5	120	ASP	CA-C-N	6.93	132.55	121.18
6	A5	120	ASP	C-N-CA	6.93	132.55	121.18
34	BA	568	G	C4'-C3'-C2'	-6.93	95.67	102.60
34	BA	1483	U	P-O3'-C3'	-6.93	109.80	120.20
80	Bu	151	ILE	N-CA-C	6.93	118.46	108.48
82	Bw	82	ARG	N-CA-CB	-6.93	99.90	110.16
85	AA	38	C	O3'-P-O5'	6.93	114.40	104.00
85	AA	79	G	C4'-C3'-O3'	-6.93	102.60	113.00
85	AA	619	A	P-O5'-C5'	6.93	131.30	120.90
85	AA	932	A	P-O5'-C5'	6.93	131.30	120.90
35	BB	1018	U	C1'-O4'-C4'	-6.93	102.97	109.90
41	BH	15	A	C4'-C3'-C2'	-6.93	95.67	102.60
34	BA	1258	G	O3'-P-O5'	-6.93	93.61	104.00
57	BX	63	PRO	N-CA-C	6.93	126.74	112.47
34	BA	251	U	P-O5'-C5'	6.93	131.29	120.90
34	BA	861	C	P-O5'-C5'	-6.93	110.51	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1732	A	C5'-C4'-C3'	-6.93	105.61	116.00
35	BB	1530	U	C4'-C3'-O3'	-6.93	102.61	113.00
66	Bg	78	ILE	CB-CA-C	-6.93	101.42	110.84
77	Br	105	LYS	CA-C-N	6.93	129.95	120.46
77	Br	105	LYS	C-N-CA	6.93	129.95	120.46
85	AA	341	C	P-O5'-C5'	6.93	131.29	120.90
85	AA	857	G	P-O3'-C3'	-6.93	109.81	120.20
34	BA	395	G	C5'-C4'-C3'	-6.92	105.61	116.00
34	BA	794	G	P-O5'-C5'	-6.92	110.51	120.90
34	BA	1211	G	C5'-C4'-C3'	6.92	126.39	116.00
39	BF	41	U	C5'-C4'-C3'	-6.92	104.81	115.20
41	BH	40	C	P-O5'-C5'	6.92	131.29	120.90
85	AA	1711	C	O4'-C1'-C2'	6.92	114.52	107.60
34	BA	881	C	C2'-C3'-O3'	6.92	124.08	113.70
34	BA	1089	U	P-O3'-C3'	-6.92	109.82	120.20
36	BC	101	U	O5'-C5'-C4'	-6.92	101.12	111.50
85	AA	210	G	C5'-C4'-C3'	-6.92	104.82	115.20
85	AA	2141	G	O4'-C1'-C2'	6.92	114.52	107.60
68	Bi	50	GLN	N-CA-C	6.92	125.54	110.80
34	BA	935	A	P-O3'-C3'	-6.92	109.82	120.20
44	BK	135	LEU	N-CA-C	-6.92	102.21	111.96
67	Bh	147	VAL	N-CA-C	6.92	118.44	108.48
72	Bm	88	ILE	N-CA-CB	-6.92	101.82	110.47
77	Br	250	TRP	CB-CA-C	-6.92	98.45	109.80
80	Bu	13	TYR	N-CA-C	-6.92	103.82	111.36
85	AA	575	G	C2'-C3'-O3'	6.92	124.08	113.70
85	AA	930	G	P-O3'-C3'	6.92	130.58	120.20
5	A4	164	ARG	N-CA-C	-6.92	104.10	112.54
35	BB	1016	C	P-O3'-C3'	-6.92	109.83	120.20
38	BE	45	G	O5'-C5'-C4'	-6.92	101.13	111.50
47	BN	146	GLU	N-CA-C	6.92	120.60	111.75
64	Be	70	ARG	NE-CZ-NH1	6.92	128.42	121.50
64	Be	229	ALA	CA-C-N	6.92	127.50	120.38
64	Be	229	ALA	C-N-CA	6.92	127.50	120.38
85	AA	2071	U	O5'-C5'-C4'	-6.92	101.12	111.50
65	Bf	83	PHE	CA-CB-CG	-6.92	106.89	113.80
36	BC	7	U	O4'-C1'-C2'	-6.91	100.69	107.60
85	AA	68	A	C1'-O4'-C4'	-6.91	102.99	109.90
85	AA	434	U	P-O3'-C3'	6.91	130.57	120.20
42	BI	105	LEU	N-CA-C	6.91	125.52	110.80
77	Br	176	ILE	N-CA-C	6.91	123.72	109.34
34	BA	658	C	P-O3'-C3'	6.91	130.57	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	86	A	O3'-P-O5'	-6.91	93.63	104.00
35	BB	101	U	O3'-P-O5'	-6.91	93.64	104.00
35	BB	879	G	C4'-C3'-O3'	-6.91	102.64	113.00
36	BC	91	G	C4'-C3'-O3'	-6.91	102.63	113.00
37	BD	25	G	O3'-P-O5'	-6.91	93.63	104.00
77	Br	320	ILE	N-CA-C	-6.91	102.89	112.50
2	A1	167	LEU	N-CA-C	-6.91	104.74	113.72
35	BB	377	A	O5'-C5'-C4'	-6.91	101.14	111.50
85	AA	1459	C	O5'-C5'-C4'	-6.91	101.14	111.50
1	A0	62	ARG	N-CA-C	-6.91	103.83	111.36
22	AO	111	ARG	N-CA-C	6.91	120.19	109.07
34	BA	78	U	O3'-P-O5'	-6.91	93.64	104.00
35	BB	870	C	P-O3'-C3'	-6.91	109.84	120.20
62	Bc	34	ASN	CA-CB-CG	-6.91	105.69	112.60
70	Bk	93	HIS	N-CA-C	-6.91	103.68	111.07
85	AA	266	U	O3'-P-O5'	6.91	114.36	104.00
16	AH	24	VAL	CA-C-O	6.91	128.74	120.66
34	BA	693	G	N9-C1'-C2'	6.91	122.36	112.00
34	BA	1314	A	C5'-C4'-C3'	-6.91	105.64	116.00
35	BB	1152	U	P-O5'-C5'	-6.91	110.54	120.90
37	BD	10	C	P-O3'-C3'	6.91	130.56	120.20
85	AA	399	A	C4'-C3'-O3'	-6.91	102.64	113.00
85	AA	661	C	P-O5'-C5'	6.91	131.26	120.90
85	AA	1439	A	P-O3'-C3'	-6.91	109.84	120.20
34	BA	1177	C	O3'-P-O5'	-6.90	93.64	104.00
35	BB	830	G	O4'-C4'-C3'	-6.90	97.10	104.00
47	BN	62	GLN	N-CA-C	-6.90	98.67	109.72
82	Bw	138	MET	N-CA-C	-6.90	104.99	113.41
85	AA	100	A	O3'-P-O5'	6.90	114.36	104.00
85	AA	171	U	O4'-C4'-C3'	6.90	110.90	104.00
85	AA	1502	A	P-O5'-C5'	6.90	131.26	120.90
86	AB	50	U	O3'-P-O5'	-6.90	93.64	104.00
34	BA	625	U	C4'-C3'-C2'	-6.90	95.70	102.60
36	BC	165	U	P-O3'-C3'	-6.90	109.85	120.20
41	BH	130	G	C5'-C4'-C3'	-6.90	105.65	116.00
68	Bi	102	GLY	CA-C-N	6.90	129.53	120.28
68	Bi	102	GLY	C-N-CA	6.90	129.53	120.28
83	Bx	270	ASP	CA-C-N	6.90	134.72	121.54
83	Bx	270	ASP	C-N-CA	6.90	134.72	121.54
85	AA	323	U	O5'-C5'-C4'	-6.90	101.14	111.50
85	AA	1191	G	P-O5'-C5'	6.90	131.25	120.90
85	AA	1785	U	P-O5'-C5'	6.90	131.25	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	878	G	O4'-C1'-C2'	6.90	114.50	107.60
69	Bj	109	LYS	N-CA-CB	-6.90	99.58	110.28
85	AA	886	A	C3'-C2'-C1'	-6.90	94.40	101.30
85	AA	1157	U	C5'-C4'-C3'	-6.90	105.65	116.00
34	BA	1365	U	P-O3'-C3'	6.90	130.55	120.20
35	BB	1005	A	O5'-C5'-C4'	-6.90	101.15	111.50
85	AA	282	C	O4'-C4'-C3'	6.90	110.90	104.00
3	A2	72	LYS	N-CA-CB	-6.90	99.72	110.06
34	BA	542	A	C5'-C4'-C3'	-6.90	105.65	116.00
34	BA	1618	A	C1'-O4'-C4'	-6.90	103.00	109.90
35	BB	758	A	C4'-C3'-C2'	-6.90	95.70	102.60
35	BB	1461	C	O4'-C4'-C3'	-6.90	99.20	106.10
44	BK	99	ILE	CB-CA-C	-6.90	100.32	110.81
47	BN	205	ARG	N-CA-C	-6.90	103.76	111.28
72	Bm	79	LYS	N-CA-C	6.90	119.39	111.11
34	BA	109	A	P-O5'-C5'	-6.90	110.56	120.90
34	BA	196	A	N9-C1'-C2'	-6.90	101.66	112.00
34	BA	687	G	C4'-C3'-O3'	-6.90	102.66	113.00
35	BB	1282	G	O5'-C5'-C4'	-6.90	101.16	111.50
85	AA	15	U	C5'-C4'-C3'	-6.90	105.66	116.00
85	AA	813	G	P-O3'-C3'	-6.90	109.86	120.20
34	BA	471	U	O3'-P-O5'	-6.89	93.66	104.00
35	BB	995	C	C1'-C2'-O2'	6.89	118.74	108.40
37	BD	6	C	P-O5'-C5'	-6.89	110.56	120.90
40	BG	85	C	C5'-C4'-C3'	6.89	125.54	115.20
55	BV	100	LYS	N-CA-C	6.89	118.88	111.36
65	Bf	219	LEU	N-CA-C	6.89	121.39	113.19
85	AA	639	C	O3'-P-O5'	-6.89	93.66	104.00
85	AA	1231	G	C5'-C4'-C3'	6.89	126.34	116.00
11	AC	211	TYR	N-CA-CB	-6.89	99.99	110.12
34	BA	182	U	O5'-C5'-C4'	-6.89	101.16	111.50
40	BG	10	U	C1'-O4'-C4'	-6.89	103.01	109.90
41	BH	129	G	P-O3'-C3'	-6.89	109.86	120.20
85	AA	1510	A	P-O5'-C5'	6.89	131.24	120.90
34	BA	875	G	P-O3'-C3'	6.89	130.54	120.20
37	BD	94	C	O3'-P-O5'	-6.89	93.66	104.00
34	BA	189	G	C5'-C4'-O4'	6.89	120.14	109.80
34	BA	675	C	P-O5'-C5'	6.89	131.23	120.90
34	BA	955	G	O3'-P-O5'	-6.89	93.67	104.00
34	BA	1735	G	C2'-C3'-O3'	6.89	124.03	113.70
35	BB	1099	U	C4'-C3'-C2'	-6.89	95.71	102.60
35	BB	1129	C	C4'-C3'-O3'	-6.89	102.67	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	BK	52	VAL	N-CA-CB	6.89	120.30	111.83
50	BQ	72	THR	N-CA-C	6.89	125.47	110.80
85	AA	131	C	C4'-C3'-O3'	-6.89	102.67	113.00
85	AA	2129	U	O4'-C4'-C3'	-6.89	97.11	104.00
35	BB	1122	C	C5'-C4'-C3'	-6.89	105.67	116.00
35	BB	1505	U	C5'-C4'-C3'	-6.89	104.87	115.20
85	AA	337	C	P-O3'-C3'	-6.89	109.87	120.20
85	AA	366	A	C4'-C3'-O3'	-6.89	102.67	113.00
23	AP	180	ILE	O-C-N	-6.89	113.25	121.10
85	AA	172	A	P-O3'-C3'	-6.89	109.87	120.20
85	AA	245	A	P-O3'-C3'	6.89	130.53	120.20
85	AA	1759	U	O3'-P-O5'	-6.89	93.67	104.00
85	AA	2128	G	P-O5'-C5'	-6.89	110.57	120.90
17	AI	60	ALA	CA-C-O	-6.88	110.73	120.16
34	BA	502	U	C1'-O4'-C4'	-6.88	103.02	109.90
34	BA	557	U	C5'-C4'-O4'	6.88	120.13	109.80
34	BA	829	U	P-O5'-C5'	6.88	131.23	120.90
40	BG	107	U	P-O5'-C5'	-6.88	110.57	120.90
64	Be	107	ILE	N-CA-C	-6.88	98.45	108.71
85	AA	569	A	O4'-C1'-N9	6.88	118.83	108.50
85	AA	240	A	C4'-C3'-C2'	-6.88	95.72	102.60
85	AA	1130	G	O5'-C5'-C4'	-6.88	101.17	111.50
85	AA	2068	A	O5'-C5'-C4'	6.88	121.82	111.50
4	A3	222	ALA	N-CA-C	6.88	125.46	110.80
26	AS	119	ARG	CB-CA-C	6.88	121.96	109.99
34	BA	3	G	C1'-O4'-C4'	-6.88	103.02	109.90
34	BA	1418	G	O5'-C5'-C4'	-6.88	101.18	111.50
35	BB	858	U	P-O3'-C3'	-6.88	109.88	120.20
35	BB	1025	A	O4'-C1'-N9	6.88	118.82	108.50
36	BC	153	C	C4'-C3'-C2'	6.88	109.48	102.60
38	BE	134	A	C5'-C4'-C3'	6.88	125.52	115.20
69	Bj	26	THR	N-CA-CB	6.88	117.56	109.72
85	AA	91	U	O3'-P-O5'	6.88	114.32	104.00
85	AA	820	G	P-O5'-C5'	-6.88	110.58	120.90
21	AM	36	GLY	CA-C-N	6.88	134.08	121.70
21	AM	36	GLY	C-N-CA	6.88	134.08	121.70
36	BC	112	G	P-O5'-C5'	6.88	131.22	120.90
40	BG	24	A	O5'-C5'-C4'	6.88	122.02	111.70
35	BB	63	A	O4'-C1'-C2'	-6.88	98.92	105.80
42	BI	110	LEU	CB-CA-C	-6.88	99.16	110.85
57	BX	87	TYR	CA-CB-CG	6.88	126.28	113.90
84	By	177	ILE	N-CA-CB	-6.88	103.83	112.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AL	107	ALA	N-CA-C	6.88	118.78	111.28
35	BB	1514	G	O3'-P-O5'	-6.88	93.69	104.00
83	Bx	111	ALA	N-CA-CB	-6.88	100.89	110.04
34	BA	343	G	P-O3'-C3'	-6.88	109.89	120.20
34	BA	1055	U	O5'-C5'-C4'	-6.88	101.19	111.50
34	BA	1789	A	O3'-P-O5'	6.88	114.31	104.00
37	BD	113	G	C5'-C4'-C3'	6.88	126.31	116.00
85	AA	1831	U	O3'-P-O5'	-6.88	93.69	104.00
21	AM	125	ARG	CD-NE-CZ	-6.87	114.78	124.40
34	BA	605	G	P-O3'-C3'	-6.87	109.89	120.20
35	BB	1027	U	P-O5'-C5'	6.87	131.21	120.90
41	BH	105	U	O5'-C5'-C4'	-6.87	101.19	111.50
45	BL	143	GLU	N-CA-C	6.87	120.77	112.38
85	AA	508	C	P-O5'-C5'	6.87	131.21	120.90
34	BA	822	U	O3'-P-O5'	6.87	114.31	104.00
34	BA	1425	G	P-O5'-C5'	6.87	131.21	120.90
36	BC	17	U	C4'-C3'-O3'	-6.87	102.69	113.00
34	BA	483	A	O4'-C1'-C2'	-6.87	100.73	107.60
34	BA	903	C	P-O3'-C3'	-6.87	109.89	120.20
34	BA	960	C	P-O5'-C5'	-6.87	110.59	120.90
85	AA	243	A	C5'-C4'-C3'	6.87	126.31	116.00
41	BH	103	C	O4'-C4'-C3'	-6.87	97.13	104.00
51	BR	129	THR	N-CA-C	6.87	120.85	108.69
34	BA	1776	G	C5'-C4'-C3'	6.87	125.50	115.20
35	BB	561	C	C4'-C3'-C2'	-6.87	95.73	102.60
35	BB	1029	U	O4'-C1'-C2'	6.87	112.67	105.80
39	BF	65	U	C4'-C3'-O3'	-6.87	102.70	113.00
47	BN	111	GLU	CA-C-O	6.87	127.83	120.55
84	By	18	SER	CB-CA-C	-6.87	99.25	110.79
85	AA	2049	U	P-O3'-C3'	6.87	130.50	120.20
5	A4	2	SER	CA-C-N	6.87	134.65	121.54
5	A4	2	SER	C-N-CA	6.87	134.65	121.54
34	BA	120	A	O4'-C4'-C3'	-6.87	99.23	106.10
35	BB	825	U	O4'-C4'-C3'	-6.87	97.13	104.00
54	BU	74	VAL	CB-CA-C	-6.87	100.47	110.63
34	BA	1280	A	C4'-C3'-C2'	6.86	109.46	102.60
35	BB	1147	G	O5'-C5'-C4'	-6.86	101.20	111.50
42	BI	121	THR	CA-C-N	6.86	127.60	119.98
42	BI	121	THR	C-N-CA	6.86	127.60	119.98
82	Bw	109	LYS	O-C-N	-6.86	114.91	122.67
85	AA	867	G	P-O5'-C5'	-6.86	110.60	120.90
1	A0	36	LYS	CA-C-N	6.86	134.65	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A0	36	LYS	C-N-CA	6.86	134.65	121.54
3	A2	16	ASN	N-CA-C	-6.86	102.09	111.56
17	AI	40	PHE	N-CA-C	-6.86	103.73	111.14
36	BC	25	C	C2'-C3'-O3'	6.86	123.99	113.70
40	BG	172	C	P-O5'-C5'	-6.86	110.61	120.90
73	Bn	76	ASN	CA-CB-CG	-6.86	105.74	112.60
34	BA	229	C	C4'-C3'-O3'	-6.86	102.71	113.00
34	BA	252	A	P-O5'-C5'	-6.86	110.61	120.90
35	BB	465	C	O5'-C5'-C4'	-6.86	101.41	111.70
35	BB	1321	G	C4'-C3'-O3'	-6.86	102.71	113.00
44	BK	191	GLN	CA-C-N	6.86	130.55	120.95
44	BK	191	GLN	C-N-CA	6.86	130.55	120.95
85	AA	506	G	P-O3'-C3'	-6.86	109.91	120.20
35	BB	853	U	O3'-P-O5'	6.86	114.29	104.00
34	BA	115	U	N1-C1'-C2'	6.86	124.29	114.00
34	BA	650	C	C4'-C3'-C2'	-6.86	95.74	102.60
35	BB	823	G	P-O3'-C3'	-6.86	109.91	120.20
78	Bs	2	MET	CB-CA-C	6.86	120.59	109.07
85	AA	920	A	C5'-C4'-C3'	6.86	125.49	115.20
85	AA	1339	C	C4'-C3'-C2'	-6.86	95.74	102.60
85	AA	1805	A	P-O5'-C5'	6.86	131.19	120.90
35	BB	306	U	P-O5'-C5'	6.86	131.18	120.90
35	BB	452	A	P-O5'-C5'	-6.86	110.62	120.90
35	BB	1203	C	C5'-C4'-O4'	6.86	120.08	109.80
37	BD	102	C	C1'-O4'-C4'	-6.86	103.05	109.90
35	BB	639	A	C2'-C3'-O3'	6.85	119.78	109.50
57	BX	87	TYR	O-C-N	-6.85	116.48	121.83
85	AA	1263	G	C5'-C4'-C3'	-6.85	105.72	116.00
64	Be	74	GLU	N-CA-C	6.85	125.39	110.80
65	Bf	353	THR	N-CA-C	-6.85	96.20	110.80
65	Bf	426	GLY	CA-C-N	6.85	134.63	121.54
65	Bf	426	GLY	C-N-CA	6.85	134.63	121.54
85	AA	1507	G	P-O5'-C5'	-6.85	110.62	120.90
29	AV	15	CYS	CA-C-N	6.85	132.81	122.95
29	AV	15	CYS	C-N-CA	6.85	132.81	122.95
34	BA	933	U	C4'-C3'-O3'	-6.85	102.72	113.00
34	BA	1683	C	C5'-C4'-C3'	6.85	126.28	116.00
23	AP	191	ALA	N-CA-C	6.85	124.95	109.81
34	BA	401	A	O3'-P-O5'	-6.85	93.73	104.00
34	BA	1059	U	C5'-C4'-C3'	-6.85	105.73	116.00
34	BA	1797	A	C2'-C3'-O3'	6.85	119.77	109.50
35	BB	690	C	P-O5'-C5'	6.85	131.17	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BE	104	G	O4'-C1'-N9	6.85	118.78	108.50
42	BI	191	ARG	CA-C-N	6.85	134.62	121.54
42	BI	191	ARG	C-N-CA	6.85	134.62	121.54
34	BA	420	A	C5'-C4'-C3'	-6.85	105.73	116.00
35	BB	1028	C	C4'-C3'-O3'	-6.85	102.73	113.00
37	BD	14	C	C2'-C3'-O3'	6.85	123.97	113.70
42	BI	120	ILE	CB-CA-C	-6.85	103.25	111.81
49	BP	106	THR	N-CA-C	-6.85	98.60	108.60
52	BS	96	PHE	N-CA-C	6.85	120.33	108.76
65	Bf	173	TRP	CB-CG-CD2	-6.85	117.21	126.80
79	Bt	93	LEU	N-CA-C	-6.85	97.11	108.34
82	Bw	172	ASN	N-CA-C	-6.85	102.74	111.92
85	AA	381	A	P-O5'-C5'	-6.85	110.63	120.90
85	AA	1645	G	C3'-C2'-C1'	-6.85	94.45	101.30
85	AA	1973	G	P-O5'-C5'	-6.85	110.63	120.90
86	AB	58	A	C5'-C4'-C3'	-6.85	104.93	115.20
35	BB	1001	G	C4'-C3'-C2'	-6.85	95.75	102.60
62	Bc	112	LYS	CA-C-N	6.85	129.45	120.28
62	Bc	112	LYS	C-N-CA	6.85	129.45	120.28
16	AH	49	VAL	N-CA-CB	-6.84	101.96	111.41
34	BA	1275	G	C4'-C3'-O3'	-6.84	102.73	113.00
34	BA	1800	G	O3'-P-O5'	6.84	114.27	104.00
35	BB	1507	U	C4'-C3'-O3'	-6.84	102.73	113.00
37	BD	83	A	C1'-C2'-O2'	6.84	118.67	108.40
47	BN	121	LEU	CA-C-O	6.84	128.01	120.82
48	BO	24	ILE	N-CA-CB	6.84	122.52	111.23
48	BO	82	SER	CB-CA-C	-6.84	99.43	110.79
62	Bc	20	GLN	O-C-N	-6.84	115.05	123.33
74	Bo	71	LEU	CA-C-N	6.84	134.61	121.54
74	Bo	71	LEU	C-N-CA	6.84	134.61	121.54
85	AA	513	G	C5'-C4'-C3'	-6.84	105.73	116.00
85	AA	923	A	O4'-C4'-C3'	-6.84	97.16	104.00
34	BA	297	A	N9-C1'-C2'	6.84	122.26	112.00
67	Bh	180	ASN	CA-C-N	6.84	129.76	120.38
67	Bh	180	ASN	C-N-CA	6.84	129.76	120.38
85	AA	543	A	C5'-C4'-C3'	6.84	126.27	116.00
85	AA	1368	G	P-O3'-C3'	-6.84	109.94	120.20
34	BA	997	U	P-O5'-C5'	-6.84	110.64	120.90
35	BB	440	U	P-O5'-C5'	6.84	131.16	120.90
85	AA	274	A	P-O3'-C3'	-6.84	109.94	120.20
85	AA	395	G	O3'-P-O5'	-6.84	93.74	104.00
34	BA	314	A	C5'-C4'-C3'	-6.84	105.74	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	BT	113	LYS	N-CA-CB	6.84	122.05	110.49
60	Ba	53	VAL	N-CA-C	6.84	123.56	109.34
65	Bf	97	PHE	CA-CB-CG	6.84	120.64	113.80
82	Bw	215	ASN	CA-CB-CG	-6.84	105.76	112.60
34	BA	142	A	O3'-P-O5'	-6.84	93.74	104.00
35	BB	555	G	P-O5'-C5'	-6.84	110.64	120.90
35	BB	803	U	C1'-O4'-C4'	-6.84	102.86	109.70
36	BC	108	A	C1'-O4'-C4'	-6.84	103.06	109.90
44	BK	141	LYS	CA-C-N	6.84	129.75	120.38
44	BK	141	LYS	C-N-CA	6.84	129.75	120.38
47	BN	66	PRO	CA-C-N	6.84	134.60	121.54
47	BN	66	PRO	C-N-CA	6.84	134.60	121.54
85	AA	889	G	C5'-C4'-C3'	-6.84	105.74	116.00
34	BA	680	C	O4'-C4'-C3'	-6.84	97.16	104.00
34	BA	1545	C	O5'-C5'-C4'	-6.84	101.25	111.50
34	BA	1565	U	O4'-C4'-C3'	-6.84	97.16	104.00
85	AA	90	A	C1'-O4'-C4'	-6.84	102.86	109.70
85	AA	211	C	P-O3'-C3'	6.84	130.46	120.20
34	BA	1321	A	P-O3'-C3'	-6.83	109.95	120.20
35	BB	778	A	C1'-O4'-C4'	-6.83	103.06	109.90
26	AS	34	VAL	N-CA-C	6.83	118.41	110.62
35	BB	1144	A	C5'-C4'-C3'	-6.83	105.75	116.00
40	BG	28	A	C4'-C3'-O3'	-6.83	102.75	113.00
85	AA	1141	U	C5'-C4'-C3'	-6.83	105.75	116.00
34	BA	4	A	P-O5'-C5'	6.83	131.15	120.90
34	BA	1603	A	P-O5'-C5'	-6.83	110.65	120.90
36	BC	8	C	O5'-C5'-C4'	-6.83	101.25	111.50
39	BF	22	U	C2'-C3'-O3'	6.83	119.75	109.50
74	Bo	58	ASP	CA-C-N	-6.83	111.56	121.26
74	Bo	58	ASP	C-N-CA	-6.83	111.56	121.26
16	AH	72	GLN	N-CA-C	6.83	118.38	111.07
34	BA	871	G	O3'-P-O5'	-6.83	93.76	104.00
35	BB	616	U	C5'-C4'-C3'	-6.83	105.76	116.00
44	BK	201	THR	N-CA-C	6.83	118.67	110.07
45	BL	142	GLY	CA-C-N	6.83	131.53	120.60
45	BL	142	GLY	C-N-CA	6.83	131.53	120.60
50	BQ	26	GLU	CA-C-O	6.83	127.66	120.42
85	AA	1661	U	O4'-C1'-C2'	6.83	112.63	105.80
86	AB	66	U	O5'-C5'-C4'	-6.83	101.26	111.50
34	BA	610	A	O4'-C4'-C3'	-6.83	97.17	104.00
34	BA	1557	G	O5'-C5'-C4'	-6.83	101.26	111.50
41	BH	25	A	C2'-C3'-O3'	6.83	123.94	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	BO	23	ASP	O-C-N	-6.83	114.69	122.68
85	AA	517	A	C4'-C3'-O3'	6.83	123.24	113.00
34	BA	674	G	O4'-C1'-N9	6.83	118.74	108.50
34	BA	1821	A	O5'-C5'-C4'	-6.83	101.26	111.50
35	BB	99	G	O5'-C5'-C4'	-6.83	101.26	111.50
35	BB	1326	U	C4'-C3'-C2'	6.83	109.42	102.60
48	BO	66	ILE	CB-CA-C	-6.83	103.23	111.97
85	AA	370	A	P-O3'-C3'	-6.83	109.96	120.20
85	AA	497	G	C4'-C3'-O3'	-6.83	102.76	113.00
85	AA	2088	U	P-O3'-C3'	-6.83	109.96	120.20
36	BC	87	C	P-O5'-C5'	-6.82	110.67	120.90
54	BU	32	THR	N-CA-C	6.82	125.34	110.80
85	AA	330	C	C4'-C3'-C2'	-6.82	95.78	102.60
85	AA	486	G	P-O5'-C5'	-6.82	110.66	120.90
34	BA	323	C	O4'-C1'-N1	6.82	118.43	108.20
35	BB	278	U	O3'-P-O5'	-6.82	93.77	104.00
34	BA	809	U	O3'-P-O5'	-6.82	93.77	104.00
39	BF	41	U	C2'-C3'-O3'	6.82	119.73	109.50
51	BR	111	LYS	O-C-N	-6.82	115.51	121.85
86	AB	53	G	C5'-C4'-C3'	-6.82	105.77	116.00
35	BB	1518	U	P-O3'-C3'	6.82	130.43	120.20
65	Bf	240	ASN	CA-CB-CG	6.82	119.42	112.60
2	A1	51	TYR	N-CA-C	-6.82	96.28	110.80
33	AZ	56	VAL	N-CA-C	6.82	118.96	109.55
34	BA	11	U	O5'-C5'-C4'	-6.82	101.27	111.50
34	BA	1095	G	O5'-C5'-C4'	-6.82	101.28	111.50
34	BA	1778	U	C5'-C4'-C3'	-6.82	105.77	116.00
35	BB	1369	A	O4'-C1'-C2'	6.82	112.62	105.80
36	BC	102	G	C4'-C3'-O3'	-6.82	102.78	113.00
84	By	57	ARG	N-CA-C	6.82	125.32	110.80
85	AA	646	C	P-O3'-C3'	-6.82	109.97	120.20
85	AA	1523	G	O3'-P-O5'	6.82	114.23	104.00
34	BA	353	U	C5'-C4'-C3'	-6.82	105.78	116.00
62	Bc	64	THR	CB-CA-C	-6.82	101.42	109.80
85	AA	2022	A	C4'-C3'-O3'	-6.82	102.78	113.00
20	AL	31	ASN	CA-C-N	6.81	129.64	120.65
20	AL	31	ASN	C-N-CA	6.81	129.64	120.65
34	BA	195	G	C4'-C3'-C2'	6.81	109.41	102.60
44	BK	97	LEU	N-CA-C	6.81	121.15	110.32
69	Bj	45	THR	O-C-N	6.81	129.03	121.53
85	AA	687	G	P-O3'-C3'	6.81	130.42	120.20
85	AA	1516	A	C4'-C3'-O3'	-6.81	102.78	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1879	U	C4'-C3'-C2'	6.81	109.41	102.60
38	BE	177	U	P-O3'-C3'	-6.81	109.98	120.20
50	BQ	198	ALA	N-CA-C	-6.81	104.00	112.72
81	Bv	173	GLY	CA-C-N	6.81	133.96	121.70
81	Bv	173	GLY	C-N-CA	6.81	133.96	121.70
85	AA	679	A	C2'-C3'-O3'	-6.81	103.48	113.70
85	AA	1256	C	C5'-C4'-C3'	-6.81	105.78	116.00
25	AR	18	ILE	CB-CA-C	6.81	118.85	110.95
34	BA	1468	U	O5'-C5'-C4'	-6.81	101.28	111.50
34	BA	1509	U	O3'-P-O5'	6.81	114.22	104.00
85	AA	2249	U	O4'-C1'-C2'	-6.81	98.99	105.80
29	AV	17	ARG	N-CA-CB	6.81	122.00	110.49
35	BB	694	C	C4'-C3'-C2'	6.81	109.41	102.60
36	BC	88	A	C1'-O4'-C4'	-6.81	103.09	109.90
41	BH	33	G	P-O5'-C5'	6.81	131.12	120.90
63	Bd	52	GLN	OE1-CD-NE2	-6.81	115.79	122.60
73	Bn	48	ASN	CA-CB-CG	-6.81	105.79	112.60
34	BA	501	U	O4'-C1'-C2'	-6.81	100.79	107.60
34	BA	1711	G	C3'-C2'-C1'	-6.81	94.49	101.30
35	BB	632	U	P-O3'-C3'	-6.81	109.99	120.20
38	BE	25	U	C5'-C4'-C3'	6.81	126.21	116.00
85	AA	2058	C	C5'-C4'-C3'	6.81	126.21	116.00
35	BB	475	A	P-O5'-C5'	6.80	131.11	120.90
76	Bq	6	PRO	N-CA-C	6.80	126.49	112.47
85	AA	85	U	C4'-C3'-O3'	-6.80	102.79	113.00
85	AA	589	A	O5'-C5'-C4'	6.80	121.91	111.70
85	AA	750	A	C4'-C3'-C2'	-6.80	95.80	102.60
85	AA	893	G	P-O3'-C3'	-6.80	109.99	120.20
85	AA	964	C	P-O5'-C5'	-6.80	110.69	120.90
34	BA	3	G	C8-N9-C1'	6.80	147.41	127.00
35	BB	1207	C	P-O3'-C3'	-6.80	110.00	120.20
47	BN	33	GLN	CA-C-N	6.80	128.34	119.84
47	BN	33	GLN	C-N-CA	6.80	128.34	119.84
61	Bb	75	LEU	N-CA-C	6.80	125.29	110.80
85	AA	39	A	P-O5'-C5'	-6.80	110.69	120.90
85	AA	488	G	O3'-P-O5'	6.80	114.20	104.00
85	AA	945	A	O4'-C4'-C3'	-6.80	99.30	106.10
34	BA	238	C	P-O3'-C3'	-6.80	110.00	120.20
34	BA	632	U	C5'-C4'-C3'	-6.80	105.80	116.00
34	BA	952	G	C5'-C4'-C3'	6.80	126.20	116.00
34	BA	1440	C	C4'-C3'-C2'	-6.80	95.80	102.60
34	BA	1201	G	O5'-C5'-C4'	6.80	121.70	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	850	U	O5'-C5'-C4'	6.80	121.90	111.70
38	BE	28	C	C5'-C4'-C3'	-6.80	105.00	115.20
40	BG	4	A	O3'-P-O5'	-6.80	93.80	104.00
51	BR	57	CYS	CB-CA-C	-6.80	96.89	110.42
75	Bp	54	ASP	CA-CB-CG	-6.80	105.80	112.60
85	AA	807	A	O4'-C1'-C2'	-6.80	100.80	107.60
85	AA	2186	U	C4'-C3'-C2'	-6.80	95.80	102.60
34	BA	1181	G	O3'-P-O5'	6.80	114.20	104.00
34	BA	1617	U	P-O3'-C3'	-6.80	110.00	120.20
38	BE	176	G	C4'-C3'-C2'	6.80	109.40	102.60
40	BG	62	C	C5'-C4'-C3'	6.80	126.20	116.00
85	AA	856	G	O5'-C5'-C4'	6.80	121.70	111.50
4	A3	64	MET	CG-SD-CE	-6.80	85.95	100.90
7	A6	4	TYR	CA-C-N	6.80	134.52	121.54
7	A6	4	TYR	C-N-CA	6.80	134.52	121.54
21	AM	4	THR	N-CA-CB	6.80	119.96	109.97
39	BF	9	C	O4'-C4'-C3'	-6.80	99.30	106.10
85	AA	415	G	O3'-P-O5'	6.80	114.19	104.00
85	AA	1538	C	C4'-C3'-O3'	-6.80	102.81	113.00
8	A7	169	ILE	N-CA-C	-6.79	97.79	108.86
21	AM	85	LEU	N-CA-C	-6.79	96.33	110.80
34	BA	926	A	C4'-C3'-C2'	6.79	109.39	102.60
34	BA	941	G	O3'-P-O5'	-6.79	93.81	104.00
36	BC	8	C	P-O3'-C3'	6.79	130.39	120.20
62	Bc	133	LYS	N-CA-CB	6.79	122.28	110.39
34	BA	510	U	P-O3'-C3'	6.79	130.39	120.20
34	BA	915	A	C5'-C4'-C3'	6.79	125.39	115.20
34	BA	1553	G	C4'-C3'-C2'	-6.79	95.81	102.60
35	BB	1416	A	O3'-P-O5'	6.79	114.19	104.00
39	BF	30	C	P-O3'-C3'	-6.79	110.01	120.20
44	BK	40	ARG	CA-C-O	6.79	128.26	121.20
63	Bd	45	ARG	O-C-N	-6.79	114.92	122.12
85	AA	268	A	C5'-C4'-C3'	-6.79	105.81	116.00
85	AA	381	A	O5'-C5'-C4'	-6.79	101.31	111.50
85	AA	1180	C	O4'-C4'-C3'	-6.79	99.31	106.10
85	AA	2249	U	C1'-O4'-C4'	-6.79	102.91	109.70
34	BA	260	A	O3'-P-O5'	6.79	114.18	104.00
35	BB	136	A	P-O5'-C5'	6.79	131.08	120.90
85	AA	1371	C	C4'-C3'-O3'	6.79	123.18	113.00
85	AA	1955	U	C4'-C3'-O3'	6.79	123.18	113.00
38	BE	77	C	C5'-C4'-C3'	6.79	125.38	115.20
85	AA	338	G	C4'-C3'-C2'	-6.79	95.81	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A3	160	VAL	CA-C-N	6.79	134.18	121.97
4	A3	160	VAL	C-N-CA	6.79	134.18	121.97
34	BA	297	A	O4'-C4'-C3'	6.79	110.78	104.00
34	BA	436	U	C4'-C3'-C2'	-6.79	95.81	102.60
35	BB	847	U	C1'-O4'-C4'	6.79	116.69	109.90
40	BG	109	C	C4'-C3'-O3'	-6.79	102.82	113.00
42	BI	110	LEU	N-CA-CB	6.79	120.20	110.16
78	Bs	16	GLU	N-CA-C	6.79	125.25	110.80
85	AA	155	U	P-O5'-C5'	-6.79	110.72	120.90
34	BA	806	U	O4'-C4'-C3'	-6.78	97.22	104.00
34	BA	1841	A	P-O5'-C5'	6.78	131.07	120.90
35	BB	116	G	P-O5'-C5'	-6.78	110.72	120.90
35	BB	1422	G	C4'-C3'-O3'	-6.78	102.83	113.00
47	BN	68	VAL	N-CA-C	6.78	116.88	110.30
85	AA	841	U	P-O3'-C3'	-6.78	110.02	120.20
85	AA	2194	U	P-O3'-C3'	6.78	130.37	120.20
2	A1	73	PRO	N-CA-C	-6.78	105.69	114.03
34	BA	269	G	C5'-C4'-O4'	6.78	119.27	109.10
34	BA	506	U	C4'-C3'-C2'	6.78	109.38	102.60
38	BE	183	C	C2-N1-C1'	6.78	139.15	118.80
49	BP	61	PHE	CA-CB-CG	-6.78	107.02	113.80
85	AA	327	G	C4'-C3'-C2'	-6.78	95.82	102.60
34	BA	819	G	P-O3'-C3'	-6.78	110.03	120.20
65	Bf	335	ASN	CB-CA-C	-6.78	102.41	111.63
84	By	146	GLY	N-CA-C	-6.78	101.67	110.69
85	AA	855	G	P-O3'-C3'	-6.78	110.03	120.20
34	BA	136	A	C8-N9-C1'	6.78	148.04	127.70
38	BE	82	C	C2'-C3'-O3'	6.78	123.87	113.70
51	BR	49	ARG	CA-C-N	6.78	129.92	120.29
51	BR	49	ARG	C-N-CA	6.78	129.92	120.29
85	AA	589	A	O4'-C1'-N9	6.78	118.37	108.20
85	AA	1617	G	P-O3'-C3'	6.78	130.37	120.20
35	BB	1339	C	C4'-C3'-O3'	-6.78	102.83	113.00
85	AA	209	C	C4'-C3'-C2'	-6.78	95.82	102.60
85	AA	1369	U	C4'-C3'-O3'	-6.78	102.83	113.00
34	BA	1459	U	P-O5'-C5'	-6.78	110.74	120.90
35	BB	893	U	C4'-C3'-C2'	-6.78	95.83	102.60
35	BB	1073	A	C4'-C3'-C2'	6.78	109.38	102.60
41	BH	30	C	O4'-C1'-N1	6.78	118.66	108.50
85	AA	2092	A	C4'-C3'-C2'	6.78	109.38	102.60
35	BB	1171	U	P-O5'-C5'	6.77	131.06	120.90
41	BH	34	G	C4'-C3'-C2'	-6.77	95.83	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	A7	129	ARG	CA-C-N	6.77	129.68	120.54
8	A7	129	ARG	C-N-CA	6.77	129.68	120.54
34	BA	250	G	C5'-C4'-O4'	6.77	119.26	109.10
34	BA	1026	C	C5'-C4'-C3'	6.77	126.16	116.00
35	BB	1219	A	C4'-C3'-C2'	-6.77	95.83	102.60
85	AA	850	U	C4'-C3'-C2'	-6.77	95.83	102.60
62	Bc	76	MET	CG-SD-CE	-6.77	86.00	100.90
34	BA	1039	G	C5'-C4'-C3'	-6.77	105.85	116.00
35	BB	1365	G	P-O5'-C5'	-6.77	110.75	120.90
36	BC	168	C	C4'-C3'-O3'	-6.77	102.85	113.00
40	BG	167	C	C4'-C3'-C2'	6.77	109.37	102.60
45	BL	46	GLN	CB-CG-CD	-6.77	101.09	112.60
85	AA	2044	A	C5'-C4'-C3'	-6.77	105.84	116.00
2	A1	172	ILE	N-CA-C	6.77	123.42	109.34
19	AK	46	LEU	O-C-N	-6.77	113.54	121.32
26	AS	129	GLY	CA-C-N	6.77	129.68	120.54
26	AS	129	GLY	C-N-CA	6.77	129.68	120.54
47	BN	192	LYS	CA-C-N	6.77	129.58	120.65
47	BN	192	LYS	C-N-CA	6.77	129.58	120.65
51	BR	139	TYR	CB-CA-C	6.77	121.59	111.17
59	BZ	40	TYR	CA-CB-CG	-6.77	101.72	113.90
85	AA	490	A	C4'-C3'-O3'	-6.77	102.85	113.00
4	A3	165	VAL	N-CA-C	-6.77	99.42	108.35
38	BE	47	U	P-O5'-C5'	-6.77	110.75	120.90
40	BG	65	C	C4'-C3'-O3'	-6.77	102.85	113.00
85	AA	495	G	C1'-O4'-C4'	-6.77	103.13	109.90
85	AA	1797	U	C5'-C4'-C3'	-6.77	105.85	116.00
34	BA	1415	C	C5'-C4'-C3'	-6.76	105.85	116.00
37	BD	35	C	P-O3'-C3'	-6.76	110.05	120.20
47	BN	175	ARG	CA-C-N	6.76	134.46	121.54
47	BN	175	ARG	C-N-CA	6.76	134.46	121.54
49	BP	128	PHE	CA-C-N	6.76	133.88	121.70
49	BP	128	PHE	C-N-CA	6.76	133.88	121.70
83	Bx	258	GLU	N-CA-C	6.76	118.65	111.28
85	AA	281	C	P-O5'-C5'	-6.76	110.75	120.90
85	AA	768	C	C2'-C3'-O3'	6.76	123.85	113.70
85	AA	980	U	P-O5'-C5'	-6.76	110.75	120.90
2	A1	64	GLN	CA-C-N	6.76	134.66	121.41
2	A1	64	GLN	C-N-CA	6.76	134.66	121.41
35	BB	1430	G	C4'-C3'-O3'	-6.76	102.86	113.00
85	AA	423	G	C5'-C4'-C3'	-6.76	105.86	116.00
24	AQ	81	ILE	CA-C-N	6.76	132.05	122.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AQ	81	ILE	C-N-CA	6.76	132.05	122.72
35	BB	673	C	P-O5'-C5'	6.76	131.04	120.90
36	BC	8	C	C2'-C3'-O3'	6.76	123.84	113.70
85	AA	480	U	C4'-C3'-O3'	-6.76	102.86	113.00
85	AA	866	U	P-O3'-C3'	-6.76	110.06	120.20
85	AA	1790	G	C5'-C4'-C3'	6.76	126.14	116.00
85	AA	1916	A	C5'-C4'-C3'	-6.76	105.86	116.00
34	BA	667	U	O3'-P-O5'	6.76	114.14	104.00
34	BA	888	G	C1'-O4'-C4'	-6.76	103.14	109.90
35	BB	80	C	P-O3'-C3'	6.76	130.34	120.20
35	BB	1052	G	O3'-P-O5'	-6.76	93.86	104.00
85	AA	2032	G	O3'-P-O5'	-6.76	93.86	104.00
34	BA	84	U	C2'-C3'-O3'	6.76	123.84	113.70
39	BF	41	U	O5'-C5'-C4'	-6.76	101.56	111.70
47	BN	51	ILE	CA-C-O	6.76	126.90	120.14
77	Br	113	LYS	CB-CA-C	-6.76	98.57	111.48
85	AA	1727	U	P-O3'-C3'	-6.76	110.06	120.20
34	BA	890	G	P-O5'-C5'	-6.76	110.77	120.90
35	BB	1044	U	O3'-P-O5'	6.76	114.14	104.00
39	BF	11	C	O3'-P-O5'	-6.76	93.86	104.00
44	BK	28	ASP	CA-CB-CG	-6.76	105.84	112.60
48	BO	136	ARG	NE-CZ-NH2	6.76	125.28	119.20
85	AA	474	C	O5'-C5'-C4'	-6.76	101.36	111.50
85	AA	820	G	C2'-C3'-O3'	6.76	123.83	113.70
62	Bc	12	VAL	N-CA-CB	-6.75	100.73	112.08
35	BB	1235	A	P-O3'-C3'	6.75	130.33	120.20
56	BW	50	ARG	N-CA-C	-6.75	98.92	109.25
80	Bu	221	ALA	CA-C-N	6.75	134.44	121.54
80	Bu	221	ALA	C-N-CA	6.75	134.44	121.54
85	AA	2087	C	C4'-C3'-C2'	6.75	109.35	102.60
33	AZ	41	GLY	N-CA-C	-6.75	99.64	111.46
34	BA	596	G	O3'-P-O5'	6.75	114.13	104.00
34	BA	1146	U	C4'-C3'-C2'	-6.75	95.85	102.60
34	BA	1287	G	C4'-C3'-C2'	6.75	109.35	102.60
34	BA	1540	C	C5'-C4'-C3'	-6.75	105.07	115.20
85	AA	964	C	O5'-C5'-C4'	6.75	121.63	111.50
1	A0	213	ARG	CD-NE-CZ	-6.75	114.95	124.40
34	BA	572	G	N9-C1'-C2'	6.75	122.12	112.00
35	BB	478	G	P-O5'-C5'	6.75	131.03	120.90
53	BT	47	ASP	CA-CB-CG	-6.75	105.85	112.60
82	Bw	73	THR	CB-CA-C	-6.75	99.58	110.79
34	BA	897	U	P-O5'-C5'	6.75	131.02	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	Bt	32	LYS	N-CA-C	6.75	120.16	110.10
34	BA	198	U	P-O3'-C3'	-6.75	110.08	120.20
34	BA	201	A	O4'-C4'-C3'	-6.75	97.25	104.00
34	BA	287	U	P-O5'-C5'	-6.75	110.78	120.90
35	BB	1464	G	O3'-P-O5'	6.75	114.12	104.00
39	BF	31	U	C4'-C3'-O3'	-6.75	102.88	113.00
41	BH	101	A	C5'-C4'-C3'	6.75	126.12	116.00
51	BR	4	TYR	N-CA-C	6.75	125.17	110.80
55	BV	91	LYS	CA-C-N	6.75	129.21	120.44
55	BV	91	LYS	C-N-CA	6.75	129.21	120.44
71	Bl	52	HIS	N-CA-CB	6.75	120.04	110.46
85	AA	523	U	C4'-C3'-O3'	6.75	119.52	109.40
85	AA	1985	C	P-O5'-C5'	-6.75	110.78	120.90
8	A7	203	THR	N-CA-CB	6.75	123.65	111.37
34	BA	1011	G	O4'-C1'-C2'	6.75	114.34	107.60
35	BB	107	A	O3'-P-O5'	6.75	114.12	104.00
35	BB	1508	G	C5'-C4'-C3'	6.75	126.12	116.00
52	BS	116	HIS	N-CA-CB	6.75	120.66	110.95
30	AW	48	TYR	CA-CB-CG	-6.74	101.76	113.90
30	AW	54	GLU	N-CA-C	6.74	119.01	108.96
35	BB	822	G	C4'-C3'-O3'	6.74	123.11	113.00
35	BB	995	C	O4'-C1'-C2'	6.74	114.34	107.60
35	BB	1031	G	C5'-C4'-C3'	6.74	125.32	115.20
77	Br	54	ASN	CB-CA-C	6.74	121.18	109.65
85	AA	1904	C	O5'-C5'-C4'	-6.74	101.38	111.50
35	BB	503	G	P-O5'-C5'	-6.74	110.79	120.90
35	BB	1089	A	O4'-C1'-C2'	6.74	114.34	107.60
85	AA	17	C	C5'-C4'-C3'	-6.74	105.89	116.00
85	AA	443	A	C4'-C3'-C2'	6.74	109.34	102.60
85	AA	1293	U	P-O5'-C5'	6.74	131.01	120.90
85	AA	1832	G	C3'-C2'-C1'	-6.74	94.56	101.30
32	AY	60	GLN	CA-CB-CG	6.74	127.58	114.10
35	BB	1354	C	C5'-C4'-C3'	-6.74	105.89	116.00
51	BR	20	ALA	CA-C-N	6.74	131.69	122.19
51	BR	20	ALA	C-N-CA	6.74	131.69	122.19
34	BA	379	C	P-O5'-C5'	6.74	131.01	120.90
35	BB	864	U	C5'-C4'-C3'	-6.74	105.89	116.00
48	BO	168	TYR	CA-CB-CG	-6.74	101.77	113.90
8	A7	304	TYR	N-CA-C	6.74	120.12	109.81
15	AG	92	ILE	N-CA-CB	-6.74	101.38	110.54
16	AH	110	ARG	N-CA-C	-6.74	103.94	111.28
34	BA	248	G	O5'-C5'-C4'	6.74	121.60	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	269	G	C5'-C4'-C3'	-6.74	105.10	115.20
34	BA	1502	G	N9-C1'-C2'	-6.74	101.89	112.00
34	BA	1706	A	O5'-C5'-C4'	6.74	121.60	111.50
35	BB	366	G	P-O5'-C5'	-6.74	110.80	120.90
41	BH	23	G	N9-C1'-C2'	6.74	122.11	112.00
61	Bb	42	ARG	N-CA-C	6.74	119.19	111.11
85	AA	863	C	C5'-C4'-C3'	-6.74	105.90	116.00
34	BA	424	U	C4'-C3'-O3'	-6.73	102.90	113.00
35	BB	1441	C	C5'-C4'-C3'	-6.73	105.10	115.20
85	AA	367	A	O3'-P-O5'	6.73	114.10	104.00
34	BA	557	U	O4'-C1'-C2'	-6.73	100.87	107.60
34	BA	767	U	P-O3'-C3'	-6.73	110.10	120.20
34	BA	1792	U	C5'-C4'-C3'	6.73	126.10	116.00
35	BB	133	G	C5'-C4'-C3'	-6.73	105.90	116.00
35	BB	312	U	C4'-C3'-C2'	-6.73	95.87	102.60
35	BB	1510	G	C4'-C3'-O3'	-6.73	102.90	113.00
37	BD	110	G	C5'-C4'-C3'	6.73	126.10	116.00
62	Bc	123	VAL	CB-CA-C	-6.73	102.93	112.22
65	Bf	306	ALA	N-CA-C	6.73	118.31	110.97
80	Bu	40	ASP	CA-C-N	6.73	130.54	120.31
80	Bu	40	ASP	C-N-CA	6.73	130.54	120.31
85	AA	12	U	C4'-C3'-O3'	-6.73	102.90	113.00
85	AA	1139	G	P-O5'-C5'	-6.73	110.80	120.90
85	AA	1720	C	C4'-C3'-O3'	-6.73	102.90	113.00
34	BA	1528	U	C4'-C3'-C2'	6.73	109.33	102.60
35	BB	127	U	O5'-C5'-C4'	-6.73	101.40	111.50
42	BI	108	CYS	CB-CA-C	6.73	121.58	110.74
47	BN	41	ARG	N-CA-C	6.73	118.31	110.97
64	Be	163	ARG	CA-CB-CG	6.73	127.56	114.10
85	AA	598	C	C4'-C3'-O3'	-6.73	102.90	113.00
85	AA	2094	U	C4'-C3'-O3'	-6.73	102.91	113.00
39	BF	19	A	O4'-C4'-C3'	-6.73	97.27	104.00
84	By	184	ASN	N-CA-C	-6.73	99.71	110.14
85	AA	267	U	C4'-C3'-C2'	6.73	109.33	102.60
37	BD	29	C	C1'-O4'-C4'	-6.73	103.17	109.90
56	BW	95	ILE	N-CA-C	6.73	120.05	108.95
85	AA	1372	C	P-O5'-C5'	6.73	130.99	120.90
34	BA	1180	A	O5'-C5'-C4'	-6.73	101.41	111.50
34	BA	1294	C	P-O3'-C3'	6.73	130.29	120.20
35	BB	358	U	O3'-P-O5'	-6.73	93.91	104.00
35	BB	1167	C	O5'-C5'-C4'	-6.73	101.41	111.50
85	AA	639	C	P-O5'-C5'	-6.73	110.81	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	805	A	P-O5'-C5'	6.73	130.99	120.90
34	BA	1548	A	O3'-P-O5'	-6.72	93.91	104.00
35	BB	616	U	O3'-P-O5'	-6.72	93.91	104.00
38	BE	100	U	C3'-C2'-C1'	-6.72	94.78	101.50
48	BO	128	VAL	CA-C-N	6.72	131.46	120.63
48	BO	128	VAL	C-N-CA	6.72	131.46	120.63
48	BO	207	LYS	CA-C-O	6.72	130.12	120.51
49	BP	133	LYS	N-CA-C	-6.72	103.52	113.61
77	Br	332	PHE	CA-C-O	6.72	127.65	119.38
85	AA	572	G	P-O5'-C5'	-6.72	110.81	120.90
85	AA	588	G	O5'-C5'-C4'	-6.72	101.41	111.50
85	AA	1144	G	C1'-C2'-O2'	6.72	118.49	108.40
85	AA	1286	C	P-O3'-C3'	6.72	130.29	120.20
85	AA	2080	U	O3'-P-O5'	-6.72	93.91	104.00
85	AA	2139	G	O5'-C5'-C4'	-6.72	101.41	111.50
34	BA	744	G	O3'-P-O5'	6.72	114.08	104.00
35	BB	1444	U	C5'-C4'-C3'	-6.72	105.92	116.00
35	BB	1523	U	C5'-C4'-C3'	-6.72	105.92	116.00
36	BC	137	C	P-O3'-C3'	-6.72	110.12	120.20
65	Bf	343	ARG	N-CA-C	6.72	119.44	108.55
66	Bg	107	GLY	CA-C-N	6.72	134.38	121.54
66	Bg	107	GLY	C-N-CA	6.72	134.38	121.54
69	Bj	81	GLY	N-CA-C	-6.72	106.51	115.32
85	AA	1874	G	O4'-C4'-C3'	-6.72	99.38	106.10
85	AA	2007	G	O4'-C1'-C2'	6.72	114.32	107.60
35	BB	1452	U	O5'-C5'-C4'	-6.72	101.42	111.50
38	BE	33	C	P-O3'-C3'	-6.72	110.12	120.20
2	A1	127	TYR	N-CA-C	6.72	119.94	109.52
8	A7	34	THR	N-CA-CB	6.72	121.51	110.69
36	BC	9	G	O5'-C5'-C4'	-6.72	101.42	111.50
41	BH	74	G	O5'-C5'-C4'	6.72	121.58	111.50
50	BQ	37	ARG	N-CA-C	-6.72	104.56	112.89
62	Bc	138	ARG	CA-C-N	6.72	129.18	120.44
62	Bc	138	ARG	C-N-CA	6.72	129.18	120.44
85	AA	44	C	C2'-C3'-O3'	6.72	123.78	113.70
85	AA	387	U	O4'-C1'-N1	6.72	118.28	108.20
35	BB	857	G	C5'-C4'-C3'	-6.72	105.92	116.00
54	BU	65	TRP	N-CA-C	-6.72	104.78	114.12
85	AA	1061	C	C5'-C4'-C3'	6.72	125.28	115.20
35	BB	375	G	P-O3'-C3'	-6.72	110.13	120.20
35	BB	1000	U	O4'-C4'-C3'	-6.72	97.28	104.00
38	BE	38	C	C5'-C4'-C3'	-6.72	105.93	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BI	56	ARG	N-CA-C	6.72	118.60	111.28
11	AC	236	ASP	CA-CB-CG	-6.71	105.89	112.60
34	BA	320	G	P-O3'-C3'	-6.71	110.13	120.20
34	BA	1173	C	P-O5'-C5'	6.71	130.97	120.90
35	BB	611	U	O5'-C5'-C4'	-6.71	101.43	111.50
59	BZ	96	VAL	CA-C-N	6.71	132.03	122.09
59	BZ	96	VAL	C-N-CA	6.71	132.03	122.09
85	AA	1460	G	C4'-C3'-C2'	-6.71	95.89	102.60
4	A3	40	ALA	CA-C-N	6.71	129.66	120.46
4	A3	40	ALA	C-N-CA	6.71	129.66	120.46
34	BA	329	G	C5'-C4'-C3'	6.71	125.27	115.20
34	BA	1268	C	P-O3'-C3'	-6.71	110.13	120.20
34	BA	1484	A	C5'-C4'-C3'	6.71	126.07	116.00
40	BG	145	C	P-O5'-C5'	-6.71	110.83	120.90
2	A1	170	ILE	N-CA-CB	-6.71	103.51	112.10
4	A3	156	VAL	CA-C-N	6.71	130.88	120.82
4	A3	156	VAL	C-N-CA	6.71	130.88	120.82
34	BA	1662	U	C4'-C3'-C2'	-6.71	95.89	102.60
60	Ba	70	PHE	CA-CB-CG	-6.71	107.09	113.80
65	Bf	275	ALA	CA-C-N	6.71	130.92	121.66
65	Bf	275	ALA	C-N-CA	6.71	130.92	121.66
85	AA	811	A	P-O5'-C5'	6.71	130.96	120.90
32	AY	48	THR	N-CA-C	6.71	118.00	108.74
34	BA	1005	C	O4'-C1'-C2'	-6.71	99.09	105.80
34	BA	1519	G	C5'-C4'-C3'	-6.71	105.94	116.00
35	BB	426	A	P-O5'-C5'	6.71	130.96	120.90
35	BB	831	C	N1-C1'-C2'	-6.71	101.94	112.00
35	BB	1347	C	C5'-C4'-C3'	-6.71	105.94	116.00
35	BB	1509	G	P-O3'-C3'	-6.71	110.14	120.20
39	BF	57	C	P-O3'-C3'	-6.71	110.14	120.20
42	BI	78	LEU	N-CA-CB	6.71	121.83	110.49
85	AA	421	G	P-O3'-C3'	-6.71	110.14	120.20
85	AA	2155	U	C2'-C3'-O3'	6.71	123.76	113.70
52	BS	47	MET	CG-SD-CE	-6.71	86.15	100.90
63	Bd	50	ASN	N-CA-C	6.71	125.08	110.80
85	AA	672	U	C4'-C3'-O3'	-6.71	102.94	113.00
85	AA	1594	G	C5'-C4'-C3'	-6.71	105.94	116.00
85	AA	2047	U	C5'-C4'-C3'	-6.71	105.94	116.00
16	AH	58	ASP	CA-CB-CG	-6.70	105.90	112.60
21	AM	121	HIS	CA-C-N	6.70	129.59	120.54
21	AM	121	HIS	C-N-CA	6.70	129.59	120.54
34	BA	770	G	O4'-C4'-C3'	-6.70	99.40	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1463	U	O5'-C5'-C4'	-6.70	101.44	111.50
35	BB	975	G	O5'-C5'-C4'	-6.70	101.44	111.50
47	BN	120	ARG	CB-CA-C	-6.70	99.66	110.79
85	AA	1955	U	C1'-O4'-C4'	-6.70	103.20	109.90
34	BA	190	U	C4'-C3'-C2'	-6.70	95.90	102.60
34	BA	1124	U	C4'-C3'-O3'	-6.70	102.95	113.00
34	BA	1716	A	O4'-C1'-N9	6.70	118.55	108.50
35	BB	747	A	P-O3'-C3'	6.70	130.25	120.20
35	BB	767	A	O5'-C5'-C4'	-6.70	101.65	111.70
36	BC	71	A	N9-C1'-C2'	-6.70	103.95	114.00
57	BX	103	THR	CA-C-O	6.70	127.60	120.36
85	AA	889	G	P-O5'-C5'	6.70	130.95	120.90
24	AQ	75	ASP	CA-C-N	6.70	133.05	123.14
24	AQ	75	ASP	C-N-CA	6.70	133.05	123.14
34	BA	381	A	C4'-C3'-O3'	-6.70	102.95	113.00
34	BA	1054	U	P-O3'-C3'	6.70	130.25	120.20
35	BB	1169	A	O5'-C5'-C4'	-6.70	101.45	111.50
65	Bf	280	HIS	CA-CB-CG	-6.70	107.10	113.80
85	AA	307	G	O4'-C4'-C3'	-6.70	97.30	104.00
85	AA	486	G	C3'-C2'-O2'	6.70	120.75	110.70
85	AA	1247	A	C4'-C3'-C2'	-6.70	95.90	102.60
34	BA	1043	C	O3'-P-O5'	6.70	114.05	104.00
35	BB	648	G	P-O3'-C3'	-6.70	110.15	120.20
36	BC	7	U	P-O5'-C5'	-6.70	110.86	120.90
38	BE	28	C	P-O3'-C3'	-6.70	110.16	120.20
85	AA	158	C	C5'-C4'-C3'	-6.70	105.95	116.00
85	AA	1798	U	C2'-C3'-O3'	6.70	119.55	109.50
13	AE	64	ALA	CA-C-O	6.70	127.59	120.70
34	BA	181	G	O3'-P-O5'	6.70	114.04	104.00
34	BA	212	A	O5'-C5'-C4'	-6.70	101.46	111.50
34	BA	1725	U	P-O5'-C5'	-6.70	110.86	120.90
35	BB	1527	A	C5'-C4'-C3'	-6.70	105.96	116.00
38	BE	110	U	O3'-P-O5'	-6.70	93.95	104.00
85	AA	56	U	C5'-C4'-C3'	6.70	125.24	115.20
77	Br	190	ALA	N-CA-C	-6.69	101.11	110.35
84	By	6	HIS	O-C-N	-6.69	113.69	122.59
4	A3	60	GLU	N-CA-CB	6.69	121.80	110.49
34	BA	682	A	P-O5'-C5'	-6.69	110.86	120.90
34	BA	980	C	C4'-C3'-O3'	-6.69	102.96	113.00
35	BB	1145	G	C4'-C3'-O3'	-6.69	102.96	113.00
35	BB	1164	U	O5'-C5'-C4'	-6.69	101.46	111.50
41	BH	40	C	P-O3'-C3'	-6.69	110.16	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	Bc	93	ARG	CA-C-N	6.69	129.57	120.54
62	Bc	93	ARG	C-N-CA	6.69	129.57	120.54
64	Be	72	VAL	N-CA-C	-6.69	99.52	108.35
23	AP	111	PHE	CA-CB-CG	-6.69	107.11	113.80
34	BA	292	C	O5'-C5'-C4'	-6.69	101.47	111.50
36	BC	60	U	C5'-C4'-C3'	-6.69	105.16	115.20
85	AA	314	C	C5'-C4'-C3'	6.69	126.04	116.00
4	A3	152	ARG	N-CA-C	-6.69	105.12	113.28
34	BA	439	A	O3'-P-O5'	-6.69	93.97	104.00
37	BD	98	G	P-O3'-C3'	6.69	130.23	120.20
52	BS	131	ILE	N-CA-C	6.69	114.52	107.76
82	Bw	145	VAL	N-CA-CB	-6.69	102.32	112.15
85	AA	2067	A	P-O5'-C5'	-6.69	110.87	120.90
5	A4	123	SER	N-CA-C	6.69	119.18	111.02
6	A5	103	VAL	CA-C-N	6.69	131.64	122.34
6	A5	103	VAL	C-N-CA	6.69	131.64	122.34
11	AC	222	ARG	N-CA-C	-6.69	97.51	108.41
25	AR	62	TYR	CA-CB-CG	-6.69	101.86	113.90
34	BA	1260	G	C4'-C3'-O3'	-6.69	102.97	113.00
35	BB	657	A	O5'-C5'-C4'	-6.69	101.47	111.50
36	BC	43	A	P-O3'-C3'	-6.69	110.17	120.20
40	BG	2	U	C3'-C2'-C1'	-6.69	94.61	101.30
40	BG	16	G	O4'-C4'-C3'	-6.69	97.31	104.00
40	BG	81	G	O5'-C5'-C4'	-6.69	101.47	111.50
80	Bu	210	VAL	CB-CA-C	-6.69	102.99	112.22
81	Bv	30	CYS	N-CA-C	6.69	120.36	110.46
85	AA	769	C	O5'-C5'-C4'	-6.69	101.47	111.50
85	AA	1986	G	P-O3'-C3'	-6.69	110.17	120.20
27	AT	10	VAL	N-CA-CB	6.69	122.26	111.23
40	BG	94	G	C5'-C4'-C3'	6.69	126.03	116.00
40	BG	169	A	O5'-C5'-C4'	6.69	121.73	111.70
85	AA	552	C	C1'-O4'-C4'	-6.69	103.21	109.90
3	A2	130	MET	N-CA-CB	6.68	119.95	110.12
35	BB	39	C	C3'-C2'-C1'	-6.68	94.62	101.30
35	BB	366	G	C1'-O4'-C4'	-6.68	103.22	109.90
49	BP	29	ASP	N-CA-C	-6.68	98.56	108.79
49	BP	132	ASP	CA-CB-CG	-6.68	105.92	112.60
65	Bf	393	VAL	CB-CA-C	-6.68	100.43	111.32
65	Bf	433	GLU	CA-C-N	6.68	129.24	120.28
65	Bf	433	GLU	C-N-CA	6.68	129.24	120.28
65	Bf	455	GLU	CA-C-N	6.68	129.56	120.54
65	Bf	455	GLU	C-N-CA	6.68	129.56	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2141	G	C4'-C3'-C2'	6.68	109.28	102.60
34	BA	1018	U	C4'-C3'-O3'	-6.68	102.98	113.00
34	BA	1182	U	P-O3'-C3'	-6.68	110.17	120.20
35	BB	1113	C	O3'-P-O5'	-6.68	93.98	104.00
57	BX	65	THR	N-CA-CB	6.68	122.30	111.74
63	Bd	52	GLN	CA-C-O	6.68	127.60	119.38
83	Bx	234	ARG	N-CA-C	-6.68	104.94	113.23
15	AG	95	ALA	CA-C-O	6.68	127.65	120.10
34	BA	788	C	C4'-C3'-C2'	6.68	109.28	102.60
34	BA	1106	A	P-O5'-C5'	6.68	130.92	120.90
34	BA	1116	G	O3'-P-O5'	6.68	114.02	104.00
38	BE	48	G	O5'-C5'-C4'	-6.68	101.48	111.50
59	BZ	55	VAL	N-CA-CB	6.68	118.61	111.46
85	AA	644	A	P-O3'-C3'	6.68	130.22	120.20
11	AC	60	HIS	CA-CB-CG	-6.68	107.12	113.80
34	BA	65	A	C2'-C3'-O3'	-6.68	103.68	113.70
34	BA	592	G	O5'-C5'-C4'	6.68	121.52	111.50
34	BA	922	C	P-O5'-C5'	-6.68	110.88	120.90
34	BA	964	U	C4'-C3'-C2'	-6.68	95.92	102.60
35	BB	359	A	C2'-C3'-O3'	6.68	119.52	109.50
35	BB	622	G	P-O3'-C3'	-6.68	110.18	120.20
35	BB	1373	U	O3'-P-O5'	6.68	114.02	104.00
36	BC	72	A	C5'-C4'-C3'	-6.68	105.98	116.00
39	BF	5	U	C4'-C3'-C2'	-6.68	95.92	102.60
85	AA	601	A	C4'-C3'-O3'	-6.68	102.98	113.00
85	AA	1254	A	P-O3'-C3'	-6.68	110.18	120.20
77	Br	255	PHE	CA-CB-CG	-6.68	107.12	113.80
34	BA	319	C	C4'-C3'-C2'	-6.68	95.92	102.60
34	BA	572	G	C5'-C4'-C3'	6.68	126.02	116.00
34	BA	721	A	C5'-C4'-C3'	-6.68	105.98	116.00
34	BA	1669	C	P-O3'-C3'	-6.68	110.18	120.20
35	BB	1508	G	O4'-C4'-C3'	-6.68	97.32	104.00
49	BP	126	LYS	CA-C-N	6.68	129.51	120.63
49	BP	126	LYS	C-N-CA	6.68	129.51	120.63
85	AA	160	A	C5'-C4'-C3'	-6.68	105.98	116.00
4	A3	88	PHE	N-CA-CB	6.67	121.06	111.05
5	A4	149	THR	N-CA-C	-6.67	104.88	113.16
41	BH	24	U	O4'-C1'-N1	6.67	118.21	108.20
51	BR	144	CYS	N-CA-C	6.67	120.05	109.50
53	BT	147	ASN	N-CA-C	-6.67	104.09	111.36
85	AA	1920	A	P-O3'-C3'	6.67	130.21	120.20
42	BI	22	THR	N-CA-C	6.67	120.40	112.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BP	93	ARG	N-CA-C	6.67	118.55	111.28
61	Bb	76	ASP	CA-C-N	6.67	134.29	121.54
61	Bb	76	ASP	C-N-CA	6.67	134.29	121.54
65	Bf	374	THR	N-CA-C	6.67	119.49	108.48
26	AS	53	GLU	N-CA-C	6.67	119.30	108.76
34	BA	7	U	C5'-C4'-C3'	6.67	126.01	116.00
34	BA	36	A	C4'-C3'-C2'	-6.67	95.93	102.60
35	BB	1004	A	C1'-O4'-C4'	-6.67	103.23	109.90
40	BG	137	G	C5'-C4'-C3'	-6.67	105.99	116.00
85	AA	239	G	P-O5'-C5'	-6.67	110.89	120.90
1	A0	228	GLN	N-CA-CB	-6.67	100.34	110.01
34	BA	384	U	C3'-C2'-C1'	-6.67	94.63	101.30
35	BB	1355	C	C4'-C3'-O3'	-6.67	103.00	113.00
75	Bp	28	ASN	N-CA-C	-6.67	95.07	109.81
85	AA	731	U	O5'-C5'-C4'	-6.67	101.50	111.50
85	AA	1788	U	P-O5'-C5'	6.67	130.91	120.90
6	A5	36	THR	CB-CA-C	-6.67	97.15	110.42
34	BA	128	C	C4'-C3'-C2'	6.67	109.27	102.60
35	BB	26	C	P-O3'-C3'	-6.67	110.20	120.20
35	BB	1170	U	P-O5'-C5'	-6.67	110.90	120.90
40	BG	23	C	C4'-C3'-C2'	-6.67	95.93	102.60
54	BU	45	ASP	CA-CB-CG	-6.67	105.93	112.60
62	Bc	36	ALA	CA-C-N	6.67	134.28	121.54
62	Bc	36	ALA	C-N-CA	6.67	134.28	121.54
8	A7	187	ARG	CG-CD-NE	-6.67	97.33	112.00
34	BA	844	U	C4'-C3'-O3'	-6.67	103.00	113.00
35	BB	1523	U	P-O3'-C3'	-6.67	110.20	120.20
37	BD	51	G	C2'-C3'-O3'	6.67	123.70	113.70
84	By	104	GLU	CA-C-N	6.67	134.27	121.54
84	By	104	GLU	C-N-CA	6.67	134.27	121.54
85	AA	48	G	C5'-C4'-C3'	-6.67	106.00	116.00
85	AA	1234	G	P-O5'-C5'	6.67	130.90	120.90
34	BA	1363	A	O5'-C5'-C4'	-6.67	101.70	111.70
37	BD	91	U	C5'-C4'-C3'	-6.67	106.00	116.00
38	BE	204	U	C5'-C4'-C3'	-6.67	106.00	116.00
39	BF	60	C	O4'-C1'-N1	6.67	118.20	108.20
41	BH	127	A	O3'-P-O5'	-6.67	94.00	104.00
85	AA	899	A	O5'-C5'-C4'	6.67	121.50	111.50
25	AR	38	GLN	CB-CA-C	-6.66	100.01	110.74
35	BB	1518	U	C5'-C4'-C3'	6.66	126.00	116.00
37	BD	63	C	P-O5'-C5'	-6.66	110.90	120.90
38	BE	188	C	O4'-C1'-N1	6.66	118.20	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BF	24	G	O3'-P-O5'	6.66	114.00	104.00
41	BH	40	C	O3'-P-O5'	6.66	114.00	104.00
75	Bp	9	LYS	CA-C-N	6.66	129.21	120.28
75	Bp	9	LYS	C-N-CA	6.66	129.21	120.28
85	AA	1280	U	C5'-C4'-C3'	6.66	125.19	115.20
85	AA	1829	C	C4'-C3'-O3'	-6.66	103.00	113.00
7	A6	33	TYR	CA-CB-CG	-6.66	101.91	113.90
15	AG	71	ILE	N-CA-C	6.66	117.42	110.62
34	BA	58	A	C4'-C3'-C2'	-6.66	95.94	102.60
34	BA	1037	C	P-O5'-C5'	-6.66	110.91	120.90
34	BA	1563	G	C4'-C3'-C2'	6.66	109.26	102.60
39	BF	47	C	C5'-C4'-C3'	-6.66	106.01	116.00
40	BG	108	G	C5'-C4'-C3'	-6.66	106.01	116.00
22	AO	134	LYS	CB-CA-C	6.66	121.52	111.80
34	BA	1108	U	C5'-C4'-C3'	-6.66	106.01	116.00
35	BB	1491	G	P-O5'-C5'	-6.66	110.91	120.90
77	Br	308	LYS	N-CA-C	6.66	124.98	110.80
85	AA	689	U	C5'-C4'-C3'	-6.66	106.01	116.00
34	BA	1693	U	O4'-C4'-C3'	-6.66	99.44	106.10
53	BT	75	HIS	N-CA-CB	6.66	121.74	110.49
6	A5	91	VAL	N-CA-CB	6.66	119.09	110.57
12	AD	23	VAL	N-CA-C	-6.66	99.56	108.35
25	AR	52	GLY	CA-C-O	6.66	126.39	119.27
68	Bi	77	VAL	N-CA-C	6.66	117.89	108.17
85	AA	497	G	C5'-C4'-C3'	-6.66	106.02	116.00
35	BB	1127	A	P-O3'-C3'	-6.65	110.22	120.20
85	AA	96	C	P-O5'-C5'	6.65	130.88	120.90
85	AA	1622	G	P-O3'-C3'	6.65	130.18	120.20
85	AA	1934	A	C5'-C4'-C3'	-6.65	106.02	116.00
3	A2	178	LYS	CA-C-N	6.65	129.49	120.38
3	A2	178	LYS	C-N-CA	6.65	129.49	120.38
5	A4	40	ARG	N-CA-C	-6.65	103.02	112.13
19	AK	137	ARG	CD-NE-CZ	-6.65	115.09	124.40
25	AR	75	HIS	N-CA-CB	6.65	120.04	110.06
34	BA	189	G	C4'-C3'-O3'	-6.65	103.02	113.00
34	BA	458	G	O5'-C5'-C4'	-6.65	101.52	111.50
34	BA	1488	C	P-O5'-C5'	-6.65	110.92	120.90
35	BB	802	G	P-O3'-C3'	-6.65	110.22	120.20
35	BB	1100	C	P-O3'-C3'	-6.65	110.22	120.20
37	BD	32	A	N9-C1'-C2'	-6.65	104.02	114.00
39	BF	13	U	O5'-C5'-C4'	-6.65	101.52	111.50
47	BN	193	ASN	CA-CB-CG	6.65	119.25	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	Bu	60	VAL	CA-C-N	6.65	132.43	122.98
80	Bu	60	VAL	C-N-CA	6.65	132.43	122.98
34	BA	957	A	C5'-C4'-C3'	-6.65	106.03	116.00
35	BB	125	G	C3'-C2'-C1'	-6.65	94.65	101.30
66	Bg	34	TYR	N-CA-C	-6.65	98.61	108.79
81	Bv	94	ASP	CA-CB-CG	-6.65	105.95	112.60
82	Bw	136	LYS	N-CA-C	6.65	122.69	113.45
85	AA	177	A	C4'-C3'-C2'	6.65	109.25	102.60
85	AA	736	U	C4'-C3'-C2'	6.65	109.25	102.60
85	AA	2186	U	C4'-C3'-O3'	-6.65	103.02	113.00
34	BA	288	U	C4'-C3'-C2'	-6.65	95.95	102.60
34	BA	863	G	C4'-C3'-O3'	6.65	119.37	109.40
38	BE	92	C	O3'-P-O5'	6.65	113.97	104.00
30	AW	24	ARG	N-CA-C	-6.65	100.59	110.23
34	BA	526	C	C1'-O4'-C4'	-6.65	103.25	109.90
85	AA	523	U	C5'-C4'-C3'	-6.65	105.23	115.20
6	A5	177	ASP	CA-CB-CG	-6.65	105.95	112.60
34	BA	1137	U	C2'-C3'-O3'	6.65	123.67	113.70
35	BB	1195	A	C5'-C4'-C3'	-6.65	106.03	116.00
34	BA	1565	U	P-O3'-C3'	-6.64	110.23	120.20
42	BI	103	PRO	CA-C-N	6.64	134.23	121.54
42	BI	103	PRO	C-N-CA	6.64	134.23	121.54
54	BU	65	TRP	CB-CG-CD2	-6.64	117.50	126.80
56	BW	39	ILE	N-CA-C	-6.64	105.65	113.42
69	Bj	41	GLN	N-CA-C	-6.64	97.58	108.41
85	AA	76	G	O4'-C4'-C3'	-6.64	97.36	104.00
23	AP	123	VAL	N-CA-C	6.64	118.61	108.71
34	BA	988	U	C5'-C4'-C3'	-6.64	106.03	116.00
38	BE	140	G	P-O5'-C5'	-6.64	110.94	120.90
51	BR	145	HIS	CA-CB-CG	6.64	120.44	113.80
85	AA	525	C	C2'-C3'-O3'	-6.64	103.74	113.70
85	AA	1670	U	P-O3'-C3'	-6.64	110.24	120.20
85	AA	2124	G	P-O3'-C3'	6.64	130.16	120.20
34	BA	610	A	P-O5'-C5'	-6.64	110.94	120.90
35	BB	1491	G	O3'-P-O5'	-6.64	94.04	104.00
41	BH	4	U	C4'-C3'-C2'	6.64	109.24	102.60
85	AA	1835	U	C2'-C3'-O3'	6.64	119.46	109.50
34	BA	64	A	O3'-P-O5'	6.64	113.96	104.00
34	BA	659	U	P-O3'-C3'	6.64	130.16	120.20
34	BA	799	A	C5'-C4'-C3'	6.64	125.16	115.20
34	BA	1641	G	O5'-C5'-C4'	-6.64	101.54	111.50
34	BA	1847	G	P-O5'-C5'	-6.64	110.94	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BD	25	G	N9-C1'-C2'	-6.64	102.04	112.00
41	BH	17	A	C5'-C4'-C3'	-6.64	106.04	116.00
85	AA	82	A	C5'-C4'-O4'	6.64	119.76	109.80
85	AA	856	G	O4'-C4'-C3'	-6.64	97.36	104.00
34	BA	1416	C	C4'-C3'-C2'	6.64	109.24	102.60
34	BA	1626	U	C1'-O4'-C4'	6.64	116.54	109.90
38	BE	138	U	O3'-P-O5'	-6.64	94.04	104.00
82	Bw	147	PRO	N-CA-C	-6.64	107.02	114.92
26	AS	134	TYR	CB-CA-C	6.64	121.39	110.90
34	BA	1707	C	P-O3'-C3'	-6.64	110.24	120.20
35	BB	52	G	C4'-C3'-C2'	6.64	109.24	102.60
38	BE	139	U	C4'-C3'-C2'	-6.64	95.96	102.60
83	Bx	176	VAL	N-CA-C	-6.64	106.83	113.20
34	BA	1425	G	C4'-C3'-O3'	6.63	119.35	109.40
35	BB	971	A	O3'-P-O5'	-6.63	94.05	104.00
35	BB	1504	U	O5'-C5'-C4'	6.63	121.65	111.70
35	BB	1354	C	P-O5'-C5'	-6.63	110.95	120.90
85	AA	545	A	O5'-C5'-C4'	-6.63	101.55	111.50
85	AA	1182	A	C5'-C4'-C3'	-6.63	106.05	116.00
85	AA	1591	U	C5'-C4'-C3'	6.63	125.95	116.00
33	AZ	39	GLN	CA-C-N	-6.63	114.50	123.12
33	AZ	39	GLN	C-N-CA	-6.63	114.50	123.12
34	BA	1015	G	O3'-P-O5'	-6.63	94.05	104.00
35	BB	605	C	C2'-C3'-O3'	6.63	123.65	113.70
36	BC	113	G	O3'-P-O5'	-6.63	94.05	104.00
48	BO	158	GLY	CA-C-O	6.63	127.56	120.40
63	Bd	28	TYR	CA-C-N	6.63	134.21	121.54
63	Bd	28	TYR	C-N-CA	6.63	134.21	121.54
77	Br	247	PHE	CA-CB-CG	-6.63	107.17	113.80
77	Br	275	PHE	CA-CB-CG	-6.63	107.17	113.80
85	AA	21	U	C4'-C3'-O3'	-6.63	103.05	113.00
85	AA	27	U	C5'-C4'-C3'	6.63	125.95	116.00
85	AA	126	U	C4'-C3'-C2'	-6.63	95.97	102.60
85	AA	260	A	O5'-C5'-C4'	-6.63	101.55	111.50
85	AA	1253	G	C3'-C2'-C1'	-6.63	94.87	101.50
34	BA	654	C	C4'-C3'-O3'	-6.63	103.06	113.00
34	BA	1184	A	P-O3'-C3'	6.63	130.14	120.20
38	BE	65	U	C5'-C4'-C3'	-6.63	106.06	116.00
34	BA	1573	C	C4'-C3'-C2'	6.63	109.23	102.60
35	BB	901	U	O4'-C4'-C3'	-6.63	97.37	104.00
85	AA	248	U	C4'-C3'-O3'	-6.63	103.06	113.00
34	BA	1478	G	P-O3'-C3'	6.63	130.14	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	356	C	P-O5'-C5'	6.63	130.84	120.90
35	BB	605	C	C4'-C3'-O3'	-6.63	103.06	113.00
36	BC	52	A	P-O5'-C5'	-6.63	110.96	120.90
36	BC	150	U	C4'-C3'-O3'	-6.63	103.06	113.00
37	BD	52	U	P-O3'-C3'	-6.63	110.26	120.20
85	AA	505	U	P-O5'-C5'	-6.63	110.96	120.90
85	AA	507	C	P-O3'-C3'	-6.63	110.26	120.20
85	AA	1690	A	P-O5'-C5'	-6.63	110.96	120.90
4	A3	51	PHE	CA-CB-CG	-6.62	107.17	113.80
34	BA	348	U	C1'-O4'-C4'	-6.62	103.28	109.90
85	AA	455	G	O5'-C5'-C4'	-6.62	101.56	111.50
85	AA	2103	C	P-O5'-C5'	-6.62	110.96	120.90
17	AI	73	ASN	CA-CB-CG	-6.62	105.98	112.60
34	BA	1651	C	C5'-C4'-C3'	-6.62	105.27	115.20
35	BB	1118	G	C5'-C4'-C3'	-6.62	106.06	116.00
35	BB	1433	U	C2'-C3'-O3'	6.62	123.64	113.70
37	BD	114	U	O5'-C5'-C4'	-6.62	101.56	111.50
38	BE	82	C	O4'-C1'-N1	6.62	118.44	108.50
41	BH	29	G	N9-C1'-C2'	-6.62	102.06	112.00
82	Bw	209	HIS	CA-C-O	6.62	127.96	119.95
85	AA	820	G	C1'-O4'-C4'	-6.62	103.28	109.90
45	BL	177	ILE	N-CA-C	-6.62	98.50	108.17
41	BH	48	G	P-O5'-C5'	-6.62	110.97	120.90
85	AA	515	C	C4'-C3'-O3'	-6.62	103.07	113.00
85	AA	572	G	C4'-C3'-C2'	-6.62	95.98	102.60
85	AA	862	U	C2-N1-C1'	-6.62	97.84	117.70
85	AA	1531	G	O5'-C5'-C4'	-6.62	101.57	111.50
35	BB	688	U	O3'-P-O5'	6.62	113.93	104.00
39	BF	36	G	C4'-C3'-O3'	-6.62	103.07	113.00
42	BI	89	ILE	N-CA-C	6.62	117.64	107.78
85	AA	619	A	O4'-C4'-C3'	-6.62	99.48	106.10
34	BA	604	G	O5'-C5'-C4'	-6.62	101.57	111.50
34	BA	813	C	C5'-C4'-O4'	-6.62	99.88	109.80
38	BE	128	G	O5'-C5'-C4'	-6.62	101.58	111.50
3	A2	62	LEU	CA-C-O	-6.62	113.41	120.42
34	BA	347	A	P-O3'-C3'	6.62	130.12	120.20
34	BA	1805	C	P-O5'-C5'	6.62	130.82	120.90
84	By	7	ASP	CA-C-N	6.62	134.17	121.54
84	By	7	ASP	C-N-CA	6.62	134.17	121.54
85	AA	2060	G	O5'-C5'-C4'	-6.62	101.58	111.50
85	AA	2074	G	C2'-C3'-O3'	6.62	123.62	113.70
11	AC	85	ILE	N-CA-C	-6.61	98.21	107.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	AJ	107	SER	CA-C-O	6.61	127.57	120.10
34	BA	489	A	O4'-C4'-C3'	-6.61	97.39	104.00
34	BA	1498	A	C2'-C3'-O3'	6.61	123.62	113.70
34	BA	1505	G	N9-C1'-C2'	6.61	121.92	112.00
38	BE	13	A	C5'-C4'-O4'	6.61	119.72	109.80
44	BK	141	LYS	N-CA-C	-6.61	98.62	109.40
47	BN	32	ASN	CA-CB-CG	-6.61	105.99	112.60
85	AA	659	A	C1'-O4'-C4'	-6.61	103.29	109.90
85	AA	2021	A	C5'-C4'-C3'	-6.61	106.08	116.00
34	BA	1735	G	P-O3'-C3'	6.61	130.12	120.20
35	BB	3	C	O4'-C4'-C3'	6.61	110.61	104.00
35	BB	39	C	C5'-C4'-C3'	-6.61	106.08	116.00
49	BP	8	ARG	CD-NE-CZ	-6.61	115.14	124.40
84	By	138	VAL	CB-CA-C	6.61	121.31	111.26
85	AA	1363	U	C4'-C3'-C2'	-6.61	95.99	102.60
85	AA	1536	C	P-O3'-C3'	-6.61	110.28	120.20
16	AH	15	GLY	N-CA-C	6.61	122.45	113.99
34	BA	228	A	O4'-C1'-C2'	-6.61	100.99	107.60
34	BA	1054	U	P-O5'-C5'	-6.61	110.98	120.90
34	BA	1242	A	C5'-C4'-C3'	-6.61	106.08	116.00
37	BD	75	G	C5'-C4'-C3'	-6.61	105.29	115.20
41	BH	104	U	C4'-C3'-O3'	-6.61	103.08	113.00
47	BN	125	MET	O-C-N	-6.61	115.11	122.12
34	BA	501	U	C4'-C3'-C2'	-6.61	95.99	102.60
47	BN	60	ARG	O-C-N	-6.61	113.72	121.32
85	AA	1615	A	C5'-C4'-C3'	-6.61	106.09	116.00
2	A1	65	GLY	CA-C-N	6.61	134.16	121.54
2	A1	65	GLY	C-N-CA	6.61	134.16	121.54
4	A3	7	TYR	N-CA-CB	-6.61	99.35	110.38
34	BA	686	U	C4'-C3'-O3'	-6.61	103.09	113.00
34	BA	1260	G	C1'-O4'-C4'	-6.61	103.29	109.90
35	BB	1203	C	O4'-C1'-N1	6.61	118.41	108.50
85	AA	1827	U	P-O3'-C3'	-6.61	110.29	120.20
18	AJ	55	ASP	CA-CB-CG	-6.61	106.00	112.60
34	BA	390	A	C5'-C4'-C3'	6.61	125.91	116.00
35	BB	567	G	P-O5'-C5'	-6.61	110.99	120.90
35	BB	1515	C	O5'-C5'-C4'	-6.61	101.59	111.50
37	BD	109	U	O5'-C5'-C4'	-6.61	101.79	111.70
38	BE	154	A	P-O3'-C3'	-6.61	110.29	120.20
80	Bu	20	TYR	CA-CB-CG	-6.61	102.01	113.90
85	AA	1229	G	C3'-C2'-C1'	-6.61	94.69	101.30
34	BA	1354	G	C1'-O4'-C4'	-6.60	103.30	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1672	C	P-O5'-C5'	6.60	130.81	120.90
34	BA	1809	G	O5'-C5'-C4'	-6.60	101.59	111.50
35	BB	1321	G	C5'-C4'-C3'	-6.60	106.09	116.00
85	AA	1436	A	C5'-C4'-C3'	6.60	125.91	116.00
35	BB	60	A	O3'-P-O5'	6.60	113.90	104.00
35	BB	1202	G	O4'-C1'-C2'	-6.60	101.00	107.60
38	BE	205	G	O3'-P-O5'	-6.60	94.10	104.00
53	BT	101	ILE	N-CA-CB	6.60	120.48	110.58
85	AA	540	A	C1'-O4'-C4'	-6.60	103.30	109.90
85	AA	632	U	P-O3'-C3'	6.60	130.10	120.20
85	AA	1140	G	C4'-C3'-O3'	-6.60	103.09	113.00
85	AA	1661	U	P-O3'-C3'	6.60	130.10	120.20
69	Bj	56	GLY	CA-C-N	6.60	130.72	120.75
69	Bj	56	GLY	C-N-CA	6.60	130.72	120.75
82	Bw	225	PRO	N-CA-CB	-6.60	96.32	103.25
85	AA	329	G	C2'-C3'-O3'	6.60	119.40	109.50
34	BA	1626	U	O4'-C1'-C2'	-6.60	101.00	107.60
34	BA	1711	G	P-O5'-C5'	-6.60	111.00	120.90
35	BB	1540	U	P-O5'-C5'	-6.60	111.00	120.90
85	AA	1109	G	C4'-C3'-C2'	6.60	109.20	102.60
4	A3	91	TYR	CA-C-N	6.60	131.73	122.36
4	A3	91	TYR	C-N-CA	6.60	131.73	122.36
4	A3	113	ASN	CA-CB-CG	-6.60	106.00	112.60
34	BA	517	A	C4'-C3'-O3'	-6.60	103.11	113.00
34	BA	1283	U	C3'-C2'-C1'	-6.60	94.70	101.30
36	BC	129	C	O4'-C1'-N1	6.60	118.39	108.50
37	BD	94	C	C5'-C4'-C3'	-6.60	106.10	116.00
38	BE	117	A	P-O3'-C3'	-6.60	110.30	120.20
82	Bw	137	PRO	CB-CA-C	-6.60	102.05	111.68
85	AA	2125	A	C4'-C3'-C2'	6.60	109.20	102.60
22	AO	27	HIS	CA-CB-CG	-6.60	107.20	113.80
34	BA	1202	G	O3'-P-O5'	-6.60	94.11	104.00
65	Bf	162	SER	N-CA-C	6.60	119.80	110.50
79	Bt	50	TYR	CB-CA-C	-6.60	99.36	110.44
34	BA	239	C	C1'-O4'-C4'	-6.59	103.31	109.90
34	BA	1210	A	C5'-C4'-C3'	-6.59	106.11	116.00
34	BA	1627	U	P-O5'-C5'	6.59	130.79	120.90
35	BB	1035	C	P-O5'-C5'	-6.59	111.01	120.90
35	BB	1483	A	C4'-C3'-O3'	-6.59	103.11	113.00
38	BE	43	A	P-O3'-C3'	-6.59	110.31	120.20
59	BZ	75	TRP	CB-CG-CD2	-6.59	117.57	126.80
85	AA	426	C	C1'-O4'-C4'	-6.59	103.31	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	822	U	P-O5'-C5'	6.59	130.79	120.90
85	AA	1594	G	P-O3'-C3'	-6.59	110.31	120.20
77	Br	286	ASP	CB-CA-C	6.59	121.43	111.80
85	AA	790	A	C5'-C4'-C3'	6.59	125.09	115.20
35	BB	1320	U	O5'-C5'-C4'	-6.59	101.61	111.50
38	BE	182	U	O3'-P-O5'	-6.59	94.11	104.00
85	AA	18	C	C5'-C4'-C3'	6.59	125.89	116.00
85	AA	939	A	C4'-C3'-C2'	-6.59	96.01	102.60
85	AA	2052	U	P-O3'-C3'	-6.59	110.31	120.20
34	BA	278	U	C5'-C4'-C3'	-6.59	106.12	116.00
65	Bf	240	ASN	N-CA-CB	6.59	122.93	111.00
85	AA	450	A	O4'-C1'-C2'	6.59	114.19	107.60
85	AA	1557	U	P-O5'-C5'	6.59	130.78	120.90
34	BA	131	A	O3'-P-O5'	-6.59	94.12	104.00
34	BA	1495	A	C5'-C4'-O4'	6.59	118.98	109.10
35	BB	1161	G	N9-C1'-C2'	-6.59	104.12	114.00
49	BP	82	LYS	CA-CB-CG	-6.59	100.92	114.10
59	BZ	82	VAL	N-CA-C	-6.59	98.89	108.11
82	Bw	193	ILE	N-CA-C	-6.59	99.03	109.17
85	AA	84	C	O3'-P-O5'	6.59	113.88	104.00
85	AA	588	G	C5'-C4'-C3'	-6.59	106.12	116.00
85	AA	2141	G	O3'-P-O5'	6.59	113.88	104.00
1	A0	67	GLU	CA-C-N	-6.59	117.52	122.33
1	A0	67	GLU	C-N-CA	-6.59	117.52	122.33
38	BE	128	G	C4'-C3'-C2'	6.59	109.19	102.60
39	BF	13	U	C4'-C3'-C2'	-6.59	96.01	102.60
65	Bf	95	THR	N-CA-CB	-6.59	100.99	110.80
85	AA	412	G	P-O5'-C5'	-6.59	111.02	120.90
85	AA	2155	U	C4'-C3'-O3'	-6.59	103.12	113.00
34	BA	469	C	C4'-C3'-O3'	-6.58	99.52	109.40
34	BA	764	G	P-O5'-C5'	6.58	130.78	120.90
36	BC	23	G	C1'-O4'-C4'	-6.58	103.31	109.90
83	Bx	51	ARG	CA-C-N	6.58	134.12	121.54
83	Bx	51	ARG	C-N-CA	6.58	134.12	121.54
3	A2	140	MET	N-CA-CB	6.58	119.56	110.01
34	BA	62	A	N9-C1'-C2'	-6.58	104.13	114.00
35	BB	1377	A	C4'-C3'-O3'	-6.58	103.13	113.00
38	BE	117	A	C4-N9-C1'	6.58	146.05	126.30
67	Bh	170	ILE	N-CA-C	6.58	117.33	108.11
85	AA	1180	C	C4'-C3'-O3'	-6.58	99.53	109.40
85	AA	1259	U	O4'-C4'-C3'	-6.58	97.42	104.00
34	BA	1097	G	P-O5'-C5'	6.58	130.77	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1125	G	C4'-C3'-O3'	-6.58	103.13	113.00
85	AA	363	A	C1'-O4'-C4'	-6.58	103.32	109.90
85	AA	992	G	C5'-C4'-C3'	-6.58	106.13	116.00
34	BA	1562	G	C4'-C3'-O3'	-6.58	103.13	113.00
36	BC	5	U	C4'-C3'-O3'	-6.58	103.13	113.00
85	AA	340	G	C5'-C4'-C3'	-6.58	106.13	116.00
2	A1	231	SER	N-CA-C	-6.58	104.03	111.14
35	BB	788	U	O4'-C1'-C2'	6.58	114.18	107.60
68	Bi	42	PRO	N-CA-C	-6.58	105.64	113.86
77	Br	329	LEU	N-CA-C	6.58	118.45	111.28
85	AA	487	G	C1'-O4'-C4'	-6.58	103.32	109.90
34	BA	252	A	C4'-C3'-C2'	-6.58	96.02	102.60
35	BB	516	G	P-O3'-C3'	6.58	130.07	120.20
36	BC	69	U	C4'-C3'-C2'	6.58	109.18	102.60
36	BC	113	G	P-O3'-C3'	-6.58	110.33	120.20
38	BE	155	C	O4'-C1'-C2'	-6.58	99.22	105.80
39	BF	9	C	C1'-O4'-C4'	-6.58	103.12	109.70
85	AA	862	U	C2'-C3'-O3'	6.58	123.57	113.70
85	AA	1375	U	P-O3'-C3'	6.58	130.06	120.20
85	AA	1520	A	C4'-C3'-C2'	-6.58	96.02	102.60
15	AG	124	ARG	CB-CA-C	-6.58	100.51	110.90
34	BA	575	U	O4'-C1'-C2'	6.58	112.38	105.80
40	BG	70	C	O5'-C5'-C4'	-6.58	101.64	111.50
65	Bf	143	TYR	N-CA-C	-6.58	99.49	109.95
70	Bk	101	ALA	N-CA-C	6.58	119.28	111.33
77	Br	306	GLN	N-CA-CB	6.58	122.07	110.37
85	AA	1255	C	C3'-C2'-C1'	-6.58	94.72	101.30
85	AA	2050	C	O4'-C1'-C2'	-6.58	99.22	105.80
85	AA	2054	G	P-O5'-C5'	6.58	130.76	120.90
34	BA	383	G	C2'-C3'-O3'	6.57	123.56	113.70
34	BA	782	C	P-O3'-C3'	-6.57	110.34	120.20
77	Br	217	ARG	N-CA-CB	6.57	121.60	110.49
85	AA	1574	C	C4'-C3'-C2'	-6.57	96.03	102.60
8	A7	48	ASP	CA-CB-CG	6.57	119.17	112.60
34	BA	1370	A	C5'-C4'-C3'	-6.57	106.14	116.00
85	AA	1948	A	O3'-P-O5'	-6.57	94.14	104.00
34	BA	258	C	C1'-O4'-C4'	-6.57	103.33	109.90
35	BB	770	G	P-O5'-C5'	6.57	130.76	120.90
85	AA	768	C	P-O5'-C5'	-6.57	111.05	120.90
85	AA	999	A	O5'-C5'-C4'	6.57	121.56	111.70
34	BA	12	G	O3'-P-O5'	-6.57	94.15	104.00
34	BA	1054	U	C4'-C3'-C2'	-6.57	96.03	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1321	A	C1'-O4'-C4'	-6.57	103.33	109.90
85	AA	1684	U	O4'-C1'-N1	6.57	118.35	108.50
34	BA	718	U	O3'-P-O5'	-6.57	94.15	104.00
34	BA	1034	U	C5'-C4'-C3'	-6.57	106.15	116.00
85	AA	494	G	C1'-O4'-C4'	-6.57	103.33	109.90
85	AA	901	C	O3'-P-O5'	6.57	113.85	104.00
85	AA	938	A	P-O5'-C5'	6.57	130.75	120.90
85	AA	1666	U	O3'-P-O5'	-6.57	94.15	104.00
16	AH	63	SER	N-CA-C	6.57	118.97	109.84
34	BA	178	C	C5'-C4'-O4'	-6.57	99.95	109.80
34	BA	736	G	C1'-O4'-C4'	-6.57	103.14	109.70
35	BB	2	C	P-O3'-C3'	-6.57	110.35	120.20
35	BB	390	G	C4'-C3'-C2'	-6.57	96.03	102.60
35	BB	474	G	C4'-C3'-C2'	-6.57	96.03	102.60
35	BB	1032	U	O4'-C1'-N1	6.57	118.05	108.20
35	BB	1452	U	P-O5'-C5'	6.57	130.75	120.90
35	BB	1483	A	O5'-C5'-C4'	-6.57	101.65	111.50
77	Br	332	PHE	CA-C-N	6.57	129.08	120.28
77	Br	332	PHE	C-N-CA	6.57	129.08	120.28
85	AA	469	G	N9-C4-C5	-6.57	85.71	105.40
85	AA	760	U	O5'-C5'-C4'	6.57	121.55	111.70
85	AA	2056	C	C5'-C4'-C3'	-6.57	106.15	116.00
5	A4	68	TYR	N-CA-C	6.56	118.86	108.23
34	BA	270	U	C1'-O4'-C4'	-6.56	103.14	109.70
35	BB	1168	G	P-O3'-C3'	-6.56	110.36	120.20
44	BK	58	GLU	O-C-N	-6.56	115.97	122.99
44	BK	82	LYS	N-CA-C	6.56	119.03	111.02
47	BN	71	ASN	CA-C-O	6.56	127.55	120.20
61	Bb	142	VAL	N-CA-C	-6.56	98.92	108.11
85	AA	83	U	P-O5'-C5'	6.56	130.74	120.90
85	AA	521	A	P-O5'-C5'	6.56	130.75	120.90
34	BA	851	C	C5'-C4'-C3'	6.56	125.84	116.00
34	BA	1775	U	O3'-P-O5'	6.56	113.84	104.00
35	BB	123	U	O3'-P-O5'	6.56	113.84	104.00
35	BB	1099	U	O5'-C5'-C4'	-6.56	101.66	111.50
51	BR	28	ASN	CA-C-O	6.56	127.71	120.82
85	AA	1526	G	C4'-C3'-O3'	-6.56	103.16	113.00
19	AK	135	TRP	CB-CG-CD2	-6.56	117.62	126.80
23	AP	212	GLY	N-CA-C	6.56	120.28	110.97
34	BA	89	G	C5'-C4'-C3'	6.56	125.84	116.00
34	BA	673	U	P-O3'-C3'	6.56	130.04	120.20
34	BA	767	U	P-O5'-C5'	-6.56	111.06	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	768	G	C5'-C4'-C3'	-6.56	106.16	116.00
36	BC	135	A	C5'-C4'-C3'	-6.56	106.16	116.00
48	BO	133	THR	N-CA-C	-6.56	106.49	114.75
85	AA	390	U	C1'-O4'-C4'	-6.56	103.34	109.90
17	AI	147	ARG	CA-C-N	6.56	133.50	121.70
17	AI	147	ARG	C-N-CA	6.56	133.50	121.70
34	BA	1261	G	P-O3'-C3'	-6.56	110.36	120.20
35	BB	865	C	P-O3'-C3'	-6.56	110.36	120.20
35	BB	1452	U	C5'-C4'-C3'	6.56	125.84	116.00
37	BD	9	C	C4'-C3'-O3'	-6.56	103.16	113.00
38	BE	15	A	C1'-O4'-C4'	-6.56	103.34	109.90
61	Bb	76	ASP	CA-CB-CG	-6.56	106.04	112.60
83	Bx	64	ARG	N-CA-C	-6.56	99.03	108.60
85	AA	667	A	P-O5'-C5'	-6.56	111.06	120.90
85	AA	1974	C	P-O5'-C5'	-6.56	111.06	120.90
34	BA	596	G	P-O3'-C3'	6.56	130.03	120.20
34	BA	599	U	O4'-C4'-C3'	-6.56	97.44	104.00
35	BB	1146	C	C4'-C3'-O3'	-6.56	103.17	113.00
85	AA	342	C	P-O3'-C3'	-6.55	110.37	120.20
85	AA	371	C	P-O3'-C3'	-6.55	110.37	120.20
18	AJ	92	ASN	CA-CB-CG	-6.55	106.05	112.60
31	AX	7	LYS	CA-C-N	6.55	129.72	120.28
31	AX	7	LYS	C-N-CA	6.55	129.72	120.28
85	AA	438	G	O3'-P-O5'	6.55	113.83	104.00
34	BA	1433	U	O3'-P-O5'	-6.55	94.17	104.00
38	BE	59	U	C4'-C3'-O3'	-6.55	103.17	113.00
38	BE	162	U	O5'-C5'-C4'	-6.55	101.67	111.50
41	BH	63	G	C2'-C3'-O3'	6.55	123.53	113.70
41	BH	103	C	C5'-C4'-C3'	6.55	125.83	116.00
65	Bf	391	ARG	CA-C-N	6.55	131.23	120.94
65	Bf	391	ARG	C-N-CA	6.55	131.23	120.94
34	BA	1788	U	P-O5'-C5'	6.55	130.72	120.90
35	BB	1397	G	C5'-C4'-C3'	-6.55	106.17	116.00
38	BE	22	A	O4'-C4'-C3'	-6.55	99.55	106.10
40	BG	149	U	C4'-C3'-O3'	6.55	119.22	109.40
82	Bw	177	LYS	N-CA-CB	6.55	119.72	109.83
34	BA	270	U	O4'-C1'-N1	6.55	118.02	108.20
35	BB	1442	C	C5'-C4'-C3'	6.55	125.82	116.00
61	Bb	69	TRP	N-CA-C	6.55	119.85	110.10
70	Bk	44	ARG	NE-CZ-NH2	6.55	125.09	119.20
85	AA	8	U	C4'-C3'-O3'	6.55	119.22	109.40
85	AA	478	U	C5'-C4'-C3'	-6.54	106.18	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	907	G	C2'-C3'-O3'	6.54	119.32	109.50
6	A5	78	ILE	N-CA-CB	6.54	119.36	111.31
34	BA	1411	C	O4'-C4'-C3'	-6.54	97.46	104.00
35	BB	431	U	O5'-C5'-C4'	-6.54	101.69	111.50
35	BB	1027	U	O5'-C5'-C4'	-6.54	101.68	111.50
35	BB	1352	C	C4'-C3'-C2'	-6.54	96.06	102.60
35	BB	1487	G	P-O5'-C5'	-6.54	111.08	120.90
66	Bg	99	CYS	N-CA-C	6.54	119.38	111.40
85	AA	146	U	P-O5'-C5'	-6.54	111.08	120.90
85	AA	962	U	P-O3'-C3'	-6.54	110.39	120.20
34	BA	837	U	P-O3'-C3'	6.54	130.01	120.20
35	BB	433	C	P-O3'-C3'	6.54	130.01	120.20
35	BB	1279	C	C5'-C4'-C3'	6.54	125.81	116.00
38	BE	52	U	O5'-C5'-C4'	-6.54	101.89	111.70
41	BH	2	U	C4'-C3'-C2'	-6.54	96.06	102.60
41	BH	91	G	C3'-C2'-O2'	6.54	120.51	110.70
65	Bf	211	ILE	N-CA-C	-6.54	98.95	108.11
65	Bf	408	LEU	N-CA-CB	6.54	119.59	110.17
85	AA	1511	C	O5'-C5'-C4'	-6.54	101.69	111.50
34	BA	393	G	O5'-C5'-C4'	6.54	121.51	111.70
34	BA	1000	G	P-O3'-C3'	-6.54	110.39	120.20
34	BA	1412	G	C5'-C4'-C3'	-6.54	105.39	115.20
85	AA	1016	G	C5'-C4'-C3'	-6.54	106.19	116.00
34	BA	1616	A	C4'-C3'-O3'	-6.54	99.59	109.40
3	A2	101	ALA	CA-C-N	6.54	128.80	120.56
3	A2	101	ALA	C-N-CA	6.54	128.80	120.56
34	BA	808	U	O4'-C4'-C3'	-6.54	99.56	106.10
34	BA	1564	A	O3'-P-O5'	6.54	113.81	104.00
36	BC	159	U	C2'-C3'-O3'	6.54	119.31	109.50
83	Bx	253	LEU	CA-C-O	6.54	127.48	120.55
84	By	173	PHE	CB-CA-C	-6.54	98.74	109.53
85	AA	762	U	C5'-C4'-C3'	6.54	125.81	116.00
85	AA	1856	G	O5'-C5'-C4'	-6.54	101.69	111.50
1	A0	142	ILE	N-CA-C	6.54	117.77	108.42
34	BA	120	A	P-O5'-C5'	6.54	130.70	120.90
34	BA	389	U	P-O3'-C3'	-6.54	110.40	120.20
82	Bw	35	GLN	CA-C-O	6.54	127.48	120.55
33	AZ	88	ASP	CB-CA-C	6.53	120.58	109.80
34	BA	1784	G	P-O5'-C5'	6.53	130.70	120.90
36	BC	103	A	P-O5'-C5'	-6.53	111.10	120.90
58	BY	14	HIS	CB-CA-C	6.53	123.77	110.31
77	Br	238	LEU	N-CA-C	6.53	119.22	111.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	Bw	44	ALA	N-CA-C	-6.53	104.24	111.36
85	AA	344	U	O5'-C5'-C4'	6.53	121.30	111.50
85	AA	847	G	C5'-C4'-O4'	6.53	119.60	109.80
85	AA	1256	C	O5'-C5'-C4'	-6.53	101.70	111.50
85	AA	1933	G	O3'-P-O5'	6.53	113.80	104.00
34	BA	1423	U	C3'-C2'-O2'	-6.53	104.80	114.60
36	BC	167	U	P-O3'-C3'	6.53	130.00	120.20
77	Br	144	GLU	N-CA-C	-6.53	104.16	111.28
82	Bw	190	ASN	CA-CB-CG	-6.53	106.07	112.60
85	AA	1371	C	C4'-C3'-C2'	-6.53	96.07	102.60
34	BA	1371	U	C5'-C4'-C3'	-6.53	105.41	115.20
34	BA	1612	C	C1'-C2'-O2'	6.53	118.19	108.40
53	BT	117	ARG	N-CA-CB	-6.53	100.52	110.12
82	Bw	9	LEU	N-CA-C	6.53	118.48	111.36
85	AA	1794	U	O4'-C4'-C3'	6.53	110.53	104.00
34	BA	895	U	P-O3'-C3'	6.53	129.99	120.20
85	AA	1801	U	C4'-C3'-O3'	-6.53	103.21	113.00
34	BA	1176	C	O3'-P-O5'	-6.53	94.21	104.00
34	BA	1563	G	C5'-C4'-C3'	-6.53	105.41	115.20
34	BA	1606	A	C4'-C3'-O3'	6.53	119.19	109.40
41	BH	9	C	P-O3'-C3'	-6.53	110.41	120.20
41	BH	26	C	C4'-C3'-O3'	6.53	119.19	109.40
44	BK	129	VAL	CB-CA-C	-6.53	101.95	111.68
50	BQ	149	VAL	N-CA-CB	-6.53	102.37	111.25
54	BU	150	THR	CA-CB-CG2	6.53	121.59	110.50
34	BA	486	G	N9-C1'-C2'	6.53	121.79	112.00
34	BA	609	G	O4'-C1'-N9	6.53	118.29	108.50
36	BC	100	U	C4'-C3'-O3'	-6.53	103.21	113.00
38	BE	63	C	O5'-C5'-C4'	-6.53	101.71	111.50
61	Bb	25	HIS	CA-CB-CG	-6.53	107.28	113.80
67	Bh	158	MET	CA-C-N	6.53	134.00	121.54
67	Bh	158	MET	C-N-CA	6.53	134.00	121.54
85	AA	1358	A	P-O3'-C3'	6.53	129.99	120.20
34	BA	376	U	C1'-O4'-C4'	-6.52	103.38	109.90
35	BB	681	G	P-O3'-C3'	-6.52	110.41	120.20
35	BB	888	U	P-O3'-C3'	-6.52	110.41	120.20
60	Ba	101	ALA	N-CA-C	-6.52	96.91	110.80
3	A2	34	TYR	N-CA-C	-6.52	106.28	114.56
23	AP	137	ALA	CA-C-O	6.52	127.48	120.24
34	BA	1563	G	O3'-P-O5'	6.52	113.78	104.00
38	BE	108	U	C3'-C2'-C1'	-6.52	94.78	101.30
42	BI	108	CYS	N-CA-CB	-6.52	100.34	110.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BN	24	LYS	N-CA-C	6.52	120.46	109.76
62	Bc	82	MET	N-CA-C	6.52	120.03	109.40
85	AA	308	U	O5'-C5'-C4'	6.52	121.28	111.50
85	AA	855	G	O3'-P-O5'	-6.52	94.22	104.00
85	AA	1389	G	P-O3'-C3'	6.52	129.99	120.20
85	AA	1798	U	O3'-P-O5'	6.52	113.78	104.00
34	BA	540	G	O5'-C5'-C4'	-6.52	101.72	111.50
54	BU	7	TYR	CA-C-O	6.52	127.32	119.43
18	AJ	84	ARG	N-CA-C	-6.52	104.36	112.90
21	AM	39	ILE	CA-C-N	-6.52	113.09	122.67
21	AM	39	ILE	C-N-CA	-6.52	113.09	122.67
31	AX	193	MET	CG-SD-CE	-6.52	86.56	100.90
34	BA	813	C	C6-N1-C1'	6.52	140.36	120.80
34	BA	1674	G	P-O5'-C5'	-6.52	111.12	120.90
35	BB	627	G	O3'-P-O5'	6.52	113.78	104.00
35	BB	1114	A	C4'-C3'-C2'	-6.52	96.08	102.60
35	BB	1187	G	P-O5'-C5'	-6.52	111.12	120.90
40	BG	25	G	P-O3'-C3'	-6.52	110.42	120.20
44	BK	150	GLU	CA-C-O	6.52	127.47	119.97
57	BX	95	MET	CG-SD-CE	-6.52	86.56	100.90
85	AA	306	C	P-O5'-C5'	-6.52	111.12	120.90
1	A0	77	GLN	CA-C-N	6.52	133.99	121.54
1	A0	77	GLN	C-N-CA	6.52	133.99	121.54
34	BA	815	C	P-O3'-C3'	-6.52	110.42	120.20
35	BB	1027	U	C5'-C4'-O4'	6.52	119.58	109.80
35	BB	1312	U	O5'-C5'-C4'	-6.52	101.72	111.50
82	Bw	136	LYS	O-C-N	-6.52	114.25	120.70
85	AA	886	A	O4'-C4'-C3'	-6.52	97.48	104.00
35	BB	1304	U	P-O5'-C5'	-6.52	111.13	120.90
48	BO	170	ASP	CA-C-O	6.52	127.66	120.82
77	Br	43	MET	CG-SD-CE	-6.52	86.56	100.90
85	AA	2106	C	C5'-C4'-C3'	-6.52	106.23	116.00
34	BA	52	G	P-O3'-C3'	-6.51	110.43	120.20
34	BA	1162	U	O3'-P-O5'	6.51	113.77	104.00
34	BA	1165	A	C4'-C3'-O3'	-6.51	103.23	113.00
34	BA	1191	C	O3'-P-O5'	-6.51	94.23	104.00
35	BB	109	U	O5'-C5'-C4'	-6.51	101.73	111.50
35	BB	652	G	C4'-C3'-O3'	6.51	119.17	109.40
35	BB	1428	C	C5'-C4'-C3'	-6.51	106.23	116.00
35	BB	1453	G	P-O3'-C3'	-6.51	110.43	120.20
38	BE	133	C	P-O5'-C5'	-6.51	111.13	120.90
64	Be	211	HIS	CA-CB-CG	-6.51	107.28	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	Bh	89	SER	N-CA-CB	-6.51	100.49	110.65
69	Bj	4	PRO	O-C-N	-6.51	113.84	122.64
85	AA	620	U	C1'-O4'-C4'	-6.51	103.39	109.90
85	AA	1713	A	C1'-O4'-C4'	-6.51	103.39	109.90
23	AP	190	ALA	CA-C-O	6.51	129.82	120.51
30	AW	5	ASP	N-CA-CB	-6.51	99.92	109.82
34	BA	771	A	C5'-C4'-C3'	6.51	124.97	115.20
34	BA	1194	G	O4'-C1'-C2'	6.51	114.11	107.60
35	BB	961	G	C5'-C4'-C3'	-6.51	106.23	116.00
36	BC	157	U	C1'-C2'-O2'	-6.51	102.03	111.80
85	AA	66	U	O5'-C5'-C4'	6.51	121.47	111.70
2	A1	33	HIS	CA-CB-CG	-6.51	107.29	113.80
34	BA	691	A	O5'-C5'-C4'	6.51	121.27	111.50
34	BA	1364	G	O3'-P-O5'	-6.51	94.23	104.00
35	BB	10	C	O3'-P-O5'	6.51	113.77	104.00
35	BB	119	G	O4'-C1'-C2'	6.51	114.11	107.60
35	BB	1202	G	O5'-C5'-C4'	6.51	121.27	111.50
36	BC	131	C	C2'-C3'-O3'	6.51	119.27	109.50
85	AA	5	U	O5'-C5'-C4'	-6.51	101.73	111.50
85	AA	1458	G	C5'-C4'-C3'	-6.51	106.23	116.00
34	BA	975	A	C5'-C4'-C3'	-6.51	106.24	116.00
35	BB	589	U	O3'-P-O5'	6.51	113.76	104.00
35	BB	846	A	C1'-O4'-C4'	-6.51	103.39	109.90
36	BC	24	G	O5'-C5'-C4'	-6.51	101.74	111.50
38	BE	61	A	C4'-C3'-O3'	-6.51	103.23	113.00
63	Bd	38	LEU	O-C-N	-6.51	114.69	120.48
85	AA	1999	C	C2'-C3'-O3'	-6.51	103.94	113.70
85	AA	2139	G	C4'-C3'-O3'	-6.51	103.24	113.00
34	BA	23	A	C5'-C4'-C3'	-6.51	106.24	116.00
34	BA	395	G	N9-C1'-C2'	-6.51	102.24	112.00
85	AA	663	C	P-O5'-C5'	-6.51	111.14	120.90
6	A5	75	ARG	CA-C-N	6.51	132.93	121.80
6	A5	75	ARG	C-N-CA	6.51	132.93	121.80
34	BA	479	U	C5'-C4'-C3'	-6.51	106.24	116.00
34	BA	882	G	P-O5'-C5'	-6.51	111.14	120.90
34	BA	1047	U	P-O3'-C3'	-6.51	110.44	120.20
35	BB	869	G	O4'-C1'-N9	6.51	117.96	108.20
35	BB	1391	G	C4'-C3'-O3'	-6.51	103.24	113.00
51	BR	118	GLN	N-CA-C	-6.51	97.46	108.26
85	AA	191	C	O3'-P-O5'	-6.51	94.24	104.00
85	AA	558	U	P-O5'-C5'	-6.51	111.14	120.90
85	AA	658	C	C4'-C3'-O3'	-6.51	103.24	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1135	U	C5'-C4'-C3'	-6.51	106.24	116.00
85	AA	2228	G	O5'-C5'-C4'	-6.51	101.74	111.50
34	BA	71	G	O3'-P-O5'	6.50	113.76	104.00
34	BA	807	U	O5'-C5'-C4'	6.50	121.26	111.50
77	Br	234	ASN	N-CA-C	-6.50	98.30	108.90
85	AA	121	C	C5'-C4'-O4'	-6.50	100.04	109.80
85	AA	524	A	P-O5'-C5'	6.50	130.66	120.90
85	AA	2179	C	P-O5'-C5'	6.50	130.66	120.90
22	AO	97	SER	N-CA-C	6.50	121.28	109.32
34	BA	337	C	C5'-C4'-C3'	-6.50	106.25	116.00
34	BA	841	G	C5'-C4'-C3'	-6.50	106.25	116.00
35	BB	1023	G	C4'-C3'-C2'	-6.50	96.10	102.60
49	BP	140	HIS	N-CA-C	-6.50	103.81	111.03
61	Bb	68	THR	N-CA-CB	-6.50	100.49	110.44
85	AA	210	G	C2'-C3'-O3'	6.50	119.25	109.50
85	AA	896	C	C4'-C3'-C2'	6.50	109.10	102.60
11	AC	193	VAL	N-CA-C	-6.50	98.76	108.12
34	BA	1421	A	P-O3'-C3'	-6.50	110.45	120.20
34	BA	1550	G	C5'-C4'-C3'	6.50	125.75	116.00
34	BA	1634	A	C2'-C3'-O3'	6.50	119.25	109.50
34	BA	1737	A	P-O5'-C5'	6.50	130.65	120.90
35	BB	1195	A	P-O5'-C5'	6.50	130.65	120.90
35	BB	1510	G	O3'-P-O5'	-6.50	94.25	104.00
54	BU	18	LYS	N-CA-C	6.50	124.65	110.80
85	AA	1109	G	O4'-C4'-C3'	-6.50	97.50	104.00
85	AA	1576	G	P-O3'-C3'	6.50	129.95	120.20
85	AA	2198	G	P-O3'-C3'	-6.50	110.45	120.20
15	AG	18	TYR	N-CA-C	-6.50	104.28	111.36
34	BA	1468	U	C4'-C3'-O3'	-6.50	103.25	113.00
85	AA	1121	U	C1'-O4'-C4'	-6.50	103.40	109.90
35	BB	981	A	N9-C1'-C2'	6.50	121.75	112.00
44	BK	199	LEU	CA-C-N	6.50	129.82	120.98
44	BK	199	LEU	C-N-CA	6.50	129.82	120.98
47	BN	24	LYS	O-C-N	-6.50	115.59	123.19
57	BX	138	PRO	CA-C-O	6.50	127.57	118.99
85	AA	380	C	C5'-C4'-C3'	-6.50	106.25	116.00
85	AA	2066	C	C3'-C2'-C1'	-6.50	94.80	101.30
34	BA	1294	C	O4'-C1'-C2'	-6.50	101.10	107.60
35	BB	64	U	C5'-C4'-C3'	-6.50	106.25	116.00
35	BB	767	A	C4'-C3'-C2'	-6.50	96.10	102.60
38	BE	62	C	O5'-C5'-C4'	-6.50	101.76	111.50
40	BG	146	C	P-O3'-C3'	6.50	129.95	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	127	U	C4'-C3'-C2'	-6.50	96.10	102.60
85	AA	385	A	C1'-O4'-C4'	-6.50	103.20	109.70
85	AA	1137	C	P-O3'-C3'	6.50	129.94	120.20
85	AA	2242	U	P-O3'-C3'	6.50	129.95	120.20
35	BB	404	A	O5'-C5'-C4'	-6.50	101.76	111.50
23	AP	258	SER	N-CA-C	-6.49	103.78	112.94
34	BA	71	G	P-O3'-C3'	6.49	129.94	120.20
35	BB	483	C	C4'-C3'-C2'	-6.49	96.11	102.60
35	BB	1323	U	C5'-C4'-C3'	-6.49	106.26	116.00
35	BB	1526	C	O3'-P-O5'	-6.49	94.26	104.00
36	BC	13	U	P-O3'-C3'	6.49	129.94	120.20
37	BD	20	C	P-O3'-C3'	6.49	129.94	120.20
85	AA	488	G	C2'-C3'-O3'	6.49	119.24	109.50
85	AA	674	U	O5'-C5'-C4'	-6.49	101.76	111.50
34	BA	896	U	C6-N1-C1'	-6.49	101.73	121.20
35	BB	560	C	C2'-C3'-O3'	6.49	123.44	113.70
71	Bl	127	ASN	CA-CB-CG	-6.49	106.11	112.60
84	By	74	HIS	CB-CG-CD2	-6.49	122.76	131.20
85	AA	2129	U	C4'-C3'-C2'	-6.49	96.11	102.60
85	AA	2219	G	P-O5'-C5'	-6.49	111.16	120.90
8	A7	161	SER	CA-C-O	-6.49	114.74	120.19
34	BA	228	A	O3'-P-O5'	-6.49	94.27	104.00
34	BA	1443	U	O4'-C4'-C3'	6.49	110.49	104.00
68	Bi	90	ASN	N-CA-C	-6.49	106.58	114.75
81	Bv	184	GLY	CA-C-N	6.49	133.93	121.54
81	Bv	184	GLY	C-N-CA	6.49	133.93	121.54
85	AA	1809	G	P-O5'-C5'	6.49	130.63	120.90
5	A4	183	HIS	N-CA-C	-6.49	102.28	111.56
12	AD	56	LEU	N-CA-C	6.49	118.89	111.11
34	BA	1632	G	O4'-C1'-N9	6.49	118.23	108.50
61	Bb	59	ASN	N-CA-C	6.49	119.03	109.24
85	AA	1979	A	C4'-C3'-C2'	-6.49	96.11	102.60
5	A4	68	TYR	O-C-N	-6.49	117.31	121.85
34	BA	321	G	C4'-C3'-C2'	-6.49	96.11	102.60
34	BA	1600	G	C4'-C3'-C2'	-6.49	96.11	102.60
34	BA	1638	U	C2'-C3'-O3'	6.49	123.43	113.70
35	BB	1339	C	C5'-C4'-C3'	-6.49	106.27	116.00
35	BB	1492	C	C4'-C3'-C2'	-6.49	96.11	102.60
36	BC	88	A	P-O3'-C3'	-6.49	110.47	120.20
59	BZ	51	ASP	N-CA-C	6.49	124.61	110.80
85	AA	414	C	C3'-C2'-C1'	-6.49	94.81	101.30
85	AA	600	C	P-O5'-C5'	6.49	130.63	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	887	A	P-O3'-C3'	-6.49	110.47	120.20
85	AA	1831	U	C4'-C3'-C2'	-6.49	96.11	102.60
85	AA	2005	U	P-O5'-C5'	-6.49	111.17	120.90
5	A4	102	ARG	N-CA-C	6.48	117.13	108.38
34	BA	723	C	C2'-C3'-O3'	6.48	119.22	109.50
85	AA	619	A	O4'-C1'-N9	6.48	117.93	108.20
85	AA	1610	G	C5'-C4'-C3'	-6.48	106.27	116.00
34	BA	166	G	O3'-P-O5'	-6.48	94.28	104.00
34	BA	570	G	C5'-C4'-C3'	-6.48	106.28	116.00
34	BA	1261	G	C1'-O4'-C4'	-6.48	103.42	109.90
34	BA	1281	U	C1'-O4'-C4'	-6.48	103.42	109.90
35	BB	1418	C	P-O5'-C5'	-6.48	111.17	120.90
35	BB	1462	G	C5'-C4'-C3'	6.48	125.72	116.00
40	BG	56	G	C5'-C4'-C3'	-6.48	106.28	116.00
23	AP	101	SER	CA-C-N	6.48	133.92	121.54
23	AP	101	SER	C-N-CA	6.48	133.92	121.54
35	BB	85	A	C5'-C4'-C3'	6.48	124.92	115.20
35	BB	537	A	C4'-C3'-O3'	-6.48	103.28	113.00
35	BB	540	G	P-O5'-C5'	-6.48	111.18	120.90
35	BB	868	C	O4'-C1'-N1	6.48	118.22	108.50
37	BD	68	C	C3'-C2'-C1'	-6.48	94.82	101.30
85	AA	268	A	P-O3'-C3'	-6.48	110.48	120.20
85	AA	384	C	C5'-C4'-C3'	-6.48	106.28	116.00
85	AA	787	U	O5'-C5'-C4'	-6.48	101.78	111.50
20	AL	26	LYS	N-CA-C	-6.48	105.41	113.38
34	BA	423	G	P-O5'-C5'	-6.48	111.18	120.90
35	BB	1391	G	C5'-C4'-O4'	6.48	119.52	109.80
35	BB	1548	C	C4'-C3'-C2'	-6.48	96.12	102.60
39	BF	50	C	C4'-C3'-C2'	6.48	109.08	102.60
39	BF	54	U	C2'-C3'-O3'	6.48	119.22	109.50
62	Bc	98	ILE	N-CA-C	6.48	121.11	112.04
65	Bf	125	GLU	CA-C-N	6.48	126.24	119.76
65	Bf	125	GLU	C-N-CA	6.48	126.24	119.76
81	Bv	20	SER	CB-CA-C	-6.48	103.72	110.33
85	AA	578	U	C4'-C3'-C2'	-6.48	96.12	102.60
85	AA	1488	G	P-O5'-C5'	-6.48	111.18	120.90
85	AA	2133	A	O3'-P-O5'	-6.48	94.28	104.00
85	AA	851	G	C4'-C3'-O3'	-6.48	103.28	113.00
34	BA	26	C	O3'-P-O5'	-6.47	94.29	104.00
35	BB	1223	A	O3'-P-O5'	6.47	113.71	104.00
38	BE	97	G	C3'-C2'-C1'	-6.47	94.83	101.30
38	BE	136	G	C2'-C3'-O3'	6.47	119.21	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Ba	3	PHE	CA-CB-CG	-6.47	107.33	113.80
77	Br	45	LYS	N-CA-C	-6.47	105.01	113.17
83	Bx	153	THR	N-CA-CB	6.47	119.40	110.01
85	AA	157	G	P-O5'-C5'	-6.47	111.19	120.90
85	AA	2061	C	P-O5'-C5'	-6.47	111.19	120.90
2	A1	212	GLY	N-CA-C	-6.47	105.95	115.72
18	AJ	76	CYS	N-CA-C	-6.47	99.54	109.64
35	BB	818	U	C5'-C4'-C3'	-6.47	106.29	116.00
35	BB	1487	G	O3'-P-O5'	-6.47	94.29	104.00
37	BD	115	A	C4'-C3'-C2'	-6.47	96.13	102.60
38	BE	32	U	O4'-C1'-C2'	-6.47	101.13	107.60
52	BS	59	ASP	N-CA-C	6.47	119.26	108.13
85	AA	1961	U	C5'-C4'-C3'	-6.47	106.29	116.00
34	BA	155	U	O5'-C5'-C4'	6.47	121.21	111.50
34	BA	1277	G	O5'-C5'-C4'	-6.47	101.79	111.50
35	BB	831	C	P-O3'-C3'	-6.47	110.49	120.20
41	BH	127	A	C5'-C4'-C3'	6.47	125.71	116.00
85	AA	972	G	C4'-C3'-C2'	6.47	109.07	102.60
85	AA	1350	A	P-O3'-C3'	6.47	129.91	120.20
86	AB	42	C	C5'-C4'-C3'	-6.47	106.29	116.00
4	A3	106	GLY	N-CA-C	-6.47	103.79	112.14
34	BA	944	G	P-O3'-C3'	6.47	129.90	120.20
34	BA	967	C	C1'-O4'-C4'	-6.47	103.43	109.90
34	BA	1239	G	C4'-C3'-O3'	-6.47	103.30	113.00
35	BB	670	G	P-O5'-C5'	6.47	130.60	120.90
44	BK	142	ASP	N-CA-CB	-6.47	100.36	110.06
48	BO	139	ILE	CA-C-N	6.47	127.93	119.84
48	BO	139	ILE	C-N-CA	6.47	127.93	119.84
85	AA	446	C	C4'-C3'-O3'	-6.47	103.30	113.00
85	AA	1345	C	P-O3'-C3'	6.47	129.90	120.20
86	AB	67	C	P-O5'-C5'	-6.47	111.20	120.90
23	AP	238	ASP	N-CA-CB	-6.47	101.02	110.53
35	BB	1202	G	O4'-C4'-C3'	-6.47	97.53	104.00
80	Bu	14	LYS	N-CA-C	-6.47	104.23	111.28
85	AA	508	C	O4'-C4'-C3'	-6.47	97.53	104.00
20	AL	27	ASP	CB-CA-C	-6.47	99.81	109.90
34	BA	1064	A	C4'-C3'-O3'	-6.47	103.30	113.00
35	BB	73	G	P-O5'-C5'	-6.47	111.20	120.90
35	BB	815	G	N9-C1'-C2'	-6.47	102.30	112.00
85	AA	541	A	C4'-C3'-C2'	-6.47	96.13	102.60
85	AA	2039	G	C5'-C4'-C3'	-6.47	106.30	116.00
34	BA	1160	U	P-O3'-C3'	-6.46	110.50	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1173	C	C1'-O4'-C4'	-6.46	103.44	109.90
60	Ba	74	VAL	CB-CA-C	-6.46	100.69	111.29
85	AA	189	G	C5'-C4'-C3'	-6.46	106.30	116.00
85	AA	604	C	C2'-C3'-O3'	6.46	119.20	109.50
85	AA	817	G	C4'-C3'-C2'	6.46	109.06	102.60
42	BI	151	SER	N-CA-C	6.46	118.90	111.02
80	Bu	109	MET	CA-C-N	-6.46	110.04	122.06
80	Bu	109	MET	C-N-CA	-6.46	110.04	122.06
85	AA	572	G	C5'-C4'-C3'	-6.46	106.31	116.00
85	AA	2218	G	C2'-C3'-O3'	6.46	119.19	109.50
20	AL	25	ASN	CA-CB-CG	-6.46	106.14	112.60
34	BA	301	U	O4'-C4'-C3'	-6.46	97.54	104.00
35	BB	768	A	O4'-C4'-C3'	-6.46	99.64	106.10
35	BB	904	C	C5'-C4'-C3'	6.46	125.69	116.00
78	Bs	3	GLU	CA-C-N	6.46	126.69	119.32
78	Bs	3	GLU	C-N-CA	6.46	126.69	119.32
86	AB	67	C	C4'-C3'-O3'	-6.46	103.31	113.00
34	BA	552	C	C3'-C2'-O2'	6.46	120.39	110.70
34	BA	1250	C	P-O3'-C3'	6.46	129.89	120.20
35	BB	1475	U	C1'-O4'-C4'	-6.46	103.44	109.90
35	BB	1512	C	O4'-C1'-C2'	-6.46	101.14	107.60
37	BD	83	A	N9-C1'-C2'	6.46	121.69	112.00
40	BG	49	A	O3'-P-O5'	-6.46	94.31	104.00
21	AM	10	PHE	CA-CB-CG	-6.46	107.34	113.80
34	BA	80	U	P-O3'-C3'	6.46	129.89	120.20
34	BA	1101	A	C5'-C4'-C3'	-6.46	106.31	116.00
34	BA	1588	U	C4'-C3'-C2'	6.46	109.06	102.60
35	BB	1390	U	O3'-P-O5'	6.46	113.69	104.00
38	BE	101	C	N1-C1'-C2'	-6.46	104.31	114.00
47	BN	13	GLN	N-CA-CB	6.46	121.41	110.49
85	AA	201	U	C5'-C4'-C3'	-6.46	106.31	116.00
85	AA	1466	U	O4'-C1'-N1	-6.46	98.81	108.50
85	AA	1541	G	P-O3'-C3'	-6.46	110.51	120.20
86	AB	63	G	C1'-O4'-C4'	-6.46	103.44	109.90
19	AK	46	LEU	CA-C-O	-6.46	111.32	120.16
35	BB	137	A	P-O3'-C3'	6.46	129.88	120.20
35	BB	683	U	C4'-C3'-O3'	-6.46	103.31	113.00
35	BB	835	C	C5'-C4'-C3'	-6.46	106.32	116.00
38	BE	18	U	O4'-C1'-C2'	6.46	112.26	105.80
42	BI	71	MET	CB-CA-C	6.46	121.53	111.13
59	BZ	5	LYS	CA-C-O	6.46	127.58	120.80
85	AA	655	U	C5'-C4'-C3'	-6.46	106.31	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1793	A	P-O3'-C3'	-6.46	110.52	120.20
40	BG	25	G	O3'-P-O5'	6.46	113.68	104.00
53	BT	81	ARG	CB-CG-CD	6.46	126.15	111.30
54	BU	157	ILE	O-C-N	-6.46	113.74	121.10
85	AA	1426	G	P-O3'-C3'	-6.46	110.52	120.20
34	BA	407	A	C5'-C4'-C3'	-6.45	105.52	115.20
34	BA	537	C	P-O3'-C3'	-6.45	110.52	120.20
34	BA	592	G	C5'-C4'-O4'	-6.45	100.12	109.80
34	BA	1172	C	O4'-C1'-C2'	6.45	114.05	107.60
36	BC	35	C	P-O3'-C3'	-6.45	110.52	120.20
48	BO	154	PHE	N-CA-CB	6.45	121.40	111.46
50	BQ	111	LEU	CA-C-N	6.45	131.45	121.19
50	BQ	111	LEU	C-N-CA	6.45	131.45	121.19
85	AA	257	U	P-O5'-C5'	-6.45	111.22	120.90
85	AA	355	G	P-O5'-C5'	-6.45	111.22	120.90
4	A3	39	GLY	CA-C-N	6.45	129.80	120.38
4	A3	39	GLY	C-N-CA	6.45	129.80	120.38
7	A6	132	HIS	N-CA-C	6.45	119.12	108.99
27	AT	34	HIS	CB-CG-ND1	-6.45	113.02	122.70
34	BA	525	A	O3'-P-O5'	6.45	113.68	104.00
34	BA	870	C	O5'-P-OP1	-6.45	88.64	108.00
35	BB	557	C	O5'-C5'-C4'	-6.45	101.82	111.50
85	AA	698	G	C1'-O4'-C4'	-6.45	103.45	109.90
85	AA	1800	U	C4'-C3'-C2'	-6.45	96.15	102.60
85	AA	2030	U	C5'-C4'-C3'	-6.45	106.32	116.00
85	AA	2241	C	C1'-O4'-C4'	-6.45	103.45	109.90
34	BA	683	C	O3'-P-O5'	6.45	113.68	104.00
34	BA	748	C	C1'-O4'-C4'	-6.45	103.45	109.90
38	BE	39	U	O5'-C5'-C4'	-6.45	101.82	111.50
38	BE	208	G	O4'-C4'-C3'	-6.45	99.65	106.10
42	BI	53	LEU	N-CA-C	6.45	119.30	111.82
47	BN	173	ALA	CA-C-O	-6.45	114.19	121.28
51	BR	147	GLN	N-CA-C	-6.45	97.72	108.75
64	Be	230	PRO	N-CA-CB	6.45	109.34	103.08
85	AA	2150	G	P-O5'-C5'	6.45	130.58	120.90
6	A5	3	ILE	CB-CA-C	-6.45	101.61	110.77
11	AC	86	ASP	CA-C-O	6.45	127.97	120.49
15	AG	90	CYS	CA-C-O	6.45	127.39	120.55
20	AL	74	GLN	N-CA-C	-6.45	104.33	111.36
34	BA	63	A	O4'-C4'-C3'	-6.45	99.65	106.10
34	BA	1478	G	P-O5'-C5'	6.45	130.57	120.90
41	BH	45	G	C4'-C3'-O3'	-6.45	103.33	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	518	A	O5'-C5'-C4'	6.45	121.37	111.70
85	AA	767	A	P-O3'-C3'	6.45	129.87	120.20
85	AA	1691	U	C2'-C3'-O3'	6.45	119.17	109.50
35	BB	528	G	C5'-C4'-C3'	-6.45	105.53	115.20
38	BE	150	G	C5'-C4'-C3'	-6.45	106.33	116.00
34	BA	204	U	C4'-C3'-C2'	-6.45	96.16	102.60
34	BA	1215	U	C5'-C4'-C3'	-6.45	106.33	116.00
35	BB	381	C	P-O3'-C3'	6.45	129.87	120.20
35	BB	722	U	P-O5'-C5'	6.45	130.57	120.90
56	BW	96	TYR	CA-C-N	6.45	132.93	122.81
56	BW	96	TYR	C-N-CA	6.45	132.93	122.81
62	Bc	45	PHE	CA-CB-CG	-6.45	107.35	113.80
85	AA	579	U	O3'-P-O5'	-6.45	94.33	104.00
85	AA	859	G	C4-N9-C1'	-6.45	107.16	126.50
85	AA	1281	G	C1'-O4'-C4'	-6.45	103.45	109.90
85	AA	1375	U	P-O5'-C5'	-6.45	111.23	120.90
85	AA	366	A	C5'-C4'-C3'	-6.44	106.33	116.00
34	BA	6	C	C4'-C3'-C2'	6.44	109.04	102.60
34	BA	763	U	C3'-C2'-C1'	6.44	107.74	101.30
34	BA	1115	A	O3'-P-O5'	6.44	113.67	104.00
34	BA	1300	G	C4'-C3'-O3'	-6.44	103.33	113.00
35	BB	991	C	O5'-C5'-C4'	6.44	121.17	111.50
35	BB	1484	A	P-O5'-C5'	6.44	130.56	120.90
37	BD	85	C	P-O3'-C3'	-6.44	110.53	120.20
38	BE	141	A	C1'-O4'-C4'	-6.44	103.26	109.70
85	AA	83	U	O4'-C1'-N1	6.44	118.16	108.50
85	AA	1917	G	P-O5'-C5'	-6.44	111.23	120.90
5	A4	4	GLN	N-CA-C	-6.44	95.58	109.81
34	BA	532	C	P-O3'-C3'	-6.44	110.54	120.20
35	BB	824	C	P-O5'-C5'	-6.44	111.24	120.90
85	AA	250	C	C5'-C4'-C3'	6.44	125.66	116.00
85	AA	289	G	O4'-C4'-C3'	-6.44	97.56	104.00
85	AA	742	U	C4'-C3'-C2'	-6.44	96.16	102.60
85	AA	1525	C	O5'-C5'-C4'	-6.44	101.84	111.50
34	BA	110	C	C1'-O4'-C4'	-6.44	103.46	109.90
34	BA	314	A	C1'-O4'-C4'	-6.44	103.46	109.90
34	BA	1741	G	P-O3'-C3'	-6.44	110.54	120.20
35	BB	1495	U	C1'-O4'-C4'	-6.44	103.46	109.90
60	Ba	50	ARG	CA-C-N	6.44	133.84	121.54
60	Ba	50	ARG	C-N-CA	6.44	133.84	121.54
69	Bj	76	SER	N-CA-C	6.44	118.64	108.79
85	AA	585	G	O3'-P-O5'	-6.44	94.34	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1560	A	C1'-O4'-C4'	-6.44	103.46	109.90
34	BA	152	C	O5'-C5'-C4'	6.44	121.36	111.70
34	BA	936	A	O3'-P-O5'	6.44	113.66	104.00
34	BA	1535	G	C4'-C3'-C2'	-6.44	96.16	102.60
34	BA	1571	C	P-O3'-C3'	6.44	129.86	120.20
38	BE	201	A	P-O3'-C3'	-6.44	110.54	120.20
40	BG	9	G	C1'-O4'-C4'	-6.44	103.46	109.90
85	AA	1147	A	O3'-P-O5'	6.44	113.66	104.00
85	AA	1453	U	C4'-C3'-C2'	-6.44	96.16	102.60
85	AA	1830	U	P-O3'-C3'	-6.44	110.54	120.20
35	BB	473	U	C5'-C4'-C3'	-6.44	106.34	116.00
8	A7	28	ALA	CA-C-N	6.43	132.91	122.81
8	A7	28	ALA	C-N-CA	6.43	132.91	122.81
34	BA	1776	G	O4'-C1'-C2'	6.43	112.23	105.80
35	BB	587	A	C5'-C4'-C3'	6.43	125.65	116.00
35	BB	1025	A	P-O3'-C3'	6.43	129.85	120.20
38	BE	135	A	C1'-O4'-C4'	-6.43	103.47	109.90
61	Bb	19	TYR	CA-CB-CG	6.43	125.48	113.90
64	Be	86	GLN	CA-C-N	6.43	133.83	121.54
64	Be	86	GLN	C-N-CA	6.43	133.83	121.54
85	AA	2086	C	C4'-C3'-O3'	-6.43	103.35	113.00
22	AO	88	GLY	CA-C-N	6.43	128.80	120.44
22	AO	88	GLY	C-N-CA	6.43	128.80	120.44
34	BA	1256	A	O3'-P-O5'	6.43	113.65	104.00
34	BA	1272	U	P-O3'-C3'	-6.43	110.55	120.20
41	BH	39	G	O4'-C4'-C3'	-6.43	97.57	104.00
62	Bc	37	ASN	CA-CB-CG	-6.43	106.17	112.60
85	AA	435	A	C5'-C4'-O4'	6.43	119.45	109.80
34	BA	1775	U	C4'-C3'-C2'	-6.43	96.17	102.60
57	BX	58	HIS	CB-CA-C	-6.43	99.74	110.29
25	AR	44	VAL	CB-CA-C	-6.43	102.62	111.49
34	BA	428	C	O5'-C5'-C4'	-6.43	101.86	111.50
34	BA	1116	G	P-O3'-C3'	6.43	129.84	120.20
35	BB	337	U	P-O5'-C5'	6.43	130.54	120.90
36	BC	92	C	C4'-C3'-C2'	-6.43	96.17	102.60
85	AA	209	C	P-O5'-C5'	-6.43	111.25	120.90
85	AA	918	U	C1'-O4'-C4'	-6.43	103.47	109.90
34	BA	649	A	C5'-C4'-C3'	-6.43	106.36	116.00
34	BA	850	C	C4'-C3'-C2'	-6.43	96.17	102.60
34	BA	1297	G	C2'-C3'-O3'	6.43	119.14	109.50
34	BA	1309	U	O4'-C4'-C3'	-6.43	99.67	106.10
35	BB	827	U	P-O3'-C3'	-6.43	110.56	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
66	Bg	42	LEU	N-CA-CB	-6.43	100.69	110.01
85	AA	75	U	P-O5'-C5'	6.43	130.54	120.90
85	AA	2179	C	O5'-C5'-C4'	-6.43	101.86	111.50
10	A9	120	ARG	CA-C-N	6.42	130.45	120.75
10	A9	120	ARG	C-N-CA	6.42	130.45	120.75
34	BA	732	A	O5'-C5'-C4'	-6.42	101.86	111.50
34	BA	1240	G	O3'-P-O5'	-6.42	94.36	104.00
34	BA	1654	G	O4'-C1'-C2'	6.42	114.03	107.60
35	BB	379	U	C3'-C2'-C1'	-6.42	94.88	101.30
35	BB	591	A	C4'-C3'-O3'	-6.42	103.36	113.00
35	BB	1454	G	O4'-C1'-N9	6.42	118.14	108.50
37	BD	72	U	P-O3'-C3'	6.42	129.84	120.20
38	BE	134	A	C5'-C4'-O4'	-6.42	99.46	109.10
47	BN	174	PRO	N-CA-C	6.42	125.70	112.47
64	Be	136	ILE	CB-CA-C	-6.42	102.80	111.15
67	Bh	174	PRO	CA-C-N	6.42	134.02	122.13
67	Bh	174	PRO	C-N-CA	6.42	134.02	122.13
85	AA	65	A	O4'-C4'-C3'	-6.42	97.58	104.00
85	AA	590	U	C5'-C4'-C3'	6.42	124.84	115.20
85	AA	1214	C	C4'-C3'-O3'	-6.42	103.36	113.00
85	AA	1710	C	C4'-C3'-C2'	6.42	109.03	102.60
35	BB	589	U	C1'-O4'-C4'	-6.42	103.48	109.90
36	BC	139	A	P-O5'-C5'	-6.42	111.27	120.90
65	Bf	357	ASP	CA-CB-CG	6.42	119.02	112.60
85	AA	84	C	P-O3'-C3'	-6.42	110.57	120.20
85	AA	2155	U	O4'-C1'-N1	6.42	118.13	108.50
34	BA	1707	C	C5'-C4'-C3'	6.42	125.63	116.00
39	BF	15	U	O4'-C1'-C2'	-6.42	99.38	105.80
52	BS	44	TRP	CB-CG-CD2	-6.42	117.81	126.80
57	BX	64	ALA	CA-C-N	6.42	131.88	122.63
57	BX	64	ALA	C-N-CA	6.42	131.88	122.63
85	AA	1449	C	C2'-C3'-O3'	6.42	123.33	113.70
40	BG	94	G	O5'-C5'-C4'	-6.42	101.87	111.50
47	BN	10	HIS	CA-C-N	6.42	133.53	121.97
47	BN	10	HIS	C-N-CA	6.42	133.53	121.97
66	Bg	85	ASN	CA-CB-CG	-6.42	106.18	112.60
85	AA	638	G	C2'-C3'-O3'	6.42	119.13	109.50
85	AA	1613	A	C5'-C4'-C3'	-6.42	106.37	116.00
34	BA	220	U	P-O3'-C3'	-6.42	110.57	120.20
34	BA	1571	C	C5'-C4'-C3'	6.42	125.63	116.00
35	BB	18	A	C5'-C4'-C3'	6.42	125.63	116.00
38	BE	21	C	C3'-C2'-O2'	6.42	120.33	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BG	92	U	C4'-C3'-C2'	6.42	109.02	102.60
85	AA	121	C	O3'-P-O5'	6.42	113.63	104.00
85	AA	1541	G	C4'-C3'-O3'	-6.42	103.37	113.00
85	AA	1648	G	O3'-P-O5'	-6.42	94.37	104.00
86	AB	8	U	C1'-O4'-C4'	-6.42	103.28	109.70
4	A3	86	ASN	CA-CB-CG	-6.42	106.18	112.60
5	A4	4	GLN	N-CA-CB	6.42	121.79	110.37
7	A6	68	ARG	N-CA-CB	-6.42	100.69	110.12
8	A7	267	ASN	CA-CB-CG	-6.42	106.18	112.60
34	BA	1268	C	C5'-C4'-C3'	-6.42	106.38	116.00
34	BA	1633	C	P-O5'-C5'	6.42	130.53	120.90
35	BB	1131	C	P-O5'-C5'	-6.42	111.28	120.90
35	BB	1309	A	P-O3'-C3'	-6.42	110.58	120.20
39	BF	65	U	C2-N3-C4	-6.42	107.75	127.00
41	BH	64	U	O3'-P-O5'	-6.42	94.38	104.00
76	Bq	46	ARG	CA-C-N	6.42	133.80	121.54
76	Bq	46	ARG	C-N-CA	6.42	133.80	121.54
84	By	154	ARG	CA-C-N	6.42	128.88	120.28
84	By	154	ARG	C-N-CA	6.42	128.88	120.28
85	AA	375	C	C5'-C4'-C3'	6.42	125.62	116.00
85	AA	926	C	O3'-P-O5'	6.42	113.62	104.00
85	AA	535	G	P-O5'-C5'	6.42	130.52	120.90
85	AA	1586	C	C3'-C2'-C1'	-6.42	94.89	101.30
34	BA	216	C	C5'-C4'-C3'	-6.41	106.38	116.00
34	BA	271	C	C4'-C3'-C2'	-6.41	96.19	102.60
34	BA	864	G	C3'-C2'-O2'	6.41	120.32	110.70
82	Bw	244	ASN	CA-CB-CG	-6.41	106.19	112.60
85	AA	526	G	C4'-C3'-C2'	-6.41	96.19	102.60
85	AA	1268	C	N1-C1'-C2'	-6.41	102.38	112.00
85	AA	2030	U	C4'-C3'-O3'	-6.41	103.38	113.00
86	AB	70	G	C4'-C3'-C2'	-6.41	96.19	102.60
34	BA	23	A	C1'-O4'-C4'	-6.41	103.49	109.90
85	AA	753	U	C5'-C4'-C3'	6.41	125.62	116.00
1	A0	112	VAL	CB-CA-C	-6.41	103.49	112.14
34	BA	13	U	O5'-C5'-C4'	-6.41	102.08	111.70
76	Bq	45	ARG	N-CA-CB	6.41	121.70	110.42
85	AA	210	G	N9-C1'-C2'	-6.41	104.38	114.00
85	AA	1438	C	P-O3'-C3'	-6.41	110.59	120.20
34	BA	519	G	P-O3'-C3'	-6.41	110.59	120.20
34	BA	711	C	O5'-C5'-C4'	6.41	121.31	111.70
35	BB	795	A	O5'-C5'-C4'	-6.41	101.89	111.50
35	BB	824	C	C4'-C3'-C2'	-6.41	96.19	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1054	G	C5'-C4'-C3'	-6.41	106.39	116.00
35	BB	1140	C	P-O5'-C5'	6.41	130.51	120.90
38	BE	151	C	C4'-C3'-O3'	-6.41	103.39	113.00
85	AA	889	G	O3'-P-O5'	6.41	113.61	104.00
34	BA	127	U	O5'-C5'-C4'	-6.41	101.89	111.50
41	BH	2	U	P-O5'-C5'	6.41	130.51	120.90
41	BH	120	C	P-O3'-C3'	6.41	129.81	120.20
80	Bu	81	HIS	CA-CB-CG	-6.41	107.39	113.80
2	A1	227	LYS	N-CA-C	-6.41	98.93	108.99
6	A5	121	LEU	CB-CA-C	-6.41	98.95	110.35
34	BA	954	U	O5'-C5'-C4'	-6.41	101.89	111.50
37	BD	47	U	O5'-C5'-C4'	6.41	121.11	111.50
40	BG	119	A	C4'-C3'-C2'	-6.41	96.19	102.60
43	BJ	114	ILE	N-CA-C	6.41	117.15	110.62
47	BN	107	LYS	N-CA-C	-6.41	105.29	113.23
66	Bg	100	VAL	N-CA-C	6.41	116.81	108.35
85	AA	487	G	O3'-P-O5'	6.41	113.61	104.00
85	AA	985	G	C4'-C3'-C2'	-6.41	96.19	102.60
85	AA	1648	G	P-O5'-C5'	-6.41	111.29	120.90
34	BA	575	U	O5'-C5'-C4'	6.40	121.31	111.70
34	BA	1104	C	O4'-C1'-C2'	6.40	112.20	105.80
34	BA	1215	U	C4'-C3'-C2'	6.40	109.00	102.60
35	BB	397	C	C4'-C3'-O3'	-6.40	103.39	113.00
49	BP	55	ASN	CA-CB-CG	-6.40	106.20	112.60
86	AB	36	A	O3'-P-O5'	-6.40	94.39	104.00
34	BA	690	G	O3'-P-O5'	6.40	113.60	104.00
34	BA	1540	C	P-O3'-C3'	-6.40	110.60	120.20
35	BB	995	C	C2'-C3'-O3'	6.40	123.30	113.70
35	BB	1505	U	C2'-C3'-O3'	6.40	119.10	109.50
49	BP	31	VAL	CA-C-N	6.40	133.77	121.54
49	BP	31	VAL	C-N-CA	6.40	133.77	121.54
65	Bf	422	LYS	N-CA-C	-6.40	97.16	110.80
68	Bi	50	GLN	CA-C-N	6.40	134.41	123.01
68	Bi	50	GLN	C-N-CA	6.40	134.41	123.01
85	AA	4	C	C1'-O4'-C4'	-6.40	103.50	109.90
85	AA	787	U	O4'-C4'-C3'	6.40	110.40	104.00
85	AA	890	U	O3'-P-O5'	6.40	113.60	104.00
34	BA	355	U	O5'-C5'-C4'	-6.40	101.90	111.50
35	BB	1098	G	P-O3'-C3'	6.40	129.80	120.20
38	BE	196	C	O4'-C1'-C2'	6.40	114.00	107.60
41	BH	75	G	P-O3'-C3'	6.40	129.80	120.20
41	BH	97	C	O3'-P-O5'	-6.40	94.40	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
71	Bl	49	ARG	N-CA-C	6.40	118.25	108.52
78	Bs	20	CYS	CB-CA-C	-6.40	99.65	109.89
85	AA	229	U	C5'-C4'-C3'	-6.40	105.60	115.20
34	BA	736	G	C4'-C3'-C2'	-6.40	96.20	102.60
35	BB	452	A	C5'-C4'-O4'	-6.40	100.20	109.80
35	BB	843	G	P-O3'-C3'	-6.40	110.60	120.20
85	AA	1188	A	P-O3'-C3'	-6.40	110.60	120.20
9	A8	28	GLN	N-CA-C	-6.40	105.12	113.12
20	AL	93	GLN	CA-C-N	6.40	133.76	121.54
20	AL	93	GLN	C-N-CA	6.40	133.76	121.54
34	BA	454	G	P-O5'-C5'	-6.40	111.30	120.90
34	BA	471	U	C4'-C3'-O3'	-6.40	103.40	113.00
34	BA	1487	U	P-O5'-C5'	6.40	130.50	120.90
34	BA	1612	C	P-O3'-C3'	-6.40	110.61	120.20
37	BD	93	G	O5'-C5'-C4'	-6.40	101.90	111.50
42	BI	27	LYS	CA-C-O	6.40	127.33	120.10
56	BW	98	GLU	CB-CG-CD	6.40	123.47	112.60
80	Bu	179	VAL	O-C-N	-6.40	113.81	121.10
85	AA	128	U	C5'-C4'-C3'	-6.40	106.40	116.00
34	BA	843	G	C4'-C3'-O3'	-6.40	103.41	113.00
34	BA	944	G	O4'-C1'-C2'	6.40	114.00	107.60
35	BB	796	C	O4'-C4'-C3'	-6.40	97.60	104.00
40	BG	44	G	C3'-C2'-C1'	-6.40	94.90	101.30
85	AA	749	C	P-O3'-C3'	6.40	129.79	120.20
27	AT	82	ILE	CB-CA-C	-6.39	101.79	110.42
35	BB	781	U	C3'-C2'-C1'	-6.39	95.11	101.50
54	BU	125	LEU	CA-C-N	-6.39	113.79	120.38
54	BU	125	LEU	C-N-CA	-6.39	113.79	120.38
85	AA	964	C	C5'-C4'-O4'	6.39	119.39	109.80
17	AI	50	ARG	CA-C-N	6.39	128.75	120.44
17	AI	50	ARG	C-N-CA	6.39	128.75	120.44
23	AP	180	ILE	N-CA-CB	-6.39	102.26	111.21
28	AU	34	SER	N-CA-C	6.39	118.39	109.31
34	BA	667	U	O5'-C5'-C4'	-6.39	101.91	111.50
34	BA	748	C	P-O5'-C5'	6.39	130.49	120.90
35	BB	1236	A	C4'-C3'-C2'	-6.39	96.21	102.60
38	BE	153	C	P-O5'-C5'	-6.39	111.31	120.90
40	BG	20	U	C4'-C3'-C2'	-6.39	96.21	102.60
85	AA	173	A	C4'-C3'-O3'	-6.39	103.41	113.00
85	AA	716	G	P-O5'-C5'	-6.39	111.31	120.90
85	AA	944	C	P-O5'-C5'	6.39	130.49	120.90
85	AA	1469	G	O5'-C5'-C4'	-6.39	101.91	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2066	C	P-O5'-C5'	-6.39	111.31	120.90
85	AA	2072	G	O5'-C5'-C4'	-6.39	101.91	111.50
18	AJ	49	GLU	CB-CG-CD	-6.39	101.74	112.60
32	AY	49	LEU	N-CA-C	-6.39	100.10	109.18
2	A1	173	GLY	CA-C-N	6.39	133.74	121.54
2	A1	173	GLY	C-N-CA	6.39	133.74	121.54
34	BA	14	G	P-O5'-C5'	-6.39	111.32	120.90
34	BA	1498	A	O3'-P-O5'	-6.39	94.42	104.00
34	BA	1747	C	C2'-C3'-O3'	6.39	123.28	113.70
36	BC	164	G	C4'-C3'-O3'	-6.39	103.42	113.00
62	Bc	109	ARG	CD-NE-CZ	-6.39	115.46	124.40
85	AA	110	U	C4'-C3'-C2'	6.39	108.99	102.60
85	AA	266	U	O4'-C1'-N1	6.39	118.08	108.50
34	BA	298	G	P-O3'-C3'	6.39	129.78	120.20
35	BB	55	C	P-O5'-C5'	-6.39	111.32	120.90
53	BT	166	ASP	N-CA-CB	-6.39	100.71	110.16
85	AA	99	U	C5'-C4'-C3'	-6.39	106.42	116.00
85	AA	385	A	P-O5'-C5'	-6.39	111.32	120.90
85	AA	1110	A	O5'-C5'-C4'	-6.39	101.92	111.50
21	AM	120	ALA	CA-C-N	6.39	129.16	120.54
21	AM	120	ALA	C-N-CA	6.39	129.16	120.54
31	AX	157	ILE	CB-CA-C	6.39	119.83	111.53
34	BA	697	A	O3'-P-O5'	6.39	113.58	104.00
40	BG	84	U	C1'-O4'-C4'	-6.39	103.31	109.70
40	BG	168	A	P-O5'-C5'	-6.39	111.32	120.90
70	Bk	121	ARG	CA-C-N	6.39	133.47	121.97
70	Bk	121	ARG	C-N-CA	6.39	133.47	121.97
85	AA	967	C	C4'-C3'-C2'	-6.39	96.21	102.60
85	AA	1526	G	C2'-C3'-O3'	6.39	123.28	113.70
85	AA	2187	G	P-O3'-C3'	-6.39	110.62	120.20
34	BA	367	G	P-O3'-C3'	-6.38	110.62	120.20
34	BA	711	C	C5'-C4'-C3'	6.38	124.78	115.20
34	BA	1177	C	C4'-C3'-O3'	-6.38	103.42	113.00
34	BA	1306	U	O4'-C1'-C2'	-6.38	99.42	105.80
35	BB	412	A	P-O5'-C5'	-6.38	111.32	120.90
35	BB	637	G	C4'-C3'-O3'	-6.38	103.42	113.00
37	BD	47	U	O3'-P-O5'	6.38	113.58	104.00
47	BN	192	LYS	CA-C-O	6.38	127.31	120.10
7	A6	14	PRO	CA-C-N	6.38	133.01	121.97
7	A6	14	PRO	C-N-CA	6.38	133.01	121.97
8	A7	5	TYR	CA-C-N	6.38	133.73	121.54
8	A7	5	TYR	C-N-CA	6.38	133.73	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1175	G	P-O3'-C3'	-6.38	110.62	120.20
35	BB	856	U	O5'-C5'-C4'	6.38	121.07	111.50
35	BB	1025	A	C3'-C2'-C1'	6.38	107.68	101.30
41	BH	108	U	O3'-P-O5'	-6.38	94.43	104.00
52	BS	10	CYS	N-CA-CB	6.38	120.89	110.17
65	Bf	80	ALA	CA-C-N	6.38	133.73	121.54
65	Bf	80	ALA	C-N-CA	6.38	133.73	121.54
85	AA	37	U	P-O3'-C3'	-6.38	110.62	120.20
85	AA	830	A	O3'-P-O5'	6.38	113.57	104.00
85	AA	1176	C	P-O3'-C3'	-6.38	110.62	120.20
15	AG	125	LEU	N-CA-CB	-6.38	100.72	110.16
34	BA	471	U	C4'-C3'-C2'	6.38	108.98	102.60
34	BA	1220	C	C2'-C3'-O3'	6.38	123.27	113.70
38	BE	111	C	O5'-C5'-C4'	6.38	121.07	111.50
69	Bj	3	CYS	N-CA-CB	6.38	122.69	111.78
85	AA	1626	U	P-O3'-C3'	-6.38	110.63	120.20
85	AA	1981	A	P-O5'-C5'	-6.38	111.33	120.90
27	AT	43	ALA	N-CA-C	6.38	121.32	112.45
40	BG	59	G	C1'-O4'-C4'	-6.38	103.52	109.90
85	AA	495	G	C3'-C2'-C1'	-6.38	94.92	101.30
14	AF	69	ASP	CA-C-N	6.38	128.83	120.28
14	AF	69	ASP	C-N-CA	6.38	128.83	120.28
34	BA	490	A	O3'-P-O5'	6.38	113.57	104.00
34	BA	720	A	P-O3'-C3'	-6.38	110.63	120.20
47	BN	6	ASN	N-CA-C	6.38	124.39	110.80
63	Bd	23	PRO	CA-C-O	-6.38	111.31	120.56
85	AA	2251	U	O5'-C5'-C4'	6.38	121.07	111.50
28	AU	37	ARG	N-CA-C	6.38	119.60	110.10
34	BA	1342	C	C4'-C3'-O3'	-6.38	103.43	113.00
35	BB	8	U	C2'-C3'-O3'	6.38	123.27	113.70
48	BO	145	HIS	CA-C-O	6.38	127.30	119.97
49	BP	168	ARG	N-CA-C	-6.38	104.41	111.36
53	BT	93	ASP	N-CA-CB	-6.38	100.75	110.12
83	Bx	47	PHE	N-CA-CB	-6.38	99.71	110.49
85	AA	725	G	C4'-C3'-C2'	-6.38	96.22	102.60
34	BA	612	U	C5'-C4'-C3'	-6.38	106.44	116.00
35	BB	1255	U	C5'-C4'-C3'	-6.38	105.64	115.20
35	BB	1386	C	C5'-C4'-C3'	-6.38	106.44	116.00
35	BB	1452	U	C2'-C3'-O3'	6.38	123.26	113.70
36	BC	155	C	P-O5'-C5'	-6.38	111.34	120.90
38	BE	11	A	C4'-C3'-O3'	6.38	118.96	109.40
85	AA	1367	C	C4'-C3'-C2'	-6.38	96.22	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	A8	53	PHE	CA-CB-CG	-6.37	107.43	113.80
27	AT	25	ARG	CD-NE-CZ	-6.37	115.48	124.40
34	BA	22	C	P-O3'-C3'	-6.37	110.64	120.20
34	BA	513	U	O5'-C5'-C4'	-6.37	101.94	111.50
34	BA	993	C	O4'-C1'-N1	6.37	117.76	108.20
34	BA	1510	C	C1'-O4'-C4'	-6.37	103.53	109.90
34	BA	1631	U	C4'-C3'-O3'	6.37	122.56	113.00
34	BA	1822	U	C5'-C4'-C3'	6.37	125.56	116.00
36	BC	146	U	C2'-C3'-O3'	6.37	123.26	113.70
41	BH	61	C	C1'-C2'-O2'	6.37	117.96	108.40
85	AA	656	U	P-O5'-C5'	-6.37	111.34	120.90
85	AA	1731	G	C4'-C3'-O3'	-6.37	103.44	113.00
85	AA	2217	A	P-O3'-C3'	-6.37	110.64	120.20
5	A4	95	ILE	CA-C-O	6.37	127.08	120.39
6	A5	3	ILE	CA-C-O	6.37	127.02	120.39
6	A5	22	ARG	CA-C-N	6.37	133.71	121.54
6	A5	22	ARG	C-N-CA	6.37	133.71	121.54
34	BA	897	U	C2'-C3'-O3'	6.37	123.26	113.70
34	BA	922	C	C4'-C3'-O3'	-6.37	103.44	113.00
34	BA	1680	G	C5'-C4'-C3'	6.37	125.56	116.00
35	BB	847	U	P-O3'-C3'	-6.37	110.64	120.20
35	BB	1063	C	O5'-C5'-C4'	-6.37	102.14	111.70
41	BH	134	U	P-O3'-C3'	6.37	129.76	120.20
57	BX	62	ARG	N-CA-C	-6.37	95.73	109.81
64	Be	80	GLU	CA-C-N	6.37	133.90	121.41
64	Be	80	GLU	C-N-CA	6.37	133.90	121.41
85	AA	1301	C	P-O5'-C5'	-6.37	111.34	120.90
85	AA	2096	G	P-O5'-C5'	6.37	130.46	120.90
34	BA	734	G	O5'-C5'-C4'	-6.37	101.95	111.50
85	AA	1657	C	C4'-C3'-C2'	6.37	108.97	102.60
6	A5	54	LYS	CA-C-N	-6.37	114.21	123.00
6	A5	54	LYS	C-N-CA	-6.37	114.21	123.00
18	AJ	47	ILE	N-CA-C	-6.37	99.42	108.65
34	BA	462	C	O5'-C5'-C4'	-6.37	101.95	111.50
34	BA	656	U	P-O5'-C5'	6.37	130.45	120.90
34	BA	1023	G	P-O3'-C3'	-6.37	110.65	120.20
34	BA	1839	G	C4'-C3'-O3'	-6.37	103.45	113.00
50	BQ	111	LEU	N-CA-CB	6.37	121.25	110.49
80	Bu	99	TYR	N-CA-CB	-6.37	100.78	110.01
85	AA	352	G	C1'-O4'-C4'	-6.37	103.53	109.90
85	AA	1180	C	C5'-C4'-C3'	6.37	124.75	115.20
20	AL	65	PRO	N-CA-C	-6.37	99.35	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	480	G	O3'-P-O5'	-6.37	94.45	104.00
34	BA	806	U	C5'-C4'-C3'	6.37	125.55	116.00
35	BB	1137	G	P-O3'-C3'	-6.37	110.65	120.20
85	AA	33	U	C4'-C3'-C2'	-6.37	96.23	102.60
85	AA	129	U	P-O3'-C3'	-6.37	110.65	120.20
85	AA	917	A	C1'-O4'-C4'	-6.37	103.53	109.90
22	AO	72	ILE	CA-C-N	6.37	128.72	120.44
22	AO	72	ILE	C-N-CA	6.37	128.72	120.44
25	AR	53	THR	CA-C-O	6.37	127.20	120.33
34	BA	142	A	C4'-C3'-O3'	-6.37	103.45	113.00
34	BA	713	C	P-O5'-C5'	-6.37	111.35	120.90
35	BB	839	G	C1'-O4'-C4'	-6.37	103.53	109.90
67	Bh	66	ARG	CA-C-N	-6.37	112.32	120.34
67	Bh	66	ARG	C-N-CA	-6.37	112.32	120.34
85	AA	1702	G	O4'-C4'-C3'	6.37	110.36	104.00
2	A1	103	LYS	N-CA-C	-6.36	104.82	112.58
34	BA	902	C	C4'-C3'-O3'	-6.36	103.45	113.00
35	BB	1485	G	C5'-C4'-C3'	-6.36	106.45	116.00
40	BG	18	U	C5'-C4'-C3'	-6.36	106.46	116.00
85	AA	577	U	C4'-C3'-C2'	-6.36	96.24	102.60
85	AA	865	G	C4'-C3'-C2'	-6.36	96.24	102.60
1	A0	90	VAL	N-CA-C	6.36	117.25	109.30
25	AR	55	THR	CA-C-N	-6.36	113.40	122.94
25	AR	55	THR	C-N-CA	-6.36	113.40	122.94
34	BA	1491	U	P-O3'-C3'	-6.36	110.66	120.20
35	BB	260	A	C5'-C4'-C3'	-6.36	106.46	116.00
35	BB	1425	A	P-O3'-C3'	-6.36	110.66	120.20
38	BE	185	G	O5'-C5'-C4'	-6.36	101.96	111.50
74	Bo	30	GLU	CA-C-N	-6.36	111.74	120.46
74	Bo	30	GLU	C-N-CA	-6.36	111.74	120.46
85	AA	1304	C	P-O5'-C5'	-6.36	111.36	120.90
85	AA	1475	A	C2'-C3'-O3'	6.36	119.04	109.50
22	AO	58	HIS	CA-CB-CG	-6.36	107.44	113.80
34	BA	239	C	C3'-C2'-C1'	-6.36	94.94	101.30
34	BA	719	G	C4'-C3'-C2'	-6.36	96.24	102.60
34	BA	1476	G	C5'-C4'-C3'	-6.36	106.46	116.00
35	BB	1000	U	P-O3'-C3'	-6.36	110.66	120.20
35	BB	1169	A	P-O3'-C3'	-6.36	110.66	120.20
36	BC	104	A	C5'-C4'-C3'	-6.36	105.66	115.20
47	BN	69	ARG	CG-CD-NE	-6.36	98.01	112.00
82	Bw	164	TYR	N-CA-C	6.36	117.90	110.97
85	AA	680	U	O4'-C1'-C2'	-6.36	99.44	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1877	G	C4'-C3'-O3'	-6.36	103.46	113.00
34	BA	526	C	P-O5'-C5'	-6.36	111.36	120.90
35	BB	1404	A	P-O3'-C3'	-6.36	110.66	120.20
7	A6	41	ILE	CB-CA-C	-6.36	103.72	112.24
11	AC	121	ARG	CA-C-N	6.36	128.70	120.44
11	AC	121	ARG	C-N-CA	6.36	128.70	120.44
21	AM	131	ARG	N-CA-C	-6.36	100.87	110.28
34	BA	757	G	C1'-C2'-O2'	6.36	117.94	108.40
34	BA	1640	G	C5'-C4'-C3'	6.36	125.54	116.00
35	BB	1258	G	O5'-C5'-C4'	6.36	121.03	111.50
40	BG	103	C	C4'-C3'-C2'	-6.36	96.24	102.60
71	Bl	147	SER	N-CA-C	6.36	120.25	110.20
82	Bw	132	VAL	N-CA-C	6.36	117.28	108.12
82	Bw	189	HIS	N-CA-C	-6.36	104.40	111.71
85	AA	370	A	C5'-C4'-O4'	-6.36	100.26	109.80
85	AA	1155	A	O5'-C5'-C4'	-6.36	101.96	111.50
27	AT	85	ASP	CA-CB-CG	6.36	118.95	112.60
34	BA	662	U	P-O5'-C5'	6.36	130.43	120.90
34	BA	1174	A	O3'-P-O5'	-6.36	94.47	104.00
49	BP	135	ASN	CA-CB-CG	-6.36	106.24	112.60
85	AA	196	U	P-O3'-C3'	6.36	129.73	120.20
6	A5	6	SER	N-CA-C	6.35	119.44	110.23
34	BA	87	G	P-O5'-C5'	-6.35	111.37	120.90
34	BA	573	U	C4'-C3'-O3'	6.35	122.53	113.00
34	BA	1100	A	C5'-C4'-C3'	-6.35	106.47	116.00
85	AA	535	G	C5'-C4'-C3'	-6.35	106.47	116.00
85	AA	1863	A	C3'-C2'-C1'	-6.35	94.95	101.30
34	BA	270	U	C2'-C3'-O3'	6.35	119.03	109.50
34	BA	1481	U	O5'-C5'-C4'	-6.35	101.97	111.50
34	BA	1801	G	O4'-C4'-C3'	-6.35	97.65	104.00
35	BB	712	U	O3'-P-O5'	-6.35	94.47	104.00
38	BE	51	C	C4'-C3'-C2'	6.35	108.95	102.60
40	BG	111	C	P-O5'-C5'	6.35	130.43	120.90
51	BR	16	LYS	CB-CA-C	-6.35	98.08	109.71
61	Bb	110	LEU	N-CA-C	-6.35	99.81	109.85
70	Bk	122	ILE	N-CA-C	6.35	122.55	109.34
77	Br	295	GLU	CA-C-N	6.35	128.56	120.56
77	Br	295	GLU	C-N-CA	6.35	128.56	120.56
85	AA	282	C	C1'-O4'-C4'	-6.35	103.55	109.90
85	AA	1034	U	C3'-C2'-C1'	6.35	107.65	101.30
85	AA	2149	C	O3'-P-O5'	-6.35	94.47	104.00
34	BA	432	A	C4'-C3'-O3'	-6.35	103.47	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	771	A	C1'-O4'-C4'	-6.35	103.35	109.70
35	BB	645	C	P-O5'-C5'	6.35	130.43	120.90
35	BB	1545	U	O3'-P-O5'	-6.35	94.47	104.00
41	BH	116	A	C5'-C4'-C3'	6.35	125.53	116.00
85	AA	640	C	C4'-C3'-O3'	-6.35	103.47	113.00
85	AA	1254	A	C3'-C2'-C1'	-6.35	94.95	101.30
27	AT	65	PHE	CA-CB-CG	6.35	120.15	113.80
34	BA	981	A	C4'-C3'-O3'	-6.35	103.47	113.00
36	BC	7	U	O3'-P-O5'	-6.35	94.48	104.00
41	BH	26	C	O4'-C1'-N1	6.35	117.72	108.20
42	BI	50	LYS	CA-C-O	6.35	127.15	120.42
49	BP	146	LYS	N-CA-CB	6.35	119.45	110.12
57	BX	48	ALA	N-CA-C	-6.35	99.68	109.14
70	Bk	108	THR	N-CA-C	6.35	120.26	110.42
85	AA	1157	U	O3'-P-O5'	6.35	113.52	104.00
15	AG	123	HIS	CB-CA-C	-6.35	100.25	110.79
34	BA	748	C	O4'-C1'-C2'	6.35	113.95	107.60
35	BB	16	G	O3'-P-O5'	6.35	113.52	104.00
35	BB	472	C	P-O5'-C5'	6.35	130.42	120.90
41	BH	102	C	C3'-C2'-O2'	6.35	120.22	110.70
73	Bn	24	ARG	CA-CB-CG	6.35	126.79	114.10
85	AA	526	G	O5'-C5'-C4'	-6.35	101.98	111.50
17	AI	94	PRO	CA-C-N	6.35	129.42	120.28
17	AI	94	PRO	C-N-CA	6.35	129.42	120.28
35	BB	420	U	C4'-C3'-C2'	-6.35	96.25	102.60
37	BD	29	C	C3'-C2'-C1'	-6.35	94.95	101.30
64	Be	161	SER	N-CA-C	6.35	121.78	111.37
69	Bj	8	TYR	CA-CB-CG	-6.35	102.48	113.90
85	AA	475	A	O4'-C1'-C2'	6.35	113.95	107.60
85	AA	2069	A	C1'-O4'-C4'	-6.35	103.55	109.90
2	A1	130	THR	N-CA-C	6.34	120.13	108.58
5	A4	160	ASP	CA-CB-CG	-6.34	106.25	112.60
35	BB	618	U	O4'-C1'-C2'	6.34	113.94	107.60
85	AA	982	G	P-O5'-C5'	-6.34	111.38	120.90
85	AA	1272	G	C5'-C4'-C3'	-6.34	106.48	116.00
85	AA	2249	U	P-O3'-C3'	6.34	129.72	120.20
34	BA	113	G	P-O5'-C5'	-6.34	111.39	120.90
35	BB	1489	A	P-O5'-C5'	6.34	130.41	120.90
6	A5	161	LYS	CA-C-O	6.34	127.27	120.55
34	BA	36	A	C5'-C4'-C3'	-6.34	106.49	116.00
34	BA	205	G	O5'-C5'-C4'	-6.34	101.99	111.50
36	BC	6	G	P-O5'-C5'	-6.34	111.39	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BD	41	G	C5'-C4'-C3'	6.34	124.71	115.20
49	BP	172	LYS	N-CA-CB	6.34	119.44	110.12
77	Br	176	ILE	CB-CA-C	-6.34	100.89	111.29
85	AA	388	G	C2'-C3'-O3'	6.34	119.01	109.50
85	AA	737	G	P-O5'-C5'	6.34	130.41	120.90
85	AA	1578	G	C5'-C4'-C3'	6.34	124.71	115.20
8	A7	35	SER	CA-C-N	6.34	128.78	120.28
8	A7	35	SER	C-N-CA	6.34	128.78	120.28
35	BB	378	C	C1'-O4'-C4'	-6.34	103.56	109.90
35	BB	512	C	C4'-C3'-O3'	-6.34	103.49	113.00
39	BF	62	U	C4'-C3'-C2'	-6.34	96.26	102.60
66	Bg	26	GLN	CB-CG-CD	-6.34	101.82	112.60
35	BB	574	G	O5'-C5'-C4'	-6.34	102.19	111.70
35	BB	1387	C	P-O3'-C3'	-6.34	110.69	120.20
74	Bo	8	MET	CG-SD-CE	-6.34	86.96	100.90
77	Br	108	ARG	N-CA-C	-6.34	101.40	110.59
12	AD	11	ASP	N-CA-CB	-6.34	100.78	110.16
34	BA	1336	U	C4'-C3'-C2'	-6.34	96.26	102.60
40	BG	15	G	C4'-C3'-C2'	6.34	108.94	102.60
41	BH	52	G	P-O3'-C3'	-6.34	110.70	120.20
52	BS	18	SER	CA-C-N	6.34	133.64	121.54
52	BS	18	SER	C-N-CA	6.34	133.64	121.54
61	Bb	36	GLY	CA-C-N	6.34	126.97	120.00
61	Bb	36	GLY	C-N-CA	6.34	126.97	120.00
85	AA	2039	G	C4'-C3'-O3'	-6.34	103.50	113.00
86	AB	16	U	O4'-C1'-N1	6.34	118.01	108.50
34	BA	1507	C	C5'-C4'-C3'	6.33	125.50	116.00
35	BB	1141	A	C5'-C4'-O4'	6.33	119.30	109.80
34	BA	1587	C	C5'-C4'-C3'	-6.33	106.50	116.00
35	BB	1389	C	C5'-C4'-C3'	-6.33	106.50	116.00
85	AA	1671	G	C5'-C4'-C3'	-6.33	106.50	116.00
85	AA	1932	C	C5'-C4'-C3'	6.33	125.50	116.00
11	AC	162	ASP	CA-CB-CG	-6.33	106.27	112.60
21	AM	95	LYS	N-CA-C	6.33	118.17	109.18
34	BA	190	U	O5'-C5'-C4'	-6.33	102.00	111.50
35	BB	1039	A	P-O3'-C3'	6.33	129.70	120.20
35	BB	1070	G	O5'-C5'-C4'	-6.33	102.00	111.50
35	BB	1521	G	C4'-C3'-O3'	-6.33	103.50	113.00
36	BC	95	A	P-O5'-C5'	6.33	130.40	120.90
47	BN	204	ASN	CA-C-O	6.33	127.94	120.66
85	AA	2119	C	C3'-C2'-C1'	-6.33	94.97	101.30
85	AA	2154	C	O4'-C1'-N1	6.33	118.00	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	880	G	P-O5'-C5'	6.33	130.39	120.90
1	A0	183	ILE	N-CA-C	6.33	117.08	110.62
28	AU	43	GLN	CA-C-N	6.33	129.70	120.71
28	AU	43	GLN	C-N-CA	6.33	129.70	120.71
34	BA	136	A	C4-N9-C1'	-6.33	107.31	126.30
34	BA	281	C	C4'-C3'-O3'	-6.33	103.51	113.00
34	BA	499	C	C5'-C4'-C3'	6.33	125.49	116.00
34	BA	692	U	O4'-C1'-N1	-6.33	98.71	108.20
35	BB	535	U	P-O3'-C3'	-6.33	110.71	120.20
35	BB	712	U	O5'-C5'-C4'	6.33	121.19	111.70
35	BB	1168	G	O5'-C5'-C4'	-6.33	102.01	111.50
35	BB	1199	A	C3'-C2'-C1'	-6.33	94.97	101.30
35	BB	1251	G	O3'-P-O5'	6.33	113.49	104.00
66	Bg	106	VAL	N-CA-C	-6.33	100.30	109.29
85	AA	170	C	C1'-C2'-O2'	6.33	117.89	108.40
85	AA	1214	C	P-O5'-C5'	6.33	130.39	120.90
85	AA	1252	A	C1'-O4'-C4'	-6.33	103.57	109.90
85	AA	1478	G	C5'-C4'-C3'	-6.33	106.51	116.00
34	BA	66	C	P-O3'-C3'	-6.33	110.71	120.20
38	BE	115	U	C4'-C3'-C2'	-6.33	96.27	102.60
50	BQ	40	GLN	N-CA-CB	-6.33	100.57	110.06
85	AA	328	U	P-O3'-C3'	-6.33	110.71	120.20
85	AA	1855	U	C5'-C4'-C3'	-6.33	106.51	116.00
85	AA	1903	G	C4'-C3'-C2'	-6.33	96.27	102.60
5	A4	11	ARG	CB-CA-C	-6.33	101.33	111.39
34	BA	53	G	C4'-C3'-C2'	6.33	108.93	102.60
34	BA	326	A	C4'-C3'-O3'	-6.33	103.51	113.00
35	BB	558	U	C5'-C4'-C3'	-6.33	106.51	116.00
40	BG	168	A	O3'-P-O5'	6.33	113.49	104.00
63	Bd	7	HIS	CA-C-O	-6.33	114.51	121.28
81	Bv	9	VAL	CA-C-N	6.33	133.62	121.54
81	Bv	9	VAL	C-N-CA	6.33	133.62	121.54
82	Bw	36	GLN	CB-CG-CD	6.33	123.35	112.60
82	Bw	136	LYS	CA-C-O	-6.33	112.51	118.33
85	AA	205	A	C3'-C2'-C1'	-6.33	94.97	101.30
85	AA	713	G	C3'-C2'-C1'	-6.33	94.97	101.30
85	AA	1230	U	O5'-C5'-C4'	-6.33	102.01	111.50
85	AA	1681	G	C4'-C3'-O3'	-6.33	103.51	113.00
34	BA	133	A	C5'-C4'-C3'	6.32	125.49	116.00
34	BA	368	U	P-O3'-C3'	-6.32	110.71	120.20
34	BA	832	C	C5'-C4'-C3'	-6.32	106.51	116.00
34	BA	1348	G	C4'-C3'-C2'	-6.32	96.28	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1537	G	O4'-C4'-C3'	6.32	110.32	104.00
36	BC	87	C	O3'-P-O5'	-6.32	94.52	104.00
70	Bk	82	ALA	CA-C-N	6.32	133.08	121.70
70	Bk	82	ALA	C-N-CA	6.32	133.08	121.70
38	BE	74	U	C5'-C4'-C3'	-6.32	106.52	116.00
65	Bf	183	LYS	CA-C-O	6.32	127.00	119.60
77	Br	196	ARG	N-CA-C	-6.32	103.70	112.30
85	AA	360	C	C4'-C3'-C2'	6.32	108.92	102.60
37	BD	41	G	O4'-C1'-C2'	6.32	112.12	105.80
41	BH	111	U	P-O5'-C5'	6.32	130.38	120.90
73	Bn	52	LYS	N-CA-CB	-6.32	100.83	110.12
84	By	77	ASN	CA-CB-CG	-6.32	106.28	112.60
85	AA	268	A	C3'-C2'-C1'	-6.32	94.98	101.30
85	AA	1355	U	O3'-P-O5'	-6.32	94.52	104.00
6	A5	117	TYR	N-CA-C	-6.32	106.11	113.88
34	BA	565	U	O3'-P-O5'	-6.32	94.52	104.00
34	BA	618	G	O5'-C5'-C4'	-6.32	102.02	111.50
35	BB	957	A	O4'-C4'-C3'	-6.32	97.68	104.00
35	BB	1078	U	P-O5'-C5'	-6.32	111.42	120.90
36	BC	89	U	C5'-C4'-C3'	-6.32	105.72	115.20
85	AA	1116	G	O3'-P-O5'	-6.32	94.52	104.00
85	AA	1119	A	C1'-O4'-C4'	-6.32	103.58	109.90
18	AJ	112	ASP	N-CA-C	6.32	119.41	110.50
33	AZ	89	MET	CG-SD-CE	-6.32	87.00	100.90
34	BA	2	A	O3'-P-O5'	-6.32	94.53	104.00
35	BB	359	A	C5'-C4'-C3'	-6.32	105.72	115.20
35	BB	626	C	C5'-C4'-C3'	-6.32	106.52	116.00
49	BP	157	THR	N-CA-C	6.32	123.77	109.81
50	BQ	185	GLY	N-CA-C	-6.32	105.15	112.73
72	Bm	35	ASN	N-CA-C	-6.32	105.33	113.16
77	Br	316	PRO	CA-C-N	6.32	129.84	120.87
77	Br	316	PRO	C-N-CA	6.32	129.84	120.87
85	AA	126	U	C4'-C3'-O3'	6.32	122.48	113.00
85	AA	1545	U	P-O3'-C3'	6.32	129.68	120.20
35	BB	529	A	C5'-C4'-C3'	6.32	125.47	116.00
35	BB	587	A	N9-C1'-C2'	-6.32	102.53	112.00
64	Be	93	LYS	N-CA-C	-6.32	105.86	112.93
66	Bg	26	GLN	CA-C-O	6.32	127.24	120.55
80	Bu	90	HIS	CB-CA-C	-6.32	100.92	110.90
82	Bw	41	PHE	CB-CA-C	6.32	119.73	110.26
85	AA	727	U	O3'-P-O5'	-6.32	94.53	104.00
85	AA	1997	G	O5'-C5'-C4'	6.32	120.97	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A3	62	PHE	CB-CA-C	-6.31	100.55	110.02
85	AA	736	U	O4'-C4'-C3'	-6.31	97.69	104.00
34	BA	1488	C	C2'-C3'-O3'	6.31	123.17	113.70
34	BA	1737	A	C4'-C3'-C2'	-6.31	96.29	102.60
47	BN	18	ASN	O-C-N	6.31	126.96	121.34
74	Bo	73	THR	CA-CB-OG1	6.31	119.07	109.60
35	BB	505	G	O3'-P-O5'	-6.31	94.53	104.00
46	BM	132	VAL	N-CA-C	6.31	117.81	110.62
49	BP	119	SER	CB-CA-C	-6.31	100.31	110.79
50	BQ	97	THR	N-CA-C	-6.31	99.62	109.72
65	Bf	195	LEU	CA-C-N	6.31	129.37	120.28
65	Bf	195	LEU	C-N-CA	6.31	129.37	120.28
34	BA	1226	G	P-O5'-C5'	-6.31	111.44	120.90
35	BB	767	A	P-O5'-C5'	-6.31	111.44	120.90
40	BG	64	C	P-O3'-C3'	-6.31	110.74	120.20
77	Br	217	ARG	NE-CZ-NH1	6.31	127.81	121.50
80	Bu	13	TYR	CA-C-N	6.31	128.74	120.28
80	Bu	13	TYR	C-N-CA	6.31	128.74	120.28
85	AA	283	A	P-O5'-C5'	6.31	130.36	120.90
5	A4	12	LYS	CA-C-N	6.31	133.59	121.54
5	A4	12	LYS	C-N-CA	6.31	133.59	121.54
34	BA	504	A	C4'-C3'-O3'	-6.31	103.54	113.00
34	BA	882	G	O4'-C1'-C2'	6.31	113.91	107.60
34	BA	1147	C	C2'-C3'-O3'	6.31	123.16	113.70
34	BA	1378	A	P-O5'-C5'	-6.31	111.44	120.90
40	BG	180	C	P-O5'-C5'	-6.31	111.44	120.90
41	BH	48	G	C4'-C3'-O3'	-6.31	103.54	113.00
53	BT	46	LYS	CA-C-N	6.31	131.52	121.18
53	BT	46	LYS	C-N-CA	6.31	131.52	121.18
65	Bf	125	GLU	CA-C-O	-6.31	112.60	120.23
85	AA	494	G	C3'-C2'-C1'	-6.31	94.99	101.30
49	BP	97	ARG	N-CA-C	-6.31	105.41	113.23
64	Be	137	ILE	N-CA-C	-6.31	106.98	113.10
84	By	66	SER	CB-CA-C	-6.31	100.32	110.79
2	A1	58	ALA	CA-C-N	6.30	128.73	120.28
2	A1	58	ALA	C-N-CA	6.30	128.73	120.28
34	BA	519	G	C1'-O4'-C4'	-6.30	103.59	109.90
34	BA	711	C	O3'-P-O5'	6.30	113.46	104.00
34	BA	871	G	P-O5'-C5'	-6.30	111.44	120.90
42	BI	91	GLY	N-CA-C	-6.30	100.87	111.08
67	Bh	157	THR	N-CA-C	6.30	121.21	111.56
85	AA	130	G	C5'-C4'-C3'	-6.30	106.54	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	996	A	P-O5'-C5'	-6.30	111.44	120.90
85	AA	1560	A	C2'-C3'-O3'	6.30	123.16	113.70
85	AA	2231	G	C4'-C3'-O3'	-6.30	103.54	113.00
34	BA	921	G	C5'-C4'-C3'	-6.30	106.55	116.00
34	BA	1282	G	C3'-C2'-C1'	-6.30	95.00	101.30
34	BA	1789	A	C1'-C2'-O2'	6.30	117.85	108.40
81	Bv	179	PHE	N-CA-C	-6.30	97.37	110.80
3	A2	81	HIS	N-CA-C	6.30	118.15	111.28
5	A4	113	LYS	N-CA-C	6.30	124.22	110.80
34	BA	619	U	O5'-C5'-C4'	-6.30	102.05	111.50
34	BA	1289	C	C4'-C3'-C2'	-6.30	96.30	102.60
34	BA	1491	U	O4'-C1'-N1	6.30	117.95	108.50
34	BA	1839	G	C5'-C4'-C3'	-6.30	106.55	116.00
35	BB	431	U	C4'-C3'-O3'	-6.30	103.55	113.00
35	BB	797	C	O4'-C1'-N1	6.30	117.95	108.50
35	BB	803	U	O5'-C5'-C4'	6.30	121.15	111.70
38	BE	129	G	C5'-C4'-O4'	6.30	119.25	109.80
44	BK	49	CYS	N-CA-CB	6.30	120.66	110.77
61	Bb	91	LYS	CA-C-N	6.30	130.27	120.82
61	Bb	91	LYS	C-N-CA	6.30	130.27	120.82
65	Bf	275	ALA	N-CA-C	6.30	118.65	109.07
85	AA	132	G	P-O3'-C3'	-6.30	110.75	120.20
85	AA	398	U	C5'-C4'-C3'	6.30	125.45	116.00
85	AA	1275	A	C5'-C4'-O4'	6.30	118.55	109.10
85	AA	1663	U	C4'-C3'-O3'	-6.30	103.55	113.00
85	AA	2017	U	C5'-C4'-C3'	-6.30	106.55	116.00
34	BA	992	A	C4'-C3'-C2'	6.30	108.90	102.60
34	BA	1383	U	P-O5'-C5'	-6.30	111.45	120.90
34	BA	1667	G	P-O5'-C5'	-6.30	111.45	120.90
37	BD	116	C	C5'-C4'-C3'	-6.30	106.55	116.00
38	BE	88	G	P-O3'-C3'	6.30	129.65	120.20
42	BI	36	LEU	N-CA-C	6.30	118.15	111.28
85	AA	36	U	O5'-C5'-C4'	-6.30	102.05	111.50
35	BB	418	G	C1'-O4'-C4'	-6.30	103.60	109.90
38	BE	13	A	C3'-C2'-C1'	-6.30	95.00	101.30
40	BG	162	A	C2'-C3'-O3'	6.30	123.15	113.70
85	AA	1553	G	O3'-P-O5'	-6.30	94.55	104.00
8	A7	282	LYS	N-CA-C	-6.30	99.84	109.41
34	BA	98	A	O4'-C1'-C2'	6.30	113.90	107.60
34	BA	384	U	O3'-P-O5'	6.30	113.44	104.00
34	BA	608	G	P-O5'-C5'	-6.30	111.45	120.90
35	BB	1307	C	C4'-C3'-O3'	-6.30	103.56	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1360	A	O3'-P-O5'	-6.30	94.56	104.00
36	BC	33	U	C2'-C3'-O3'	6.30	118.94	109.50
40	BG	41	U	C5'-C4'-C3'	-6.30	106.56	116.00
62	Bc	13	ARG	CB-CG-CD	6.30	125.78	111.30
85	AA	936	C	P-O3'-C3'	6.30	129.65	120.20
85	AA	1133	C	C5'-C4'-O4'	6.30	119.24	109.80
85	AA	1197	U	O3'-P-O5'	-6.30	94.55	104.00
85	AA	1362	A	C5'-C4'-O4'	-6.30	100.35	109.80
85	AA	1420	U	P-O3'-C3'	6.30	129.65	120.20
20	AL	25	ASN	N-CA-C	-6.29	100.05	108.74
34	BA	1266	A	P-O5'-C5'	6.29	130.34	120.90
34	BA	1462	U	P-O5'-C5'	-6.29	111.46	120.90
35	BB	1314	G	O5'-C5'-C4'	-6.29	102.06	111.50
85	AA	785	C	C4'-C3'-C2'	6.29	108.89	102.60
34	BA	247	U	P-O5'-C5'	6.29	130.34	120.90
35	BB	8	U	O5'-C5'-C4'	-6.29	102.06	111.50
35	BB	75	A	P-O3'-C3'	-6.29	110.76	120.20
44	BK	70	ILE	CB-CA-C	6.29	120.64	112.14
85	AA	1143	C	O5'-C5'-C4'	-6.29	102.06	111.50
85	AA	2037	A	C5'-C4'-C3'	-6.29	106.56	116.00
15	AG	59	GLY	N-CA-C	-6.29	103.07	114.46
27	AT	116	GLU	N-CA-C	6.29	118.94	111.33
34	BA	1554	C	P-O5'-C5'	-6.29	111.46	120.90
35	BB	139	G	O4'-C1'-N9	6.29	117.94	108.50
35	BB	1246	C	C5'-C4'-C3'	-6.29	106.56	116.00
35	BB	1540	U	C5'-C4'-C3'	6.29	125.44	116.00
76	Bq	29	LEU	N-CA-CB	-6.29	101.28	110.53
77	Br	177	ASP	CB-CA-C	-6.29	100.15	110.85
85	AA	35	U	O5'-C5'-C4'	-6.29	102.06	111.50
85	AA	2104	C	C5'-C4'-C3'	6.29	124.64	115.20
35	BB	1201	G	C1'-O4'-C4'	-6.29	103.61	109.90
37	BD	23	A	O3'-P-O5'	-6.29	94.56	104.00
2	A1	10	TYR	N-CA-CB	6.29	121.12	110.49
34	BA	1429	A	P-O3'-C3'	-6.29	110.77	120.20
37	BD	71	G	C4'-C3'-C2'	-6.29	96.31	102.60
62	Bc	135	HIS	CA-CB-CG	6.29	120.09	113.80
73	Bn	25	ASN	CA-CB-CG	-6.29	106.31	112.60
81	Bv	79	ARG	CD-NE-CZ	-6.29	115.60	124.40
85	AA	749	C	P-O5'-C5'	6.29	130.33	120.90
85	AA	1719	C	C5'-C4'-O4'	6.29	119.23	109.80
39	BF	49	C	C1'-O4'-C4'	-6.29	103.61	109.90
45	BL	155	VAL	N-CA-C	6.29	117.63	108.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AO	45	MET	N-CA-C	-6.29	99.75	109.24
34	BA	1482	A	P-O3'-C3'	-6.29	110.77	120.20
35	BB	1314	G	C1'-O4'-C4'	-6.29	103.61	109.90
59	BZ	91	THR	N-CA-CB	6.29	119.84	110.29
85	AA	453	G	P-O3'-C3'	-6.29	110.77	120.20
85	AA	1882	U	O5'-C5'-C4'	-6.29	102.07	111.50
18	AJ	93	ILE	N-CA-CB	-6.28	104.19	112.36
34	BA	819	G	N9-C1'-C2'	-6.28	102.57	112.00
34	BA	869	C	O4'-C1'-N1	6.28	117.93	108.50
34	BA	1246	G	P-O5'-C5'	-6.28	111.47	120.90
56	BW	118	GLY	N-CA-C	6.28	125.16	112.34
80	Bu	23	ARG	CD-NE-CZ	-6.28	115.60	124.40
85	AA	1665	G	C3'-C2'-C1'	-6.28	95.02	101.30
31	AX	197	ASP	CA-CB-CG	-6.28	106.32	112.60
35	BB	416	U	C1'-C2'-O2'	6.28	117.82	108.40
40	BG	179	C	P-O3'-C3'	-6.28	110.78	120.20
85	AA	815	G	O4'-C1'-N9	6.28	117.92	108.50
85	AA	1162	A	C5'-C4'-O4'	6.28	119.22	109.80
34	BA	374	U	O5'-C5'-C4'	-6.28	102.08	111.50
35	BB	89	C	P-O5'-C5'	-6.28	111.48	120.90
35	BB	128	C	P-O3'-C3'	-6.28	110.78	120.20
35	BB	1438	U	P-O3'-C3'	-6.28	110.78	120.20
35	BB	1506	C	P-O3'-C3'	6.28	129.62	120.20
36	BC	7	U	C5'-C4'-C3'	-6.28	106.58	116.00
36	BC	86	U	C3'-C2'-C1'	-6.28	95.02	101.30
85	AA	504	U	O5'-C5'-C4'	-6.28	102.28	111.70
85	AA	551	C	C1'-O4'-C4'	-6.28	103.62	109.90
34	BA	7	U	P-O3'-C3'	-6.28	110.78	120.20
34	BA	816	G	C4'-C3'-C2'	6.28	108.88	102.60
34	BA	1511	C	C4'-C3'-C2'	6.28	108.88	102.60
35	BB	1492	C	C2'-C3'-O3'	6.28	123.12	113.70
20	AL	97	ASP	CA-CB-CG	-6.28	106.32	112.60
34	BA	204	U	O5'-C5'-C4'	6.28	120.92	111.50
34	BA	306	G	C1'-O4'-C4'	-6.28	103.62	109.90
34	BA	620	C	O3'-P-O5'	-6.28	94.58	104.00
35	BB	1439	U	O3'-P-O5'	-6.28	94.58	104.00
67	Bh	59	THR	N-CA-CB	6.28	119.40	110.67
68	Bi	52	ALA	N-CA-C	6.28	119.69	110.59
68	Bi	129	ARG	CG-CD-NE	-6.28	98.19	112.00
85	AA	330	C	C4'-C3'-O3'	6.28	122.42	113.00
85	AA	1114	A	P-O5'-C5'	-6.28	111.48	120.90
85	AA	1162	A	C1'-O4'-C4'	-6.28	103.62	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2185	U	P-O3'-C3'	-6.28	110.78	120.20
10	A9	150	TYR	N-CA-C	-6.28	99.76	109.24
22	AO	26	VAL	N-CA-C	6.28	117.81	108.46
34	BA	680	C	C3'-C2'-C1'	-6.28	95.02	101.30
36	BC	4	G	C5'-C4'-C3'	6.28	125.41	116.00
36	BC	152	C	C2'-C3'-O3'	6.28	123.11	113.70
49	BP	48	ARG	N-CA-C	-6.28	96.85	108.02
60	Ba	62	THR	N-CA-C	-6.28	104.88	112.54
85	AA	556	C	P-O3'-C3'	-6.28	110.79	120.20
85	AA	832	U	C5'-C4'-O4'	-6.28	100.39	109.80
85	AA	1364	U	P-O3'-C3'	-6.28	110.79	120.20
85	AA	1687	U	C1'-O4'-C4'	-6.28	103.62	109.90
35	BB	1495	U	C5'-C4'-C3'	-6.27	106.59	116.00
50	BQ	137	TRP	CB-CG-CD2	-6.27	118.02	126.80
64	Be	83	PHE	CB-CA-C	6.27	122.90	110.42
20	AL	74	GLN	CA-C-N	6.27	128.69	120.28
20	AL	74	GLN	C-N-CA	6.27	128.69	120.28
34	BA	166	G	P-O3'-C3'	-6.27	110.79	120.20
34	BA	947	A	C5'-C4'-C3'	-6.27	106.59	116.00
34	BA	1425	G	O4'-C1'-C2'	-6.27	99.53	105.80
53	BT	190	ARG	N-CA-C	6.27	117.81	110.97
85	AA	864	C	O4'-C1'-N1	6.27	117.91	108.50
85	AA	1728	G	C4'-C3'-O3'	6.27	122.41	113.00
1	A0	210	ARG	NE-CZ-NH1	-6.27	115.23	121.50
31	AX	202	ASP	N-CA-CB	-6.27	101.31	110.53
34	BA	568	G	C1'-O4'-C4'	-6.27	103.63	109.90
34	BA	771	A	O3'-P-O5'	6.27	113.41	104.00
35	BB	680	A	O4'-C1'-C2'	6.27	113.87	107.60
85	AA	1538	C	C5'-C4'-C3'	-6.27	106.59	116.00
85	AA	1733	G	C5'-C4'-C3'	6.27	125.41	116.00
34	BA	51	C	O3'-P-O5'	-6.27	94.60	104.00
34	BA	308	C	C3'-C2'-C1'	-6.27	95.03	101.30
34	BA	609	G	N9-C1'-C2'	-6.27	102.59	112.00
34	BA	1164	C	P-O3'-C3'	-6.27	110.79	120.20
35	BB	1520	C	C4'-C3'-C2'	-6.27	96.33	102.60
39	BF	9	C	C2'-C3'-O3'	6.27	118.90	109.50
83	Bx	215	ASP	N-CA-C	6.27	116.84	108.38
85	AA	1129	A	P-O5'-C5'	-6.27	111.50	120.90
85	AA	1237	A	C5'-C4'-O4'	6.27	119.20	109.80
85	AA	1609	U	C4'-C3'-C2'	-6.27	96.33	102.60
5	A4	59	HIS	CA-CB-CG	6.27	120.07	113.80
20	AL	20	TYR	CB-CA-C	6.27	120.97	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1135	U	C2'-C3'-O3'	6.27	118.90	109.50
35	BB	1534	U	C2'-C3'-O3'	6.27	123.10	113.70
66	Bg	22	ASN	CA-CB-CG	6.27	118.87	112.60
85	AA	788	G	O5'-C5'-C4'	-6.27	102.10	111.50
85	AA	997	U	C5'-C4'-C3'	-6.27	106.60	116.00
85	AA	1366	A	C5'-C4'-C3'	-6.27	106.60	116.00
1	A0	49	ASN	CB-CA-C	-6.27	98.40	109.62
77	Br	321	ARG	O-C-N	-6.27	115.75	123.33
85	AA	126	U	C3'-C2'-C1'	-6.27	95.03	101.30
85	AA	319	U	C5'-C4'-C3'	6.27	125.40	116.00
85	AA	2112	G	P-O5'-C5'	6.27	130.30	120.90
34	BA	255	G	P-O5'-C5'	6.26	130.30	120.90
34	BA	1289	C	P-O5'-C5'	-6.26	111.50	120.90
34	BA	1692	U	C4'-C3'-O3'	-6.26	103.60	113.00
35	BB	421	U	C5'-C4'-C3'	6.26	125.40	116.00
35	BB	844	G	P-O3'-C3'	-6.26	110.80	120.20
42	BI	72	ARG	N-CA-CB	-6.26	100.62	110.46
62	Bc	100	PRO	CA-C-O	6.26	129.11	120.03
81	Bv	96	SER	N-CA-C	-6.26	103.74	112.45
85	AA	317	A	C5'-C4'-C3'	6.26	125.39	116.00
85	AA	400	G	P-O5'-C5'	-6.26	111.50	120.90
85	AA	1199	C	O3'-P-O5'	-6.26	94.60	104.00
31	AX	204	ILE	CA-C-N	6.26	133.50	121.54
31	AX	204	ILE	C-N-CA	6.26	133.50	121.54
35	BB	533	U	C1'-O4'-C4'	-6.26	103.64	109.90
37	BD	2	G	C5'-C4'-C3'	6.26	125.39	116.00
49	BP	76	GLU	CB-CG-CD	-6.26	101.95	112.60
85	AA	138	C	C5'-C4'-C3'	6.26	125.39	116.00
34	BA	160	G	C5'-C4'-C3'	-6.26	105.81	115.20
35	BB	538	A	O5'-C5'-C4'	-6.26	102.11	111.50
36	BC	52	A	C3'-C2'-C1'	-6.26	95.04	101.30
39	BF	11	C	O4'-C1'-N1	6.26	117.59	108.20
39	BF	30	C	C5'-C4'-C3'	-6.26	105.81	115.20
57	BX	60	TYR	CA-CB-CG	-6.26	102.63	113.90
64	Be	113	VAL	N-CA-C	-6.26	100.07	108.96
69	Bj	38	LYS	N-CA-C	6.26	119.31	110.23
69	Bj	71	HIS	CB-CA-C	6.26	122.01	110.11
80	Bu	145	ARG	N-CA-CB	6.26	120.65	110.32
81	Bv	188	HIS	CB-CG-ND1	-6.26	113.31	122.70
85	AA	1458	G	O5'-C5'-C4'	6.26	120.89	111.50
12	AD	43	LYS	N-CA-C	-6.26	105.80	113.50
22	AO	106	PRO	N-CA-C	6.26	121.06	111.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1201	G	P-O3'-C3'	-6.26	110.81	120.20
39	BF	56	C	C2'-C3'-O3'	6.26	123.09	113.70
44	BK	144	TYR	CA-CB-CG	-6.26	102.63	113.90
60	Ba	12	MET	N-CA-C	6.26	119.31	110.23
71	Bl	47	TYR	CA-CB-CG	-6.26	102.63	113.90
85	AA	454	G	C2'-C3'-O3'	6.26	123.09	113.70
85	AA	1666	U	O5'-C5'-C4'	-6.26	102.11	111.50
34	BA	103	G	C3'-C2'-C1'	-6.26	95.04	101.30
34	BA	687	G	C2'-C3'-O3'	6.26	123.09	113.70
35	BB	368	C	C4'-C3'-C2'	6.26	108.86	102.60
85	AA	1516	A	O4'-C1'-C2'	6.26	113.86	107.60
26	AS	55	ILE	O-C-N	-6.26	116.47	122.98
30	AW	6	SER	N-CA-C	6.26	124.12	110.80
34	BA	1708	A	O4'-C4'-C3'	-6.26	97.74	104.00
34	BA	1730	A	O5'-C5'-C4'	6.26	120.88	111.50
34	BA	1832	A	P-O3'-C3'	6.26	129.59	120.20
35	BB	1461	C	C3'-C2'-C1'	-6.26	95.24	101.50
85	AA	1357	U	C5'-C4'-C3'	-6.26	106.61	116.00
85	AA	1555	G	C5'-C4'-C3'	-6.26	106.61	116.00
34	BA	1137	U	C4'-C3'-O3'	-6.25	103.62	113.00
34	BA	1467	U	C3'-C2'-C1'	-6.25	95.05	101.30
77	Br	287	VAL	CA-C-O	6.25	127.48	120.85
85	AA	267	U	O4'-C4'-C3'	-6.25	97.75	104.00
7	A6	7	PHE	N-CA-C	-6.25	100.73	110.17
21	AM	101	SER	N-CA-C	6.25	117.25	108.00
34	BA	47	U	C4'-C3'-C2'	6.25	108.85	102.60
35	BB	84	G	P-O5'-C5'	-6.25	111.52	120.90
35	BB	409	U	O5'-C5'-C4'	-6.25	102.12	111.50
85	AA	307	G	O4'-C1'-N9	6.25	117.88	108.50
85	AA	412	G	C4'-C3'-O3'	-6.25	103.62	113.00
85	AA	1913	G	O5'-C5'-C4'	-6.25	102.12	111.50
85	AA	2213	A	O5'-C5'-C4'	6.25	120.88	111.50
8	A7	224	ASP	CA-CB-CG	-6.25	106.35	112.60
11	AC	75	HIS	N-CA-CB	6.25	120.98	110.79
11	AC	100	VAL	N-CA-C	-6.25	106.84	111.90
34	BA	187	G	P-O5'-C5'	-6.25	111.52	120.90
34	BA	1019	C	N1-C1'-C2'	-6.25	104.62	114.00
34	BA	1131	G	O5'-C5'-C4'	6.25	120.88	111.50
34	BA	1664	C	P-O3'-C3'	-6.25	110.82	120.20
35	BB	381	C	O5'-C5'-C4'	6.25	121.08	111.70
35	BB	599	U	P-O3'-C3'	-6.25	110.82	120.20
35	BB	1503	U	C4'-C3'-O3'	6.25	118.78	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BC	54	G	C5'-C4'-C3'	6.25	125.38	116.00
72	Bm	97	LYS	N-CA-CB	-6.25	100.95	110.01
85	AA	1454	U	P-O3'-C3'	-6.25	110.82	120.20
34	BA	362	G	P-O3'-C3'	-6.25	110.83	120.20
35	BB	102	G	P-O3'-C3'	-6.25	110.83	120.20
35	BB	813	C	O3'-P-O5'	-6.25	94.62	104.00
35	BB	995	C	C4'-C3'-C2'	6.25	108.85	102.60
35	BB	1226	G	P-O3'-C3'	6.25	129.57	120.20
64	Be	174	ARG	CA-C-N	6.25	129.34	120.53
64	Be	174	ARG	C-N-CA	6.25	129.34	120.53
11	AC	182	ALA	N-CA-C	6.25	118.67	108.55
34	BA	113	G	C5'-C4'-O4'	-6.25	100.43	109.80
34	BA	613	A	C5'-C4'-C3'	-6.25	106.63	116.00
34	BA	1491	U	C4'-C3'-O3'	-6.25	103.63	113.00
35	BB	795	A	C5'-C4'-C3'	6.25	125.37	116.00
77	Br	94	MET	N-CA-C	6.25	124.11	110.80
77	Br	114	ILE	N-CA-C	-6.25	100.10	108.35
77	Br	217	ARG	O-C-N	-6.25	114.28	122.59
85	AA	805	A	P-O3'-C3'	6.25	129.57	120.20
85	AA	1222	A	C5'-C4'-C3'	-6.25	106.63	116.00
85	AA	2184	A	O5'-C5'-C4'	-6.25	102.13	111.50
34	BA	422	C	O5'-C5'-C4'	-6.25	102.13	111.50
34	BA	1085	G	P-O3'-C3'	6.25	129.57	120.20
35	BB	479	U	C4'-C3'-O3'	-6.25	103.63	113.00
38	BE	131	C	O5'-C5'-C4'	-6.25	102.13	111.50
41	BH	17	A	O5'-C5'-C4'	-6.25	102.13	111.50
49	BP	140	HIS	CA-C-N	6.25	129.47	120.79
49	BP	140	HIS	C-N-CA	6.25	129.47	120.79
59	BZ	60	PHE	CB-CA-C	-6.25	97.99	110.42
85	AA	775	C	C3'-C2'-C1'	-6.25	95.05	101.30
5	A4	74	MET	CA-C-O	6.25	127.37	120.63
34	BA	311	C	P-O3'-C3'	6.25	129.57	120.20
34	BA	1478	G	O5'-C5'-C4'	6.25	120.87	111.50
85	AA	33	U	O5'-C5'-C4'	-6.25	102.13	111.50
85	AA	1094	G	C5'-C4'-C3'	-6.25	106.63	116.00
85	AA	1701	G	C4'-C3'-O3'	-6.25	103.63	113.00
20	AL	79	GLU	N-CA-C	-6.24	104.39	111.07
34	BA	895	U	P-O5'-C5'	-6.24	111.54	120.90
34	BA	1162	U	P-O3'-C3'	-6.24	110.83	120.20
34	BA	1188	U	O3'-P-O5'	-6.24	94.64	104.00
34	BA	1794	A	P-O3'-C3'	-6.24	110.84	120.20
35	BB	504	C	O3'-P-O5'	-6.24	94.63	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BE	139	U	C5'-C4'-C3'	-6.24	106.64	116.00
41	BH	35	G	C4'-C3'-O3'	-6.24	103.64	113.00
67	Bh	71	ALA	N-CA-CB	-6.24	100.69	110.30
68	Bi	122	ASN	N-CA-C	-6.24	98.99	108.67
80	Bu	194	ASP	N-CA-CB	-6.24	99.94	110.49
85	AA	6	G	P-O5'-C5'	6.24	130.26	120.90
85	AA	244	G	O5'-C5'-C4'	-6.24	102.14	111.50
85	AA	1723	U	C5'-C4'-C3'	-6.24	106.64	116.00
80	Bu	69	VAL	CB-CA-C	-6.24	103.02	111.63
85	AA	26	A	O3'-P-O5'	6.24	113.36	104.00
85	AA	187	C	P-O5'-C5'	6.24	130.26	120.90
85	AA	1736	U	C5'-C4'-C3'	-6.24	106.64	116.00
27	AT	66	GLY	CA-C-N	6.24	132.61	122.81
27	AT	66	GLY	C-N-CA	6.24	132.61	122.81
30	AW	29	PRO	CA-C-N	6.24	128.93	120.44
30	AW	29	PRO	C-N-CA	6.24	128.93	120.44
34	BA	563	A	C4'-C3'-O3'	-6.24	103.64	113.00
35	BB	480	C	P-O5'-C5'	-6.24	111.54	120.90
37	BD	4	U	C4'-C3'-O3'	-6.24	103.64	113.00
40	BG	40	G	C4'-C3'-C2'	-6.24	96.36	102.60
49	BP	76	GLU	N-CA-CB	-6.24	100.69	110.30
85	AA	846	U	C5'-C4'-C3'	6.24	125.36	116.00
34	BA	652	C	O3'-P-O5'	-6.24	94.64	104.00
34	BA	810	A	P-O5'-C5'	6.24	130.26	120.90
34	BA	820	C	O3'-P-O5'	6.24	113.36	104.00
34	BA	1288	U	P-O3'-C3'	-6.24	110.84	120.20
35	BB	37	C	C3'-C2'-C1'	-6.24	95.06	101.30
35	BB	613	C	O5'-C5'-C4'	-6.24	102.14	111.50
35	BB	649	A	C4'-C3'-O3'	-6.24	103.64	113.00
37	BD	15	U	P-O3'-C3'	-6.24	110.84	120.20
40	BG	69	G	C4'-C3'-O3'	-6.24	103.64	113.00
57	BX	106	PHE	CA-CB-CG	-6.24	107.56	113.80
73	Bn	49	TRP	CB-CG-CD2	-6.24	118.06	126.80
82	Bw	18	ALA	CA-C-N	6.24	133.46	121.54
82	Bw	18	ALA	C-N-CA	6.24	133.46	121.54
85	AA	564	A	C5'-C4'-C3'	6.24	125.36	116.00
85	AA	819	G	N9-C1'-C2'	-6.24	102.64	112.00
85	AA	1250	A	P-O3'-C3'	-6.24	110.84	120.20
85	AA	1361	A	C4'-C3'-O3'	6.24	122.36	113.00
35	BB	1155	U	P-O3'-C3'	-6.24	110.84	120.20
77	Br	107	PHE	N-CA-CB	6.24	119.64	110.35
32	AY	59	LYS	N-CA-C	-6.24	105.64	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	888	U	C4'-C3'-C2'	-6.24	96.36	102.60
38	BE	132	U	P-O5'-C5'	6.24	130.25	120.90
39	BF	20	U	O3'-P-O5'	6.24	113.35	104.00
40	BG	128	U	N1-C1'-C2'	-6.24	104.65	114.00
76	Bq	41	ARG	N-CA-C	6.24	118.75	109.59
85	AA	1810	C	P-O3'-C3'	-6.24	110.85	120.20
86	AB	56	C	O3'-P-O5'	6.24	113.35	104.00
8	A7	14	GLY	N-CA-C	-6.23	101.85	112.51
34	BA	18	G	P-O5'-C5'	-6.23	111.55	120.90
34	BA	251	U	C5'-C4'-O4'	6.23	119.15	109.80
35	BB	698	C	C4'-C3'-O3'	-6.23	103.65	113.00
35	BB	756	C	P-O3'-C3'	-6.23	110.85	120.20
20	AL	92	ASP	CA-CB-CG	-6.23	106.37	112.60
34	BA	852	C	C2'-C3'-O3'	6.23	123.05	113.70
34	BA	1318	G	P-O3'-C3'	-6.23	110.85	120.20
35	BB	399	A	P-O3'-C3'	-6.23	110.85	120.20
38	BE	10	G	O4'-C1'-N9	6.23	117.55	108.20
38	BE	143	A	P-O5'-C5'	-6.23	111.55	120.90
40	BG	73	U	C2'-C3'-O3'	6.23	123.05	113.70
47	BN	112	GLU	N-CA-CB	-6.23	100.94	110.16
85	AA	187	C	C1'-O4'-C4'	-6.23	103.67	109.90
34	BA	763	U	P-O3'-C3'	6.23	129.54	120.20
34	BA	1688	G	P-O3'-C3'	6.23	129.55	120.20
35	BB	433	C	C4'-C3'-C2'	6.23	108.83	102.60
35	BB	566	A	C4'-C3'-C2'	-6.23	96.37	102.60
40	BG	37	G	C5'-C4'-C3'	-6.23	106.65	116.00
53	BT	170	ARG	N-CA-CB	-6.23	100.72	110.06
74	Bo	54	ILE	N-CA-C	-6.23	98.55	107.77
34	BA	1300	G	C1'-O4'-C4'	-6.23	103.67	109.90
36	BC	30	U	P-O3'-C3'	6.23	129.54	120.20
40	BG	146	C	C1'-O4'-C4'	-6.23	103.67	109.90
85	AA	178	U	P-O5'-C5'	-6.23	111.56	120.90
85	AA	902	A	O5'-C5'-C4'	-6.23	102.16	111.50
34	BA	563	A	P-O3'-C3'	-6.23	110.86	120.20
34	BA	1502	G	O4'-C4'-C3'	-6.23	97.77	104.00
35	BB	11	A	C5'-C4'-C3'	6.23	125.34	116.00
35	BB	36	U	C4'-C3'-C2'	-6.23	96.37	102.60
35	BB	970	C	C5'-C4'-C3'	-6.23	106.66	116.00
35	BB	1032	U	C1'-O4'-C4'	-6.23	103.47	109.70
45	BL	137	VAL	N-CA-C	6.23	117.27	108.36
77	Br	350	GLU	CA-C-O	6.23	127.11	120.70
85	AA	363	A	O5'-C5'-C4'	-6.23	102.16	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	861	G	O3'-P-O5'	-6.23	94.66	104.00
85	AA	1008	C	C5'-C4'-C3'	6.23	125.34	116.00
29	AV	24	HIS	N-CA-C	-6.23	100.36	110.20
35	BB	522	A	C3'-C2'-C1'	-6.23	95.07	101.30
3	A2	36	PRO	CA-C-N	6.22	133.43	121.54
3	A2	36	PRO	C-N-CA	6.22	133.43	121.54
4	A3	168	GLU	N-CA-C	6.22	118.11	109.15
33	AZ	73	ASN	CA-CB-CG	-6.22	106.38	112.60
34	BA	59	A	C4'-C3'-O3'	-6.22	103.66	113.00
34	BA	453	A	P-O5'-C5'	-6.22	111.56	120.90
34	BA	802	G	O4'-C1'-N9	6.22	117.84	108.50
35	BB	506	G	P-O5'-C5'	-6.22	111.56	120.90
35	BB	1003	G	C3'-C2'-C1'	-6.22	95.08	101.30
35	BB	1232	A	C1'-O4'-C4'	-6.22	103.67	109.90
38	BE	13	A	O5'-C5'-C4'	6.22	120.84	111.50
38	BE	75	C	P-O3'-C3'	-6.22	110.86	120.20
38	BE	181	U	P-O3'-C3'	6.22	129.54	120.20
40	BG	12	A	C5'-C4'-O4'	6.22	118.44	109.10
42	BI	16	ARG	N-CA-C	6.22	124.06	110.80
64	Be	69	TYR	CA-C-N	6.22	133.43	121.54
64	Be	69	TYR	C-N-CA	6.22	133.43	121.54
65	Bf	289	TRP	N-CA-C	6.22	122.47	114.56
85	AA	1891	U	C4'-C3'-O3'	-6.22	103.66	113.00
34	BA	64	A	C2'-C3'-O3'	6.22	123.03	113.70
34	BA	1292	A	P-O5'-C5'	-6.22	111.57	120.90
34	BA	1318	G	C2'-C3'-O3'	-6.22	104.37	113.70
35	BB	5	A	O5'-C5'-C4'	6.22	120.83	111.50
35	BB	254	A	P-O5'-C5'	6.22	130.23	120.90
35	BB	1421	C	O5'-C5'-C4'	-6.22	102.17	111.50
36	BC	88	A	C4'-C3'-C2'	-6.22	96.38	102.60
49	BP	146	LYS	N-CA-C	-6.22	104.50	111.28
83	Bx	250	GLN	CB-CG-CD	-6.22	102.02	112.60
85	AA	1578	G	O4'-C1'-N9	6.22	117.53	108.20
34	BA	1011	G	P-O3'-C3'	-6.22	110.87	120.20
35	BB	556	U	C3'-C2'-C1'	-6.22	95.08	101.30
85	AA	1501	A	O3'-P-O5'	-6.22	94.67	104.00
4	A3	223	ALA	CA-C-O	6.22	127.53	121.00
34	BA	102	G	O4'-C4'-C3'	-6.22	97.78	104.00
34	BA	1299	G	C8-N9-C1'	6.22	145.66	127.00
34	BA	1565	U	C4'-C3'-C2'	6.22	108.82	102.60
35	BB	780	U	C4'-C3'-O3'	6.22	118.73	109.40
38	BE	131	C	P-O3'-C3'	6.22	129.53	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	Bc	50	ALA	N-CA-C	6.22	124.05	110.80
80	Bu	226	ASP	N-CA-C	-6.22	101.26	110.46
85	AA	335	G	C3'-C2'-C1'	-6.22	95.08	101.30
34	BA	78	U	C5'-C4'-C3'	-6.22	106.67	116.00
40	BG	164	U	P-O3'-C3'	-6.22	110.87	120.20
62	Bc	120	MET	CA-C-O	6.22	127.13	120.10
85	AA	1279	A	C4'-C3'-C2'	-6.22	96.38	102.60
34	BA	487	A	O5'-C5'-C4'	-6.22	102.37	111.70
35	BB	51	U	C5'-C4'-O4'	6.22	119.13	109.80
35	BB	610	U	C2'-C3'-O3'	6.22	123.03	113.70
35	BB	1146	C	P-O5'-C5'	-6.22	111.58	120.90
51	BR	50	GLN	O-C-N	-6.22	115.06	122.15
65	Bf	439	GLY	CA-C-N	6.22	125.98	119.76
65	Bf	439	GLY	C-N-CA	6.22	125.98	119.76
73	Bn	73	ARG	N-CA-CB	-6.22	100.98	110.12
85	AA	105	A	O4'-C1'-C2'	6.22	113.82	107.60
85	AA	1494	C	P-O5'-C5'	-6.22	111.58	120.90
11	AC	117	LEU	CA-C-O	6.21	127.34	120.63
34	BA	120	A	C4'-C3'-C2'	-6.21	96.39	102.60
34	BA	172	A	P-O5'-C5'	-6.21	111.58	120.90
34	BA	800	G	C5'-C4'-C3'	6.21	125.32	116.00
34	BA	1281	U	C3'-C2'-C1'	-6.21	95.08	101.30
34	BA	1490	U	O4'-C1'-C2'	6.21	113.81	107.60
34	BA	1591	G	C4'-C3'-C2'	6.21	108.81	102.60
35	BB	18	A	P-O3'-C3'	-6.21	110.88	120.20
35	BB	664	A	P-O5'-C5'	-6.21	111.58	120.90
62	Bc	137	HIS	CB-CG-CD2	-6.21	123.12	131.20
85	AA	652	U	P-O5'-C5'	-6.21	111.58	120.90
85	AA	1277	C	C4'-C3'-C2'	-6.21	96.39	102.60
34	BA	372	U	C2-N1-C1'	-6.21	99.06	117.70
35	BB	1226	G	O3'-P-O5'	-6.21	94.68	104.00
35	BB	1234	G	C5'-C4'-C3'	-6.21	106.68	116.00
85	AA	316	C	P-O5'-C5'	6.21	130.22	120.90
85	AA	2061	C	C5'-C4'-C3'	6.21	124.52	115.20
2	A1	246	VAL	CA-C-O	6.21	127.51	121.05
8	A7	293	TRP	N-CA-C	6.21	119.67	110.48
17	AI	91	VAL	N-CA-CB	6.21	117.49	110.72
24	AQ	32	VAL	CA-C-N	6.21	128.93	120.54
24	AQ	32	VAL	C-N-CA	6.21	128.93	120.54
27	AT	128	ALA	CA-C-N	6.21	130.97	122.34
27	AT	128	ALA	C-N-CA	6.21	130.97	122.34
34	BA	1497	A	C2'-C3'-O3'	6.21	118.82	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	790	A	O3'-P-O5'	6.21	113.32	104.00
35	BB	1029	U	O5'-C5'-C4'	-6.21	102.38	111.70
38	BE	188	C	O4'-C1'-C2'	-6.21	99.59	105.80
41	BH	128	G	O3'-P-O5'	6.21	113.32	104.00
85	AA	108	C	P-O5'-C5'	-6.21	111.58	120.90
85	AA	1662	U	P-O5'-C5'	6.21	130.22	120.90
85	AA	1933	G	C5'-C4'-C3'	6.21	125.32	116.00
85	AA	2055	G	C5'-C4'-C3'	6.21	125.32	116.00
11	AC	171	ARG	N-CA-C	-6.21	104.42	111.07
34	BA	449	G	C4-N9-C1'	-6.21	107.87	126.50
85	AA	284	C	O4'-C1'-N1	6.21	117.82	108.50
34	BA	729	C	P-O5'-C5'	-6.21	111.59	120.90
34	BA	1473	A	C1'-O4'-C4'	-6.21	103.69	109.90
34	BA	1519	G	C4'-C3'-C2'	-6.21	96.39	102.60
34	BA	1800	G	C1'-O4'-C4'	-6.21	103.69	109.90
35	BB	315	C	P-O5'-C5'	6.21	130.21	120.90
45	BL	18	GLU	CA-C-N	6.21	131.27	123.14
45	BL	18	GLU	C-N-CA	6.21	131.27	123.14
77	Br	286	ASP	CA-C-N	6.21	129.24	120.42
77	Br	286	ASP	C-N-CA	6.21	129.24	120.42
80	Bu	292	ALA	CA-C-N	6.21	128.60	120.28
80	Bu	292	ALA	C-N-CA	6.21	128.60	120.28
85	AA	602	U	C5'-C4'-C3'	-6.21	106.69	116.00
85	AA	1280	U	P-O3'-C3'	6.21	129.51	120.20
85	AA	1679	U	O5'-C5'-C4'	-6.21	102.19	111.50
27	AT	35	PRO	O-C-N	-6.21	114.26	122.64
34	BA	1108	U	C4'-C3'-O3'	-6.21	103.69	113.00
35	BB	13	A	C3'-C2'-C1'	-6.21	95.09	101.30
35	BB	498	G	C5'-C4'-C3'	-6.21	106.69	116.00
35	BB	999	G	N9-C1'-C2'	-6.21	102.69	112.00
84	By	157	ALA	CA-C-O	6.21	127.11	119.97
85	AA	2103	C	C5'-C4'-C3'	-6.21	105.89	115.20
2	A1	45	ILE	CA-CB-CG1	6.21	120.95	110.40
41	BH	127	A	P-O3'-C3'	6.21	129.51	120.20
85	AA	491	G	C4'-C3'-O3'	-6.21	103.69	113.00
52	BS	2	VAL	N-CA-C	6.20	122.24	109.34
61	Bb	40	HIS	N-CA-C	6.20	120.31	112.87
77	Br	33	HIS	CA-C-O	6.20	127.11	120.10
83	Bx	69	VAL	N-CA-C	-6.20	104.70	110.53
85	AA	157	G	C1'-O4'-C4'	-6.20	103.70	109.90
85	AA	158	C	C1'-O4'-C4'	-6.20	103.70	109.90
85	AA	929	G	C4'-C3'-O3'	-6.20	103.69	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1871	U	O5'-C5'-C4'	-6.20	102.19	111.50
40	BG	71	C	P-O3'-C3'	-6.20	110.90	120.20
85	AA	1455	C	O4'-C4'-C3'	-6.20	97.80	104.00
85	AA	1881	C	P-O3'-C3'	6.20	129.50	120.20
34	BA	1156	U	C5'-C4'-C3'	6.20	125.30	116.00
34	BA	1566	G	P-O3'-C3'	-6.20	110.90	120.20
34	BA	1653	G	O4'-C1'-C2'	6.20	113.80	107.60
45	BL	14	ASN	CA-C-O	-6.20	112.93	119.50
64	Be	202	VAL	N-CA-C	6.20	118.84	111.09
85	AA	1096	G	C4'-C3'-O3'	-6.20	103.70	113.00
85	AA	1956	C	C2'-C3'-O3'	6.20	118.80	109.50
34	BA	1064	A	O3'-P-O5'	-6.20	94.70	104.00
35	BB	408	U	P-O3'-C3'	-6.20	110.90	120.20
53	BT	74	ARG	NE-CZ-NH2	6.20	124.78	119.20
65	Bf	274	CYS	N-CA-CB	6.20	120.32	110.65
65	Bf	433	GLU	CA-C-O	6.20	127.33	120.82
85	AA	1488	G	C4'-C3'-C2'	-6.20	96.40	102.60
85	AA	1679	U	C5'-C4'-C3'	-6.20	106.70	116.00
85	AA	1796	C	O4'-C1'-N1	6.20	117.80	108.50
16	AH	39	ASP	N-CA-CB	-6.20	100.85	110.39
34	BA	3	G	C4-N9-C1'	-6.20	107.91	126.50
38	BE	2	G	C3'-C2'-C1'	-6.20	95.10	101.30
8	A7	136	TRP	N-CA-C	-6.20	99.63	109.23
27	AT	20	ASN	CA-C-O	6.20	127.76	120.70
27	AT	40	THR	O-C-N	-6.20	117.33	123.46
34	BA	149	G	C1'-O4'-C4'	-6.20	103.70	109.90
34	BA	1598	U	C4'-C3'-O3'	-6.20	103.71	113.00
35	BB	36	U	O3'-P-O5'	-6.20	94.71	104.00
35	BB	566	A	C5'-C4'-C3'	-6.20	106.71	116.00
36	BC	112	G	O3'-P-O5'	-6.20	94.70	104.00
39	BF	48	G	C1'-O4'-C4'	-6.20	103.70	109.90
51	BR	155	GLU	N-CA-C	-6.20	93.65	111.00
52	BS	86	ARG	N-CA-C	-6.20	105.30	112.86
56	BW	73	ARG	O-C-N	6.20	130.31	122.57
71	Bl	54	GLN	CB-CG-CD	-6.20	102.07	112.60
85	AA	986	U	O5'-C5'-C4'	-6.20	102.21	111.50
85	AA	2193	A	C5'-C4'-C3'	-6.20	106.71	116.00
22	AO	32	VAL	N-CA-CB	6.19	121.24	110.65
39	BF	13	U	O4'-C4'-C3'	-6.19	97.81	104.00
85	AA	995	G	P-O5'-C5'	-6.19	111.61	120.90
7	A6	65	HIS	CA-CB-CG	-6.19	107.61	113.80
34	BA	372	U	P-O3'-C3'	-6.19	110.91	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	Bj	110	ALA	N-CA-C	6.19	118.83	111.71
77	Br	343	MET	N-CA-C	6.19	119.21	110.23
80	Bu	134	THR	N-CA-C	-6.19	100.47	110.32
85	AA	278	C	P-O5'-C5'	-6.19	111.61	120.90
85	AA	518	A	C5'-C4'-O4'	6.19	118.39	109.10
85	AA	595	A	C5'-C4'-C3'	-6.19	106.71	116.00
85	AA	676	U	P-O3'-C3'	-6.19	110.91	120.20
85	AA	1922	A	C2'-C3'-O3'	6.19	122.99	113.70
85	AA	2225	G	P-O5'-C5'	-6.19	111.61	120.90
4	A3	120	GLY	CA-C-N	6.19	129.39	120.79
4	A3	120	GLY	C-N-CA	6.19	129.39	120.79
8	A7	197	ASN	CA-C-N	6.19	133.36	121.54
8	A7	197	ASN	C-N-CA	6.19	133.36	121.54
23	AP	249	PRO	N-CA-C	-6.19	104.23	114.75
27	AT	43	ALA	N-CA-CB	-6.19	101.03	110.26
34	BA	215	C	P-O5'-C5'	6.19	130.19	120.90
34	BA	360	C	O4'-C1'-C2'	-6.19	99.61	105.80
34	BA	691	A	C4'-C3'-C2'	6.19	108.79	102.60
34	BA	715	U	C4'-C3'-C2'	6.19	108.79	102.60
35	BB	428	G	P-O3'-C3'	-6.19	110.91	120.20
35	BB	1056	A	C5'-C4'-C3'	-6.19	106.71	116.00
35	BB	1546	C	P-O3'-C3'	-6.19	110.92	120.20
36	BC	130	U	P-O3'-C3'	-6.19	110.91	120.20
38	BE	31	A	C2'-C3'-O3'	6.19	122.98	113.70
48	BO	66	ILE	N-CA-CB	6.19	117.79	110.55
65	Bf	296	ARG	N-CA-CB	-6.19	101.02	110.12
85	AA	1589	G	P-O5'-C5'	-6.19	111.61	120.90
34	BA	1038	U	O3'-P-O5'	6.19	113.28	104.00
37	BD	48	G	N9-C1'-C2'	-6.19	104.72	114.00
85	AA	590	U	O4'-C4'-C3'	-6.19	99.91	106.10
85	AA	799	G	P-O5'-C5'	-6.19	111.62	120.90
85	AA	1062	U	C2'-C3'-O3'	6.19	118.78	109.50
85	AA	1863	A	P-O3'-C3'	-6.19	110.92	120.20
6	A5	20	ILE	CA-C-O	6.19	126.82	120.39
26	AS	61	GLN	N-CA-C	-6.19	96.14	109.81
35	BB	429	C	C1'-O4'-C4'	-6.19	103.71	109.90
35	BB	666	A	O3'-P-O5'	-6.19	94.72	104.00
38	BE	129	G	O4'-C1'-N9	6.19	117.78	108.50
42	BI	31	LYS	CB-CA-C	6.19	121.06	110.79
34	BA	1196	C	O5'-C5'-C4'	-6.19	102.22	111.50
36	BC	116	C	C1'-O4'-C4'	-6.19	103.71	109.90
58	BY	37	ARG	CB-CG-CD	6.19	125.53	111.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	AX	199	VAL	CA-C-N	6.18	132.50	122.48
31	AX	199	VAL	C-N-CA	6.18	132.50	122.48
34	BA	31	A	O5'-C5'-C4'	6.18	120.78	111.50
34	BA	1170	A	C5'-C4'-C3'	6.18	125.28	116.00
34	BA	1745	G	P-O5'-C5'	6.18	130.18	120.90
35	BB	455	G	P-O3'-C3'	6.18	129.48	120.20
38	BE	52	U	C4'-C3'-O3'	6.18	118.68	109.40
41	BH	33	G	O3'-P-O5'	-6.18	94.72	104.00
72	Bm	15	ILE	CA-C-N	6.18	133.10	121.97
72	Bm	15	ILE	C-N-CA	6.18	133.10	121.97
85	AA	586	G	C4'-C3'-O3'	-6.18	103.72	113.00
85	AA	1209	U	C4'-C3'-C2'	6.18	108.78	102.60
7	A6	17	PRO	N-CA-C	6.18	125.21	112.47
11	AC	161	THR	N-CA-C	-6.18	107.57	114.62
34	BA	453	A	O5'-C5'-C4'	-6.18	102.23	111.50
34	BA	1795	A	C2'-C3'-O3'	6.18	118.77	109.50
50	BQ	175	HIS	N-CA-CB	6.18	120.94	110.49
85	AA	454	G	O5'-C5'-C4'	-6.18	102.23	111.50
85	AA	756	G	C5'-C4'-C3'	-6.18	106.73	116.00
85	AA	1618	G	C5'-C4'-C3'	-6.18	106.72	116.00
85	AA	1867	G	P-O3'-C3'	-6.18	110.93	120.20
13	AE	26	ARG	N-CA-C	-6.18	102.81	110.41
61	Bb	108	LYS	CA-C-N	6.18	131.70	123.05
61	Bb	108	LYS	C-N-CA	6.18	131.70	123.05
62	Bc	61	LEU	N-CA-C	-6.18	99.58	109.96
85	AA	233	C	P-O3'-C3'	-6.18	110.93	120.20
85	AA	937	G	O5'-C5'-C4'	-6.18	102.23	111.50
31	AX	13	ASP	CA-CB-CG	-6.18	106.42	112.60
34	BA	827	A	O3'-P-O5'	6.18	113.27	104.00
34	BA	949	C	O3'-P-O5'	-6.18	94.73	104.00
40	BG	53	C	C5'-C4'-C3'	-6.18	106.73	116.00
41	BH	26	C	C3'-C2'-C1'	6.18	107.68	101.50
48	BO	190	MET	N-CA-CB	6.18	119.20	110.12
85	AA	859	G	C5'-C4'-C3'	-6.18	106.73	116.00
85	AA	1542	A	C4'-C3'-C2'	-6.18	96.42	102.60
85	AA	1794	U	C4'-C3'-C2'	-6.18	96.42	102.60
24	AQ	64	LYS	CA-C-N	6.18	136.87	121.80
24	AQ	64	LYS	C-N-CA	6.18	136.87	121.80
34	BA	937	G	C1'-O4'-C4'	-6.18	103.72	109.90
35	BB	121	A	O5'-C5'-C4'	-6.18	102.23	111.50
38	BE	28	C	O3'-P-O5'	-6.18	94.73	104.00
42	BI	35	PHE	CA-CB-CG	-6.18	107.62	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	BS	147	HIS	N-CA-C	-6.18	101.14	110.28
85	AA	816	A	P-O5'-C5'	6.18	130.17	120.90
85	AA	1480	C	P-O3'-C3'	-6.18	110.93	120.20
85	AA	1490	A	P-O3'-C3'	6.18	129.47	120.20
85	AA	1524	A	C1'-C2'-O2'	6.18	117.67	108.40
85	AA	1622	G	C4'-C3'-O3'	-6.18	103.73	113.00
85	AA	2145	G	O4'-C1'-N9	6.18	117.77	108.50
27	AT	70	LYS	N-CA-C	-6.18	99.45	107.73
34	BA	712	C	C5'-C4'-C3'	-6.18	106.73	116.00
35	BB	871	C	C5'-C4'-C3'	-6.18	106.74	116.00
38	BE	32	U	P-O3'-C3'	6.18	129.46	120.20
55	BV	50	TYR	CA-C-N	6.18	128.47	120.44
55	BV	50	TYR	C-N-CA	6.18	128.47	120.44
82	Bw	183	MET	N-CA-CB	6.18	119.85	110.28
85	AA	311	U	C5'-C4'-C3'	6.18	125.26	116.00
85	AA	2132	A	C2'-C3'-O3'	6.18	122.96	113.70
34	BA	288	U	C1'-O4'-C4'	-6.17	103.72	109.90
35	BB	604	C	C3'-C2'-C1'	-6.17	95.13	101.30
40	BG	18	U	C4'-C3'-O3'	-6.17	103.74	113.00
72	Bm	71	VAL	CA-C-N	6.17	133.51	121.41
72	Bm	71	VAL	C-N-CA	6.17	133.51	121.41
85	AA	327	G	N9-C1'-C2'	-6.17	102.74	112.00
85	AA	2102	A	C4'-C3'-C2'	-6.17	96.43	102.60
18	AJ	108	LEU	N-CA-C	-6.17	105.61	113.02
40	BG	17	A	C4'-C3'-O3'	-6.17	103.74	113.00
65	Bf	451	ARG	CB-CA-C	-6.17	101.19	110.88
68	Bi	37	ARG	N-CA-C	-6.17	97.65	110.80
1	A0	43	PHE	CA-CB-CG	-6.17	107.63	113.80
11	AC	194	ASP	N-CA-C	-6.17	98.35	108.41
35	BB	452	A	O5'-C5'-C4'	-6.17	102.24	111.50
35	BB	1342	C	C4'-C3'-C2'	6.17	108.77	102.60
49	BP	11	ARG	N-CA-CB	6.17	120.73	110.85
57	BX	87	TYR	CA-C-N	6.17	126.08	119.85
57	BX	87	TYR	C-N-CA	6.17	126.08	119.85
85	AA	608	A	O5'-C5'-C4'	-6.17	102.24	111.50
85	AA	855	G	N9-C1'-C2'	6.17	121.26	112.00
85	AA	1299	A	O3'-P-O5'	6.17	113.26	104.00
85	AA	1866	A	C5'-C4'-C3'	-6.17	106.74	116.00
85	AA	2043	A	C4'-C3'-C2'	-6.17	96.43	102.60
19	AK	80	GLN	CA-C-O	6.17	126.96	120.42
35	BB	892	U	C4'-C3'-C2'	-6.17	96.43	102.60
36	BC	97	U	C5'-C4'-C3'	6.17	125.25	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1796	C	O4'-C4'-C3'	-6.17	97.83	104.00
6	A5	25	MET	CG-SD-CE	-6.17	87.33	100.90
19	AK	22	ILE	N-CA-C	6.17	116.90	107.77
34	BA	699	G	P-O3'-C3'	-6.17	110.95	120.20
35	BB	1510	G	P-O3'-C3'	-6.17	110.95	120.20
36	BC	76	C	C4'-C3'-C2'	-6.17	96.43	102.60
36	BC	93	C	C4'-C3'-O3'	-6.17	103.75	113.00
85	AA	81	A	C4'-C3'-O3'	-6.17	103.75	113.00
85	AA	2001	C	O4'-C4'-C3'	-6.17	99.93	106.10
5	A4	104	ILE	CA-C-N	6.17	133.32	121.54
5	A4	104	ILE	C-N-CA	6.17	133.32	121.54
28	AU	54	ASP	N-CA-CB	-6.17	101.06	110.12
34	BA	665	C	P-O3'-C3'	-6.17	110.95	120.20
35	BB	33	A	O3'-P-O5'	-6.17	94.75	104.00
35	BB	1177	U	O4'-C4'-C3'	-6.17	97.83	104.00
40	BG	95	U	P-O3'-C3'	-6.17	110.95	120.20
72	Bm	42	HIS	CA-C-N	6.17	133.32	121.54
72	Bm	42	HIS	C-N-CA	6.17	133.32	121.54
81	Bv	4	ALA	N-CA-C	6.17	123.93	110.80
85	AA	681	G	O3'-P-O5'	-6.17	94.75	104.00
85	AA	1294	U	O5'-C5'-C4'	-6.17	102.25	111.50
85	AA	1671	G	P-O3'-C3'	-6.17	110.95	120.20
85	AA	1921	G	C8-N9-C1'	6.17	145.50	127.00
85	AA	2181	G	O5'-C5'-C4'	-6.17	102.25	111.50
35	BB	1423	U	C1'-O4'-C4'	-6.17	103.73	109.90
48	BO	159	ASN	N-CA-C	-6.17	104.64	111.36
85	AA	1292	A	C5'-C4'-C3'	-6.17	106.75	116.00
85	AA	1793	A	O5'-C5'-C4'	6.17	120.75	111.50
34	BA	47	U	C5'-C4'-C3'	6.16	125.25	116.00
34	BA	82	A	C3'-C2'-C1'	-6.16	95.34	101.50
35	BB	1395	G	P-O3'-C3'	-6.16	110.95	120.20
36	BC	106	G	P-O3'-C3'	-6.16	110.95	120.20
84	By	112	ASN	CB-CA-C	-6.16	98.15	110.42
85	AA	1441	G	P-O5'-C5'	-6.16	111.66	120.90
35	BB	1535	G	O5'-C5'-C4'	6.16	120.74	111.50
37	BD	39	C	P-O5'-C5'	-6.16	111.66	120.90
52	BS	98	ASP	CA-C-N	6.16	128.98	122.14
52	BS	98	ASP	C-N-CA	6.16	128.98	122.14
85	AA	647	C	P-O3'-C3'	6.16	129.44	120.20
85	AA	842	G	C4'-C3'-O3'	-6.16	103.76	113.00
85	AA	2056	C	C3'-C2'-C1'	-6.16	95.14	101.30
18	AJ	44	HIS	CA-CB-CG	-6.16	107.64	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	677	U	O4'-C1'-C2'	6.16	111.96	105.80
37	BD	3	G	C5'-C4'-C3'	-6.16	106.76	116.00
38	BE	27	A	N9-C1'-C2'	-6.16	104.76	114.00
57	BX	98	ILE	N-CA-C	-6.16	104.51	110.42
67	Bh	127	ILE	N-CA-C	6.16	116.79	108.17
85	AA	1560	A	O4'-C4'-C3'	-6.16	97.84	104.00
85	AA	1713	A	C5'-C4'-C3'	-6.16	106.76	116.00
34	BA	1829	A	C5'-C4'-C3'	-6.16	106.76	116.00
40	BG	38	A	C4'-C3'-O3'	-6.16	103.76	113.00
40	BG	162	A	O5'-C5'-C4'	-6.16	102.26	111.50
75	Bp	41	HIS	CA-C-O	6.16	127.89	121.36
81	Bv	42	ARG	CG-CD-NE	-6.16	98.45	112.00
85	AA	858	G	P-O3'-C3'	-6.16	110.96	120.20
85	AA	1207	C	O4'-C4'-C3'	6.16	110.16	104.00
85	AA	1492	U	O4'-C1'-N1	6.16	117.74	108.50
11	AC	200	ASN	N-CA-CB	6.16	119.49	109.95
37	BD	33	U	C4'-C3'-O3'	-6.16	103.76	113.00
80	Bu	273	ALA	N-CA-C	-6.16	104.65	111.36
34	BA	587	U	C5'-C4'-O4'	6.16	119.03	109.80
35	BB	1017	U	P-O3'-C3'	-6.16	110.97	120.20
35	BB	1301	U	P-O3'-C3'	6.16	129.43	120.20
67	Bh	151	VAL	N-CA-C	6.16	116.79	108.17
85	AA	437	G	C4'-C3'-O3'	-6.16	103.77	113.00
85	AA	1145	U	P-O3'-C3'	-6.16	110.97	120.20
85	AA	1168	C	C5'-C4'-C3'	6.16	125.23	116.00
85	AA	1252	A	O3'-P-O5'	-6.16	94.77	104.00
34	BA	652	C	C4'-C3'-C2'	-6.15	96.45	102.60
83	Bx	48	GLY	CA-C-N	6.15	133.05	121.97
83	Bx	48	GLY	C-N-CA	6.15	133.05	121.97
85	AA	527	A	O5'-C5'-C4'	-6.15	102.27	111.50
6	A5	35	ASN	CA-C-N	6.15	133.29	121.54
6	A5	35	ASN	C-N-CA	6.15	133.29	121.54
30	AW	59	GLY	N-CA-C	-6.15	105.10	115.62
34	BA	280	A	C4'-C3'-C2'	6.15	108.75	102.60
34	BA	833	U	C4'-C3'-C2'	-6.15	96.45	102.60
34	BA	1022	C	C5'-C4'-C3'	6.15	124.43	115.20
34	BA	1058	C	P-O3'-C3'	6.15	129.43	120.20
34	BA	1731	A	O4'-C4'-C3'	-6.15	97.85	104.00
38	BE	96	G	C3'-C2'-C1'	-6.15	95.15	101.30
40	BG	17	A	P-O3'-C3'	-6.15	110.97	120.20
40	BG	30	C	C2'-C3'-O3'	6.15	122.93	113.70
47	BN	72	MET	CG-SD-CE	-6.15	87.36	100.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	BS	96	PHE	O-C-N	-6.15	116.11	123.31
85	AA	764	U	C5'-C4'-C3'	-6.15	106.77	116.00
6	A5	116	HIS	N-CA-CB	-6.15	101.09	110.26
17	AI	49	ARG	CA-C-N	6.15	128.52	120.28
17	AI	49	ARG	C-N-CA	6.15	128.52	120.28
34	BA	749	G	P-O5'-C5'	-6.15	111.67	120.90
34	BA	1341	A	O4'-C4'-C3'	-6.15	97.85	104.00
34	BA	1537	G	C1'-O4'-C4'	-6.15	103.75	109.90
35	BB	66	G	C4'-C3'-O3'	-6.15	103.77	113.00
35	BB	389	G	C5'-C4'-C3'	-6.15	106.77	116.00
40	BG	14	G	C5'-C4'-O4'	-6.15	100.58	109.80
40	BG	67	A	O4'-C1'-N9	6.15	117.73	108.50
44	BK	165	ILE	N-CA-CB	-6.15	103.92	111.67
51	BR	51	VAL	CA-C-O	6.15	127.69	121.17
85	AA	534	A	C5'-C4'-C3'	6.15	125.23	116.00
85	AA	538	A	P-O5'-C5'	6.15	130.13	120.90
85	AA	1004	G	P-O5'-C5'	6.15	130.12	120.90
24	AQ	77	TYR	CA-CB-CG	-6.15	102.83	113.90
34	BA	572	G	C3'-C2'-C1'	6.15	107.45	101.30
65	Bf	169	PHE	CA-CB-CG	-6.15	107.65	113.80
85	AA	305	A	O4'-C4'-C3'	-6.15	97.85	104.00
5	A4	68	TYR	CA-CB-CG	-6.15	102.83	113.90
6	A5	60	LEU	CB-CA-C	-6.15	99.19	110.62
34	BA	210	G	P-O3'-C3'	6.15	129.42	120.20
34	BA	340	U	O5'-C5'-C4'	-6.15	102.28	111.50
34	BA	567	U	C3'-C2'-C1'	-6.15	95.15	101.30
34	BA	588	C	C4'-C3'-O3'	6.15	118.62	109.40
35	BB	872	A	C3'-C2'-C1'	-6.15	95.15	101.30
38	BE	56	U	C5'-C4'-C3'	6.15	125.22	116.00
77	Br	206	PRO	CA-C-N	6.15	131.66	123.05
77	Br	206	PRO	C-N-CA	6.15	131.66	123.05
85	AA	447	C	C4'-C3'-C2'	6.15	108.75	102.60
85	AA	1909	C	C4'-C3'-C2'	-6.15	96.45	102.60
29	AV	12	LYS	N-CA-C	6.15	123.39	109.81
68	Bi	40	ASP	N-CA-C	-6.15	105.64	113.02
25	AR	62	TYR	CA-C-O	6.14	127.27	120.63
34	BA	1241	U	C5'-C4'-C3'	6.14	125.22	116.00
35	BB	118	A	C1'-O4'-C4'	-6.14	103.76	109.90
35	BB	807	U	P-O5'-C5'	6.14	130.12	120.90
63	Bd	55	ALA	O-C-N	-6.14	113.98	122.46
4	A3	140	ARG	CA-C-N	6.14	129.33	120.79
4	A3	140	ARG	C-N-CA	6.14	129.33	120.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AG	128	TYR	O-C-N	-6.14	115.39	122.03
28	AU	102	SER	CA-C-N	6.14	133.27	121.54
28	AU	102	SER	C-N-CA	6.14	133.27	121.54
34	BA	515	U	O5'-C5'-C4'	6.14	120.71	111.50
34	BA	1492	G	O3'-P-O5'	6.14	113.21	104.00
35	BB	42	A	P-O5'-C5'	6.14	130.11	120.90
38	BE	142	A	C5'-C4'-O4'	6.14	118.31	109.10
47	BN	7	ALA	CB-CA-C	6.14	122.64	110.42
62	Bc	25	ILE	N-CA-CB	-6.14	103.72	111.46
85	AA	633	C	C1'-O4'-C4'	-6.14	103.76	109.90
85	AA	1213	U	O5'-C5'-C4'	-6.14	102.29	111.50
34	BA	827	A	C1'-O4'-C4'	-6.14	103.76	109.90
34	BA	1191	C	O4'-C1'-N1	6.14	117.71	108.50
34	BA	1694	C	C3'-C2'-C1'	-6.14	95.16	101.30
34	BA	1826	C	P-O5'-C5'	6.14	130.11	120.90
60	Ba	116	GLN	CA-CB-CG	-6.14	101.82	114.10
85	AA	10	G	P-O5'-C5'	-6.14	111.69	120.90
85	AA	76	G	O3'-P-O5'	-6.14	94.79	104.00
5	A4	183	HIS	CA-CB-CG	6.14	119.94	113.80
85	AA	137	C	P-O3'-C3'	-6.14	110.99	120.20
85	AA	453	G	C2'-C3'-O3'	6.14	122.91	113.70
85	AA	1106	A	C4'-C3'-C2'	-6.14	96.46	102.60
35	BB	1035	C	O5'-C5'-C4'	-6.14	102.29	111.50
37	BD	79	G	C4'-C3'-C2'	6.14	108.74	102.60
84	By	50	LEU	N-CA-C	-6.14	105.49	114.39
85	AA	930	G	N9-C1'-C2'	6.14	121.21	112.00
6	A5	91	VAL	N-CA-C	-6.14	104.76	110.53
34	BA	631	G	P-O3'-C3'	-6.14	111.00	120.20
34	BA	1198	U	O5'-C5'-C4'	6.14	120.70	111.50
35	BB	1084	A	C5'-C4'-C3'	-6.14	106.80	116.00
49	BP	32	ASP	CB-CA-C	6.14	122.63	110.42
85	AA	431	G	O5'-C5'-C4'	-6.14	102.30	111.50
85	AA	863	C	O4'-C1'-N1	6.14	117.71	108.50
85	AA	1204	A	P-O5'-C5'	-6.14	111.70	120.90
85	AA	1681	G	P-O5'-C5'	-6.14	111.69	120.90
34	BA	374	U	C5'-C4'-C3'	-6.13	106.80	116.00
35	BB	1333	U	O3'-P-O5'	6.13	113.20	104.00
36	BC	81	U	C2'-C3'-O3'	6.13	122.90	113.70
54	BU	7	TYR	CA-CB-CG	6.13	124.94	113.90
60	Ba	90	ARG	CA-C-N	6.13	133.26	121.54
60	Ba	90	ARG	C-N-CA	6.13	133.26	121.54
65	Bf	410	GLU	N-CA-C	6.13	119.49	109.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	Bn	7	SER	N-CA-C	-6.13	105.62	113.23
26	AS	5	ASN	O-C-N	-6.13	116.23	123.41
35	BB	1464	G	P-O3'-C3'	-6.13	111.00	120.20
63	Bd	48	ARG	O-C-N	-6.13	114.95	122.25
85	AA	1788	U	P-O3'-C3'	-6.13	111.00	120.20
30	AW	5	ASP	CA-CB-CG	-6.13	106.47	112.60
34	BA	191	G	C4'-C3'-O3'	-6.13	103.80	113.00
35	BB	1488	G	C5'-C4'-C3'	-6.13	106.80	116.00
48	BO	25	ILE	N-CA-C	6.13	117.55	109.21
52	BS	171	LYS	N-CA-C	6.13	119.48	109.24
65	Bf	184	ARG	N-CA-C	-6.13	104.60	111.28
85	AA	80	G	C4'-C3'-C2'	-6.13	96.47	102.60
85	AA	739	C	C4'-C3'-C2'	-6.13	96.47	102.60
85	AA	1580	A	O3'-P-O5'	-6.13	94.80	104.00
85	AA	1991	C	C2'-C3'-O3'	6.13	122.90	113.70
22	AO	132	LYS	CB-CA-C	-6.13	100.88	111.30
35	BB	650	A	C4'-C3'-C2'	-6.13	96.47	102.60
44	BK	94	PHE	CB-CA-C	-6.13	98.22	110.42
52	BS	124	GLU	CA-C-O	6.13	126.95	120.33
85	AA	1709	U	O3'-P-O5'	-6.13	94.80	104.00
11	AC	231	TRP	CA-C-N	6.13	133.25	121.54
11	AC	231	TRP	C-N-CA	6.13	133.25	121.54
26	AS	120	PHE	CA-CB-CG	-6.13	107.67	113.80
34	BA	298	G	P-O5'-C5'	-6.13	111.71	120.90
34	BA	1606	A	O4'-C1'-N9	6.13	117.39	108.20
35	BB	1109	A	O5'-C5'-C4'	-6.13	102.31	111.50
47	BN	9	PRO	CA-N-CD	-6.13	103.42	112.00
58	BY	55	TRP	CB-CG-CD2	-6.13	118.22	126.80
29	AV	41	PHE	CA-C-N	6.13	131.27	122.45
29	AV	41	PHE	C-N-CA	6.13	131.27	122.45
34	BA	898	G	C4'-C3'-C2'	-6.13	96.47	102.60
34	BA	1193	A	P-O5'-C5'	6.13	130.09	120.90
35	BB	363	A	C5'-C4'-O4'	6.13	118.99	109.80
35	BB	773	G	P-O5'-C5'	-6.13	111.71	120.90
38	BE	206	G	O5'-C5'-C4'	-6.13	102.31	111.50
40	BG	80	G	P-O3'-C3'	-6.13	111.01	120.20
41	BH	31	A	C5'-C4'-O4'	-6.13	100.61	109.80
62	Bc	28	SER	CA-C-N	6.13	132.66	123.23
62	Bc	28	SER	C-N-CA	6.13	132.66	123.23
67	Bh	128	ASP	N-CA-C	6.13	118.93	110.35
83	Bx	269	ASN	N-CA-C	-6.13	97.75	110.80
85	AA	603	C	O5'-C5'-C4'	-6.13	102.51	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1052	C	O5'-C5'-C4'	6.13	120.69	111.50
85	AA	1099	U	P-O3'-C3'	-6.13	111.01	120.20
85	AA	2042	G	P-O5'-C5'	-6.13	111.71	120.90
5	A4	20	GLN	CA-C-N	6.12	128.49	120.28
5	A4	20	GLN	C-N-CA	6.12	128.49	120.28
34	BA	955	G	C5'-C4'-C3'	-6.12	106.81	116.00
34	BA	1820	G	C5'-C4'-C3'	6.12	125.19	116.00
35	BB	746	A	C5'-C4'-C3'	-6.12	106.81	116.00
35	BB	1102	U	C3'-C2'-C1'	-6.12	95.38	101.50
35	BB	1287	U	P-O3'-C3'	-6.12	111.01	120.20
35	BB	1419	G	O5'-C5'-C4'	-6.12	102.31	111.50
40	BG	8	U	P-O5'-C5'	6.12	130.09	120.90
71	Bl	94	ARG	CA-C-N	6.12	132.62	122.33
71	Bl	94	ARG	C-N-CA	6.12	132.62	122.33
85	AA	1372	C	C5'-C4'-C3'	-6.12	106.81	116.00
86	AB	70	G	C4'-C3'-O3'	-6.12	103.81	113.00
5	A4	122	THR	CA-C-N	6.12	129.30	120.79
5	A4	122	THR	C-N-CA	6.12	129.30	120.79
8	A7	95	ASN	CA-CB-CG	-6.12	106.48	112.60
34	BA	296	G	O4'-C1'-C2'	-6.12	101.48	107.60
34	BA	1823	A	P-O5'-C5'	6.12	130.09	120.90
47	BN	120	ARG	CA-C-O	6.12	127.04	120.55
65	Bf	158	ALA	N-CA-C	6.12	123.84	110.80
85	AA	559	G	C4'-C3'-C2'	-6.12	96.48	102.60
85	AA	1236	G	O4'-C4'-C3'	-6.12	97.88	104.00
34	BA	612	U	O5'-C5'-C4'	-6.12	102.32	111.50
34	BA	762	A	C2'-C3'-O3'	6.12	122.88	113.70
34	BA	1299	G	C4-N9-C1'	-6.12	108.13	126.50
34	BA	1792	U	C6-N1-C1'	6.12	139.56	121.20
35	BB	643	G	C5'-C4'-C3'	-6.12	106.82	116.00
35	BB	900	C	P-O5'-C5'	6.12	130.08	120.90
35	BB	977	G	C4'-C3'-C2'	-6.12	96.48	102.60
40	BG	28	A	O5'-C5'-C4'	-6.12	102.32	111.50
85	AA	532	G	C4'-C3'-C2'	-6.12	96.48	102.60
85	AA	879	G	O3'-P-O5'	-6.12	94.82	104.00
34	BA	331	G	O4'-C1'-N9	6.12	117.38	108.20
34	BA	1637	G	O5'-C5'-C4'	-6.12	102.32	111.50
85	AA	1196	C	P-O3'-C3'	-6.12	111.02	120.20
85	AA	1784	G	C4'-C3'-C2'	-6.12	96.48	102.60
85	AA	2100	A	C4'-C3'-C2'	6.12	108.72	102.60
86	AB	38	A	C5'-C4'-C3'	-6.12	106.82	116.00
23	AP	87	ARG	CA-C-N	6.12	130.56	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AP	87	ARG	C-N-CA	6.12	130.56	122.30
34	BA	1846	G	C1'-O4'-C4'	-6.12	103.78	109.90
35	BB	68	G	O4'-C4'-C3'	6.12	110.12	104.00
35	BB	1217	C	C5'-C4'-C3'	-6.12	106.82	116.00
35	BB	1323	U	C1'-O4'-C4'	-6.12	103.78	109.90
66	Bg	69	TYR	N-CA-C	-6.12	104.53	111.14
85	AA	1698	A	C2'-C3'-O3'	6.12	118.68	109.50
21	AM	47	LYS	CA-C-N	6.12	129.61	120.31
21	AM	47	LYS	C-N-CA	6.12	129.61	120.31
34	BA	334	G	C1'-O4'-C4'	-6.12	103.78	109.90
34	BA	470	C	P-O3'-C3'	6.12	129.38	120.20
35	BB	17	U	O3'-P-O5'	6.12	113.17	104.00
35	BB	384	A	O4'-C1'-N9	6.12	117.38	108.20
64	Be	70	ARG	CD-NE-CZ	6.12	132.96	124.40
85	AA	1276	A	P-O3'-C3'	-6.12	111.03	120.20
85	AA	1712	A	O4'-C1'-C2'	6.12	113.72	107.60
85	AA	1787	G	P-O3'-C3'	6.12	129.38	120.20
85	AA	2129	U	P-O3'-C3'	-6.12	111.02	120.20
2	A1	213	HIS	N-CA-C	-6.12	99.73	109.76
8	A7	269	ASP	CA-CB-CG	-6.12	106.48	112.60
35	BB	483	C	P-O5'-C5'	6.12	130.07	120.90
36	BC	97	U	P-O3'-C3'	-6.12	111.03	120.20
37	BD	70	C	P-O3'-C3'	-6.12	111.03	120.20
38	BE	91	G	C4-N9-C1'	-6.12	108.15	126.50
39	BF	56	C	C5'-C4'-C3'	6.12	125.17	116.00
55	BV	111	ALA	CA-C-N	6.12	128.76	120.44
55	BV	111	ALA	C-N-CA	6.12	128.76	120.44
65	Bf	119	ASN	CA-CB-CG	-6.12	106.48	112.60
65	Bf	400	MET	CG-SD-CE	-6.12	87.45	100.90
82	Bw	110	VAL	CA-C-N	6.12	126.68	120.38
82	Bw	110	VAL	C-N-CA	6.12	126.68	120.38
85	AA	869	A	O4'-C4'-C3'	6.12	110.12	104.00
85	AA	2046	G	C5'-C4'-C3'	-6.12	106.83	116.00
34	BA	418	G	O4'-C1'-C2'	-6.11	99.69	105.80
34	BA	1573	C	P-O5'-C5'	6.11	130.07	120.90
35	BB	53	C	C5'-C4'-C3'	6.11	125.17	116.00
35	BB	1227	G	O4'-C4'-C3'	-6.11	99.99	106.10
35	BB	1490	G	O4'-C1'-C2'	-6.11	101.49	107.60
67	Bh	140	VAL	N-CA-C	6.11	122.06	109.34
85	AA	601	A	O4'-C4'-C3'	-6.11	97.89	104.00
85	AA	765	U	C5'-C4'-O4'	6.11	118.97	109.80
85	AA	823	C	P-O3'-C3'	-6.11	111.03	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	403	A	C5'-C4'-O4'	6.11	118.27	109.10
34	BA	1211	G	C2'-C3'-O3'	6.11	122.87	113.70
35	BB	971	A	C1'-C2'-O2'	-6.11	99.23	108.40
66	Bg	39	GLN	N-CA-C	-6.11	104.53	111.07
2	A1	96	PHE	N-CA-CB	6.11	122.89	111.53
34	BA	1001	G	C4'-C3'-O3'	-6.11	103.83	113.00
34	BA	1099	U	P-O5'-C5'	-6.11	111.73	120.90
35	BB	650	A	P-O5'-C5'	6.11	130.06	120.90
36	BC	155	C	O4'-C1'-N1	6.11	117.66	108.50
38	BE	163	A	O3'-P-O5'	-6.11	94.83	104.00
80	Bu	153	ASP	N-CA-CB	6.11	120.47	110.39
80	Bu	237	ALA	N-CA-C	-6.11	104.70	111.36
85	AA	1133	C	C4'-C3'-O3'	-6.11	103.83	113.00
38	BE	13	A	O4'-C4'-C3'	-6.11	97.89	104.00
38	BE	139	U	C4'-C3'-O3'	-6.11	103.84	113.00
85	AA	2126	U	O5'-C5'-C4'	6.11	120.66	111.50
1	A0	119	TRP	CA-C-N	6.11	133.21	121.54
1	A0	119	TRP	C-N-CA	6.11	133.21	121.54
9	A8	17	LYS	N-CA-C	6.11	120.35	112.41
28	AU	47	MET	N-CA-C	6.11	123.81	110.80
34	BA	113	G	C1'-C2'-O2'	6.11	117.56	108.40
34	BA	743	A	O5'-C5'-C4'	-6.11	102.34	111.50
34	BA	1652	G	N9-C1'-C2'	-6.11	102.84	112.00
35	BB	40	C	C4'-C3'-O3'	-6.11	103.84	113.00
35	BB	556	U	C4'-C3'-O3'	-6.11	103.84	113.00
47	BN	81	SER	N-CA-CB	6.11	120.81	110.49
58	BY	10	HIS	CA-CB-CG	-6.11	107.69	113.80
61	Bb	98	VAL	N-CA-C	6.11	116.66	107.80
85	AA	1226	A	C3'-C2'-C1'	-6.11	95.19	101.30
85	AA	2215	C	C4'-C3'-C2'	6.11	108.71	102.60
3	A2	54	ILE	N-CA-C	6.11	122.04	109.34
20	AL	99	ILE	N-CA-C	6.11	122.04	109.34
23	AP	57	LYS	N-CA-C	-6.11	99.04	109.24
23	AP	217	ARG	NE-CZ-NH2	6.11	124.70	119.20
34	BA	471	U	C2'-C3'-O3'	6.11	122.86	113.70
35	BB	697	G	C5'-C4'-C3'	-6.11	106.84	116.00
35	BB	1514	G	C4'-C3'-O3'	-6.11	103.84	113.00
57	BX	160	LYS	N-CA-C	-6.11	103.25	112.04
85	AA	1255	C	C5'-C4'-C3'	-6.11	106.84	116.00
23	AP	98	LYS	N-CA-C	-6.10	98.46	108.41
35	BB	1178	A	C5'-C4'-O4'	6.10	118.95	109.80
35	BB	1326	U	O3'-P-O5'	-6.10	94.84	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A1	254	LEU	N-CA-CB	-6.10	101.72	110.57
4	A3	105	LEU	N-CA-C	6.10	119.19	110.10
25	AR	60	ALA	CA-C-N	6.10	126.75	119.98
25	AR	60	ALA	C-N-CA	6.10	126.75	119.98
34	BA	772	G	O4'-C1'-N9	6.10	117.35	108.20
34	BA	896	U	C4'-C3'-O3'	-6.10	103.85	113.00
34	BA	1724	G	P-O5'-C5'	6.10	130.05	120.90
35	BB	534	C	C5'-C4'-C3'	-6.10	106.85	116.00
85	AA	310	U	O3'-P-O5'	6.10	113.15	104.00
85	AA	992	G	P-O3'-C3'	-6.10	111.05	120.20
85	AA	1972	A	P-O5'-C5'	-6.10	111.75	120.90
38	BE	163	A	P-O3'-C3'	-6.10	111.05	120.20
54	BU	130	VAL	N-CA-C	-6.10	96.65	109.34
85	AA	1012	C	P-O3'-C3'	6.10	129.35	120.20
30	AW	55	VAL	CB-CA-C	-6.10	101.53	110.62
34	BA	247	U	C2'-C3'-O3'	6.10	118.65	109.50
34	BA	366	G	C5'-C4'-C3'	-6.10	106.85	116.00
35	BB	621	C	O4'-C1'-N1	6.10	117.65	108.50
35	BB	649	A	P-O3'-C3'	-6.10	111.05	120.20
35	BB	901	U	C1'-O4'-C4'	-6.10	103.80	109.90
35	BB	1092	G	O3'-P-O5'	6.10	113.15	104.00
37	BD	23	A	O5'-C5'-C4'	6.10	120.65	111.50
38	BE	110	U	C4'-C3'-C2'	-6.10	96.50	102.60
39	BF	46	G	C3'-C2'-C1'	-6.10	95.20	101.30
40	BG	120	U	O5'-C5'-C4'	-6.10	102.55	111.70
65	Bf	199	ARG	N-CA-CB	-6.10	100.82	110.28
82	Bw	223	ALA	CA-C-N	6.10	126.66	120.38
82	Bw	223	ALA	C-N-CA	6.10	126.66	120.38
85	AA	312	G	P-O5'-C5'	-6.10	111.75	120.90
85	AA	1120	G	P-O3'-C3'	-6.10	111.05	120.20
85	AA	1534	A	P-O3'-C3'	-6.10	111.05	120.20
85	AA	2069	A	C5'-C4'-C3'	-6.10	106.85	116.00
11	AC	65	ASN	CA-C-N	6.10	131.81	122.11
11	AC	65	ASN	C-N-CA	6.10	131.81	122.11
34	BA	67	A	C4'-C3'-O3'	-6.10	103.85	113.00
34	BA	730	C	O3'-P-O5'	6.10	113.15	104.00
36	BC	20	C	O3'-P-O5'	-6.10	94.85	104.00
56	BW	103	VAL	N-CA-CB	6.10	121.44	111.44
75	Bp	49	ASP	N-CA-C	6.10	123.79	110.80
82	Bw	18	ALA	N-CA-C	6.10	123.79	110.80
85	AA	1557	U	P-O3'-C3'	6.10	129.35	120.20
85	AA	2239	A	P-O5'-C5'	-6.10	111.75	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A1	247	ILE	N-CA-CB	-6.10	103.42	110.55
23	AP	237	PRO	N-CA-C	-6.10	99.91	112.47
34	BA	372	U	C3'-C2'-C1'	-6.10	95.20	101.30
52	BS	114	SER	CB-CA-C	-6.10	100.49	110.85
77	Br	221	ASN	CA-CB-CG	6.10	118.70	112.60
85	AA	395	G	P-O5'-C5'	-6.10	111.76	120.90
85	AA	2031	C	C2'-C3'-O3'	6.10	122.84	113.70
1	A0	102	PHE	CA-CB-CG	6.09	119.89	113.80
23	AP	176	ALA	O-C-N	-6.09	115.22	123.14
34	BA	620	C	O4'-C4'-C3'	-6.09	97.91	104.00
35	BB	823	G	O5'-C5'-C4'	6.09	120.64	111.50
38	BE	16	C	C2'-C3'-O3'	-6.09	104.56	113.70
38	BE	27	A	C3'-C2'-C1'	-6.09	95.41	101.50
41	BH	118	U	P-O5'-C5'	6.09	130.04	120.90
49	BP	97	ARG	CA-C-O	6.09	126.40	119.27
54	BU	10	GLY	N-CA-C	6.09	122.00	112.31
63	Bd	23	PRO	CB-CA-C	6.09	118.36	110.92
71	Bl	116	HIS	CB-CG-CD2	-6.09	123.28	131.20
2	A1	139	HIS	CA-CB-CG	-6.09	107.71	113.80
2	A1	192	ILE	CB-CA-C	-6.09	101.39	111.32
37	BD	8	A	O3'-P-O5'	-6.09	94.86	104.00
40	BG	84	U	P-O3'-C3'	-6.09	111.06	120.20
42	BI	133	LEU	CA-C-N	6.09	133.18	121.54
42	BI	133	LEU	C-N-CA	6.09	133.18	121.54
85	AA	2168	C	P-O5'-C5'	-6.09	111.76	120.90
2	A1	42	LEU	CA-C-O	6.09	127.21	120.63
34	BA	27	G	P-O5'-C5'	6.09	130.04	120.90
34	BA	1600	G	C4'-C3'-O3'	-6.09	103.86	113.00
34	BA	1823	A	O4'-C4'-C3'	-6.09	97.91	104.00
40	BG	4	A	O5'-C5'-C4'	-6.09	102.36	111.50
40	BG	177	U	P-O5'-C5'	-6.09	111.76	120.90
44	BK	51	HIS	N-CA-C	-6.09	99.97	109.72
85	AA	309	G	O3'-P-O5'	6.09	113.14	104.00
85	AA	932	A	C4'-C3'-C2'	6.09	108.69	102.60
85	AA	1291	A	C3'-C2'-C1'	-6.09	95.21	101.30
85	AA	1909	C	O4'-C1'-N1	6.09	117.64	108.50
4	A3	42	PHE	N-CA-C	-6.09	104.56	112.23
29	AV	66	PHE	O-C-N	-6.09	114.32	121.32
34	BA	124	G	C4'-C3'-C2'	6.09	108.69	102.60
34	BA	659	U	C2'-C3'-O3'	6.09	122.83	113.70
34	BA	783	U	C4'-C3'-C2'	6.09	108.69	102.60
34	BA	1261	G	P-O5'-C5'	-6.09	111.77	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	981	A	P-O5'-C5'	-6.09	111.77	120.90
36	BC	104	A	C4'-C3'-C2'	-6.09	96.51	102.60
48	BO	23	ASP	N-CA-CB	-6.09	101.17	110.42
62	Bc	85	GLY	N-CA-C	-6.09	107.34	115.32
63	Bd	50	ASN	OD1-CG-ND2	-6.09	116.51	122.60
82	Bw	16	MET	CA-C-O	-6.09	114.89	120.13
85	AA	361	U	O4'-C4'-C3'	-6.09	97.91	104.00
85	AA	789	A	O4'-C4'-C3'	-6.09	97.91	104.00
85	AA	871	U	C4'-C3'-C2'	6.09	108.69	102.60
85	AA	908	C	P-O3'-C3'	-6.09	111.06	120.20
85	AA	963	U	C5'-C4'-C3'	-6.09	106.87	116.00
85	AA	1267	A	C5'-C4'-C3'	-6.09	106.86	116.00
85	AA	2045	U	C4'-C3'-O3'	-6.09	103.87	113.00
34	BA	155	U	O4'-C1'-N1	6.09	117.63	108.50
34	BA	717	U	O3'-P-O5'	-6.09	94.87	104.00
35	BB	29	C	O4'-C1'-C2'	-6.09	101.51	107.60
35	BB	837	A	C2'-C3'-O3'	6.09	122.83	113.70
35	BB	1203	C	P-O5'-C5'	-6.09	111.77	120.90
85	AA	424	A	C1'-C2'-O2'	6.09	117.53	108.40
85	AA	881	C	C5'-C4'-C3'	-6.09	106.87	116.00
34	BA	401	A	C5'-C4'-C3'	-6.09	106.87	116.00
34	BA	1219	G	C4'-C3'-O3'	-6.09	103.87	113.00
35	BB	610	U	O5'-C5'-C4'	-6.09	102.37	111.50
45	BL	133	ASP	CA-CB-CG	6.09	118.69	112.60
77	Br	309	ARG	CA-C-N	6.09	127.45	119.84
77	Br	309	ARG	C-N-CA	6.09	127.45	119.84
34	BA	1070	G	P-O3'-C3'	-6.08	111.07	120.20
65	Bf	310	ALA	CA-C-N	6.08	129.95	120.82
65	Bf	310	ALA	C-N-CA	6.08	129.95	120.82
71	Bl	69	THR	N-CA-C	6.08	117.91	111.28
85	AA	126	U	O3'-P-O5'	6.08	113.13	104.00
85	AA	232	U	C4'-C3'-C2'	-6.08	96.52	102.60
35	BB	1251	G	C4-N9-C1'	-6.08	108.25	126.50
36	BC	62	A	O5'-C5'-C4'	-6.08	102.58	111.70
41	BH	24	U	O4'-C1'-C2'	-6.08	99.72	105.80
53	BT	5	LYS	N-CA-C	6.08	123.76	110.80
59	BZ	6	CYS	N-CA-C	-6.08	101.52	110.52
65	Bf	376	ARG	NE-CZ-NH2	6.08	124.68	119.20
85	AA	487	G	O4'-C4'-C3'	6.08	110.08	104.00
85	AA	726	U	P-O3'-C3'	6.08	129.32	120.20
85	AA	1112	G	O4'-C4'-C3'	-6.08	100.02	106.10
6	A5	63	GLY	CA-C-N	6.08	132.31	123.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	A5	63	GLY	C-N-CA	6.08	132.31	123.13
7	A6	138	GLN	CB-CA-C	6.08	121.39	109.35
7	A6	176	ARG	CB-CA-C	-6.08	98.32	110.42
34	BA	512	U	P-O5'-C5'	6.08	130.02	120.90
34	BA	793	A	C4'-C3'-C2'	-6.08	96.52	102.60
34	BA	1210	A	C1'-O4'-C4'	-6.08	103.82	109.90
35	BB	857	G	C1'-O4'-C4'	-6.08	103.82	109.90
38	BE	87	U	C1'-O4'-C4'	-6.08	103.82	109.90
40	BG	24	A	O3'-P-O5'	-6.08	94.88	104.00
41	BH	125	U	C5'-C4'-C3'	6.08	125.12	116.00
60	Ba	28	THR	CB-CA-C	-6.08	101.07	111.41
83	Bx	45	LYS	N-CA-C	6.08	118.66	109.23
85	AA	580	C	P-O3'-C3'	-6.08	111.08	120.20
85	AA	1154	A	C2'-C3'-O3'	6.08	122.82	113.70
85	AA	1346	C	C5'-C4'-C3'	-6.08	106.88	116.00
21	AM	5	LEU	CA-C-N	6.08	129.34	120.71
21	AM	5	LEU	C-N-CA	6.08	129.34	120.71
29	AV	83	ILE	CA-C-N	6.08	128.71	120.38
29	AV	83	ILE	C-N-CA	6.08	128.71	120.38
34	BA	193	C	O3'-P-O5'	-6.08	94.88	104.00
49	BP	125	ARG	N-CA-C	-6.08	97.85	110.80
56	BW	26	ASN	N-CA-C	6.08	119.05	110.23
85	AA	715	G	C5'-C4'-C3'	6.08	125.12	116.00
85	AA	820	G	O3'-P-O5'	-6.08	94.88	104.00
34	BA	198	U	O4'-C1'-C2'	6.08	113.68	107.60
34	BA	596	G	C4'-C3'-O3'	6.08	118.52	109.40
34	BA	829	U	C3'-C2'-C1'	-6.08	95.22	101.30
34	BA	1647	G	O4'-C1'-C2'	6.08	111.88	105.80
34	BA	1729	G	P-O3'-C3'	-6.08	111.08	120.20
35	BB	1437	U	P-O5'-C5'	-6.08	111.78	120.90
36	BC	72	A	C4'-C3'-O3'	-6.08	103.88	113.00
65	Bf	159	HIS	CA-CB-CG	-6.08	107.72	113.80
67	Bh	38	TRP	CB-CG-CD2	-6.08	118.29	126.80
85	AA	494	G	C5'-C4'-O4'	6.08	118.92	109.80
85	AA	1366	A	C4'-C3'-C2'	-6.08	96.52	102.60
85	AA	1858	G	C5'-C4'-C3'	-6.08	106.88	116.00
34	BA	627	U	P-O5'-C5'	6.08	130.02	120.90
34	BA	698	U	O3'-P-O5'	6.08	113.12	104.00
34	BA	1085	G	C4'-C3'-C2'	-6.08	96.52	102.60
35	BB	438	G	C1'-O4'-C4'	-6.08	103.82	109.90
35	BB	846	A	C4'-C3'-C2'	-6.08	96.52	102.60
60	Ba	127	PHE	N-CA-CB	-6.08	100.86	110.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	283	A	O3'-P-O5'	6.08	113.11	104.00
85	AA	541	A	O3'-P-O5'	6.08	113.12	104.00
19	AK	35	ILE	CB-CA-C	-6.08	101.33	111.29
32	AY	37	ARG	CA-C-N	6.08	128.34	120.44
32	AY	37	ARG	C-N-CA	6.08	128.34	120.44
34	BA	262	A	P-O3'-C3'	6.08	129.31	120.20
34	BA	514	U	C4'-C3'-C2'	6.08	108.67	102.60
34	BA	1093	G	P-O5'-C5'	6.08	130.01	120.90
34	BA	1654	G	O4'-C4'-C3'	6.08	110.08	104.00
34	BA	1787	U	C5'-C4'-O4'	-6.08	100.69	109.80
35	BB	620	G	P-O3'-C3'	-6.08	111.08	120.20
41	BH	50	A	C5'-C4'-C3'	6.08	125.11	116.00
42	BI	57	ASN	CA-C-O	6.08	126.86	120.42
52	BS	26	VAL	N-CA-C	6.08	121.98	109.34
52	BS	41	SER	CB-CA-C	-6.08	100.71	110.79
74	Bo	38	PHE	N-CA-C	6.08	118.61	110.35
34	BA	270	U	C5'-C4'-O4'	6.07	118.21	109.10
34	BA	454	G	C5'-C4'-C3'	-6.07	106.89	116.00
35	BB	439	G	O3'-P-O5'	-6.07	94.89	104.00
37	BD	85	C	C4'-C3'-C2'	6.07	108.67	102.60
40	BG	96	C	O3'-P-O5'	6.07	113.11	104.00
42	BI	192	HIS	N-CA-C	6.07	123.74	110.80
68	Bi	106	ARG	CD-NE-CZ	-6.07	115.90	124.40
85	AA	452	A	C5'-C4'-C3'	-6.07	106.89	116.00
85	AA	822	U	C3'-C2'-C1'	-6.07	95.23	101.30
85	AA	1415	G	C2'-C3'-O3'	6.07	122.81	113.70
2	A1	110	ARG	N-CA-CB	6.07	118.90	109.97
34	BA	362	G	O4'-C1'-C2'	6.07	113.67	107.60
85	AA	423	G	C1'-O4'-C4'	-6.07	103.83	109.90
85	AA	866	U	O4'-C4'-C3'	-6.07	97.93	104.00
34	BA	543	A	P-O5'-C5'	-6.07	111.80	120.90
34	BA	1309	U	P-O3'-C3'	6.07	129.31	120.20
35	BB	1154	C	O4'-C1'-C2'	6.07	113.67	107.60
35	BB	1177	U	O4'-C1'-N1	6.07	117.61	108.50
35	BB	1307	C	P-O5'-C5'	6.07	130.00	120.90
36	BC	38	U	O3'-P-O5'	-6.07	94.89	104.00
37	BD	108	G	C4'-C3'-O3'	-6.07	103.89	113.00
38	BE	132	U	O5'-C5'-C4'	-6.07	102.39	111.50
39	BF	70	A	P-O3'-C3'	-6.07	111.09	120.20
54	BU	39	TYR	N-CA-C	-6.07	98.84	108.73
34	BA	1025	A	C5'-C4'-C3'	-6.07	106.90	116.00
34	BA	1088	G	N9-C1'-C2'	-6.07	104.90	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	27	C	O3'-P-O5'	-6.07	94.90	104.00
47	BN	71	ASN	N-CA-C	6.07	119.52	111.75
66	Bg	96	PHE	CB-CG-CD2	-6.07	110.38	120.70
67	Bh	4	ALA	N-CA-C	6.07	119.14	110.10
85	AA	113	U	C3'-C2'-C1'	-6.07	95.23	101.30
23	AP	190	ALA	N-CA-C	6.07	123.72	110.80
34	BA	1171	C	C1'-O4'-C4'	-6.07	103.83	109.90
34	BA	1319	A	O3'-P-O5'	6.07	113.10	104.00
34	BA	1454	G	C1'-C2'-O2'	-6.07	99.30	108.40
36	BC	163	A	C4'-C3'-O3'	-6.07	103.90	113.00
58	BY	69	ASP	N-CA-C	6.07	117.89	111.28
85	AA	196	U	C4'-C3'-C2'	-6.07	96.53	102.60
85	AA	724	A	O3'-P-O5'	-6.07	94.90	104.00
85	AA	895	C	P-O5'-C5'	-6.07	111.80	120.90
85	AA	1237	A	O4'-C4'-C3'	-6.07	97.93	104.00
85	AA	1894	G	C5'-C4'-C3'	6.07	125.10	116.00
1	A0	111	ARG	CB-CA-C	-6.07	101.32	110.90
26	AS	93	PHE	CA-CB-CG	-6.07	107.73	113.80
35	BB	851	U	C4'-C3'-C2'	-6.07	96.53	102.60
35	BB	899	C	O5'-C5'-C4'	-6.07	102.40	111.50
48	BO	183	SER	CB-CA-C	6.07	120.40	110.88
56	BW	56	LEU	N-CA-C	6.07	119.06	109.96
56	BW	61	MET	CB-CA-C	-6.07	100.97	110.74
64	Be	90	CYS	N-CA-C	6.07	119.11	109.65
77	Br	229	ASN	CA-C-N	6.07	132.89	121.97
77	Br	229	ASN	C-N-CA	6.07	132.89	121.97
85	AA	148	G	O3'-P-O5'	6.07	113.10	104.00
85	AA	570	U	C5'-C4'-C3'	-6.07	106.90	116.00
85	AA	848	C	P-O5'-C5'	6.07	130.00	120.90
85	AA	1850	G	P-O5'-C5'	6.07	130.00	120.90
85	AA	2148	C	C5'-C4'-C3'	-6.07	106.90	116.00
85	AA	2198	G	C4'-C3'-C2'	-6.07	96.53	102.60
19	AK	116	LEU	N-CA-C	-6.06	104.67	111.28
85	AA	114	C	C4'-C3'-C2'	-6.06	96.54	102.60
85	AA	385	A	C5'-C4'-O4'	6.06	118.20	109.10
36	BC	24	G	C5'-C4'-C3'	-6.06	106.91	116.00
44	BK	192	GLN	N-CA-C	6.06	119.05	109.96
84	By	24	VAL	N-CA-CB	6.06	118.27	110.99
85	AA	13	U	P-O3'-C3'	-6.06	111.11	120.20
85	AA	571	G	O4'-C4'-C3'	-6.06	97.94	104.00
85	AA	1128	G	C2'-C3'-O3'	6.06	122.79	113.70
85	AA	1558	U	C4'-C3'-C2'	6.06	108.66	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	61	A	O5'-C5'-C4'	6.06	120.59	111.50
86	AB	9	A	P-O3'-C3'	-6.06	111.11	120.20
86	AB	43	C	P-O5'-C5'	6.06	129.99	120.90
1	A0	109	SER	CA-C-O	6.06	127.18	120.82
1	A0	122	THR	CB-CA-C	-6.06	99.75	109.75
15	AG	53	GLN	CA-C-N	6.06	128.40	120.28
15	AG	53	GLN	C-N-CA	6.06	128.40	120.28
34	BA	815	C	O4'-C4'-C3'	-6.06	97.94	104.00
34	BA	891	C	O5'-C5'-C4'	-6.06	102.41	111.50
34	BA	1435	A	N9-C1'-C2'	-6.06	104.91	114.00
35	BB	963	G	C3'-C2'-C1'	-6.06	95.24	101.30
35	BB	1378	U	P-O5'-C5'	-6.06	111.81	120.90
85	AA	77	C	C4'-C3'-C2'	-6.06	96.54	102.60
85	AA	268	A	O4'-C4'-C3'	-6.06	97.94	104.00
85	AA	1235	G	P-O5'-C5'	6.06	129.99	120.90
85	AA	1486	G	P-O3'-C3'	-6.06	111.11	120.20
85	AA	1599	G	P-O3'-C3'	-6.06	111.11	120.20
85	AA	2248	A	P-O5'-C5'	6.06	129.99	120.90
19	AK	24	VAL	N-CA-C	6.06	116.59	108.11
34	BA	1094	U	C4'-C3'-O3'	-6.06	103.92	113.00
35	BB	703	U	C4'-C3'-O3'	-6.06	103.91	113.00
35	BB	712	U	C2'-C3'-O3'	6.06	118.59	109.50
39	BF	52	A	C1'-C2'-O2'	-6.06	99.31	108.40
64	Be	234	LYS	CA-C-N	6.06	132.88	121.97
64	Be	234	LYS	C-N-CA	6.06	132.88	121.97
77	Br	250	TRP	CA-CB-CG	-6.06	102.09	113.60
85	AA	65	A	C4'-C3'-O3'	6.06	122.09	113.00
85	AA	1093	C	P-O5'-C5'	6.06	129.99	120.90
18	AJ	34	VAL	CA-C-O	6.06	127.25	120.95
26	AS	130	LEU	CA-C-N	6.06	129.21	120.79
26	AS	130	LEU	C-N-CA	6.06	129.21	120.79
41	BH	13	C	P-O3'-C3'	-6.06	111.12	120.20
47	BN	191	LYS	CA-C-O	6.06	126.36	119.27
63	Bd	49	LYS	O-C-N	-6.06	115.49	122.03
34	BA	232	U	O5'-C5'-C4'	6.05	120.58	111.50
34	BA	398	G	O3'-P-O5'	6.05	113.08	104.00
34	BA	1445	U	C1'-O4'-C4'	-6.05	103.84	109.90
38	BE	174	U	P-O3'-C3'	6.05	129.28	120.20
40	BG	5	G	P-O3'-C3'	-6.05	111.12	120.20
52	BS	147	HIS	CA-CB-CG	-6.05	107.75	113.80
55	BV	30	CYS	N-CA-C	-6.05	105.20	112.59
65	Bf	347	MET	N-CA-C	6.05	123.70	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	Bx	122	LEU	CB-CA-C	-6.05	100.74	110.79
85	AA	264	A	C5'-C4'-C3'	6.05	125.08	116.00
85	AA	793	C	O5'-C5'-C4'	6.05	120.58	111.50
85	AA	1967	A	C4'-C3'-C2'	6.05	108.66	102.60
85	AA	2047	U	P-O5'-C5'	-6.05	111.82	120.90
34	BA	395	G	C1'-O4'-C4'	-6.05	103.85	109.90
37	BD	95	G	O5'-C5'-C4'	-6.05	102.42	111.50
61	Bb	66	ASN	N-CA-CB	6.05	119.14	110.06
69	Bj	88	VAL	CB-CA-C	-6.05	103.11	111.65
85	AA	454	G	C4'-C3'-O3'	-6.05	103.92	113.00
5	A4	35	SER	CA-C-N	6.05	133.10	121.54
5	A4	35	SER	C-N-CA	6.05	133.10	121.54
34	BA	508	C	P-O5'-C5'	6.05	129.98	120.90
35	BB	1128	U	P-O5'-C5'	-6.05	111.82	120.90
36	BC	5	U	O3'-P-O5'	-6.05	94.92	104.00
38	BE	201	A	C5'-C4'-C3'	-6.05	106.92	116.00
41	BH	123	G	C5'-C4'-C3'	6.05	125.08	116.00
47	BN	31	PHE	CA-C-N	6.05	128.99	120.28
47	BN	31	PHE	C-N-CA	6.05	128.99	120.28
56	BW	109	GLY	CA-C-N	-6.05	114.58	123.05
56	BW	109	GLY	C-N-CA	-6.05	114.58	123.05
61	Bb	90	ALA	CA-C-N	6.05	133.10	121.54
61	Bb	90	ALA	C-N-CA	6.05	133.10	121.54
68	Bi	47	TYR	O-C-N	-6.05	115.89	122.79
82	Bw	62	ARG	NE-CZ-NH1	6.05	127.55	121.50
85	AA	486	G	C4-N9-C1'	-6.05	108.35	126.50
85	AA	1094	G	C4'-C3'-C2'	-6.05	96.55	102.60
2	A1	46	ARG	N-CA-CB	-6.05	99.81	110.34
21	AM	137	THR	N-CA-C	6.05	118.67	111.71
34	BA	372	U	O5'-C5'-C4'	-6.05	102.43	111.50
34	BA	1472	G	C4'-C3'-C2'	6.05	108.65	102.60
35	BB	1400	C	C4'-C3'-C2'	6.05	108.65	102.60
40	BG	43	U	C4'-C3'-O3'	6.05	122.08	113.00
80	Bu	98	ALA	N-CA-CB	-6.05	101.21	110.16
85	AA	169	G	C5'-C4'-C3'	-6.05	106.93	116.00
85	AA	843	U	C4'-C3'-O3'	-6.05	103.93	113.00
85	AA	916	A	C4'-C3'-O3'	-6.05	103.93	113.00
85	AA	1954	C	P-O3'-C3'	-6.05	111.12	120.20
85	AA	2184	A	C4'-C3'-O3'	-6.05	103.93	113.00
4	A3	43	GLY	CA-C-N	6.05	133.09	121.54
4	A3	43	GLY	C-N-CA	6.05	133.09	121.54
34	BA	188	C	C4'-C3'-C2'	-6.05	96.55	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1147	C	P-O5'-C5'	-6.05	111.83	120.90
42	BI	176	ARG	N-CA-C	-6.05	104.55	112.41
74	Bo	34	HIS	CA-CB-CG	-6.05	107.75	113.80
85	AA	2024	U	C1'-O4'-C4'	-6.05	103.65	109.70
11	AC	167	HIS	N-CA-C	6.05	117.87	111.28
34	BA	698	U	C3'-C2'-C1'	-6.05	95.25	101.30
34	BA	912	G	C4'-C3'-O3'	-6.05	103.93	113.00
35	BB	1325	C	P-O5'-C5'	6.05	129.97	120.90
42	BI	36	LEU	CA-C-N	-6.05	113.35	120.00
42	BI	36	LEU	C-N-CA	-6.05	113.35	120.00
51	BR	56	ARG	CA-C-O	-6.05	116.32	119.77
62	Bc	9	TRP	CB-CG-CD1	-6.05	117.83	126.90
77	Br	205	GLY	CA-C-N	6.05	127.40	119.84
77	Br	205	GLY	C-N-CA	6.05	127.40	119.84
82	Bw	186	ASP	CA-CB-CG	-6.05	106.55	112.60
85	AA	365	G	P-O3'-C3'	-6.05	111.13	120.20
34	BA	1293	A	C2'-C3'-O3'	6.04	122.77	113.70
34	BA	1396	A	C4'-C3'-C2'	-6.04	96.56	102.60
34	BA	1501	U	P-O3'-C3'	-6.04	111.13	120.20
35	BB	814	A	C5'-C4'-C3'	-6.04	106.93	116.00
35	BB	1134	G	C5'-C4'-C3'	-6.04	106.93	116.00
39	BF	60	C	C2'-C3'-O3'	6.04	118.57	109.50
85	AA	1598	A	C4'-C3'-O3'	-6.04	103.93	113.00
19	AK	29	LYS	N-CA-C	6.04	119.56	109.95
34	BA	675	C	O5'-C5'-C4'	-6.04	102.44	111.50
35	BB	516	G	O3'-P-O5'	-6.04	94.93	104.00
35	BB	608	A	P-O3'-C3'	-6.04	111.14	120.20
35	BB	677	U	C2'-C3'-O3'	6.04	122.77	113.70
35	BB	1100	C	C4'-C3'-O3'	-6.04	103.93	113.00
38	BE	103	C	O3'-P-O5'	6.04	113.06	104.00
65	Bf	282	PHE	CA-CB-CG	-6.04	107.76	113.80
85	AA	270	A	O4'-C1'-N9	6.04	117.56	108.50
22	AO	163	GLU	CA-C-N	6.04	133.08	121.54
22	AO	163	GLU	C-N-CA	6.04	133.08	121.54
34	BA	470	C	P-O5'-C5'	-6.04	111.84	120.90
34	BA	526	C	N1-C1'-C2'	-6.04	102.94	112.00
34	BA	1556	A	C4'-C3'-O3'	-6.04	103.94	113.00
40	BG	133	C	C4'-C3'-O3'	-6.04	103.94	113.00
40	BG	167	C	C5'-C4'-C3'	-6.04	106.94	116.00
80	Bu	30	TYR	N-CA-C	6.04	118.66	111.71
85	AA	159	G	C4'-C3'-C2'	6.04	108.64	102.60
85	AA	1278	C	P-O3'-C3'	-6.04	111.14	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1519	A	O3'-P-O5'	6.04	113.06	104.00
26	AS	88	ASP	CA-CB-CG	6.04	118.64	112.60
34	BA	288	U	C3'-C2'-C1'	6.04	107.34	101.30
35	BB	766	G	O5'-C5'-C4'	-6.04	102.44	111.50
67	Bh	128	ASP	N-CA-CB	-6.04	99.59	109.56
85	AA	265	A	C3'-C2'-C1'	-6.04	95.26	101.30
85	AA	1633	A	P-O3'-C3'	6.04	129.26	120.20
34	BA	472	G	C4-N9-C1'	6.04	144.62	126.50
34	BA	1247	G	O5'-C5'-C4'	-6.04	102.44	111.50
34	BA	1440	C	O4'-C1'-N1	6.04	117.56	108.50
34	BA	1735	G	O4'-C1'-N9	6.04	117.56	108.50
40	BG	106	G	O4'-C1'-C2'	-6.04	99.76	105.80
40	BG	149	U	C1'-O4'-C4'	-6.04	103.66	109.70
41	BH	111	U	C4'-C3'-C2'	-6.04	96.56	102.60
45	BL	21	VAL	CA-C-N	-6.04	112.23	120.44
45	BL	21	VAL	C-N-CA	-6.04	112.23	120.44
85	AA	121	C	P-O5'-C5'	-6.04	111.84	120.90
85	AA	488	G	O4'-C1'-C2'	6.04	111.84	105.80
85	AA	1122	U	C2'-C3'-O3'	6.04	122.76	113.70
34	BA	1254	C	P-O3'-C3'	-6.04	111.14	120.20
35	BB	881	G	O5'-C5'-C4'	-6.04	102.44	111.50
39	BF	39	C	C5'-C4'-O4'	6.04	118.86	109.80
42	BI	27	LYS	N-CA-CB	-6.04	100.92	110.22
62	Bc	97	ASP	CA-CB-CG	-6.04	106.56	112.60
85	AA	244	G	P-O3'-C3'	-6.04	111.14	120.20
85	AA	2172	A	P-O5'-C5'	6.04	129.96	120.90
13	AE	172	SER	N-CA-C	6.04	123.65	110.80
34	BA	366	G	O5'-C5'-C4'	-6.04	102.45	111.50
34	BA	518	C	C2'-C3'-O3'	6.04	122.75	113.70
34	BA	841	G	P-O3'-C3'	-6.04	111.15	120.20
34	BA	896	U	C3'-C2'-C1'	6.04	107.33	101.30
34	BA	1647	G	O3'-P-O5'	-6.04	94.95	104.00
34	BA	1809	G	P-O3'-C3'	6.04	129.25	120.20
35	BB	52	G	N9-C1'-C2'	-6.04	102.95	112.00
35	BB	648	G	C5'-C4'-C3'	-6.04	106.94	116.00
35	BB	1029	U	C4'-C3'-C2'	6.04	108.64	102.60
35	BB	1337	C	C5'-C4'-C3'	-6.04	106.95	116.00
41	BH	129	G	O3'-P-O5'	-6.04	94.94	104.00
64	Be	83	PHE	CA-CB-CG	-6.04	107.77	113.80
79	Bt	93	LEU	CB-CA-C	-6.04	100.48	110.14
85	AA	17	C	C4'-C3'-C2'	-6.04	96.56	102.60
85	AA	354	C	C4'-C3'-O3'	6.04	122.05	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1273	C	O4'-C1'-C2'	-6.04	101.56	107.60
85	AA	1684	U	O4'-C4'-C3'	-6.04	97.96	104.00
85	AA	2182	A	O3'-P-O5'	-6.04	94.95	104.00
34	BA	127	U	C4'-C3'-O3'	-6.03	103.95	113.00
34	BA	576	C	C4'-C3'-O3'	-6.03	103.95	113.00
34	BA	652	C	C4'-C3'-O3'	-6.03	103.95	113.00
38	BE	60	C	C4'-C3'-O3'	-6.03	103.95	113.00
39	BF	57	C	C1'-O4'-C4'	-6.03	103.87	109.90
41	BH	134	U	O4'-C1'-N1	6.03	117.55	108.50
85	AA	260	A	C5'-C4'-C3'	6.03	125.05	116.00
85	AA	1089	G	P-O3'-C3'	-6.03	111.15	120.20
85	AA	1302	A	C5'-C4'-C3'	6.03	124.25	115.20
34	BA	294	C	C4'-C3'-C2'	6.03	108.63	102.60
34	BA	870	C	O3'-P-O5'	-6.03	94.95	104.00
34	BA	1489	U	O5'-C5'-C4'	-6.03	102.45	111.50
85	AA	857	G	C3'-C2'-C1'	-6.03	95.27	101.30
85	AA	1529	A	P-O3'-C3'	6.03	129.25	120.20
34	BA	831	U	O4'-C1'-C2'	-6.03	101.57	107.60
35	BB	431	U	C5'-C4'-C3'	-6.03	106.95	116.00
35	BB	542	A	C4'-C3'-O3'	-6.03	103.95	113.00
35	BB	897	C	C1'-O4'-C4'	-6.03	103.87	109.90
35	BB	1024	G	C2'-C3'-O3'	6.03	122.75	113.70
38	BE	87	U	C4'-C3'-C2'	-6.03	96.57	102.60
48	BO	58	LYS	N-CA-CB	6.03	119.36	110.56
71	Bl	111	ARG	N-CA-CB	-6.03	100.09	111.00
85	AA	760	U	C4'-C3'-O3'	6.03	118.45	109.40
85	AA	2109	G	O3'-P-O5'	6.03	113.05	104.00
21	AM	126	HIS	CB-CG-CD2	-6.03	123.36	131.20
35	BB	459	U	P-O3'-C3'	-6.03	111.16	120.20
35	BB	831	C	C1'-O4'-C4'	-6.03	103.87	109.90
37	BD	11	A	C4'-C3'-O3'	-6.03	103.96	113.00
84	By	14	ASP	CA-CB-CG	-6.03	106.57	112.60
85	AA	613	G	C4'-C3'-C2'	-6.03	96.57	102.60
23	AP	61	LEU	CA-C-O	6.03	127.35	120.90
34	BA	1432	C	P-O3'-C3'	-6.03	111.16	120.20
34	BA	1782	C	P-O3'-C3'	-6.03	111.16	120.20
35	BB	548	A	O3'-P-O5'	-6.03	94.96	104.00
52	BS	157	ARG	N-CA-C	6.03	123.64	110.80
65	Bf	391	ARG	NE-CZ-NH1	6.03	127.53	121.50
85	AA	982	G	O3'-P-O5'	-6.03	94.96	104.00
85	AA	1293	U	O4'-C4'-C3'	-6.03	97.97	104.00
85	AA	1667	C	C4'-C3'-O3'	-6.03	103.96	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2237	G	O4'-C1'-C2'	6.03	113.63	107.60
86	AB	15	G	P-O5'-C5'	6.03	129.94	120.90
1	A0	43	PHE	N-CA-C	6.03	118.64	111.71
18	AJ	111	MET	CG-SD-CE	-6.03	87.64	100.90
23	AP	62	GLU	N-CA-C	-6.03	104.78	111.71
34	BA	136	A	C4'-C3'-O3'	-6.03	103.96	113.00
37	BD	19	C	C4'-C3'-C2'	-6.03	96.57	102.60
40	BG	151	A	P-O3'-C3'	-6.03	111.16	120.20
59	BZ	55	VAL	N-CA-C	6.03	116.19	108.12
75	Bp	3	ARG	CA-C-N	-6.03	113.17	122.87
75	Bp	3	ARG	C-N-CA	-6.03	113.17	122.87
85	AA	495	G	C5'-C4'-C3'	-6.03	106.96	116.00
85	AA	1570	A	O4'-C4'-C3'	-6.03	100.07	106.10
85	AA	2063	C	C2'-C3'-O3'	6.03	122.74	113.70
34	BA	212	A	O3'-P-O5'	-6.02	94.96	104.00
34	BA	972	C	O5'-C5'-C4'	-6.02	102.46	111.50
38	BE	117	A	C3'-C2'-C1'	6.02	107.32	101.30
42	BI	49	HIS	N-CA-CB	-6.02	100.96	109.94
50	BQ	102	ASN	CA-C-N	-6.02	113.20	122.60
50	BQ	102	ASN	C-N-CA	-6.02	113.20	122.60
77	Br	17	VAL	N-CA-CB	6.02	121.17	111.23
85	AA	860	C	O4'-C1'-C2'	6.02	113.62	107.60
11	AC	123	ILE	N-CA-CB	6.02	119.61	110.58
22	AO	159	LYS	N-CA-C	6.02	123.63	110.80
34	BA	104	A	C3'-C2'-C1'	-6.02	95.28	101.30
34	BA	217	C	C5'-C4'-C3'	-6.02	106.17	115.20
34	BA	559	C	O5'-P-OP1	6.02	126.07	108.00
34	BA	1087	A	C5'-C4'-C3'	-6.02	106.17	115.20
34	BA	1593	U	O3'-P-O5'	-6.02	94.97	104.00
36	BC	23	G	O5'-C5'-C4'	-6.02	102.47	111.50
36	BC	44	A	C4'-C3'-O3'	-6.02	103.97	113.00
85	AA	194	U	C5'-C4'-C3'	-6.02	106.97	116.00
85	AA	2028	G	O3'-P-O5'	-6.02	94.97	104.00
34	BA	1300	G	O4'-C1'-C2'	6.02	113.62	107.60
34	BA	1708	A	O4'-C1'-N9	6.02	117.53	108.50
36	BC	111	C	O5'-C5'-C4'	-6.02	102.67	111.70
60	Ba	14	SER	CA-C-N	6.02	133.21	121.41
60	Ba	14	SER	C-N-CA	6.02	133.21	121.41
85	AA	1275	A	O3'-P-O5'	-6.02	94.97	104.00
85	AA	2113	U	O3'-P-O5'	-6.02	94.97	104.00
34	BA	1363	A	C1'-O4'-C4'	-6.02	103.68	109.70
37	BD	80	G	C1'-O4'-C4'	-6.02	103.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BD	113	G	O3'-P-O5'	6.02	113.03	104.00
38	BE	199	A	O4'-C4'-C3'	-6.02	97.98	104.00
40	BG	54	G	P-O5'-C5'	-6.02	111.87	120.90
40	BG	76	C	P-O5'-C5'	-6.02	111.87	120.90
6	A5	199	ASP	N-CA-C	-6.02	100.17	109.14
11	AC	214	LEU	CA-C-O	6.02	127.14	120.82
34	BA	1718	C	P-O3'-C3'	-6.02	111.17	120.20
35	BB	1166	A	C4'-C3'-C2'	-6.02	96.58	102.60
42	BI	21	SER	CA-C-N	6.02	132.64	122.65
42	BI	21	SER	C-N-CA	6.02	132.64	122.65
64	Be	123	ARG	N-CA-CB	6.02	120.61	111.70
85	AA	136	U	O5'-C5'-C4'	6.02	120.53	111.50
85	AA	155	U	O3'-P-O5'	-6.02	94.97	104.00
85	AA	373	G	N9-C1'-C2'	-6.02	102.97	112.00
85	AA	387	U	P-O5'-C5'	6.02	129.93	120.90
85	AA	514	U	O5'-C5'-C4'	-6.02	102.47	111.50
85	AA	2106	C	P-O5'-C5'	6.02	129.93	120.90
85	AA	2154	C	C4'-C3'-C2'	-6.02	96.58	102.60
35	BB	1063	C	C5'-C4'-C3'	-6.02	106.18	115.20
40	BG	84	U	O4'-C1'-C2'	-6.02	99.78	105.80
85	AA	722	G	O5'-C5'-C4'	-6.02	102.47	111.50
85	AA	913	U	P-O3'-C3'	-6.02	111.18	120.20
85	AA	1723	U	C4'-C3'-O3'	-6.02	103.97	113.00
85	AA	2175	U	C4'-C3'-O3'	-6.02	103.98	113.00
3	A2	157	GLU	N-CA-C	-6.01	104.68	112.68
4	A3	116	VAL	N-CA-CB	6.01	119.51	110.13
22	AO	38	HIS	CA-CB-CG	-6.01	107.79	113.80
34	BA	46	C	P-O5'-C5'	-6.01	111.88	120.90
34	BA	94	G	O5'-C5'-C4'	-6.01	102.48	111.50
34	BA	607	C	O3'-P-O5'	6.01	113.02	104.00
34	BA	921	G	P-O5'-C5'	-6.01	111.88	120.90
35	BB	565	U	P-O5'-C5'	-6.01	111.88	120.90
35	BB	1091	C	C5'-C4'-C3'	-6.01	106.18	115.20
35	BB	1522	G	C5'-C4'-C3'	6.01	125.02	116.00
52	BS	132	PRO	CB-CA-C	-6.01	101.64	111.56
77	Br	197	ASN	CA-CB-CG	-6.01	106.58	112.60
85	AA	203	C	C4'-C3'-C2'	-6.01	96.59	102.60
85	AA	309	G	C4'-C3'-C2'	6.01	108.61	102.60
85	AA	537	G	C5'-C4'-C3'	-6.01	106.98	116.00
85	AA	1290	G	C4'-C3'-C2'	-6.01	96.58	102.60
85	AA	1560	A	C5'-C4'-O4'	6.01	118.82	109.80
85	AA	1928	A	C2'-C3'-O3'	6.01	118.52	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	AB	11	C	C5'-C4'-C3'	-6.01	106.98	116.00
82	Bw	210	PHE	CA-CB-CG	-6.01	107.79	113.80
85	AA	659	A	C3'-C2'-C1'	-6.01	95.29	101.30
26	AS	31	HIS	CA-CB-CG	-6.01	107.79	113.80
34	BA	1686	G	O5'-C5'-C4'	-6.01	102.48	111.50
34	BA	1844	U	P-O3'-C3'	-6.01	111.18	120.20
35	BB	534	C	C3'-C2'-C1'	-6.01	95.29	101.30
38	BE	22	A	C2'-C3'-O3'	6.01	118.52	109.50
40	BG	119	A	C4'-C3'-O3'	-6.01	103.98	113.00
85	AA	2017	U	N1-C1'-C2'	-6.01	102.98	112.00
85	AA	2074	G	O5'-C5'-C4'	-6.01	102.48	111.50
10	A9	133	PHE	N-CA-C	-6.01	97.50	108.02
34	BA	460	G	O3'-P-O5'	-6.01	94.99	104.00
34	BA	1654	G	O3'-P-O5'	6.01	113.02	104.00
35	BB	669	A	O3'-P-O5'	6.01	113.02	104.00
35	BB	1259	A	O4'-C4'-C3'	-6.01	100.09	106.10
36	BC	50	C	P-O3'-C3'	-6.01	111.19	120.20
38	BE	111	C	O4'-C1'-C2'	-6.01	101.59	107.60
60	Ba	27	ASN	CA-CB-CG	-6.01	106.59	112.60
64	Be	229	ALA	N-CA-C	6.01	123.09	109.81
82	Bw	201	ASN	N-CA-C	-6.01	104.81	111.36
85	AA	714	U	P-O3'-C3'	6.01	129.22	120.20
85	AA	1570	A	C1'-O4'-C4'	-6.01	103.69	109.70
85	AA	2199	G	O3'-P-O5'	-6.01	94.98	104.00
35	BB	512	C	C4'-C3'-C2'	-6.01	96.59	102.60
71	Bl	116	HIS	N-CA-CB	6.01	120.73	111.24
85	AA	2187	G	C4'-C3'-O3'	-6.01	103.99	113.00
11	AC	227	ARG	N-CA-C	6.01	117.63	111.14
20	AL	75	GLU	N-CA-CB	-6.01	101.29	110.12
34	BA	253	U	P-O5'-C5'	-6.01	111.89	120.90
34	BA	330	A	C5'-C4'-C3'	6.01	124.21	115.20
34	BA	1085	G	O4'-C1'-N9	6.01	117.51	108.50
34	BA	1804	A	O4'-C1'-C2'	-6.01	99.79	105.80
35	BB	1351	G	O3'-P-O5'	6.01	113.01	104.00
38	BE	1	U	C3'-C2'-C1'	-6.01	95.29	101.30
85	AA	440	U	C4'-C3'-O3'	-6.01	103.99	113.00
85	AA	1719	C	C1'-O4'-C4'	-6.01	103.89	109.90
85	AA	1975	G	C2'-C3'-O3'	6.01	122.71	113.70
34	BA	733	G	C4'-C3'-C2'	6.00	108.61	102.60
53	BT	97	ARG	CB-CA-C	-6.00	101.37	110.92
85	AA	1349	A	C5'-C4'-C3'	-6.00	106.99	116.00
85	AA	1650	G	C2'-C3'-O3'	6.00	122.71	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	A7	119	PRO	CA-C-N	6.00	129.44	120.31
8	A7	119	PRO	C-N-CA	6.00	129.44	120.31
22	AO	19	LYS	CG-CD-CE	6.00	125.11	111.30
34	BA	47	U	O5'-C5'-C4'	-6.00	102.49	111.50
34	BA	110	C	C4'-C3'-C2'	-6.00	96.60	102.60
34	BA	286	C	O4'-C1'-N1	6.00	117.51	108.50
34	BA	501	U	P-O3'-C3'	6.00	129.21	120.20
39	BF	53	G	P-O3'-C3'	6.00	129.21	120.20
66	Bg	24	LYS	CA-C-O	6.00	126.91	120.55
82	Bw	238	GLU	CA-CB-CG	6.00	126.11	114.10
85	AA	1226	A	O4'-C1'-N9	6.00	117.50	108.50
85	AA	1670	U	C4'-C3'-C2'	-6.00	96.60	102.60
34	BA	325	A	P-O3'-C3'	6.00	129.20	120.20
34	BA	800	G	P-O3'-C3'	-6.00	111.20	120.20
35	BB	433	C	P-O5'-C5'	6.00	129.90	120.90
35	BB	1248	A	P-O3'-C3'	-6.00	111.20	120.20
40	BG	26	G	C4'-C3'-O3'	-6.00	104.00	113.00
42	BI	47	LEU	N-CA-C	-6.00	104.65	111.07
50	BQ	153	ASP	CA-C-O	-6.00	115.20	120.60
85	AA	38	C	C4'-C3'-C2'	-6.00	96.60	102.60
85	AA	370	A	C4'-C3'-C2'	6.00	108.60	102.60
22	AO	157	LEU	N-CA-CB	-6.00	100.98	110.22
34	BA	461	A	P-O5'-C5'	-6.00	111.90	120.90
34	BA	1002	U	C3'-C2'-C1'	-6.00	95.30	101.30
38	BE	94	U	P-O5'-C5'	-6.00	111.90	120.90
42	BI	44	PHE	N-CA-CB	-6.00	101.00	109.94
82	Bw	40	ASN	CB-CA-C	-6.00	101.42	110.90
20	AL	124	VAL	O-C-N	-6.00	115.07	122.57
23	AP	60	SER	CA-C-N	6.00	128.64	120.54
23	AP	60	SER	C-N-CA	6.00	128.64	120.54
34	BA	157	U	P-O5'-C5'	6.00	129.90	120.90
34	BA	484	A	C2'-C3'-O3'	6.00	122.70	113.70
35	BB	647	U	O5'-C5'-C4'	-6.00	102.50	111.50
35	BB	905	C	O3'-P-O5'	6.00	113.00	104.00
39	BF	13	U	O4'-C1'-N1	6.00	117.50	108.50
41	BH	126	C	C4'-C3'-O3'	-6.00	104.00	113.00
69	Bj	101	GLN	CB-CG-CD	-6.00	102.40	112.60
84	By	149	LEU	CB-CA-C	-6.00	100.83	110.79
85	AA	614	U	C5'-C4'-C3'	6.00	125.00	116.00
85	AA	1153	G	C4'-C3'-C2'	-6.00	96.60	102.60
85	AA	1178	A	P-O3'-C3'	6.00	129.20	120.20
5	A4	18	PRO	CA-C-N	6.00	132.49	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A4	18	PRO	C-N-CA	6.00	132.49	121.70
20	AL	29	TYR	N-CA-C	6.00	118.58	111.33
30	AW	5	ASP	O-C-N	-6.00	115.66	122.08
34	BA	96	G	C5'-C4'-C3'	-6.00	107.00	116.00
34	BA	222	C	C4'-C3'-O3'	-6.00	104.01	113.00
34	BA	938	C	O4'-C1'-C2'	6.00	113.60	107.60
35	BB	431	U	C2-N1-C1'	-6.00	99.71	117.70
39	BF	5	U	C5'-C4'-C3'	6.00	125.00	116.00
41	BH	58	C	C4'-C3'-O3'	-6.00	104.00	113.00
61	Bb	114	HIS	CA-CB-CG	-6.00	107.80	113.80
85	AA	1884	A	C2'-C3'-O3'	6.00	122.69	113.70
85	AA	2022	A	O5'-C5'-C4'	6.00	120.49	111.50
34	BA	1629	A	C4'-C3'-O3'	-6.00	104.01	113.00
39	BF	9	C	O5'-C5'-C4'	-6.00	102.71	111.70
85	AA	8	U	C5'-C4'-C3'	6.00	124.19	115.20
85	AA	2173	A	C5'-C4'-C3'	-6.00	107.01	116.00
2	A1	201	ALA	N-CA-C	-5.99	106.01	113.38
34	BA	266	G	P-O5'-C5'	-5.99	111.91	120.90
34	BA	332	U	P-O3'-C3'	-5.99	111.21	120.20
34	BA	363	G	C5'-C4'-C3'	5.99	124.99	116.00
34	BA	618	G	C8-N9-C1'	5.99	144.98	127.00
34	BA	1591	G	N9-C1'-C2'	-5.99	103.01	112.00
35	BB	68	G	P-O5'-C5'	-5.99	111.91	120.90
35	BB	1301	U	O5'-C5'-C4'	-5.99	102.51	111.50
35	BB	1495	U	C2'-C3'-O3'	5.99	122.69	113.70
36	BC	113	G	C5'-C4'-C3'	-5.99	107.01	116.00
47	BN	100	ILE	N-CA-C	-5.99	100.06	108.27
51	BR	96	LYS	N-CA-C	5.99	117.81	111.28
68	Bi	23	CYS	CA-C-N	5.99	132.99	121.54
68	Bi	23	CYS	C-N-CA	5.99	132.99	121.54
71	Bl	112	ILE	O-C-N	-5.99	115.22	122.59
85	AA	1275	A	C2'-C3'-O3'	5.99	118.49	109.50
19	AK	99	TYR	N-CA-C	5.99	117.81	111.28
35	BB	6	A	C4'-C3'-O3'	-5.99	104.01	113.00
38	BE	25	U	C2'-C3'-O3'	5.99	122.69	113.70
85	AA	971	U	O4'-C1'-N1	5.99	117.49	108.50
85	AA	2208	G	O3'-P-O5'	-5.99	95.01	104.00
4	A3	103	CYS	N-CA-C	5.99	120.75	113.38
34	BA	1243	A	C4'-C3'-C2'	-5.99	96.61	102.60
35	BB	113	C	O5'-C5'-C4'	-5.99	102.52	111.50
53	BT	160	ALA	CA-C-O	5.99	126.75	119.38
85	AA	122	A	P-O3'-C3'	-5.99	111.21	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	674	U	C5'-C4'-C3'	-5.99	107.02	116.00
85	AA	1664	G	P-O5'-C5'	-5.99	111.92	120.90
85	AA	1730	C	C3'-C2'-C1'	-5.99	95.31	101.30
7	A6	179	ALA	CA-C-N	5.99	128.30	120.28
7	A6	179	ALA	C-N-CA	5.99	128.30	120.28
34	BA	8	G	C4-N9-C1'	-5.99	108.53	126.50
34	BA	282	A	O4'-C4'-C3'	5.99	109.99	104.00
34	BA	750	C	P-O5'-C5'	-5.99	111.92	120.90
34	BA	803	U	C2'-C3'-O3'	5.99	122.68	113.70
34	BA	970	U	O3'-P-O5'	5.99	112.98	104.00
35	BB	378	C	C3'-C2'-C1'	-5.99	95.31	101.30
35	BB	1464	G	N9-C1'-C2'	5.99	120.98	112.00
39	BF	23	G	P-O3'-C3'	-5.99	111.22	120.20
62	Bc	65	LYS	CA-C-N	5.99	132.98	121.54
62	Bc	65	LYS	C-N-CA	5.99	132.98	121.54
85	AA	976	G	O5'-C5'-C4'	-5.99	102.52	111.50
85	AA	1198	U	O3'-P-O5'	-5.99	95.02	104.00
85	AA	1260	G	O4'-C1'-N9	5.99	117.48	108.50
85	AA	1492	U	P-O3'-C3'	-5.99	111.22	120.20
85	AA	1528	A	C1'-O4'-C4'	-5.99	103.91	109.90
34	BA	595	U	O5'-C5'-C4'	5.99	120.48	111.50
77	Br	118	GLN	N-CA-CB	-5.99	101.30	110.16
85	AA	860	C	C2-N1-C1'	-5.99	100.84	118.80
13	AE	171	PHE	CA-C-N	5.99	132.97	121.54
13	AE	171	PHE	C-N-CA	5.99	132.97	121.54
34	BA	1495	A	C1'-O4'-C4'	-5.99	103.71	109.70
35	BB	824	C	C5'-C4'-C3'	-5.99	107.02	116.00
47	BN	44	ARG	CA-CB-CG	5.99	126.07	114.10
85	AA	429	G	O4'-C1'-C2'	5.99	113.59	107.60
85	AA	806	G	O4'-C1'-C2'	-5.99	101.61	107.60
85	AA	1299	A	C5'-C4'-C3'	5.99	124.98	116.00
85	AA	1517	G	O5'-C5'-C4'	-5.99	102.52	111.50
86	AB	68	C	O5'-C5'-C4'	-5.99	102.52	111.50
11	AC	125	LYS	N-CA-C	-5.98	104.88	111.82
23	AP	149	VAL	N-CA-CB	-5.98	104.13	111.67
34	BA	260	A	P-O5'-C5'	-5.98	111.92	120.90
35	BB	638	G	C2'-C3'-O3'	5.98	122.68	113.70
36	BC	159	U	O3'-P-O5'	-5.98	95.02	104.00
41	BH	33	G	O5'-C5'-C4'	-5.98	102.52	111.50
85	AA	785	C	O5'-C5'-C4'	-5.98	102.72	111.70
3	A2	158	CYS	N-CA-C	5.98	117.80	111.28
34	BA	651	U	O4'-C1'-N1	5.98	117.47	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	776	U	P-O3'-C3'	-5.98	111.22	120.20
34	BA	960	C	C1'-O4'-C4'	-5.98	103.92	109.90
35	BB	2	C	O4'-C4'-C3'	-5.98	98.02	104.00
50	BQ	50	GLN	CA-C-N	5.98	132.97	121.54
50	BQ	50	GLN	C-N-CA	5.98	132.97	121.54
60	Ba	32	ASN	N-CA-C	-5.98	100.91	108.45
85	AA	4	C	C5'-C4'-C3'	-5.98	107.03	116.00
85	AA	327	G	C3'-C2'-C1'	-5.98	95.32	101.30
85	AA	478	U	C1'-O4'-C4'	-5.98	103.92	109.90
85	AA	776	C	P-O5'-C5'	-5.98	111.92	120.90
8	A7	304	TYR	CA-C-N	5.98	128.78	120.29
8	A7	304	TYR	C-N-CA	5.98	128.78	120.29
13	AE	77	THR	N-CA-C	-5.98	105.75	113.16
34	BA	250	G	O5'-C5'-C4'	5.98	120.67	111.70
34	BA	403	A	C4'-C3'-C2'	-5.98	96.62	102.60
34	BA	537	C	P-O5'-C5'	5.98	129.87	120.90
34	BA	794	G	C5'-C4'-C3'	-5.98	107.03	116.00
34	BA	1359	U	C2'-C3'-O3'	5.98	118.47	109.50
38	BE	141	A	C2'-C3'-O3'	5.98	118.47	109.50
61	Bb	46	ARG	N-CA-CB	-5.98	101.03	109.94
78	Bs	9	LEU	CA-C-O	5.98	127.10	120.82
80	Bu	54	ARG	N-CA-C	5.98	119.23	109.06
85	AA	161	A	O3'-P-O5'	-5.98	95.03	104.00
85	AA	257	U	P-O3'-C3'	-5.98	111.23	120.20
85	AA	442	G	C5'-C4'-C3'	-5.98	107.03	116.00
85	AA	553	G	C4'-C3'-O3'	-5.98	104.03	113.00
2	A1	133	ILE	N-CA-C	-5.98	95.97	108.88
34	BA	1730	A	C4'-C3'-O3'	5.98	121.97	113.00
35	BB	479	U	O5'-C5'-C4'	-5.98	102.53	111.50
36	BC	157	U	O4'-C1'-N1	5.98	117.17	108.20
38	BE	14	C	C4'-C3'-C2'	5.98	108.58	102.60
56	BW	90	LYS	N-CA-C	5.98	119.46	108.58
85	AA	2142	A	C1'-O4'-C4'	-5.98	103.92	109.90
34	BA	515	U	C5'-C4'-C3'	5.98	124.97	116.00
34	BA	1278	A	C1'-O4'-C4'	-5.98	103.92	109.90
34	BA	1542	A	P-O3'-C3'	-5.98	111.23	120.20
35	BB	490	G	P-O3'-C3'	-5.98	111.23	120.20
35	BB	493	U	C1'-O4'-C4'	-5.98	103.92	109.90
35	BB	621	C	C5'-C4'-C3'	-5.98	107.03	116.00
35	BB	1200	A	O5'-C5'-C4'	-5.98	102.73	111.70
40	BG	16	G	N9-C1'-C2'	-5.98	103.03	112.00
45	BL	105	ASP	CA-CB-CG	-5.98	106.62	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	BL	175	ASP	CA-CB-CG	-5.98	106.62	112.60
50	BQ	22	MET	N-CA-CB	-5.98	101.33	110.12
82	Bw	44	ALA	CA-C-N	-5.98	111.21	121.97
82	Bw	44	ALA	C-N-CA	-5.98	111.21	121.97
85	AA	124	A	P-O3'-C3'	5.98	129.17	120.20
85	AA	471	U	C4'-C3'-O3'	-5.98	104.03	113.00
85	AA	707	U	C4'-C3'-C2'	-5.98	96.62	102.60
85	AA	1879	U	C2'-C3'-O3'	5.98	122.67	113.70
85	AA	2182	A	C4'-C3'-O3'	-5.98	104.03	113.00
34	BA	571	G	N9-C1'-C2'	5.98	120.96	112.00
34	BA	1741	G	O4'-C1'-N9	5.98	117.46	108.50
36	BC	100	U	O5'-C5'-C4'	-5.98	102.54	111.50
45	BL	98	LEU	N-CA-C	5.98	118.26	109.24
65	Bf	56	LYS	N-CA-C	5.98	117.87	111.36
85	AA	2019	G	C4'-C3'-O3'	-5.98	104.03	113.00
34	BA	25	C	P-O3'-C3'	-5.97	111.24	120.20
34	BA	585	G	C5'-C4'-C3'	-5.97	107.04	116.00
34	BA	1572	G	C4'-C3'-O3'	-5.97	104.04	113.00
35	BB	1231	U	O4'-C1'-N1	5.97	117.46	108.50
37	BD	95	G	O3'-P-O5'	5.97	112.96	104.00
70	Bk	67	ARG	N-CA-CB	-5.97	101.29	110.13
34	BA	1615	A	C4'-C3'-O3'	5.97	121.96	113.00
34	BA	1831	A	N9-C1'-C2'	5.97	120.96	112.00
35	BB	1449	G	O5'-C5'-C4'	-5.97	102.54	111.50
49	BP	27	ILE	CB-CA-C	-5.97	102.37	111.69
62	Bc	123	VAL	N-CA-C	5.97	116.75	110.72
62	Bc	127	ARG	N-CA-CB	5.97	118.67	110.01
69	Bj	16	THR	CA-C-N	5.97	128.21	120.44
69	Bj	16	THR	C-N-CA	5.97	128.21	120.44
73	Bn	11	ARG	CD-NE-CZ	-5.97	116.04	124.40
80	Bu	17	GLN	N-CA-C	-5.97	101.62	110.46
83	Bx	220	ASP	N-CA-CB	-5.97	101.75	110.47
85	AA	316	C	O5'-C5'-C4'	-5.97	102.54	111.50
11	AC	232	GLU	CA-C-N	5.97	128.65	120.35
11	AC	232	GLU	C-N-CA	5.97	128.65	120.35
35	BB	136	A	C1'-O4'-C4'	-5.97	103.93	109.90
35	BB	534	C	C1'-O4'-C4'	-5.97	103.93	109.90
38	BE	22	A	O3'-P-O5'	-5.97	95.04	104.00
40	BG	104	A	C5'-C4'-C3'	-5.97	107.04	116.00
50	BQ	101	PRO	CA-C-N	-5.97	111.68	120.28
50	BQ	101	PRO	C-N-CA	-5.97	111.68	120.28
81	Bv	186	ALA	CA-C-N	5.97	127.30	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	Bv	186	ALA	C-N-CA	5.97	127.30	119.84
85	AA	676	U	O5'-C5'-C4'	-5.97	102.54	111.50
85	AA	1085	U	O3'-P-O5'	-5.97	95.04	104.00
25	AR	69	SER	N-CA-C	-5.97	104.12	111.40
34	BA	220	U	O3'-P-O5'	-5.97	95.05	104.00
34	BA	447	U	O3'-P-O5'	-5.97	95.05	104.00
34	BA	1728	G	N9-C1'-C2'	-5.97	105.05	114.00
35	BB	1314	G	P-O5'-C5'	-5.97	111.95	120.90
36	BC	46	G	C4'-C3'-O3'	-5.97	104.05	113.00
40	BG	12	A	O4'-C1'-C2'	-5.97	99.83	105.80
76	Bq	38	ASN	CA-CB-CG	5.97	118.57	112.60
85	AA	633	C	O4'-C1'-N1	5.97	117.45	108.50
85	AA	1690	A	P-O3'-C3'	5.97	129.16	120.20
19	AK	27	VAL	CB-CA-C	-5.97	101.94	110.83
20	AL	83	ASP	CA-CB-CG	-5.97	106.63	112.60
35	BB	1031	G	C1'-O4'-C4'	-5.97	103.73	109.70
85	AA	188	G	C3'-C2'-C1'	-5.97	95.33	101.30
5	A4	9	LYS	CA-C-N	5.97	130.15	120.60
5	A4	9	LYS	C-N-CA	5.97	130.15	120.60
26	AS	34	VAL	CA-C-N	5.97	130.68	121.19
26	AS	34	VAL	C-N-CA	5.97	130.68	121.19
34	BA	710	A	C5'-C4'-C3'	-5.97	107.05	116.00
34	BA	816	G	N9-C1'-C2'	-5.97	103.05	112.00
34	BA	1721	U	P-O3'-C3'	-5.97	111.25	120.20
63	Bd	36	GLY	N-CA-C	5.97	118.02	110.38
85	AA	858	G	C3'-C2'-C1'	-5.97	95.33	101.30
85	AA	1249	U	P-O5'-C5'	5.97	129.85	120.90
85	AA	1454	U	C4'-C3'-O3'	-5.97	104.05	113.00
11	AC	202	ARG	CA-C-N	5.96	133.10	121.41
11	AC	202	ARG	C-N-CA	5.96	133.10	121.41
34	BA	422	C	C5'-C4'-C3'	-5.96	107.06	116.00
34	BA	709	C	C5'-C4'-C3'	-5.96	107.05	116.00
34	BA	1829	A	P-O5'-C5'	5.96	129.85	120.90
35	BB	1166	A	C1'-O4'-C4'	-5.96	103.94	109.90
40	BG	15	G	N9-C1'-C2'	-5.96	103.06	112.00
40	BG	104	A	O3'-P-O5'	-5.96	95.05	104.00
65	Bf	184	ARG	N-CA-CB	-5.96	101.35	110.12
85	AA	661	C	O5'-C5'-C4'	-5.96	102.55	111.50
85	AA	767	A	C1'-O4'-C4'	-5.96	103.94	109.90
7	A6	6	ASN	CB-CA-C	-5.96	101.57	111.41
34	BA	874	G	P-O3'-C3'	-5.96	111.25	120.20
34	BA	880	G	C4'-C3'-O3'	-5.96	104.06	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	719	G	P-O5'-C5'	5.96	129.84	120.90
38	BE	155	C	C5'-C4'-O4'	5.96	118.04	109.10
56	BW	83	GLN	O-C-N	-5.96	116.35	123.27
34	BA	93	A	C4'-C3'-O3'	-5.96	104.06	113.00
34	BA	101	G	P-O5'-C5'	-5.96	111.96	120.90
34	BA	881	C	C4'-C3'-O3'	-5.96	104.06	113.00
34	BA	1611	A	C4'-C3'-C2'	-5.96	96.64	102.60
35	BB	516	G	C4'-C3'-C2'	-5.96	96.64	102.60
35	BB	580	A	O4'-C4'-C3'	-5.96	100.14	106.10
35	BB	795	A	C4'-C3'-O3'	5.96	121.94	113.00
38	BE	114	G	P-O3'-C3'	-5.96	111.26	120.20
60	Ba	94	GLY	N-CA-C	-5.96	99.05	113.18
61	Bb	119	CYS	N-CA-C	-5.96	100.33	108.38
85	AA	150	U	C2-N3-C4	-5.96	109.12	127.00
85	AA	1324	G	C5'-C4'-C3'	-5.96	107.06	116.00
6	A5	119	ILE	CA-C-N	5.96	132.92	121.54
6	A5	119	ILE	C-N-CA	5.96	132.92	121.54
34	BA	1060	C	O4'-C1'-C2'	-5.96	99.84	105.80
82	Bw	146	GLU	N-CA-C	5.96	121.73	113.45
85	AA	847	G	O3'-P-O5'	-5.96	95.06	104.00
34	BA	1281	U	P-O3'-C3'	-5.96	111.26	120.20
34	BA	1700	C	P-O5'-C5'	-5.96	111.96	120.90
48	BO	143	GLN	CB-CA-C	5.96	120.50	110.79
67	Bh	136	TRP	CA-C-N	5.96	129.07	120.79
67	Bh	136	TRP	C-N-CA	5.96	129.07	120.79
85	AA	792	A	P-O3'-C3'	5.96	129.14	120.20
85	AA	1983	C	P-O5'-C5'	-5.96	111.96	120.90
34	BA	235	C	C2'-C3'-O3'	5.96	122.63	113.70
34	BA	434	U	C4'-C3'-O3'	5.96	118.33	109.40
34	BA	1219	G	C4'-C3'-C2'	-5.96	96.64	102.60
35	BB	968	C	O4'-C4'-C3'	-5.96	98.04	104.00
35	BB	1368	A	C1'-O4'-C4'	-5.96	103.94	109.90
42	BI	119	ARG	N-CA-CB	-5.96	101.34	110.16
44	BK	190	LEU	N-CA-CB	-5.96	100.67	110.68
85	AA	800	A	C4'-C3'-O3'	-5.96	104.07	113.00
18	AJ	79	PHE	N-CA-C	5.96	118.46	109.23
35	BB	1391	G	O5'-C5'-C4'	5.96	120.43	111.50
73	Bn	27	TYR	N-CA-CB	5.96	118.88	110.24
83	Bx	155	THR	CA-C-O	5.96	127.07	120.82
85	AA	170	C	C4'-C3'-O3'	-5.96	104.07	113.00
34	BA	252	A	N9-C1'-C2'	-5.95	103.07	112.00
34	BA	594	G	O3'-P-O5'	-5.95	95.07	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	735	A	O3'-P-O5'	-5.95	95.07	104.00
34	BA	1244	G	O5'-C5'-C4'	-5.95	102.77	111.70
34	BA	1442	A	C5'-C4'-C3'	5.95	124.93	116.00
34	BA	1575	U	O3'-P-O5'	5.95	112.93	104.00
34	BA	1606	A	C5'-C4'-C3'	-5.95	106.27	115.20
35	BB	1026	G	C5'-C4'-C3'	5.95	124.93	116.00
40	BG	21	C	C1'-O4'-C4'	-5.95	103.95	109.90
51	BR	120	ASP	O-C-N	-5.95	115.49	123.23
80	Bu	224	ASN	CA-CB-CG	-5.95	106.65	112.60
85	AA	2136	C	C2'-C3'-O3'	5.95	122.63	113.70
35	BB	1363	A	C4'-C3'-O3'	-5.95	104.07	113.00
49	BP	23	ARG	N-CA-C	-5.95	102.14	110.35
85	AA	1305	A	C5'-C4'-C3'	5.95	124.93	116.00
34	BA	525	A	P-O3'-C3'	5.95	129.13	120.20
34	BA	967	C	P-O5'-C5'	-5.95	111.97	120.90
34	BA	1483	U	O3'-P-O5'	5.95	112.92	104.00
35	BB	1113	C	P-O5'-C5'	-5.95	111.97	120.90
36	BC	45	C	P-O3'-C3'	-5.95	111.28	120.20
45	BL	25	CYS	CA-C-N	5.95	131.14	121.62
45	BL	25	CYS	C-N-CA	5.95	131.14	121.62
67	Bh	100	THR	N-CA-C	5.95	123.47	110.80
71	Bl	93	VAL	CA-CB-CG1	5.95	120.52	110.40
85	AA	82	A	C5'-C4'-C3'	-5.95	107.08	116.00
85	AA	1548	A	P-O3'-C3'	5.95	129.13	120.20
20	AL	103	LYS	N-CA-C	5.95	117.45	110.97
34	BA	375	C	C1'-O4'-C4'	-5.95	103.95	109.90
34	BA	854	A	P-O5'-C5'	-5.95	111.98	120.90
42	BI	68	ALA	CA-C-N	5.95	130.05	120.30
42	BI	68	ALA	C-N-CA	5.95	130.05	120.30
67	Bh	38	TRP	CA-CB-CG	5.95	124.90	113.60
85	AA	427	G	O5'-C5'-C4'	-5.95	102.58	111.50
85	AA	1456	A	N9-C1'-C2'	-5.95	103.08	112.00
7	A6	141	THR	N-CA-CB	5.95	119.25	110.33
24	AQ	59	LYS	CB-CA-C	-5.95	99.94	109.75
34	BA	398	G	P-O5'-C5'	5.95	129.82	120.90
34	BA	553	A	C3'-C2'-O2'	5.95	119.62	110.70
34	BA	614	A	O3'-P-O5'	-5.95	95.08	104.00
34	BA	728	A	O4'-C4'-C3'	-5.95	98.05	104.00
85	AA	413	G	O5'-C5'-C4'	-5.95	102.58	111.50
85	AA	929	G	O5'-C5'-C4'	-5.95	102.58	111.50
85	AA	1018	G	C5'-C4'-C3'	-5.95	107.08	116.00
8	A7	249	ARG	N-CA-CB	5.95	119.04	110.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AL	5	ARG	N-CA-C	-5.95	99.45	108.67
29	AV	99	ARG	CA-C-N	5.95	132.90	121.54
29	AV	99	ARG	C-N-CA	5.95	132.90	121.54
34	BA	1625	C	C4'-C3'-C2'	-5.95	96.66	102.60
38	BE	14	C	P-O5'-C5'	5.95	129.82	120.90
41	BH	45	G	C5'-C4'-C3'	-5.95	107.08	116.00
47	BN	203	ARG	N-CA-C	-5.95	106.37	113.21
67	Bh	73	LEU	CA-C-N	-5.95	108.96	121.80
67	Bh	73	LEU	C-N-CA	-5.95	108.96	121.80
69	Bj	15	ALA	CA-C-N	5.95	132.90	121.54
69	Bj	15	ALA	C-N-CA	5.95	132.90	121.54
85	AA	773	G	C1'-O4'-C4'	-5.95	103.95	109.90
85	AA	1996	A	C5'-C4'-C3'	5.95	124.92	116.00
1	A0	227	ALA	CA-C-N	5.94	128.17	120.44
1	A0	227	ALA	C-N-CA	5.94	128.17	120.44
35	BB	1033	U	O5'-C5'-C4'	-5.94	102.58	111.50
35	BB	1054	G	C4'-C3'-O3'	-5.94	104.08	113.00
35	BB	1508	G	P-O5'-C5'	-5.94	111.98	120.90
23	AP	121	ILE	CA-C-O	-5.94	115.75	121.63
34	BA	482	C	O4'-C4'-C3'	-5.94	100.16	106.10
34	BA	1003	A	O5'-C5'-C4'	-5.94	102.59	111.50
34	BA	1177	C	C1'-O4'-C4'	-5.94	103.96	109.90
34	BA	1810	A	P-O5'-C5'	-5.94	111.99	120.90
52	BS	75	ASN	O-C-N	-5.94	115.98	123.05
85	AA	1708	A	C4'-C3'-O3'	-5.94	104.08	113.00
85	AA	1842	C	C4'-C3'-C2'	5.94	108.54	102.60
85	AA	2166	G	C4'-C3'-C2'	-5.94	96.66	102.60
7	A6	112	VAL	N-CA-CB	-5.94	102.46	110.54
34	BA	236	A	O5'-C5'-C4'	-5.94	102.59	111.50
34	BA	740	A	O4'-C1'-N9	5.94	117.41	108.50
34	BA	976	C	O3'-P-O5'	-5.94	95.09	104.00
34	BA	1378	A	P-O3'-C3'	-5.94	111.29	120.20
35	BB	496	C	P-O3'-C3'	-5.94	111.29	120.20
35	BB	1333	U	O4'-C1'-N1	5.94	117.41	108.50
35	BB	1485	G	O3'-P-O5'	-5.94	95.09	104.00
38	BE	52	U	P-O3'-C3'	-5.94	111.29	120.20
50	BQ	45	TRP	N-CA-C	-5.94	106.16	113.41
61	Bb	122	LYS	CA-C-N	5.94	132.14	122.81
61	Bb	122	LYS	C-N-CA	5.94	132.14	122.81
85	AA	195	C	C5'-C4'-C3'	-5.94	107.09	116.00
85	AA	268	A	P-O5'-C5'	5.94	129.81	120.90
85	AA	696	G	C2'-C3'-O3'	5.94	122.61	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	772	C	P-O3'-C3'	-5.94	111.29	120.20
85	AA	1501	A	P-O3'-C3'	-5.94	111.29	120.20
85	AA	1669	G	C5'-C4'-C3'	-5.94	107.09	116.00
34	BA	8	G	N9-C1'-C2'	-5.94	103.09	112.00
79	Bt	89	LYS	CA-C-N	-5.94	112.59	122.21
79	Bt	89	LYS	C-N-CA	-5.94	112.59	122.21
34	BA	243	C	P-O3'-C3'	-5.94	111.30	120.20
34	BA	1086	A	P-O3'-C3'	-5.94	111.29	120.20
34	BA	1205	A	C4'-C3'-C2'	-5.94	96.66	102.60
34	BA	1704	G	P-O3'-C3'	-5.94	111.30	120.20
35	BB	732	G	C1'-O4'-C4'	-5.94	103.96	109.90
62	Bc	38	TRP	CA-C-N	5.94	132.88	121.54
62	Bc	38	TRP	C-N-CA	5.94	132.88	121.54
62	Bc	97	ASP	CB-CA-C	5.94	122.24	110.42
75	Bp	62	PRO	CA-C-N	5.94	132.88	121.54
75	Bp	62	PRO	C-N-CA	5.94	132.88	121.54
85	AA	207	G	P-O3'-C3'	-5.94	111.29	120.20
85	AA	830	A	C3'-C2'-O2'	5.94	119.61	110.70
85	AA	1490	A	P-O5'-C5'	5.94	129.81	120.90
85	AA	1810	C	C5'-C4'-O4'	5.94	118.71	109.80
85	AA	1898	C	P-O5'-C5'	-5.94	111.99	120.90
31	AX	15	VAL	CA-C-N	5.94	128.23	120.28
31	AX	15	VAL	C-N-CA	5.94	128.23	120.28
38	BE	23	G	O4'-C4'-C3'	-5.94	98.06	104.00
85	AA	153	C	P-O5'-C5'	-5.94	112.00	120.90
34	BA	206	C	C5'-C4'-C3'	5.93	124.90	116.00
34	BA	734	G	C4'-C3'-C2'	-5.93	96.67	102.60
34	BA	853	A	P-O3'-C3'	-5.93	111.30	120.20
34	BA	945	A	P-O3'-C3'	5.93	129.10	120.20
35	BB	282	A	O3'-P-O5'	-5.93	95.10	104.00
35	BB	1220	A	O5'-C5'-C4'	-5.93	102.60	111.50
38	BE	51	C	P-O3'-C3'	-5.93	111.30	120.20
40	BG	118	U	O5'-C5'-C4'	-5.93	102.60	111.50
85	AA	1779	C	O3'-P-O5'	-5.93	95.10	104.00
85	AA	2113	U	C4'-C3'-C2'	-5.93	96.67	102.60
1	A0	192	ARG	N-CA-CB	-5.93	100.81	110.42
34	BA	719	G	P-O5'-C5'	-5.93	112.00	120.90
35	BB	1446	C	O4'-C1'-C2'	5.93	113.53	107.60
40	BG	72	G	C4'-C3'-O3'	-5.93	104.10	113.00
40	BG	169	A	C1'-O4'-C4'	-5.93	103.77	109.70
48	BO	187	HIS	N-CA-CB	-5.93	101.10	109.94
57	BX	119	LYS	CB-CA-C	-5.93	101.56	110.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	Bu	121	GLY	N-CA-C	5.93	127.24	113.18
82	Bw	251	ARG	CD-NE-CZ	-5.93	116.09	124.40
85	AA	174	U	C2'-C3'-O3'	5.93	122.60	113.70
85	AA	195	C	P-O3'-C3'	-5.93	111.30	120.20
85	AA	848	C	C5'-C4'-C3'	-5.93	107.10	116.00
85	AA	1415	G	C4'-C3'-C2'	5.93	108.53	102.60
85	AA	1467	U	C5'-C4'-C3'	-5.93	107.10	116.00
85	AA	1489	G	C4'-C3'-O3'	-5.93	104.10	113.00
35	BB	1169	A	P-O5'-C5'	5.93	129.80	120.90
40	BG	159	A	C5'-C4'-C3'	-5.93	107.10	116.00
51	BR	41	LEU	N-CA-C	5.93	123.43	110.80
61	Bb	64	LYS	N-CA-C	5.93	119.75	111.74
66	Bg	58	ASN	CA-C-N	5.93	129.31	120.83
66	Bg	58	ASN	C-N-CA	5.93	129.31	120.83
85	AA	269	G	C5'-C4'-C3'	-5.93	107.10	116.00
85	AA	1922	A	P-O5'-C5'	-5.93	112.00	120.90
11	AC	218	VAL	CA-C-N	5.93	128.71	120.29
11	AC	218	VAL	C-N-CA	5.93	128.71	120.29
34	BA	110	C	C3'-C2'-C1'	-5.93	95.37	101.30
40	BG	29	U	O5'-C5'-C4'	-5.93	102.61	111.50
41	BH	103	C	O4'-C1'-C2'	-5.93	101.67	107.60
52	BS	46	MET	N-CA-CB	5.93	119.47	110.28
85	AA	1440	C	O5'-C5'-C4'	5.93	120.39	111.50
85	AA	1458	G	O4'-C1'-N9	5.93	117.39	108.50
11	AC	164	ARG	N-CA-CB	-5.93	100.47	110.49
20	AL	81	ARG	N-CA-C	-5.93	105.88	114.12
34	BA	1404	A	C5'-C4'-C3'	-5.93	106.31	115.20
34	BA	1525	G	O4'-C4'-C3'	-5.93	98.07	104.00
35	BB	866	A	C1'-O4'-C4'	-5.93	103.97	109.90
48	BO	171	VAL	CA-C-N	5.93	128.58	120.46
48	BO	171	VAL	C-N-CA	5.93	128.58	120.46
16	AH	35	VAL	CB-CA-C	-5.93	103.28	110.99
21	AM	95	LYS	CA-C-N	5.93	132.86	121.54
21	AM	95	LYS	C-N-CA	5.93	132.86	121.54
31	AX	19	GLU	N-CA-CB	-5.93	101.39	110.16
34	BA	1508	C	O5'-C5'-C4'	-5.93	102.61	111.50
34	BA	1674	G	O4'-C1'-N9	5.93	117.09	108.20
36	BC	37	U	P-O5'-C5'	-5.93	112.01	120.90
40	BG	84	U	O4'-C1'-N1	5.93	117.09	108.20
41	BH	33	G	C1'-C2'-O2'	-5.93	99.51	108.40
72	Bm	62	GLU	CA-C-O	5.93	126.83	120.55
85	AA	743	C	O4'-C1'-N1	5.93	117.39	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	917	A	P-O5'-C5'	-5.93	112.01	120.90
85	AA	2064	A	P-O3'-C3'	-5.93	111.31	120.20
2	A1	42	LEU	CA-C-N	5.92	128.83	120.42
2	A1	42	LEU	C-N-CA	5.92	128.83	120.42
8	A7	70	VAL	N-CA-CB	5.92	117.18	110.72
17	AI	97	VAL	N-CA-C	5.92	118.16	109.63
34	BA	770	G	O4'-C1'-N9	5.92	117.09	108.20
34	BA	1107	A	P-O3'-C3'	-5.92	111.31	120.20
34	BA	1118	C	O3'-P-O5'	-5.92	95.11	104.00
39	BF	28	C	O3'-P-O5'	-5.92	95.11	104.00
48	BO	91	HIS	CA-C-N	-5.92	112.82	122.65
48	BO	91	HIS	C-N-CA	-5.92	112.82	122.65
53	BT	37	SER	N-CA-C	-5.92	97.81	108.48
84	By	129	LYS	N-CA-C	-5.92	100.24	109.72
85	AA	1974	C	O5'-C5'-C4'	5.92	120.39	111.50
34	BA	205	G	C5'-C4'-C3'	5.92	124.89	116.00
56	BW	124	ALA	N-CA-C	-5.92	104.74	111.14
64	Be	115	ASN	CA-C-N	-5.92	112.48	120.95
64	Be	115	ASN	C-N-CA	-5.92	112.48	120.95
84	By	61	ASN	CA-C-N	5.92	129.02	120.79
84	By	61	ASN	C-N-CA	5.92	129.02	120.79
86	AB	30	G	O3'-P-O5'	-5.92	95.11	104.00
34	BA	422	C	P-O3'-C3'	-5.92	111.32	120.20
34	BA	957	A	C5'-C4'-O4'	5.92	118.68	109.80
35	BB	537	A	C5'-C4'-C3'	-5.92	107.12	116.00
35	BB	679	G	N9-C1'-C2'	-5.92	103.12	112.00
35	BB	1294	C	P-O5'-C5'	-5.92	112.02	120.90
35	BB	1507	U	P-O3'-C3'	5.92	129.08	120.20
42	BI	46	LYS	CA-C-N	5.92	128.14	120.44
42	BI	46	LYS	C-N-CA	5.92	128.14	120.44
49	BP	21	GLN	CB-CG-CD	-5.92	102.53	112.60
85	AA	655	U	P-O5'-C5'	5.92	129.78	120.90
85	AA	1162	A	O4'-C1'-C2'	5.92	113.52	107.60
85	AA	2109	G	P-O3'-C3'	-5.92	111.32	120.20
7	A6	114	LYS	CA-C-N	5.92	129.02	120.38
7	A6	114	LYS	C-N-CA	5.92	129.02	120.38
22	AO	163	GLU	O-C-N	-5.92	114.72	122.59
34	BA	203	U	C4'-C3'-O3'	-5.92	104.12	113.00
36	BC	42	G	P-O3'-C3'	-5.92	111.32	120.20
36	BC	102	G	O3'-P-O5'	-5.92	95.12	104.00
41	BH	127	A	O5'-C5'-C4'	-5.92	102.62	111.50
67	Bh	30	ARG	N-CA-CB	-5.92	100.49	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	91	U	C5'-C4'-C3'	5.92	124.88	116.00
85	AA	586	G	P-O3'-C3'	-5.92	111.32	120.20
85	AA	1795	C	C3'-C2'-C1'	-5.92	95.38	101.30
2	A1	33	HIS	CA-C-N	5.92	132.84	121.54
2	A1	33	HIS	C-N-CA	5.92	132.84	121.54
34	BA	1034	U	C4'-C3'-O3'	-5.92	104.12	113.00
34	BA	1741	G	C3'-C2'-C1'	-5.92	95.38	101.30
35	BB	145	G	C5'-C4'-C3'	5.92	124.88	116.00
41	BH	46	C	P-O3'-C3'	-5.92	111.32	120.20
71	Bl	97	LYS	N-CA-C	5.92	123.41	110.80
85	AA	265	A	C1'-C2'-O2'	5.92	117.28	108.40
85	AA	274	A	C1'-O4'-C4'	-5.92	103.98	109.90
2	A1	88	GLU	CA-C-O	5.92	127.46	120.66
5	A4	78	LYS	N-CA-CB	-5.92	101.43	110.01
8	A7	152	THR	N-CA-CB	5.92	118.72	110.56
31	AX	121	ILE	N-CA-CB	5.92	119.45	110.58
34	BA	1246	G	C3'-C2'-C1'	-5.92	95.38	101.30
38	BE	121	G	P-O5'-C5'	-5.92	112.02	120.90
54	BU	57	TYR	N-CA-C	-5.92	106.70	114.04
85	AA	1112	G	C2'-C3'-O3'	5.92	118.38	109.50
85	AA	1272	G	O3'-P-O5'	-5.92	95.12	104.00
85	AA	1808	G	C2'-C3'-O3'	5.92	118.37	109.50
5	A4	39	LEU	N-CA-C	5.92	120.23	113.19
26	AS	18	ARG	N-CA-C	-5.92	104.83	111.28
34	BA	1680	G	C4'-C3'-C2'	5.92	108.52	102.60
35	BB	977	G	C1'-C2'-O2'	5.92	117.27	108.40
35	BB	1115	G	O3'-P-O5'	5.92	112.87	104.00
36	BC	122	A	C5'-C4'-C3'	-5.92	107.13	116.00
85	AA	1215	A	C3'-C2'-C1'	-5.92	95.39	101.30
15	AG	122	ILE	CB-CA-C	5.91	119.54	111.97
34	BA	499	C	P-O5'-C5'	5.91	129.77	120.90
35	BB	428	G	O4'-C4'-C3'	-5.91	98.09	104.00
40	BG	43	U	C2'-C3'-O3'	-5.91	104.83	113.70
44	BK	117	GLN	CA-C-N	5.91	129.69	120.82
44	BK	117	GLN	C-N-CA	5.91	129.69	120.82
60	Ba	124	ASN	CA-CB-CG	-5.91	106.69	112.60
79	Bt	16	ARG	CA-C-N	5.91	132.84	121.54
79	Bt	16	ARG	C-N-CA	5.91	132.84	121.54
85	AA	19	A	O3'-P-O5'	5.91	112.87	104.00
2	A1	86	VAL	N-CA-CB	5.91	119.12	111.67
11	AC	144	PHE	N-CA-C	-5.91	104.55	113.89
35	BB	805	G	C5'-C4'-C3'	5.91	124.87	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	BO	119	GLN	CB-CA-C	-5.91	100.80	110.85
59	BZ	73	LEU	CB-CA-C	-5.91	100.80	110.85
62	Bc	23	ASN	CA-C-N	5.91	131.09	122.46
62	Bc	23	ASN	C-N-CA	5.91	131.09	122.46
85	AA	1854	U	C5'-C4'-C3'	-5.91	107.13	116.00
34	BA	513	U	C1'-O4'-C4'	-5.91	103.99	109.90
35	BB	518	G	C4'-C3'-O3'	-5.91	104.13	113.00
35	BB	1297	G	P-O5'-C5'	-5.91	112.03	120.90
40	BG	46	G	C5'-C4'-C3'	-5.91	107.13	116.00
41	BH	103	C	O4'-C1'-N1	5.91	117.36	108.50
59	BZ	80	ASP	CB-CA-C	5.91	119.35	109.89
85	AA	233	C	P-O5'-C5'	-5.91	112.03	120.90
20	AL	87	GLU	N-CA-C	-5.91	106.07	113.28
34	BA	530	A	C4'-C3'-C2'	5.91	108.51	102.60
34	BA	669	U	O4'-C4'-C3'	-5.91	98.09	104.00
34	BA	1697	U	O5'-C5'-C4'	5.91	120.56	111.70
35	BB	1327	U	P-O5'-C5'	-5.91	112.04	120.90
59	BZ	12	ALA	CA-C-N	5.91	128.20	120.28
59	BZ	12	ALA	C-N-CA	5.91	128.20	120.28
84	By	47	ASN	CA-CB-CG	-5.91	106.69	112.60
85	AA	80	G	C4'-C3'-O3'	-5.91	104.14	113.00
85	AA	575	G	C5'-C4'-C3'	-5.91	107.14	116.00
85	AA	834	U	C1'-O4'-C4'	-5.91	103.99	109.90
85	AA	2239	A	C4'-C3'-C2'	-5.91	96.69	102.60
3	A2	33	THR	N-CA-C	5.91	116.08	108.34
12	AD	70	HIS	N-CA-C	-5.91	99.75	108.79
34	BA	160	G	C4'-C3'-C2'	-5.91	96.69	102.60
35	BB	774	C	O4'-C1'-C2'	5.91	113.51	107.60
35	BB	1372	G	C4'-C3'-O3'	-5.91	104.14	113.00
66	Bg	71	CYS	N-CA-C	-5.91	104.92	111.36
85	AA	981	A	P-O5'-C5'	-5.91	112.04	120.90
85	AA	1178	A	C5'-C4'-C3'	5.91	124.86	116.00
35	BB	370	A	C5'-C4'-C3'	-5.91	107.14	116.00
85	AA	483	G	C5'-C4'-C3'	-5.91	107.14	116.00
4	A3	224	ARG	N-CA-CB	-5.90	101.45	110.01
34	BA	184	C	C4'-C3'-C2'	-5.90	96.70	102.60
37	BD	13	A	P-O3'-C3'	-5.90	111.34	120.20
85	AA	1963	G	O3'-P-O5'	5.90	112.86	104.00
3	A2	140	MET	CB-CA-C	5.90	120.15	110.88
34	BA	492	G	C4'-C3'-C2'	5.90	108.50	102.60
53	BT	95	TRP	N-CA-C	-5.90	104.75	111.07
60	Ba	52	VAL	CB-CA-C	-5.90	104.08	112.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	Bc	91	VAL	CB-CA-C	-5.90	104.17	112.14
77	Br	287	VAL	CA-C-N	5.90	128.19	120.28
77	Br	287	VAL	C-N-CA	5.90	128.19	120.28
85	AA	981	A	C4'-C3'-C2'	-5.90	96.70	102.60
85	AA	1544	G	C5'-C4'-C3'	-5.90	107.15	116.00
20	AL	43	SER	CA-C-N	5.90	128.11	120.44
20	AL	43	SER	C-N-CA	5.90	128.11	120.44
34	BA	54	A	P-O3'-C3'	-5.90	111.35	120.20
34	BA	78	U	P-O3'-C3'	-5.90	111.35	120.20
34	BA	721	A	P-O5'-C5'	-5.90	112.05	120.90
35	BB	1060	U	C5'-C4'-C3'	-5.90	107.15	116.00
79	Bt	55	LYS	N-CA-C	5.90	113.53	108.22
85	AA	122	A	O4'-C4'-C3'	-5.90	98.10	104.00
20	AL	89	SER	CA-C-N	5.90	132.23	122.73
20	AL	89	SER	C-N-CA	5.90	132.23	122.73
27	AT	97	ARG	CG-CD-NE	-5.90	99.02	112.00
34	BA	586	G	C4'-C3'-C2'	-5.90	96.70	102.60
34	BA	927	A	O5'-C5'-C4'	-5.90	102.65	111.50
35	BB	701	U	C5'-C4'-O4'	5.90	117.95	109.10
38	BE	8	G	P-O3'-C3'	-5.90	111.35	120.20
61	Bb	93	GLY	N-CA-C	-5.90	106.84	115.63
85	AA	104	C	P-O5'-C5'	-5.90	112.05	120.90
85	AA	1720	C	C5'-C4'-O4'	5.90	118.65	109.80
86	AB	48	C	C2'-C3'-O3'	5.90	118.35	109.50
1	A0	66	TYR	CA-CB-CG	-5.90	103.28	113.90
23	AP	238	ASP	N-CA-C	5.90	120.75	113.50
27	AT	22	LEU	N-CA-C	5.90	117.79	111.36
34	BA	128	C	O5'-C5'-C4'	-5.90	102.65	111.50
34	BA	1652	G	P-O3'-C3'	-5.90	111.36	120.20
35	BB	440	U	C1'-O4'-C4'	-5.90	104.00	109.90
35	BB	1342	C	C4'-C3'-O3'	-5.90	104.16	113.00
36	BC	140	U	C4'-C3'-C2'	5.90	108.50	102.60
38	BE	10	G	N9-C1'-C2'	5.90	122.85	114.00
55	BV	90	PHE	CB-CA-C	-5.90	101.62	110.88
85	AA	463	G	P-O5'-C5'	-5.90	112.05	120.90
85	AA	767	A	O4'-C4'-C3'	-5.90	98.10	104.00
85	AA	2139	G	C2'-C3'-O3'	5.90	122.55	113.70
17	AI	92	ILE	CB-CA-C	5.90	119.23	111.33
34	BA	1695	G	C3'-C2'-C1'	-5.90	95.40	101.30
35	BB	1456	G	C4'-C3'-O3'	-5.90	104.16	113.00
75	Bp	26	LYS	CA-C-O	-5.90	114.33	120.70
85	AA	206	U	P-O5'-C5'	5.90	129.74	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	281	C	C2'-C3'-O3'	5.89	122.54	113.70
34	BA	566	G	N9-C1'-C2'	-5.89	103.16	112.00
34	BA	1512	C	C5'-C4'-C3'	5.89	124.84	116.00
34	BA	1535	G	C1'-O4'-C4'	-5.89	104.00	109.90
34	BA	1699	A	N9-C1'-C2'	-5.89	103.16	112.00
37	BD	77	A	N9-C1'-C2'	-5.89	103.16	112.00
53	BT	74	ARG	CA-C-N	5.89	132.80	121.54
53	BT	74	ARG	C-N-CA	5.89	132.80	121.54
56	BW	18	ALA	N-CA-C	5.89	123.35	110.80
77	Br	161	GLU	N-CA-CB	-5.89	101.99	110.65
80	Bu	179	VAL	CB-CA-C	-5.89	100.63	111.36
85	AA	1230	U	P-O5'-C5'	5.89	129.74	120.90
85	AA	1354	A	C4'-C3'-C2'	-5.89	96.71	102.60
85	AA	1661	U	P-O5'-C5'	5.89	129.74	120.90
4	A3	125	GLU	N-CA-C	5.89	117.39	110.97
34	BA	482	C	O5'-C5'-C4'	-5.89	102.86	111.70
34	BA	967	C	O3'-P-O5'	5.89	112.84	104.00
34	BA	1141	C	C5'-C4'-C3'	-5.89	107.16	116.00
35	BB	789	G	C1'-O4'-C4'	-5.89	104.01	109.90
35	BB	1071	G	P-O3'-C3'	-5.89	111.36	120.20
36	BC	106	G	C1'-O4'-C4'	-5.89	104.01	109.90
45	BL	19	ILE	N-CA-CB	5.89	119.54	111.41
65	Bf	395	THR	CB-CA-C	-5.89	100.53	110.19
84	By	10	THR	CA-CB-CG2	5.89	120.52	110.50
85	AA	348	G	P-O5'-C5'	5.89	129.74	120.90
85	AA	756	G	O5'-C5'-C4'	-5.89	102.66	111.50
85	AA	824	C	P-O3'-C3'	5.89	129.04	120.20
34	BA	1251	A	P-O5'-C5'	5.89	129.74	120.90
34	BA	1331	G	P-O3'-C3'	-5.89	111.36	120.20
34	BA	1535	G	P-O5'-C5'	-5.89	112.06	120.90
34	BA	1729	G	C4'-C3'-C2'	-5.89	96.71	102.60
35	BB	909	U	C5'-C4'-C3'	5.89	124.84	116.00
40	BG	178	G	C4'-C3'-O3'	-5.89	104.16	113.00
65	Bf	349	PRO	CA-C-N	5.89	132.79	121.54
65	Bf	349	PRO	C-N-CA	5.89	132.79	121.54
85	AA	330	C	C2-N1-C1'	5.89	136.47	118.80
85	AA	488	G	O5'-C5'-C4'	-5.89	102.86	111.70
85	AA	1209	U	C4'-C3'-O3'	-5.89	104.16	113.00
2	A1	107	ALA	CA-C-N	5.89	130.76	121.99
2	A1	107	ALA	C-N-CA	5.89	130.76	121.99
18	AJ	5	SER	N-CA-CB	5.89	118.82	110.46
22	AO	109	THR	CA-C-N	5.89	133.87	122.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AO	109	THR	C-N-CA	5.89	133.87	122.03
34	BA	629	G	C5'-C4'-C3'	-5.89	107.17	116.00
34	BA	1676	A	C5'-C4'-C3'	5.89	124.83	116.00
35	BB	51	U	C3'-C2'-C1'	-5.89	95.41	101.30
35	BB	769	C	C2'-C3'-O3'	5.89	118.33	109.50
61	Bb	52	TYR	N-CA-C	5.89	117.65	110.41
66	Bg	80	HIS	CA-CB-CG	-5.89	107.91	113.80
71	Bl	95	TRP	CA-C-O	-5.89	113.04	120.28
85	AA	568	C	O4'-C1'-N1	5.89	117.33	108.50
34	BA	473	A	C4'-C3'-O3'	-5.89	104.17	113.00
49	BP	23	ARG	CA-C-N	-5.89	114.44	122.92
49	BP	23	ARG	C-N-CA	-5.89	114.44	122.92
85	AA	397	G	O3'-P-O5'	5.89	112.83	104.00
85	AA	1528	A	P-O3'-C3'	5.89	129.03	120.20
34	BA	1816	G	P-O3'-C3'	5.89	129.03	120.20
35	BB	37	C	C1'-O4'-C4'	-5.89	104.01	109.90
35	BB	971	A	C3'-C2'-O2'	5.89	119.53	110.70
65	Bf	196	ALA	CA-C-O	5.89	126.75	120.10
85	AA	186	U	C3'-C2'-C1'	-5.89	95.41	101.30
16	AH	60	ASP	CA-C-N	5.88	132.78	121.54
16	AH	60	ASP	C-N-CA	5.88	132.78	121.54
34	BA	1178	U	C4'-C3'-O3'	-5.88	104.17	113.00
34	BA	1656	A	O5'-C5'-C4'	-5.88	102.67	111.50
35	BB	52	G	C2'-C3'-O3'	5.88	122.53	113.70
35	BB	1246	C	O5'-C5'-C4'	-5.88	102.67	111.50
35	BB	1424	G	P-O5'-C5'	-5.88	112.07	120.90
37	BD	34	C	C5'-C4'-C3'	-5.88	107.17	116.00
38	BE	8	G	O5'-C5'-C4'	5.88	120.33	111.50
15	AG	27	LYS	N-CA-C	5.88	118.30	110.53
21	AM	136	HIS	CA-CB-CG	5.88	119.68	113.80
34	BA	1457	C	O3'-P-O5'	5.88	112.83	104.00
34	BA	1503	U	N1-C1'-C2'	-5.88	103.18	112.00
36	BC	4	G	P-O5'-C5'	-5.88	112.08	120.90
38	BE	15	A	C4'-C3'-C2'	-5.88	96.72	102.60
82	Bw	5	GLY	O-C-N	-5.88	115.05	122.70
85	AA	1864	G	C3'-C2'-C1'	-5.88	95.42	101.30
28	AU	45	ALA	CA-C-N	5.88	128.52	120.46
28	AU	45	ALA	C-N-CA	5.88	128.52	120.46
31	AX	167	VAL	CA-C-N	5.88	131.46	122.93
31	AX	167	VAL	C-N-CA	5.88	131.46	122.93
34	BA	1227	U	C5'-C4'-O4'	-5.88	100.98	109.80
34	BA	1511	C	C5'-C4'-C3'	-5.88	107.18	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	8	U	C4'-C3'-O3'	-5.88	104.18	113.00
35	BB	964	G	C4-N9-C1'	-5.88	108.86	126.50
36	BC	95	A	O4'-C4'-C3'	-5.88	98.12	104.00
40	BG	78	C	C5'-C4'-O4'	5.88	118.62	109.80
69	Bj	59	ALA	CA-C-N	5.88	132.77	121.54
69	Bj	59	ALA	C-N-CA	5.88	132.77	121.54
85	AA	899	A	C2'-C3'-O3'	-5.88	104.88	113.70
85	AA	1622	G	O5'-C5'-C4'	-5.88	102.68	111.50
13	AE	168	GLY	O-C-N	-5.88	115.87	122.28
34	BA	1844	U	O3'-P-O5'	-5.88	95.18	104.00
35	BB	1023	G	P-O5'-C5'	5.88	129.72	120.90
59	BZ	66	ARG	N-CA-C	5.88	119.18	110.48
85	AA	838	G	P-O5'-C5'	-5.88	112.08	120.90
86	AB	52	G	C1'-O4'-C4'	-5.88	104.02	109.90
2	A1	95	ARG	N-CA-C	5.88	118.98	109.40
6	A5	3	ILE	N-CA-C	5.88	116.33	107.75
34	BA	181	G	O5'-C5'-C4'	5.88	120.32	111.50
34	BA	404	C	C4'-C3'-C2'	5.88	108.48	102.60
54	BU	7	TYR	CB-CG-CD1	5.88	129.62	120.80
79	Bt	38	ARG	N-CA-CB	-5.88	101.24	110.06
85	AA	648	G	C5'-C4'-C3'	-5.88	107.18	116.00
85	AA	1933	G	O4'-C1'-N9	5.88	117.32	108.50
85	AA	2208	G	O4'-C1'-C2'	-5.88	101.72	107.60
24	AQ	76	THR	O-C-N	-5.88	115.37	123.01
34	BA	26	C	O5'-C5'-C4'	-5.88	102.69	111.50
34	BA	214	A	C4-N9-C1'	-5.88	108.67	126.30
35	BB	155	G	O3'-P-O5'	-5.88	95.19	104.00
35	BB	1215	U	C5'-C4'-C3'	-5.88	107.19	116.00
39	BF	52	A	P-O5'-C5'	5.88	129.72	120.90
40	BG	88	G	C4'-C3'-O3'	-5.88	104.19	113.00
41	BH	32	U	C4'-C3'-C2'	-5.88	96.72	102.60
45	BL	43	VAL	CB-CA-C	-5.88	104.32	112.02
56	BW	60	VAL	N-CA-C	5.88	121.56	109.34
75	Bp	79	THR	O-C-N	-5.88	116.14	121.66
85	AA	1093	C	O4'-C1'-N1	5.88	117.31	108.50
85	AA	1457	C	O5'-C5'-C4'	5.88	120.32	111.50
27	AT	91	ARG	CB-CA-C	5.88	118.55	109.03
34	BA	700	G	C1'-O4'-C4'	-5.88	104.03	109.90
35	BB	268	G	P-O5'-C5'	5.88	129.71	120.90
35	BB	376	A	P-O5'-C5'	-5.88	112.09	120.90
35	BB	640	A	C5'-C4'-C3'	5.88	124.01	115.20
35	BB	776	U	C4'-C3'-O3'	-5.88	104.19	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BE	13	A	C1'-O4'-C4'	-5.88	104.03	109.90
59	BZ	19	ALA	CA-C-N	5.88	126.69	120.11
59	BZ	19	ALA	C-N-CA	5.88	126.69	120.11
61	Bb	104	ASN	CA-CB-CG	-5.88	106.72	112.60
69	Bj	67	LEU	N-CA-C	-5.88	98.29	110.80
85	AA	811	A	C4'-C3'-O3'	-5.88	104.19	113.00
16	AH	46	PHE	CA-CB-CG	-5.87	107.93	113.80
25	AR	15	ASP	CA-C-N	5.87	129.62	120.75
25	AR	15	ASP	C-N-CA	5.87	129.62	120.75
34	BA	996	U	O3'-P-O5'	5.87	112.81	104.00
34	BA	1494	G	C4'-C3'-O3'	5.87	118.21	109.40
35	BB	429	C	C4'-C3'-C2'	-5.87	96.73	102.60
35	BB	1077	C	P-O5'-C5'	-5.87	112.09	120.90
52	BS	21	ASN	CA-CB-CG	-5.87	106.73	112.60
52	BS	91	HIS	CA-CB-CG	5.87	119.67	113.80
85	AA	975	G	C1'-O4'-C4'	-5.87	104.03	109.90
85	AA	1180	C	O3'-P-O5'	-5.87	95.19	104.00
85	AA	1835	U	C1'-O4'-C4'	-5.87	103.83	109.70
3	A2	29	THR	N-CA-C	-5.87	100.72	110.17
18	AJ	101	PHE	CA-C-N	5.87	130.33	122.93
18	AJ	101	PHE	C-N-CA	5.87	130.33	122.93
31	AX	79	LYS	N-CA-C	-5.87	101.15	109.96
31	AX	88	GLU	N-CA-CB	5.87	119.77	110.55
34	BA	440	A	C5'-C4'-C3'	-5.87	106.39	115.20
34	BA	739	A	P-O5'-C5'	-5.87	112.09	120.90
34	BA	762	A	P-O5'-C5'	5.87	129.71	120.90
34	BA	856	G	C4'-C3'-O3'	-5.87	104.19	113.00
34	BA	896	U	P-O3'-C3'	5.87	129.01	120.20
34	BA	1782	C	N1-C1'-C2'	-5.87	103.19	112.00
35	BB	624	A	P-O3'-C3'	-5.87	111.39	120.20
35	BB	1308	G	O5'-C5'-C4'	-5.87	102.69	111.50
36	BC	149	A	C5'-C4'-C3'	-5.87	107.19	116.00
37	BD	4	U	O5'-C5'-C4'	-5.87	102.69	111.50
38	BE	151	C	C2'-C3'-O3'	5.87	122.51	113.70
40	BG	46	G	P-O3'-C3'	-5.87	111.39	120.20
59	BZ	86	LYS	N-CA-CB	-5.87	101.06	110.63
82	Bw	212	THR	N-CA-C	-5.87	104.96	111.36
85	AA	407	G	O5'-C5'-C4'	-5.87	102.69	111.50
85	AA	450	A	C3'-C2'-C1'	-5.87	95.43	101.30
85	AA	1562	U	O3'-P-O5'	-5.87	95.19	104.00
34	BA	219	U	O4'-C1'-N1	5.87	117.30	108.50
34	BA	268	U	O4'-C1'-C2'	5.87	113.47	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1844	U	O5'-C5'-C4'	-5.87	102.69	111.50
37	BD	46	G	C4'-C3'-O3'	-5.87	104.19	113.00
85	AA	673	A	C4'-C3'-O3'	-5.87	104.19	113.00
85	AA	859	G	C8-N9-C1'	5.87	144.61	127.00
13	AE	72	ARG	N-CA-C	5.87	117.76	111.36
13	AE	153	TYR	CA-CB-CG	-5.87	103.33	113.90
34	BA	63	A	C4'-C3'-O3'	-5.87	100.60	109.40
34	BA	902	C	C5'-C4'-C3'	-5.87	107.20	116.00
34	BA	1025	A	P-O3'-C3'	-5.87	111.40	120.20
34	BA	1326	U	O5'-C5'-C4'	5.87	120.30	111.50
35	BB	887	G	P-O3'-C3'	-5.87	111.40	120.20
38	BE	125	C	C3'-C2'-C1'	-5.87	95.43	101.30
58	BY	52	PHE	N-CA-CB	-5.87	102.78	110.88
65	Bf	134	PRO	CB-CA-C	-5.87	101.88	111.56
65	Bf	233	HIS	CA-C-O	5.87	127.56	120.99
74	Bo	19	GLY	N-CA-C	5.87	127.09	113.18
85	AA	1145	U	O4'-C4'-C3'	-5.87	98.13	104.00
35	BB	688	U	C2'-C3'-O3'	5.87	122.50	113.70
35	BB	771	U	P-O3'-C3'	5.87	129.00	120.20
85	AA	364	C	C5'-C4'-C3'	-5.87	107.20	116.00
85	AA	687	G	N9-C1'-C2'	-5.87	105.20	114.00
2	A1	23	VAL	N-CA-C	-5.87	104.91	110.42
34	BA	827	A	C4'-C3'-C2'	-5.87	96.73	102.60
38	BE	76	U	C5'-C4'-C3'	-5.87	107.20	116.00
50	BQ	29	LYS	CA-CB-CG	-5.87	102.37	114.10
77	Br	124	VAL	N-CA-CB	-5.87	103.69	110.55
85	AA	779	G	P-O5'-C5'	5.87	129.70	120.90
86	AB	70	G	C5'-C4'-C3'	-5.87	107.20	116.00
8	A7	196	THR	CA-C-N	5.86	131.84	122.10
8	A7	196	THR	C-N-CA	5.86	131.84	122.10
22	AO	61	GLU	CB-CA-C	-5.86	101.68	110.88
34	BA	476	U	P-O5'-C5'	-5.86	112.11	120.90
34	BA	488	C	O5'-C5'-C4'	5.86	120.30	111.50
34	BA	1786	C	O5'-C5'-C4'	-5.86	102.70	111.50
47	BN	171	ARG	CA-C-N	5.86	132.74	121.54
47	BN	171	ARG	C-N-CA	5.86	132.74	121.54
65	Bf	71	LYS	N-CA-C	5.86	119.51	110.42
85	AA	1976	G	O3'-P-O5'	-5.86	95.20	104.00
5	A4	191	MET	CG-SD-CE	-5.86	88.00	100.90
34	BA	1083	A	P-O3'-C3'	5.86	128.99	120.20
34	BA	1397	C	C4'-C3'-C2'	-5.86	96.74	102.60
35	BB	56	U	O5'-C5'-C4'	-5.86	102.71	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	Bu	152	LEU	N-CA-C	5.86	118.69	109.96
85	AA	753	U	C5'-C4'-O4'	5.86	118.59	109.80
5	A4	163	ASP	CB-CA-C	5.86	120.80	111.48
7	A6	157	PHE	N-CA-C	5.86	123.28	110.80
34	BA	1556	A	O5'-C5'-C4'	-5.86	102.71	111.50
35	BB	138	A	O4'-C1'-N9	5.86	117.29	108.50
35	BB	1445	A	C4'-C3'-O3'	-5.86	104.21	113.00
67	Bh	96	LEU	N-CA-C	5.86	120.16	112.89
85	AA	1885	A	O4'-C1'-C2'	5.86	113.46	107.60
34	BA	710	A	O3'-P-O5'	5.86	112.79	104.00
34	BA	1106	A	C5'-C4'-O4'	-5.86	101.01	109.80
61	Bb	40	HIS	CA-CB-CG	5.86	119.66	113.80
85	AA	9	U	C1'-O4'-C4'	-5.86	104.04	109.90
85	AA	241	U	P-O5'-C5'	5.86	129.69	120.90
85	AA	1415	G	P-O3'-C3'	5.86	128.99	120.20
15	AG	26	LEU	CA-C-N	5.86	131.63	120.97
15	AG	26	LEU	C-N-CA	5.86	131.63	120.97
21	AM	55	ARG	N-CA-CB	-5.86	103.21	111.00
29	AV	16	SER	CA-C-N	5.86	132.73	121.54
29	AV	16	SER	C-N-CA	5.86	132.73	121.54
34	BA	106	U	O5'-C5'-C4'	-5.86	102.71	111.50
34	BA	1029	C	C4'-C3'-O3'	-5.86	104.21	113.00
34	BA	1785	G	C5'-C4'-C3'	5.86	124.79	116.00
35	BB	807	U	C2'-C3'-O3'	5.86	122.48	113.70
35	BB	1460	G	C2'-C3'-O3'	5.86	118.28	109.50
69	Bj	49	LEU	CB-CA-C	-5.86	101.48	111.26
77	Br	350	GLU	N-CA-CB	-5.86	101.58	110.07
85	AA	91	U	P-O5'-C5'	-5.86	112.11	120.90
85	AA	500	C	P-O5'-C5'	-5.86	112.11	120.90
31	AX	66	ARG	N-CA-CB	-5.86	101.52	110.01
34	BA	13	U	P-O3'-C3'	-5.86	111.42	120.20
34	BA	808	U	C2'-C3'-O3'	5.86	118.28	109.50
35	BB	48	G	C2'-C3'-O3'	5.86	118.28	109.50
35	BB	880	G	P-O3'-C3'	-5.86	111.42	120.20
35	BB	1493	A	P-O5'-C5'	-5.86	112.12	120.90
35	BB	1511	U	O3'-P-O5'	5.86	112.78	104.00
37	BD	48	G	C1'-O4'-C4'	-5.86	103.84	109.70
41	BH	31	A	P-O5'-C5'	-5.86	112.12	120.90
47	BN	139	GLN	CB-CG-CD	-5.86	102.64	112.60
57	BX	61	ARG	N-CA-C	-5.86	99.85	109.40
68	Bi	91	ARG	N-CA-C	5.86	117.33	111.07
73	Bn	2	THR	CA-C-N	5.86	129.60	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	Bn	2	THR	C-N-CA	5.86	129.60	120.82
85	AA	1147	A	C4'-C3'-O3'	5.86	118.18	109.40
85	AA	1721	A	C2'-C3'-O3'	5.86	122.48	113.70
85	AA	2229	G	N9-C1'-C2'	5.86	120.78	112.00
6	A5	14	THR	N-CA-C	-5.85	105.72	112.92
14	AF	126	VAL	N-CA-CB	5.85	117.67	111.00
34	BA	279	U	C3'-C2'-C1'	-5.85	95.45	101.30
34	BA	1457	C	P-O5'-C5'	5.85	129.68	120.90
40	BG	130	G	P-O3'-C3'	-5.85	111.42	120.20
3	A2	27	TYR	N-CA-C	5.85	117.74	111.36
34	BA	1189	A	O5'-C5'-C4'	-5.85	102.72	111.50
35	BB	45	A	O3'-P-O5'	-5.85	95.22	104.00
35	BB	663	G	O3'-P-O5'	5.85	112.78	104.00
35	BB	701	U	O4'-C1'-N1	5.85	116.98	108.20
53	BT	73	GLY	N-CA-C	-5.85	99.31	113.18
79	Bt	61	LYS	O-C-N	5.85	128.13	121.93
85	AA	634	U	C5'-C4'-C3'	-5.85	107.22	116.00
85	AA	984	A	C1'-O4'-C4'	-5.85	104.05	109.90
85	AA	1275	A	O5'-C5'-C4'	-5.85	102.92	111.70
21	AM	142	ARG	CA-C-N	5.85	132.72	121.54
21	AM	142	ARG	C-N-CA	5.85	132.72	121.54
67	Bh	140	VAL	CA-C-N	5.85	129.60	120.82
67	Bh	140	VAL	C-N-CA	5.85	129.60	120.82
80	Bu	201	HIS	CA-C-N	5.85	128.12	120.28
80	Bu	201	HIS	C-N-CA	5.85	128.12	120.28
85	AA	251	A	O4'-C1'-C2'	-5.85	101.75	107.60
7	A6	129	GLN	O-C-N	-5.85	115.92	122.12
27	AT	18	LYS	CA-C-N	5.85	131.52	121.63
27	AT	18	LYS	C-N-CA	5.85	131.52	121.63
27	AT	38	CYS	CA-CB-SG	5.85	127.85	114.40
32	AY	48	THR	CA-C-N	5.85	133.42	123.01
32	AY	48	THR	C-N-CA	5.85	133.42	123.01
34	BA	34	U	C1'-O4'-C4'	-5.85	104.05	109.90
35	BB	528	G	O3'-P-O5'	-5.85	95.23	104.00
35	BB	1348	C	P-O5'-C5'	-5.85	112.13	120.90
35	BB	1359	G	C5'-C4'-C3'	-5.85	107.22	116.00
37	BD	81	C	C3'-C2'-C1'	-5.85	95.45	101.30
40	BG	60	A	O4'-C4'-C3'	-5.85	98.15	104.00
48	BO	167	LYS	N-CA-C	5.85	117.33	111.07
50	BQ	35	VAL	N-CA-CB	-5.85	103.71	110.55
67	Bh	9	LYS	N-CA-CB	-5.85	101.21	110.22
71	Bl	52	HIS	CB-CA-C	-5.85	101.76	111.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	420	C	C5'-C4'-C3'	-5.85	107.23	116.00
85	AA	1273	C	C4'-C3'-C2'	-5.85	96.75	102.60
85	AA	1428	A	P-O5'-C5'	-5.85	112.13	120.90
8	A7	231	LEU	N-CA-C	-5.85	106.18	113.55
9	A8	27	ASN	CA-CB-CG	5.85	118.45	112.60
34	BA	1178	U	P-O3'-C3'	-5.85	111.43	120.20
35	BB	111	C	C4'-C3'-C2'	-5.85	96.75	102.60
35	BB	1052	G	O4'-C1'-C2'	5.85	113.45	107.60
35	BB	1370	G	P-O5'-C5'	-5.85	112.13	120.90
35	BB	1400	C	O3'-P-O5'	-5.85	95.23	104.00
38	BE	106	C	O4'-C1'-N1	5.85	117.27	108.50
40	BG	87	G	C5'-C4'-C3'	-5.85	107.23	116.00
82	Bw	3	MET	N-CA-C	-5.85	104.12	112.13
85	AA	623	G	C5'-C4'-C3'	-5.85	107.23	116.00
85	AA	1367	C	P-O5'-C5'	-5.85	112.13	120.90
85	AA	1928	A	P-O3'-C3'	-5.85	111.43	120.20
34	BA	598	G	C1'-C2'-O2'	5.85	117.17	108.40
35	BB	1490	G	N9-C1'-C2'	-5.85	103.23	112.00
44	BK	128	ARG	N-CA-C	-5.85	97.70	107.99
71	Bl	69	THR	CB-CA-C	-5.85	101.08	110.79
85	AA	519	A	O4'-C4'-C3'	-5.85	98.15	104.00
85	AA	1166	C	C4'-C3'-O3'	-5.85	104.23	113.00
8	A7	173	GLY	CA-C-O	5.84	126.51	121.19
18	AJ	106	THR	CA-C-N	5.84	128.70	120.28
18	AJ	106	THR	C-N-CA	5.84	128.70	120.28
34	BA	1183	U	P-O3'-C3'	-5.84	111.43	120.20
34	BA	1217	A	C5'-C4'-C3'	-5.84	107.23	116.00
34	BA	1732	A	O5'-C5'-C4'	5.84	120.27	111.50
42	BI	187	ARG	N-CA-C	-5.84	100.17	109.23
44	BK	86	HIS	CA-CB-CG	5.84	119.64	113.80
48	BO	146	ASN	N-CA-C	-5.84	105.04	111.82
55	BV	97	PHE	N-CA-C	5.84	117.32	111.07
56	BW	17	LEU	N-CA-C	5.84	123.25	110.80
85	AA	1212	C	P-O5'-C5'	5.84	129.67	120.90
34	BA	896	U	C2-N3-C4	-5.84	109.47	127.00
34	BA	1515	U	C5'-C4'-O4'	5.84	118.56	109.80
36	BC	52	A	C4'-C3'-O3'	-5.84	104.24	113.00
44	BK	17	TYR	N-CA-C	5.84	122.72	109.81
81	Bv	8	ALA	N-CA-C	5.84	118.70	110.23
85	AA	108	C	O4'-C4'-C3'	-5.84	98.16	104.00
34	BA	170	U	C5'-C4'-C3'	-5.84	107.24	116.00
34	BA	803	U	C5'-C4'-C3'	-5.84	107.24	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1467	U	C1'-O4'-C4'	-5.84	104.06	109.90
34	BA	1663	U	C4'-C3'-O3'	-5.84	104.24	113.00
35	BB	1129	C	C4'-C3'-C2'	-5.84	96.76	102.60
38	BE	10	G	O5'-C5'-C4'	5.84	120.46	111.70
38	BE	21	C	C5'-C4'-C3'	-5.84	107.24	116.00
42	BI	149	ARG	CA-C-N	5.84	132.70	121.54
42	BI	149	ARG	C-N-CA	5.84	132.70	121.54
50	BQ	70	TYR	CA-CB-CG	-5.84	103.39	113.90
70	Bk	122	ILE	CA-C-O	5.84	128.08	120.78
85	AA	523	U	C2'-C3'-O3'	5.84	118.26	109.50
2	A1	218	ARG	N-CA-C	5.84	118.70	110.23
8	A7	49	ARG	CA-C-N	5.84	132.69	121.54
8	A7	49	ARG	C-N-CA	5.84	132.69	121.54
20	AL	36	MET	CG-SD-CE	-5.84	88.05	100.90
23	AP	45	PRO	CA-C-N	5.84	129.19	120.31
23	AP	45	PRO	C-N-CA	5.84	129.19	120.31
34	BA	454	G	C4'-C3'-O3'	-5.84	104.24	113.00
34	BA	928	C	P-O5'-C5'	-5.84	112.14	120.90
34	BA	1342	C	O3'-P-O5'	-5.84	95.24	104.00
34	BA	1511	C	O4'-C1'-C2'	5.84	113.44	107.60
34	BA	1701	U	O3'-P-O5'	-5.84	95.24	104.00
35	BB	17	U	C4'-C3'-C2'	-5.84	96.76	102.60
35	BB	1410	G	P-O3'-C3'	-5.84	111.44	120.20
41	BH	37	U	P-O3'-C3'	5.84	128.96	120.20
67	Bh	70	ARG	CA-C-O	5.84	126.71	120.70
85	AA	372	U	P-O3'-C3'	-5.84	111.44	120.20
52	BS	146	PRO	N-CA-C	5.84	124.50	112.47
85	AA	1565	G	C4'-C3'-O3'	-5.84	104.24	113.00
34	BA	71	G	C4'-C3'-O3'	-5.84	104.25	113.00
34	BA	647	U	O3'-P-O5'	-5.84	95.25	104.00
34	BA	747	G	P-O3'-C3'	-5.84	111.45	120.20
35	BB	355	A	P-O5'-C5'	5.84	129.66	120.90
50	BQ	126	LYS	CA-C-N	-5.84	113.13	122.53
50	BQ	126	LYS	C-N-CA	-5.84	113.13	122.53
61	Bb	72	THR	N-CA-C	5.84	118.99	109.59
63	Bd	16	ASN	CA-C-N	-5.84	112.16	122.26
63	Bd	16	ASN	C-N-CA	-5.84	112.16	122.26
73	Bn	82	ILE	CB-CA-C	-5.84	103.21	111.38
80	Bu	272	GLU	CA-C-O	5.84	126.38	119.67
85	AA	17	C	C1'-O4'-C4'	-5.84	104.06	109.90
85	AA	557	G	C5'-C4'-C3'	5.84	124.75	116.00
85	AA	680	U	P-O3'-C3'	5.84	128.96	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1513	U	P-O3'-C3'	-5.84	111.45	120.20
34	BA	249	A	O4'-C1'-N9	5.83	116.95	108.20
37	BD	13	A	P-O5'-C5'	-5.83	112.15	120.90
37	BD	87	G	O5'-C5'-C4'	-5.83	102.75	111.50
38	BE	129	G	O5'-C5'-C4'	5.83	120.25	111.50
47	BN	85	LEU	N-CA-CB	-5.83	101.54	110.12
64	Be	187	TYR	N-CA-CB	5.83	119.33	110.28
85	AA	1226	A	C5'-C4'-O4'	-5.83	101.05	109.80
1	A0	132	ALA	CA-C-O	5.83	126.60	120.42
1	A0	197	ASP	CA-C-N	5.83	128.10	120.28
1	A0	197	ASP	C-N-CA	5.83	128.10	120.28
13	AE	154	ASN	CA-C-N	5.83	128.32	120.50
13	AE	154	ASN	C-N-CA	5.83	128.32	120.50
34	BA	953	G	C5'-C4'-C3'	-5.83	107.25	116.00
51	BR	126	ARG	N-CA-C	5.83	119.76	109.96
53	BT	102	LEU	CB-CA-C	-5.83	101.11	110.79
55	BV	52	GLN	CA-C-N	5.83	128.56	120.63
55	BV	52	GLN	C-N-CA	5.83	128.56	120.63
62	Bc	138	ARG	N-CA-C	-5.83	104.92	111.28
77	Br	151	LEU	CB-CA-C	5.83	119.96	110.22
78	Bs	31	ALA	N-CA-C	5.83	118.69	110.23
85	AA	381	A	C3'-C2'-O2'	5.83	119.45	110.70
85	AA	387	U	C4'-C3'-O3'	5.83	118.15	109.40
13	AE	83	ARG	CD-NE-CZ	-5.83	116.24	124.40
26	AS	21	ARG	CB-CA-C	-5.83	101.11	110.79
34	BA	865	C	P-O5'-C5'	-5.83	112.15	120.90
34	BA	921	G	C4'-C3'-C2'	-5.83	96.77	102.60
34	BA	1559	C	C4'-C3'-C2'	5.83	108.43	102.60
34	BA	1846	G	C3'-C2'-C1'	-5.83	95.47	101.30
41	BH	122	U	C1'-O4'-C4'	-5.83	104.07	109.90
66	Bg	27	LEU	N-CA-CB	-5.83	101.55	110.01
71	Bl	62	ARG	N-CA-CB	5.83	119.70	110.55
84	By	117	LYS	N-CA-CB	-5.83	100.63	110.49
85	AA	682	C	O4'-C1'-N1	5.83	117.25	108.50
85	AA	920	A	N9-C1'-C2'	-5.83	105.25	114.00
34	BA	896	U	P-O5'-C5'	-5.83	112.16	120.90
34	BA	1179	U	P-O3'-C3'	5.83	128.94	120.20
34	BA	1563	G	P-O5'-C5'	5.83	129.65	120.90
35	BB	1007	U	P-O5'-C5'	-5.83	112.16	120.90
36	BC	97	U	C4'-C3'-C2'	5.83	108.43	102.60
39	BF	52	A	P-O3'-C3'	-5.83	111.45	120.20
74	Bo	76	ASN	CA-CB-CG	5.83	118.43	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A2	98	VAL	N-CA-C	5.83	116.56	110.62
7	A6	4	TYR	N-CA-CB	-5.83	100.64	110.49
25	AR	70	ASP	CA-C-N	-5.83	112.86	120.44
25	AR	70	ASP	C-N-CA	-5.83	112.86	120.44
34	BA	116	G	O4'-C4'-C3'	-5.83	100.27	106.10
34	BA	812	A	C4'-C3'-O3'	-5.83	104.26	113.00
34	BA	904	G	N9-C1'-C2'	-5.83	103.26	112.00
34	BA	1523	U	O5'-C5'-C4'	-5.83	102.76	111.50
35	BB	1163	U	C4'-C3'-O3'	-5.83	104.26	113.00
61	Bb	6	LYS	CA-C-N	5.83	128.89	120.38
61	Bb	6	LYS	C-N-CA	5.83	128.89	120.38
65	Bf	76	ILE	N-CA-CB	-5.83	101.61	111.23
65	Bf	107	ILE	CA-CB-CG1	5.83	120.31	110.40
65	Bf	204	PHE	CA-CB-CG	-5.83	107.97	113.80
85	AA	307	G	C4'-C3'-C2'	-5.83	96.77	102.60
85	AA	577	U	C2'-C3'-O3'	5.83	122.44	113.70
85	AA	800	A	P-O3'-C3'	5.83	128.94	120.20
85	AA	879	G	C1'-O4'-C4'	-5.83	104.07	109.90
85	AA	2244	G	C4'-C3'-C2'	5.83	108.43	102.60
8	A7	197	ASN	N-CA-C	-5.83	100.51	108.38
11	AC	104	VAL	N-CA-C	5.83	121.46	109.34
27	AT	81	LEU	O-C-N	-5.83	116.16	123.27
34	BA	8	G	P-O3'-C3'	-5.83	111.46	120.20
35	BB	83	G	P-O5'-C5'	5.83	129.64	120.90
35	BB	383	U	C4'-C3'-C2'	-5.83	96.77	102.60
69	Bj	83	LEU	N-CA-C	5.83	117.64	108.96
85	AA	978	U	C1'-O4'-C4'	-5.83	104.07	109.90
85	AA	1421	U	O4'-C1'-N1	5.83	116.94	108.20
25	AR	7	TYR	CA-CB-CG	-5.83	103.42	113.90
34	BA	94	G	P-O3'-C3'	-5.83	111.46	120.20
34	BA	1047	U	O3'-P-O5'	5.83	112.74	104.00
35	BB	419	G	C1'-O4'-C4'	-5.83	104.08	109.90
35	BB	1306	G	C5'-C4'-C3'	-5.83	107.26	116.00
37	BD	11	A	C5'-C4'-C3'	-5.83	107.26	116.00
64	Be	96	LEU	N-CA-CB	5.83	120.33	110.49
67	Bh	61	GLU	N-CA-C	5.83	120.00	113.01
85	AA	507	C	C4'-C3'-C2'	5.83	108.42	102.60
85	AA	1468	G	O3'-P-O5'	5.83	112.74	104.00
8	A7	195	HIS	CA-CB-CG	-5.82	107.98	113.80
34	BA	73	G	O3'-P-O5'	5.82	112.73	104.00
34	BA	397	A	C1'-O4'-C4'	-5.82	104.08	109.90
38	BE	178	G	N9-C1'-C2'	-5.82	103.27	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BG	152	G	C5'-C4'-C3'	-5.82	107.26	116.00
65	Bf	454	LYS	CB-CG-CD	5.82	124.69	111.30
85	AA	477	U	C5'-C4'-C3'	5.82	124.74	116.00
4	A3	7	TYR	CB-CA-C	5.82	116.70	110.65
8	A7	72	ASP	CA-CB-CG	-5.82	106.78	112.60
34	BA	513	U	C5'-C4'-C3'	-5.82	107.27	116.00
35	BB	1102	U	C4'-C3'-C2'	-5.82	96.78	102.60
35	BB	1443	C	P-O3'-C3'	-5.82	111.47	120.20
37	BD	31	U	P-O3'-C3'	-5.82	111.47	120.20
85	AA	439	U	P-O5'-C5'	-5.82	112.17	120.90
3	A2	145	ARG	CD-NE-CZ	-5.82	116.25	124.40
19	AK	13	GLN	N-CA-C	5.82	118.60	108.76
34	BA	387	A	C5'-C4'-C3'	-5.82	107.27	116.00
35	BB	817	C	O5'-C5'-C4'	5.82	120.23	111.50
49	BP	112	GLN	CB-CG-CD	5.82	122.50	112.60
53	BT	134	ASN	CA-C-O	5.82	128.83	120.51
76	Bq	26	TRP	CA-C-O	5.82	126.68	120.10
85	AA	842	G	C4'-C3'-C2'	-5.82	96.78	102.60
85	AA	1497	U	O4'-C4'-C3'	-5.82	98.18	104.00
85	AA	1821	C	C5'-C4'-C3'	-5.82	107.27	116.00
35	BB	1004	A	C3'-C2'-C1'	-5.82	95.48	101.30
67	Bh	28	GLU	N-CA-C	5.82	117.81	109.14
85	AA	249	C	C1'-C2'-O2'	5.82	117.13	108.40
85	AA	1717	G	O5'-C5'-C4'	5.82	120.43	111.70
2	A1	61	ILE	N-CA-CB	5.82	117.36	110.55
2	A1	62	LEU	N-CA-C	5.82	117.62	111.28
34	BA	30	A	C4-N9-C1'	-5.82	108.85	126.30
35	BB	532	C	C1'-O4'-C4'	-5.82	104.08	109.90
35	BB	1050	A	P-O5'-C5'	-5.82	112.17	120.90
35	BB	1126	A	C1'-O4'-C4'	-5.82	104.08	109.90
40	BG	13	A	O4'-C1'-N9	5.82	116.92	108.20
40	BG	166	C	P-O5'-C5'	5.82	129.63	120.90
47	BN	51	ILE	N-CA-CB	-5.82	105.58	112.39
57	BX	86	ARG	N-CA-C	5.82	118.50	111.40
58	BY	13	VAL	N-CA-C	-5.82	98.76	107.37
73	Bn	67	LEU	CA-C-O	5.82	126.67	120.10
80	Bu	58	ARG	N-CA-C	-5.82	98.41	110.80
84	By	109	GLU	N-CA-C	5.82	118.72	109.24
85	AA	39	A	C1'-O4'-C4'	-5.82	104.08	109.90
85	AA	809	A	C2'-C3'-O3'	5.82	122.43	113.70
85	AA	1378	U	O3'-P-O5'	-5.82	95.28	104.00
85	AA	1595	G	O3'-P-O5'	5.82	112.73	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	A9	149	THR	N-CA-C	-5.82	99.42	108.90
29	AV	94	GLU	CB-CG-CD	5.82	122.49	112.60
34	BA	79	C	C4'-C3'-O3'	-5.82	104.28	113.00
34	BA	566	G	C3'-C2'-C1'	-5.82	95.48	101.30
34	BA	941	G	P-O5'-C5'	-5.82	112.18	120.90
34	BA	1372	C	O4'-C4'-C3'	5.82	109.82	104.00
34	BA	1411	C	O3'-P-O5'	-5.82	95.28	104.00
39	BF	68	C	P-O3'-C3'	-5.82	111.48	120.20
48	BO	187	HIS	CB-CA-C	5.82	120.11	110.81
67	Bh	93	SER	CB-CA-C	-5.82	101.75	110.88
77	Br	71	ALA	CA-C-N	-5.82	114.89	122.51
77	Br	71	ALA	C-N-CA	-5.82	114.89	122.51
85	AA	514	U	C4'-C3'-O3'	-5.82	104.28	113.00
85	AA	884	A	O5'-C5'-C4'	5.82	120.42	111.70
85	AA	1666	U	O4'-C4'-C3'	-5.82	98.18	104.00
85	AA	1812	C	O4'-C4'-C3'	5.82	109.81	104.00
31	AX	168	ASP	N-CA-CB	-5.81	101.33	110.69
34	BA	1737	A	C1'-O4'-C4'	-5.81	104.09	109.90
41	BH	5	G	P-O3'-C3'	-5.81	111.48	120.20
59	BZ	43	ARG	CA-C-N	5.81	132.58	122.81
59	BZ	43	ARG	C-N-CA	5.81	132.58	122.81
77	Br	178	ASP	N-CA-C	-5.81	105.02	111.36
83	Bx	120	ASP	N-CA-CB	-5.81	101.57	110.12
85	AA	111	A	C5'-C4'-O4'	5.81	117.82	109.10
85	AA	514	U	O3'-P-O5'	-5.81	95.28	104.00
85	AA	849	A	P-O3'-C3'	-5.81	111.48	120.20
85	AA	1605	G	P-O5'-C5'	-5.81	112.18	120.90
34	BA	530	A	P-O5'-C5'	-5.81	112.18	120.90
34	BA	1486	U	O5'-C5'-C4'	5.81	120.22	111.50
34	BA	1813	C	P-O5'-C5'	-5.81	112.18	120.90
35	BB	912	C	C4'-C3'-C2'	-5.81	96.79	102.60
44	BK	95	HIS	CB-CG-CD2	-5.81	123.64	131.20
61	Bb	74	ASN	CA-CB-CG	-5.81	106.79	112.60
85	AA	1719	C	O4'-C1'-N1	5.81	117.22	108.50
85	AA	1983	C	P-O3'-C3'	5.81	128.92	120.20
85	AA	2075	C	P-O3'-C3'	-5.81	111.48	120.20
34	BA	375	C	P-O5'-C5'	5.81	129.62	120.90
50	BQ	96	ILE	N-CA-CB	5.81	120.00	111.52
85	AA	822	U	C1'-O4'-C4'	-5.81	104.09	109.90
85	AA	1979	A	N9-C1'-C2'	-5.81	105.28	114.00
1	A0	75	LYS	N-CA-C	-5.81	100.52	109.52
28	AU	106	VAL	N-CA-CB	5.81	120.82	111.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	AW	10	TYR	CA-C-O	5.81	126.70	120.08
34	BA	53	G	O5'-C5'-C4'	-5.81	102.78	111.50
34	BA	155	U	P-O3'-C3'	-5.81	111.49	120.20
34	BA	339	G	C2'-C3'-O3'	5.81	122.41	113.70
34	BA	877	U	O4'-C4'-C3'	-5.81	98.19	104.00
34	BA	953	G	P-O5'-C5'	-5.81	112.19	120.90
42	BI	92	ASP	N-CA-CB	5.81	120.10	110.63
60	Ba	89	SER	CA-C-N	5.81	132.64	121.54
60	Ba	89	SER	C-N-CA	5.81	132.64	121.54
61	Bb	73	ILE	N-CA-CB	-5.81	102.71	112.47
64	Be	116	VAL	N-CA-C	-5.81	103.72	110.05
65	Bf	319	THR	CA-C-N	5.81	131.28	122.92
65	Bf	319	THR	C-N-CA	5.81	131.28	122.92
85	AA	78	A	C4'-C3'-C2'	-5.81	96.79	102.60
85	AA	329	G	O3'-P-O5'	5.81	112.71	104.00
85	AA	1722	G	P-O3'-C3'	5.81	128.91	120.20
12	AD	31	GLY	N-CA-C	5.81	126.94	113.18
34	BA	373	G	C1'-O4'-C4'	-5.81	104.09	109.90
34	BA	538	G	C5'-C4'-C3'	5.81	124.71	116.00
35	BB	1459	U	C2'-C3'-O3'	5.81	118.21	109.50
35	BB	1540	U	O4'-C4'-C3'	-5.81	98.19	104.00
37	BD	35	C	C1'-O4'-C4'	-5.81	104.09	109.90
77	Br	349	ARG	N-CA-C	5.81	120.21	113.18
85	AA	346	U	O3'-P-O5'	5.81	112.71	104.00
85	AA	1483	A	C1'-O4'-C4'	-5.81	104.09	109.90
34	BA	347	A	P-O5'-C5'	5.81	129.61	120.90
34	BA	592	G	C5'-C4'-C3'	5.81	124.71	116.00
66	Bg	36	LEU	N-CA-C	-5.81	100.72	109.95
2	A1	31	GLY	CA-C-N	5.80	127.09	119.84
2	A1	31	GLY	C-N-CA	5.80	127.09	119.84
31	AX	101	ALA	N-CA-C	-5.80	105.03	111.36
34	BA	575	U	P-O5'-C5'	5.80	129.61	120.90
35	BB	1166	A	O3'-P-O5'	5.80	112.71	104.00
38	BE	20	C	O4'-C1'-C2'	-5.80	101.80	107.60
44	BK	69	ARG	CA-C-O	5.80	126.68	120.70
68	Bi	18	PHE	O-C-N	-5.80	116.16	123.01
85	AA	2099	C	O3'-P-O5'	-5.80	95.29	104.00
11	AC	242	ASP	O-C-N	-5.80	117.79	121.85
34	BA	1348	G	C5'-C4'-C3'	-5.80	107.30	116.00
35	BB	37	C	P-O5'-C5'	-5.80	112.19	120.90
35	BB	838	G	O4'-C4'-C3'	-5.80	100.30	106.10
35	BB	847	U	C4'-C3'-C2'	5.80	108.40	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BG	167	C	C4'-C3'-O3'	-5.80	104.30	113.00
34	BA	52	G	P-O5'-C5'	-5.80	112.20	120.90
34	BA	151	A	O4'-C1'-N9	5.80	116.90	108.20
34	BA	1831	A	O4'-C4'-C3'	5.80	109.80	104.00
35	BB	1228	A	C4'-C3'-C2'	5.80	108.40	102.60
35	BB	1465	U	O3'-P-O5'	5.80	112.70	104.00
35	BB	1467	A	P-O5'-C5'	5.80	129.60	120.90
39	BF	53	G	O5'-C5'-C4'	-5.80	103.00	111.70
40	BG	172	C	C4'-C3'-C2'	-5.80	96.80	102.60
75	Bp	32	THR	CB-CA-C	5.80	118.46	110.34
85	AA	569	A	C3'-C2'-C1'	-5.80	95.50	101.30
85	AA	736	U	O3'-P-O5'	-5.80	95.30	104.00
85	AA	1057	G	C5'-C4'-C3'	-5.80	107.30	116.00
85	AA	1295	G	P-O3'-C3'	-5.80	111.50	120.20
85	AA	1733	G	O3'-P-O5'	5.80	112.70	104.00
85	AA	2151	U	O5'-C5'-C4'	-5.80	102.80	111.50
3	A2	94	PRO	CB-CA-C	5.80	120.09	111.85
17	AI	60	ALA	O-C-N	-5.80	114.65	121.32
34	BA	83	G	C2'-C3'-O3'	5.80	118.20	109.50
34	BA	259	C	C4'-C3'-O3'	-5.80	104.30	113.00
34	BA	684	G	O4'-C1'-C2'	-5.80	100.00	105.80
34	BA	1556	A	P-O3'-C3'	5.80	128.90	120.20
34	BA	1719	G	P-O3'-C3'	-5.80	111.50	120.20
35	BB	681	G	C5'-C4'-C3'	-5.80	107.30	116.00
35	BB	1038	G	C4'-C3'-C2'	5.80	108.40	102.60
38	BE	208	G	C4'-C3'-C2'	-5.80	96.80	102.60
41	BH	2	U	O5'-C5'-C4'	-5.80	102.80	111.50
55	BV	32	ILE	O-C-N	-5.80	116.71	120.42
69	Bj	90	ASP	N-CA-CB	-5.80	101.60	110.01
76	Bq	43	HIS	CA-CB-CG	-5.80	108.00	113.80
85	AA	484	G	O4'-C4'-C3'	-5.80	98.20	104.00
85	AA	1535	C	O4'-C1'-C2'	-5.80	100.00	105.80
85	AA	1928	A	O5'-C5'-C4'	-5.80	103.00	111.70
3	A2	140	MET	CA-CB-CG	5.80	125.70	114.10
6	A5	21	HIS	CB-CG-CD2	-5.80	123.66	131.20
34	BA	144	C	C5'-C4'-C3'	-5.80	106.50	115.20
34	BA	527	C	C4'-C3'-C2'	-5.80	96.80	102.60
34	BA	1341	A	C1'-O4'-C4'	-5.80	104.10	109.90
35	BB	1137	G	C5'-C4'-O4'	5.80	118.50	109.80
35	BB	1421	C	O3'-P-O5'	-5.80	95.30	104.00
66	Bg	85	ASN	CB-CA-C	-5.80	101.53	110.81
70	Bk	96	ARG	N-CA-CB	5.80	119.27	110.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
77	Br	99	ARG	N-CA-CB	5.80	120.29	110.49
81	Bv	150	LEU	N-CA-C	5.80	117.68	111.36
85	AA	1884	A	C4'-C3'-C2'	-5.80	96.80	102.60
5	A4	11	ARG	N-CA-CB	5.80	118.33	110.10
11	AC	156	ARG	N-CA-C	-5.80	106.04	113.23
23	AP	77	VAL	CA-C-N	5.80	128.05	120.28
23	AP	77	VAL	C-N-CA	5.80	128.05	120.28
34	BA	430	A	O4'-C4'-C3'	-5.80	98.20	104.00
34	BA	579	U	C5'-C4'-C3'	-5.80	107.31	116.00
35	BB	132	G	O4'-C1'-C2'	5.80	113.40	107.60
38	BE	70	C	O3'-P-O5'	5.80	112.69	104.00
45	BL	28	ILE	CB-CA-C	-5.80	104.66	111.09
47	BN	97	THR	CA-CB-OG1	5.80	118.29	109.60
50	BQ	196	HIS	CA-C-N	5.80	130.59	121.08
50	BQ	196	HIS	C-N-CA	5.80	130.59	121.08
63	Bd	25	LEU	CA-C-N	5.80	127.09	119.84
63	Bd	25	LEU	C-N-CA	5.80	127.09	119.84
67	Bh	53	TYR	N-CA-CB	5.80	119.15	110.22
85	AA	160	A	P-O3'-C3'	-5.80	111.50	120.20
85	AA	1497	U	C4'-C3'-C2'	5.80	108.40	102.60
85	AA	1646	U	O3'-P-O5'	5.80	112.70	104.00
2	A1	211	SER	CB-CA-C	-5.79	101.17	110.79
34	BA	400	A	O4'-C1'-C2'	5.79	113.39	107.60
34	BA	1003	A	O3'-P-O5'	5.79	112.69	104.00
42	BI	77	TRP	N-CA-C	-5.79	98.05	108.48
46	BM	123	ALA	N-CA-C	5.79	118.67	110.50
51	BR	56	ARG	NE-CZ-NH1	5.79	127.30	121.50
85	AA	94	C	C4'-C3'-O3'	-5.79	104.31	113.00
85	AA	2134	U	P-O3'-C3'	-5.79	111.51	120.20
31	AX	157	ILE	N-CA-CB	-5.79	104.70	111.83
34	BA	211	C	C3'-C2'-C1'	-5.79	95.51	101.30
34	BA	239	C	O5'-C5'-C4'	-5.79	102.81	111.50
34	BA	876	C	P-O5'-C5'	-5.79	112.21	120.90
34	BA	1546	C	P-O5'-C5'	-5.79	112.21	120.90
34	BA	1598	U	P-O5'-C5'	5.79	129.59	120.90
34	BA	1622	U	O4'-C1'-N1	5.79	117.19	108.50
34	BA	1779	U	C5'-C4'-C3'	-5.79	107.31	116.00
35	BB	70	A	P-O3'-C3'	-5.79	111.51	120.20
35	BB	999	G	O5'-C5'-C4'	-5.79	102.81	111.50
36	BC	124	A	O5'-C5'-C4'	5.79	120.19	111.50
37	BD	51	G	C1'-O4'-C4'	-5.79	104.11	109.90
40	BG	88	G	C5'-C4'-C3'	-5.79	107.31	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BI	175	SER	N-CA-CB	5.79	118.48	109.85
85	AA	1338	C	P-O5'-C5'	-5.79	112.21	120.90
85	AA	2086	C	C4'-C3'-C2'	5.79	108.39	102.60
31	AX	184	ASN	CB-CA-C	5.79	119.36	110.62
35	BB	3	C	C1'-O4'-C4'	-5.79	104.11	109.90
38	BE	129	G	C1'-O4'-C4'	-5.79	104.11	109.90
39	BF	6	C	P-O3'-C3'	5.79	128.89	120.20
41	BH	29	G	P-O3'-C3'	-5.79	111.51	120.20
47	BN	142	ASP	CB-CA-C	5.79	120.57	112.11
68	Bi	4	PRO	CA-C-N	5.79	132.12	121.70
68	Bi	4	PRO	C-N-CA	5.79	132.12	121.70
83	Bx	40	PHE	CB-CA-C	-5.79	98.43	109.66
85	AA	177	A	O4'-C1'-C2'	5.79	113.39	107.60
85	AA	605	A	P-O3'-C3'	-5.79	111.51	120.20
85	AA	661	C	O3'-P-O5'	-5.79	95.31	104.00
34	BA	1735	G	O3'-P-O5'	-5.79	95.32	104.00
35	BB	1289	G	P-O5'-C5'	5.79	129.59	120.90
38	BE	155	C	C1'-O4'-C4'	-5.79	103.91	109.70
40	BG	60	A	C3'-C2'-C1'	-5.79	95.51	101.30
85	AA	118	C	O4'-C1'-C2'	5.79	113.39	107.60
85	AA	123	A	O5'-C5'-C4'	5.79	120.19	111.50
85	AA	1274	A	P-O5'-C5'	-5.79	112.22	120.90
85	AA	2067	A	C4'-C3'-O3'	-5.79	104.31	113.00
34	BA	814	C	C4'-C3'-C2'	-5.79	96.81	102.60
36	BC	30	U	O5'-C5'-C4'	-5.79	102.82	111.50
37	BD	51	G	P-O3'-C3'	5.79	128.88	120.20
85	AA	2110	U	O4'-C1'-C2'	5.79	113.39	107.60
85	AA	2114	U	C3'-C2'-C1'	-5.79	95.51	101.30
36	BC	102	G	O5'-C5'-C4'	-5.79	102.82	111.50
45	BL	99	LYS	N-CA-CB	5.79	118.48	109.97
47	BN	110	SER	N-CA-C	5.79	117.58	108.96
85	AA	511	A	O5'-C5'-C4'	-5.79	102.82	111.50
34	BA	116	G	C2'-C3'-O3'	5.79	118.18	109.50
34	BA	378	C	O3'-P-O5'	5.79	112.68	104.00
34	BA	969	A	C5'-C4'-C3'	5.79	123.88	115.20
35	BB	115	A	P-O5'-C5'	-5.79	112.22	120.90
36	BC	61	A	C4'-C3'-C2'	-5.79	96.81	102.60
45	BL	32	GLU	N-CA-C	-5.79	98.47	110.80
47	BN	40	ARG	N-CA-C	5.79	117.26	111.07
65	Bf	101	LYS	CA-CB-CG	5.79	125.67	114.10
74	Bo	13	ARG	CB-CA-C	-5.79	101.19	110.79
82	Bw	202	GLN	N-CA-C	-5.79	105.32	112.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2241	C	O4'-C1'-C2'	5.79	113.39	107.60
36	BC	11	G	P-O5'-C5'	-5.78	112.22	120.90
36	BC	129	C	O5'-C5'-C4'	-5.78	102.82	111.50
40	BG	117	C	C4'-C3'-C2'	-5.78	96.82	102.60
50	BQ	89	LYS	CB-CA-C	-5.78	100.26	109.80
84	By	67	THR	CA-C-O	5.78	126.49	119.38
84	By	106	GLN	N-CA-C	-5.78	106.18	113.18
85	AA	10	G	O3'-P-O5'	-5.78	95.32	104.00
85	AA	727	U	C4'-C3'-C2'	-5.78	96.82	102.60
85	AA	753	U	O4'-C1'-N1	5.78	117.18	108.50
34	BA	975	A	C1'-O4'-C4'	-5.78	104.12	109.90
35	BB	302	U	O3'-P-O5'	-5.78	95.33	104.00
35	BB	1246	C	C1'-O4'-C4'	-5.78	104.12	109.90
71	Bl	104	ASN	CA-CB-CG	-5.78	106.82	112.60
73	Bn	28	HIS	CB-CA-C	-5.78	98.91	110.42
81	Bv	156	THR	CA-CB-OG1	5.78	118.27	109.60
85	AA	77	C	O4'-C1'-N1	5.78	117.17	108.50
85	AA	326	C	O4'-C4'-C3'	-5.78	100.32	106.10
85	AA	2029	G	C4'-C3'-C2'	-5.78	96.82	102.60
11	AC	127	SER	CB-CA-C	-5.78	101.19	110.79
23	AP	131	VAL	N-CA-CB	-5.78	104.32	110.62
34	BA	1145	U	P-O5'-C5'	-5.78	112.23	120.90
34	BA	1265	G	O5'-C5'-C4'	-5.78	103.03	111.70
34	BA	1296	U	P-O3'-C3'	5.78	128.87	120.20
35	BB	964	G	N9-C1'-C2'	-5.78	103.33	112.00
36	BC	26	U	C2'-C3'-O3'	5.78	122.37	113.70
37	BD	13	A	O5'-C5'-C4'	-5.78	103.03	111.70
38	BE	5	A	P-O3'-C3'	5.78	128.87	120.20
41	BH	20	A	C4'-C3'-C2'	-5.78	96.82	102.60
85	AA	392	G	O5'-C5'-C4'	-5.78	102.83	111.50
85	AA	496	C	C5'-C4'-C3'	5.78	124.67	116.00
85	AA	2234	C	O4'-C1'-N1	5.78	117.17	108.50
34	BA	532	C	O5'-C5'-C4'	5.78	120.17	111.50
35	BB	556	U	C1'-O4'-C4'	-5.78	104.12	109.90
35	BB	1199	A	P-O5'-C5'	5.78	129.57	120.90
48	BO	55	ARG	CA-C-O	5.78	127.50	120.57
77	Br	33	HIS	N-CA-C	5.78	118.36	111.71
83	Bx	257	ALA	N-CA-C	-5.78	104.98	111.28
85	AA	90	A	C5'-C4'-C3'	-5.78	106.53	115.20
85	AA	1982	C	C2'-C3'-O3'	5.78	118.17	109.50
21	AM	116	ARG	CB-CA-C	5.78	120.67	110.85
22	AO	34	ILE	O-C-N	-5.78	116.06	122.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	AS	105	PHE	CB-CA-C	-5.78	98.92	110.42
34	BA	805	A	O4'-C4'-C3'	-5.78	98.22	104.00
34	BA	1299	G	C2'-C3'-O3'	5.78	122.37	113.70
34	BA	1692	U	P-O3'-C3'	-5.78	111.53	120.20
34	BA	1800	G	O4'-C1'-N9	5.78	117.17	108.50
35	BB	387	G	C5'-C4'-C3'	-5.78	107.33	116.00
36	BC	110	A	O3'-P-O5'	5.78	112.67	104.00
70	Bk	89	ALA	CA-C-N	5.78	129.92	121.31
70	Bk	89	ALA	C-N-CA	5.78	129.92	121.31
81	Bv	60	LEU	CA-C-O	5.78	127.45	120.81
85	AA	570	U	C4'-C3'-C2'	-5.78	96.82	102.60
85	AA	794	A	C1'-O4'-C4'	-5.78	104.12	109.90
85	AA	1119	A	P-O5'-C5'	-5.78	112.23	120.90
85	AA	1342	C	C4'-C3'-C2'	-5.78	96.82	102.60
34	BA	246	G	O5'-C5'-C4'	-5.78	102.84	111.50
34	BA	257	G	C1'-O4'-C4'	-5.78	104.12	109.90
34	BA	522	C	C4'-C3'-C2'	-5.78	96.83	102.60
34	BA	939	C	O5'-C5'-C4'	-5.78	102.84	111.50
34	BA	1519	G	C1'-O4'-C4'	-5.78	104.12	109.90
35	BB	466	A	P-O5'-C5'	-5.78	112.24	120.90
35	BB	1537	C	C3'-C2'-C1'	-5.78	95.52	101.30
38	BE	206	G	O4'-C4'-C3'	-5.78	98.22	104.00
40	BG	50	G	C2'-C3'-O3'	5.78	118.16	109.50
63	Bd	8	THR	N-CA-CB	5.78	120.25	110.49
13	AE	43	ASN	N-CA-CB	5.77	120.44	111.84
34	BA	108	A	N9-C1'-C2'	-5.77	105.34	114.00
35	BB	1467	A	O4'-C4'-C3'	-5.77	98.23	104.00
39	BF	15	U	O4'-C1'-N1	5.77	116.86	108.20
48	BO	208	MET	CG-SD-CE	-5.77	88.20	100.90
84	By	11	PHE	CA-CB-CG	5.77	119.57	113.80
85	AA	713	G	P-O5'-C5'	-5.77	112.24	120.90
85	AA	1571	A	C4'-C3'-C2'	-5.77	96.83	102.60
2	A1	169	LEU	N-CA-C	-5.77	99.93	108.99
34	BA	614	A	C5'-C4'-C3'	-5.77	107.34	116.00
34	BA	693	G	C4'-C3'-O3'	-5.77	104.34	113.00
34	BA	780	U	C5'-C4'-C3'	5.77	124.66	116.00
34	BA	817	U	C5'-C4'-O4'	5.77	118.46	109.80
35	BB	1141	A	P-O3'-C3'	-5.77	111.54	120.20
35	BB	1379	U	C4'-C3'-C2'	-5.77	96.83	102.60
40	BG	132	U	P-O5'-C5'	5.77	129.56	120.90
47	BN	159	GLY	N-CA-C	-5.77	105.68	113.24
50	BQ	220	LYS	N-CA-C	-5.77	98.50	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	Bf	137	VAL	CB-CA-C	-5.77	103.65	111.15
70	Bk	105	ASN	CA-CB-CG	5.77	118.37	112.60
86	AB	25	C	O3'-P-O5'	-5.77	95.34	104.00
27	AT	8	ALA	N-CA-C	5.77	118.64	110.50
31	AX	137	ILE	CA-C-N	5.77	128.32	122.66
31	AX	137	ILE	C-N-CA	5.77	128.32	122.66
34	BA	249	A	O3'-P-O5'	5.77	112.66	104.00
34	BA	868	C	O4'-C1'-N1	5.77	117.16	108.50
35	BB	1447	U	C4'-C3'-O3'	-5.77	104.34	113.00
56	BW	44	TYR	N-CA-C	-5.77	98.51	110.80
65	Bf	128	THR	CA-C-N	5.77	130.70	123.14
65	Bf	128	THR	C-N-CA	5.77	130.70	123.14
69	Bj	51	HIS	CA-CB-CG	5.77	119.57	113.80
85	AA	556	C	C5'-C4'-C3'	5.77	124.66	116.00
1	A0	105	MET	N-CA-C	-5.77	98.88	108.34
29	AV	21	ARG	N-CA-C	5.77	122.56	109.81
35	BB	991	C	C4'-C3'-C2'	-5.77	96.83	102.60
35	BB	1470	G	C5'-C4'-C3'	5.77	124.65	116.00
40	BG	165	C	C4'-C3'-O3'	-5.77	104.34	113.00
51	BR	85	ARG	CA-C-O	5.77	126.67	120.55
54	BU	108	LYS	N-CA-C	-5.77	104.96	112.23
60	Ba	9	VAL	CA-C-N	5.77	130.54	122.23
60	Ba	9	VAL	C-N-CA	5.77	130.54	122.23
63	Bd	59	ARG	CA-C-O	5.77	125.17	118.77
85	AA	2199	G	P-O5'-C5'	-5.77	112.25	120.90
18	AJ	52	ILE	N-CA-C	5.77	117.08	108.54
29	AV	44	ARG	N-CA-C	5.77	118.87	109.06
34	BA	458	G	C5'-C4'-C3'	-5.77	107.35	116.00
34	BA	1421	A	C4'-C3'-C2'	5.77	108.37	102.60
35	BB	528	G	O4'-C1'-C2'	5.77	111.57	105.80
41	BH	25	A	N9-C1'-C2'	5.77	120.65	112.00
51	BR	93	SER	CA-C-O	5.77	126.66	120.55
62	Bc	78	LYS	CD-CE-NZ	5.77	130.35	111.90
77	Br	38	PHE	N-CA-C	-5.77	105.07	111.36
77	Br	212	ASP	N-CA-C	-5.77	99.54	108.42
85	AA	31	C	P-O3'-C3'	-5.77	111.55	120.20
85	AA	158	C	O3'-P-O5'	-5.77	95.35	104.00
85	AA	468	A	O3'-P-O5'	5.77	112.65	104.00
85	AA	523	U	O4'-C1'-C2'	5.77	111.57	105.80
85	AA	974	U	O4'-C1'-C2'	5.77	113.37	107.60
34	BA	926	A	O3'-P-O5'	5.77	112.65	104.00
35	BB	588	A	C4'-C3'-C2'	-5.77	96.83	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	603	U	C5'-C4'-O4'	5.77	118.45	109.80
36	BC	113	G	O5'-C5'-C4'	-5.77	102.85	111.50
40	BG	137	G	O5'-C5'-C4'	-5.77	102.85	111.50
34	BA	1329	U	P-O3'-C3'	-5.76	111.55	120.20
34	BA	1628	A	P-O3'-C3'	5.76	128.85	120.20
36	BC	162	C	C4'-C3'-C2'	-5.76	96.83	102.60
48	BO	130	VAL	N-CA-CB	-5.76	103.68	112.15
50	BQ	196	HIS	N-CA-C	5.76	119.08	112.97
65	Bf	356	TYR	CA-CB-CG	-5.76	103.53	113.90
85	AA	525	C	P-O3'-C3'	-5.76	111.55	120.20
6	A5	184	LEU	O-C-N	-5.76	116.53	123.27
22	AO	101	ASN	N-CA-C	-5.76	99.13	108.41
34	BA	322	U	C4'-C3'-O3'	-5.76	104.36	113.00
34	BA	585	G	O5'-C5'-C4'	5.76	120.14	111.50
34	BA	1205	A	C2'-C3'-O3'	5.76	118.14	109.50
37	BD	24	U	C3'-C2'-C1'	-5.76	95.54	101.30
41	BH	91	G	O3'-P-O5'	-5.76	95.36	104.00
45	BL	86	LEU	CA-C-N	5.76	128.26	120.65
45	BL	86	LEU	C-N-CA	5.76	128.26	120.65
34	BA	897	U	C4'-C3'-O3'	-5.76	104.36	113.00
34	BA	903	C	C4'-C3'-C2'	5.76	108.36	102.60
34	BA	1493	U	C4'-C3'-O3'	5.76	118.04	109.40
35	BB	509	A	O3'-P-O5'	5.76	112.64	104.00
47	BN	175	ARG	N-CA-CB	-5.76	100.75	110.49
82	Bw	172	ASN	N-CA-CB	5.76	121.51	112.46
85	AA	1	G	O4'-C4'-C3'	-5.76	98.24	104.00
85	AA	747	U	C1'-O4'-C4'	-5.76	104.14	109.90
85	AA	1087	G	P-O5'-C5'	-5.76	112.26	120.90
85	AA	1257	A	P-O5'-C5'	-5.76	112.26	120.90
34	BA	590	U	P-O5'-C5'	5.76	129.54	120.90
34	BA	871	G	C3'-C2'-O2'	5.76	119.34	110.70
35	BB	768	A	C4'-C3'-O3'	-5.76	100.76	109.40
35	BB	1317	U	C2'-C3'-O3'	5.76	118.14	109.50
35	BB	1338	U	C5'-C4'-C3'	-5.76	107.36	116.00
35	BB	1529	G	P-O5'-C5'	-5.76	112.26	120.90
36	BC	25	C	P-O5'-C5'	5.76	129.54	120.90
37	BD	52	U	P-O5'-C5'	5.76	129.54	120.90
40	BG	67	A	C1'-O4'-C4'	-5.76	104.14	109.90
62	Bc	41	ARG	N-CA-C	5.76	123.07	110.80
77	Br	300	LEU	N-CA-C	5.76	123.07	110.80
83	Bx	40	PHE	N-CA-C	5.76	118.95	109.85
85	AA	365	G	O4'-C4'-C3'	-5.76	98.24	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	498	C	C4'-C3'-O3'	-5.76	104.36	113.00
7	A6	79	CYS	CB-CA-C	-5.76	101.80	110.90
34	BA	282	A	OP1-P-OP2	-5.76	102.33	119.60
34	BA	1703	A	O3'-P-O5'	5.76	112.64	104.00
36	BC	157	U	C4'-C3'-O3'	5.76	118.04	109.40
38	BE	88	G	C2'-C3'-O3'	5.76	122.34	113.70
85	AA	965	G	C2'-C3'-O3'	5.76	122.34	113.70
85	AA	1211	C	P-O5'-C5'	-5.76	112.26	120.90
85	AA	2092	A	C2'-C3'-O3'	5.76	122.34	113.70
22	AO	81	VAL	N-CA-C	5.76	116.53	110.72
34	BA	80	U	C4'-C3'-O3'	-5.76	104.36	113.00
34	BA	488	C	N1-C1'-C2'	5.76	120.64	112.00
36	BC	135	A	C4'-C3'-O3'	-5.76	104.36	113.00
41	BH	6	U	O5'-C5'-C4'	-5.76	102.87	111.50
85	AA	1670	U	P-O5'-C5'	-5.76	112.27	120.90
2	A1	159	TYR	CA-CB-CG	-5.75	103.54	113.90
34	BA	1101	A	C1'-O4'-C4'	-5.75	104.14	109.90
40	BG	13	A	C4'-C3'-C2'	-5.75	96.84	102.60
59	BZ	26	ILE	CB-CA-C	-5.75	104.48	112.02
65	Bf	325	GLN	N-CA-C	5.75	118.41	110.35
76	Bq	4	PHE	CA-CB-CG	5.75	119.56	113.80
77	Br	154	GLU	CB-CA-C	-5.75	100.17	109.72
85	AA	148	G	C5'-C4'-C3'	-5.75	107.37	116.00
34	BA	634	U	O5'-C5'-C4'	5.75	120.13	111.50
34	BA	983	A	C4'-C3'-C2'	5.75	108.35	102.60
41	BH	17	A	P-O5'-C5'	-5.75	112.27	120.90
42	BI	113	SER	N-CA-CB	5.75	119.12	109.92
64	Be	163	ARG	N-CA-C	-5.75	102.78	110.55
85	AA	49	C	O5'-C5'-C4'	-5.75	102.87	111.50
34	BA	295	G	P-O3'-C3'	-5.75	111.57	120.20
34	BA	1302	C	P-O3'-C3'	-5.75	111.57	120.20
35	BB	1479	C	O3'-P-O5'	-5.75	95.37	104.00
36	BC	107	C	C1'-O4'-C4'	-5.75	104.15	109.90
40	BG	170	G	C1'-O4'-C4'	-5.75	103.95	109.70
44	BK	99	ILE	N-CA-CB	5.75	121.85	111.21
65	Bf	322	ARG	CA-C-N	5.75	132.52	121.54
65	Bf	322	ARG	C-N-CA	5.75	132.52	121.54
85	AA	96	C	O4'-C4'-C3'	-5.75	100.35	106.10
85	AA	605	A	N9-C1'-C2'	-5.75	105.37	114.00
85	AA	2113	U	C1'-O4'-C4'	-5.75	104.15	109.90
4	A3	107	SER	CA-C-N	5.75	132.52	121.54
4	A3	107	SER	C-N-CA	5.75	132.52	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1291	A	O4'-C1'-C2'	5.75	113.35	107.60
34	BA	1415	C	O5'-C5'-C4'	-5.75	102.88	111.50
40	BG	64	C	C5'-C4'-C3'	-5.75	107.38	116.00
86	AB	66	U	C5'-C4'-C3'	5.75	124.62	116.00
5	A4	101	GLN	N-CA-CB	5.75	120.47	111.56
20	AL	5	ARG	CB-CG-CD	5.75	124.52	111.30
32	AY	62	PRO	CA-C-N	5.75	132.68	121.41
32	AY	62	PRO	C-N-CA	5.75	132.68	121.41
34	BA	449	G	O5'-C5'-C4'	-5.75	102.88	111.50
35	BB	1239	A	O5'-C5'-C4'	-5.75	102.88	111.50
41	BH	30	C	C5'-C4'-O4'	5.75	118.42	109.80
49	BP	121	ALA	N-CA-C	5.75	120.86	111.37
56	BW	94	VAL	N-CA-CB	-5.75	104.70	111.60
60	Ba	32	ASN	CA-CB-CG	-5.75	106.85	112.60
85	AA	808	A	C4'-C3'-O3'	-5.75	104.38	113.00
85	AA	862	U	O5'-C5'-C4'	-5.75	102.88	111.50
85	AA	1091	C	P-O5'-C5'	5.75	129.52	120.90
85	AA	1706	A	C3'-C2'-C1'	-5.75	95.55	101.30
2	A1	51	TYR	CA-CB-CG	5.75	124.24	113.90
20	AL	37	ASP	N-CA-CB	-5.75	101.03	110.40
34	BA	506	U	O3'-P-O5'	5.75	112.62	104.00
35	BB	1533	U	O5'-C5'-C4'	5.75	120.12	111.50
40	BG	95	U	C5'-C4'-C3'	-5.75	107.38	116.00
68	Bi	86	LEU	CA-C-N	5.75	132.51	121.54
68	Bi	86	LEU	C-N-CA	5.75	132.51	121.54
72	Bm	28	ARG	CA-C-N	5.75	132.52	121.54
72	Bm	28	ARG	C-N-CA	5.75	132.52	121.54
72	Bm	99	GLU	N-CA-CB	-5.75	101.67	110.12
79	Bt	91	PHE	CA-C-N	5.75	132.52	121.54
79	Bt	91	PHE	C-N-CA	5.75	132.52	121.54
85	AA	110	U	C2'-C3'-O3'	5.75	122.32	113.70
85	AA	181	A	C2'-C3'-O3'	5.75	118.12	109.50
85	AA	1156	A	O3'-P-O5'	-5.75	95.38	104.00
85	AA	1216	A	C4'-C3'-O3'	-5.75	104.38	113.00
7	A6	139	ILE	CA-C-N	5.75	132.31	121.97
7	A6	139	ILE	C-N-CA	5.75	132.31	121.97
34	BA	1724	G	C4'-C3'-O3'	5.75	121.62	113.00
35	BB	85	A	O4'-C4'-C3'	-5.75	100.36	106.10
85	AA	789	A	C5'-C4'-O4'	5.75	118.42	109.80
85	AA	1168	C	O5'-C5'-C4'	-5.75	102.88	111.50
3	A2	137	ILE	CA-C-N	5.74	128.29	120.54
3	A2	137	ILE	C-N-CA	5.74	128.29	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A3	201	LYS	N-CA-CB	-5.74	101.74	110.07
24	AQ	70	GLY	CA-C-O	-5.74	118.31	122.45
28	AU	40	GLU	CA-C-N	5.74	129.42	120.75
28	AU	40	GLU	C-N-CA	5.74	129.42	120.75
34	BA	758	G	C5'-C4'-C3'	-5.74	107.39	116.00
34	BA	765	U	O4'-C1'-C2'	-5.74	101.86	107.60
34	BA	1269	C	P-O5'-C5'	-5.74	112.28	120.90
34	BA	1299	G	C5'-C4'-C3'	5.74	124.62	116.00
35	BB	1139	A	C4'-C3'-O3'	-5.74	104.38	113.00
36	BC	3	C	O3'-P-O5'	-5.74	95.38	104.00
37	BD	109	U	C2'-C3'-O3'	5.74	118.11	109.50
41	BH	37	U	O3'-P-O5'	-5.74	95.39	104.00
50	BQ	175	HIS	N-CA-C	-5.74	98.57	110.80
58	BY	30	LYS	O-C-N	-5.74	114.72	121.32
72	Bm	42	HIS	N-CA-CB	5.74	119.95	110.42
72	Bm	87	SER	CA-C-O	5.74	128.72	120.51
85	AA	300	C	C4'-C3'-O3'	-5.74	104.39	113.00
85	AA	313	A	P-O5'-C5'	-5.74	112.28	120.90
85	AA	740	A	C3'-C2'-C1'	-5.74	95.56	101.30
85	AA	35	U	C3'-C2'-C1'	-5.74	95.56	101.30
85	AA	569	A	C8-N9-C1'	5.74	144.93	127.70
85	AA	1700	C	O5'-C5'-C4'	-5.74	102.89	111.50
85	AA	1829	C	C3'-C2'-C1'	-5.74	95.56	101.30
20	AL	105	THR	N-CA-C	-5.74	105.10	111.36
34	BA	387	A	O3'-P-O5'	-5.74	95.39	104.00
34	BA	577	U	O5'-C5'-C4'	-5.74	103.09	111.70
34	BA	1043	C	P-O3'-C3'	-5.74	111.59	120.20
34	BA	1836	A	O4'-C1'-C2'	5.74	113.34	107.60
36	BC	136	G	P-O3'-C3'	-5.74	111.59	120.20
39	BF	50	C	C3'-C2'-C1'	-5.74	95.56	101.30
43	BJ	63	CYS	N-CA-C	5.74	117.57	108.67
45	BL	35	ASP	CA-CB-CG	-5.74	106.86	112.60
77	Br	228	ALA	N-CA-C	5.74	123.03	110.80
85	AA	31	C	O3'-P-O5'	5.74	112.61	104.00
85	AA	300	C	C2'-C3'-O3'	5.74	122.31	113.70
85	AA	978	U	O3'-P-O5'	-5.74	95.39	104.00
85	AA	1802	U	C4'-C3'-O3'	-5.74	104.39	113.00
23	AP	47	THR	N-CA-CB	5.74	118.47	110.26
24	AQ	33	MET	CG-SD-CE	-5.74	88.27	100.90
34	BA	425	G	C4'-C3'-C2'	-5.74	96.86	102.60
34	BA	695	A	C4'-C3'-O3'	-5.74	104.39	113.00
35	BB	573	C	O3'-P-O5'	-5.74	95.39	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1293	C	C5'-C4'-C3'	-5.74	107.39	116.00
37	BD	82	G	C4-N9-C1'	-5.74	109.28	126.50
48	BO	28	ASP	CA-CB-CG	5.74	118.34	112.60
57	BX	72	VAL	N-CA-C	-5.74	97.40	109.34
85	AA	693	A	O4'-C1'-C2'	-5.74	101.86	107.60
85	AA	2228	G	C4'-C3'-O3'	-5.74	104.39	113.00
22	AO	57	SER	N-CA-C	-5.74	98.58	110.80
34	BA	532	C	C5'-C4'-O4'	5.74	118.41	109.80
34	BA	1508	C	P-O3'-C3'	-5.74	111.59	120.20
35	BB	431	U	C4'-C3'-C2'	5.74	108.34	102.60
35	BB	1480	G	C4-N9-C1'	-5.74	109.29	126.50
35	BB	1483	A	O3'-P-O5'	-5.74	95.39	104.00
81	Bv	77	ASP	CA-C-N	5.74	128.24	120.38
81	Bv	77	ASP	C-N-CA	5.74	128.24	120.38
7	A6	132	HIS	CA-CB-CG	-5.74	108.06	113.80
26	AS	106	GLY	CA-C-N	5.74	132.50	121.54
26	AS	106	GLY	C-N-CA	5.74	132.50	121.54
34	BA	429	G	C5'-C4'-C3'	-5.74	107.40	116.00
34	BA	1039	G	O5'-C5'-C4'	-5.74	102.90	111.50
34	BA	1540	C	P-O5'-C5'	-5.74	112.30	120.90
35	BB	987	U	C2'-C3'-O3'	5.74	118.10	109.50
37	BD	100	A	O3'-P-O5'	5.74	112.60	104.00
38	BE	67	A	C1'-O4'-C4'	-5.74	104.16	109.90
41	BH	13	C	P-O5'-C5'	-5.74	112.30	120.90
50	BQ	49	HIS	CA-C-N	5.74	129.41	120.75
50	BQ	49	HIS	C-N-CA	5.74	129.41	120.75
52	BS	120	TYR	CA-C-N	5.74	127.97	120.28
52	BS	120	TYR	C-N-CA	5.74	127.97	120.28
84	By	147	ASN	CA-CB-CG	-5.74	106.86	112.60
85	AA	5	U	P-O3'-C3'	-5.74	111.60	120.20
85	AA	1762	G	C4'-C3'-C2'	-5.74	96.86	102.60
85	AA	2204	A	P-O3'-C3'	-5.74	111.60	120.20
34	BA	1313	U	O4'-C1'-N1	5.73	117.10	108.50
35	BB	572	G	N9-C1'-C2'	-5.73	103.40	112.00
38	BE	101	C	O4'-C4'-C3'	-5.73	100.37	106.10
85	AA	56	U	O5'-C5'-C4'	5.73	120.30	111.70
85	AA	1288	A	C4'-C3'-O3'	-5.73	104.40	113.00
85	AA	1696	U	C4'-C3'-C2'	-5.73	96.87	102.60
37	BD	87	G	C4-N9-C1'	-5.73	109.30	126.50
41	BH	85	C	C2'-C3'-O3'	5.73	122.30	113.70
53	BT	59	SER	N-CA-C	5.73	118.15	110.35
77	Br	195	MET	N-CA-C	-5.73	105.59	112.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
77	Br	211	PRO	N-CA-C	-5.73	105.72	113.40
85	AA	94	C	C5'-C4'-C3'	-5.73	107.40	116.00
2	A1	106	PHE	N-CA-C	5.73	118.02	109.25
7	A6	173	ARG	N-CA-C	-5.73	105.11	111.36
34	BA	966	G	N9-C1'-C2'	-5.73	103.41	112.00
34	BA	1293	A	O5'-C5'-C4'	5.73	120.10	111.50
35	BB	1348	C	C1'-O4'-C4'	-5.73	104.17	109.90
35	BB	1523	U	C3'-C2'-C1'	-5.73	95.57	101.30
38	BE	7	U	O5'-C5'-C4'	-5.73	102.90	111.50
38	BE	113	C	O3'-P-O5'	-5.73	95.40	104.00
41	BH	114	G	C4'-C3'-C2'	5.73	108.33	102.60
53	BT	65	GLN	N-CA-C	5.73	117.53	111.28
56	BW	59	MET	CA-C-N	5.73	132.28	121.97
56	BW	59	MET	C-N-CA	5.73	132.28	121.97
59	BZ	13	ARG	N-CA-C	-5.73	105.03	111.28
85	AA	120	C	O3'-P-O5'	5.73	112.59	104.00
34	BA	766	A	C5'-C4'-O4'	5.73	118.39	109.80
34	BA	1257	U	O5'-C5'-C4'	5.73	120.29	111.70
10	A9	142	TYR	CA-C-N	-5.73	115.03	123.05
10	A9	142	TYR	C-N-CA	-5.73	115.03	123.05
34	BA	1539	A	P-O3'-C3'	-5.73	111.61	120.20
34	BA	1649	A	N9-C1'-C2'	5.73	122.59	114.00
35	BB	373	C	P-O3'-C3'	-5.73	111.61	120.20
35	BB	413	A	P-O5'-C5'	-5.73	112.31	120.90
35	BB	462	G	O3'-P-O5'	-5.73	95.41	104.00
35	BB	677	U	P-O5'-C5'	-5.73	112.31	120.90
35	BB	981	A	O4'-C4'-C3'	5.73	109.73	104.00
35	BB	1118	G	C1'-O4'-C4'	-5.73	104.17	109.90
36	BC	104	A	P-O5'-C5'	-5.73	112.31	120.90
49	BP	105	SER	O-C-N	-5.73	114.97	122.59
85	AA	1535	C	OP2-P-O3'	-5.73	90.82	108.00
35	BB	1161	G	P-O3'-C3'	5.73	128.79	120.20
37	BD	83	A	C3'-C2'-C1'	-5.73	95.57	101.30
39	BF	40	U	O4'-C1'-C2'	5.73	111.53	105.80
83	Bx	266	THR	N-CA-CB	5.73	119.04	110.22
21	AM	81	PRO	N-CA-C	5.72	120.00	111.41
29	AV	12	LYS	O-C-N	-5.72	114.74	121.32
32	AY	11	ALA	N-CA-C	5.72	118.14	110.35
35	BB	1298	C	C4'-C3'-O3'	-5.72	104.41	113.00
36	BC	153	C	O5'-C5'-C4'	-5.72	102.92	111.50
62	Bc	92	LYS	CA-C-N	-5.72	112.65	120.44
62	Bc	92	LYS	C-N-CA	-5.72	112.65	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	Bi	26	PHE	N-CA-C	5.72	117.72	109.48
85	AA	1490	A	C4'-C3'-O3'	5.72	117.99	109.40
11	AC	46	MET	N-CA-C	5.72	118.53	110.23
15	AG	26	LEU	CB-CA-C	-5.72	99.03	110.42
18	AJ	125	VAL	CB-CA-C	-5.72	103.81	110.91
34	BA	515	U	O4'-C1'-C2'	5.72	113.32	107.60
34	BA	1403	G	N9-C1'-C2'	-5.72	105.42	114.00
34	BA	1697	U	C5'-C4'-C3'	5.72	123.78	115.20
34	BA	1803	A	C4'-C3'-C2'	5.72	108.32	102.60
35	BB	834	U	C5'-C4'-O4'	5.72	118.38	109.80
35	BB	1521	G	C5'-C4'-C3'	-5.72	107.42	116.00
35	BB	1539	C	C5'-C4'-C3'	5.72	124.58	116.00
38	BE	2	G	C4'-C3'-O3'	-5.72	104.42	113.00
40	BG	13	A	C3'-C2'-C1'	-5.72	95.78	101.50
41	BH	134	U	C4'-C3'-C2'	-5.72	96.88	102.60
77	Br	43	MET	N-CA-CB	5.72	119.15	110.28
81	Bv	155	ASP	N-CA-C	-5.72	105.04	111.28
85	AA	98	U	P-O5'-C5'	5.72	129.48	120.90
85	AA	1554	C	C4'-C3'-O3'	-5.72	104.42	113.00
34	BA	548	G	O4'-C1'-N9	5.72	117.08	108.50
34	BA	765	U	C3'-C2'-C1'	5.72	107.02	101.30
35	BB	88	U	C1'-O4'-C4'	-5.72	104.18	109.90
35	BB	463	C	C5'-C4'-C3'	-5.72	107.42	116.00
35	BB	1177	U	P-O3'-C3'	-5.72	111.62	120.20
42	BI	175	SER	CB-CA-C	-5.72	100.74	109.89
85	AA	379	U	P-O3'-C3'	-5.72	111.62	120.20
6	A5	61	ASP	N-CA-C	5.72	121.14	114.62
34	BA	479	U	C4'-C3'-O3'	-5.72	104.42	113.00
34	BA	1074	C	O3'-P-O5'	5.72	112.58	104.00
34	BA	1153	C	C4'-C3'-O3'	-5.72	104.42	113.00
36	BC	159	U	O4'-C1'-C2'	-5.72	100.08	105.80
58	BY	9	SER	CA-C-N	5.72	132.47	121.54
58	BY	9	SER	C-N-CA	5.72	132.47	121.54
68	Bi	113	ALA	N-CA-C	5.72	117.59	111.36
77	Br	16	LYS	O-C-N	-5.72	117.07	123.48
80	Bu	98	ALA	CA-C-O	5.72	126.48	120.42
85	AA	1475	A	P-O3'-C3'	5.72	128.78	120.20
86	AB	46	G	P-O3'-C3'	-5.72	111.62	120.20
34	BA	1566	G	C4'-C3'-C2'	-5.72	96.88	102.60
37	BD	68	C	C5'-C4'-C3'	-5.72	107.42	116.00
85	AA	1850	G	O3'-P-O5'	-5.72	95.42	104.00
34	BA	753	G	O5'-C5'-C4'	-5.72	102.92	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1096	C	C1'-O4'-C4'	-5.72	103.98	109.70
34	BA	1419	A	O4'-C4'-C3'	-5.72	100.38	106.10
34	BA	1830	A	P-O5'-C5'	-5.72	112.33	120.90
48	BO	26	VAL	N-CA-C	5.72	116.84	107.24
53	BT	100	ARG	N-CA-CB	-5.72	101.42	110.28
59	BZ	43	ARG	N-CA-CB	-5.72	100.83	110.49
76	Bq	29	LEU	CA-C-O	5.72	125.43	119.14
77	Br	329	LEU	CA-C-N	-5.72	114.90	122.56
77	Br	329	LEU	C-N-CA	-5.72	114.90	122.56
85	AA	241	U	C4'-C3'-O3'	-5.72	104.42	113.00
85	AA	1153	G	O4'-C1'-C2'	-5.72	101.88	107.60
85	AA	1997	G	P-O5'-C5'	5.72	129.47	120.90
85	AA	2150	G	C8-N9-C1'	5.72	144.15	127.00
7	A6	67	ARG	CA-C-N	5.71	127.94	120.28
7	A6	67	ARG	C-N-CA	5.71	127.94	120.28
24	AQ	61	THR	CB-CA-C	-5.71	100.32	109.75
34	BA	78	U	P-O5'-C5'	-5.71	112.33	120.90
34	BA	141	G	O4'-C4'-C3'	5.71	109.71	104.00
34	BA	468	A	C4'-C3'-C2'	-5.71	96.89	102.60
34	BA	593	G	O4'-C1'-N9	5.71	116.77	108.20
34	BA	1092	U	P-O5'-C5'	-5.71	112.33	120.90
34	BA	1277	G	C1'-O4'-C4'	-5.71	104.19	109.90
35	BB	522	A	O4'-C4'-C3'	-5.71	98.29	104.00
35	BB	524	C	C1'-O4'-C4'	-5.71	104.19	109.90
35	BB	550	G	O3'-P-O5'	-5.71	95.43	104.00
35	BB	561	C	C5'-C4'-C3'	5.71	124.57	116.00
65	Bf	86	ASP	CA-C-N	5.71	129.78	122.64
65	Bf	86	ASP	C-N-CA	5.71	129.78	122.64
74	Bo	84	ARG	N-CA-CB	5.71	118.51	109.82
85	AA	95	U	C3'-C2'-C1'	-5.71	95.58	101.30
85	AA	159	G	O4'-C1'-C2'	5.71	113.31	107.60
85	AA	577	U	O4'-C4'-C3'	5.71	109.71	104.00
17	AI	49	ARG	N-CA-CB	-5.71	101.70	110.16
34	BA	684	G	P-O3'-C3'	5.71	128.77	120.20
34	BA	771	A	O4'-C4'-C3'	-5.71	100.39	106.10
47	BN	64	ASN	N-CA-C	-5.71	102.03	110.48
51	BR	120	ASP	N-CA-C	5.71	118.71	109.40
62	Bc	95	VAL	N-CA-C	5.71	121.22	109.34
65	Bf	156	VAL	N-CA-C	5.71	116.11	108.11
85	AA	289	G	C3'-C2'-C1'	-5.71	95.59	101.30
85	AA	368	C	P-O5'-C5'	-5.71	112.33	120.90
85	AA	451	G	C4'-C3'-O3'	-5.71	104.43	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	696	G	C4'-C3'-O3'	-5.71	104.43	113.00
2	A1	253	LYS	N-CA-C	-5.71	105.14	111.36
3	A2	92	GLN	CB-CG-CD	-5.71	102.89	112.60
34	BA	1300	G	C2'-C3'-O3'	5.71	122.27	113.70
34	BA	1537	G	C2'-C3'-O3'	5.71	122.27	113.70
39	BF	12	U	C4'-C3'-C2'	-5.71	96.89	102.60
48	BO	36	ARG	CG-CD-NE	-5.71	99.43	112.00
48	BO	196	ALA	CA-C-O	5.71	126.60	120.55
65	Bf	413	THR	N-CA-C	-5.71	97.28	107.28
83	Bx	192	ILE	CA-C-N	5.71	130.47	123.10
83	Bx	192	ILE	C-N-CA	5.71	130.47	123.10
83	Bx	241	VAL	N-CA-C	-5.71	104.95	110.72
85	AA	380	C	P-O3'-C3'	-5.71	111.63	120.20
15	AG	104	ARG	CB-CA-C	-5.71	99.71	110.67
17	AI	130	TYR	CA-C-N	5.71	129.34	120.60
17	AI	130	TYR	C-N-CA	5.71	129.34	120.60
34	BA	1266	A	O5'-C5'-C4'	5.71	120.07	111.50
35	BB	769	C	P-O5'-C5'	5.71	129.47	120.90
35	BB	983	C	C3'-C2'-C1'	-5.71	95.79	101.50
35	BB	1476	C	C5'-C4'-C3'	5.71	124.56	116.00
36	BC	131	C	C5'-C4'-O4'	5.71	117.67	109.10
38	BE	207	G	O5'-C5'-C4'	-5.71	102.94	111.50
40	BG	161	C	C4'-C3'-O3'	-5.71	104.44	113.00
64	Be	186	PHE	CA-CB-CG	-5.71	108.09	113.80
75	Bp	37	ARG	CD-NE-CZ	-5.71	116.41	124.40
85	AA	875	C	O5'-C5'-C4'	5.71	120.06	111.50
5	A4	48	ILE	CA-CB-CG1	5.71	120.11	110.40
5	A4	167	VAL	CA-C-N	5.71	132.44	121.54
5	A4	167	VAL	C-N-CA	5.71	132.44	121.54
35	BB	777	C	P-O5'-C5'	5.71	129.46	120.90
50	BQ	66	ARG	CD-NE-CZ	-5.71	116.41	124.40
62	Bc	49	LYS	N-CA-C	5.71	122.96	110.80
69	Bj	10	ARG	N-CA-C	-5.71	100.45	108.96
82	Bw	211	ARG	CA-C-O	5.71	127.01	120.90
5	A4	77	ARG	CB-CA-C	5.71	119.84	110.88
8	A7	111	ASP	CA-CB-CG	-5.71	106.89	112.60
25	AR	67	GLY	CA-C-O	5.71	125.36	119.02
34	BA	91	C	C1'-C2'-O2'	5.71	116.96	108.40
34	BA	322	U	O3'-P-O5'	5.71	112.56	104.00
34	BA	1109	G	N9-C1'-C2'	-5.71	103.44	112.00
35	BB	1062	G	O5'-C5'-C4'	-5.71	102.94	111.50
36	BC	157	U	O4'-C4'-C3'	-5.71	100.39	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	BO	129	ASN	CA-C-N	5.71	130.38	122.28
48	BO	129	ASN	C-N-CA	5.71	130.38	122.28
85	AA	1160	U	O5'-C5'-C4'	-5.71	102.94	111.50
85	AA	1990	U	O3'-P-O5'	5.71	112.56	104.00
35	BB	132	G	O5'-C5'-C4'	-5.71	102.94	111.50
41	BH	32	U	P-O5'-C5'	-5.71	112.34	120.90
52	BS	145	HIS	CA-C-O	-5.71	112.81	118.34
85	AA	2119	C	C5'-C4'-O4'	-5.71	101.24	109.80
1	A0	80	ASP	N-CA-CB	-5.70	101.79	110.92
4	A3	118	LYS	N-CA-CB	5.70	120.75	110.83
34	BA	161	U	C5'-C4'-C3'	5.70	123.76	115.20
34	BA	1479	G	P-O5'-C5'	5.70	129.46	120.90
35	BB	426	A	O4'-C4'-C3'	-5.70	100.40	106.10
35	BB	600	C	N1-C1'-C2'	-5.70	103.44	112.00
35	BB	1034	U	C4'-C3'-O3'	-5.70	104.44	113.00
35	BB	1276	U	C4'-C3'-O3'	5.70	117.95	109.40
36	BC	121	G	C1'-O4'-C4'	-5.70	104.20	109.90
38	BE	35	A	C5'-C4'-C3'	-5.70	107.44	116.00
47	BN	215	ASN	CA-CB-CG	-5.70	106.90	112.60
57	BX	146	ILE	O-C-N	-5.70	116.43	123.10
85	AA	108	C	O3'-P-O5'	5.70	112.56	104.00
85	AA	143	U	O4'-C4'-C3'	-5.70	100.40	106.10
85	AA	1153	G	C3'-C2'-C1'	-5.70	95.60	101.30
85	AA	2100	A	O4'-C4'-C3'	-5.70	100.40	106.10
22	AO	117	LEU	N-CA-C	-5.70	104.97	111.07
36	BC	37	U	C3'-C2'-C1'	-5.70	95.80	101.50
40	BG	9	G	C4-N9-C1'	-5.70	109.39	126.50
52	BS	70	LYS	CA-C-N	5.70	132.43	121.54
52	BS	70	LYS	C-N-CA	5.70	132.43	121.54
65	Bf	368	GLY	CA-C-N	5.70	132.43	121.54
65	Bf	368	GLY	C-N-CA	5.70	132.43	121.54
85	AA	384	C	O3'-P-O5'	-5.70	95.45	104.00
85	AA	1033	C	P-O5'-C5'	5.70	129.45	120.90
4	A3	20	ASP	CA-CB-CG	-5.70	106.90	112.60
12	AD	85	LYS	CA-C-N	5.70	128.49	120.28
12	AD	85	LYS	C-N-CA	5.70	128.49	120.28
34	BA	1168	C	C2'-C3'-O3'	5.70	118.05	109.50
35	BB	456	A	P-O5'-C5'	-5.70	112.35	120.90
40	BG	138	C	C5'-C4'-C3'	-5.70	107.45	116.00
54	BU	126	PRO	CA-C-N	5.70	125.72	119.90
54	BU	126	PRO	C-N-CA	5.70	125.72	119.90
62	Bc	20	GLN	CA-C-N	-5.70	114.66	122.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	Bc	20	GLN	C-N-CA	-5.70	114.66	122.93
65	Bf	266	GLN	CB-CG-CD	-5.70	102.91	112.60
77	Br	202	ALA	O-C-N	-5.70	117.27	123.26
81	Bv	62	ILE	CA-C-O	-5.70	113.79	121.32
85	AA	641	A	P-O5'-C5'	5.70	129.45	120.90
27	AT	18	LYS	N-CA-C	5.70	118.39	108.76
34	BA	1087	A	O3'-P-O5'	-5.70	95.45	104.00
34	BA	1241	U	O5'-C5'-C4'	5.70	120.05	111.50
47	BN	194	HIS	CB-CA-C	-5.70	101.33	110.79
53	BT	23	TRP	CA-C-N	5.70	130.00	122.42
53	BT	23	TRP	C-N-CA	5.70	130.00	122.42
57	BX	156	ASP	CA-C-N	5.70	128.48	120.28
57	BX	156	ASP	C-N-CA	5.70	128.48	120.28
67	Bh	159	GLU	CA-C-N	5.70	132.58	121.41
67	Bh	159	GLU	C-N-CA	5.70	132.58	121.41
80	Bu	63	GLN	CA-C-N	5.70	130.19	122.90
80	Bu	63	GLN	C-N-CA	5.70	130.19	122.90
85	AA	1580	A	P-O3'-C3'	5.70	128.75	120.20
3	A2	100	ASP	N-CA-CB	-5.70	101.75	110.01
34	BA	1801	G	O4'-C1'-C2'	5.70	113.30	107.60
35	BB	1234	G	O5'-C5'-C4'	-5.70	102.95	111.50
38	BE	161	G	O3'-P-O5'	-5.70	95.45	104.00
65	Bf	339	TYR	N-CA-CB	-5.70	101.55	110.44
67	Bh	17	LEU	N-CA-CB	5.70	118.27	110.01
79	Bt	25	VAL	CB-CA-C	-5.70	102.13	110.62
85	AA	471	U	P-O3'-C3'	-5.70	111.66	120.20
85	AA	1487	G	N9-C1'-C2'	-5.70	103.45	112.00
8	A7	83	VAL	N-CA-CB	5.70	119.04	111.64
28	AU	91	ARG	N-CA-C	-5.70	106.33	113.28
44	BK	191	GLN	N-CA-C	5.70	117.68	108.34
50	BQ	92	VAL	N-CA-C	-5.70	100.28	108.42
68	Bi	99	HIS	CA-C-O	5.70	126.52	119.97
77	Br	222	ILE	CA-C-N	5.70	131.19	122.93
77	Br	222	ILE	C-N-CA	5.70	131.19	122.93
77	Br	256	GLU	N-CA-CB	-5.70	101.53	110.30
85	AA	504	U	C4'-C3'-C2'	5.70	108.30	102.60
85	AA	1878	C	P-O3'-C3'	-5.70	111.66	120.20
85	AA	2198	G	P-O5'-C5'	-5.70	112.36	120.90
34	BA	1235	C	C5'-C4'-C3'	-5.69	107.46	116.00
35	BB	1029	U	N1-C1'-C2'	-5.69	105.46	114.00
35	BB	1467	A	O5'-C5'-C4'	5.69	120.04	111.50
36	BC	137	C	O4'-C4'-C3'	-5.69	98.31	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	581	A	C5'-C4'-O4'	5.69	118.34	109.80
85	AA	2202	G	O3'-P-O5'	5.69	112.54	104.00
34	BA	449	G	P-O3'-C3'	-5.69	111.66	120.20
34	BA	892	C	C4'-C3'-C2'	5.69	108.29	102.60
35	BB	1033	U	P-O3'-C3'	-5.69	111.66	120.20
36	BC	115	G	P-O5'-C5'	5.69	129.44	120.90
40	BG	10	U	O3'-P-O5'	5.69	112.54	104.00
65	Bf	146	THR	N-CA-C	-5.69	100.26	109.82
76	Bq	47	THR	N-CA-CB	5.69	120.11	110.49
85	AA	662	U	C4'-C3'-O3'	-5.69	104.46	113.00
85	AA	726	U	C4'-C3'-O3'	-5.69	104.46	113.00
85	AA	1621	U	O4'-C4'-C3'	-5.69	98.31	104.00
85	AA	1732	G	C5'-C4'-C3'	-5.69	107.46	116.00
85	AA	1833	C	O5'-C5'-C4'	5.69	120.04	111.50
34	BA	728	A	C5'-C4'-C3'	5.69	124.54	116.00
34	BA	1723	U	C4'-C3'-O3'	5.69	117.94	109.40
35	BB	130	G	C4'-C3'-C2'	5.69	108.29	102.60
35	BB	1405	G	C4'-C3'-C2'	5.69	108.29	102.60
64	Be	72	VAL	CB-CA-C	5.69	121.83	111.30
64	Be	174	ARG	N-CA-C	-5.69	106.34	113.28
85	AA	935	A	O5'-C5'-C4'	-5.69	102.96	111.50
85	AA	1063	U	P-O5'-C5'	5.69	129.44	120.90
85	AA	2108	C	C2'-C3'-O3'	-5.69	105.17	113.70
85	AA	2122	A	P-O5'-C5'	5.69	129.44	120.90
31	AX	122	ILE	CA-CB-CG1	5.69	120.07	110.40
39	BF	12	U	O4'-C1'-N1	5.69	117.03	108.50
85	AA	2170	G	P-O3'-C3'	-5.69	111.67	120.20
34	BA	589	A	C1'-O4'-C4'	-5.69	104.21	109.90
34	BA	759	A	O5'-C5'-C4'	-5.69	102.97	111.50
34	BA	1267	A	C3'-C2'-C1'	5.69	107.19	101.50
35	BB	1159	U	O5'-C5'-C4'	-5.69	102.97	111.50
35	BB	1391	G	P-O5'-C5'	-5.69	112.37	120.90
59	BZ	17	PHE	CB-CA-C	-5.69	99.75	110.67
72	Bm	8	ALA	CA-C-N	5.69	125.45	119.76
72	Bm	8	ALA	C-N-CA	5.69	125.45	119.76
85	AA	935	A	C2'-C3'-O3'	5.69	122.23	113.70
85	AA	1557	U	C4'-C3'-O3'	-5.69	104.47	113.00
85	AA	2196	G	C4'-C3'-C2'	-5.69	96.91	102.60
4	A3	136	LEU	N-CA-C	5.69	122.91	110.80
20	AL	45	LYS	N-CA-C	-5.69	104.29	111.11
34	BA	1061	A	P-O3'-C3'	-5.69	111.67	120.20
34	BA	1818	A	N9-C1'-C2'	5.69	120.53	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1432	U	C4'-C3'-O3'	-5.69	104.47	113.00
65	Bf	427	ARG	N-CA-C	5.69	122.91	110.80
73	Bn	31	TRP	N-CA-C	-5.69	103.50	110.61
34	BA	107	C	O4'-C4'-C3'	-5.68	98.32	104.00
34	BA	210	G	P-O5'-C5'	5.68	129.43	120.90
34	BA	222	C	C6-N1-C1'	5.68	137.85	120.80
34	BA	279	U	C4'-C3'-C2'	-5.68	96.92	102.60
34	BA	605	G	C8-N9-C1'	-5.68	109.95	127.00
34	BA	738	C	O5'-C5'-C4'	5.68	120.03	111.50
34	BA	1148	U	C2'-C3'-O3'	5.68	122.23	113.70
36	BC	86	U	O4'-C1'-C2'	-5.68	101.92	107.60
39	BF	23	G	C5'-C4'-O4'	5.68	118.33	109.80
41	BH	110	C	C5'-C4'-C3'	-5.68	107.47	116.00
59	BZ	39	LYS	N-CA-C	5.68	117.28	111.14
74	Bo	33	GLN	N-CA-CB	-5.68	101.55	110.30
82	Bw	256	MET	N-CA-C	5.68	120.28	113.23
85	AA	153	C	C1'-O4'-C4'	-5.68	104.22	109.90
85	AA	183	C	C4'-C3'-C2'	-5.68	96.92	102.60
85	AA	930	G	C4'-C3'-C2'	-5.68	96.92	102.60
85	AA	2236	U	O4'-C4'-C3'	-5.68	98.31	104.00
13	AE	97	ARG	NE-CZ-NH2	-5.68	114.09	119.20
21	AM	126	HIS	CB-CG-ND1	5.68	131.22	122.70
34	BA	584	A	P-O5'-C5'	5.68	129.43	120.90
35	BB	625	A	O5'-C5'-C4'	-5.68	102.98	111.50
39	BF	71	G	O4'-C4'-C3'	-5.68	100.42	106.10
40	BG	159	A	P-O5'-C5'	-5.68	112.38	120.90
50	BQ	53	ILE	CA-C-O	-5.68	114.48	120.39
81	Bv	23	TYR	N-CA-C	-5.68	99.03	108.75
85	AA	680	U	C4'-C3'-O3'	5.68	117.92	109.40
85	AA	1038	U	O5'-C5'-C4'	5.68	120.02	111.50
34	BA	1728	G	C4'-C3'-O3'	5.68	117.92	109.40
35	BB	565	U	C5'-C4'-C3'	-5.68	106.68	115.20
36	BC	128	U	C4'-C3'-C2'	-5.68	96.92	102.60
38	BE	82	C	C3'-C2'-O2'	5.68	119.22	110.70
42	BI	41	ASN	CA-CB-CG	5.68	118.28	112.60
85	AA	989	U	O4'-C1'-N1	5.68	116.72	108.20
85	AA	2251	U	C5'-C4'-C3'	5.68	124.52	116.00
2	A1	125	ASN	CA-CB-CG	-5.68	106.92	112.60
6	A5	206	ALA	N-CA-C	-5.68	104.70	111.69
34	BA	1489	U	O3'-P-O5'	5.68	112.52	104.00
35	BB	1209	A	C5'-C4'-C3'	5.68	124.52	116.00
41	BH	64	U	C4'-C3'-C2'	-5.68	96.92	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	BU	5	HIS	N-CA-C	5.68	120.48	107.48
85	AA	469	G	P-O5'-C5'	5.68	129.42	120.90
85	AA	1734	A	P-O3'-C3'	5.68	128.72	120.20
29	AV	24	HIS	CA-C-N	-5.68	114.63	122.30
29	AV	24	HIS	C-N-CA	-5.68	114.63	122.30
35	BB	46	U	O5'-C5'-C4'	-5.68	102.98	111.50
35	BB	766	G	C5'-C4'-C3'	-5.68	107.48	116.00
36	BC	147	G	C1'-O4'-C4'	-5.68	104.22	109.90
40	BG	171	A	C4'-C3'-C2'	-5.68	96.92	102.60
67	Bh	76	ARG	N-CA-CB	5.68	119.04	110.30
83	Bx	66	PRO	N-CA-CB	5.68	108.61	103.33
15	AG	6	GLY	CA-C-N	5.68	127.89	120.28
15	AG	6	GLY	C-N-CA	5.68	127.89	120.28
23	AP	58	ILE	N-CA-C	5.68	121.15	109.34
23	AP	183	PRO	CA-C-N	5.68	132.38	121.54
23	AP	183	PRO	C-N-CA	5.68	132.38	121.54
34	BA	1792	U	C5'-C4'-O4'	-5.68	101.28	109.80
35	BB	423	G	P-O3'-C3'	-5.68	111.69	120.20
35	BB	463	C	C1'-O4'-C4'	-5.68	104.22	109.90
35	BB	831	C	P-O5'-C5'	-5.68	112.39	120.90
35	BB	1263	A	O5'-C5'-C4'	-5.68	102.99	111.50
35	BB	1537	C	O3'-P-O5'	5.68	112.51	104.00
38	BE	16	C	C5'-C4'-C3'	5.68	124.52	116.00
40	BG	117	C	C1'-O4'-C4'	-5.68	104.22	109.90
47	BN	16	HIS	N-CA-C	5.68	122.89	110.80
85	AA	304	G	P-O3'-C3'	5.68	128.71	120.20
85	AA	403	G	O5'-C5'-C4'	5.68	120.02	111.50
85	AA	1116	G	P-O5'-C5'	5.68	129.41	120.90
85	AA	1562	U	O4'-C1'-N1	5.68	117.02	108.50
85	AA	1923	A	P-O3'-C3'	5.68	128.71	120.20
16	AH	32	ASP	CA-CB-CG	-5.67	106.92	112.60
34	BA	494	A	C4'-C3'-C2'	5.67	108.28	102.60
34	BA	1029	C	C5'-C4'-C3'	-5.67	107.49	116.00
35	BB	969	C	P-O3'-C3'	-5.67	111.69	120.20
35	BB	1063	C	C4'-C3'-O3'	-5.67	100.89	109.40
41	BH	129	G	O4'-C1'-N9	5.67	116.71	108.20
52	BS	170	LYS	O-C-N	-5.67	116.63	123.27
79	Bt	20	HIS	CB-CG-CD2	-5.67	123.82	131.20
85	AA	35	U	O4'-C1'-C2'	-5.67	101.93	107.60
85	AA	47	A	C4'-C3'-O3'	-5.67	100.89	109.40
85	AA	443	A	O4'-C1'-C2'	5.67	113.28	107.60
85	AA	512	U	C4'-C3'-O3'	-5.67	104.49	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	568	C	O5'-C5'-C4'	-5.67	102.99	111.50
85	AA	1462	A	P-O5'-C5'	-5.67	112.39	120.90
34	BA	1830	A	O4'-C1'-N9	5.67	116.71	108.20
35	BB	1542	C	O5'-C5'-C4'	-5.67	102.99	111.50
36	BC	125	A	P-O3'-C3'	-5.67	111.69	120.20
42	BI	77	TRP	CA-C-N	5.67	132.38	121.54
42	BI	77	TRP	C-N-CA	5.67	132.38	121.54
49	BP	122	TYR	CA-CB-CG	-5.67	103.69	113.90
66	Bg	64	LYS	CB-CA-C	-5.67	101.97	110.88
85	AA	119	G	P-O5'-C5'	-5.67	112.39	120.90
11	AC	73	TYR	N-CA-CB	-5.67	102.09	110.49
34	BA	668	G	P-O5'-C5'	5.67	129.41	120.90
34	BA	1341	A	C3'-C2'-C1'	-5.67	95.63	101.30
35	BB	490	G	O3'-P-O5'	-5.67	95.49	104.00
35	BB	958	C	C5'-C4'-O4'	-5.67	101.29	109.80
35	BB	1168	G	C5'-C4'-O4'	5.67	118.31	109.80
35	BB	1289	G	C5'-C4'-C3'	-5.67	107.49	116.00
69	Bj	101	GLN	CB-CA-C	-5.67	97.48	110.18
35	BB	877	A	C1'-C2'-O2'	5.67	116.91	108.40
38	BE	85	G	C4-N9-C1'	-5.67	109.49	126.50
42	BI	86	ILE	CA-C-N	5.67	129.41	121.02
42	BI	86	ILE	C-N-CA	5.67	129.41	121.02
47	BN	52	PHE	CA-C-O	-5.67	112.39	120.16
85	AA	738	C	P-O5'-C5'	-5.67	112.39	120.90
28	AU	78	SER	N-CA-CB	5.67	118.33	110.17
34	BA	342	U	P-O3'-C3'	-5.67	111.70	120.20
34	BA	481	A	C4'-C3'-C2'	-5.67	96.93	102.60
34	BA	801	U	O5'-C5'-C4'	-5.67	103.00	111.50
34	BA	1180	A	C2'-C3'-O3'	5.67	122.20	113.70
35	BB	1036	G	C4'-C3'-O3'	-5.67	104.50	113.00
35	BB	1240	A	P-O5'-C5'	-5.67	112.40	120.90
35	BB	1517	G	O5'-C5'-C4'	5.67	120.00	111.50
38	BE	11	A	O5'-C5'-C4'	-5.67	103.20	111.70
38	BE	135	A	C1'-C2'-O2'	5.67	116.90	108.40
47	BN	166	LEU	N-CA-C	-5.67	98.73	110.80
52	BS	127	GLY	CA-C-N	5.67	131.03	122.98
52	BS	127	GLY	C-N-CA	5.67	131.03	122.98
85	AA	28	A	C4'-C3'-O3'	-5.67	104.50	113.00
85	AA	108	C	C4'-C3'-O3'	-5.67	104.50	113.00
85	AA	178	U	C4'-C3'-C2'	-5.67	96.93	102.60
85	AA	278	C	C4'-C3'-O3'	-5.67	104.50	113.00
85	AA	712	U	O5'-C5'-C4'	-5.67	103.00	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1219	A	P-O5'-C5'	-5.67	112.40	120.90
86	AB	55	U	C2'-C3'-O3'	5.67	118.00	109.50
18	AJ	30	SER	N-CA-C	5.67	122.87	110.80
33	AZ	59	VAL	CA-C-O	5.67	126.99	120.76
34	BA	1223	C	P-O5'-C5'	-5.67	112.40	120.90
34	BA	1696	G	C1'-O4'-C4'	-5.67	104.23	109.90
35	BB	457	U	C4'-C3'-C2'	-5.67	96.93	102.60
35	BB	490	G	O5'-C5'-C4'	5.67	120.00	111.50
35	BB	1219	A	P-O3'-C3'	5.67	128.70	120.20
36	BC	104	A	O3'-P-O5'	5.67	112.50	104.00
38	BE	47	U	C5'-C4'-C3'	5.67	124.50	116.00
51	BR	27	LYS	CA-C-N	5.67	127.81	120.44
51	BR	27	LYS	C-N-CA	5.67	127.81	120.44
69	Bj	76	SER	CA-C-N	5.67	132.45	122.08
69	Bj	76	SER	C-N-CA	5.67	132.45	122.08
74	Bo	67	GLY	N-CA-C	5.67	126.61	113.18
85	AA	777	U	P-O3'-C3'	-5.67	111.70	120.20
85	AA	889	G	C4'-C3'-C2'	-5.67	96.93	102.60
85	AA	1503	G	O5'-C5'-C4'	-5.67	103.00	111.50
85	AA	2037	A	C4'-C3'-O3'	-5.67	104.50	113.00
5	A4	72	PHE	N-CA-C	-5.67	104.95	112.94
9	A8	34	LYS	N-CA-C	5.67	122.87	110.80
35	BB	383	U	O4'-C1'-N1	5.67	117.00	108.50
35	BB	1288	G	P-O5'-C5'	-5.67	112.40	120.90
58	BY	38	PRO	CA-C-N	5.67	127.81	120.44
58	BY	38	PRO	C-N-CA	5.67	127.81	120.44
62	Bc	95	VAL	N-CA-CB	-5.67	101.88	111.23
85	AA	945	A	C4'-C3'-C2'	5.67	108.27	102.60
85	AA	2085	C	N1-C1'-C2'	-5.67	105.50	114.00
2	A1	234	VAL	CA-C-N	5.66	129.75	121.31
2	A1	234	VAL	C-N-CA	5.66	129.75	121.31
5	A4	66	ILE	CA-C-N	5.66	129.83	120.94
5	A4	66	ILE	C-N-CA	5.66	129.83	120.94
34	BA	345	G	P-O3'-C3'	-5.66	111.70	120.20
34	BA	1486	U	C2-N1-C1'	-5.66	100.71	117.70
35	BB	1546	C	C3'-C2'-C1'	-5.66	95.64	101.30
59	BZ	60	PHE	CA-CB-CG	-5.66	108.14	113.80
77	Br	361	ALA	CA-C-N	5.66	128.66	120.79
77	Br	361	ALA	C-N-CA	5.66	128.66	120.79
82	Bw	60	TYR	N-CA-CB	-5.66	101.80	110.01
85	AA	8	U	O4'-C1'-C2'	5.66	111.46	105.80
85	AA	332	A	C4'-C3'-C2'	-5.66	96.94	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2063	C	C4'-C3'-O3'	-5.66	104.50	113.00
85	AA	2081	A	C4'-C3'-C2'	-5.66	96.94	102.60
34	BA	577	U	C2'-C3'-O3'	5.66	117.99	109.50
35	BB	1134	G	O5'-C5'-C4'	-5.66	103.01	111.50
45	BL	53	VAL	N-CA-C	-5.66	100.32	108.53
57	BX	53	GLN	CA-C-N	5.66	130.69	121.74
57	BX	53	GLN	C-N-CA	5.66	130.69	121.74
34	BA	111	U	O3'-P-O5'	-5.66	95.51	104.00
34	BA	1604	A	P-O3'-C3'	5.66	128.69	120.20
34	BA	1712	U	P-O3'-C3'	-5.66	111.71	120.20
35	BB	575	C	P-O5'-C5'	5.66	129.39	120.90
36	BC	144	C	P-O3'-C3'	-5.66	111.71	120.20
39	BF	31	U	C1'-O4'-C4'	-5.66	104.24	109.90
41	BH	34	G	O5'-C5'-C4'	-5.66	103.01	111.50
51	BR	103	ILE	N-CA-CB	5.66	117.82	110.57
56	BW	100	ASN	N-CA-CB	-5.66	101.82	110.65
85	AA	289	G	C1'-O4'-C4'	-5.66	104.24	109.90
34	BA	14	G	P-O3'-C3'	-5.66	111.71	120.20
34	BA	1586	U	C1'-O4'-C4'	-5.66	104.24	109.90
34	BA	1804	A	O3'-P-O5'	5.66	112.49	104.00
38	BE	25	U	P-O3'-C3'	5.66	128.69	120.20
40	BG	1	G	P-O3'-C3'	-5.66	111.71	120.20
49	BP	153	LYS	CB-CA-C	-5.66	102.18	110.95
63	Bd	27	LEU	CB-CA-C	-5.66	101.32	110.77
85	AA	1057	G	C4'-C3'-C2'	-5.66	96.94	102.60
85	AA	1461	A	P-O3'-C3'	5.66	128.69	120.20
85	AA	1497	U	O3'-P-O5'	5.66	112.49	104.00
34	BA	1043	C	C4'-C3'-C2'	5.66	108.26	102.60
34	BA	1422	A	C3'-C2'-O2'	5.66	119.19	110.70
34	BA	1587	C	O5'-C5'-C4'	-5.66	103.02	111.50
35	BB	1230	A	C4'-C3'-C2'	-5.66	96.94	102.60
38	BE	100	U	C3'-C2'-O2'	-5.66	106.11	114.60
65	Bf	322	ARG	N-CA-CB	5.66	120.05	110.49
70	Bk	60	THR	CA-CB-CG2	5.66	120.12	110.50
85	AA	293	A	C3'-C2'-C1'	-5.66	95.64	101.30
1	A0	135	TYR	N-CA-C	-5.66	101.28	109.59
22	AO	134	LYS	CA-C-N	5.66	130.61	120.77
22	AO	134	LYS	C-N-CA	5.66	130.61	120.77
26	AS	29	LYS	CB-CA-C	-5.66	101.40	110.79
34	BA	442	G	C3'-C2'-O2'	-5.66	106.12	114.60
34	BA	541	C	C5'-C4'-C3'	-5.66	107.52	116.00
34	BA	1477	C	C5'-C4'-C3'	-5.66	107.52	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BE	136	G	N9-C1'-C2'	5.66	122.48	114.00
45	BL	56	ARG	NE-CZ-NH1	5.66	127.16	121.50
79	Bt	87	ARG	CD-NE-CZ	-5.66	116.48	124.40
80	Bu	248	MET	CG-SD-CE	-5.66	88.46	100.90
5	A4	129	ASN	CA-CB-CG	-5.65	106.95	112.60
31	AX	49	ILE	CB-CA-C	-5.65	104.59	111.88
34	BA	821	G	C4'-C3'-C2'	-5.65	96.95	102.60
34	BA	1077	G	O5'-C5'-C4'	-5.65	103.02	111.50
35	BB	897	C	C5'-C4'-C3'	-5.65	107.52	116.00
35	BB	1294	C	N1-C1'-C2'	-5.65	103.52	112.00
77	Br	264	THR	CA-C-O	-5.65	115.40	121.45
11	AC	73	TYR	CA-C-O	5.65	125.96	119.35
34	BA	510	U	C4'-C3'-O3'	5.65	117.88	109.40
34	BA	544	U	O3'-P-O5'	-5.65	95.52	104.00
34	BA	793	A	O5'-C5'-C4'	-5.65	103.02	111.50
34	BA	999	G	P-O3'-C3'	-5.65	111.72	120.20
35	BB	452	A	C2'-C3'-O3'	5.65	122.18	113.70
35	BB	502	C	O5'-C5'-C4'	-5.65	103.02	111.50
35	BB	586	U	C5'-C4'-C3'	-5.65	107.52	116.00
35	BB	1239	A	P-O5'-C5'	5.65	129.38	120.90
35	BB	1384	A	C3'-C2'-C1'	-5.65	95.65	101.30
36	BC	99	U	C4'-C3'-O3'	-5.65	104.52	113.00
38	BE	164	C	C5'-C4'-C3'	-5.65	107.52	116.00
47	BN	45	LEU	CA-C-O	5.65	126.75	120.82
77	Br	75	ILE	CA-C-N	5.65	125.67	119.90
77	Br	75	ILE	C-N-CA	5.65	125.67	119.90
85	AA	354	C	C4'-C3'-C2'	-5.65	96.95	102.60
85	AA	404	A	C4'-C3'-C2'	5.65	108.25	102.60
13	AE	19	GLN	CA-C-N	-5.65	111.73	120.88
13	AE	19	GLN	C-N-CA	-5.65	111.73	120.88
13	AE	152	ARG	N-CA-C	-5.65	104.01	112.54
23	AP	45	PRO	N-CA-C	-5.65	100.83	112.47
34	BA	1738	G	C5'-C4'-C3'	-5.65	107.52	116.00
34	BA	1800	G	O5'-C5'-C4'	-5.65	103.02	111.50
35	BB	788	U	P-O3'-C3'	-5.65	111.72	120.20
35	BB	1250	A	C4'-C3'-C2'	5.65	108.25	102.60
35	BB	1351	G	C4'-C3'-C2'	5.65	108.25	102.60
40	BG	46	G	O5'-C5'-C4'	-5.65	103.03	111.50
42	BI	11	LYS	N-CA-C	5.65	122.84	110.80
52	BS	43	PHE	CA-CB-CG	-5.65	108.15	113.80
62	Bc	18	PHE	CA-C-O	5.65	125.11	118.90
67	Bh	149	VAL	CB-CA-C	-5.65	102.78	111.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	590	U	P-O3'-C3'	5.65	128.68	120.20
85	AA	1522	U	C5'-C4'-C3'	-5.65	107.53	116.00
34	BA	386	A	C5'-C4'-C3'	5.65	124.47	116.00
34	BA	1152	A	P-O5'-C5'	-5.65	112.43	120.90
35	BB	439	G	C4'-C3'-O3'	-5.65	104.53	113.00
37	BD	92	G	O5'-C5'-C4'	-5.65	103.03	111.50
39	BF	14	C	C3'-C2'-C1'	-5.65	95.85	101.50
53	BT	188	ALA	N-CA-C	-5.65	105.11	112.23
57	BX	156	ASP	CA-C-O	5.65	126.75	120.82
85	AA	1537	A	P-O5'-C5'	5.65	129.37	120.90
85	AA	1724	A	P-O5'-C5'	5.65	129.37	120.90
86	AB	14	A	O3'-P-O5'	5.65	112.47	104.00
8	A7	117	PHE	N-CA-C	-5.65	100.50	109.76
34	BA	1687	A	C5'-C4'-C3'	5.65	124.47	116.00
36	BC	33	U	O5'-C5'-C4'	-5.65	103.23	111.70
36	BC	34	U	C1'-O4'-C4'	-5.65	104.05	109.70
37	BD	86	A	C5'-C4'-O4'	-5.65	101.33	109.80
44	BK	69	ARG	CD-NE-CZ	-5.65	116.49	124.40
49	BP	23	ARG	CG-CD-NE	-5.65	99.58	112.00
85	AA	46	U	P-O3'-C3'	5.65	128.67	120.20
85	AA	462	A	P-O5'-C5'	-5.65	112.43	120.90
85	AA	589	A	C5'-C4'-C3'	5.65	123.67	115.20
85	AA	1931	C	P-O5'-C5'	5.65	129.37	120.90
34	BA	794	G	N9-C1'-C2'	-5.65	103.53	112.00
35	BB	832	C	C3'-C2'-C1'	-5.65	95.65	101.30
35	BB	1042	U	P-O5'-C5'	5.65	129.37	120.90
41	BH	93	G	P-O5'-C5'	5.65	129.37	120.90
43	BJ	152	VAL	N-CA-C	-5.65	99.63	108.95
85	AA	493	A	C5'-C4'-C3'	5.65	124.47	116.00
85	AA	1869	U	O5'-C5'-C4'	5.65	119.97	111.50
85	AA	2127	G	C1'-O4'-C4'	-5.65	104.25	109.90
34	BA	579	U	O4'-C4'-C3'	5.64	109.64	104.00
34	BA	1616	A	O4'-C4'-C3'	-5.64	100.45	106.10
35	BB	1512	C	C5'-C4'-C3'	-5.64	107.53	116.00
38	BE	168	C	C5'-C4'-C3'	5.64	124.47	116.00
39	BF	23	G	C3'-C2'-C1'	-5.64	95.66	101.30
44	BK	123	ASN	N-CA-CB	-5.64	102.46	110.81
48	BO	191	GLU	N-CA-C	-5.64	105.03	111.07
65	Bf	409	THR	N-CA-CB	5.64	120.03	110.49
85	AA	489	C	O4'-C4'-C3'	-5.64	98.36	104.00
85	AA	490	A	C2'-C3'-O3'	5.64	122.17	113.70
85	AA	593	U	P-O5'-C5'	-5.64	112.43	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1686	G	C5'-C4'-C3'	-5.64	107.53	116.00
85	AA	1979	A	O4'-C1'-N9	5.64	116.67	108.20
85	AA	2007	G	C4'-C3'-C2'	5.64	108.25	102.60
7	A6	175	LYS	N-CA-CB	5.64	118.40	109.82
8	A7	306	ASP	CA-CB-CG	-5.64	106.96	112.60
12	AD	92	ASP	CA-CB-CG	-5.64	106.96	112.60
20	AL	82	MET	CG-SD-CE	-5.64	88.49	100.90
34	BA	453	A	C4'-C3'-O3'	-5.64	104.54	113.00
34	BA	702	G	P-O5'-C5'	5.64	129.37	120.90
34	BA	1706	A	P-O5'-C5'	-5.64	112.44	120.90
35	BB	1132	A	C2'-C3'-O3'	5.64	122.17	113.70
35	BB	1237	C	O4'-C1'-C2'	5.64	113.24	107.60
36	BC	131	C	O5'-C5'-C4'	5.64	120.16	111.70
38	BE	66	A	C3'-C2'-C1'	-5.64	95.66	101.30
85	AA	386	G	C5'-C4'-C3'	-5.64	107.54	116.00
85	AA	471	U	O5'-C5'-C4'	-5.64	103.04	111.50
85	AA	547	A	O5'-C5'-C4'	-5.64	103.04	111.50
85	AA	961	U	C5'-C4'-O4'	5.64	118.26	109.80
85	AA	1124	G	C3'-C2'-C1'	-5.64	95.66	101.30
85	AA	1503	G	O4'-C1'-C2'	5.64	113.24	107.60
85	AA	2167	A	C3'-C2'-C1'	-5.64	95.66	101.30
27	AT	98	LYS	N-CA-CB	5.64	118.41	110.12
34	BA	596	G	O5'-C5'-C4'	5.64	120.16	111.70
41	BH	8	C	P-O3'-C3'	5.64	128.66	120.20
85	AA	1017	G	P-O5'-C5'	-5.64	112.44	120.90
8	A7	245	PHE	N-CA-C	-5.64	101.35	110.32
18	AJ	117	ARG	N-CA-C	-5.64	105.21	111.36
31	AX	51	SER	N-CA-C	-5.64	100.59	109.50
35	BB	471	U	O4'-C4'-C3'	5.64	109.64	104.00
35	BB	632	U	O4'-C4'-C3'	-5.64	98.36	104.00
35	BB	727	U	P-O5'-C5'	5.64	129.36	120.90
35	BB	1042	U	C4'-C3'-C2'	5.64	108.24	102.60
35	BB	1191	G	C4'-C3'-O3'	-5.64	104.54	113.00
50	BQ	179	ARG	CG-CD-NE	-5.64	99.59	112.00
54	BU	80	VAL	N-CA-C	5.64	116.00	108.11
60	Ba	35	ARG	N-CA-C	-5.64	97.34	109.81
63	Bd	14	ARG	CB-CA-C	5.64	120.15	110.79
85	AA	537	G	C3'-C2'-C1'	-5.64	95.66	101.30
85	AA	664	C	C4'-C3'-O3'	-5.64	104.54	113.00
85	AA	1154	A	O5'-C5'-C4'	5.64	119.96	111.50
85	AA	1900	C	C4'-C3'-O3'	-5.64	104.54	113.00
85	AA	1928	A	O4'-C1'-C2'	5.64	111.44	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A2	114	VAL	N-CA-CB	5.64	119.00	112.40
34	BA	452	A	O3'-P-O5'	-5.64	95.54	104.00
38	BE	14	C	C5'-C4'-C3'	-5.64	106.74	115.20
38	BE	110	U	C1'-O4'-C4'	-5.64	104.26	109.90
85	AA	1894	G	C5'-C4'-O4'	-5.64	101.34	109.80
2	A1	116	SER	CB-CA-C	-5.64	102.55	111.17
34	BA	174	A	C4'-C3'-C2'	-5.64	96.96	102.60
38	BE	5	A	O3'-P-O5'	-5.64	95.54	104.00
41	BH	25	A	O4'-C1'-C2'	-5.64	101.96	107.60
46	BM	95	VAL	N-CA-C	-5.64	100.00	108.12
73	Bn	6	THR	CA-C-O	5.64	126.45	119.97
85	AA	575	G	C3'-C2'-O2'	5.64	119.15	110.70
85	AA	699	U	C1'-O4'-C4'	-5.64	104.26	109.90
85	AA	1542	A	C5'-C4'-C3'	-5.64	107.54	116.00
85	AA	1801	U	C5'-C4'-C3'	-5.64	107.54	116.00
85	AA	1853	U	C2'-C3'-O3'	5.64	117.95	109.50
23	AP	259	MET	CG-SD-CE	-5.63	88.50	100.90
34	BA	384	U	C1'-C2'-O2'	5.63	116.85	108.40
34	BA	1420	A	C5'-C4'-C3'	5.63	124.45	116.00
34	BA	1605	G	O3'-P-O5'	-5.63	95.55	104.00
35	BB	60	A	O5'-C5'-C4'	-5.63	103.25	111.70
35	BB	69	A	C5'-C4'-C3'	-5.63	106.75	115.20
35	BB	798	A	O3'-P-O5'	-5.63	95.55	104.00
35	BB	1094	A	C1'-O4'-C4'	-5.63	104.27	109.90
35	BB	1292	G	C5'-C4'-C3'	-5.63	107.55	116.00
36	BC	128	U	O3'-P-O5'	-5.63	95.55	104.00
39	BF	5	U	O4'-C4'-C3'	-5.63	98.37	104.00
47	BN	154	ASP	CA-C-N	5.63	132.30	121.54
47	BN	154	ASP	C-N-CA	5.63	132.30	121.54
62	Bc	82	MET	CG-SD-CE	-5.63	88.50	100.90
68	Bi	23	CYS	CA-C-O	5.63	126.50	120.70
85	AA	1294	U	C2-N3-C4	-5.63	110.10	127.00
86	AB	55	U	P-O3'-C3'	-5.63	111.75	120.20
86	AB	67	C	C4'-C3'-C2'	-5.63	96.97	102.60
35	BB	1170	U	C5'-C4'-C3'	-5.63	107.55	116.00
39	BF	68	C	O3'-P-O5'	5.63	112.45	104.00
25	AR	62	TYR	N-CA-C	5.63	118.14	111.33
34	BA	572	G	P-O5'-C5'	5.63	129.35	120.90
34	BA	731	A	C5'-C4'-C3'	5.63	124.45	116.00
35	BB	532	C	P-O5'-C5'	-5.63	112.45	120.90
35	BB	1178	A	O4'-C4'-C3'	-5.63	98.37	104.00
35	BB	1383	C	P-O3'-C3'	-5.63	111.75	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1484	A	P-O3'-C3'	-5.63	111.75	120.20
36	BC	132	U	P-O5'-C5'	5.63	129.35	120.90
37	BD	111	U	O5'-C5'-C4'	-5.63	103.05	111.50
40	BG	174	G	O3'-P-O5'	5.63	112.45	104.00
40	BG	179	C	C1'-C2'-O2'	5.63	116.85	108.40
73	Bn	47	TYR	CA-C-O	-5.63	115.15	121.40
81	Bv	80	TYR	CA-CB-CG	-5.63	103.76	113.90
82	Bw	87	HIS	N-CA-C	-5.63	106.26	113.02
85	AA	600	C	C2'-C3'-O3'	-5.63	105.25	113.70
85	AA	1292	A	O5'-C5'-C4'	5.63	119.95	111.50
6	A5	65	PHE	N-CA-C	-5.63	100.53	109.76
34	BA	460	G	C5'-C4'-C3'	5.63	124.45	116.00
34	BA	1328	U	C1'-O4'-C4'	-5.63	104.27	109.90
35	BB	877	A	O5'-C5'-C4'	5.63	119.94	111.50
40	BG	135	C	C4'-C3'-C2'	-5.63	96.97	102.60
47	BN	169	PRO	N-CA-C	5.63	124.07	112.47
48	BO	166	TRP	CA-C-N	5.63	127.76	120.44
48	BO	166	TRP	C-N-CA	5.63	127.76	120.44
80	Bu	215	LYS	CA-C-N	5.63	128.09	120.38
80	Bu	215	LYS	C-N-CA	5.63	128.09	120.38
85	AA	327	G	O3'-P-O5'	5.63	112.44	104.00
85	AA	1579	A	C1'-O4'-C4'	-5.63	104.07	109.70
86	AB	39	U	C5'-C4'-C3'	5.63	124.44	116.00
21	AM	77	LYS	N-CA-CB	5.63	118.49	110.16
30	AW	13	VAL	CB-CA-C	5.63	119.74	112.14
31	AX	156	MET	N-CA-C	-5.63	100.74	109.24
34	BA	494	A	P-O5'-C5'	5.63	129.34	120.90
35	BB	1513	U	C3'-C2'-C1'	-5.63	95.67	101.30
40	BG	176	G	C4'-C3'-C2'	5.63	108.23	102.60
41	BH	63	G	C4'-C3'-O3'	5.63	121.44	113.00
55	BV	36	ASP	N-CA-C	-5.63	106.00	112.92
77	Br	322	ASN	CA-CB-CG	-5.63	106.97	112.60
85	AA	109	G	P-O3'-C3'	-5.63	111.76	120.20
85	AA	1036	A	P-O5'-C5'	-5.63	112.46	120.90
85	AA	1793	A	C8-N9-C1'	5.63	144.59	127.70
3	A2	157	GLU	N-CA-CB	-5.63	100.88	110.33
7	A6	116	GLY	CA-C-N	5.63	132.29	121.54
7	A6	116	GLY	C-N-CA	5.63	132.29	121.54
8	A7	160	PHE	N-CA-C	-5.63	101.31	110.20
20	AL	8	THR	CA-C-N	5.63	127.73	120.70
20	AL	8	THR	C-N-CA	5.63	127.73	120.70
23	AP	236	THR	CA-CB-OG1	5.63	118.04	109.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	238	C	C5'-C4'-C3'	-5.63	107.56	116.00
34	BA	298	G	O3'-P-O5'	-5.63	95.56	104.00
34	BA	507	U	P-O5'-C5'	5.63	129.34	120.90
34	BA	837	U	C3'-C2'-C1'	-5.63	95.67	101.30
35	BB	407	A	O3'-P-O5'	-5.63	95.56	104.00
35	BB	867	C	O3'-P-O5'	-5.63	95.56	104.00
35	BB	1397	G	P-O3'-C3'	5.63	128.64	120.20
36	BC	32	U	C4'-C3'-C2'	-5.63	96.97	102.60
36	BC	135	A	O3'-P-O5'	-5.63	95.56	104.00
38	BE	104	G	C3'-C2'-C1'	5.63	106.93	101.30
38	BE	166	G	O3'-P-O5'	-5.63	95.56	104.00
40	BG	63	U	C5'-C4'-C3'	-5.63	107.56	116.00
84	By	110	ILE	N-CA-C	5.63	115.70	107.37
85	AA	796	U	P-O5'-C5'	-5.63	112.46	120.90
85	AA	1480	C	C4'-C3'-C2'	-5.63	96.97	102.60
85	AA	1703	A	C4'-C3'-O3'	-5.63	104.56	113.00
85	AA	1841	G	C5'-C4'-C3'	-5.63	107.56	116.00
34	BA	253	U	P-O3'-C3'	-5.62	111.76	120.20
35	BB	1037	A	P-O3'-C3'	5.62	128.64	120.20
38	BE	142	A	C1'-O4'-C4'	-5.62	104.08	109.70
45	BL	89	LYS	CB-CA-C	-5.62	101.45	110.79
85	AA	1130	G	O4'-C4'-C3'	5.62	109.62	104.00
86	AB	70	G	C2'-C3'-O3'	5.62	122.14	113.70
34	BA	51	C	P-O3'-C3'	-5.62	111.77	120.20
36	BC	102	G	C5'-C4'-C3'	-5.62	107.56	116.00
71	Bl	118	THR	CA-C-N	5.62	132.28	121.54
71	Bl	118	THR	C-N-CA	5.62	132.28	121.54
85	AA	374	C	O3'-P-O5'	5.62	112.43	104.00
85	AA	620	U	C5'-C4'-C3'	-5.62	107.56	116.00
34	BA	42	A	C1'-O4'-C4'	-5.62	104.28	109.90
34	BA	190	U	C1'-O4'-C4'	-5.62	104.28	109.90
34	BA	481	A	O3'-P-O5'	-5.62	95.57	104.00
35	BB	317	C	P-O5'-C5'	5.62	129.33	120.90
35	BB	1384	A	O4'-C4'-C3'	-5.62	98.38	104.00
40	BG	163	G	N9-C1'-C2'	5.62	120.43	112.00
52	BS	98	ASP	CA-CB-CG	5.62	118.22	112.60
64	Be	221	HIS	CB-CG-CD2	-5.62	123.89	131.20
82	Bw	166	ARG	N-CA-C	-5.62	105.10	112.41
85	AA	486	G	C4'-C3'-O3'	-5.62	104.57	113.00
85	AA	1206	A	C3'-C2'-C1'	-5.62	95.68	101.30
18	AJ	42	GLN	CB-CG-CD	-5.62	103.05	112.60
18	AJ	85	ASP	N-CA-C	-5.62	105.30	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	521	C	C1'-O4'-C4'	-5.62	104.28	109.90
34	BA	1780	U	C5'-C4'-C3'	5.62	124.43	116.00
35	BB	790	A	P-O5'-C5'	-5.62	112.47	120.90
49	BP	134	LYS	N-CA-CB	5.62	119.99	110.49
50	BQ	176	ARG	CA-C-N	5.62	128.27	120.29
50	BQ	176	ARG	C-N-CA	5.62	128.27	120.29
85	AA	2096	G	O3'-P-O5'	5.62	112.43	104.00
34	BA	1205	A	P-O3'-C3'	5.62	128.63	120.20
34	BA	1210	A	O5'-C5'-C4'	5.62	119.93	111.50
34	BA	1425	G	C1'-C2'-O2'	5.62	120.23	111.80
34	BA	1704	G	C1'-O4'-C4'	-5.62	104.28	109.90
34	BA	1835	A	C4'-C3'-O3'	-5.62	104.57	113.00
35	BB	374	A	O4'-C1'-N9	5.62	116.93	108.50
35	BB	1357	C	O3'-P-O5'	5.62	112.43	104.00
66	Bg	28	VAL	N-CA-CB	5.62	118.18	110.54
85	AA	156	G	P-O5'-C5'	5.62	129.33	120.90
85	AA	245	A	C4'-C3'-C2'	-5.62	96.98	102.60
85	AA	345	U	C4'-C3'-C2'	-5.62	96.98	102.60
85	AA	1197	U	C4'-C3'-O3'	-5.62	104.57	113.00
85	AA	1471	G	C4'-C3'-O3'	-5.62	104.57	113.00
29	AV	25	CYS	CA-C-N	5.62	132.27	121.54
29	AV	25	CYS	C-N-CA	5.62	132.27	121.54
34	BA	87	G	O3'-P-O5'	5.62	112.42	104.00
34	BA	1810	A	O4'-C1'-N9	5.62	116.93	108.50
35	BB	5	A	O4'-C4'-C3'	-5.62	98.38	104.00
35	BB	671	A	P-O5'-C5'	5.62	129.33	120.90
35	BB	792	G	O4'-C1'-N9	5.62	116.93	108.50
47	BN	85	LEU	CA-C-N	5.62	127.74	120.44
47	BN	85	LEU	C-N-CA	5.62	127.74	120.44
64	Be	149	LYS	CA-C-N	5.62	129.19	120.60
64	Be	149	LYS	C-N-CA	5.62	129.19	120.60
85	AA	932	A	C5'-C4'-C3'	5.62	124.43	116.00
8	A7	160	PHE	CA-CB-CG	-5.62	108.18	113.80
34	BA	666	C	C4'-C3'-C2'	-5.62	96.98	102.60
34	BA	778	U	C4'-C3'-C2'	-5.62	96.98	102.60
34	BA	1313	U	P-O5'-C5'	-5.62	112.48	120.90
38	BE	6	A	P-O5'-C5'	-5.62	112.48	120.90
84	By	109	GLU	CB-CG-CD	-5.62	103.05	112.60
22	AO	107	GLU	CB-CA-C	-5.61	104.16	111.40
27	AT	81	LEU	N-CA-C	5.61	118.61	109.24
32	AY	42	GLN	N-CA-C	-5.61	104.80	111.03
34	BA	367	G	O3'-P-O5'	5.61	112.42	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	500	C	C3'-C2'-C1'	-5.61	95.69	101.30
34	BA	718	U	O4'-C1'-N1	5.61	116.92	108.50
35	BB	16	G	P-O3'-C3'	5.61	128.62	120.20
35	BB	1093	C	C5'-C4'-C3'	-5.61	107.58	116.00
35	BB	1254	G	O3'-P-O5'	-5.61	95.58	104.00
38	BE	90	G	O3'-P-O5'	-5.61	95.58	104.00
65	Bf	72	ARG	N-CA-C	-5.61	97.43	107.98
67	Bh	50	ARG	O-C-N	-5.61	116.17	122.12
77	Br	103	PRO	N-CA-C	5.61	124.03	112.47
85	AA	307	G	O3'-P-O5'	5.61	112.42	104.00
85	AA	324	U	C4'-C3'-C2'	5.61	108.21	102.60
85	AA	658	C	C3'-C2'-C1'	-5.61	95.69	101.30
85	AA	1576	G	C1'-O4'-C4'	-5.61	104.09	109.70
23	AP	146	ILE	N-CA-C	5.61	116.84	109.21
34	BA	498	A	C5'-C4'-C3'	5.61	124.42	116.00
34	BA	1030	C	P-O5'-C5'	-5.61	112.48	120.90
34	BA	1372	C	C2'-C3'-O3'	5.61	122.12	113.70
40	BG	140	G	C4'-C3'-O3'	-5.61	104.58	113.00
56	BW	120	VAL	N-CA-C	5.61	121.01	109.34
85	AA	979	U	P-O3'-C3'	5.61	128.62	120.20
5	A4	54	SER	N-CA-C	5.61	117.37	107.61
20	AL	20	TYR	CA-C-N	5.61	132.25	121.54
20	AL	20	TYR	C-N-CA	5.61	132.25	121.54
21	AM	62	PRO	CA-C-N	5.61	127.73	120.44
21	AM	62	PRO	C-N-CA	5.61	127.73	120.44
23	AP	249	PRO	CA-C-N	5.61	129.97	120.88
23	AP	249	PRO	C-N-CA	5.61	129.97	120.88
34	BA	102	G	C5'-C4'-C3'	-5.61	107.58	116.00
34	BA	705	C	C4'-C3'-C2'	5.61	108.21	102.60
34	BA	1570	C	C4'-C3'-O3'	-5.61	104.58	113.00
36	BC	25	C	O5'-C5'-C4'	-5.61	103.08	111.50
68	Bi	82	ASP	CA-C-O	5.61	126.37	120.42
70	Bk	89	ALA	N-CA-C	5.61	122.75	110.80
85	AA	690	G	O5'-C5'-C4'	-5.61	103.08	111.50
34	BA	495	A	C3'-C2'-C1'	-5.61	95.69	101.30
34	BA	1318	G	O4'-C4'-C3'	-5.61	98.39	104.00
35	BB	371	C	C2'-C3'-O3'	5.61	117.91	109.50
35	BB	1141	A	C1'-O4'-C4'	-5.61	104.29	109.90
85	AA	2208	G	C2'-C3'-O3'	5.61	122.11	113.70
5	A4	109	ASN	CA-CB-CG	5.61	118.21	112.60
7	A6	151	SER	CA-C-N	5.61	132.25	121.54
7	A6	151	SER	C-N-CA	5.61	132.25	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	106	U	P-O3'-C3'	-5.61	111.79	120.20
34	BA	333	A	C5'-C4'-C3'	-5.61	107.59	116.00
34	BA	837	U	C4'-C3'-O3'	-5.61	104.59	113.00
34	BA	1566	G	C5'-C4'-C3'	-5.61	107.59	116.00
34	BA	1792	U	O5'-C5'-C4'	-5.61	103.09	111.50
35	BB	58	G	O5'-C5'-C4'	-5.61	103.09	111.50
35	BB	1031	G	O4'-C1'-C2'	-5.61	100.19	105.80
35	BB	1379	U	P-O5'-C5'	-5.61	112.49	120.90
38	BE	90	G	C1'-C2'-O2'	5.61	116.81	108.40
43	BJ	168	HIS	CA-CB-CG	-5.61	108.19	113.80
47	BN	145	GLU	O-C-N	-5.61	115.72	123.12
85	AA	3	U	C4'-C3'-C2'	-5.61	96.99	102.60
85	AA	1000	U	C4'-C3'-O3'	-5.61	104.59	113.00
85	AA	1832	G	C4'-C3'-C2'	-5.61	96.99	102.60
85	AA	1856	G	P-O3'-C3'	-5.61	111.79	120.20
85	AA	2056	C	C1'-O4'-C4'	-5.61	104.29	109.90
85	AA	2061	C	C4'-C3'-C2'	-5.61	96.99	102.60
5	A4	185	THR	CB-CA-C	-5.61	101.51	110.14
34	BA	599	U	O4'-C1'-N1	5.61	116.91	108.50
34	BA	1014	A	C2'-C3'-O3'	5.61	122.11	113.70
42	BI	186	ARG	N-CA-C	-5.61	106.29	113.02
51	BR	54	LYS	N-CA-C	5.61	122.74	110.80
52	BS	169	VAL	N-CA-CB	-5.61	101.98	111.23
55	BV	112	LYS	N-CA-C	5.61	117.19	111.14
67	Bh	186	ILE	CB-CA-C	-5.61	104.13	111.25
85	AA	377	U	C1'-O4'-C4'	-5.61	104.30	109.90
85	AA	1287	C	C5'-C4'-O4'	5.61	118.21	109.80
5	A4	188	PHE	N-CA-C	5.60	118.70	109.85
34	BA	1346	U	C5'-C4'-C3'	-5.60	107.59	116.00
34	BA	1409	A	C5'-C4'-C3'	-5.60	107.59	116.00
34	BA	1569	C	O5'-C5'-C4'	-5.60	103.09	111.50
35	BB	368	C	O5'-C5'-C4'	-5.60	103.09	111.50
44	BK	187	ALA	N-CA-C	-5.60	106.21	113.16
65	Bf	85	LYS	N-CA-C	5.60	117.53	108.34
80	Bu	6	VAL	CA-C-N	5.60	128.14	120.46
80	Bu	6	VAL	C-N-CA	5.60	128.14	120.46
80	Bu	55	ILE	O-C-N	-5.60	117.26	123.20
82	Bw	209	HIS	CA-CB-CG	-5.60	108.20	113.80
83	Bx	207	THR	N-CA-C	-5.60	99.98	107.88
34	BA	467	A	P-O5'-C5'	5.60	129.31	120.90
34	BA	1055	U	C4'-C3'-C2'	5.60	108.20	102.60
34	BA	1239	G	C5'-C4'-C3'	-5.60	107.59	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1608	C	P-O3'-C3'	-5.60	111.80	120.20
34	BA	1722	U	P-O3'-C3'	-5.60	111.80	120.20
37	BD	25	G	O4'-C1'-N9	5.60	116.91	108.50
38	BE	31	A	C4'-C3'-O3'	-5.60	104.60	113.00
57	BX	86	ARG	N-CA-CB	-5.60	101.84	110.13
60	Ba	30	THR	N-CA-C	5.60	117.79	108.99
62	Bc	84	PRO	CA-N-CD	-5.60	104.16	112.00
83	Bx	221	GLN	N-CA-C	5.60	122.73	110.80
85	AA	1538	C	O4'-C1'-N1	5.60	116.90	108.50
85	AA	1605	G	P-O3'-C3'	5.60	128.60	120.20
7	A6	175	LYS	CA-C-O	-5.60	114.91	121.07
34	BA	93	A	O5'-C5'-C4'	-5.60	103.10	111.50
34	BA	442	G	O4'-C1'-C2'	-5.60	100.20	105.80
34	BA	487	A	C1'-O4'-C4'	-5.60	104.10	109.70
5	A4	78	LYS	N-CA-C	5.60	117.06	111.07
25	AR	45	ASP	N-CA-C	-5.60	97.44	109.81
34	BA	400	A	N9-C1'-C2'	-5.60	103.60	112.00
34	BA	817	U	P-O3'-C3'	-5.60	111.80	120.20
34	BA	1419	A	C5'-C4'-C3'	5.60	123.60	115.20
34	BA	1804	A	C4'-C3'-C2'	-5.60	97.00	102.60
35	BB	779	C	O4'-C1'-C2'	5.60	113.20	107.60
35	BB	1442	C	P-O3'-C3'	-5.60	111.80	120.20
37	BD	65	G	N9-C1'-C2'	-5.60	103.60	112.00
38	BE	131	C	C4'-C3'-C2'	5.60	108.20	102.60
40	BG	164	U	C4'-C3'-O3'	-5.60	104.60	113.00
50	BQ	19	GLY	CA-C-N	5.60	130.07	120.72
50	BQ	19	GLY	C-N-CA	5.60	130.07	120.72
72	Bm	33	SER	N-CA-C	5.60	122.73	110.80
77	Br	32	ARG	NE-CZ-NH2	-5.60	114.16	119.20
85	AA	101	C	C5'-C4'-O4'	-5.60	101.40	109.80
85	AA	721	C	C4'-C3'-C2'	-5.60	97.00	102.60
4	A3	63	PRO	O-C-N	5.60	130.11	123.06
31	AX	122	ILE	N-CA-C	-5.60	105.07	110.72
34	BA	225	A	C2'-C3'-O3'	5.60	117.90	109.50
34	BA	499	C	C4'-C3'-C2'	5.60	108.20	102.60
34	BA	940	C	C4'-C3'-C2'	5.60	108.20	102.60
34	BA	1267	A	O5'-C5'-C4'	-5.60	103.30	111.70
35	BB	145	G	C5'-C4'-O4'	-5.60	101.41	109.80
35	BB	1006	C	O4'-C1'-N1	5.60	116.89	108.50
35	BB	1019	C	C4'-C3'-O3'	-5.60	104.61	113.00
35	BB	1463	A	O3'-P-O5'	5.60	112.40	104.00
48	BO	32	HIS	CA-CB-CG	-5.60	108.20	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	Bd	10	HIS	CA-CB-CG	5.60	119.40	113.80
70	Bk	76	ASP	CA-C-N	5.60	132.23	121.54
70	Bk	76	ASP	C-N-CA	5.60	132.23	121.54
85	AA	288	G	O5'-C5'-C4'	-5.60	103.10	111.50
85	AA	1673	A	C4'-C3'-O3'	-5.60	104.61	113.00
85	AA	1905	A	P-O5'-C5'	5.60	129.30	120.90
25	AR	85	ILE	CA-CB-CG2	-5.60	100.99	110.50
36	BC	3	C	O4'-C1'-N1	5.60	116.89	108.50
36	BC	14	G	P-O3'-C3'	-5.60	111.81	120.20
61	Bb	77	ASN	OD1-CG-ND2	-5.60	117.00	122.60
81	Bv	182	LYS	CA-C-O	-5.60	114.60	120.70
85	AA	527	A	C5'-C4'-C3'	-5.60	107.61	116.00
4	A3	218	ALA	N-CA-C	-5.59	106.30	113.01
8	A7	238	ALA	CA-C-N	5.59	126.83	119.84
8	A7	238	ALA	C-N-CA	5.59	126.83	119.84
32	AY	20	LYS	N-CA-C	-5.59	99.40	108.41
34	BA	1639	U	O5'-C5'-C4'	-5.59	103.11	111.50
34	BA	1709	A	O4'-C1'-C2'	5.59	113.19	107.60
35	BB	620	G	P-O5'-C5'	-5.59	112.51	120.90
35	BB	746	A	P-O5'-C5'	-5.59	112.51	120.90
39	BF	31	U	P-O5'-C5'	-5.59	112.51	120.90
44	BK	168	SER	CB-CA-C	-5.59	100.04	109.72
61	Bb	140	ALA	N-CA-C	5.59	117.90	109.23
71	Bl	108	ILE	N-CA-C	5.59	116.00	108.17
73	Bn	72	ARG	CB-CG-CD	5.59	124.17	111.30
85	AA	43	A	C4'-C3'-O3'	-5.59	104.61	113.00
86	AB	43	C	C4'-C3'-C2'	-5.59	97.00	102.60
34	BA	783	U	C4'-C3'-O3'	-5.59	104.61	113.00
34	BA	1474	G	N9-C1'-C2'	-5.59	103.61	112.00
35	BB	661	G	P-O3'-C3'	-5.59	111.81	120.20
35	BB	1056	A	C4'-C3'-O3'	-5.59	104.61	113.00
35	BB	1336	G	C4'-C3'-O3'	-5.59	104.61	113.00
85	AA	1801	U	P-O5'-C5'	5.59	129.29	120.90
3	A2	38	SER	CB-CA-C	-5.59	99.29	110.42
22	AO	89	TYR	CB-CA-C	5.59	119.66	110.88
31	AX	48	VAL	N-CA-C	5.59	116.36	108.36
34	BA	927	A	O4'-C1'-C2'	5.59	113.19	107.60
34	BA	1605	G	P-O5'-C5'	5.59	129.29	120.90
35	BB	582	G	P-O3'-C3'	-5.59	111.81	120.20
35	BB	1503	U	C4'-C3'-C2'	-5.59	97.01	102.60
37	BD	16	U	P-O5'-C5'	5.59	129.29	120.90
37	BD	25	G	C2'-C3'-O3'	5.59	122.09	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BG	137	G	P-O3'-C3'	-5.59	111.81	120.20
42	BI	188	HIS	CA-CB-CG	5.59	119.39	113.80
48	BO	50	LYS	CA-C-O	5.59	126.56	120.58
56	BW	58	ASP	N-CA-CB	-5.59	101.30	110.41
70	Bk	67	ARG	N-CA-C	-5.59	104.58	111.40
85	AA	229	U	C2'-C3'-O3'	5.59	117.89	109.50
85	AA	373	G	C4'-C3'-C2'	5.59	108.19	102.60
3	A2	38	SER	N-CA-C	5.59	122.71	110.80
17	AI	46	ALA	N-CA-C	5.59	118.09	111.33
34	BA	451	A	P-O3'-C3'	5.59	128.58	120.20
34	BA	625	U	O4'-C1'-N1	5.59	116.89	108.50
34	BA	660	C	C5'-C4'-C3'	5.59	124.38	116.00
34	BA	664	C	C1'-O4'-C4'	-5.59	104.31	109.90
34	BA	1325	G	O3'-P-O5'	-5.59	95.62	104.00
34	BA	1415	C	C4'-C3'-C2'	5.59	108.19	102.60
34	BA	1500	G	P-O3'-C3'	-5.59	111.81	120.20
35	BB	1063	C	O4'-C1'-C2'	5.59	111.39	105.80
36	BC	156	A	O4'-C4'-C3'	-5.59	98.41	104.00
37	BD	119	U	C1'-O4'-C4'	-5.59	104.11	109.70
85	AA	165	C	C4'-C3'-C2'	-5.59	97.01	102.60
85	AA	657	C	C4'-C3'-O3'	-5.59	104.62	113.00
85	AA	2176	U	O3'-P-O5'	5.59	112.38	104.00
1	A0	83	TYR	CA-CB-CG	5.59	123.96	113.90
5	A4	154	LEU	CA-C-O	5.59	126.16	120.24
35	BB	1364	C	O5'-C5'-C4'	-5.59	103.12	111.50
36	BC	46	G	C5'-C4'-C3'	-5.59	107.62	116.00
40	BG	14	G	P-O5'-C5'	-5.59	112.52	120.90
44	BK	20	SER	N-CA-C	-5.59	99.65	108.14
5	A4	170	ARG	CA-C-O	5.59	126.10	119.56
16	AH	44	GLU	N-CA-CB	5.59	119.93	110.49
23	AP	147	VAL	CA-C-N	5.59	125.77	119.90
23	AP	147	VAL	C-N-CA	5.59	125.77	119.90
35	BB	4	C	C3'-C2'-C1'	5.59	106.89	101.30
35	BB	1480	G	C1'-O4'-C4'	-5.59	104.31	109.90
49	BP	140	HIS	CA-CB-CG	5.59	119.39	113.80
50	BQ	58	ARG	CA-C-N	5.59	125.57	120.21
50	BQ	58	ARG	C-N-CA	5.59	125.57	120.21
51	BR	121	GLN	CB-CA-C	-5.59	102.11	110.16
65	Bf	104	MET	N-CA-C	5.59	118.36	109.81
65	Bf	315	ARG	CD-NE-CZ	-5.59	116.58	124.40
82	Bw	229	MET	CG-SD-CE	-5.59	88.61	100.90
85	AA	327	G	C4-N9-C1'	5.59	143.26	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	490	A	O3'-P-O5'	5.59	112.38	104.00
85	AA	1489	G	C4'-C3'-C2'	5.59	108.19	102.60
85	AA	1518	A	C1'-O4'-C4'	-5.59	104.31	109.90
34	BA	470	C	OP2-P-O3'	5.58	124.76	108.00
35	BB	1251	G	P-O3'-C3'	-5.58	111.82	120.20
40	BG	147	U	C5'-C4'-C3'	-5.58	107.62	116.00
62	Bc	54	LYS	N-CA-C	-5.58	100.57	109.23
85	AA	634	U	P-O3'-C3'	-5.58	111.82	120.20
85	AA	1797	U	O4'-C4'-C3'	-5.58	98.42	104.00
1	A0	215	ARG	N-CA-CB	-5.58	101.95	110.33
2	A1	32	PRO	CA-C-N	5.58	132.20	121.54
2	A1	32	PRO	C-N-CA	5.58	132.20	121.54
13	AE	75	PRO	N-CA-C	-5.58	100.97	112.47
34	BA	436	U	C4'-C3'-O3'	-5.58	104.62	113.00
34	BA	784	C	P-O3'-C3'	-5.58	111.83	120.20
34	BA	1818	A	P-O3'-C3'	-5.58	111.82	120.20
35	BB	657	A	C3'-C2'-C1'	5.58	106.88	101.30
36	BC	78	G	C1'-O4'-C4'	-5.58	104.32	109.90
40	BG	111	C	C5'-C4'-C3'	5.58	124.38	116.00
40	BG	177	U	C5'-C4'-C3'	5.58	124.37	116.00
47	BN	149	LYS	CA-C-N	5.58	131.75	121.70
47	BN	149	LYS	C-N-CA	5.58	131.75	121.70
55	BV	90	PHE	N-CA-CB	5.58	118.11	110.01
74	Bo	85	ARG	CD-NE-CZ	-5.58	116.58	124.40
85	AA	354	C	C3'-C2'-C1'	-5.58	95.72	101.30
85	AA	1666	U	C1'-C2'-O2'	5.58	116.78	108.40
1	A0	103	HIS	CA-CB-CG	-5.58	108.22	113.80
34	BA	175	G	O4'-C4'-C3'	-5.58	98.42	104.00
34	BA	1197	U	C5'-C4'-O4'	-5.58	101.43	109.80
34	BA	1702	G	C5'-C4'-C3'	-5.58	107.63	116.00
35	BB	825	U	C3'-C2'-C1'	-5.58	95.72	101.30
35	BB	1240	A	O3'-P-O5'	-5.58	95.63	104.00
37	BD	96	C	O5'-C5'-C4'	-5.58	103.13	111.50
64	Be	228	HIS	CA-CB-CG	-5.58	108.22	113.80
67	Bh	8	GLY	CA-C-O	5.58	124.48	118.95
85	AA	657	C	C5'-C4'-C3'	-5.58	107.63	116.00
85	AA	1156	A	P-O3'-C3'	-5.58	111.83	120.20
85	AA	1262	A	C4'-C3'-O3'	-5.58	104.63	113.00
22	AO	81	VAL	N-CA-CB	-5.58	102.21	110.58
34	BA	462	C	C1'-O4'-C4'	-5.58	104.32	109.90
34	BA	743	A	C4-C5-N7	5.58	127.44	110.70
36	BC	5	U	P-O3'-C3'	-5.58	111.83	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BF	65	U	P-O3'-C3'	5.58	128.57	120.20
85	AA	152	A	O5'-C5'-C4'	-5.58	103.13	111.50
2	A1	170	ILE	CA-C-N	5.58	132.19	121.54
2	A1	170	ILE	C-N-CA	5.58	132.19	121.54
34	BA	1794	A	N9-C1'-C2'	-5.58	103.63	112.00
35	BB	68	G	C2'-C3'-O3'	5.58	122.07	113.70
35	BB	465	C	C3'-C2'-C1'	-5.58	95.92	101.50
41	BH	101	A	C1'-C2'-O2'	-5.58	100.03	108.40
80	Bu	269	ARG	O-C-N	-5.58	114.91	121.32
82	Bw	16	MET	CG-SD-CE	-5.58	88.63	100.90
85	AA	353	G	O3'-P-O5'	5.58	112.37	104.00
85	AA	436	G	P-O3'-C3'	-5.58	111.83	120.20
85	AA	606	A	C2'-C3'-O3'	5.58	117.87	109.50
85	AA	839	C	C5'-C4'-C3'	-5.58	107.63	116.00
85	AA	1571	A	P-O3'-C3'	-5.58	111.83	120.20
85	AA	1859	C	C4'-C3'-O3'	-5.58	104.63	113.00
9	A8	51	ILE	N-CA-C	5.58	117.08	111.00
29	AV	97	LYS	O-C-N	-5.58	115.11	122.42
34	BA	957	A	O5'-C5'-C4'	5.58	119.87	111.50
49	BP	37	LEU	N-CA-CB	-5.58	101.81	110.57
63	Bd	49	LYS	CA-C-O	5.58	126.64	120.90
80	Bu	193	SER	CA-C-O	5.58	127.92	121.28
85	AA	2243	G	O5'-C5'-C4'	5.58	119.86	111.50
7	A6	99	THR	CA-CB-OG1	5.58	117.96	109.60
8	A7	132	ALA	N-CA-C	5.58	118.16	109.52
27	AT	56	VAL	N-CA-C	-5.58	100.45	108.48
34	BA	122	U	P-O3'-C3'	5.58	128.56	120.20
34	BA	697	A	P-O3'-C3'	-5.58	111.84	120.20
34	BA	1692	U	O5'-C5'-C4'	5.58	119.86	111.50
36	BC	51	A	O5'-C5'-C4'	-5.58	103.34	111.70
50	BQ	122	ARG	N-CA-C	-5.58	105.35	111.82
77	Br	62	SER	CA-C-N	5.58	132.19	121.54
77	Br	62	SER	C-N-CA	5.58	132.19	121.54
79	Bt	55	LYS	CA-C-O	5.58	125.56	120.26
85	AA	270	A	O5'-C5'-C4'	-5.58	103.14	111.50
85	AA	849	A	O4'-C4'-C3'	-5.58	98.42	104.00
85	AA	1560	A	C4'-C3'-C2'	-5.58	97.03	102.60
1	A0	111	ARG	CG-CD-NE	-5.57	99.74	112.00
34	BA	263	G	C3'-C2'-C1'	-5.57	95.93	101.50
34	BA	1091	U	C4'-C3'-O3'	-5.57	104.64	113.00
34	BA	1541	G	O3'-P-O5'	-5.57	95.64	104.00
35	BB	62	C	C4'-C3'-C2'	-5.57	97.03	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	79	U	C4'-C3'-O3'	-5.57	104.64	113.00
37	BD	24	U	C2'-C3'-O3'	5.57	122.06	113.70
40	BG	9	G	N9-C1'-C2'	-5.57	103.64	112.00
41	BH	14	C	C4'-C3'-O3'	-5.57	104.64	113.00
53	BT	98	ARG	CA-C-N	-5.57	111.84	120.31
53	BT	98	ARG	C-N-CA	-5.57	111.84	120.31
54	BU	90	CYS	CB-CA-C	-5.57	102.37	111.68
85	AA	431	G	C1'-O4'-C4'	-5.57	104.33	109.90
85	AA	445	U	C2'-C3'-O3'	5.57	117.86	109.50
85	AA	854	A	C1'-O4'-C4'	-5.57	104.33	109.90
85	AA	895	C	O3'-P-O5'	-5.57	95.64	104.00
34	BA	323	C	C2'-C3'-O3'	5.57	117.86	109.50
34	BA	543	A	N9-C1'-C2'	-5.57	103.64	112.00
34	BA	616	G	O4'-C1'-N9	5.57	116.86	108.50
35	BB	98	A	C3'-C2'-O2'	-5.57	106.24	114.60
58	BY	20	ARG	N-CA-C	5.57	118.18	108.76
69	Bj	89	ARG	N-CA-CB	-5.57	101.93	110.12
85	AA	1912	U	C4'-C3'-C2'	-5.57	97.03	102.60
85	AA	2237	G	P-O5'-C5'	5.57	129.26	120.90
13	AE	31	ASN	CA-CB-CG	-5.57	107.03	112.60
34	BA	1167	A	C2'-C3'-O3'	5.57	117.86	109.50
34	BA	1536	A	O3'-P-O5'	-5.57	95.64	104.00
35	BB	474	G	C1'-O4'-C4'	-5.57	104.33	109.90
58	BY	32	VAL	O-C-N	-5.57	117.46	123.14
85	AA	307	G	C2'-C3'-O3'	-5.57	105.34	113.70
85	AA	470	C	C4'-C3'-C2'	-5.57	97.03	102.60
85	AA	787	U	C5'-C4'-O4'	5.57	118.16	109.80
85	AA	1685	G	C5'-C4'-C3'	-5.57	107.64	116.00
34	BA	161	U	O4'-C4'-C3'	-5.57	100.53	106.10
35	BB	644	A	O3'-P-O5'	5.57	112.35	104.00
35	BB	1053	G	C4'-C3'-O3'	5.57	117.75	109.40
35	BB	1516	C	P-O5'-C5'	-5.57	112.55	120.90
62	Bc	116	THR	CA-C-O	5.57	126.85	121.00
62	Bc	142	ARG	CA-C-O	-5.57	113.51	118.63
85	AA	513	G	C4'-C3'-O3'	-5.57	104.65	113.00
34	BA	514	U	C5'-C4'-O4'	5.57	118.15	109.80
34	BA	863	G	O4'-C4'-C3'	-5.57	100.53	106.10
34	BA	1444	G	C4'-C3'-C2'	-5.57	97.03	102.60
35	BB	31	U	C2'-C3'-O3'	5.57	117.85	109.50
35	BB	899	C	C4'-C3'-C2'	-5.57	97.03	102.60
35	BB	1109	A	P-O5'-C5'	5.57	129.25	120.90
35	BB	1390	U	C4'-C3'-C2'	-5.57	97.03	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BG	87	G	C4'-C3'-O3'	-5.57	104.65	113.00
40	BG	123	C	C5'-C4'-C3'	-5.57	107.65	116.00
48	BO	135	GLY	CA-C-N	5.57	132.17	121.54
48	BO	135	GLY	C-N-CA	5.57	132.17	121.54
51	BR	97	ASN	N-CA-CB	5.57	118.79	110.22
52	BS	39	ALA	CA-C-O	5.57	126.45	120.55
61	Bb	38	GLU	O-C-N	-5.57	116.33	122.07
65	Bf	67	PHE	CA-C-O	5.57	126.23	119.38
81	Bv	188	HIS	CA-CB-CG	-5.57	108.23	113.80
13	AE	40	LYS	CB-CA-C	5.57	120.76	111.30
14	AF	38	MET	N-CA-CB	-5.57	101.98	110.33
34	BA	118	C	C4'-C3'-C2'	-5.57	97.03	102.60
34	BA	574	U	C4'-C3'-C2'	5.57	108.17	102.60
34	BA	618	G	C4-N9-C1'	-5.57	109.80	126.50
34	BA	886	G	C4'-C3'-O3'	-5.57	104.65	113.00
34	BA	1323	G	P-O5'-C5'	5.57	129.25	120.90
35	BB	119	G	N9-C1'-C2'	-5.57	103.65	112.00
35	BB	1543	C	O3'-P-O5'	-5.57	95.65	104.00
36	BC	86	U	C1'-O4'-C4'	-5.57	104.33	109.90
36	BC	110	A	O5'-C5'-C4'	-5.57	103.35	111.70
60	Ba	70	PHE	N-CA-C	-5.57	100.28	108.79
65	Bf	296	ARG	O-C-N	-5.57	116.22	122.12
69	Bj	16	THR	N-CA-C	5.57	122.66	110.80
85	AA	999	A	C3'-C2'-O2'	-5.57	106.25	114.60
20	AL	6	THR	CA-C-N	5.56	127.67	120.44
20	AL	6	THR	C-N-CA	5.56	127.67	120.44
34	BA	798	G	C3'-C2'-C1'	-5.56	95.74	101.30
34	BA	1459	U	C4'-C3'-C2'	-5.56	97.04	102.60
34	BA	1613	G	N9-C1'-C2'	-5.56	103.66	112.00
35	BB	1493	A	C5'-C4'-C3'	5.56	124.34	116.00
41	BH	18	C	C5'-C4'-C3'	-5.56	107.66	116.00
52	BS	170	LYS	N-CA-CB	-5.56	102.03	110.77
58	BY	70	ARG	N-CA-C	5.56	117.02	111.07
67	Bh	8	GLY	CA-C-N	5.56	128.29	120.28
67	Bh	8	GLY	C-N-CA	5.56	128.29	120.28
85	AA	244	G	P-O5'-C5'	5.56	129.25	120.90
85	AA	812	C	P-O5'-C5'	-5.56	112.55	120.90
85	AA	2042	G	O4'-C1'-C2'	5.56	113.16	107.60
15	AG	9	HIS	N-CA-C	5.56	118.47	109.40
16	AH	128	VAL	N-CA-C	5.56	120.89	108.88
16	AH	131	ASP	N-CA-C	5.56	126.58	111.00
21	AM	28	PRO	N-CA-C	5.56	123.93	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	48	C	N1-C1'-C2'	-5.56	103.66	112.00
34	BA	805	A	O3'-P-O5'	-5.56	95.66	104.00
34	BA	825	G	C1'-O4'-C4'	-5.56	104.34	109.90
34	BA	1692	U	C5'-C4'-C3'	-5.56	107.66	116.00
35	BB	685	G	P-O5'-C5'	-5.56	112.56	120.90
35	BB	798	A	N9-C1'-C2'	5.56	120.34	112.00
36	BC	116	C	C5'-C4'-C3'	-5.56	107.66	116.00
36	BC	169	G	C4'-C3'-C2'	-5.56	97.04	102.60
39	BF	54	U	C3'-C2'-C1'	5.56	107.06	101.50
40	BG	36	G	C3'-C2'-C1'	-5.56	95.74	101.30
53	BT	88	ARG	CG-CD-NE	-5.56	99.77	112.00
62	Bc	141	VAL	N-CA-C	5.56	115.76	110.53
77	Br	94	MET	O-C-N	-5.56	115.19	122.59
85	AA	53	G	C4'-C3'-O3'	-5.56	104.66	113.00
85	AA	138	C	O4'-C4'-C3'	-5.56	98.44	104.00
85	AA	164	G	C4'-C3'-C2'	-5.56	97.04	102.60
85	AA	2196	G	C8-N9-C1'	5.56	143.69	127.00
34	BA	139	U	O3'-P-O5'	-5.56	95.66	104.00
34	BA	492	G	N9-C1'-C2'	-5.56	103.66	112.00
34	BA	589	A	P-O5'-C5'	-5.56	112.56	120.90
34	BA	794	G	C1'-O4'-C4'	-5.56	104.34	109.90
35	BB	1133	C	C2'-C3'-O3'	5.56	122.04	113.70
38	BE	17	U	C1'-O4'-C4'	-5.56	104.34	109.90
52	BS	99	VAL	CA-C-O	5.56	123.98	118.98
33	AZ	73	ASN	CA-C-O	5.56	127.24	120.57
34	BA	223	U	P-O3'-C3'	5.56	128.54	120.20
34	BA	602	G	P-O3'-C3'	-5.56	111.86	120.20
34	BA	1052	G	O4'-C1'-C2'	5.56	113.16	107.60
34	BA	1549	U	P-O5'-C5'	-5.56	112.56	120.90
38	BE	62	C	O4'-C1'-C2'	5.56	113.16	107.60
40	BG	125	C	O3'-P-O5'	5.56	112.34	104.00
43	BJ	33	VAL	N-CA-C	-5.56	100.47	108.48
85	AA	4	C	C5'-C4'-O4'	5.56	118.14	109.80
85	AA	682	C	C2'-C3'-O3'	5.56	122.04	113.70
85	AA	1065	G	O3'-P-O5'	-5.56	95.66	104.00
85	AA	1083	C	O3'-P-O5'	-5.56	95.66	104.00
85	AA	1357	U	C4'-C3'-O3'	-5.56	104.66	113.00
85	AA	2014	G	C5'-C4'-C3'	-5.56	107.66	116.00
2	A1	142	HIS	CA-CB-CG	-5.56	108.24	113.80
34	BA	87	G	C1'-O4'-C4'	-5.56	104.34	109.90
34	BA	458	G	C4'-C3'-C2'	-5.56	97.04	102.60
34	BA	490	A	N9-C1'-C2'	-5.56	103.66	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	499	C	P-O3'-C3'	-5.56	111.86	120.20
34	BA	1478	G	N9-C1'-C2'	5.56	120.34	112.00
34	BA	1618	A	C5'-C4'-C3'	-5.56	107.66	116.00
35	BB	654	C	C4'-C3'-C2'	5.56	108.16	102.60
35	BB	791	A	O4'-C1'-C2'	-5.56	100.24	105.80
37	BD	58	G	C4'-C3'-O3'	-5.56	104.66	113.00
48	BO	68	ASN	CA-CB-CG	5.56	118.16	112.60
85	AA	717	G	P-O3'-C3'	-5.56	111.86	120.20
85	AA	1912	U	P-O5'-C5'	5.56	129.24	120.90
34	BA	902	C	O3'-P-O5'	-5.56	95.67	104.00
34	BA	1217	A	P-O3'-C3'	-5.56	111.87	120.20
35	BB	1089	A	C4'-C3'-C2'	5.56	108.16	102.60
35	BB	1351	G	C5'-C4'-C3'	5.56	124.33	116.00
35	BB	1522	G	C3'-C2'-C1'	-5.56	95.74	101.30
38	BE	148	C	C4'-C3'-C2'	-5.56	97.04	102.60
78	Bs	47	MET	CG-SD-CE	-5.56	88.68	100.90
85	AA	206	U	C2'-C3'-O3'	5.56	122.03	113.70
85	AA	1090	A	C4'-C3'-C2'	-5.56	97.04	102.60
85	AA	1537	A	C3'-C2'-C1'	5.56	106.86	101.30
85	AA	2149	C	P-O3'-C3'	-5.56	111.87	120.20
21	AM	86	ASN	CA-CB-CG	-5.55	107.05	112.60
34	BA	1082	U	C4'-C3'-C2'	-5.55	97.05	102.60
34	BA	1091	U	O3'-P-O5'	-5.55	95.67	104.00
35	BB	368	C	O4'-C1'-C2'	5.55	113.15	107.60
35	BB	1039	A	O3'-P-O5'	5.55	112.33	104.00
38	BE	15	A	C4'-C3'-O3'	5.55	121.33	113.00
40	BG	146	C	C5'-C4'-C3'	-5.55	107.67	116.00
44	BK	149	LEU	N-CA-CB	-5.55	101.95	110.12
52	BS	51	ASN	CA-CB-CG	-5.55	107.05	112.60
76	Bq	30	ARG	CG-CD-NE	-5.55	99.78	112.00
85	AA	1922	A	C4'-C3'-C2'	-5.55	97.05	102.60
18	AJ	62	VAL	CB-CA-C	-5.55	102.85	110.96
25	AR	32	PHE	CA-C-O	5.55	125.93	118.38
34	BA	1544	G	C1'-O4'-C4'	-5.55	104.35	109.90
35	BB	524	C	O4'-C4'-C3'	-5.55	98.45	104.00
36	BC	49	G	O3'-P-O5'	-5.55	95.67	104.00
36	BC	109	A	P-O3'-C3'	-5.55	111.87	120.20
40	BG	13	A	C5'-C4'-O4'	5.55	117.43	109.10
56	BW	68	LYS	CA-C-N	5.55	125.91	119.47
56	BW	68	LYS	C-N-CA	5.55	125.91	119.47
67	Bh	10	VAL	N-CA-C	5.55	115.69	110.30
67	Bh	53	TYR	CA-CB-CG	5.55	123.90	113.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	265	A	C1'-O4'-C4'	-5.55	104.35	109.90
85	AA	520	A	O3'-P-O5'	-5.55	95.67	104.00
85	AA	1116	G	C2'-C3'-O3'	5.55	122.03	113.70
11	AC	89	MET	CA-C-O	5.55	126.31	120.42
34	BA	967	C	C3'-C2'-C1'	-5.55	95.75	101.30
34	BA	1173	C	O4'-C1'-C2'	5.55	113.15	107.60
34	BA	1545	C	C2'-C3'-O3'	5.55	122.03	113.70
35	BB	137	A	C4'-C3'-C2'	-5.55	97.05	102.60
35	BB	1109	A	C4'-C3'-O3'	-5.55	104.67	113.00
35	BB	1265	U	P-O3'-C3'	-5.55	111.87	120.20
35	BB	1482	A	C2'-C3'-O3'	5.55	122.03	113.70
41	BH	18	C	P-O3'-C3'	-5.55	111.87	120.20
67	Bh	172	HIS	N-CA-CB	5.55	118.73	110.29
77	Br	5	PRO	N-CA-C	-5.55	101.03	112.47
77	Br	18	VAL	N-CA-C	-5.55	106.42	112.80
79	Bt	25	VAL	CA-C-N	-5.55	115.56	123.17
79	Bt	25	VAL	C-N-CA	-5.55	115.56	123.17
85	AA	169	G	O5'-C5'-C4'	-5.55	103.17	111.50
85	AA	381	A	C2'-C3'-O3'	5.55	122.03	113.70
85	AA	469	G	N9-C1'-C2'	-5.55	103.67	112.00
85	AA	2103	C	C4'-C3'-O3'	5.55	117.73	109.40
5	A4	38	THR	N-CA-CB	-5.55	101.48	110.14
8	A7	50	HIS	CA-CB-CG	-5.55	108.25	113.80
34	BA	1197	U	C3'-C2'-O2'	5.55	119.02	110.70
34	BA	1649	A	O3'-P-O5'	5.55	112.32	104.00
34	BA	1718	C	C4'-C3'-C2'	5.55	108.15	102.60
34	BA	1729	G	O4'-C1'-N9	5.55	116.82	108.50
34	BA	1832	A	O3'-P-O5'	-5.55	95.67	104.00
35	BB	991	C	O4'-C1'-N1	5.55	116.82	108.50
35	BB	1409	G	O5'-C5'-C4'	-5.55	103.17	111.50
36	BC	3	C	P-O3'-C3'	-5.55	111.88	120.20
38	BE	3	G	O3'-P-O5'	5.55	112.32	104.00
47	BN	71	ASN	CA-C-N	5.55	131.26	122.60
47	BN	71	ASN	C-N-CA	5.55	131.26	122.60
66	Bg	98	ALA	CA-C-O	5.55	126.24	120.30
85	AA	549	A	O5'-C5'-C4'	-5.55	103.18	111.50
85	AA	1300	A	O3'-P-O5'	5.55	112.33	104.00
85	AA	1591	U	C4'-C3'-C2'	-5.55	97.05	102.60
85	AA	1729	C	P-O5'-C5'	-5.55	112.58	120.90
26	AS	83	ALA	N-CA-C	5.55	118.50	109.24
34	BA	10	G	C4-N9-C1'	-5.55	109.86	126.50
34	BA	746	C	C5'-C4'-C3'	-5.55	107.68	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	BS	130	SER	N-CA-CB	5.55	118.25	109.71
82	Bw	75	LYS	N-CA-C	5.55	117.33	111.28
7	A6	163	PHE	CB-CG-CD2	-5.55	111.27	120.70
35	BB	588	A	O3'-P-O5'	-5.55	95.68	104.00
35	BB	832	C	P-O5'-C5'	5.55	129.22	120.90
35	BB	916	U	P-O3'-C3'	-5.55	111.88	120.20
35	BB	1441	C	C5'-C4'-O4'	5.55	117.42	109.10
52	BS	36	PHE	N-CA-CB	-5.55	101.36	110.40
60	Ba	51	LYS	CA-C-N	5.55	128.29	120.42
60	Ba	51	LYS	C-N-CA	5.55	128.29	120.42
65	Bf	377	ASN	CB-CA-C	-5.55	99.38	110.42
70	Bk	66	GLU	CA-C-O	5.55	126.37	120.10
82	Bw	189	HIS	CA-C-O	5.55	126.37	120.10
83	Bx	180	PRO	CA-C-N	5.55	127.71	120.28
83	Bx	180	PRO	C-N-CA	5.55	127.71	120.28
85	AA	61	C	C4'-C3'-O3'	-5.55	104.68	113.00
85	AA	224	C	P-O3'-C3'	5.55	128.52	120.20
85	AA	622	G	P-O5'-C5'	-5.55	112.58	120.90
85	AA	1447	U	P-O5'-C5'	-5.55	112.58	120.90
85	AA	1832	G	P-O3'-C3'	-5.55	111.88	120.20
33	AZ	87	GLY	N-CA-C	-5.54	107.67	115.32
34	BA	818	G	O3'-P-O5'	5.54	112.32	104.00
34	BA	1818	A	C4'-C3'-O3'	5.54	121.32	113.00
37	BD	118	C	C5'-C4'-C3'	-5.54	107.68	116.00
41	BH	113	G	C1'-O4'-C4'	-5.54	104.36	109.90
69	Bj	45	THR	N-CA-CB	5.54	118.20	110.11
82	Bw	2	PHE	N-CA-C	5.54	121.02	113.37
4	A3	94	GLU	CA-C-O	5.54	127.24	120.92
34	BA	755	G	C3'-C2'-C1'	-5.54	95.76	101.30
34	BA	858	C	O3'-P-O5'	5.54	112.32	104.00
34	BA	976	C	P-O5'-C5'	-5.54	112.58	120.90
35	BB	871	C	C1'-O4'-C4'	-5.54	104.36	109.90
35	BB	1058	U	P-O3'-C3'	-5.54	111.89	120.20
38	BE	82	C	C1'-O4'-C4'	-5.54	104.36	109.90
38	BE	176	G	P-O5'-C5'	5.54	129.22	120.90
66	Bg	21	ILE	CB-CA-C	5.54	119.28	112.02
67	Bh	11	LEU	N-CA-CB	-5.54	101.97	110.01
70	Bk	86	THR	CB-CA-C	-5.54	100.03	110.01
79	Bt	5	PRO	N-CA-C	5.54	123.89	112.47
85	AA	90	A	O4'-C1'-N9	5.54	116.52	108.20
85	AA	179	G	C5'-C4'-C3'	-5.54	107.68	116.00
85	AA	298	C	C2'-C3'-O3'	5.54	117.81	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	300	C	P-O5'-C5'	5.54	129.21	120.90
85	AA	322	A	C4'-C3'-O3'	-5.54	104.68	113.00
85	AA	442	G	O4'-C4'-C3'	5.54	109.54	104.00
85	AA	703	U	C4'-C3'-C2'	-5.54	97.06	102.60
85	AA	2095	U	C4'-C3'-C2'	5.54	108.14	102.60
34	BA	1171	C	C5'-C4'-C3'	-5.54	107.69	116.00
40	BG	7	U	P-O5'-C5'	5.54	129.21	120.90
40	BG	180	C	C5'-C4'-O4'	5.54	118.11	109.80
57	BX	133	ASN	N-CA-C	-5.54	100.67	109.59
65	Bf	220	ARG	N-CA-CB	5.54	118.36	110.16
84	By	119	VAL	N-CA-CB	5.54	118.44	111.46
85	AA	672	U	P-O5'-C5'	-5.54	112.59	120.90
85	AA	1458	G	C5'-C4'-O4'	-5.54	101.49	109.80
85	AA	2150	G	C4-N9-C1'	-5.54	109.88	126.50
8	A7	244	CYS	N-CA-CB	5.54	119.85	110.49
34	BA	1693	U	C4'-C3'-O3'	-5.54	101.09	109.40
35	BB	959	C	C4'-C3'-C2'	-5.54	97.06	102.60
35	BB	970	C	O4'-C1'-N1	5.54	116.81	108.50
70	Bk	92	THR	N-CA-CB	5.54	119.85	110.49
85	AA	971	U	C5'-C4'-C3'	5.54	124.31	116.00
24	AQ	70	GLY	N-CA-C	-5.54	106.39	112.04
32	AY	3	LYS	O-C-N	5.54	128.07	122.09
34	BA	519	G	O4'-C4'-C3'	-5.54	98.46	104.00
34	BA	1832	A	C4'-C3'-C2'	-5.54	97.06	102.60
35	BB	1385	C	C2'-C3'-O3'	5.54	122.01	113.70
53	BT	95	TRP	CB-CG-CD2	-5.54	119.05	126.80
57	BX	82	PHE	CB-CG-CD1	5.54	130.12	120.70
75	Bp	2	PRO	N-CA-C	-5.54	98.25	112.10
76	Bq	9	ILE	N-CA-C	-5.54	105.13	110.72
77	Br	290	ILE	CA-C-N	5.54	128.47	120.38
77	Br	290	ILE	C-N-CA	5.54	128.47	120.38
85	AA	1177	G	C2'-C3'-O3'	5.54	117.81	109.50
85	AA	1507	G	C4'-C3'-C2'	-5.54	97.06	102.60
85	AA	2194	U	O4'-C1'-C2'	5.54	113.14	107.60
7	A6	35	LEU	N-CA-C	5.54	122.59	110.80
34	BA	1539	A	O4'-C4'-C3'	-5.54	100.56	106.10
35	BB	1219	A	P-O5'-C5'	-5.54	112.59	120.90
40	BG	101	G	P-O3'-C3'	-5.54	111.89	120.20
50	BQ	179	ARG	N-CA-C	-5.54	106.53	113.28
72	Bm	90	ALA	CB-CA-C	-5.54	101.60	110.79
79	Bt	10	MET	CG-SD-CE	-5.54	88.72	100.90
85	AA	252	G	O5'-C5'-C4'	-5.54	103.19	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	757	A	O5'-C5'-C4'	-5.54	103.19	111.50
20	AL	73	LEU	N-CA-C	5.54	117.31	111.28
27	AT	54	TYR	CA-CB-CG	-5.54	103.94	113.90
34	BA	860	G	O3'-P-O5'	-5.54	95.70	104.00
34	BA	920	U	C5'-C4'-C3'	5.54	124.30	116.00
81	Bv	75	ARG	N-CA-CB	5.54	118.53	109.95
85	AA	457	G	C1'-O4'-C4'	-5.54	104.36	109.90
85	AA	1148	G	P-O3'-C3'	-5.54	111.90	120.20
14	AF	28	SER	N-CA-C	-5.53	106.20	113.17
19	AK	24	VAL	CA-C-N	5.53	131.24	122.94
19	AK	24	VAL	C-N-CA	5.53	131.24	122.94
23	AP	175	VAL	CB-CA-C	-5.53	102.40	110.81
34	BA	518	C	O3'-P-O5'	-5.53	95.70	104.00
34	BA	1498	A	O5'-C5'-C4'	-5.53	103.20	111.50
34	BA	1709	A	C3'-C2'-C1'	-5.53	95.77	101.30
62	Bc	140	THR	N-CA-CB	5.53	118.36	110.06
82	Bw	82	ARG	CD-NE-CZ	5.53	132.15	124.40
83	Bx	217	ASN	CA-CB-CG	-5.53	107.07	112.60
85	AA	995	G	N9-C1'-C2'	-5.53	103.70	112.00
85	AA	1154	A	C5'-C4'-O4'	5.53	118.10	109.80
85	AA	1293	U	P-O3'-C3'	-5.53	111.90	120.20
18	AJ	106	THR	N-CA-C	5.53	118.27	109.81
34	BA	1438	C	P-O3'-C3'	-5.53	111.90	120.20
35	BB	693	U	C4'-C3'-C2'	-5.53	97.07	102.60
35	BB	1111	C	O3'-P-O5'	5.53	112.30	104.00
35	BB	1170	U	C1'-O4'-C4'	-5.53	104.37	109.90
85	AA	489	C	O4'-C1'-N1	5.53	116.80	108.50
85	AA	1268	C	O3'-P-O5'	-5.53	95.70	104.00
85	AA	1975	G	O3'-P-O5'	-5.53	95.70	104.00
15	AG	25	TRP	N-CA-CB	5.53	119.83	110.49
34	BA	539	C	C4'-C3'-O3'	-5.53	104.70	113.00
34	BA	670	U	C4'-C3'-O3'	-5.53	104.70	113.00
34	BA	974	G	C5'-C4'-O4'	5.53	118.10	109.80
35	BB	830	G	C3'-C2'-C1'	-5.53	95.77	101.30
35	BB	1069	C	P-O3'-C3'	-5.53	111.90	120.20
38	BE	27	A	P-O3'-C3'	-5.53	111.90	120.20
41	BH	96	G	O3'-P-O5'	-5.53	95.70	104.00
42	BI	185	LYS	N-CA-CB	5.53	119.83	110.49
68	Bi	29	LEU	CA-C-N	5.53	132.66	122.92
68	Bi	29	LEU	C-N-CA	5.53	132.66	122.92
74	Bo	70	THR	CA-CB-OG1	5.53	117.90	109.60
75	Bp	54	ASP	N-CA-CB	-5.53	101.97	110.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	745	C	O5'-C5'-C4'	-5.53	103.20	111.50
34	BA	1210	A	C5'-C4'-O4'	5.53	118.09	109.80
35	BB	552	C	O4'-C1'-C2'	5.53	113.13	107.60
54	BU	3	HIS	N-CA-C	5.53	118.99	110.42
62	Bc	30	ASP	CA-CB-CG	5.53	118.13	112.60
67	Bh	27	ALA	CA-C-N	-5.53	113.51	122.36
67	Bh	27	ALA	C-N-CA	-5.53	113.51	122.36
84	By	37	LEU	N-CA-CB	-5.53	102.24	111.20
85	AA	1520	A	C5'-C4'-C3'	-5.53	107.71	116.00
85	AA	2223	C	O3'-P-O5'	-5.53	95.71	104.00
5	A4	3	ALA	N-CA-CB	5.53	119.83	110.49
8	A7	301	TYR	N-CA-C	-5.53	100.67	109.96
34	BA	202	A	C5'-C4'-C3'	-5.53	107.71	116.00
34	BA	457	A	P-O3'-C3'	-5.53	111.91	120.20
34	BA	513	U	O4'-C1'-C2'	5.53	113.13	107.60
34	BA	875	G	C3'-C2'-C1'	-5.53	95.97	101.50
35	BB	522	A	O3'-P-O5'	-5.53	95.71	104.00
35	BB	830	G	O3'-P-O5'	-5.53	95.71	104.00
35	BB	877	A	C3'-C2'-C1'	-5.53	95.77	101.30
38	BE	89	G	P-O3'-C3'	5.53	128.49	120.20
38	BE	125	C	C5'-C4'-C3'	-5.53	107.71	116.00
85	AA	1735	U	C3'-C2'-C1'	-5.53	95.77	101.30
85	AA	2152	C	C4'-C3'-O3'	-5.53	104.71	113.00
13	AE	59	ALA	N-CA-C	5.53	117.40	108.34
34	BA	351	A	P-O3'-C3'	-5.53	111.91	120.20
34	BA	436	U	C2'-C3'-O3'	5.53	121.99	113.70
34	BA	1179	U	C4'-C3'-O3'	-5.53	104.71	113.00
34	BA	1233	U	O4'-C1'-C2'	5.53	113.13	107.60
34	BA	1276	G	O5'-C5'-C4'	-5.53	103.21	111.50
35	BB	130	G	O4'-C1'-C2'	5.53	113.12	107.60
35	BB	772	U	C2'-C3'-O3'	5.53	121.99	113.70
41	BH	66	G	C3'-C2'-C1'	-5.53	95.78	101.30
53	BT	174	ARG	O-C-N	-5.53	115.90	122.20
60	Ba	115	PHE	N-CA-C	-5.53	105.34	111.36
85	AA	713	G	N9-C1'-C2'	-5.53	103.71	112.00
85	AA	790	A	N9-C1'-C2'	-5.53	105.71	114.00
85	AA	819	G	O3'-P-O5'	-5.53	95.71	104.00
85	AA	1032	U	C1'-O4'-C4'	-5.53	104.17	109.70
85	AA	1090	A	C2'-C3'-O3'	-5.53	105.41	113.70
85	AA	2242	U	O3'-P-O5'	5.53	112.29	104.00
8	A7	150	ALA	CA-C-N	5.52	131.64	121.70
8	A7	150	ALA	C-N-CA	5.52	131.64	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	390	A	C4'-C3'-O3'	-5.52	104.71	113.00
35	BB	670	G	N9-C1'-C2'	-5.52	105.71	114.00
37	BD	108	G	C2'-C3'-O3'	5.52	121.98	113.70
43	BJ	122	GLY	N-CA-C	5.52	121.83	115.09
85	AA	87	C	P-O5'-C5'	-5.52	112.61	120.90
85	AA	655	U	C3'-C2'-C1'	-5.52	95.78	101.30
85	AA	996	A	O3'-P-O5'	-5.52	95.71	104.00
3	A2	96	GLN	CB-CG-CD	-5.52	103.21	112.60
19	AK	119	ASP	N-CA-C	5.52	118.24	109.96
27	AT	49	ARG	CA-C-N	-5.52	111.92	120.31
27	AT	49	ARG	C-N-CA	-5.52	111.92	120.31
34	BA	113	G	O4'-C4'-C3'	-5.52	98.48	104.00
34	BA	507	U	O5'-C5'-C4'	5.52	119.78	111.50
34	BA	1251	A	O5'-C5'-C4'	-5.52	103.22	111.50
34	BA	1382	G	P-O3'-C3'	-5.52	111.92	120.20
35	BB	29	C	C3'-C2'-C1'	-5.52	95.78	101.30
35	BB	1302	C	C4'-C3'-O3'	-5.52	104.72	113.00
35	BB	1407	U	P-O3'-C3'	5.52	128.48	120.20
65	Bf	110	ASP	CA-CB-CG	-5.52	107.08	112.60
73	Bn	11	ARG	O-C-N	-5.52	115.24	122.59
85	AA	52	U	O3'-P-O5'	-5.52	95.72	104.00
85	AA	425	G	O4'-C4'-C3'	-5.52	100.58	106.10
85	AA	853	G	P-O5'-C5'	-5.52	112.61	120.90
85	AA	1358	A	C1'-O4'-C4'	-5.52	104.38	109.90
85	AA	1621	U	O3'-P-O5'	-5.52	95.72	104.00
85	AA	1762	G	O3'-P-O5'	5.52	112.28	104.00
85	AA	2196	G	P-O3'-C3'	5.52	128.48	120.20
29	AV	98	ARG	N-CA-C	5.52	117.85	108.02
34	BA	282	A	C4'-C3'-C2'	-5.52	97.08	102.60
34	BA	1320	A	P-O3'-C3'	-5.52	111.92	120.20
34	BA	1661	U	O5'-C5'-C4'	-5.52	103.42	111.70
35	BB	907	U	O3'-P-O5'	5.52	112.28	104.00
36	BC	133	C	O5'-C5'-C4'	5.52	119.78	111.50
37	BD	42	A	P-O3'-C3'	-5.52	111.92	120.20
38	BE	193	A	C4'-C3'-O3'	-5.52	104.72	113.00
52	BS	132	PRO	CA-C-N	-5.52	112.75	121.86
52	BS	132	PRO	C-N-CA	-5.52	112.75	121.86
64	Be	187	TYR	N-CA-C	-5.52	105.42	111.82
35	BB	817	C	C1'-O4'-C4'	-5.52	104.38	109.90
35	BB	1117	G	C3'-C2'-C1'	-5.52	95.78	101.30
35	BB	1353	G	C2'-C3'-O3'	5.52	121.98	113.70
40	BG	121	C	C2'-C3'-O3'	5.52	117.78	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BN	210	LYS	N-CA-CB	-5.52	102.01	110.01
57	BX	143	LYS	N-CA-C	-5.52	100.18	109.07
85	AA	607	U	C3'-C2'-C1'	-5.52	95.98	101.50
85	AA	636	G	P-O5'-C5'	-5.52	112.62	120.90
85	AA	899	A	C4'-C3'-O3'	5.52	121.28	113.00
19	AK	103	HIS	CA-C-N	5.52	132.83	123.01
19	AK	103	HIS	C-N-CA	5.52	132.83	123.01
34	BA	419	U	C5'-C4'-C3'	5.52	124.28	116.00
34	BA	829	U	P-O3'-C3'	-5.52	111.92	120.20
35	BB	1201	G	P-O5'-C5'	-5.52	112.62	120.90
35	BB	1369	A	C5'-C4'-O4'	-5.52	100.82	109.10
58	BY	64	ARG	CB-CG-CD	5.52	123.99	111.30
82	Bw	140	ASN	CA-CB-CG	-5.52	107.08	112.60
83	Bx	266	THR	CB-CA-C	-5.52	100.42	110.63
85	AA	1247	A	O3'-P-O5'	-5.52	95.72	104.00
85	AA	1652	A	P-O5'-C5'	5.52	129.18	120.90
51	BR	57	CYS	N-CA-CB	5.52	119.81	110.49
71	Bl	65	ASN	CA-CB-CG	-5.52	107.08	112.60
85	AA	709	A	O4'-C4'-C3'	-5.52	98.48	104.00
85	AA	1923	A	C2'-C3'-O3'	5.52	117.77	109.50
85	AA	2148	C	P-O3'-C3'	-5.52	111.93	120.20
3	A2	26	ASP	CB-CA-C	-5.51	102.22	110.88
9	A8	32	ILE	CB-CA-C	-5.51	103.98	111.15
14	AF	106	LEU	CA-C-N	5.51	128.54	120.71
14	AF	106	LEU	C-N-CA	5.51	128.54	120.71
27	AT	83	TYR	CA-CB-CG	-5.51	103.98	113.90
34	BA	224	G	P-O3'-C3'	5.51	128.47	120.20
34	BA	288	U	O5'-C5'-C4'	5.51	119.77	111.50
34	BA	730	C	C1'-O4'-C4'	-5.51	104.39	109.90
34	BA	951	C	O4'-C4'-C3'	-5.51	98.49	104.00
35	BB	1142	C	N1-C1'-C2'	-5.51	105.73	114.00
35	BB	1148	U	C4'-C3'-O3'	-5.51	104.73	113.00
40	BG	139	U	P-O5'-C5'	-5.51	112.63	120.90
48	BO	121	VAL	N-CA-C	5.51	116.68	108.46
59	BZ	47	VAL	CA-C-N	5.51	132.07	121.54
59	BZ	47	VAL	C-N-CA	5.51	132.07	121.54
77	Br	304	LYS	N-CA-C	5.51	122.54	110.80
85	AA	618	A	O4'-C4'-C3'	-5.51	98.48	104.00
85	AA	1713	A	O4'-C1'-N9	5.51	116.77	108.50
85	AA	1731	G	C2'-C3'-O3'	5.51	121.97	113.70
85	AA	2183	U	C4'-C3'-O3'	-5.51	104.73	113.00
26	AS	59	ALA	CA-C-N	5.51	129.09	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	AS	59	ALA	C-N-CA	5.51	129.09	120.82
34	BA	80	U	O4'-C4'-C3'	5.51	109.51	104.00
34	BA	240	C	O4'-C1'-N1	5.51	116.77	108.50
34	BA	326	A	O3'-P-O5'	-5.51	95.73	104.00
34	BA	557	U	OP2-P-O3'	5.51	124.54	108.00
34	BA	574	U	O4'-C1'-C2'	-5.51	102.09	107.60
34	BA	1550	G	O3'-P-O5'	-5.51	95.73	104.00
35	BB	1281	G	N9-C1'-C2'	-5.51	103.73	112.00
85	AA	790	A	O4'-C4'-C3'	-5.51	100.59	106.10
34	BA	483	A	O5'-C5'-C4'	5.51	119.77	111.50
34	BA	1635	A	C1'-O4'-C4'	-5.51	104.19	109.70
35	BB	441	G	O4'-C1'-C2'	5.51	113.11	107.60
35	BB	812	G	O3'-P-O5'	-5.51	95.73	104.00
35	BB	1003	G	C1'-O4'-C4'	-5.51	104.39	109.90
36	BC	74	U	P-O3'-C3'	-5.51	111.93	120.20
45	BL	74	VAL	N-CA-C	-5.51	101.46	109.29
52	BS	67	LYS	CA-C-N	5.51	132.07	121.54
52	BS	67	LYS	C-N-CA	5.51	132.07	121.54
60	Ba	76	HIS	N-CA-CB	-5.51	101.73	110.22
79	Bt	43	TYR	CA-C-O	5.51	126.39	120.55
85	AA	638	G	P-O3'-C3'	-5.51	111.93	120.20
85	AA	741	G	C2'-C3'-O3'	5.51	117.77	109.50
85	AA	832	U	P-O5'-C5'	5.51	129.17	120.90
85	AA	1243	G	P-O3'-C3'	-5.51	111.93	120.20
85	AA	1798	U	P-O3'-C3'	-5.51	111.93	120.20
85	AA	2011	C	C5'-C4'-C3'	5.51	124.27	116.00
5	A4	133	ASP	N-CA-C	-5.51	105.36	111.36
34	BA	484	A	O4'-C4'-C3'	5.51	109.51	104.00
34	BA	813	C	P-O3'-C3'	5.51	128.46	120.20
34	BA	1166	A	C3'-C2'-C1'	-5.51	95.79	101.30
34	BA	1427	U	C5'-C4'-C3'	-5.51	107.73	116.00
35	BB	88	U	C4'-C3'-C2'	-5.51	97.09	102.60
35	BB	468	U	C4'-C3'-O3'	-5.51	104.73	113.00
53	BT	168	GLN	CB-CG-CD	-5.51	103.23	112.60
85	AA	433	U	C4'-C3'-C2'	-5.51	97.09	102.60
85	AA	639	C	C2'-C3'-O3'	5.51	117.77	109.50
6	A5	112	TRP	N-CA-CB	-5.51	102.01	110.16
34	BA	1601	C	C2'-C3'-O3'	5.51	121.96	113.70
35	BB	764	C	C5'-C4'-C3'	5.51	124.26	116.00
35	BB	1473	U	C3'-C2'-C1'	-5.51	95.79	101.30
61	Bb	60	HIS	CA-CB-CG	5.51	119.31	113.80
85	AA	754	C	C4'-C3'-C2'	5.51	108.11	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1210	U	C2'-C3'-O3'	5.51	121.96	113.70
34	BA	770	G	C3'-C2'-O2'	-5.51	106.34	114.60
34	BA	804	G	C2'-C3'-O3'	5.51	121.96	113.70
34	BA	1196	C	O4'-C4'-C3'	5.51	109.51	104.00
35	BB	364	U	C5'-C4'-C3'	-5.51	107.74	116.00
35	BB	668	A	C4'-C3'-C2'	-5.51	97.09	102.60
39	BF	72	A	O3'-P-O5'	-5.51	95.74	104.00
45	BL	126	SER	CA-C-N	5.51	127.60	120.44
45	BL	126	SER	C-N-CA	5.51	127.60	120.44
48	BO	131	VAL	CB-CA-C	5.51	117.28	110.73
59	BZ	24	ARG	CG-CD-NE	-5.51	99.89	112.00
80	Bu	227	GLU	N-CA-C	5.51	122.53	110.80
85	AA	591	A	P-O3'-C3'	-5.51	111.94	120.20
85	AA	1674	G	O3'-P-O5'	-5.51	95.74	104.00
86	AB	6	G	P-O5'-C5'	5.51	129.16	120.90
14	AF	26	PRO	CA-C-N	5.50	128.11	120.29
14	AF	26	PRO	C-N-CA	5.50	128.11	120.29
34	BA	413	A	C3'-C2'-C1'	-5.50	95.80	101.30
34	BA	1080	U	C1'-C2'-O2'	5.50	116.66	108.40
35	BB	1170	U	C4'-C3'-O3'	-5.50	104.74	113.00
85	AA	972	G	O4'-C1'-C2'	5.50	113.11	107.60
85	AA	1474	U	O4'-C1'-C2'	-5.50	100.30	105.80
85	AA	1516	A	N9-C1'-C2'	-5.50	103.74	112.00
3	A2	72	LYS	CA-C-O	5.50	126.57	120.63
6	A5	13	ILE	N-CA-C	5.50	120.79	109.34
19	AK	105	GLU	N-CA-CB	5.50	117.99	110.01
34	BA	687	G	N9-C1'-C2'	-5.50	103.75	112.00
34	BA	831	U	O3'-P-O5'	-5.50	95.75	104.00
34	BA	861	C	P-O3'-C3'	-5.50	111.94	120.20
34	BA	1432	C	P-O5'-C5'	5.50	129.16	120.90
34	BA	1691	G	C1'-C2'-O2'	-5.50	103.55	111.80
35	BB	686	A	C4'-C3'-C2'	5.50	108.10	102.60
35	BB	844	G	C3'-C2'-C1'	-5.50	95.80	101.30
38	BE	20	C	C1'-C2'-O2'	-5.50	100.14	108.40
38	BE	200	A	N9-C1'-C2'	-5.50	103.75	112.00
39	BF	40	U	P-O3'-C3'	-5.50	111.94	120.20
48	BO	121	VAL	O-C-N	-5.50	117.21	123.10
62	Bc	77	TYR	CA-C-N	5.50	129.94	121.19
62	Bc	77	TYR	C-N-CA	5.50	129.94	121.19
85	AA	537	G	C1'-O4'-C4'	-5.50	104.40	109.90
85	AA	594	C	C3'-C2'-C1'	-5.50	95.80	101.30
85	AA	1953	G	O3'-P-O5'	-5.50	95.74	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	72	U	C4'-C3'-C2'	5.50	108.10	102.60
34	BA	425	G	P-O5'-C5'	-5.50	112.65	120.90
34	BA	690	G	O4'-C4'-C3'	5.50	109.50	104.00
34	BA	1095	G	C5'-C4'-C3'	-5.50	107.75	116.00
34	BA	1697	U	C5'-C4'-O4'	-5.50	100.85	109.10
35	BB	878	G	C4'-C3'-C2'	5.50	108.10	102.60
35	BB	1245	A	C4'-C3'-O3'	-5.50	104.75	113.00
35	BB	1346	A	C2'-C3'-O3'	5.50	117.75	109.50
40	BG	18	U	O3'-P-O5'	-5.50	95.75	104.00
45	BL	19	ILE	N-CA-C	-5.50	100.41	108.11
64	Be	78	ALA	CA-C-N	5.50	126.72	119.84
64	Be	78	ALA	C-N-CA	5.50	126.72	119.84
65	Bf	335	ASN	N-CA-C	5.50	119.29	111.92
75	Bp	7	ASN	CA-CB-CG	-5.50	107.10	112.60
82	Bw	22	PRO	N-CA-C	-5.50	101.14	112.47
85	AA	70	U	C4'-C3'-O3'	-5.50	104.75	113.00
85	AA	273	C	P-O5'-C5'	5.50	129.15	120.90
85	AA	685	U	C5'-C4'-C3'	-5.50	107.75	116.00
85	AA	1495	G	C3'-C2'-C1'	-5.50	95.80	101.30
34	BA	1614	G	P-O5'-C5'	-5.50	112.65	120.90
38	BE	98	C	P-O3'-C3'	-5.50	111.95	120.20
73	Bn	51	VAL	CA-C-O	5.50	126.45	120.57
19	AK	126	ASP	N-CA-C	-5.50	97.81	108.59
35	BB	1025	A	P-O5'-C5'	-5.50	112.65	120.90
35	BB	1462	G	C4'-C3'-C2'	-5.50	97.10	102.60
36	BC	116	C	C4'-C3'-O3'	-5.50	104.75	113.00
56	BW	100	ASN	CA-CB-CG	-5.50	107.10	112.60
80	Bu	142	ASP	N-CA-C	5.50	122.51	110.80
84	By	174	LEU	CA-C-N	5.50	132.04	121.54
84	By	174	LEU	C-N-CA	5.50	132.04	121.54
85	AA	32	U	C1'-O4'-C4'	-5.50	104.40	109.90
85	AA	426	C	P-O3'-C3'	-5.50	111.95	120.20
85	AA	676	U	C4'-C3'-C2'	5.50	108.10	102.60
85	AA	725	G	C5'-C4'-C3'	-5.50	107.75	116.00
85	AA	1528	A	C4'-C3'-O3'	-5.50	104.75	113.00
17	AI	133	VAL	CA-CB-CG1	5.50	119.75	110.40
21	AM	77	LYS	N-CA-C	-5.50	105.37	111.36
34	BA	1028	A	O5'-C5'-C4'	-5.50	103.25	111.50
34	BA	1251	A	O4'-C1'-C2'	5.50	113.10	107.60
34	BA	1336	U	P-O3'-C3'	-5.50	111.95	120.20
35	BB	1237	C	P-O5'-C5'	-5.50	112.66	120.90
38	BE	111	C	C5'-C4'-O4'	5.50	118.04	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	BZ	6	CYS	CA-C-N	5.50	131.59	121.70
59	BZ	6	CYS	C-N-CA	5.50	131.59	121.70
59	BZ	19	ALA	N-CA-C	5.50	121.96	109.81
82	Bw	19	LYS	N-CA-C	5.50	122.51	110.80
85	AA	651	G	P-O3'-C3'	-5.50	111.95	120.20
85	AA	860	C	N1-C1'-C2'	-5.50	103.76	112.00
85	AA	1228	A	C4'-C3'-O3'	-5.50	104.75	113.00
85	AA	2089	G	O4'-C1'-C2'	5.50	113.10	107.60
2	A1	170	ILE	CA-C-O	-5.50	114.92	120.31
34	BA	673	U	C5'-C4'-O4'	-5.50	101.56	109.80
35	BB	1307	C	C5'-C4'-C3'	-5.50	107.76	116.00
39	BF	62	U	C5'-C4'-C3'	-5.50	106.96	115.20
42	BI	109	ALA	N-CA-C	5.50	117.76	109.41
48	BO	166	TRP	CA-C-O	5.50	128.37	120.51
62	Bc	25	ILE	CA-C-O	5.50	126.41	120.53
85	AA	750	A	P-O5'-C5'	5.50	129.14	120.90
1	A0	89	THR	N-CA-CB	5.49	119.53	110.69
7	A6	45	ASN	CA-CB-CG	-5.49	107.11	112.60
11	AC	153	MET	CG-SD-CE	-5.49	88.81	100.90
22	AO	99	LYS	CA-C-N	5.49	130.74	122.99
22	AO	99	LYS	C-N-CA	5.49	130.74	122.99
34	BA	112	C	C5'-C4'-C3'	-5.49	107.76	116.00
34	BA	236	A	C2'-C3'-O3'	5.49	121.94	113.70
34	BA	835	U	C5'-C4'-C3'	-5.49	107.76	116.00
34	BA	969	A	C4'-C3'-C2'	-5.49	97.11	102.60
34	BA	1336	U	P-O5'-C5'	5.49	129.14	120.90
34	BA	1720	U	C4'-C3'-O3'	-5.49	104.76	113.00
38	BE	115	U	O4'-C1'-N1	5.49	116.74	108.50
48	BO	93	SER	CB-CA-C	-5.49	100.84	109.52
63	Bd	4	SER	CA-C-N	5.49	132.03	121.54
63	Bd	4	SER	C-N-CA	5.49	132.03	121.54
85	AA	475	A	C4'-C3'-C2'	5.49	108.09	102.60
4	A3	66	GLN	CB-CG-CD	5.49	121.94	112.60
26	AS	85	VAL	CA-C-N	5.49	125.40	119.85
26	AS	85	VAL	C-N-CA	5.49	125.40	119.85
35	BB	389	G	C4'-C3'-O3'	-5.49	104.76	113.00
35	BB	434	A	C4'-C3'-O3'	-5.49	104.76	113.00
85	AA	1675	U	C4'-C3'-O3'	-5.49	104.76	113.00
11	AC	146	ASN	CA-CB-CG	-5.49	107.11	112.60
23	AP	49	LEU	CA-C-N	5.49	127.05	120.13
23	AP	49	LEU	C-N-CA	5.49	127.05	120.13
34	BA	651	U	O4'-C4'-C3'	-5.49	98.51	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1216	G	P-O3'-C3'	5.49	128.44	120.20
34	BA	1256	A	C3'-C2'-C1'	-5.49	96.01	101.50
35	BB	1005	A	C5'-C4'-C3'	-5.49	107.76	116.00
35	BB	1162	A	C5'-C4'-C3'	-5.49	106.97	115.20
38	BE	141	A	C5'-C4'-C3'	-5.49	106.96	115.20
40	BG	135	C	C5'-C4'-C3'	-5.49	107.77	116.00
40	BG	137	G	C4'-C3'-O3'	-5.49	104.76	113.00
49	BP	8	ARG	CB-CG-CD	5.49	123.93	111.30
52	BS	74	ARG	N-CA-C	-5.49	100.83	109.50
82	Bw	168	HIS	N-CA-C	5.49	117.74	109.23
85	AA	54	C	P-O3'-C3'	-5.49	111.96	120.20
85	AA	682	C	P-O5'-C5'	-5.49	112.66	120.90
85	AA	1858	G	P-O3'-C3'	-5.49	111.96	120.20
1	A0	22	GLU	CB-CA-C	5.49	121.34	110.42
2	A1	104	GLY	CA-C-N	-5.49	114.97	122.93
2	A1	104	GLY	C-N-CA	-5.49	114.97	122.93
34	BA	1521	C	C3'-C2'-C1'	-5.49	95.81	101.30
34	BA	1630	A	P-O5'-C5'	-5.49	112.67	120.90
34	BA	1719	G	C5'-C4'-C3'	-5.49	107.77	116.00
35	BB	386	G	P-O5'-C5'	5.49	129.13	120.90
35	BB	416	U	O4'-C1'-C2'	5.49	113.09	107.60
35	BB	1458	U	C5'-C4'-O4'	5.49	118.03	109.80
38	BE	101	C	C4'-C3'-O3'	5.49	117.63	109.40
39	BF	56	C	N1-C1'-C2'	5.49	120.23	112.00
40	BG	128	U	C1'-O4'-C4'	-5.49	104.21	109.70
61	Bb	139	GLY	N-CA-C	-5.49	103.77	112.66
71	Bl	95	TRP	N-CA-CB	-5.49	101.59	110.81
77	Br	111	HIS	CA-CB-CG	-5.49	108.31	113.80
85	AA	978	U	C5'-C4'-C3'	-5.49	107.77	116.00
85	AA	1866	A	O3'-P-O5'	-5.49	95.77	104.00
34	BA	603	U	P-O5'-C5'	-5.49	112.67	120.90
34	BA	1475	G	C4'-C3'-C2'	-5.49	97.11	102.60
35	BB	1081	U	C5'-C4'-C3'	5.49	124.23	116.00
65	Bf	288	ARG	N-CA-CB	-5.49	102.06	110.12
85	AA	865	G	C1'-O4'-C4'	-5.49	104.41	109.90
85	AA	1202	G	C4'-C3'-C2'	-5.49	97.11	102.60
1	A0	111	ARG	N-CA-CB	5.49	118.03	110.07
34	BA	105	U	C1'-C2'-O2'	5.49	116.63	108.40
34	BA	875	G	C4'-C3'-C2'	5.49	108.08	102.60
35	BB	499	A	C5'-C4'-C3'	-5.49	107.77	116.00
35	BB	1135	U	O5'-C5'-C4'	5.49	119.93	111.70
36	BC	139	A	C5'-C4'-O4'	-5.49	101.57	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	678	A	C4'-C3'-C2'	5.49	108.08	102.60
85	AA	1280	U	C4'-C3'-O3'	5.49	117.63	109.40
85	AA	1675	U	O3'-P-O5'	-5.49	95.77	104.00
85	AA	2033	C	O4'-C1'-N1	5.49	116.73	108.50
86	AB	62	C	O4'-C1'-C2'	5.49	113.08	107.60
34	BA	7	U	C3'-C2'-C1'	-5.48	95.82	101.30
35	BB	1294	C	O4'-C1'-N1	5.48	116.73	108.50
35	BB	1542	C	P-O3'-C3'	-5.48	111.97	120.20
36	BC	35	C	O4'-C1'-C2'	5.48	113.08	107.60
85	AA	746	G	O3'-P-O5'	-5.48	95.77	104.00
85	AA	1822	G	C3'-C2'-C1'	-5.48	95.82	101.30
16	AH	36	HIS	N-CA-CB	5.48	119.31	110.65
34	BA	113	G	N9-C1'-C2'	-5.48	103.78	112.00
34	BA	259	C	C3'-C2'-C1'	-5.48	95.82	101.30
34	BA	327	G	P-O5'-C5'	-5.48	112.68	120.90
34	BA	683	C	C5'-C4'-O4'	-5.48	101.58	109.80
35	BB	750	G	P-O5'-C5'	5.48	129.12	120.90
35	BB	1517	G	O3'-P-O5'	5.48	112.22	104.00
36	BC	73	U	P-O5'-C5'	-5.48	112.67	120.90
40	BG	109	C	C5'-C4'-C3'	-5.48	107.78	116.00
64	Be	155	LYS	N-CA-CB	5.48	119.62	110.85
85	AA	945	A	C5'-C4'-O4'	5.48	117.32	109.10
85	AA	1365	U	C4'-C3'-O3'	-5.48	104.78	113.00
85	AA	1493	A	O4'-C1'-C2'	-5.48	102.12	107.60
85	AA	1871	U	C5'-C4'-C3'	-5.48	107.78	116.00
85	AA	2105	G	P-O3'-C3'	-5.48	111.98	120.20
85	AA	2105	G	C2'-C3'-O3'	5.48	121.92	113.70
8	A7	136	TRP	CB-CG-CD2	-5.48	119.13	126.80
19	AK	30	ALA	O-C-N	-5.48	115.02	121.32
19	AK	75	VAL	CA-C-N	5.48	130.52	121.86
19	AK	75	VAL	C-N-CA	5.48	130.52	121.86
34	BA	1842	U	C1'-O4'-C4'	-5.48	104.42	109.90
35	BB	1118	G	C4'-C3'-O3'	-5.48	104.78	113.00
39	BF	72	A	P-O3'-C3'	5.48	128.42	120.20
40	BG	33	G	C4'-C3'-C2'	5.48	108.08	102.60
41	BH	55	C	P-O3'-C3'	-5.48	111.98	120.20
65	Bf	405	SER	CA-C-O	5.48	128.35	120.51
77	Br	237	HIS	N-CA-C	-5.48	104.83	112.45
85	AA	24	U	C4'-C3'-C2'	5.48	108.08	102.60
34	BA	865	C	O4'-C1'-N1	5.48	116.72	108.50
34	BA	889	U	C2'-C3'-O3'	5.48	121.92	113.70
35	BB	778	A	P-O5'-C5'	-5.48	112.68	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BN	99	GLY	N-CA-C	-5.48	100.20	113.18
8	A7	260	ILE	CB-CA-C	-5.48	104.81	111.88
34	BA	1490	U	C5'-C4'-C3'	5.48	124.22	116.00
35	BB	1176	G	O4'-C1'-C2'	-5.48	100.32	105.80
40	BG	175	G	O4'-C4'-C3'	-5.48	98.52	104.00
80	Bu	265	ALA	N-CA-C	-5.48	99.81	108.14
81	Bv	10	GLU	N-CA-C	5.48	122.47	110.80
84	By	99	ILE	CA-C-N	5.48	130.56	123.00
84	By	99	ILE	C-N-CA	5.48	130.56	123.00
85	AA	41	G	O3'-P-O5'	5.48	112.22	104.00
35	BB	472	C	O4'-C1'-C2'	5.48	113.08	107.60
35	BB	696	G	P-O3'-C3'	-5.48	111.98	120.20
37	BD	77	A	C1'-O4'-C4'	-5.48	104.42	109.90
84	By	152	VAL	CA-C-N	5.48	127.62	120.28
84	By	152	VAL	C-N-CA	5.48	127.62	120.28
85	AA	54	C	C1'-O4'-C4'	-5.48	104.42	109.90
85	AA	413	G	C3'-C2'-C1'	-5.48	95.82	101.30
85	AA	2023	U	O4'-C1'-N1	5.48	116.71	108.50
2	A1	251	GLU	CA-C-N	5.47	128.16	120.28
2	A1	251	GLU	C-N-CA	5.47	128.16	120.28
3	A2	22	ILE	N-CA-CB	5.47	118.23	112.21
4	A3	227	LYS	N-CA-C	5.47	116.93	111.07
18	AJ	34	VAL	CA-C-N	5.47	127.96	120.46
18	AJ	34	VAL	C-N-CA	5.47	127.96	120.46
34	BA	1789	A	C5'-C4'-O4'	5.47	118.01	109.80
35	BB	474	G	P-O5'-C5'	-5.47	112.69	120.90
35	BB	970	C	C1'-O4'-C4'	-5.47	104.42	109.90
36	BC	29	C	P-O3'-C3'	5.47	128.41	120.20
47	BN	23	GLN	CB-CA-C	-5.47	99.53	110.42
47	BN	56	LEU	CB-CA-C	-5.47	101.83	110.86
68	Bi	128	ARG	O-C-N	-5.47	114.70	122.15
77	Br	100	MET	N-CA-C	-5.47	102.09	110.14
85	AA	327	G	C8-N9-C1'	-5.47	110.58	127.00
85	AA	1135	U	C1'-O4'-C4'	-5.47	104.42	109.90
85	AA	1923	A	O3'-P-O5'	-5.47	95.79	104.00
85	AA	1931	C	O3'-P-O5'	5.47	112.21	104.00
34	BA	785	G	C1'-O4'-C4'	-5.47	104.43	109.90
34	BA	820	C	N1-C1'-C2'	-5.47	103.79	112.00
34	BA	919	A	P-O5'-C5'	5.47	129.11	120.90
35	BB	25	A	C5'-C4'-C3'	-5.47	106.99	115.20
35	BB	412	A	C5'-C4'-C3'	-5.47	106.99	115.20
35	BB	777	C	C2'-C3'-O3'	5.47	117.71	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1467	A	C4'-C3'-C2'	-5.47	97.13	102.60
50	BQ	194	LYS	CA-C-N	5.47	126.17	119.99
50	BQ	194	LYS	C-N-CA	5.47	126.17	119.99
82	Bw	46	ALA	CB-CA-C	-5.47	101.70	110.79
83	Bx	200	GLY	N-CA-C	-5.47	106.15	112.50
85	AA	551	C	O5'-C5'-C4'	-5.47	103.29	111.50
85	AA	1014	U	C5'-C4'-O4'	5.47	117.31	109.10
85	AA	1576	G	O5'-C5'-C4'	-5.47	103.49	111.70
85	AA	2024	U	C5'-C4'-C3'	5.47	123.41	115.20
34	BA	580	U	C5'-C4'-C3'	-5.47	107.79	116.00
52	BS	105	VAL	CB-CA-C	-5.47	104.67	112.22
69	Bj	132	VAL	N-CA-CB	5.47	116.58	110.51
71	Bl	121	THR	N-CA-C	-5.47	102.79	110.50
85	AA	1373	U	C3'-C2'-C1'	-5.47	95.83	101.30
85	AA	2148	C	C1'-O4'-C4'	-5.47	104.43	109.90
1	A0	203	CYS	CA-CB-SG	-5.47	101.82	114.40
6	A5	47	ARG	N-CA-C	-5.47	99.60	108.41
6	A5	76	ALA	O-C-N	-5.47	117.52	123.26
22	AO	111	ARG	CB-CA-C	-5.47	100.26	109.72
34	BA	160	G	C5'-C4'-O4'	5.47	117.30	109.10
34	BA	243	C	O5'-C5'-C4'	-5.47	103.30	111.50
34	BA	739	A	N9-C1'-C2'	5.47	122.20	114.00
34	BA	1009	G	C4'-C3'-O3'	-5.47	104.79	113.00
34	BA	1476	G	C1'-O4'-C4'	-5.47	104.43	109.90
34	BA	1511	C	C4'-C3'-O3'	-5.47	104.80	113.00
35	BB	1215	U	P-O3'-C3'	-5.47	112.00	120.20
35	BB	1462	G	N9-C1'-C2'	5.47	120.20	112.00
36	BC	151	G	O5'-C5'-C4'	-5.47	103.30	111.50
41	BH	111	U	O4'-C1'-N1	5.47	116.70	108.50
47	BN	5	ASN	OD1-CG-ND2	-5.47	117.13	122.60
59	BZ	86	LYS	N-CA-C	-5.47	101.36	110.17
85	AA	899	A	O4'-C1'-N9	5.47	116.70	108.50
1	A0	107	MET	CA-C-N	5.47	131.98	121.54
1	A0	107	MET	C-N-CA	5.47	131.98	121.54
1	A0	204	ASN	CA-CB-CG	5.47	118.07	112.60
34	BA	6	C	C5'-C4'-C3'	-5.47	107.80	116.00
34	BA	429	G	C4'-C3'-O3'	-5.47	104.80	113.00
34	BA	503	C	C5'-C4'-C3'	-5.47	107.80	116.00
34	BA	1501	U	O4'-C4'-C3'	-5.47	98.53	104.00
34	BA	1802	C	P-O5'-C5'	-5.47	112.70	120.90
35	BB	385	C	P-O3'-C3'	-5.47	112.00	120.20
35	BB	441	G	C3'-C2'-C1'	-5.47	95.83	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	682	U	P-O3'-C3'	-5.47	112.00	120.20
35	BB	1130	U	C2'-C3'-O3'	5.47	121.90	113.70
41	BH	114	G	O4'-C1'-C2'	5.47	113.07	107.60
61	Bb	85	ASP	CA-CB-CG	-5.47	107.13	112.60
64	Be	78	ALA	N-CA-C	5.47	121.89	109.81
77	Br	208	LEU	CA-C-N	-5.47	116.41	123.19
77	Br	208	LEU	C-N-CA	-5.47	116.41	123.19
78	Bs	18	LYS	N-CA-C	-5.47	102.10	110.14
80	Bu	41	LYS	CA-C-O	5.47	126.26	119.97
85	AA	937	G	P-O3'-C3'	-5.47	112.00	120.20
85	AA	974	U	C5'-C4'-C3'	5.47	124.20	116.00
85	AA	1792	C	C2'-C3'-O3'	5.47	117.70	109.50
34	BA	91	C	C5'-C4'-O4'	5.47	118.00	109.80
34	BA	1398	C	P-O5'-C5'	-5.47	112.70	120.90
35	BB	30	A	C4'-C3'-O3'	5.47	117.60	109.40
35	BB	1485	G	P-O3'-C3'	-5.47	112.00	120.20
35	BB	1509	G	C4'-C3'-C2'	-5.47	97.13	102.60
40	BG	173	C	C4'-C3'-C2'	-5.47	97.13	102.60
53	BT	101	ILE	N-CA-C	-5.47	105.20	110.72
64	Be	73	LYS	CB-CA-C	-5.47	102.23	110.92
81	Bv	4	ALA	CA-C-N	5.47	131.98	121.54
81	Bv	4	ALA	C-N-CA	5.47	131.98	121.54
85	AA	286	C	O4'-C1'-N1	5.47	116.70	108.50
85	AA	521	A	C4'-C3'-C2'	5.47	108.07	102.60
85	AA	795	C	P-O5'-C5'	-5.47	112.70	120.90
85	AA	1006	C	C3'-C2'-C1'	-5.47	95.83	101.30
85	AA	1119	A	C3'-C2'-C1'	-5.47	95.83	101.30
85	AA	1972	A	C4'-C3'-O3'	-5.47	104.80	113.00
85	AA	2205	A	C4'-C3'-O3'	-5.47	104.80	113.00
25	AR	76	LEU	CA-C-N	5.46	128.62	120.31
25	AR	76	LEU	C-N-CA	5.46	128.62	120.31
27	AT	69	THR	CA-CB-OG1	5.46	117.80	109.60
34	BA	1599	A	C1'-O4'-C4'	-5.46	104.44	109.90
35	BB	971	A	P-O5'-C5'	5.46	129.10	120.90
35	BB	1047	C	P-O5'-C5'	5.46	129.10	120.90
35	BB	1301	U	O3'-P-O5'	5.46	112.20	104.00
38	BE	10	G	C3'-C2'-O2'	-5.46	106.40	114.60
69	Bj	62	HIS	N-CA-C	5.46	117.94	111.33
84	By	157	ALA	CA-C-N	5.46	127.45	120.56
84	By	157	ALA	C-N-CA	5.46	127.45	120.56
85	AA	337	C	O4'-C1'-N1	5.46	116.70	108.50
34	BA	270	U	O5'-C5'-C4'	5.46	119.89	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1328	U	P-O3'-C3'	-5.46	112.01	120.20
35	BB	10	C	C4'-C3'-C2'	-5.46	97.14	102.60
35	BB	54	U	C4'-C3'-C2'	5.46	108.06	102.60
35	BB	404	A	C5'-C4'-C3'	5.46	124.19	116.00
35	BB	1378	U	O5'-C5'-C4'	-5.46	103.31	111.50
66	Bg	79	HIS	N-CA-CB	5.46	119.13	110.55
22	AO	158	ARG	N-CA-C	5.46	119.64	112.92
34	BA	16	C	O5'-C5'-C4'	-5.46	103.31	111.50
34	BA	207	A	P-O5'-C5'	-5.46	112.71	120.90
34	BA	1435	A	P-O3'-C3'	-5.46	112.01	120.20
35	BB	1120	A	C1'-O4'-C4'	-5.46	104.44	109.90
35	BB	1228	A	P-O3'-C3'	-5.46	112.01	120.20
68	Bi	119	ARG	N-CA-C	5.46	118.15	110.23
84	By	111	ARG	N-CA-CB	-5.46	102.44	110.85
85	AA	1808	G	O3'-P-O5'	-5.46	95.81	104.00
86	AB	56	C	O5'-C5'-C4'	5.46	119.69	111.50
6	A5	18	THR	N-CA-C	-5.46	100.87	109.50
13	AE	28	THR	CA-C-N	5.46	131.97	121.54
13	AE	28	THR	C-N-CA	5.46	131.97	121.54
34	BA	346	A	C4'-C3'-C2'	-5.46	97.14	102.60
34	BA	578	C	C1'-C2'-O2'	-5.46	100.21	108.40
85	AA	158	C	O4'-C1'-C2'	5.46	113.06	107.60
85	AA	172	A	C5'-C4'-C3'	5.46	124.19	116.00
2	A1	242	LEU	CA-C-N	5.46	131.97	121.54
2	A1	242	LEU	C-N-CA	5.46	131.97	121.54
15	AG	90	CYS	CA-C-N	5.46	127.86	120.44
15	AG	90	CYS	C-N-CA	5.46	127.86	120.44
18	AJ	103	VAL	N-CA-C	5.46	115.81	108.17
19	AK	99	TYR	CA-CB-CG	-5.46	104.08	113.90
24	AQ	53	LEU	CA-C-N	5.46	125.77	119.93
24	AQ	53	LEU	C-N-CA	5.46	125.77	119.93
34	BA	53	G	O4'-C1'-C2'	5.46	113.06	107.60
34	BA	223	U	C4'-C3'-C2'	-5.46	97.14	102.60
34	BA	389	U	O4'-C4'-C3'	-5.46	98.54	104.00
34	BA	875	G	C1'-O4'-C4'	-5.46	104.24	109.70
35	BB	492	U	C4'-C3'-O3'	-5.46	104.81	113.00
35	BB	799	A	N9-C1'-C2'	5.46	120.19	112.00
38	BE	107	U	C4'-C3'-C2'	-5.46	97.14	102.60
39	BF	56	C	P-O5'-C5'	-5.46	112.71	120.90
40	BG	34	A	P-O5'-C5'	-5.46	112.71	120.90
42	BI	58	ASN	N-CA-C	-5.46	106.47	113.02
65	Bf	268	SER	N-CA-CB	5.46	119.72	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	334	A	C1'-O4'-C4'	-5.46	104.44	109.90
85	AA	1160	U	C5'-C4'-C3'	-5.46	107.81	116.00
2	A1	100	TYR	N-CA-CB	5.46	118.30	110.06
32	AY	46	ALA	CA-C-O	-5.46	112.71	120.51
34	BA	25	C	O4'-C1'-N1	5.46	116.68	108.50
34	BA	1176	C	C1'-C2'-O2'	5.46	116.59	108.40
34	BA	1342	C	C2'-C3'-O3'	5.46	121.88	113.70
34	BA	1567	G	C5'-C4'-O4'	-5.46	100.92	109.10
34	BA	1669	C	P-O5'-C5'	5.46	129.09	120.90
34	BA	1820	G	O4'-C1'-C2'	5.46	113.06	107.60
35	BB	49	A	P-O3'-C3'	5.46	128.38	120.20
35	BB	1165	A	P-O5'-C5'	-5.46	112.72	120.90
35	BB	1453	G	O4'-C4'-C3'	-5.46	98.54	104.00
42	BI	32	LEU	N-CA-CB	-5.46	102.10	110.01
44	BK	105	CYS	N-CA-C	5.46	119.36	111.56
82	Bw	65	LYS	N-CA-CB	-5.46	102.08	110.16
85	AA	269	G	C4'-C3'-O3'	-5.46	104.82	113.00
85	AA	2011	C	N1-C1'-C2'	-5.46	103.82	112.00
11	AC	187	ASP	N-CA-C	-5.46	104.89	113.02
34	BA	487	A	C3'-C2'-C1'	-5.46	96.05	101.50
35	BB	475	A	C1'-O4'-C4'	-5.46	104.25	109.70
39	BF	24	G	C4'-C3'-C2'	-5.46	97.14	102.60
40	BG	9	G	C2'-C3'-O3'	5.46	121.88	113.70
40	BG	140	G	C1'-C2'-O2'	5.46	116.58	108.40
59	BZ	45	MET	CA-C-N	5.46	125.38	119.76
59	BZ	45	MET	C-N-CA	5.46	125.38	119.76
85	AA	983	A	C2'-C3'-O3'	5.46	121.88	113.70
85	AA	2033	C	C1'-O4'-C4'	-5.46	104.44	109.90
2	A1	179	MET	CG-SD-CE	-5.45	88.90	100.90
34	BA	558	C	C1'-C2'-O2'	5.45	116.58	108.40
34	BA	578	C	O4'-C1'-N1	5.45	116.68	108.50
34	BA	1389	A	O5'-C5'-C4'	5.45	119.68	111.50
34	BA	1399	A	O3'-P-O5'	-5.45	95.82	104.00
34	BA	1682	A	C5'-C4'-C3'	-5.45	107.82	116.00
35	BB	1129	C	O3'-P-O5'	-5.45	95.82	104.00
35	BB	1376	G	P-O3'-C3'	-5.45	112.02	120.20
36	BC	107	C	O3'-P-O5'	5.45	112.18	104.00
37	BD	98	G	C3'-C2'-O2'	5.45	118.88	110.70
40	BG	79	U	P-O3'-C3'	-5.45	112.02	120.20
50	BQ	146	TRP	CA-CB-CG	-5.45	103.24	113.60
65	Bf	67	PHE	CA-C-N	5.45	128.94	120.60
65	Bf	67	PHE	C-N-CA	5.45	128.94	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	649	C	O5'-C5'-C4'	-5.45	103.32	111.50
85	AA	977	U	C1'-O4'-C4'	-5.45	104.45	109.90
85	AA	2055	G	P-O5'-C5'	-5.45	112.72	120.90
5	A4	121	ARG	CB-CA-C	5.45	120.73	111.35
8	A7	49	ARG	N-CA-C	-5.45	106.48	113.02
8	A7	56	TYR	N-CA-CB	-5.45	103.64	111.54
34	BA	1830	A	C1'-C2'-O2'	-5.45	103.62	111.80
40	BG	150	A	C5'-C4'-C3'	-5.45	107.82	116.00
61	Bb	110	LEU	CB-CA-C	5.45	120.24	109.66
82	Bw	28	ILE	CA-C-N	5.45	131.95	121.54
82	Bw	28	ILE	C-N-CA	5.45	131.95	121.54
7	A6	46	MET	CG-SD-CE	-5.45	88.91	100.90
21	AM	93	THR	N-CA-C	-5.45	105.36	112.23
23	AP	158	ILE	N-CA-C	-5.45	98.00	109.34
23	AP	244	GLU	N-CA-CB	-5.45	102.32	110.17
30	AW	68	THR	N-CA-C	-5.45	100.78	109.07
34	BA	965	A	P-O5'-C5'	5.45	129.08	120.90
35	BB	543	G	C5'-C4'-C3'	-5.45	107.82	116.00
38	BE	83	U	C5'-C4'-O4'	5.45	117.98	109.80
58	BY	16	GLY	N-CA-C	-5.45	104.83	112.13
81	Bv	22	GLU	N-CA-C	5.45	118.95	111.54
85	AA	1092	G	C5'-C4'-C3'	-5.45	107.82	116.00
34	BA	262	A	O3'-P-O5'	5.45	112.17	104.00
34	BA	1187	U	C4'-C3'-C2'	-5.45	97.15	102.60
34	BA	1364	G	O4'-C1'-N9	5.45	116.67	108.50
35	BB	148	C	C2'-C3'-O3'	5.45	121.87	113.70
35	BB	1479	C	C1'-O4'-C4'	-5.45	104.45	109.90
35	BB	1491	G	C4'-C3'-O3'	-5.45	104.83	113.00
37	BD	60	C	C4'-C3'-O3'	-5.45	104.83	113.00
40	BG	75	C	C4'-C3'-C2'	5.45	108.05	102.60
68	Bi	83	LEU	N-CA-CB	-5.45	101.83	110.22
85	AA	273	C	O5'-C5'-C4'	-5.45	103.33	111.50
85	AA	747	U	C3'-C2'-C1'	-5.45	95.85	101.30
86	AB	65	G	P-O3'-C3'	-5.45	112.03	120.20
1	A0	147	LYS	CB-CA-C	-5.45	102.62	111.06
4	A3	26	VAL	N-CA-C	-5.45	105.92	113.00
24	AQ	17	VAL	N-CA-C	-5.45	100.63	108.53
35	BB	1135	U	C5'-C4'-O4'	5.45	117.27	109.10
35	BB	1261	U	P-O5'-C5'	-5.45	112.73	120.90
37	BD	36	C	P-O3'-C3'	-5.45	112.03	120.20
38	BE	195	G	P-O5'-C5'	5.45	129.07	120.90
71	Bl	118	THR	CA-CB-CG2	5.45	119.76	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	457	G	C3'-C2'-C1'	-5.45	95.85	101.30
85	AA	2043	A	P-O3'-C3'	-5.45	112.03	120.20
34	BA	110	C	O4'-C4'-C3'	-5.45	98.56	104.00
34	BA	477	C	O5'-C5'-C4'	-5.45	103.33	111.50
34	BA	870	C	O4'-C1'-N1	5.45	116.67	108.50
34	BA	882	G	C3'-C2'-C1'	-5.45	95.86	101.30
34	BA	1090	A	C4'-C3'-C2'	-5.45	97.15	102.60
35	BB	742	G	O3'-P-O5'	-5.45	95.83	104.00
35	BB	1308	G	O3'-P-O5'	-5.45	95.83	104.00
36	BC	158	U	C5'-C4'-O4'	5.45	117.97	109.80
37	BD	93	G	C4'-C3'-O3'	-5.45	104.83	113.00
38	BE	175	U	C5'-C4'-C3'	5.45	124.17	116.00
38	BE	203	C	C5'-C4'-O4'	-5.45	101.63	109.80
40	BG	112	C	C4'-C3'-O3'	-5.45	104.83	113.00
52	BS	156	ARG	CA-C-O	5.45	127.15	121.38
57	BX	132	VAL	CB-CA-C	-5.45	102.38	110.33
66	Bg	50	SER	CB-CA-C	-5.45	102.09	110.26
71	Bl	92	CYS	CA-C-N	5.45	131.77	121.97
71	Bl	92	CYS	C-N-CA	5.45	131.77	121.97
72	Bm	72	GLY	CA-C-N	5.45	130.27	122.21
72	Bm	72	GLY	C-N-CA	5.45	130.27	122.21
73	Bn	72	ARG	CB-CA-C	-5.45	102.33	110.88
85	AA	97	A	C4'-C3'-C2'	-5.45	97.15	102.60
85	AA	208	U	C2'-C3'-O3'	5.45	117.67	109.50
85	AA	553	G	C1'-O4'-C4'	-5.45	104.45	109.90
85	AA	765	U	O4'-C4'-C3'	-5.45	98.55	104.00
85	AA	1001	G	N9-C1'-C2'	-5.45	103.83	112.00
26	AS	18	ARG	NE-CZ-NH2	5.44	124.10	119.20
34	BA	766	A	C1'-O4'-C4'	-5.44	104.46	109.90
35	BB	1211	C	O3'-P-O5'	-5.44	95.83	104.00
40	BG	82	U	C4'-C3'-O3'	-5.44	104.83	113.00
44	BK	147	GLN	N-CA-C	-5.44	105.43	111.36
51	BR	142	SER	CB-CA-C	-5.44	103.26	110.34
54	BU	66	ASN	N-CA-C	5.44	117.54	108.99
85	AA	693	A	P-O5'-C5'	5.44	129.07	120.90
85	AA	1409	U	P-O5'-C5'	5.44	129.07	120.90
5	A4	150	ASP	CA-CB-CG	5.44	118.04	112.60
16	AH	48	LYS	N-CA-CB	5.44	119.57	110.59
23	AP	218	GLY	CA-C-O	5.44	126.88	121.00
34	BA	83	G	N9-C1'-C2'	-5.44	105.84	114.00
34	BA	543	A	C3'-C2'-C1'	-5.44	95.86	101.30
34	BA	1517	U	N1-C1'-C2'	-5.44	103.83	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1616	A	C2'-C3'-O3'	5.44	117.66	109.50
34	BA	1656	A	C5'-C4'-C3'	-5.44	107.84	116.00
34	BA	1827	C	C5'-C4'-C3'	-5.44	107.84	116.00
35	BB	124	G	C4'-C3'-O3'	-5.44	104.84	113.00
35	BB	1172	U	C4'-C3'-O3'	-5.44	104.83	113.00
36	BC	12	A	P-O3'-C3'	-5.44	112.04	120.20
36	BC	87	C	C2'-C3'-O3'	5.44	121.86	113.70
37	BD	111	U	C4'-C3'-O3'	-5.44	104.84	113.00
38	BE	142	A	P-O3'-C3'	5.44	128.36	120.20
85	AA	1186	C	P-O3'-C3'	-5.44	112.04	120.20
23	AP	61	LEU	CA-C-N	5.44	128.12	120.28
23	AP	61	LEU	C-N-CA	5.44	128.12	120.28
29	AV	93	VAL	CA-C-N	5.44	128.58	120.31
29	AV	93	VAL	C-N-CA	5.44	128.58	120.31
33	AZ	43	ILE	N-CA-C	-5.44	101.58	108.93
34	BA	665	C	O5'-C5'-C4'	-5.44	103.34	111.50
34	BA	1259	C	C3'-C2'-C1'	-5.44	95.86	101.30
34	BA	1521	C	O3'-P-O5'	5.44	112.16	104.00
34	BA	1846	G	C5'-C4'-O4'	5.44	117.96	109.80
35	BB	406	A	C3'-C2'-C1'	-5.44	96.06	101.50
35	BB	1240	A	C4'-C3'-O3'	-5.44	104.84	113.00
37	BD	66	G	C5'-C4'-C3'	-5.44	107.84	116.00
40	BG	40	G	C1'-O4'-C4'	-5.44	104.46	109.90
56	BW	108	LYS	N-CA-C	-5.44	103.91	110.44
57	BX	156	ASP	CA-CB-CG	5.44	118.04	112.60
59	BZ	53	VAL	N-CA-C	5.44	117.93	108.90
67	Bh	82	ASP	O-C-N	-5.44	116.59	123.01
81	Bv	57	ASN	CA-CB-CG	-5.44	107.16	112.60
85	AA	561	C	O4'-C1'-N1	5.44	116.66	108.50
85	AA	565	G	P-O3'-C3'	-5.44	112.04	120.20
85	AA	2249	U	C5'-C4'-O4'	5.44	117.26	109.10
14	AF	114	SER	N-CA-CB	5.44	118.09	109.71
34	BA	1560	U	P-O3'-C3'	-5.44	112.04	120.20
35	BB	22	A	P-O3'-C3'	5.44	128.36	120.20
35	BB	1263	A	C5'-C4'-C3'	-5.44	107.84	116.00
86	AB	57	G	P-O5'-C5'	-5.44	112.74	120.90
7	A6	45	ASN	CB-CA-C	-5.44	100.57	110.63
8	A7	168	VAL	N-CA-C	-5.44	100.00	108.81
21	AM	72	ILE	CA-C-N	-5.44	113.57	122.54
21	AM	72	ILE	C-N-CA	-5.44	113.57	122.54
22	AO	141	THR	CA-C-N	5.44	127.88	120.54
22	AO	141	THR	C-N-CA	5.44	127.88	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	AX	106	PHE	CA-CB-CG	-5.44	108.36	113.80
34	BA	272	A	C3'-C2'-C1'	-5.44	96.06	101.50
34	BA	544	U	N1-C1'-C2'	-5.44	103.84	112.00
34	BA	594	G	C1'-O4'-C4'	-5.44	104.46	109.90
34	BA	1424	G	C5'-C4'-C3'	-5.44	107.04	115.20
35	BB	533	U	O3'-P-O5'	-5.44	95.84	104.00
35	BB	1330	A	P-O3'-C3'	-5.44	112.05	120.20
35	BB	1400	C	C4'-C3'-O3'	-5.44	104.84	113.00
35	BB	1520	C	O4'-C1'-N1	5.44	116.66	108.50
40	BG	127	G	O5'-C5'-C4'	5.44	119.66	111.50
49	BP	34	ASN	CA-CB-CG	5.44	118.04	112.60
54	BU	75	ILE	CB-CA-C	5.44	117.65	110.91
85	AA	102	A	C4'-C3'-O3'	-5.44	104.84	113.00
85	AA	317	A	O3'-P-O5'	5.44	112.16	104.00
85	AA	494	G	C4'-C3'-O3'	-5.44	104.84	113.00
85	AA	768	C	C1'-C2'-O2'	5.44	116.56	108.40
85	AA	1132	A	O4'-C4'-C3'	-5.44	98.56	104.00
85	AA	1993	C	P-O3'-C3'	-5.44	112.05	120.20
85	AA	2039	G	O4'-C4'-C3'	-5.44	98.56	104.00
19	AK	114	LYS	N-CA-CB	-5.44	102.13	110.12
34	BA	1392	A	P-O3'-C3'	-5.44	112.05	120.20
35	BB	25	A	O4'-C1'-C2'	-5.44	100.36	105.80
35	BB	425	G	C3'-C2'-C1'	-5.44	96.06	101.50
35	BB	688	U	C4'-C3'-O3'	-5.44	104.85	113.00
39	BF	14	C	C3'-C2'-O2'	-5.44	106.44	114.60
41	BH	23	G	C1'-C2'-O2'	5.44	116.55	108.40
85	AA	107	A	C5'-C4'-C3'	-5.44	107.85	116.00
85	AA	352	G	N9-C1'-C2'	-5.44	103.85	112.00
85	AA	1833	C	C2'-C3'-O3'	5.44	121.85	113.70
34	BA	445	C	C1'-O4'-C4'	-5.43	104.47	109.90
34	BA	1331	G	C4'-C3'-C2'	5.43	108.03	102.60
34	BA	1528	U	O5'-C5'-C4'	-5.43	103.35	111.50
35	BB	880	G	O5'-C5'-C4'	-5.43	103.35	111.50
35	BB	997	G	N9-C1'-C2'	-5.43	103.85	112.00
35	BB	1059	U	P-O3'-C3'	-5.43	112.05	120.20
35	BB	1476	C	N1-C1'-C2'	-5.43	103.85	112.00
36	BC	82	C	C5'-C4'-C3'	5.43	123.35	115.20
39	BF	35	C	P-O3'-C3'	-5.43	112.05	120.20
40	BG	181	C	P-O5'-C5'	-5.43	112.75	120.90
45	BL	62	ARG	N-CA-CB	5.43	119.67	110.49
52	BS	1	MET	N-CA-CB	-5.43	101.26	110.50
77	Br	196	ARG	CD-NE-CZ	-5.43	116.79	124.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1264	U	O3'-P-O5'	-5.43	95.85	104.00
85	AA	1373	U	C1'-O4'-C4'	-5.43	104.47	109.90
85	AA	1999	C	O4'-C1'-N1	5.43	116.65	108.50
85	AA	2202	G	N9-C1'-C2'	-5.43	103.85	112.00
34	BA	159	U	O4'-C4'-C3'	-5.43	98.57	104.00
34	BA	712	C	O4'-C1'-N1	5.43	116.65	108.50
34	BA	740	A	O3'-P-O5'	-5.43	95.85	104.00
34	BA	1294	C	C3'-C2'-C1'	-5.43	95.87	101.30
35	BB	1072	C	P-O5'-C5'	-5.43	112.75	120.90
35	BB	1188	A	C5'-C4'-C3'	-5.43	107.85	116.00
36	BC	15	G	P-O3'-C3'	5.43	128.35	120.20
37	BD	61	C	C4'-C3'-O3'	-5.43	104.85	113.00
41	BH	72	G	C2'-C3'-O3'	-5.43	105.55	113.70
58	BY	53	ILE	N-CA-C	5.43	116.01	108.84
85	AA	512	U	P-O5'-C5'	5.43	129.05	120.90
85	AA	1230	U	C4'-C3'-C2'	-5.43	97.17	102.60
4	A3	173	ARG	N-CA-C	-5.43	101.41	109.94
31	AX	16	PHE	N-CA-CB	-5.43	102.14	110.12
34	BA	1299	G	C4'-C3'-O3'	-5.43	104.85	113.00
35	BB	835	C	P-O5'-C5'	5.43	129.05	120.90
37	BD	98	G	C4'-C3'-C2'	-5.43	97.17	102.60
39	BF	61	A	O3'-P-O5'	-5.43	95.85	104.00
54	BU	93	PHE	CA-C-O	5.43	126.06	119.49
85	AA	662	U	P-O3'-C3'	-5.43	112.05	120.20
85	AA	936	C	O5'-C5'-C4'	-5.43	103.35	111.50
1	A0	156	CYS	N-CA-C	5.43	122.36	110.80
1	A0	174	ILE	N-CA-C	5.43	115.63	110.42
5	A4	145	TRP	O-C-N	-5.43	116.19	123.14
8	A7	153	ASP	N-CA-C	-5.43	101.05	108.38
22	AO	74	CYS	CA-C-N	5.43	127.56	120.28
22	AO	74	CYS	C-N-CA	5.43	127.56	120.28
23	AP	207	TYR	CA-CB-CG	-5.43	104.12	113.90
34	BA	523	A	C5'-C4'-C3'	5.43	124.14	116.00
35	BB	624	A	C4'-C3'-C2'	5.43	108.03	102.60
37	BD	88	U	O4'-C1'-C2'	-5.43	100.37	105.80
39	BF	35	C	C4'-C3'-O3'	-5.43	104.86	113.00
51	BR	39	MET	O-C-N	-5.43	115.37	122.59
59	BZ	119	LYS	CB-CA-C	5.43	119.40	110.88
61	Bb	78	LEU	N-CA-C	5.43	117.20	111.28
63	Bd	51	ASN	O-C-N	-5.43	115.96	122.15
80	Bu	37	VAL	CB-CA-C	-5.43	104.93	112.04
85	AA	514	U	C5'-C4'-C3'	-5.43	107.86	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	773	G	O5'-C5'-C4'	-5.43	103.36	111.50
85	AA	2075	C	O4'-C1'-C2'	5.43	113.03	107.60
6	A5	99	ASN	CA-CB-CG	5.43	118.03	112.60
34	BA	111	U	N1-C1'-C2'	-5.43	105.86	114.00
38	BE	32	U	C1'-O4'-C4'	5.43	115.33	109.90
40	BG	44	G	C5'-C4'-C3'	-5.43	107.86	116.00
42	BI	14	VAL	CA-C-N	5.43	131.74	121.97
42	BI	14	VAL	C-N-CA	5.43	131.74	121.97
85	AA	1191	G	C5'-C4'-C3'	-5.43	107.86	116.00
2	A1	222	ILE	O-C-N	-5.43	117.18	122.99
2	A1	246	VAL	CA-C-N	5.43	127.40	120.56
2	A1	246	VAL	C-N-CA	5.43	127.40	120.56
34	BA	326	A	O4'-C4'-C3'	-5.43	98.57	104.00
35	BB	1178	A	O3'-P-O5'	-5.43	95.86	104.00
35	BB	1434	G	P-O3'-C3'	-5.43	112.06	120.20
36	BC	6	G	O3'-P-O5'	-5.43	95.86	104.00
40	BG	38	A	O4'-C1'-C2'	5.43	113.03	107.60
49	BP	4	ALA	N-CA-C	5.43	122.36	110.80
52	BS	172	ASN	CA-C-N	5.43	131.90	121.54
52	BS	172	ASN	C-N-CA	5.43	131.90	121.54
69	Bj	103	ILE	N-CA-CB	-5.43	103.16	110.54
82	Bw	230	ARG	CA-C-N	5.43	131.91	121.54
82	Bw	230	ARG	C-N-CA	5.43	131.91	121.54
84	By	179	VAL	CB-CA-C	-5.43	103.24	111.33
85	AA	601	A	C5'-C4'-C3'	5.43	124.14	116.00
85	AA	806	G	O3'-P-O5'	-5.43	95.86	104.00
85	AA	999	A	P-O5'-C5'	5.43	129.04	120.90
85	AA	1175	A	P-O3'-C3'	-5.43	112.06	120.20
85	AA	2160	U	P-O3'-C3'	5.43	128.34	120.20
2	A1	217	THR	CB-CA-C	5.42	120.71	110.62
20	AL	90	HIS	CA-CB-CG	-5.42	108.38	113.80
34	BA	1037	C	C3'-C2'-C1'	-5.42	95.88	101.30
34	BA	1615	A	C5'-C4'-C3'	5.42	124.14	116.00
35	BB	1273	G	C5'-C4'-C3'	5.42	124.14	116.00
35	BB	1465	U	P-O3'-C3'	5.42	128.34	120.20
36	BC	60	U	C1'-O4'-C4'	-5.42	104.28	109.70
38	BE	96	G	C1'-O4'-C4'	-5.42	104.48	109.90
39	BF	2	G	C4'-C3'-C2'	-5.42	97.18	102.60
40	BG	157	A	C5'-C4'-O4'	5.42	117.94	109.80
44	BK	4	ARG	CD-NE-CZ	-5.42	116.81	124.40
56	BW	45	HIS	CA-CB-CG	5.42	119.22	113.80
63	Bd	31	ASN	CA-C-N	-5.42	113.36	120.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	Bd	31	ASN	C-N-CA	-5.42	113.36	120.95
67	Bh	1	MET	N-CA-CB	-5.42	101.28	110.50
85	AA	650	G	C3'-C2'-C1'	-5.42	95.88	101.30
85	AA	925	G	P-O3'-C3'	-5.42	112.06	120.20
85	AA	2106	C	O4'-C1'-C2'	-5.42	102.18	107.60
34	BA	98	A	C5'-C4'-C3'	5.42	124.13	116.00
34	BA	566	G	C5'-C4'-C3'	5.42	124.14	116.00
34	BA	1555	G	C5'-C4'-C3'	-5.42	107.86	116.00
35	BB	733	G	P-O5'-C5'	-5.42	112.77	120.90
48	BO	131	VAL	N-CA-CB	-5.42	105.16	112.10
65	Bf	191	THR	N-CA-C	-5.42	105.37	111.28
67	Bh	32	SER	CA-C-N	5.42	127.99	120.29
67	Bh	32	SER	C-N-CA	5.42	127.99	120.29
34	BA	711	C	P-O5'-C5'	5.42	129.03	120.90
34	BA	800	G	N9-C1'-C2'	5.42	120.13	112.00
34	BA	1409	A	C4'-C3'-O3'	-5.42	104.87	113.00
34	BA	1526	C	C1'-O4'-C4'	-5.42	104.48	109.90
34	BA	1783	C	C3'-C2'-C1'	-5.42	95.88	101.30
35	BB	2	C	O4'-C1'-N1	5.42	116.63	108.50
35	BB	87	G	P-O5'-C5'	5.42	129.03	120.90
35	BB	1212	C	O3'-P-O5'	5.42	112.13	104.00
36	BC	82	C	O5'-C5'-C4'	-5.42	103.57	111.70
40	BG	128	U	O4'-C1'-C2'	5.42	111.22	105.80
55	BV	46	ASN	CA-CB-CG	-5.42	107.18	112.60
71	Bl	90	LYS	N-CA-C	5.42	119.89	113.28
73	Bn	51	VAL	CA-C-N	5.42	127.54	120.28
73	Bn	51	VAL	C-N-CA	5.42	127.54	120.28
85	AA	185	A	O4'-C4'-C3'	-5.42	98.58	104.00
85	AA	897	A	C3'-C2'-C1'	-5.42	95.88	101.30
85	AA	1339	C	O3'-P-O5'	5.42	112.13	104.00
27	AT	34	HIS	CB-CG-CD2	-5.42	124.15	131.20
27	AT	34	HIS	N-CA-C	5.42	122.06	108.40
34	BA	274	C	C1'-O4'-C4'	-5.42	104.48	109.90
34	BA	761	U	N1-C1'-C2'	-5.42	103.87	112.00
34	BA	856	G	P-O3'-C3'	-5.42	112.07	120.20
34	BA	1086	A	P-O5'-C5'	-5.42	112.77	120.90
34	BA	1341	A	C5'-C4'-O4'	5.42	117.93	109.80
34	BA	1621	U	C4'-C3'-O3'	-5.42	104.87	113.00
35	BB	1483	A	C4'-C3'-C2'	5.42	108.02	102.60
38	BE	135	A	O4'-C1'-N9	5.42	116.63	108.50
74	Bo	77	THR	CA-C-O	5.42	126.17	120.42
85	AA	305	A	P-O3'-C3'	-5.42	112.07	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	740	A	O4'-C1'-N9	5.42	116.63	108.50
85	AA	1123	C	C4'-C3'-O3'	-5.42	104.87	113.00
85	AA	1291	A	C4'-C3'-C2'	-5.42	97.18	102.60
85	AA	1512	U	P-O5'-C5'	-5.42	112.77	120.90
85	AA	1579	A	P-O3'-C3'	-5.42	112.07	120.20
85	AA	1579	A	P-O5'-C5'	-5.42	112.77	120.90
85	AA	1709	U	C4'-C3'-O3'	-5.42	104.87	113.00
85	AA	1833	C	C5'-C4'-C3'	-5.42	107.87	116.00
18	AJ	43	LYS	CB-CA-C	-5.42	98.89	110.32
21	AM	144	GLY	N-CA-C	-5.42	107.21	115.66
34	BA	109	A	P-O3'-C3'	-5.42	112.07	120.20
34	BA	268	U	C4'-C3'-O3'	-5.42	104.87	113.00
34	BA	366	G	C1'-O4'-C4'	-5.42	104.48	109.90
34	BA	721	A	O5'-C5'-C4'	5.42	119.63	111.50
35	BB	483	C	C1'-O4'-C4'	-5.42	104.48	109.90
35	BB	968	C	P-O3'-C3'	-5.42	112.07	120.20
37	BD	119	U	C2'-C3'-O3'	5.42	117.63	109.50
41	BH	132	C	C4'-C3'-O3'	-5.42	104.87	113.00
49	BP	18	GLY	O-C-N	-5.42	116.35	121.77
49	BP	23	ARG	N-CA-CB	5.42	117.86	110.38
52	BS	64	LYS	O-C-N	-5.42	116.75	123.36
71	BI	94	ARG	N-CA-C	5.42	122.34	110.80
34	BA	123	C	P-O3'-C3'	-5.42	112.08	120.20
34	BA	813	C	O5'-C5'-C4'	-5.42	103.38	111.50
34	BA	1318	G	C4'-C3'-C2'	-5.42	97.18	102.60
36	BC	104	A	O5'-C5'-C4'	-5.42	103.58	111.70
38	BE	8	G	C5'-C4'-O4'	5.42	117.92	109.80
44	BK	209	TYR	N-CA-C	5.42	120.37	113.55
49	BP	108	PHE	CA-C-N	5.42	127.48	120.44
49	BP	108	PHE	C-N-CA	5.42	127.48	120.44
85	AA	604	C	O4'-C1'-C2'	-5.42	100.38	105.80
85	AA	2175	U	C5'-C4'-C3'	-5.42	107.88	116.00
3	A2	63	MET	CA-C-N	5.42	131.53	121.62
3	A2	63	MET	C-N-CA	5.42	131.53	121.62
7	A6	106	ARG	CA-CB-CG	-5.42	103.27	114.10
23	AP	207	TYR	N-CA-CB	5.42	119.24	110.41
35	BB	1076	U	P-O5'-C5'	-5.42	112.78	120.90
35	BB	1492	C	C6-N1-C1'	5.42	137.04	120.80
39	BF	39	C	P-O5'-C5'	5.42	129.02	120.90
42	BI	86	ILE	N-CA-C	5.42	115.33	106.72
42	BI	101	ARG	N-CA-C	-5.42	104.95	113.02
51	BR	76	TRP	CA-CB-CG	-5.42	103.31	113.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1225	C	C5'-C4'-C3'	-5.42	107.88	116.00
7	A6	46	MET	CB-CA-C	-5.41	102.35	110.90
34	BA	803	U	P-O5'-C5'	-5.41	112.78	120.90
34	BA	1069	U	P-O3'-C3'	-5.41	112.08	120.20
35	BB	61	A	C4'-C3'-O3'	5.41	121.12	113.00
35	BB	428	G	P-O5'-C5'	5.41	129.02	120.90
36	BC	10	C	P-O3'-C3'	-5.41	112.08	120.20
56	BW	74	LYS	N-CA-CB	5.41	120.86	111.39
59	BZ	22	HIS	N-CA-CB	-5.41	102.16	110.12
85	AA	412	G	C3'-C2'-C1'	-5.41	95.89	101.30
85	AA	675	A	C4'-C3'-O3'	-5.41	104.88	113.00
85	AA	774	C	C1'-O4'-C4'	-5.41	104.49	109.90
85	AA	1967	A	P-O5'-C5'	5.41	129.02	120.90
85	AA	2193	A	P-O5'-C5'	-5.41	112.78	120.90
34	BA	692	U	C4'-C3'-C2'	-5.41	97.19	102.60
35	BB	1259	A	O3'-P-O5'	5.41	112.12	104.00
39	BF	28	C	C5'-C4'-C3'	-5.41	107.08	115.20
51	BR	30	PHE	CA-CB-CG	5.41	119.21	113.80
85	AA	1988	A	P-O3'-C3'	5.41	128.32	120.20
34	BA	161	U	C4'-C3'-O3'	-5.41	101.28	109.40
34	BA	670	U	O4'-C1'-N1	5.41	116.61	108.50
34	BA	764	G	O4'-C1'-N9	5.41	116.62	108.50
34	BA	1199	U	O4'-C1'-N1	5.41	116.31	108.20
34	BA	1713	U	C5'-C4'-C3'	5.41	124.12	116.00
35	BB	395	U	C3'-C2'-C1'	-5.41	95.89	101.30
35	BB	796	C	O4'-C1'-N1	5.41	116.61	108.50
35	BB	1250	A	O4'-C1'-C2'	5.41	113.01	107.60
35	BB	1490	G	P-O5'-C5'	5.41	129.02	120.90
35	BB	1512	C	C3'-C2'-C1'	-5.41	95.89	101.30
37	BD	34	C	O3'-P-O5'	-5.41	95.89	104.00
51	BR	88	VAL	CA-C-O	5.41	126.58	120.95
52	BS	1	MET	CA-C-N	5.41	131.71	121.97
52	BS	1	MET	C-N-CA	5.41	131.71	121.97
52	BS	74	ARG	CB-CA-C	5.41	120.69	109.38
72	Bm	86	GLY	CA-C-N	5.41	131.88	121.54
72	Bm	86	GLY	C-N-CA	5.41	131.88	121.54
81	Bv	188	HIS	N-CA-C	-5.41	106.18	112.89
85	AA	107	A	C4'-C3'-O3'	-5.41	104.89	113.00
85	AA	484	G	P-O3'-C3'	-5.41	112.08	120.20
85	AA	695	A	C4'-C3'-C2'	5.41	108.01	102.60
85	AA	2045	U	C5'-C4'-C3'	-5.41	107.88	116.00
85	AA	2200	A	N9-C1'-C2'	-5.41	103.88	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	229	C	C5'-C4'-C3'	-5.41	107.89	116.00
34	BA	397	A	P-O5'-C5'	-5.41	112.79	120.90
34	BA	839	U	C3'-C2'-C1'	-5.41	95.89	101.30
34	BA	1053	U	P-O3'-C3'	5.41	128.31	120.20
34	BA	1078	U	C4'-C3'-O3'	-5.41	104.89	113.00
34	BA	1118	C	C4'-C3'-C2'	-5.41	97.19	102.60
34	BA	1168	C	C4'-C3'-O3'	5.41	117.51	109.40
34	BA	1717	C	C5'-C4'-C3'	-5.41	107.89	116.00
35	BB	50	A	C4'-C3'-O3'	-5.41	104.89	113.00
35	BB	648	G	O5'-C5'-C4'	-5.41	103.39	111.50
35	BB	833	G	C3'-C2'-C1'	-5.41	95.89	101.30
35	BB	1286	G	C4'-C3'-C2'	5.41	108.01	102.60
39	BF	34	C	O3'-P-O5'	-5.41	95.89	104.00
41	BH	57	A	C4'-C3'-O3'	-5.41	104.89	113.00
45	BL	95	GLU	N-CA-C	5.41	122.32	110.80
61	Bb	19	TYR	N-CA-C	-5.41	106.52	113.01
83	Bx	245	GLN	CB-CG-CD	5.41	121.80	112.60
85	AA	477	U	P-O3'-C3'	5.41	128.31	120.20
85	AA	1210	U	P-O3'-C3'	-5.41	112.09	120.20
85	AA	1258	U	C4'-C3'-O3'	-5.41	104.89	113.00
8	A7	270	ILE	N-CA-C	-5.41	102.54	109.30
34	BA	669	U	N1-C1'-C2'	-5.41	103.89	112.00
35	BB	1208	G	C5'-C4'-C3'	5.41	123.31	115.20
38	BE	45	G	C8-N9-C1'	5.41	143.22	127.00
50	BQ	34	ASP	CA-C-O	5.41	126.28	120.55
58	BY	46	ARG	N-CA-C	-5.41	106.66	113.20
61	Bb	66	ASN	CA-CB-CG	-5.41	107.19	112.60
69	Bj	17	ARG	CD-NE-CZ	-5.41	116.83	124.40
71	Bl	94	ARG	CA-C-O	5.41	128.24	120.51
34	BA	136	A	C2'-C3'-O3'	5.41	121.81	113.70
34	BA	1017	C	O3'-P-O5'	-5.41	95.89	104.00
34	BA	1642	A	O3'-P-O5'	5.41	112.11	104.00
35	BB	756	C	O4'-C1'-N1	5.41	116.61	108.50
35	BB	1156	U	C5'-C4'-C3'	-5.41	107.89	116.00
45	BL	133	ASP	N-CA-CB	-5.41	102.06	110.55
65	Bf	358	LEU	N-CA-C	-5.41	106.05	113.56
85	AA	166	C	C5'-C4'-C3'	5.41	124.11	116.00
85	AA	1143	C	C4'-C3'-O3'	-5.41	104.89	113.00
85	AA	1192	C	C4'-C3'-O3'	-5.41	104.89	113.00
85	AA	1244	A	C4'-C3'-O3'	-5.41	104.89	113.00
34	BA	635	G	O4'-C4'-C3'	-5.40	98.60	104.00
34	BA	1648	G	C4'-C3'-O3'	-5.40	104.89	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	460	C	O5'-C5'-C4'	5.40	119.61	111.50
35	BB	1144	A	C4'-C3'-O3'	-5.40	104.89	113.00
84	By	178	TYR	N-CA-C	5.40	118.87	110.17
85	AA	534	A	P-O5'-C5'	-5.40	112.79	120.90
2	A1	168	ASP	CA-CB-CG	-5.40	107.20	112.60
22	AO	25	ASP	N-CA-CB	-5.40	102.36	110.73
22	AO	117	LEU	N-CA-CB	5.40	117.84	110.01
34	BA	1684	A	O5'-C5'-C4'	-5.40	103.39	111.50
35	BB	139	G	C4'-C3'-C2'	-5.40	97.20	102.60
35	BB	533	U	C3'-C2'-C1'	-5.40	95.90	101.30
46	BM	11	ILE	N-CA-C	5.40	120.58	109.34
55	BV	92	TYR	N-CA-CB	5.40	117.84	110.01
67	Bh	63	SER	N-CA-C	5.40	119.96	112.45
85	AA	424	A	C5'-C4'-C3'	5.40	124.10	116.00
85	AA	538	A	O4'-C1'-N9	5.40	116.60	108.50
85	AA	1014	U	O3'-P-O5'	5.40	112.10	104.00
85	AA	1535	C	C1'-O4'-C4'	-5.40	104.30	109.70
15	AG	121	ARG	CG-CD-NE	-5.40	100.12	112.00
15	AG	122	ILE	N-CA-C	-5.40	105.24	110.42
15	AG	123	HIS	CE1-NE2-CD2	-5.40	103.60	109.00
34	BA	594	G	O5'-C5'-C4'	5.40	119.60	111.50
34	BA	740	A	C5'-C4'-C3'	5.40	124.10	116.00
34	BA	942	G	P-O3'-C3'	-5.40	112.10	120.20
35	BB	74	U	C4'-C3'-O3'	-5.40	104.90	113.00
43	BJ	150	SER	N-CA-C	-5.40	106.70	113.72
51	BR	155	GLU	CB-CA-C	-5.40	99.84	110.10
60	Ba	56	MET	CA-C-N	5.40	131.85	121.54
60	Ba	56	MET	C-N-CA	5.40	131.85	121.54
65	Bf	333	HIS	CA-CB-CG	5.40	119.20	113.80
75	Bp	46	VAL	CA-C-N	5.40	130.92	122.17
75	Bp	46	VAL	C-N-CA	5.40	130.92	122.17
84	By	97	PHE	CA-C-N	5.40	126.59	119.84
84	By	97	PHE	C-N-CA	5.40	126.59	119.84
85	AA	186	U	O3'-P-O5'	5.40	112.10	104.00
85	AA	330	C	C2'-C3'-O3'	-5.40	105.60	113.70
85	AA	1885	A	C4'-C3'-C2'	5.40	108.00	102.60
11	AC	67	SER	CA-C-N	-5.40	113.94	121.99
11	AC	67	SER	C-N-CA	-5.40	113.94	121.99
20	AL	34	ILE	N-CA-C	-5.40	105.24	110.42
34	BA	280	A	O3'-P-O5'	-5.40	95.90	104.00
34	BA	1729	G	C5'-C4'-C3'	5.40	124.10	116.00
61	Bb	67	THR	N-CA-C	-5.40	105.95	112.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	Bt	33	ALA	N-CA-C	5.40	122.30	110.80
8	A7	163	SER	N-CA-C	5.40	118.63	110.64
21	AM	25	ARG	N-CA-CB	5.40	119.61	110.49
21	AM	118	ILE	CA-C-N	5.40	131.85	121.54
21	AM	118	ILE	C-N-CA	5.40	131.85	121.54
34	BA	284	U	C2'-C3'-O3'	5.40	117.60	109.50
34	BA	521	C	O4'-C4'-C3'	-5.40	98.60	104.00
34	BA	708	C	C4'-C3'-C2'	5.40	108.00	102.60
35	BB	1322	A	C3'-C2'-C1'	-5.40	95.90	101.30
40	BG	102	G	C4'-C3'-C2'	-5.40	97.20	102.60
71	Bl	88	LYS	CA-C-N	5.40	131.69	121.97
71	Bl	88	LYS	C-N-CA	5.40	131.69	121.97
79	Bt	81	ILE	CB-CA-C	-5.40	101.05	110.71
82	Bw	162	MET	N-CA-CB	5.40	118.53	110.22
85	AA	339	A	C3'-C2'-C1'	-5.40	95.90	101.30
85	AA	357	C	O4'-C1'-N1	5.40	116.60	108.50
85	AA	548	G	N9-C1'-C2'	-5.40	103.91	112.00
85	AA	1092	G	O3'-P-O5'	-5.40	95.90	104.00
85	AA	1136	A	C4'-C3'-O3'	-5.40	104.91	113.00
85	AA	1371	C	C2'-C3'-O3'	-5.40	105.60	113.70
85	AA	1469	G	C2'-C3'-O3'	5.40	121.80	113.70
86	AB	39	U	O4'-C1'-N1	5.40	116.60	108.50
5	A4	108	PRO	N-CA-C	5.40	123.58	112.47
34	BA	33	C	P-O3'-C3'	-5.40	112.11	120.20
35	BB	677	U	C1'-O4'-C4'	-5.40	104.50	109.90
36	BC	95	A	C4'-C3'-C2'	5.40	108.00	102.60
49	BP	167	ALA	CB-CA-C	-5.40	100.31	110.67
63	Bd	12	GLN	N-CA-C	5.40	117.16	111.28
85	AA	790	A	C2'-C3'-O3'	-5.40	101.41	109.50
85	AA	1107	A	O4'-C4'-C3'	5.40	109.40	104.00
34	BA	104	A	P-O5'-C5'	-5.39	112.81	120.90
34	BA	221	G	O3'-P-O5'	-5.39	95.91	104.00
34	BA	313	C	O4'-C1'-C2'	5.39	112.99	107.60
34	BA	578	C	C2'-C3'-O3'	5.39	121.79	113.70
34	BA	722	A	P-O3'-C3'	5.39	128.29	120.20
34	BA	774	A	C5'-C4'-O4'	-5.39	101.71	109.80
34	BA	1339	G	O4'-C1'-N9	5.39	116.29	108.20
34	BA	1612	C	C2'-C3'-O3'	5.39	121.79	113.70
35	BB	261	C	O4'-C1'-N1	5.39	116.59	108.50
35	BB	660	G	O4'-C1'-C2'	5.39	111.19	105.80
35	BB	688	U	C4'-C3'-C2'	5.39	107.99	102.60
37	BD	75	G	N9-C1'-C2'	-5.39	105.91	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BD	93	G	C4'-C3'-C2'	-5.39	97.20	102.60
39	BF	13	U	N1-C1'-C2'	-5.39	103.91	112.00
57	BX	62	ARG	CD-NE-CZ	-5.39	116.85	124.40
65	Bf	449	GLU	N-CA-C	5.39	117.16	111.28
77	Br	137	MET	CA-C-O	5.39	126.27	120.55
77	Br	275	PHE	CB-CA-C	5.39	116.44	109.80
85	AA	5	U	P-O5'-C5'	5.39	128.99	120.90
85	AA	203	C	O4'-C1'-N1	5.39	116.59	108.50
85	AA	325	C	C4'-C3'-O3'	5.39	121.09	113.00
85	AA	638	G	C5'-C4'-C3'	-5.39	107.11	115.20
85	AA	1868	G	O3'-P-O5'	5.39	112.09	104.00
6	A5	170	LYS	N-CA-C	-5.39	99.31	108.26
30	AW	18	MET	CA-C-N	-5.39	113.21	120.87
30	AW	18	MET	C-N-CA	-5.39	113.21	120.87
34	BA	292	C	C5'-C4'-C3'	-5.39	107.91	116.00
34	BA	446	U	P-O3'-C3'	-5.39	112.11	120.20
34	BA	506	U	P-O3'-C3'	-5.39	112.11	120.20
34	BA	663	U	P-O5'-C5'	5.39	128.99	120.90
34	BA	808	U	P-O3'-C3'	-5.39	112.11	120.20
35	BB	390	G	P-O3'-C3'	-5.39	112.11	120.20
37	BD	48	G	O4'-C1'-C2'	5.39	111.19	105.80
37	BD	54	A	P-O3'-C3'	-5.39	112.11	120.20
56	BW	111	MET	CG-SD-CE	-5.39	89.03	100.90
2	A1	45	ILE	CB-CA-C	-5.39	103.80	112.16
34	BA	462	C	C5'-C4'-C3'	-5.39	107.91	116.00
41	BH	47	G	P-O5'-C5'	-5.39	112.81	120.90
84	By	44	PHE	CA-C-N	5.39	131.84	121.54
84	By	44	PHE	C-N-CA	5.39	131.84	121.54
2	A1	144	ILE	N-CA-C	5.39	115.75	107.77
17	AI	17	ARG	CB-CG-CD	5.39	123.70	111.30
22	AO	150	THR	CA-C-N	5.39	127.84	120.46
22	AO	150	THR	C-N-CA	5.39	127.84	120.46
34	BA	519	G	O4'-C1'-N9	5.39	116.58	108.50
41	BH	30	C	C4'-C3'-C2'	-5.39	97.21	102.60
53	BT	46	LYS	CB-CA-C	5.39	119.12	111.74
55	BV	34	ALA	CA-C-N	5.39	128.50	120.31
55	BV	34	ALA	C-N-CA	5.39	128.50	120.31
75	Bp	21	ARG	CD-NE-CZ	-5.39	116.86	124.40
85	AA	542	G	C3'-C2'-C1'	-5.39	95.91	101.30
85	AA	738	C	O4'-C1'-N1	5.39	116.29	108.20
85	AA	902	A	C4'-C3'-O3'	-5.39	104.92	113.00
85	AA	1095	C	O4'-C1'-N1	5.39	116.58	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1456	A	O4'-C1'-N9	5.39	116.58	108.50
85	AA	1621	U	P-O5'-C5'	5.39	128.99	120.90
85	AA	1986	G	C5'-C4'-C3'	-5.39	107.12	115.20
35	BB	51	U	C1'-O4'-C4'	-5.39	104.51	109.90
35	BB	405	U	C2'-C3'-O3'	-5.39	105.62	113.70
35	BB	1040	C	C5'-C4'-C3'	5.39	124.08	116.00
35	BB	1178	A	C4'-C3'-O3'	-5.39	104.92	113.00
38	BE	104	G	O4'-C4'-C3'	-5.39	98.61	104.00
38	BE	105	A	P-O5'-C5'	-5.39	112.82	120.90
38	BE	142	A	O4'-C4'-C3'	-5.39	100.71	106.10
85	AA	1278	C	N1-C1'-C2'	-5.39	103.92	112.00
34	BA	149	G	C5'-C4'-C3'	-5.39	107.92	116.00
34	BA	630	U	C4'-C3'-C2'	-5.39	97.21	102.60
34	BA	763	U	C1'-O4'-C4'	5.39	115.29	109.90
34	BA	961	C	C3'-C2'-C1'	-5.39	95.91	101.30
34	BA	974	G	N9-C1'-C2'	-5.39	103.92	112.00
34	BA	1695	G	C4'-C3'-O3'	-5.39	104.92	113.00
35	BB	1170	U	C3'-C2'-C1'	-5.39	95.91	101.30
50	BQ	51	HIS	CE1-NE2-CD2	-5.39	103.61	109.00
59	BZ	7	ARG	N-CA-C	-5.39	95.92	111.00
68	Bi	68	THR	O-C-N	5.39	127.51	121.32
82	Bw	103	ARG	CB-CA-C	-5.39	101.50	109.90
85	AA	511	A	C5'-C4'-C3'	-5.39	107.92	116.00
85	AA	864	C	C5'-C4'-C3'	-5.39	107.92	116.00
15	AG	10	GLY	N-CA-C	-5.38	100.42	113.18
34	BA	429	G	C2'-C3'-O3'	5.38	121.78	113.70
34	BA	602	G	O3'-P-O5'	5.38	112.08	104.00
34	BA	679	U	C4'-C3'-C2'	5.38	107.98	102.60
35	BB	889	U	C5'-C4'-C3'	-5.38	107.92	116.00
35	BB	1172	U	C4'-C3'-C2'	5.38	107.98	102.60
35	BB	1209	A	P-O5'-C5'	5.38	128.98	120.90
35	BB	1360	A	O5'-C5'-C4'	-5.38	103.42	111.50
37	BD	84	U	N1-C1'-C2'	5.38	120.08	112.00
38	BE	169	C	C2'-C3'-O3'	5.38	121.78	113.70
42	BI	21	SER	N-CA-C	5.38	122.27	110.80
42	BI	137	ALA	O-C-N	-5.38	115.13	121.32
52	BS	168	PHE	N-CA-C	5.38	122.27	110.80
65	Bf	131	GLU	N-CA-C	5.38	118.04	110.23
85	AA	283	A	C4'-C3'-C2'	-5.38	97.22	102.60
85	AA	881	C	O4'-C1'-N1	5.38	116.58	108.50
10	A9	148	LEU	N-CA-C	-5.38	101.39	109.95
34	BA	1618	A	P-O3'-C3'	5.38	128.27	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1718	C	C5'-C4'-C3'	5.38	124.08	116.00
34	BA	1806	A	C4'-C3'-C2'	-5.38	97.22	102.60
35	BB	967	G	C3'-C2'-C1'	-5.38	95.92	101.30
53	BT	51	MET	N-CA-CB	-5.38	101.87	111.08
1	A0	107	MET	CG-SD-CE	-5.38	89.06	100.90
34	BA	1184	A	C4'-C3'-O3'	-5.38	104.93	113.00
34	BA	1568	A	O4'-C1'-C2'	5.38	111.18	105.80
34	BA	1572	G	O3'-P-O5'	-5.38	95.93	104.00
35	BB	314	A	P-O5'-C5'	-5.38	112.83	120.90
35	BB	780	U	C3'-C2'-C1'	5.38	106.88	101.50
37	BD	98	G	P-O5'-C5'	-5.38	112.83	120.90
40	BG	86	U	O4'-C4'-C3'	-5.38	98.62	104.00
41	BH	36	C	O5'-C5'-C4'	-5.38	103.43	111.50
63	Bd	41	LEU	CA-C-O	5.38	126.25	120.55
85	AA	25	C	C2'-C3'-O3'	5.38	121.77	113.70
85	AA	243	A	P-O5'-C5'	-5.38	112.83	120.90
85	AA	785	C	O4'-C1'-C2'	5.38	111.18	105.80
85	AA	914	U	O4'-C1'-N1	5.38	116.57	108.50
85	AA	2050	C	O4'-C1'-N1	5.38	116.27	108.20
85	AA	2066	C	C5'-C4'-C3'	5.38	124.07	116.00
8	A7	264	ASP	N-CA-C	-5.38	99.75	108.41
16	AH	97	GLY	N-CA-C	-5.38	105.90	112.68
20	AL	29	TYR	CB-CG-CD1	5.38	128.87	120.80
22	AO	53	ILE	CA-C-N	5.38	131.65	121.97
22	AO	53	ILE	C-N-CA	5.38	131.65	121.97
23	AP	96	VAL	N-CA-C	5.38	115.64	108.11
35	BB	1281	G	P-O3'-C3'	-5.38	112.13	120.20
40	BG	27	C	C1'-O4'-C4'	-5.38	104.52	109.90
85	AA	87	C	C2'-C3'-O3'	5.38	121.77	113.70
85	AA	548	G	C3'-C2'-C1'	-5.38	95.92	101.30
29	AV	25	CYS	N-CA-CB	5.38	119.20	110.17
34	BA	288	U	P-O3'-C3'	-5.38	112.13	120.20
34	BA	630	U	P-O5'-C5'	5.38	128.97	120.90
34	BA	1050	A	C5'-C4'-C3'	5.38	124.07	116.00
34	BA	1627	U	C4'-C3'-C2'	5.38	107.98	102.60
34	BA	1814	U	O5'-C5'-C4'	-5.38	103.43	111.50
35	BB	44	C	C4'-C3'-O3'	-5.38	104.93	113.00
35	BB	830	G	C1'-C2'-O2'	5.38	116.47	108.40
35	BB	853	U	P-O5'-C5'	-5.38	112.83	120.90
45	BL	97	GLU	CB-CG-CD	5.38	121.74	112.60
75	Bp	63	SER	N-CA-CB	-5.38	101.40	110.49
85	AA	518	A	O4'-C4'-C3'	-5.38	100.72	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	864	C	C3'-C2'-C1'	-5.38	95.92	101.30
85	AA	1157	U	C4'-C3'-O3'	-5.38	104.93	113.00
85	AA	1731	G	P-O3'-C3'	-5.38	112.13	120.20
86	AB	13	C	C1'-O4'-C4'	-5.38	104.52	109.90
4	A3	199	ILE	CB-CA-C	5.38	119.64	112.22
13	AE	57	GLY	CA-C-N	5.38	131.81	121.54
13	AE	57	GLY	C-N-CA	5.38	131.81	121.54
22	AO	142	LYS	CA-C-N	5.38	127.48	120.28
22	AO	142	LYS	C-N-CA	5.38	127.48	120.28
26	AS	54	LYS	CA-C-N	5.38	130.75	122.68
26	AS	54	LYS	C-N-CA	5.38	130.75	122.68
34	BA	1252	G	C4'-C3'-O3'	-5.38	104.94	113.00
34	BA	1294	C	C5'-C4'-C3'	-5.38	107.94	116.00
34	BA	1591	G	C2'-C3'-O3'	5.38	121.77	113.70
38	BE	196	C	C5'-C4'-C3'	5.38	124.07	116.00
41	BH	113	G	P-O5'-C5'	-5.38	112.84	120.90
46	BM	132	VAL	CA-C-N	5.38	128.26	120.79
46	BM	132	VAL	C-N-CA	5.38	128.26	120.79
49	BP	39	GLU	N-CA-CB	-5.38	102.34	111.69
53	BT	25	ASP	N-CA-C	5.38	121.69	109.81
54	BU	67	VAL	CB-CA-C	-5.38	103.16	110.42
65	Bf	348	GLU	C-N-CD	-5.38	102.96	125.00
85	AA	4	C	O3'-P-O5'	-5.38	95.93	104.00
85	AA	908	C	C2'-C3'-O3'	5.38	117.56	109.50
85	AA	1864	G	C1'-O4'-C4'	-5.38	104.52	109.90
85	AA	2093	U	C4'-C3'-C2'	-5.38	97.22	102.60
85	AA	2199	G	O4'-C4'-C3'	-5.38	98.62	104.00
16	AH	31	ASN	CA-CB-CG	-5.38	107.22	112.60
23	AP	243	THR	N-CA-CB	5.38	118.63	109.87
34	BA	800	G	O4'-C4'-C3'	5.38	109.38	104.00
35	BB	382	U	C4'-C3'-C2'	-5.38	97.22	102.60
40	BG	1	G	O3'-P-O5'	5.38	112.06	104.00
41	BH	22	A	C2'-C3'-O3'	5.38	121.76	113.70
44	BK	88	ARG	CD-NE-CZ	-5.38	116.88	124.40
62	Bc	59	ARG	N-CA-CB	5.38	119.57	110.49
65	Bf	231	LYS	CA-CB-CG	-5.38	103.35	114.10
75	Bp	19	ASP	CA-C-N	5.38	131.81	121.54
75	Bp	19	ASP	C-N-CA	5.38	131.81	121.54
20	AL	90	HIS	CB-CG-CD2	-5.37	124.21	131.20
29	AV	24	HIS	N-CA-CB	5.37	118.17	110.06
34	BA	135	G	O4'-C4'-C3'	-5.37	98.63	104.00
34	BA	260	A	C5'-C4'-C3'	-5.37	107.14	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1524	G	O3'-P-O5'	5.37	112.06	104.00
34	BA	1734	U	C4'-C3'-O3'	-5.37	104.94	113.00
35	BB	25	A	P-O5'-C5'	-5.37	112.84	120.90
35	BB	62	C	O5'-C5'-C4'	5.37	119.56	111.50
44	BK	13	LYS	CA-C-N	5.37	131.80	121.54
44	BK	13	LYS	C-N-CA	5.37	131.80	121.54
71	Bl	84	TYR	N-CA-C	-5.37	101.13	109.14
85	AA	37	U	P-O5'-C5'	-5.37	112.84	120.90
85	AA	650	G	O5'-C5'-C4'	-5.37	103.44	111.50
85	AA	713	G	P-O3'-C3'	-5.37	112.14	120.20
85	AA	1283	C	O5'-C5'-C4'	-5.37	103.44	111.50
85	AA	1456	A	O4'-C4'-C3'	-5.37	98.63	104.00
34	BA	13	U	C5'-C4'-O4'	5.37	117.16	109.10
34	BA	610	A	C4'-C3'-O3'	-5.37	104.94	113.00
34	BA	983	A	N9-C1'-C2'	-5.37	105.94	114.00
34	BA	1099	U	P-O3'-C3'	-5.37	112.14	120.20
34	BA	1248	A	C1'-O4'-C4'	-5.37	104.53	109.90
35	BB	76	C	O4'-C1'-N1	5.37	116.56	108.50
35	BB	1053	G	N9-C1'-C2'	-5.37	105.94	114.00
35	BB	1109	A	P-O3'-C3'	-5.37	112.14	120.20
35	BB	1115	G	C1'-O4'-C4'	-5.37	104.53	109.90
35	BB	1295	A	C5'-C4'-C3'	-5.37	107.14	115.20
35	BB	1505	U	O4'-C1'-N1	5.37	116.26	108.20
40	BG	137	G	O3'-P-O5'	-5.37	95.94	104.00
40	BG	140	G	O4'-C1'-C2'	5.37	112.97	107.60
47	BN	135	ARG	CA-C-N	5.37	128.86	120.75
47	BN	135	ARG	C-N-CA	5.37	128.86	120.75
48	BO	33	VAL	N-CA-C	5.37	116.18	108.93
65	Bf	303	ARG	CG-CD-NE	-5.37	100.18	112.00
85	AA	100	A	C1'-O4'-C4'	-5.37	104.53	109.90
85	AA	715	G	O4'-C1'-N9	5.37	116.56	108.50
85	AA	797	C	P-O5'-C5'	5.37	128.96	120.90
85	AA	863	C	C1'-O4'-C4'	-5.37	104.53	109.90
85	AA	986	U	P-O5'-C5'	5.37	128.96	120.90
85	AA	1063	U	C5'-C4'-C3'	-5.37	107.94	116.00
85	AA	1799	C	C4'-C3'-C2'	-5.37	97.23	102.60
34	BA	1242	A	C4'-C3'-O3'	-5.37	104.95	113.00
35	BB	45	A	P-O5'-C5'	-5.37	112.84	120.90
35	BB	870	C	O5'-C5'-C4'	5.37	119.56	111.50
35	BB	1183	U	C2'-C3'-O3'	-5.37	105.64	113.70
40	BG	55	A	O3'-P-O5'	-5.37	95.94	104.00
47	BN	52	PHE	CB-CA-C	5.37	120.75	110.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2046	G	C4'-C3'-O3'	-5.37	104.94	113.00
85	AA	2222	G	C5'-C4'-C3'	-5.37	107.94	116.00
1	A0	145	THR	N-CA-C	5.37	122.23	110.80
6	A5	96	LEU	N-CA-CB	-5.37	101.66	110.52
34	BA	780	U	O4'-C1'-C2'	-5.37	102.23	107.60
34	BA	1265	G	C5'-C4'-C3'	5.37	123.25	115.20
34	BA	1452	U	C5'-C4'-C3'	-5.37	107.95	116.00
34	BA	1484	A	O3'-P-O5'	5.37	112.05	104.00
34	BA	1593	U	P-O5'-C5'	5.37	128.95	120.90
35	BB	1200	A	N9-C1'-C2'	-5.37	105.95	114.00
85	AA	411	U	C4'-C3'-O3'	5.37	117.45	109.40
34	BA	494	A	O5'-C5'-C4'	-5.37	103.45	111.50
34	BA	1078	U	C2'-C3'-O3'	5.37	121.75	113.70
34	BA	1681	U	O5'-C5'-C4'	-5.37	103.65	111.70
47	BN	102	VAL	CA-C-N	5.37	131.79	121.54
47	BN	102	VAL	C-N-CA	5.37	131.79	121.54
57	BX	71	ASN	O-C-N	5.37	129.44	122.89
65	Bf	105	THR	N-CA-CB	5.37	119.34	110.97
85	AA	1720	C	C1'-C2'-O2'	5.37	116.45	108.40
85	AA	1978	G	P-O3'-C3'	5.37	128.25	120.20
2	A1	40	SER	N-CA-C	5.37	117.46	110.43
4	A3	152	ARG	CG-CD-NE	-5.37	100.20	112.00
7	A6	65	HIS	CB-CA-C	5.37	117.97	109.55
19	AK	31	PRO	CA-N-CD	-5.37	104.49	112.00
34	BA	424	U	C5'-C4'-O4'	5.37	117.85	109.80
34	BA	1282	G	C4'-C3'-O3'	-5.37	104.95	113.00
35	BB	440	U	O5'-C5'-C4'	-5.37	103.45	111.50
35	BB	606	C	C4'-C3'-C2'	5.37	107.97	102.60
35	BB	652	G	O3'-P-O5'	5.37	112.05	104.00
35	BB	960	C	P-O5'-C5'	-5.37	112.85	120.90
35	BB	1087	A	C1'-O4'-C4'	-5.37	104.53	109.90
37	BD	14	C	C5'-C4'-C3'	5.37	124.05	116.00
47	BN	121	LEU	CB-CA-C	5.37	119.30	110.88
52	BS	163	LYS	CA-C-O	5.37	125.04	119.14
70	Bk	92	THR	CA-CB-OG1	5.37	117.65	109.60
85	AA	391	G	C4'-C3'-O3'	-5.37	104.95	113.00
85	AA	506	G	C5'-C4'-C3'	-5.37	107.95	116.00
85	AA	508	C	O5'-C5'-C4'	-5.37	103.45	111.50
85	AA	597	A	C1'-O4'-C4'	-5.37	104.53	109.90
85	AA	748	C	C3'-C2'-C1'	-5.37	95.93	101.30
85	AA	1812	C	C4'-C3'-O3'	-5.37	104.95	113.00
18	AJ	57	ARG	N-CA-C	-5.36	101.28	109.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	AK	140	ALA	N-CA-C	5.36	119.58	112.72
34	BA	403	A	O4'-C1'-C2'	-5.36	100.44	105.80
34	BA	996	U	C4'-C3'-O3'	-5.36	104.95	113.00
34	BA	1271	C	P-O3'-C3'	-5.36	112.16	120.20
34	BA	1665	G	O3'-P-O5'	-5.36	95.95	104.00
35	BB	806	U	C5'-C4'-C3'	5.36	124.05	116.00
35	BB	1365	G	C4'-C3'-C2'	-5.36	97.24	102.60
40	BG	9	G	O4'-C1'-C2'	5.36	112.96	107.60
41	BH	47	G	N9-C1'-C2'	-5.36	103.95	112.00
41	BH	129	G	C5'-C4'-O4'	5.36	117.14	109.10
43	BJ	10	SER	CA-C-N	5.36	131.35	121.70
43	BJ	10	SER	C-N-CA	5.36	131.35	121.70
47	BN	151	ALA	CA-C-O	5.36	126.23	120.55
85	AA	837	C	O4'-C4'-C3'	-5.36	100.74	106.10
85	AA	1221	G	N9-C1'-C2'	-5.36	103.95	112.00
85	AA	1715	C	C1'-O4'-C4'	-5.36	104.54	109.90
85	AA	2147	A	P-O3'-C3'	-5.36	112.15	120.20
27	AT	91	ARG	CB-CG-CD	5.36	123.63	111.30
34	BA	615	A	C3'-C2'-C1'	-5.36	95.94	101.30
40	BG	77	U	C4'-C3'-C2'	-5.36	97.24	102.60
51	BR	16	LYS	CA-C-N	5.36	130.98	122.62
51	BR	16	LYS	C-N-CA	5.36	130.98	122.62
34	BA	175	G	C5'-C4'-C3'	5.36	124.04	116.00
34	BA	598	G	O5'-C5'-C4'	-5.36	103.46	111.50
34	BA	669	U	O4'-C1'-N1	5.36	116.54	108.50
34	BA	762	A	O5'-C5'-C4'	-5.36	103.46	111.50
34	BA	1309	U	C4'-C3'-C2'	-5.36	97.24	102.60
35	BB	63	A	C1'-O4'-C4'	-5.36	104.34	109.70
35	BB	1371	G	C1'-O4'-C4'	-5.36	104.54	109.90
36	BC	125	A	N9-C1'-C2'	-5.36	103.96	112.00
44	BK	16	PRO	N-CA-C	5.36	123.51	112.47
52	BS	105	VAL	CA-C-O	5.36	126.53	120.85
73	Bn	48	ASN	CB-CA-C	-5.36	102.02	110.86
77	Br	227	LEU	CA-C-N	5.36	131.78	121.54
77	Br	227	LEU	C-N-CA	5.36	131.78	121.54
82	Bw	109	LYS	N-CA-C	5.36	119.23	111.56
82	Bw	123	LEU	N-CA-CB	-5.36	102.69	110.84
85	AA	180	A	C5'-C4'-C3'	-5.36	107.96	116.00
85	AA	1540	A	C4'-C3'-C2'	-5.36	97.24	102.60
85	AA	2179	C	N1-C1'-C2'	-5.36	103.96	112.00
34	BA	61	G	C4'-C3'-O3'	-5.36	104.96	113.00
34	BA	944	G	O3'-P-O5'	5.36	112.04	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1549	U	O3'-P-O5'	-5.36	95.96	104.00
39	BF	27	G	P-O3'-C3'	5.36	128.24	120.20
40	BG	92	U	O4'-C1'-C2'	5.36	112.96	107.60
56	BW	132	SER	N-CA-C	-5.36	105.44	111.28
58	BY	56	THR	N-CA-CB	5.36	118.60	110.45
59	BZ	38	ALA	N-CA-C	-5.36	105.55	111.71
67	Bh	60	ALA	CB-CA-C	-5.36	99.11	110.31
77	Br	78	ILE	CA-C-O	5.36	127.25	121.36
85	AA	145	C	P-O3'-C3'	-5.36	112.16	120.20
85	AA	1675	U	P-O3'-C3'	-5.36	112.16	120.20
85	AA	2213	A	P-O5'-C5'	-5.36	112.86	120.90
8	A7	224	ASP	N-CA-C	-5.36	97.79	107.75
34	BA	1321	A	C4'-C3'-C2'	-5.36	97.24	102.60
35	BB	795	A	C1'-O4'-C4'	-5.36	104.54	109.90
35	BB	867	C	O4'-C1'-N1	5.36	116.54	108.50
47	BN	202	ALA	N-CA-C	5.36	122.21	110.80
54	BU	109	LEU	N-CA-CB	-5.36	102.30	110.07
66	Bg	111	ILE	N-CA-C	-5.36	105.18	113.16
67	Bh	49	LYS	N-CA-C	-5.36	104.86	111.40
79	Bt	43	TYR	N-CA-C	-5.36	105.44	111.28
85	AA	1440	C	C3'-C2'-C1'	-5.36	95.94	101.30
85	AA	1975	G	P-O5'-C5'	5.36	128.94	120.90
26	AS	130	LEU	CA-C-O	5.36	126.63	120.90
34	BA	778	U	C4'-C3'-O3'	-5.36	104.97	113.00
34	BA	951	C	P-O3'-C3'	-5.36	112.17	120.20
35	BB	590	G	N9-C1'-C2'	-5.36	105.97	114.00
35	BB	708	C	C5'-C4'-C3'	-5.36	107.97	116.00
35	BB	1016	C	C3'-C2'-C1'	-5.36	95.94	101.30
38	BE	117	A	C4'-C3'-C2'	-5.36	97.25	102.60
40	BG	2	U	C1'-O4'-C4'	-5.36	104.54	109.90
40	BG	86	U	C1'-O4'-C4'	-5.36	104.55	109.90
41	BH	18	C	P-O5'-C5'	-5.36	112.87	120.90
42	BI	111	ARG	CA-CB-CG	5.36	124.81	114.10
77	Br	74	ARG	N-CA-CB	-5.36	102.25	110.44
34	BA	649	A	P-O3'-C3'	-5.35	112.17	120.20
64	Be	113	VAL	CB-CA-C	-5.35	103.86	111.19
79	Bt	61	LYS	CA-C-N	5.35	131.77	121.54
79	Bt	61	LYS	C-N-CA	5.35	131.77	121.54
80	Bu	145	ARG	CD-NE-CZ	-5.35	116.90	124.40
34	BA	58	A	O5'-C5'-C4'	-5.35	103.47	111.50
34	BA	717	U	C1'-O4'-C4'	-5.35	104.55	109.90
34	BA	1306	U	C5'-C4'-O4'	5.35	117.13	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1517	G	P-O3'-C3'	-5.35	112.17	120.20
35	BB	1544	A	C8-N9-C1'	5.35	143.76	127.70
67	Bh	23	ARG	N-CA-CB	-5.35	101.68	109.82
85	AA	986	U	C2'-C3'-O3'	5.35	121.73	113.70
85	AA	1485	G	C8-N9-C1'	5.35	143.06	127.00
85	AA	1695	G	P-O5'-C5'	-5.35	112.87	120.90
85	AA	1755	U	C4'-C3'-C2'	5.35	107.95	102.60
85	AA	1826	U	C1'-C2'-O2'	5.35	116.43	108.40
33	AZ	95	THR	N-CA-C	5.35	117.11	111.28
34	BA	383	G	C8-N9-C1'	5.35	143.05	127.00
34	BA	616	G	C4'-C3'-C2'	-5.35	97.25	102.60
34	BA	680	C	C2'-C3'-O3'	5.35	121.73	113.70
34	BA	1542	A	C4'-C3'-C2'	5.35	107.95	102.60
34	BA	1660	A	P-O3'-C3'	-5.35	112.17	120.20
35	BB	347	G	P-O5'-C5'	5.35	128.93	120.90
68	Bi	108	ALA	N-CA-C	5.35	117.11	111.28
71	Bl	137	GLY	N-CA-C	-5.35	108.62	115.42
85	AA	1466	U	C2'-C3'-O3'	5.35	121.73	113.70
4	A3	184	THR	N-CA-C	-5.35	101.16	108.38
34	BA	115	U	P-O5'-C5'	5.35	128.93	120.90
34	BA	521	C	O4'-C1'-N1	5.35	116.53	108.50
34	BA	665	C	C6-N1-C1'	5.35	136.85	120.80
34	BA	938	C	O3'-P-O5'	5.35	112.02	104.00
35	BB	800	U	P-O3'-C3'	5.35	128.22	120.20
35	BB	1165	A	O4'-C1'-C2'	5.35	112.95	107.60
35	BB	1287	U	P-O5'-C5'	5.35	128.93	120.90
38	BE	59	U	P-O3'-C3'	-5.35	112.18	120.20
38	BE	208	G	O4'-C1'-N9	5.35	116.22	108.20
50	BQ	206	ARG	CB-CA-C	-5.35	101.91	110.79
51	BR	150	MET	CA-C-N	5.35	131.48	122.87
51	BR	150	MET	C-N-CA	5.35	131.48	122.87
57	BX	120	ALA	N-CA-C	5.35	116.79	111.07
85	AA	65	A	P-O3'-C3'	5.35	128.23	120.20
85	AA	97	A	N9-C1'-C2'	-5.35	103.98	112.00
85	AA	1254	A	C1'-O4'-C4'	-5.35	104.55	109.90
85	AA	1920	A	C2'-C3'-O3'	5.35	121.72	113.70
3	A2	97	VAL	CB-CA-C	-5.35	107.17	111.71
32	AY	14	VAL	N-CA-C	-5.35	105.17	111.00
34	BA	54	A	C3'-C2'-C1'	-5.35	95.95	101.30
34	BA	974	G	P-O3'-C3'	-5.35	112.18	120.20
34	BA	1184	A	O4'-C1'-N9	5.35	116.52	108.50
34	BA	1215	U	O3'-P-O5'	-5.35	95.98	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1483	U	O4'-C1'-C2'	5.35	112.95	107.60
35	BB	465	C	P-O5'-C5'	5.35	128.92	120.90
38	BE	85	G	C5'-C4'-O4'	-5.35	101.78	109.80
42	BI	168	HIS	CA-CB-CG	5.35	119.15	113.80
55	BV	88	LYS	CA-C-N	5.35	127.39	120.44
55	BV	88	LYS	C-N-CA	5.35	127.39	120.44
56	BW	103	VAL	CB-CA-C	-5.35	102.26	110.50
60	Ba	39	HIS	O-C-N	-5.35	117.32	123.42
83	Bx	240	ASP	N-CA-C	-5.35	105.53	111.36
84	By	45	ARG	CG-CD-NE	-5.35	100.23	112.00
5	A4	111	VAL	O-C-N	-5.35	115.89	122.57
25	AR	50	ILE	N-CA-C	-5.35	100.42	108.12
29	AV	70	LYS	CA-C-N	5.35	131.75	121.54
29	AV	70	LYS	C-N-CA	5.35	131.75	121.54
34	BA	421	G	C5'-C4'-C3'	-5.35	107.98	116.00
34	BA	485	C	P-O3'-C3'	5.35	128.22	120.20
34	BA	489	A	O4'-C1'-N9	5.35	116.52	108.50
34	BA	1419	A	O5'-C5'-C4'	-5.35	103.68	111.70
41	BH	20	A	P-O5'-C5'	-5.35	112.88	120.90
47	BN	17	TRP	N-CA-C	5.35	119.00	111.52
85	AA	486	G	C8-N9-C1'	5.35	143.04	127.00
34	BA	843	G	C1'-O4'-C4'	-5.34	104.56	109.90
34	BA	868	C	C3'-C2'-O2'	5.34	118.72	110.70
34	BA	1286	C	P-O3'-C3'	-5.34	112.18	120.20
34	BA	1622	U	P-O3'-C3'	-5.34	112.19	120.20
35	BB	692	G	C4'-C3'-O3'	-5.34	104.98	113.00
35	BB	710	A	P-O3'-C3'	-5.34	112.18	120.20
35	BB	775	U	O4'-C1'-C2'	5.34	112.94	107.60
35	BB	1009	U	O3'-P-O5'	-5.34	95.98	104.00
36	BC	85	U	O3'-P-O5'	-5.34	95.98	104.00
36	BC	117	A	C5'-C4'-C3'	-5.34	107.98	116.00
47	BN	199	PHE	O-C-N	-5.34	116.06	122.15
49	BP	180	SER	N-CA-C	5.34	116.79	111.07
57	BX	67	LYS	O-C-N	-5.34	115.17	121.32
85	AA	128	U	C3'-C2'-C1'	-5.34	95.96	101.30
85	AA	320	U	P-O3'-C3'	-5.34	112.18	120.20
85	AA	1026	U	P-O5'-C5'	-5.34	112.88	120.90
85	AA	1847	U	P-O3'-C3'	5.34	128.22	120.20
13	AE	49	ARG	N-CA-C	-5.34	101.37	108.74
34	BA	1609	U	O5'-C5'-C4'	-5.34	103.49	111.50
35	BB	370	A	O3'-P-O5'	-5.34	95.99	104.00
35	BB	798	A	P-O3'-C3'	5.34	128.21	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1429	A	P-O3'-C3'	-5.34	112.19	120.20
85	AA	1207	C	P-O5'-C5'	-5.34	112.89	120.90
85	AA	2221	A	C5'-C4'-C3'	5.34	124.01	116.00
2	A1	82	GLY	N-CA-C	-5.34	103.45	111.19
19	AK	36	ARG	N-CA-C	5.34	117.61	108.90
35	BB	408	U	O3'-P-O5'	-5.34	95.99	104.00
35	BB	499	A	P-O5'-C5'	-5.34	112.89	120.90
49	BP	161	LYS	N-CA-C	-5.34	106.70	114.12
62	Bc	12	VAL	CA-C-O	-5.34	113.13	119.54
64	Be	196	TRP	O-C-N	-5.34	116.85	121.71
80	Bu	116	ALA	N-CA-C	-5.34	105.62	111.82
85	AA	1314	C	P-O3'-C3'	5.34	128.21	120.20
85	AA	2164	G	C3'-C2'-C1'	-5.34	95.96	101.30
34	BA	102	G	C3'-C2'-C1'	-5.34	95.96	101.30
34	BA	196	A	O4'-C4'-C3'	-5.34	98.66	104.00
34	BA	1066	A	P-O3'-C3'	-5.34	112.19	120.20
34	BA	1550	G	O5'-C5'-C4'	-5.34	103.49	111.50
35	BB	738	G	C4'-C3'-O3'	-5.34	104.99	113.00
35	BB	1266	A	C3'-C2'-C1'	-5.34	96.16	101.50
35	BB	1304	U	O3'-P-O5'	5.34	112.01	104.00
43	BJ	39	ASP	CA-CB-CG	5.34	117.94	112.60
48	BO	145	HIS	N-CA-CB	5.34	118.56	110.28
50	BQ	68	VAL	N-CA-C	-5.34	106.66	112.80
57	BX	99	GLU	CA-C-N	-5.34	111.69	121.52
57	BX	99	GLU	C-N-CA	-5.34	111.69	121.52
80	Bu	214	LEU	N-CA-C	-5.34	106.61	113.02
85	AA	707	U	C4'-C3'-O3'	-5.34	104.99	113.00
85	AA	2092	A	P-O3'-C3'	-5.34	112.19	120.20
85	AA	2231	G	O4'-C4'-C3'	-5.34	98.66	104.00
27	AT	40	THR	CA-C-N	5.34	131.31	121.70
27	AT	40	THR	C-N-CA	5.34	131.31	121.70
34	BA	111	U	O5'-C5'-C4'	5.34	119.71	111.70
34	BA	721	A	C4'-C3'-C2'	-5.34	97.26	102.60
35	BB	26	C	C4'-C3'-O3'	-5.34	104.99	113.00
35	BB	738	G	C5'-C4'-C3'	-5.34	107.99	116.00
35	BB	1217	C	C5'-C4'-O4'	5.34	117.81	109.80
35	BB	1507	U	O4'-C4'-C3'	-5.34	98.66	104.00
47	BN	21	SER	CA-C-O	5.34	127.04	120.15
52	BS	158	VAL	N-CA-C	-5.34	98.24	109.34
66	Bg	112	THR	N-CA-C	-5.34	106.27	112.89
73	Bn	50	SER	O-C-N	-5.34	115.49	122.59
84	By	108	VAL	N-CA-C	5.34	115.54	107.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	71	G	C5'-C4'-C3'	-5.34	107.99	116.00
34	BA	583	G	C4'-C3'-O3'	-5.34	104.99	113.00
34	BA	620	C	O4'-C1'-N1	5.34	116.50	108.50
34	BA	756	A	P-O3'-C3'	-5.34	112.20	120.20
34	BA	1117	G	C4'-C3'-C2'	5.34	107.94	102.60
34	BA	1434	U	O4'-C4'-C3'	5.34	109.34	104.00
35	BB	14	C	O4'-C4'-C3'	-5.34	98.66	104.00
37	BD	19	C	C4'-C3'-O3'	-5.34	104.99	113.00
37	BD	37	G	C4'-C3'-O3'	-5.34	104.99	113.00
38	BE	179	A	P-O5'-C5'	5.34	128.91	120.90
40	BG	13	A	C1'-O4'-C4'	-5.34	104.36	109.70
42	BI	161	ALA	N-CA-C	5.34	122.17	110.80
49	BP	4	ALA	O-C-N	-5.34	115.49	122.59
69	Bj	61	ARG	CA-C-N	5.34	127.69	120.38
69	Bj	61	ARG	C-N-CA	5.34	127.69	120.38
80	Bu	203	ASP	CA-CB-CG	-5.34	107.26	112.60
85	AA	423	G	C4'-C3'-O3'	-5.34	105.00	113.00
85	AA	1223	A	P-O3'-C3'	-5.34	112.20	120.20
85	AA	1499	G	O5'-C5'-C4'	-5.34	103.50	111.50
85	AA	1985	C	P-O3'-C3'	-5.34	112.20	120.20
24	AQ	92	THR	CB-CA-C	-5.33	101.78	110.85
35	BB	356	C	P-O3'-C3'	-5.33	112.20	120.20
35	BB	1170	U	P-O3'-C3'	5.33	128.20	120.20
40	BG	31	G	C4'-C3'-C2'	5.33	107.94	102.60
41	BH	62	C	O4'-C1'-N1	5.33	116.50	108.50
75	Bp	72	ARG	N-CA-CB	5.33	119.50	110.49
85	AA	725	G	O5'-C5'-C4'	-5.33	103.50	111.50
1	A0	210	ARG	CG-CD-NE	-5.33	100.27	112.00
2	A1	18	SER	CA-C-N	5.33	131.73	121.54
2	A1	18	SER	C-N-CA	5.33	131.73	121.54
4	A3	152	ARG	CB-CG-CD	5.33	123.57	111.30
29	AV	88	VAL	N-CA-C	5.33	120.43	109.34
34	BA	777	C	C4'-C3'-C2'	-5.33	97.27	102.60
34	BA	941	G	N9-C1'-C2'	-5.33	104.00	112.00
34	BA	1365	U	P-O5'-C5'	5.33	128.90	120.90
34	BA	1619	U	C4'-C3'-C2'	5.33	107.93	102.60
35	BB	678	U	C4'-C3'-C2'	5.33	107.93	102.60
35	BB	1531	G	C4'-C3'-O3'	-5.33	105.00	113.00
36	BC	158	U	P-O3'-C3'	-5.33	112.20	120.20
68	Bi	84	TYR	N-CA-C	-5.33	106.03	112.54
77	Br	116	LEU	N-CA-C	5.33	117.09	111.28
85	AA	176	C	P-O5'-C5'	5.33	128.90	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	760	U	N1-C1'-C2'	-5.33	106.00	114.00
85	AA	823	C	C3'-C2'-C1'	-5.33	95.97	101.30
85	AA	1317	U	O3'-P-O5'	-5.33	96.00	104.00
85	AA	1348	C	O3'-P-O5'	-5.33	96.00	104.00
85	AA	1590	A	O5'-C5'-C4'	-5.33	103.50	111.50
85	AA	2241	C	O4'-C1'-N1	5.33	116.50	108.50
1	A0	122	THR	CA-CB-OG1	5.33	117.60	109.60
31	AX	9	MET	N-CA-C	-5.33	105.38	111.14
34	BA	13	U	C1'-O4'-C4'	-5.33	104.37	109.70
34	BA	1306	U	O4'-C1'-N1	5.33	116.20	108.20
34	BA	1396	A	C1'-C2'-O2'	5.33	119.80	111.80
34	BA	1433	U	C1'-O4'-C4'	-5.33	104.37	109.70
34	BA	1710	C	C1'-O4'-C4'	-5.33	104.57	109.90
39	BF	28	C	O5'-C5'-C4'	-5.33	103.70	111.70
40	BG	143	C	O3'-P-O5'	-5.33	96.00	104.00
84	By	103	VAL	CA-C-N	5.33	127.86	120.29
84	By	103	VAL	C-N-CA	5.33	127.86	120.29
86	AB	45	U	P-O5'-C5'	-5.33	112.90	120.90
34	BA	400	A	O5'-C5'-C4'	-5.33	103.51	111.50
38	BE	150	G	C4'-C3'-O3'	-5.33	105.01	113.00
5	A4	148	ARG	N-CA-CB	5.33	119.50	110.49
34	BA	245	U	C4'-C3'-O3'	-5.33	105.01	113.00
34	BA	301	U	C3'-C2'-O2'	5.33	118.69	110.70
34	BA	662	U	O5'-C5'-C4'	-5.33	103.51	111.50
34	BA	888	G	O4'-C1'-C2'	5.33	112.93	107.60
34	BA	1395	C	O5'-C5'-C4'	5.33	119.69	111.70
35	BB	427	U	C4'-C3'-C2'	-5.33	97.27	102.60
35	BB	715	G	O3'-P-O5'	-5.33	96.01	104.00
35	BB	1532	C	O3'-P-O5'	5.33	111.99	104.00
38	BE	138	U	C4'-C3'-C2'	-5.33	97.27	102.60
40	BG	74	G	O3'-P-O5'	5.33	111.99	104.00
80	Bu	174	ASP	CA-CB-CG	-5.33	107.27	112.60
85	AA	354	C	C1'-O4'-C4'	-5.33	104.57	109.90
85	AA	1199	C	C1'-O4'-C4'	-5.33	104.57	109.90
5	A4	139	ASP	O-C-N	-5.33	117.08	123.31
21	AM	61	SER	N-CA-C	5.33	117.33	109.50
34	BA	574	U	O4'-C1'-N1	5.33	116.49	108.50
35	BB	542	A	C5'-C4'-C3'	-5.33	108.01	116.00
35	BB	991	C	O4'-C4'-C3'	-5.33	98.67	104.00
35	BB	1526	C	C5'-C4'-C3'	-5.33	108.01	116.00
36	BC	76	C	P-O3'-C3'	-5.33	112.21	120.20
39	BF	18	U	O4'-C4'-C3'	5.33	109.33	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BI	22	THR	N-CA-CB	-5.33	103.21	110.56
52	BS	145	HIS	CA-C-N	5.33	126.50	119.84
52	BS	145	HIS	C-N-CA	5.33	126.50	119.84
65	Bf	86	ASP	N-CA-C	5.33	122.15	110.80
83	Bx	102	GLU	CA-C-O	5.33	126.20	120.55
84	By	115	GLY	N-CA-C	-5.33	108.00	114.92
85	AA	547	A	C5'-C4'-C3'	-5.33	108.01	116.00
85	AA	1138	U	P-O3'-C3'	-5.33	112.21	120.20
85	AA	1572	C	P-O3'-C3'	-5.33	112.21	120.20
85	AA	2066	C	O4'-C4'-C3'	-5.33	98.67	104.00
1	A0	185	ASP	N-CA-CB	-5.33	102.34	110.33
2	A1	189	ILE	N-CA-C	-5.33	100.53	108.46
11	AC	176	VAL	CA-C-O	5.33	127.44	120.78
12	AD	92	ASP	CA-C-N	5.33	128.33	120.82
12	AD	92	ASP	C-N-CA	5.33	128.33	120.82
23	AP	116	ASP	CA-C-N	5.33	131.85	121.41
23	AP	116	ASP	C-N-CA	5.33	131.85	121.41
34	BA	138	C	C5'-C4'-C3'	-5.33	108.01	116.00
34	BA	343	G	C4'-C3'-O3'	-5.33	105.01	113.00
34	BA	1477	C	O3'-P-O5'	5.33	111.99	104.00
34	BA	1630	A	N9-C1'-C2'	-5.33	104.01	112.00
35	BB	603	U	C5'-C4'-C3'	-5.33	108.01	116.00
35	BB	814	A	O5'-C5'-C4'	-5.33	103.51	111.50
35	BB	1237	C	C5'-C4'-C3'	5.33	123.99	116.00
35	BB	1301	U	C4'-C3'-C2'	-5.33	97.27	102.60
37	BD	66	G	C3'-C2'-O2'	5.33	118.69	110.70
37	BD	74	A	P-O3'-C3'	-5.33	112.21	120.20
37	BD	92	G	O4'-C1'-N9	5.33	116.49	108.50
37	BD	98	G	C3'-C2'-C1'	-5.33	95.97	101.30
38	BE	12	A	P-O3'-C3'	-5.33	112.21	120.20
40	BG	153	C	C2'-C3'-O3'	5.33	121.69	113.70
40	BG	156	G	C4'-C3'-C2'	5.33	107.92	102.60
65	Bf	407	LYS	O-C-N	-5.33	115.51	122.59
66	Bg	50	SER	N-CA-CB	5.33	117.91	109.71
85	AA	102	A	C5'-C4'-C3'	5.33	123.99	116.00
85	AA	1471	G	O5'-C5'-C4'	-5.33	103.51	111.50
1	A0	56	ILE	CA-C-N	5.32	127.41	120.28
1	A0	56	ILE	C-N-CA	5.32	127.41	120.28
5	A4	121	ARG	CB-CG-CD	5.32	123.55	111.30
9	A8	41	ARG	CD-NE-CZ	-5.32	116.95	124.40
34	BA	261	A	O4'-C1'-N9	5.32	116.19	108.20
34	BA	279	U	C2'-C3'-O3'	5.32	121.69	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	526	C	O3'-P-O5'	5.32	111.98	104.00
34	BA	988	U	C4'-C3'-O3'	-5.32	105.02	113.00
34	BA	1234	U	C3'-C2'-C1'	-5.32	95.98	101.30
35	BB	1124	G	N9-C1'-C2'	-5.32	106.02	114.00
35	BB	1211	C	C5'-C4'-C3'	-5.32	108.01	116.00
41	BH	1	U	C3'-C2'-C1'	-5.32	96.18	101.50
61	Bb	132	LYS	N-CA-CB	-5.32	102.19	110.98
69	Bj	39	ARG	N-CA-C	5.32	116.96	110.41
85	AA	31	C	C3'-C2'-C1'	-5.32	95.98	101.30
85	AA	76	G	C3'-C2'-C1'	-5.32	95.98	101.30
85	AA	287	G	O3'-P-O5'	5.32	111.98	104.00
85	AA	340	G	P-O3'-C3'	5.32	128.18	120.20
85	AA	759	G	P-O3'-C3'	5.32	128.19	120.20
85	AA	1103	A	C4'-C3'-C2'	5.32	107.92	102.60
85	AA	1347	C	C4'-C3'-C2'	-5.32	97.28	102.60
85	AA	1445	C	C2'-C3'-O3'	5.32	121.68	113.70
34	BA	1323	G	C5'-C4'-C3'	-5.32	108.02	116.00
34	BA	1515	U	C4'-C3'-C2'	-5.32	97.28	102.60
50	BQ	93	HIS	CA-CB-CG	-5.32	108.48	113.80
85	AA	162	A	C4'-C3'-O3'	5.32	117.38	109.40
34	BA	1177	C	O5'-C5'-C4'	-5.32	103.52	111.50
35	BB	1092	G	O4'-C4'-C3'	-5.32	98.68	104.00
43	BJ	146	LEU	N-CA-C	5.32	122.14	110.80
44	BK	156	LYS	CA-C-O	5.32	126.19	120.55
56	BW	68	LYS	CA-CB-CG	-5.32	103.46	114.10
67	Bh	105	ALA	O-C-N	-5.32	115.20	121.32
85	AA	358	U	C4'-C3'-C2'	5.32	107.92	102.60
85	AA	654	A	O5'-C5'-C4'	5.32	119.48	111.50
85	AA	1195	U	C4'-C3'-O3'	-5.32	105.02	113.00
1	A0	81	ASP	CA-CB-CG	-5.32	107.28	112.60
11	AC	75	HIS	CA-CB-CG	5.32	119.12	113.80
24	AQ	95	VAL	N-CA-C	-5.32	105.31	110.42
34	BA	481	A	C2'-C3'-O3'	5.32	121.68	113.70
34	BA	1332	U	O5'-C5'-C4'	-5.32	103.52	111.50
35	BB	14	C	C4'-C3'-O3'	-5.32	105.02	113.00
35	BB	455	G	C2'-C3'-O3'	5.32	117.48	109.50
35	BB	1212	C	C6-N1-C2	-5.32	104.24	120.20
36	BC	140	U	O5'-C5'-C4'	-5.32	103.52	111.50
54	BU	26	SER	N-CA-CB	5.32	117.97	110.36
63	Bd	61	GLU	CG-CD-OE2	-5.32	106.17	118.40
68	Bi	10	ILE	N-CA-C	5.32	120.40	109.34
85	AA	831	C	C3'-C2'-C1'	-5.32	95.98	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	AC	200	ASN	CA-CB-CG	-5.32	107.28	112.60
18	AJ	32	LYS	CA-C-O	5.32	126.11	120.10
23	AP	240	TRP	CB-CA-C	5.32	121.00	110.42
24	AQ	75	ASP	CB-CA-C	5.32	118.92	109.72
34	BA	258	C	C3'-C2'-C1'	-5.32	95.98	101.30
34	BA	609	G	P-O3'-C3'	-5.32	112.22	120.20
34	BA	1294	C	O3'-P-O5'	5.32	111.98	104.00
34	BA	1634	A	C3'-C2'-O2'	-5.32	106.62	114.60
34	BA	1694	C	C1'-O4'-C4'	-5.32	104.58	109.90
35	BB	704	G	O4'-C4'-C3'	5.32	109.32	104.00
41	BH	3	U	P-O3'-C3'	5.32	128.18	120.20
43	BJ	166	VAL	N-CA-C	-5.32	107.63	113.43
44	BK	70	ILE	N-CA-CB	-5.32	103.31	110.54
55	BV	51	PHE	CA-CB-CG	-5.32	108.48	113.80
85	AA	214	C	C5'-C4'-C3'	5.32	123.98	116.00
85	AA	1181	U	P-O3'-C3'	-5.32	112.22	120.20
85	AA	1465	C	O5'-C5'-C4'	-5.32	103.53	111.50
85	AA	2128	G	C2'-C3'-O3'	5.32	121.68	113.70
85	AA	2234	C	C1'-O4'-C4'	-5.32	104.58	109.90
15	AG	55	ARG	N-CA-C	-5.32	105.38	111.07
26	AS	15	ARG	N-CA-CB	-5.32	102.30	110.01
34	BA	66	C	O4'-C4'-C3'	-5.32	98.68	104.00
34	BA	301	U	N1-C1'-C2'	-5.32	104.03	112.00
34	BA	683	C	C1'-O4'-C4'	-5.32	104.58	109.90
34	BA	755	G	O3'-P-O5'	5.32	111.97	104.00
34	BA	904	G	O4'-C1'-C2'	5.32	112.92	107.60
36	BC	32	U	C1'-O4'-C4'	-5.32	104.58	109.90
41	BH	21	G	O5'-C5'-C4'	-5.32	103.53	111.50
45	BL	104	SER	N-CA-CB	5.32	118.53	110.45
52	BS	51	ASN	N-CA-CB	-5.32	102.88	110.80
83	Bx	177	LEU	CA-C-O	5.32	126.18	120.55
85	AA	336	C	C5'-C4'-C3'	-5.32	108.03	116.00
85	AA	802	A	P-O3'-C3'	5.32	128.17	120.20
85	AA	881	C	C1'-O4'-C4'	-5.32	104.58	109.90
85	AA	976	G	C1'-O4'-C4'	-5.32	104.58	109.90
85	AA	1514	A	C5'-C4'-C3'	-5.32	107.22	115.20
85	AA	1606	G	O3'-P-O5'	-5.32	96.03	104.00
6	A5	15	GLY	CA-C-N	5.31	131.83	121.41
6	A5	15	GLY	C-N-CA	5.31	131.83	121.41
24	AQ	71	THR	N-CA-CB	5.31	117.82	109.69
34	BA	1422	A	C2'-C3'-O3'	5.31	121.67	113.70
36	BC	111	C	C4'-C3'-O3'	5.31	117.37	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1526	G	P-O5'-C5'	-5.31	112.93	120.90
11	AC	128	GLN	CA-C-O	5.31	126.05	120.42
32	AY	13	LYS	CB-CA-C	-5.31	102.54	110.88
33	AZ	79	ASN	CA-CB-CG	-5.31	107.29	112.60
34	BA	862	C	C1'-O4'-C4'	-5.31	104.59	109.90
34	BA	1346	U	O3'-P-O5'	-5.31	96.03	104.00
35	BB	133	G	N9-C1'-C2'	-5.31	104.03	112.00
35	BB	784	C	C4'-C3'-C2'	5.31	107.91	102.60
35	BB	1121	A	O3'-P-O5'	-5.31	96.03	104.00
37	BD	52	U	O3'-P-O5'	-5.31	96.03	104.00
39	BF	9	C	O4'-C1'-N1	5.31	116.17	108.20
40	BG	89	A	P-O3'-C3'	-5.31	112.23	120.20
47	BN	45	LEU	N-CA-CB	-5.31	102.31	110.01
85	AA	399	A	C4'-C3'-C2'	-5.31	97.29	102.60
85	AA	1168	C	C2'-C3'-O3'	5.31	121.67	113.70
85	AA	2107	C	C4'-C3'-O3'	-5.31	105.03	113.00
7	A6	175	LYS	CA-C-N	5.31	131.68	121.54
7	A6	175	LYS	C-N-CA	5.31	131.68	121.54
9	A8	34	LYS	CA-C-N	5.31	131.69	121.54
9	A8	34	LYS	C-N-CA	5.31	131.69	121.54
20	AL	5	ARG	CD-NE-CZ	5.31	131.84	124.40
34	BA	799	A	O5'-C5'-C4'	5.31	119.67	111.70
34	BA	817	U	C1'-O4'-C4'	-5.31	104.59	109.90
34	BA	1819	U	P-O3'-C3'	5.31	128.17	120.20
35	BB	1138	A	C4'-C3'-O3'	-5.31	105.03	113.00
37	BD	84	U	C4'-C3'-C2'	-5.31	97.29	102.60
40	BG	20	U	O5'-C5'-C4'	-5.31	103.53	111.50
41	BH	8	C	C5'-C4'-C3'	-5.31	108.03	116.00
61	Bb	88	MET	CG-SD-CE	-5.31	89.22	100.90
63	Bd	58	ALA	O-C-N	-5.31	114.53	122.39
84	By	53	PHE	N-CA-C	-5.31	100.03	109.06
28	AU	98	VAL	N-CA-C	5.31	120.38	109.34
33	AZ	88	ASP	CA-CB-CG	-5.31	107.29	112.60
34	BA	381	A	P-O5'-C5'	-5.31	112.94	120.90
34	BA	850	C	O5'-C5'-C4'	-5.31	103.54	111.50
34	BA	1470	G	O4'-C1'-C2'	5.31	111.11	105.80
34	BA	1641	G	P-O3'-C3'	-5.31	112.24	120.20
35	BB	1150	A	C4'-C3'-O3'	-5.31	105.03	113.00
35	BB	1185	G	C1'-O4'-C4'	-5.31	104.59	109.90
36	BC	70	C	C1'-O4'-C4'	-5.31	104.39	109.70
40	BG	1	G	C1'-O4'-C4'	-5.31	104.59	109.90
44	BK	21	ARG	CA-C-N	5.31	127.39	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	BK	21	ARG	C-N-CA	5.31	127.39	120.28
44	BK	178	ARG	N-CA-C	5.31	117.75	111.33
46	BM	114	LYS	CA-C-N	5.31	127.39	120.28
46	BM	114	LYS	C-N-CA	5.31	127.39	120.28
47	BN	145	GLU	N-CA-CB	-5.31	102.26	110.65
85	AA	1633	A	C5'-C4'-C3'	-5.31	108.03	116.00
85	AA	1793	A	C4-N9-C1'	-5.31	110.37	126.30
85	AA	1976	G	C1'-O4'-C4'	-5.31	104.59	109.90
8	A7	211	CYS	CB-CA-C	-5.31	100.78	109.80
15	AG	70	LYS	N-CA-C	-5.31	100.44	108.46
23	AP	80	LEU	N-CA-CB	-5.31	102.32	110.12
34	BA	688	G	C1'-O4'-C4'	-5.31	104.59	109.90
34	BA	812	A	C5'-C4'-C3'	-5.31	108.04	116.00
34	BA	965	A	C3'-C2'-C1'	-5.31	95.99	101.30
34	BA	1043	C	C5'-C4'-C3'	-5.31	108.04	116.00
34	BA	1562	G	C2'-C3'-O3'	5.31	121.66	113.70
34	BA	1615	A	N9-C1'-C2'	-5.31	104.04	112.00
34	BA	1672	C	C4'-C3'-O3'	-5.31	105.04	113.00
34	BA	1805	C	C5'-C4'-C3'	5.31	123.16	115.20
35	BB	572	G	C3'-C2'-O2'	5.31	118.66	110.70
35	BB	831	C	C3'-C2'-C1'	-5.31	95.99	101.30
35	BB	976	U	C4'-C3'-O3'	5.31	120.96	113.00
35	BB	1381	U	C4'-C3'-C2'	-5.31	97.29	102.60
36	BC	65	G	C1'-O4'-C4'	-5.31	104.59	109.90
62	Bc	142	ARG	O-C-N	-5.31	115.51	120.55
73	Bn	32	GLU	CA-C-N	-5.31	112.60	121.94
73	Bn	32	GLU	C-N-CA	-5.31	112.60	121.94
85	AA	519	A	C4'-C3'-O3'	5.31	120.96	113.00
85	AA	629	A	P-O5'-C5'	5.31	128.86	120.90
85	AA	661	C	C5'-C4'-C3'	-5.31	108.04	116.00
85	AA	867	G	C1'-O4'-C4'	-5.31	104.59	109.90
31	AX	31	ASP	CA-CB-CG	-5.31	107.29	112.60
34	BA	899	G	C3'-C2'-C1'	-5.31	96.19	101.50
34	BA	1256	A	O4'-C1'-C2'	-5.31	100.49	105.80
35	BB	1096	G	C5'-C4'-C3'	5.31	123.96	116.00
57	BX	113	ASN	N-CA-C	-5.31	102.67	110.52
82	Bw	134	LEU	N-CA-C	5.31	117.17	108.52
85	AA	399	A	P-O5'-C5'	-5.31	112.94	120.90
85	AA	2002	A	C4'-C3'-O3'	5.31	120.96	113.00
23	AP	239	LEU	N-CA-C	-5.30	99.50	110.80
29	AV	59	SER	CB-CA-C	-5.30	102.66	111.41
34	BA	341	U	C4'-C3'-O3'	-5.30	105.04	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	467	A	N9-C1'-C2'	-5.30	106.04	114.00
34	BA	1144	A	P-O3'-C3'	-5.30	112.24	120.20
40	BG	151	A	C1'-O4'-C4'	-5.30	104.59	109.90
44	BK	201	THR	CB-CA-C	-5.30	101.39	108.87
48	BO	25	ILE	CB-CA-C	5.30	118.87	111.34
52	BS	160	ALA	N-CA-C	5.30	119.96	112.75
81	Bv	178	VAL	CA-C-N	5.30	131.67	121.54
81	Bv	178	VAL	C-N-CA	5.30	131.67	121.54
85	AA	374	C	C4'-C3'-C2'	-5.30	97.30	102.60
85	AA	476	C	C3'-C2'-C1'	-5.30	96.00	101.30
85	AA	1948	A	C3'-C2'-C1'	-5.30	96.00	101.30
85	AA	2115	G	C5'-C4'-C3'	-5.30	108.04	116.00
24	AQ	71	THR	N-CA-C	5.30	118.00	110.10
32	AY	56	ARG	CD-NE-CZ	-5.30	116.98	124.40
34	BA	445	C	C3'-C2'-C1'	-5.30	96.00	101.30
34	BA	465	A	O4'-C4'-C3'	-5.30	98.70	104.00
34	BA	637	G	O3'-P-O5'	-5.30	96.05	104.00
34	BA	869	C	C3'-C2'-O2'	5.30	118.65	110.70
38	BE	46	G	O5'-C5'-C4'	-5.30	103.55	111.50
39	BF	53	G	C5'-C4'-C3'	5.30	123.15	115.20
85	AA	111	A	C5'-C4'-C3'	-5.30	107.25	115.20
85	AA	273	C	C1'-O4'-C4'	-5.30	104.60	109.90
86	AB	17	C	P-O5'-C5'	5.30	128.85	120.90
11	AC	229	VAL	CA-C-N	5.30	126.47	119.84
11	AC	229	VAL	C-N-CA	5.30	126.47	119.84
25	AR	62	TYR	CA-C-N	5.30	127.91	120.28
25	AR	62	TYR	C-N-CA	5.30	127.91	120.28
34	BA	489	A	C1'-O4'-C4'	-5.30	104.60	109.90
34	BA	1294	C	O4'-C1'-N1	5.30	116.45	108.50
36	BC	65	G	C4'-C3'-O3'	-5.30	105.05	113.00
39	BF	60	C	C5'-C4'-O4'	5.30	117.05	109.10
40	BG	146	C	C2'-C3'-O3'	5.30	121.65	113.70
41	BH	31	A	O4'-C1'-C2'	5.30	112.90	107.60
50	BQ	205	ARG	CA-C-O	5.30	128.09	120.51
66	Bg	62	ILE	CB-CA-C	-5.30	104.98	112.14
67	Bh	46	ASP	N-CA-C	5.30	120.11	108.66
74	Bo	57	CYS	N-CA-C	-5.30	100.66	109.46
79	Bt	91	PHE	N-CA-CB	-5.30	101.32	110.76
85	AA	916	A	C5'-C4'-C3'	5.30	123.95	116.00
85	AA	1373	U	P-O5'-C5'	-5.30	112.95	120.90
34	BA	438	A	O3'-P-O5'	5.30	111.95	104.00
34	BA	683	C	O4'-C4'-C3'	5.30	109.30	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	899	G	O5'-C5'-C4'	-5.30	103.75	111.70
36	BC	76	C	O5'-C5'-C4'	-5.30	103.55	111.50
49	BP	114	ARG	CA-C-O	5.30	126.04	120.42
77	Br	74	ARG	CD-NE-CZ	-5.30	116.98	124.40
80	Bu	230	CYS	N-CA-C	5.30	122.30	114.09
84	By	44	PHE	CA-CB-CG	5.30	119.10	113.80
85	AA	674	U	O3'-P-O5'	-5.30	96.05	104.00
85	AA	909	C	C1'-O4'-C4'	-5.30	104.40	109.70
85	AA	1235	G	O3'-P-O5'	5.30	111.95	104.00
34	BA	661	C	O5'-C5'-C4'	5.30	119.45	111.50
34	BA	1458	A	O4'-C4'-C3'	-5.30	98.70	104.00
35	BB	419	G	O4'-C1'-C2'	5.30	112.90	107.60
85	AA	39	A	N9-C1'-C2'	-5.30	104.05	112.00
85	AA	284	C	C4'-C3'-C2'	-5.30	97.30	102.60
85	AA	773	G	C3'-C2'-C1'	-5.30	96.00	101.30
4	A3	234	SER	CB-CA-C	-5.30	102.57	110.88
11	AC	160	VAL	CA-CB-CG1	5.30	119.40	110.40
34	BA	1832	A	C1'-O4'-C4'	-5.30	104.60	109.90
46	BM	38	ASN	CA-CB-CG	-5.30	107.30	112.60
61	Bb	34	ASN	CA-CB-CG	5.30	117.90	112.60
80	Bu	3	PHE	CA-CB-CG	-5.30	108.50	113.80
85	AA	1904	C	C4'-C3'-O3'	-5.30	105.06	113.00
34	BA	136	A	C1'-O4'-C4'	-5.29	104.61	109.90
34	BA	1204	U	C2'-C3'-O3'	5.29	121.64	113.70
35	BB	660	G	P-O5'-C5'	-5.29	112.96	120.90
39	BF	43	U	C1'-O4'-C4'	-5.29	104.41	109.70
53	BT	58	HIS	N-CA-C	-5.29	98.28	107.49
85	AA	251	A	O3'-P-O5'	-5.29	96.06	104.00
8	A7	45	PRO	CA-C-N	5.29	128.93	122.42
8	A7	45	PRO	C-N-CA	5.29	128.93	122.42
15	AG	21	THR	CA-C-N	5.29	123.47	119.66
15	AG	21	THR	C-N-CA	5.29	123.47	119.66
34	BA	249	A	P-O3'-C3'	-5.29	112.26	120.20
34	BA	277	A	C4'-C3'-O3'	-5.29	105.06	113.00
34	BA	440	A	C4'-C3'-C2'	-5.29	97.31	102.60
34	BA	852	C	P-O3'-C3'	5.29	128.14	120.20
34	BA	1019	C	C5'-C4'-C3'	-5.29	107.26	115.20
34	BA	1146	U	C1'-O4'-C4'	-5.29	104.61	109.90
35	BB	818	U	C2-N1-C1'	-5.29	101.82	117.70
35	BB	970	C	C4'-C3'-C2'	-5.29	97.31	102.60
39	BF	46	G	P-O3'-C3'	-5.29	112.26	120.20
42	BI	190	PHE	N-CA-CB	5.29	117.75	109.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BN	111	GLU	CA-C-N	5.29	127.81	120.29
47	BN	111	GLU	C-N-CA	5.29	127.81	120.29
49	BP	165	GLU	CA-C-O	5.29	126.03	120.42
85	AA	509	C	O4'-C1'-C2'	5.29	111.09	105.80
85	AA	2203	C	O4'-C4'-C3'	-5.29	98.71	104.00
5	A4	146	ARG	CA-C-N	5.29	130.21	122.85
5	A4	146	ARG	C-N-CA	5.29	130.21	122.85
20	AL	88	VAL	N-CA-C	5.29	115.66	107.78
34	BA	800	G	O4'-C1'-N9	-5.29	100.56	108.50
34	BA	903	C	O4'-C1'-C2'	5.29	112.89	107.60
34	BA	926	A	C1'-C2'-O2'	5.29	116.34	108.40
35	BB	383	U	C2'-C3'-O3'	5.29	121.64	113.70
35	BB	1416	A	P-O3'-C3'	-5.29	112.26	120.20
35	BB	1490	G	C5'-C4'-C3'	-5.29	108.06	116.00
38	BE	108	U	O3'-P-O5'	-5.29	96.06	104.00
39	BF	64	U	P-O5'-C5'	5.29	128.84	120.90
40	BG	27	C	O5'-C5'-C4'	-5.29	103.56	111.50
57	BX	61	ARG	CB-CA-C	5.29	119.48	109.37
85	AA	438	G	C1'-O4'-C4'	-5.29	104.61	109.90
85	AA	1825	A	C2'-C3'-O3'	5.29	117.44	109.50
34	BA	433	G	P-O3'-C3'	5.29	128.13	120.20
40	BG	180	C	C1'-C2'-O2'	5.29	116.33	108.40
65	Bf	382	LEU	CB-CA-C	-5.29	100.59	109.48
79	Bt	80	ILE	CA-CB-CG1	-5.29	101.41	110.40
85	AA	274	A	P-O5'-C5'	-5.29	112.97	120.90
85	AA	1310	G	O4'-C1'-C2'	5.29	111.09	105.80
5	A4	122	THR	N-CA-CB	5.29	120.49	111.66
34	BA	135	G	C1'-O4'-C4'	-5.29	104.61	109.90
34	BA	255	G	C4'-C3'-O3'	-5.29	105.07	113.00
34	BA	756	A	C5'-C4'-O4'	-5.29	101.87	109.80
34	BA	1639	U	C4'-C3'-O3'	-5.29	105.07	113.00
35	BB	976	U	C1'-O4'-C4'	-5.29	104.61	109.90
39	BF	47	C	P-O3'-C3'	-5.29	112.27	120.20
40	BG	133	C	N1-C1'-C2'	-5.29	104.07	112.00
48	BO	212	ASN	CB-CA-C	5.29	119.87	111.51
57	BX	109	ASP	CA-CB-CG	-5.29	107.31	112.60
63	Bd	19	ASN	CB-CA-C	5.29	119.11	110.17
65	Bf	323	ALA	CA-C-N	-5.29	113.60	121.22
65	Bf	323	ALA	C-N-CA	-5.29	113.60	121.22
67	Bh	100	THR	CA-CB-OG1	5.29	117.53	109.60
85	AA	114	C	O4'-C1'-N1	5.29	116.43	108.50
85	AA	361	U	C5'-C4'-C3'	5.29	123.93	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	540	A	P-O3'-C3'	5.29	128.13	120.20
85	AA	816	A	O4'-C1'-N9	5.29	116.43	108.50
85	AA	2085	C	P-O3'-C3'	5.29	128.13	120.20
26	AS	32	THR	N-CA-C	5.29	118.99	112.54
34	BA	374	U	C1'-O4'-C4'	-5.29	104.61	109.90
34	BA	1119	A	P-O5'-C5'	-5.29	112.97	120.90
40	BG	115	C	C1'-O4'-C4'	-5.29	104.61	109.90
53	BT	151	LYS	CB-CA-C	-5.29	102.58	110.88
57	BX	150	ALA	CA-C-O	5.29	125.76	119.10
61	Bb	132	LYS	N-CA-C	-5.29	105.48	112.94
68	Bi	90	ASN	CB-CA-C	-5.29	102.34	109.16
79	Bt	87	ARG	CB-CA-C	-5.29	101.65	109.90
83	Bx	66	PRO	CB-CA-C	-5.29	104.05	110.98
85	AA	183	C	P-O3'-C3'	5.29	128.13	120.20
85	AA	1461	A	C4'-C3'-C2'	-5.29	97.31	102.60
34	BA	8	G	C8-N9-C1'	5.29	142.86	127.00
34	BA	9	A	C1'-O4'-C4'	-5.29	104.61	109.90
34	BA	289	A	C4-N9-C1'	-5.29	110.44	126.30
34	BA	799	A	O4'-C4'-C3'	-5.29	100.81	106.10
34	BA	813	C	C2-N1-C1'	-5.29	102.94	118.80
34	BA	1175	G	N9-C1'-C2'	-5.29	106.07	114.00
34	BA	1503	U	C4'-C3'-O3'	5.29	120.93	113.00
35	BB	1196	A	O4'-C1'-C2'	5.29	112.89	107.60
35	BB	1299	G	O5'-C5'-C4'	-5.29	103.57	111.50
59	BZ	36	LEU	CA-C-N	5.29	127.31	120.44
59	BZ	36	LEU	C-N-CA	5.29	127.31	120.44
80	Bu	276	LYS	CA-C-N	5.29	129.06	120.60
80	Bu	276	LYS	C-N-CA	5.29	129.06	120.60
82	Bw	210	PHE	CA-C-N	5.29	127.67	120.54
82	Bw	210	PHE	C-N-CA	5.29	127.67	120.54
85	AA	723	U	C5'-C4'-C3'	-5.29	108.07	116.00
85	AA	1798	U	O5'-C5'-C4'	-5.29	103.77	111.70
7	A6	78	ARG	CD-NE-CZ	-5.28	117.00	124.40
15	AG	46	SER	CA-C-N	5.28	125.34	119.32
15	AG	46	SER	C-N-CA	5.28	125.34	119.32
34	BA	699	G	O3'-P-O5'	5.28	111.92	104.00
34	BA	1797	A	C1'-O4'-C4'	-5.28	104.42	109.70
35	BB	353	G	C4'-C3'-C2'	-5.28	97.32	102.60
35	BB	826	G	C4'-C3'-O3'	-5.28	105.08	113.00
35	BB	964	G	C4'-C3'-O3'	5.28	120.92	113.00
38	BE	24	G	O5'-P-OP2	-5.28	92.15	108.00
57	BX	102	ASN	CA-CB-CG	-5.28	107.32	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	529	G	C2'-C3'-O3'	5.28	117.42	109.50
85	AA	1635	C	C5'-C4'-C3'	-5.28	108.07	116.00
85	AA	1663	U	C4'-C3'-C2'	-5.28	97.32	102.60
85	AA	1683	U	P-O3'-C3'	5.28	128.12	120.20
85	AA	1752	C	O4'-C1'-C2'	5.28	111.08	105.80
11	AC	100	VAL	CB-CA-C	5.28	116.37	111.30
16	AH	50	THR	N-CA-C	5.28	118.33	110.14
35	BB	859	U	C1'-O4'-C4'	-5.28	104.62	109.90
40	BG	16	G	O4'-C1'-N9	5.28	116.42	108.50
68	Bi	85	MET	N-CA-C	5.28	118.98	112.54
85	AA	775	C	P-O3'-C3'	5.28	128.12	120.20
85	AA	2244	G	O3'-P-O5'	-5.28	96.08	104.00
2	A1	41	LEU	O-C-N	-5.28	116.52	122.12
23	AP	163	THR	N-CA-C	-5.28	101.45	108.74
34	BA	149	G	O4'-C1'-N9	5.28	116.42	108.50
34	BA	821	G	C5'-C4'-C3'	5.28	123.92	116.00
34	BA	1513	G	P-O3'-C3'	-5.28	112.28	120.20
35	BB	157	G	P-O5'-C5'	-5.28	112.98	120.90
35	BB	584	A	P-O3'-C3'	-5.28	112.28	120.20
35	BB	1351	G	O4'-C1'-C2'	5.28	112.88	107.60
37	BD	44	U	O5'-C5'-C4'	-5.28	103.58	111.50
37	BD	85	C	C2'-C3'-O3'	5.28	121.62	113.70
39	BF	10	A	C2'-C3'-O3'	5.28	117.42	109.50
41	BH	101	A	O5'-P-OP2	-5.28	92.16	108.00
47	BN	157	ARG	CA-C-N	5.28	129.05	120.60
47	BN	157	ARG	C-N-CA	5.28	129.05	120.60
49	BP	42	CYS	N-CA-CB	5.28	118.13	109.95
52	BS	114	SER	O-C-N	5.28	128.17	122.15
85	AA	898	A	O5'-C5'-C4'	-5.28	103.58	111.50
85	AA	1274	A	P-O3'-C3'	-5.28	112.28	120.20
85	AA	1901	G	C4'-C3'-C2'	-5.28	97.32	102.60
85	AA	1909	C	O3'-P-O5'	5.28	111.92	104.00
85	AA	2009	A	C3'-C2'-C1'	-5.28	96.02	101.30
85	AA	2067	A	O5'-C5'-C4'	-5.28	103.58	111.50
62	Bc	142	ARG	CB-CA-C	-5.28	100.92	112.38
85	AA	1551	G	P-O3'-C3'	5.28	128.12	120.20
85	AA	1851	A	O4'-C1'-C2'	5.28	112.88	107.60
27	AT	54	TYR	N-CA-C	-5.28	106.70	112.72
34	BA	1166	A	C5'-C4'-C3'	5.28	123.92	116.00
34	BA	1835	A	O5'-C5'-C4'	-5.28	103.58	111.50
35	BB	1042	U	O5'-C5'-C4'	5.28	119.42	111.50
39	BF	60	C	O4'-C1'-C2'	-5.28	100.52	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BI	20	TYR	N-CA-C	5.28	122.04	110.80
45	BL	104	SER	N-CA-C	-5.28	103.43	110.55
82	Bw	181	ASN	CA-CB-CG	-5.28	107.32	112.60
85	AA	1002	G	O3'-P-O5'	-5.28	96.08	104.00
85	AA	1175	A	C5'-C4'-C3'	-5.28	108.08	116.00
85	AA	1358	A	O4'-C1'-N9	5.28	116.42	108.50
85	AA	1880	C	C5'-C4'-C3'	5.28	123.92	116.00
1	A0	168	MET	CG-SD-CE	-5.28	89.30	100.90
2	A1	168	ASP	N-CA-C	5.28	116.22	107.73
26	AS	104	GLY	CA-C-N	5.28	131.62	121.54
26	AS	104	GLY	C-N-CA	5.28	131.62	121.54
34	BA	230	A	C4'-C3'-C2'	5.28	107.88	102.60
34	BA	351	A	C5'-C4'-C3'	-5.28	108.09	116.00
34	BA	1425	G	P-O3'-C3'	5.28	128.11	120.20
34	BA	1744	C	O4'-C1'-N1	5.28	116.41	108.50
35	BB	458	U	C1'-O4'-C4'	-5.28	104.62	109.90
35	BB	802	G	N9-C1'-C2'	-5.28	104.09	112.00
47	BN	44	ARG	CB-CA-C	5.28	119.16	110.88
49	BP	52	ASN	CA-C-N	5.28	129.04	120.60
49	BP	52	ASN	C-N-CA	5.28	129.04	120.60
52	BS	126	LEU	CA-C-N	-5.28	111.07	121.41
52	BS	126	LEU	C-N-CA	-5.28	111.07	121.41
62	Bc	80	THR	O-C-N	-5.28	116.37	123.23
63	Bd	19	ASN	N-CA-C	-5.28	106.23	113.30
77	Br	185	SER	CA-C-N	5.28	128.83	121.02
77	Br	185	SER	C-N-CA	5.28	128.83	121.02
77	Br	365	LYS	CA-C-N	5.28	131.62	121.54
77	Br	365	LYS	C-N-CA	5.28	131.62	121.54
79	Bt	95	ASP	N-CA-C	5.28	118.52	111.24
85	AA	850	U	O3'-P-O5'	-5.28	96.09	104.00
85	AA	1790	G	O3'-P-O5'	-5.28	96.09	104.00
85	AA	25	C	O5'-C5'-C4'	-5.27	103.59	111.50
85	AA	815	G	C1'-O4'-C4'	-5.27	104.63	109.90
18	AJ	91	LYS	N-CA-C	-5.27	105.53	111.28
28	AU	74	ARG	CA-C-N	5.27	131.61	121.54
28	AU	74	ARG	C-N-CA	5.27	131.61	121.54
34	BA	897	U	C3'-C2'-C1'	-5.27	96.03	101.30
34	BA	1497	A	C5'-C4'-C3'	5.27	123.11	115.20
35	BB	528	G	N9-C1'-C2'	-5.27	106.09	114.00
35	BB	718	G	O3'-P-O5'	5.27	111.91	104.00
35	BB	822	G	C2'-C3'-O3'	5.27	121.61	113.70
35	BB	1390	U	C4'-C3'-O3'	-5.27	105.09	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BD	71	G	P-O5'-C5'	-5.27	112.99	120.90
41	BH	18	C	C4'-C3'-C2'	-5.27	97.33	102.60
75	Bp	68	THR	N-CA-C	-5.27	102.25	110.42
80	Bu	275	PRO	CB-CA-C	-5.27	104.64	112.55
81	Bv	39	LEU	N-CA-C	5.27	117.83	111.40
85	AA	681	G	C4'-C3'-O3'	-5.27	105.09	113.00
85	AA	2219	G	C2'-C3'-O3'	5.27	117.41	109.50
11	AC	154	GLN	N-CA-CB	-5.27	100.99	110.37
12	AD	94	VAL	N-CA-C	5.27	120.27	108.88
34	BA	804	G	P-O3'-C3'	5.27	128.11	120.20
34	BA	1325	G	C3'-C2'-C1'	-5.27	96.03	101.30
35	BB	1460	G	O5'-C5'-C4'	5.27	119.61	111.70
51	BR	75	GLU	N-CA-CB	-5.27	100.73	110.32
85	AA	1912	U	C5'-C4'-C3'	5.27	123.91	116.00
4	A3	216	VAL	CA-C-N	5.27	125.80	120.00
4	A3	216	VAL	C-N-CA	5.27	125.80	120.00
15	AG	118	VAL	N-CA-CB	5.27	117.71	110.54
17	AI	47	ARG	N-CA-CB	5.27	117.86	110.12
22	AO	64	PRO	N-CA-C	5.27	123.32	112.47
23	AP	86	LEU	N-CA-CB	-5.27	101.27	110.44
24	AQ	57	THR	CB-CA-C	-5.27	100.07	109.71
34	BA	10	G	C4'-C3'-C2'	5.27	107.87	102.60
34	BA	27	G	C3'-C2'-C1'	-5.27	96.03	101.30
34	BA	185	A	C1'-O4'-C4'	-5.27	104.63	109.90
34	BA	740	A	P-O3'-C3'	-5.27	112.30	120.20
34	BA	1524	G	P-O5'-C5'	5.27	128.81	120.90
35	BB	1505	U	N1-C1'-C2'	-5.27	106.09	114.00
36	BC	72	A	C4'-C3'-C2'	-5.27	97.33	102.60
36	BC	116	C	O5'-C5'-C4'	-5.27	103.59	111.50
82	Bw	224	PRO	CA-C-N	-5.27	113.25	119.84
82	Bw	224	PRO	C-N-CA	-5.27	113.25	119.84
85	AA	457	G	P-O5'-C5'	-5.27	113.00	120.90
85	AA	650	G	C1'-O4'-C4'	-5.27	104.63	109.90
85	AA	1662	U	O3'-P-O5'	-5.27	96.10	104.00
85	AA	2011	C	O4'-C1'-N1	5.27	116.40	108.50
86	AB	33	U	P-O5'-C5'	-5.27	113.00	120.90
3	A2	151	ASN	CA-CB-CG	-5.27	107.33	112.60
34	BA	7	U	C2-N1-C1'	-5.27	101.90	117.70
34	BA	352	G	O3'-P-O5'	-5.27	96.10	104.00
34	BA	567	U	O4'-C4'-C3'	-5.27	98.73	104.00
34	BA	798	G	O4'-C1'-C2'	-5.27	102.33	107.60
34	BA	1009	G	C5'-C4'-C3'	-5.27	108.10	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1256	A	C1'-O4'-C4'	-5.27	104.43	109.70
35	BB	1153	G	O3'-P-O5'	-5.27	96.10	104.00
35	BB	1461	C	C4'-C3'-C2'	5.27	107.87	102.60
37	BD	118	C	O3'-P-O5'	-5.27	96.10	104.00
51	BR	114	ILE	CA-C-N	-5.27	114.20	122.73
51	BR	114	ILE	C-N-CA	-5.27	114.20	122.73
60	Ba	26	GLN	O-C-N	-5.27	116.73	123.26
64	Be	184	ASN	CA-C-O	5.27	126.00	120.42
64	Be	225	VAL	N-CA-C	5.27	116.90	108.89
68	Bi	61	ASP	CA-CB-CG	5.27	117.87	112.60
83	Bx	248	GLY	N-CA-C	5.27	121.82	112.02
85	AA	167	A	C3'-C2'-C1'	-5.27	96.03	101.30
85	AA	2045	U	P-O5'-C5'	-5.27	113.00	120.90
30	AW	17	ARG	CA-C-O	5.27	126.05	120.10
34	BA	514	U	P-O3'-C3'	-5.27	112.30	120.20
34	BA	758	G	C4'-C3'-O3'	-5.27	105.10	113.00
34	BA	1560	U	O3'-P-O5'	5.27	111.90	104.00
35	BB	121	A	C5'-C4'-C3'	-5.27	108.10	116.00
35	BB	994	A	O4'-C1'-N9	5.27	116.10	108.20
41	BH	121	A	O5'-C5'-C4'	5.27	119.60	111.70
63	Bd	35	GLY	CA-C-N	5.27	130.66	121.97
63	Bd	35	GLY	C-N-CA	5.27	130.66	121.97
68	Bi	14	ARG	CG-CD-NE	-5.27	100.42	112.00
71	Bl	48	THR	CA-C-O	-5.27	115.40	121.19
84	By	18	SER	N-CA-CB	5.27	117.92	110.13
22	AO	34	ILE	N-CA-C	-5.26	107.64	111.90
34	BA	451	A	C4'-C3'-O3'	-5.26	105.10	113.00
34	BA	602	G	C5'-C4'-C3'	5.26	123.90	116.00
34	BA	1709	A	C4'-C3'-C2'	5.26	107.86	102.60
35	BB	598	C	C1'-O4'-C4'	-5.26	104.64	109.90
37	BD	19	C	C1'-O4'-C4'	-5.26	104.64	109.90
65	Bf	217	THR	N-CA-CB	-5.26	102.83	110.36
81	Bv	75	ARG	CD-NE-CZ	5.26	131.77	124.40
85	AA	30	G	P-O3'-C3'	-5.26	112.31	120.20
85	AA	56	U	C2'-C3'-O3'	5.26	117.40	109.50
85	AA	332	A	C4'-C3'-O3'	5.26	117.30	109.40
85	AA	370	A	O4'-C1'-N9	5.26	116.39	108.50
85	AA	483	G	C5'-C4'-O4'	5.26	117.70	109.80
85	AA	1504	A	C5'-C4'-C3'	5.26	123.89	116.00
85	AA	2149	C	O4'-C1'-N1	5.26	116.40	108.50
6	A5	195	THR	CA-C-O	5.26	124.93	119.14
31	AX	122	ILE	N-CA-CB	5.26	118.47	110.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	AY	5	HIS	N-CA-CB	-5.26	103.06	111.43
34	BA	196	A	C4'-C3'-O3'	-5.26	105.11	113.00
35	BB	1016	C	O4'-C4'-C3'	-5.26	98.74	104.00
50	BQ	188	HIS	N-CA-C	-5.26	105.72	111.82
53	BT	162	LYS	N-CA-C	-5.26	105.46	111.14
71	Bl	50	GLY	N-CA-C	-5.26	100.71	113.18
77	Br	260	LYS	CA-C-N	5.26	127.89	120.42
77	Br	260	LYS	C-N-CA	5.26	127.89	120.42
85	AA	164	G	C1'-O4'-C4'	-5.26	104.64	109.90
85	AA	1009	G	C2'-C3'-O3'	5.26	121.59	113.70
85	AA	1153	G	P-O5'-C5'	-5.26	113.01	120.90
85	AA	1184	A	P-O3'-C3'	-5.26	112.31	120.20
85	AA	1900	C	O5'-C5'-C4'	-5.26	103.61	111.50
3	A2	89	LEU	N-CA-C	-5.26	106.54	113.12
4	A3	178	LYS	CG-CD-CE	5.26	123.40	111.30
12	AD	3	THR	N-CA-C	-5.26	100.74	108.79
34	BA	526	C	O5'-C5'-C4'	5.26	119.39	111.50
34	BA	1416	C	O4'-C1'-C2'	5.26	112.86	107.60
34	BA	1685	C	C4'-C3'-O3'	-5.26	105.11	113.00
35	BB	481	A	C1'-O4'-C4'	-5.26	104.64	109.90
35	BB	737	C	O3'-P-O5'	-5.26	96.11	104.00
35	BB	797	C	P-O5'-C5'	-5.26	113.01	120.90
35	BB	960	C	C5'-C4'-C3'	-5.26	108.11	116.00
35	BB	1040	C	O5'-C5'-C4'	5.26	119.39	111.50
44	BK	142	ASP	N-CA-C	5.26	117.70	111.33
62	Bc	72	LYS	O-C-N	-5.26	117.81	121.65
81	Bv	64	GLY	O-C-N	-5.26	116.51	121.77
85	AA	190	A	O3'-P-O5'	5.26	111.89	104.00
85	AA	1004	G	C4'-C3'-O3'	5.26	120.89	113.00
85	AA	2150	G	C3'-C2'-C1'	-5.26	96.04	101.30
86	AB	9	A	P-O5'-C5'	-5.26	113.01	120.90
35	BB	398	A	O5'-C5'-C4'	-5.26	103.61	111.50
35	BB	660	G	C2'-C3'-O3'	5.26	117.39	109.50
35	BB	689	C	O5'-C5'-C4'	-5.26	103.61	111.50
37	BD	100	A	C5'-C4'-O4'	-5.26	101.91	109.80
40	BG	150	A	C4'-C3'-C2'	5.26	107.86	102.60
40	BG	152	G	C4'-C3'-O3'	-5.26	105.11	113.00
83	Bx	94	VAL	N-CA-C	5.26	120.28	109.34
85	AA	849	A	C4'-C3'-C2'	-5.26	97.34	102.60
85	AA	1106	A	C2'-C3'-O3'	5.26	121.59	113.70
85	AA	1575	G	O5'-C5'-C4'	-5.26	103.61	111.50
85	AA	1680	U	C4'-C3'-O3'	-5.26	105.11	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2104	C	O4'-C4'-C3'	-5.26	100.84	106.10
7	A6	128	ILE	N-CA-CB	-5.26	104.40	110.55
34	BA	1199	U	P-O5'-C5'	-5.26	113.01	120.90
35	BB	59	U	O4'-C4'-C3'	5.26	109.26	104.00
35	BB	603	U	O5'-C5'-C4'	5.26	119.39	111.50
42	BI	28	LEU	CB-CA-C	-5.26	101.08	110.70
50	BQ	21	PHE	N-CA-C	-5.26	105.72	111.82
51	BR	18	LYS	CA-C-N	5.26	131.05	122.69
51	BR	18	LYS	C-N-CA	5.26	131.05	122.69
57	BX	53	GLN	N-CA-CB	-5.26	102.05	110.46
72	Bm	88	ILE	O-C-N	-5.26	116.74	121.89
4	A3	120	GLY	N-CA-C	-5.26	103.33	112.06
7	A6	56	ARG	CB-CA-C	-5.26	101.74	110.68
11	AC	50	ASP	N-CA-C	-5.26	105.63	111.36
34	BA	556	A	C5'-C4'-C3'	5.26	123.89	116.00
34	BA	614	A	C4'-C3'-C2'	-5.26	97.34	102.60
35	BB	483	C	N1-C1'-C2'	-5.26	104.11	112.00
35	BB	1001	G	C1'-O4'-C4'	-5.26	104.64	109.90
37	BD	5	A	C5'-C4'-C3'	5.26	123.89	116.00
48	BO	53	VAL	CA-C-N	5.26	130.15	122.69
48	BO	53	VAL	C-N-CA	5.26	130.15	122.69
49	BP	122	TYR	N-CA-C	-5.26	106.73	112.72
51	BR	148	LEU	N-CA-C	5.26	117.99	108.69
52	BS	142	ALA	CA-C-N	5.26	127.58	120.38
52	BS	142	ALA	C-N-CA	5.26	127.58	120.38
61	Bb	58	MET	CA-C-O	-5.26	115.81	121.38
62	Bc	90	VAL	CA-C-N	5.26	127.66	120.46
62	Bc	90	VAL	C-N-CA	5.26	127.66	120.46
64	Be	209	HIS	CA-CB-CG	-5.26	108.54	113.80
77	Br	230	VAL	CB-CA-C	-5.26	102.67	111.29
82	Bw	22	PRO	N-CA-CB	5.26	108.77	103.25
85	AA	475	A	C4-N9-C1'	-5.26	110.53	126.30
85	AA	489	C	C2'-C3'-O3'	-5.26	105.82	113.70
85	AA	1660	U	P-O3'-C3'	5.26	128.09	120.20
85	AA	1978	G	C5'-C4'-C3'	-5.26	108.11	116.00
85	AA	2052	U	P-O5'-C5'	5.26	128.78	120.90
34	BA	76	U	C4'-C3'-O3'	-5.25	105.12	113.00
34	BA	81	C	C2'-C3'-O3'	5.25	121.58	113.70
34	BA	1291	A	C4'-C3'-O3'	-5.25	105.12	113.00
34	BA	1706	A	O4'-C4'-C3'	-5.25	98.75	104.00
35	BB	1354	C	C5'-C4'-O4'	-5.25	101.92	109.80
36	BC	14	G	O5'-C5'-C4'	-5.25	103.62	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BI	168	HIS	CE1-NE2-CD2	-5.25	103.75	109.00
77	Br	302	PRO	N-CA-C	5.25	118.84	111.33
85	AA	107	A	C5'-C4'-O4'	5.25	117.68	109.80
85	AA	1767	G	P-O5'-C5'	-5.25	113.02	120.90
11	AC	147	GLN	N-CA-C	-5.25	106.92	113.38
34	BA	503	C	P-O3'-C3'	-5.25	112.32	120.20
34	BA	581	U	N1-C1'-C2'	5.25	121.88	114.00
34	BA	810	A	O3'-P-O5'	-5.25	96.12	104.00
34	BA	1727	A	C2'-C3'-O3'	5.25	117.38	109.50
35	BB	39	C	C4'-C3'-O3'	-5.25	105.12	113.00
35	BB	367	C	C4'-C3'-C2'	-5.25	97.35	102.60
35	BB	1369	A	P-O3'-C3'	5.25	128.08	120.20
36	BC	82	C	C4'-C3'-C2'	-5.25	97.35	102.60
40	BG	48	U	C5'-C4'-C3'	-5.25	108.12	116.00
40	BG	129	G	O5'-C5'-C4'	-5.25	103.62	111.50
44	BK	77	VAL	N-CA-C	-5.25	105.42	110.72
56	BW	73	ARG	CB-CG-CD	5.25	123.38	111.30
62	Bc	27	LEU	N-CA-CB	-5.25	102.76	110.85
82	Bw	148	TYR	CB-CA-C	-5.25	101.29	110.17
85	AA	291	G	N9-C1'-C2'	-5.25	104.12	112.00
85	AA	1259	U	P-O3'-C3'	-5.25	112.32	120.20
85	AA	1682	U	P-O5'-C5'	-5.25	113.02	120.90
85	AA	1727	U	C5'-C4'-C3'	-5.25	108.12	116.00
85	AA	2199	G	C3'-C2'-C1'	-5.25	96.05	101.30
85	AA	2238	C	C1'-O4'-C4'	-5.25	104.65	109.90
18	AJ	102	VAL	CA-C-O	-5.25	114.95	120.57
34	BA	1622	U	C4'-C3'-C2'	-5.25	97.35	102.60
35	BB	1154	C	C2'-C3'-O3'	5.25	121.58	113.70
40	BG	53	C	C1'-O4'-C4'	-5.25	104.65	109.90
41	BH	29	G	C1'-O4'-C4'	-5.25	104.65	109.90
42	BI	70	CYS	N-CA-C	-5.25	105.73	111.82
45	BL	99	LYS	CB-CA-C	-5.25	100.67	109.65
58	BY	63	HIS	CA-CB-CG	-5.25	108.55	113.80
77	Br	78	ILE	N-CA-C	5.25	117.19	109.63
85	AA	109	G	C4'-C3'-C2'	5.25	107.85	102.60
85	AA	1471	G	O3'-P-O5'	-5.25	96.12	104.00
85	AA	1825	A	O4'-C4'-C3'	-5.25	100.85	106.10
85	AA	1833	C	P-O5'-C5'	-5.25	113.02	120.90
85	AA	2169	C	C5'-C4'-C3'	-5.25	108.12	116.00
26	AS	38	ALA	CA-C-N	5.25	131.25	121.69
26	AS	38	ALA	C-N-CA	5.25	131.25	121.69
80	Bu	4	VAL	N-CA-C	5.25	120.26	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2001	C	N1-C1'-C2'	5.25	121.88	114.00
34	BA	824	C	C1'-O4'-C4'	-5.25	104.65	109.90
34	BA	1041	U	O4'-C1'-C2'	5.25	112.85	107.60
34	BA	1737	A	C3'-C2'-C1'	-5.25	96.05	101.30
34	BA	1792	U	C2-N1-C1'	-5.25	101.96	117.70
36	BC	10	C	P-O5'-C5'	5.25	128.77	120.90
59	BZ	103	ILE	CB-CA-C	-5.25	104.94	111.08
77	Br	293	SER	CA-CB-OG	5.25	121.60	111.10
81	Bv	32	PRO	N-CA-C	5.25	118.84	111.33
81	Bv	37	ILE	CA-C-O	5.25	126.80	120.66
85	AA	515	C	O3'-P-O5'	5.25	111.87	104.00
85	AA	1253	G	C2'-C3'-O3'	5.25	117.37	109.50
1	A0	108	THR	N-CA-CB	5.25	119.36	110.49
11	AC	188	ALA	CA-C-O	-5.25	114.15	119.24
16	AH	14	ALA	N-CA-C	-5.25	96.31	111.00
27	AT	100	ARG	N-CA-C	-5.25	104.98	111.33
34	BA	397	A	C2'-C3'-O3'	-5.25	105.83	113.70
34	BA	600	G	C4'-C3'-C2'	-5.25	97.35	102.60
35	BB	1117	G	C1'-O4'-C4'	-5.25	104.65	109.90
35	BB	1319	U	P-O3'-C3'	-5.25	112.33	120.20
38	BE	96	G	O5'-C5'-C4'	-5.25	103.63	111.50
38	BE	106	C	P-O3'-C3'	-5.25	112.33	120.20
66	Bg	20	THR	CA-C-N	5.25	127.27	120.56
66	Bg	20	THR	C-N-CA	5.25	127.27	120.56
68	Bi	94	ALA	N-CA-C	-5.25	100.85	109.40
85	AA	10	G	C1'-C2'-O2'	5.25	116.27	108.40
85	AA	114	C	P-O3'-C3'	-5.25	112.33	120.20
85	AA	860	C	P-O5'-C5'	-5.25	113.03	120.90
85	AA	1769	A	C5'-C4'-C3'	-5.25	108.13	116.00
23	AP	53	VAL	N-CA-CB	-5.25	104.72	110.65
34	BA	291	C	O4'-C1'-N1	5.25	116.37	108.50
34	BA	843	G	O5'-C5'-C4'	-5.25	103.63	111.50
35	BB	1474	A	C4'-C3'-O3'	5.25	120.87	113.00
35	BB	1512	C	O3'-P-O5'	-5.25	96.13	104.00
4	A3	231	HIS	CB-CA-C	5.24	119.49	110.79
14	AF	100	LEU	CA-C-N	5.24	127.31	120.28
14	AF	100	LEU	C-N-CA	5.24	127.31	120.28
34	BA	586	G	O3'-P-O5'	5.24	111.86	104.00
34	BA	604	G	P-O3'-C3'	5.24	128.07	120.20
34	BA	859	G	C4'-C3'-C2'	-5.24	97.36	102.60
34	BA	1627	U	O5'-C5'-C4'	5.24	119.37	111.50
35	BB	10	C	C4'-C3'-O3'	-5.24	105.14	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	27	C	C3'-C2'-C1'	-5.24	96.06	101.30
35	BB	425	G	C4'-C3'-C2'	-5.24	97.36	102.60
35	BB	783	U	C4'-C3'-O3'	-5.24	105.13	113.00
35	BB	823	G	C1'-O4'-C4'	-5.24	104.66	109.90
35	BB	1535	G	C4'-C3'-O3'	-5.24	105.14	113.00
35	BB	1548	C	C5'-C4'-C3'	5.24	123.86	116.00
38	BE	64	A	O3'-P-O5'	-5.24	96.14	104.00
40	BG	14	G	N9-C1'-C2'	-5.24	104.14	112.00
42	BI	72	ARG	CB-CG-CD	5.24	123.36	111.30
47	BN	7	ALA	O-C-N	-5.24	115.62	122.59
53	BT	192	ASP	N-CA-C	-5.24	99.63	110.80
80	Bu	64	ILE	CB-CA-C	-5.24	103.80	110.98
80	Bu	140	GLY	CA-C-O	5.24	126.20	122.37
84	By	7	ASP	N-CA-CB	-5.24	101.59	110.50
85	AA	818	C	C4'-C3'-C2'	-5.24	97.36	102.60
85	AA	1880	C	P-O5'-C5'	-5.24	113.03	120.90
85	AA	2128	G	C4'-C3'-O3'	-5.24	105.13	113.00
13	AE	80	VAL	N-CA-CB	5.24	119.88	111.23
34	BA	617	G	P-O3'-C3'	-5.24	112.34	120.20
34	BA	1738	G	C3'-C2'-C1'	-5.24	96.06	101.30
35	BB	500	C	O4'-C1'-N1	5.24	116.36	108.50
35	BB	790	A	C5'-C4'-C3'	-5.24	107.34	115.20
35	BB	1143	A	P-O3'-C3'	-5.24	112.34	120.20
35	BB	1304	U	C1'-O4'-C4'	-5.24	104.66	109.90
38	BE	30	C	O4'-C1'-N1	5.24	116.36	108.50
38	BE	136	G	C1'-O4'-C4'	-5.24	104.46	109.70
42	BI	155	SER	N-CA-C	5.24	116.99	111.28
62	Bc	63	THR	O-C-N	-5.24	116.64	122.93
4	A3	169	GLY	N-CA-C	-5.24	108.02	115.30
29	AV	23	VAL	CA-C-O	-5.24	115.72	121.28
34	BA	264	A	C4'-C3'-O3'	-5.24	105.14	113.00
34	BA	267	G	P-O5'-C5'	-5.24	113.04	120.90
34	BA	611	A	C3'-C2'-C1'	-5.24	96.06	101.30
34	BA	854	A	O4'-C4'-C3'	-5.24	98.76	104.00
34	BA	867	C	C4'-C3'-C2'	5.24	107.84	102.60
34	BA	991	U	O4'-C1'-N1	5.24	116.36	108.50
35	BB	1152	U	C3'-C2'-C1'	-5.24	96.26	101.50
35	BB	1192	C	C5'-C4'-C3'	-5.24	108.14	116.00
36	BC	143	C	O3'-P-O5'	-5.24	96.14	104.00
37	BD	102	C	C3'-C2'-C1'	-5.24	96.06	101.30
37	BD	108	G	C5'-C4'-O4'	5.24	117.66	109.80
38	BE	150	G	C2'-C3'-O3'	5.24	121.56	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BH	24	U	O4'-C4'-C3'	-5.24	100.86	106.10
78	Bs	45	LEU	N-CA-C	-5.24	100.86	109.40
81	Bv	75	ARG	CA-CB-CG	5.24	124.58	114.10
85	AA	546	U	C5'-C4'-C3'	-5.24	108.14	116.00
85	AA	643	C	O3'-P-O5'	5.24	111.86	104.00
85	AA	1034	U	O4'-C1'-C2'	-5.24	102.36	107.60
85	AA	1124	G	C1'-O4'-C4'	-5.24	104.66	109.90
85	AA	1483	A	O4'-C1'-C2'	5.24	112.84	107.60
85	AA	1609	U	C5'-C4'-C3'	-5.24	108.14	116.00
85	AA	2061	C	O4'-C1'-N1	5.24	116.06	108.20
17	AI	126	PHE	CA-CB-CG	-5.24	108.56	113.80
20	AL	50	ILE	CA-C-N	5.24	127.25	120.44
20	AL	50	ILE	C-N-CA	5.24	127.25	120.44
26	AS	64	SER	CA-C-N	5.24	131.54	121.54
26	AS	64	SER	C-N-CA	5.24	131.54	121.54
31	AX	17	TYR	CA-CB-CG	-5.24	104.47	113.90
34	BA	258	C	C4'-C3'-O3'	-5.24	105.14	113.00
34	BA	263	G	O4'-C1'-C2'	-5.24	100.56	105.80
34	BA	1215	U	C4'-C3'-O3'	-5.24	105.14	113.00
34	BA	1625	C	C1'-O4'-C4'	-5.24	104.66	109.90
35	BB	471	U	C2'-C3'-O3'	5.24	121.56	113.70
35	BB	704	G	C4'-C3'-O3'	-5.24	105.14	113.00
35	BB	841	U	O4'-C1'-C2'	5.24	112.84	107.60
40	BG	14	G	O4'-C4'-C3'	-5.24	98.76	104.00
42	BI	127	CYS	CA-C-N	-5.24	115.60	122.99
42	BI	127	CYS	C-N-CA	-5.24	115.60	122.99
65	Bf	345	VAL	N-CA-CB	5.24	116.64	110.82
77	Br	31	ILE	N-CA-C	5.24	116.04	107.24
85	AA	276	C	C5'-C4'-O4'	-5.24	101.94	109.80
85	AA	882	C	C2'-C3'-O3'	5.24	121.56	113.70
85	AA	1469	G	P-O5'-C5'	5.24	128.76	120.90
85	AA	1678	U	C3'-C2'-C1'	-5.24	96.06	101.30
85	AA	2211	G	C3'-C2'-C1'	-5.24	96.06	101.30
34	BA	162	G	O5'-C5'-C4'	5.24	119.56	111.70
34	BA	508	C	O4'-C1'-C2'	5.24	111.04	105.80
34	BA	1135	U	P-O5'-C5'	5.24	128.75	120.90
67	Bh	74	PHE	N-CA-C	-5.24	104.50	112.04
71	Bl	88	LYS	N-CA-CB	-5.24	101.64	110.49
85	AA	2076	C	C4'-C3'-O3'	-5.24	105.14	113.00
1	A0	225	PHE	N-CA-C	5.24	121.95	110.80
8	A7	43	TRP	CB-CG-CD2	-5.24	119.47	126.80
34	BA	1601	C	C5'-C4'-C3'	5.24	123.86	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1801	G	O5'-C5'-C4'	5.24	119.35	111.50
36	BC	27	U	C2'-C3'-O3'	5.24	121.55	113.70
44	BK	201	THR	CA-CB-OG1	5.24	117.45	109.60
47	BN	67	THR	N-CA-C	5.24	121.95	110.80
49	BP	107	ASP	N-CA-CB	-5.24	102.14	109.94
61	Bb	117	ALA	O-C-N	-5.24	115.30	121.32
68	Bi	57	GLY	O-C-N	-5.24	116.69	122.24
82	Bw	220	PHE	CA-C-N	5.24	131.45	123.23
82	Bw	220	PHE	C-N-CA	5.24	131.45	123.23
85	AA	492	C	C4'-C3'-C2'	-5.24	97.36	102.60
85	AA	1766	G	P-O5'-C5'	-5.24	113.05	120.90
34	BA	177	G	O4'-C1'-C2'	5.23	111.03	105.80
34	BA	219	U	O5'-C5'-C4'	5.23	119.35	111.50
34	BA	1836	A	C1'-O4'-C4'	-5.23	104.67	109.90
53	BT	3	SER	N-CA-CB	5.23	119.92	111.65
72	Bm	53	SER	CA-C-O	5.23	126.10	120.55
85	AA	536	C	C4'-C3'-O3'	-5.23	105.15	113.00
22	AO	35	CYS	CA-CB-SG	-5.23	102.36	114.40
24	AQ	41	ARG	CG-CD-NE	-5.23	100.49	112.00
34	BA	21	C	C4'-C3'-C2'	-5.23	97.37	102.60
34	BA	769	U	C1'-C2'-O2'	-5.23	103.95	111.80
34	BA	1251	A	O4'-C4'-C3'	5.23	109.23	104.00
34	BA	1367	G	P-O5'-C5'	5.23	128.75	120.90
34	BA	1737	A	P-O3'-C3'	-5.23	112.35	120.20
35	BB	774	C	P-O5'-C5'	-5.23	113.05	120.90
55	BV	56	LYS	N-CA-C	5.23	117.62	110.24
60	Ba	40	SER	CB-CA-C	5.23	118.43	109.80
72	Bm	32	PRO	CA-C-N	5.23	131.53	121.54
72	Bm	32	PRO	C-N-CA	5.23	131.53	121.54
75	Bp	69	VAL	CA-CB-CG2	-5.23	101.50	110.40
85	AA	453	G	C5'-C4'-C3'	-5.23	108.15	116.00
85	AA	1651	C	C5'-C4'-C3'	-5.23	108.15	116.00
85	AA	1921	G	C4-N9-C1'	-5.23	110.80	126.50
1	A0	89	THR	CA-C-N	5.23	128.09	120.98
1	A0	89	THR	C-N-CA	5.23	128.09	120.98
5	A4	95	ILE	O-C-N	-5.23	117.61	123.26
24	AQ	112	THR	N-CA-CB	5.23	120.47	111.00
34	BA	674	G	C2'-C3'-O3'	5.23	121.55	113.70
35	BB	389	G	O3'-P-O5'	5.23	111.85	104.00
35	BB	508	U	C1'-O4'-C4'	-5.23	104.67	109.90
35	BB	1244	U	N1-C1'-C2'	-5.23	104.16	112.00
37	BD	42	A	C4'-C3'-O3'	-5.23	105.16	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BH	75	G	OP1-P-OP2	-5.23	103.91	119.60
44	BK	181	TYR	N-CA-CB	-5.23	102.42	110.16
45	BL	134	PHE	CA-CB-CG	-5.23	108.57	113.80
51	BR	142	SER	N-CA-C	5.23	120.54	108.93
60	Ba	118	ARG	N-CA-C	-5.23	105.58	111.28
65	Bf	230	LYS	N-CA-C	-5.23	106.74	113.02
67	Bh	21	GLU	CB-CG-CD	5.23	121.49	112.60
70	Bk	60	THR	OG1-CB-CG2	-5.23	98.84	109.30
77	Br	344	GLN	N-CA-CB	5.23	119.33	110.49
81	Bv	82	ILE	CA-C-N	5.23	129.38	122.42
81	Bv	82	ILE	C-N-CA	5.23	129.38	122.42
85	AA	528	U	P-O5'-C5'	-5.23	113.06	120.90
85	AA	2172	A	C1'-O4'-C4'	-5.23	104.67	109.90
86	AB	61	C	C4'-C3'-C2'	-5.23	97.37	102.60
35	BB	627	G	C3'-C2'-C1'	5.23	106.53	101.30
36	BC	39	G	O5'-C5'-C4'	-5.23	103.86	111.70
38	BE	142	A	O3'-P-O5'	-5.23	96.16	104.00
61	Bb	24	LYS	CA-C-N	5.23	131.53	121.54
61	Bb	24	LYS	C-N-CA	5.23	131.53	121.54
77	Br	178	ASP	CA-CB-CG	5.23	117.83	112.60
77	Br	346	LYS	N-CA-CB	-5.23	102.42	110.16
85	AA	703	U	P-O3'-C3'	-5.23	112.36	120.20
85	AA	1019	U	P-O5'-C5'	-5.23	113.06	120.90
85	AA	2074	G	P-O5'-C5'	-5.23	113.06	120.90
85	AA	2133	A	C1'-O4'-C4'	-5.23	104.67	109.90
15	AG	69	ARG	CG-CD-NE	-5.23	100.50	112.00
34	BA	237	A	O4'-C1'-N9	5.23	116.34	108.50
34	BA	277	A	C5'-C4'-C3'	-5.23	108.16	116.00
34	BA	944	G	C1'-O4'-C4'	-5.23	104.67	109.90
34	BA	1100	A	O5'-C5'-C4'	-5.23	103.66	111.50
34	BA	1197	U	O3'-P-O5'	5.23	111.84	104.00
35	BB	772	U	C4'-C3'-O3'	-5.23	105.16	113.00
35	BB	1441	C	C1'-O4'-C4'	-5.23	104.47	109.70
37	BD	47	U	O4'-C4'-C3'	-5.23	98.77	104.00
43	BJ	181	VAL	CA-C-N	5.23	127.28	120.28
43	BJ	181	VAL	C-N-CA	5.23	127.28	120.28
45	BL	72	ILE	N-CA-CB	-5.23	105.56	112.36
71	Bl	145	TYR	CA-C-O	-5.23	115.80	120.56
77	Br	299	VAL	N-CA-C	5.23	117.14	112.17
81	Bv	87	ARG	CD-NE-CZ	-5.23	117.08	124.40
85	AA	34	G	C4'-C3'-O3'	-5.23	105.16	113.00
85	AA	36	U	C4'-C3'-C2'	5.23	107.83	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	192	G	O4'-C1'-N9	5.23	116.34	108.50
85	AA	316	C	C5'-C4'-C3'	-5.23	108.16	116.00
85	AA	342	C	O4'-C1'-N1	5.23	116.34	108.50
85	AA	640	C	O4'-C1'-N1	5.23	116.34	108.50
85	AA	854	A	O4'-C1'-N9	5.23	116.34	108.50
85	AA	1280	U	C2-N3-C4	-5.23	111.31	127.00
34	BA	916	A	P-O3'-C3'	-5.23	112.36	120.20
35	BB	139	G	P-O3'-C3'	-5.23	112.36	120.20
52	BS	177	VAL	N-CA-CB	5.23	120.01	110.86
64	Be	71	ARG	O-C-N	-5.23	115.64	122.59
81	Bv	160	GLN	N-CA-CB	5.23	117.80	110.12
85	AA	39	A	C5'-C4'-O4'	5.23	117.64	109.80
85	AA	641	A	O5'-C5'-C4'	-5.23	103.66	111.50
85	AA	1174	G	P-O3'-C3'	-5.23	112.36	120.20
1	A0	31	ASP	O-C-N	-5.22	116.44	122.87
5	A4	174	LEU	CA-C-N	5.22	128.05	120.79
5	A4	174	LEU	C-N-CA	5.22	128.05	120.79
27	AT	49	ARG	N-CA-C	-5.22	105.48	111.07
34	BA	139	U	O5'-C5'-C4'	5.22	119.34	111.50
34	BA	383	G	C1'-O4'-C4'	-5.22	104.67	109.90
34	BA	465	A	C5'-C4'-O4'	5.22	117.64	109.80
34	BA	1220	C	C4'-C3'-O3'	-5.22	105.16	113.00
34	BA	1234	U	C1'-O4'-C4'	-5.22	104.68	109.90
34	BA	1489	U	N1-C1'-C2'	-5.22	104.16	112.00
34	BA	1539	A	O4'-C1'-N9	5.22	116.04	108.20
34	BA	1545	C	C4'-C3'-O3'	-5.22	105.16	113.00
34	BA	1739	G	C3'-C2'-C1'	-5.22	96.08	101.30
35	BB	605	C	C1'-C2'-O2'	5.22	116.24	108.40
35	BB	1282	G	C4'-C3'-O3'	-5.22	105.16	113.00
35	BB	1341	U	C4'-C3'-C2'	-5.22	97.38	102.60
36	BC	90	U	C3'-C2'-C1'	-5.22	96.08	101.30
38	BE	133	C	C1'-O4'-C4'	-5.22	104.68	109.90
40	BG	28	A	P-O3'-C3'	-5.22	112.36	120.20
48	BO	211	LYS	N-CA-CB	5.22	117.72	109.83
49	BP	40	ASN	CA-CB-CG	5.22	117.82	112.60
54	BU	126	PRO	CA-N-CD	-5.22	104.69	112.00
57	BX	81	ALA	N-CA-CB	-5.22	102.44	110.12
60	Ba	16	ARG	N-CA-CB	5.22	119.32	110.49
77	Br	270	THR	CA-C-N	5.22	131.38	121.97
77	Br	270	THR	C-N-CA	5.22	131.38	121.97
84	By	117	LYS	CB-CA-C	5.22	120.82	110.42
85	AA	601	A	C3'-C2'-C1'	-5.22	96.08	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	727	U	O4'-C4'-C3'	-5.22	100.88	106.10
85	AA	826	C	O3'-P-O5'	-5.22	96.16	104.00
85	AA	925	G	C3'-C2'-C1'	-5.22	96.08	101.30
85	AA	1461	A	O5'-C5'-C4'	-5.22	103.66	111.50
85	AA	1671	G	C4'-C3'-O3'	-5.22	105.16	113.00
7	A6	92	LEU	CA-C-N	5.22	129.56	120.68
7	A6	92	LEU	C-N-CA	5.22	129.56	120.68
13	AE	76	PHE	CA-CB-CG	-5.22	108.58	113.80
14	AF	116	ARG	CG-CD-NE	-5.22	100.51	112.00
15	AG	106	THR	CB-CA-C	-5.22	101.00	110.56
34	BA	17	A	P-O5'-C5'	5.22	128.73	120.90
34	BA	1346	U	C1'-O4'-C4'	-5.22	104.68	109.90
35	BB	677	U	C5'-C4'-O4'	5.22	117.63	109.80
35	BB	963	G	C1'-O4'-C4'	-5.22	104.68	109.90
36	BC	28	C	C5'-C4'-C3'	5.22	123.83	116.00
38	BE	73	A	P-O5'-C5'	5.22	128.73	120.90
38	BE	205	G	P-O5'-C5'	5.22	128.73	120.90
40	BG	65	C	C2'-C3'-O3'	5.22	121.53	113.70
40	BG	167	C	C3'-C2'-C1'	-5.22	96.08	101.30
49	BP	119	SER	N-CA-CB	5.22	117.80	110.12
49	BP	167	ALA	N-CA-CB	5.22	118.38	110.28
61	Bb	45	PHE	CA-C-N	5.22	127.59	120.54
61	Bb	45	PHE	C-N-CA	5.22	127.59	120.54
83	Bx	90	GLN	N-CA-C	5.22	121.93	110.80
85	AA	64	A	C1'-O4'-C4'	-5.22	104.68	109.90
85	AA	126	U	O4'-C4'-C3'	-5.22	98.78	104.00
85	AA	372	U	N1-C1'-C2'	-5.22	104.17	112.00
85	AA	413	G	C4'-C3'-C2'	-5.22	97.38	102.60
85	AA	571	G	O4'-C1'-N9	5.22	116.33	108.50
85	AA	764	U	P-O3'-C3'	5.22	128.03	120.20
85	AA	815	G	P-O5'-C5'	5.22	128.74	120.90
85	AA	1260	G	O3'-P-O5'	5.22	111.83	104.00
85	AA	1284	A	P-O5'-C5'	-5.22	113.07	120.90
85	AA	1420	U	C5'-C4'-C3'	5.22	123.83	116.00
85	AA	1502	A	C5'-C4'-C3'	-5.22	108.17	116.00
85	AA	1930	U	C4'-C3'-C2'	-5.22	97.38	102.60
1	A0	42	GLN	N-CA-C	-5.22	104.29	111.81
4	A3	46	PHE	N-CA-C	-5.22	106.70	114.64
11	AC	88	HIS	N-CA-CB	-5.22	102.44	110.12
34	BA	1431	G	P-O5'-C5'	-5.22	113.07	120.90
34	BA	1698	C	N1-C1'-C2'	-5.22	104.17	112.00
34	BA	1720	U	O5'-C5'-C4'	-5.22	103.67	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1846	G	O5'-C5'-C4'	5.22	119.33	111.50
35	BB	738	G	O3'-P-O5'	-5.22	96.17	104.00
36	BC	22	U	P-O5'-C5'	-5.22	113.07	120.90
59	BZ	64	GLU	N-CA-C	5.22	117.75	109.50
85	AA	710	A	C5'-C4'-O4'	-5.22	101.97	109.80
85	AA	1546	G	O5'-C5'-C4'	-5.22	103.67	111.50
85	AA	1580	A	C5'-C4'-C3'	-5.22	108.17	116.00
85	AA	2144	C	O4'-C1'-C2'	-5.22	102.38	107.60
23	AP	78	ASP	CA-C-N	5.22	127.73	120.63
23	AP	78	ASP	C-N-CA	5.22	127.73	120.63
29	AV	92	PRO	N-CA-C	-5.22	101.72	112.47
34	BA	52	G	C5'-C4'-C3'	-5.22	108.17	116.00
34	BA	647	U	C1'-O4'-C4'	-5.22	104.48	109.70
35	BB	667	G	O3'-P-O5'	-5.22	96.17	104.00
35	BB	1242	C	O5'-C5'-C4'	-5.22	103.67	111.50
36	BC	22	U	C5'-C4'-C3'	-5.22	107.37	115.20
41	BH	67	G	C4'-C3'-C2'	-5.22	97.38	102.60
60	Ba	50	ARG	NE-CZ-NH1	5.22	126.72	121.50
80	Bu	153	ASP	CB-CA-C	-5.22	102.54	111.31
85	AA	1236	G	C5'-C4'-C3'	5.22	123.83	116.00
85	AA	1578	G	C5'-C4'-O4'	5.22	116.93	109.10
85	AA	1949	U	C4'-C3'-O3'	-5.22	105.17	113.00
2	A1	128	THR	CA-C-N	5.22	126.20	121.82
2	A1	128	THR	C-N-CA	5.22	126.20	121.82
17	AI	39	GLU	CB-CG-CD	-5.22	103.73	112.60
34	BA	679	U	P-O3'-C3'	5.22	128.03	120.20
34	BA	875	G	C5'-C4'-C3'	5.22	123.03	115.20
34	BA	1182	U	O4'-C4'-C3'	-5.22	98.78	104.00
34	BA	1632	G	C5'-C4'-O4'	5.22	117.63	109.80
65	Bf	127	VAL	CB-CA-C	-5.22	101.48	110.30
85	AA	5	U	O4'-C1'-N1	5.22	116.33	108.50
85	AA	268	A	O4'-C1'-N9	5.22	116.33	108.50
85	AA	976	G	O4'-C1'-C2'	5.22	112.82	107.60
85	AA	1514	A	C2'-C3'-O3'	5.22	117.33	109.50
85	AA	1595	G	P-O3'-C3'	-5.22	112.37	120.20
85	AA	2008	G	P-O3'-C3'	-5.22	112.37	120.20
85	AA	2169	C	C1'-O4'-C4'	-5.22	104.68	109.90
1	A0	109	SER	N-CA-C	5.22	116.65	111.07
8	A7	311	VAL	N-CA-CB	-5.22	104.73	110.99
34	BA	427	G	O5'-C5'-C4'	-5.22	103.68	111.50
34	BA	694	G	O4'-C1'-N9	5.22	116.02	108.20
34	BA	1521	C	P-O5'-C5'	-5.22	113.08	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1836	A	C3'-C2'-C1'	-5.22	96.08	101.30
35	BB	555	G	C5'-C4'-O4'	5.22	117.62	109.80
35	BB	1495	U	O3'-P-O5'	5.22	111.82	104.00
35	BB	1496	C	C1'-O4'-C4'	-5.22	104.68	109.90
40	BG	123	C	C3'-C2'-C1'	-5.22	96.08	101.30
84	By	47	ASN	CA-C-O	-5.22	113.67	119.67
85	AA	930	G	C2'-C3'-O3'	5.22	121.53	113.70
85	AA	965	G	O4'-C4'-C3'	5.22	109.22	104.00
85	AA	1657	C	O3'-P-O5'	5.22	111.83	104.00
85	AA	1864	G	O5'-C5'-C4'	5.22	119.32	111.50
2	A1	111	VAL	CA-C-N	5.21	128.12	120.71
2	A1	111	VAL	C-N-CA	5.21	128.12	120.71
4	A3	144	ILE	CA-C-N	5.21	127.27	120.28
4	A3	144	ILE	C-N-CA	5.21	127.27	120.28
34	BA	569	C	C3'-C2'-C1'	-5.21	96.08	101.30
34	BA	742	C	C4'-C3'-O3'	-5.21	105.18	113.00
34	BA	1304	C	O3'-P-O5'	-5.21	96.18	104.00
34	BA	1722	U	C3'-C2'-C1'	-5.21	96.29	101.50
73	Bn	26	ALA	N-CA-C	-5.21	106.31	113.56
77	Br	301	LYS	CA-C-N	5.21	125.95	120.11
77	Br	301	LYS	C-N-CA	5.21	125.95	120.11
81	Bv	90	LEU	CA-C-N	5.21	127.27	120.28
81	Bv	90	LEU	C-N-CA	5.21	127.27	120.28
85	AA	730	G	C4'-C3'-C2'	-5.21	97.39	102.60
85	AA	1419	U	C2'-C3'-O3'	5.21	117.32	109.50
85	AA	1795	C	O3'-P-O5'	-5.21	96.18	104.00
85	AA	2096	G	O5'-C5'-C4'	-5.21	103.68	111.50
10	A9	142	TYR	CA-CB-CG	-5.21	104.52	113.90
27	AT	85	ASP	CA-C-N	5.21	129.54	120.68
27	AT	85	ASP	C-N-CA	5.21	129.54	120.68
34	BA	229	C	C2'-C3'-O3'	5.21	121.52	113.70
34	BA	244	A	P-O3'-C3'	-5.21	112.38	120.20
35	BB	994	A	C5'-C4'-C3'	-5.21	107.38	115.20
40	BG	38	A	O5'-C5'-C4'	-5.21	103.68	111.50
46	BM	78	ALA	CA-C-N	5.21	128.04	120.79
46	BM	78	ALA	C-N-CA	5.21	128.04	120.79
65	Bf	330	HIS	CA-C-O	5.21	127.00	121.16
85	AA	985	G	C4'-C3'-O3'	-5.21	105.18	113.00
34	BA	446	U	C4'-C3'-O3'	-5.21	105.18	113.00
34	BA	500	C	O4'-C1'-C2'	5.21	112.81	107.60
34	BA	1475	G	C4'-C3'-O3'	-5.21	105.18	113.00
35	BB	818	U	C2'-C3'-O3'	5.21	121.52	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1334	C	P-O3'-C3'	-5.21	112.38	120.20
35	BB	1494	G	C8-N9-C1'	5.21	142.64	127.00
53	BT	51	MET	N-CA-C	5.21	118.06	109.72
60	Ba	90	ARG	CB-CA-C	-5.21	100.05	110.42
67	Bh	181	LEU	N-CA-C	5.21	117.64	111.33
74	Bo	60	CYS	N-CA-CB	5.21	119.30	110.49
85	AA	282	C	C2'-C3'-O3'	5.21	121.52	113.70
85	AA	1284	A	C1'-O4'-C4'	-5.21	104.69	109.90
85	AA	1328	U	C5'-C4'-C3'	5.21	123.82	116.00
85	AA	1666	U	C5'-C4'-C3'	-5.21	108.18	116.00
16	AH	16	LYS	CA-C-N	5.21	127.26	120.28
16	AH	16	LYS	C-N-CA	5.21	127.26	120.28
34	BA	241	U	C4'-C3'-O3'	-5.21	105.19	113.00
34	BA	326	A	C5'-C4'-O4'	5.21	117.61	109.80
34	BA	1233	U	O3'-P-O5'	5.21	111.81	104.00
34	BA	1408	C	C1'-O4'-C4'	-5.21	104.69	109.90
35	BB	377	A	P-O5'-C5'	-5.21	113.09	120.90
35	BB	1547	U	O3'-P-O5'	-5.21	96.19	104.00
54	BU	113	GLU	N-CA-C	-5.21	105.60	111.28
56	BW	12	ARG	N-CA-CB	-5.21	102.38	110.04
68	Bi	106	ARG	N-CA-C	-5.21	105.78	111.82
77	Br	95	CYS	CB-CA-C	-5.21	100.93	109.53
85	AA	843	U	P-O5'-C5'	-5.21	113.08	120.90
85	AA	1442	U	P-O5'-C5'	5.21	128.72	120.90
14	AF	87	ASN	CA-CB-CG	-5.21	107.39	112.60
29	AV	4	LYS	N-CA-CB	-5.21	103.69	110.88
34	BA	513	U	C2-N3-C4	-5.21	111.37	127.00
34	BA	703	U	C3'-C2'-C1'	-5.21	96.09	101.30
35	BB	1384	A	C5'-C4'-C3'	-5.21	108.19	116.00
36	BC	19	A	C3'-C2'-C1'	5.21	106.51	101.30
37	BD	94	C	C4'-C3'-O3'	-5.21	105.19	113.00
54	BU	65	TRP	CE2-CD2-CE3	5.21	124.01	118.80
85	AA	579	U	C4'-C3'-O3'	-5.21	105.19	113.00
85	AA	899	A	O3'-P-O5'	5.21	111.81	104.00
85	AA	2249	U	C2'-C3'-O3'	5.21	117.31	109.50
14	AF	41	ARG	N-CA-C	5.21	118.09	111.69
34	BA	608	G	C4'-C3'-O3'	5.21	120.81	113.00
34	BA	1334	G	C1'-O4'-C4'	-5.21	104.69	109.90
34	BA	1392	A	P-O5'-C5'	5.21	128.71	120.90
35	BB	1264	U	O5'-C5'-C4'	-5.21	103.69	111.50
35	BB	1504	U	P-O3'-C3'	5.21	128.01	120.20
40	BG	44	G	C1'-O4'-C4'	-5.21	104.69	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	BQ	112	ASN	OD1-CG-ND2	-5.21	117.39	122.60
63	Bd	9	ASN	CB-CA-C	-5.21	101.39	110.09
65	Bf	272	ASP	CA-C-N	5.21	129.96	123.14
65	Bf	272	ASP	C-N-CA	5.21	129.96	123.14
82	Bw	45	ILE	CA-CB-CG2	5.21	119.35	110.50
85	AA	147	G	C1'-O4'-C4'	-5.21	104.69	109.90
85	AA	742	U	C2-N3-C4	-5.21	111.38	127.00
85	AA	1485	G	C4-N9-C1'	-5.21	110.88	126.50
85	AA	2042	G	C2'-C3'-O3'	5.21	121.51	113.70
85	AA	2085	C	C4'-C3'-O3'	-5.21	101.59	109.40
85	AA	2211	G	C1'-O4'-C4'	-5.21	104.69	109.90
26	AS	78	ASP	CA-CB-CG	-5.21	107.39	112.60
34	BA	1535	G	N9-C1'-C2'	-5.21	104.19	112.00
35	BB	809	U	P-O5'-C5'	-5.21	113.09	120.90
35	BB	942	G	P-O3'-C3'	5.21	128.01	120.20
35	BB	985	A	O5'-C5'-C4'	-5.21	103.89	111.70
36	BC	90	U	C1'-C2'-O2'	5.21	116.21	108.40
44	BK	111	LEU	CA-C-N	5.21	127.78	120.28
44	BK	111	LEU	C-N-CA	5.21	127.78	120.28
82	Bw	67	SER	CA-C-O	5.21	126.07	120.55
85	AA	105	A	C4'-C3'-O3'	-5.21	105.19	113.00
85	AA	826	C	C5'-C4'-C3'	-5.21	108.19	116.00
85	AA	1858	G	C1'-O4'-C4'	-5.21	104.69	109.90
8	A7	23	GLN	N-CA-C	-5.20	105.69	111.36
34	BA	210	G	C5'-C4'-O4'	-5.20	102.00	109.80
34	BA	751	A	C4'-C3'-C2'	-5.20	97.40	102.60
34	BA	1470	G	C4'-C3'-O3'	5.20	117.20	109.40
35	BB	732	G	O5'-C5'-C4'	5.20	119.30	111.50
36	BC	17	U	O3'-P-O5'	-5.20	96.20	104.00
54	BU	102	GLN	CB-CG-CD	-5.20	103.75	112.60
77	Br	217	ARG	CB-CG-CD	5.20	123.27	111.30
85	AA	181	A	O3'-P-O5'	5.20	111.81	104.00
85	AA	1721	A	C1'-O4'-C4'	-5.20	104.70	109.90
6	A5	117	TYR	CA-CB-CG	-5.20	104.54	113.90
35	BB	376	A	C4'-C3'-C2'	-5.20	97.40	102.60
35	BB	879	G	C1'-O4'-C4'	5.20	115.10	109.90
64	Be	157	THR	N-CA-C	-5.20	99.93	108.41
67	Bh	77	THR	CA-CB-OG1	5.20	117.40	109.60
82	Bw	82	ARG	CB-CA-C	-5.20	102.01	110.85
85	AA	131	C	C4'-C3'-C2'	-5.20	97.40	102.60
85	AA	364	C	O5'-C5'-C4'	-5.20	103.70	111.50
85	AA	1220	A	P-O3'-C3'	-5.20	112.40	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	2197	A	O3'-P-O5'	5.20	111.80	104.00
4	A3	208	GLU	CB-CA-C	-5.20	102.01	110.85
7	A6	116	GLY	N-CA-C	-5.20	100.86	113.18
28	AU	88	HIS	N-CA-C	-5.20	106.96	113.72
34	BA	132	U	P-O5'-C5'	5.20	128.70	120.90
34	BA	222	C	O4'-C1'-N1	5.20	116.30	108.50
34	BA	275	C	C4'-C3'-O3'	-5.20	105.20	113.00
34	BA	383	G	O5'-C5'-C4'	-5.20	103.70	111.50
34	BA	1568	A	O3'-P-O5'	5.20	111.80	104.00
41	BH	49	C	P-O5'-C5'	-5.20	113.10	120.90
44	BK	208	PRO	N-CA-C	-5.20	102.07	110.55
47	BN	153	GLN	N-CA-C	5.20	121.88	110.80
77	Br	246	ARG	CG-CD-NE	-5.20	100.56	112.00
78	Bs	51	LEU	N-CA-CB	-5.20	101.70	110.49
79	Bt	16	ARG	NE-CZ-NH1	5.20	126.70	121.50
80	Bu	118	LYS	CA-CB-CG	5.20	124.50	114.10
80	Bu	214	LEU	N-CA-CB	-5.20	102.93	110.47
22	AO	55	LYS	N-CA-C	-5.20	103.53	110.55
34	BA	539	C	O4'-C1'-N1	5.20	116.30	108.50
34	BA	1619	U	C5'-C4'-C3'	-5.20	108.20	116.00
35	BB	4	C	O4'-C1'-N1	5.20	116.30	108.50
35	BB	15	C	P-O5'-C5'	-5.20	113.10	120.90
35	BB	616	U	C5'-C4'-O4'	5.20	117.60	109.80
35	BB	1420	U	P-O3'-C3'	-5.20	112.40	120.20
38	BE	25	U	C4'-C3'-C2'	5.20	107.80	102.60
40	BG	89	A	C5'-C4'-C3'	-5.20	108.20	116.00
51	BR	128	ARG	N-CA-C	5.20	118.20	110.14
52	BS	45	ARG	O-C-N	-5.20	116.22	122.15
68	Bi	93	TYR	CA-CB-CG	-5.20	104.54	113.90
85	AA	69	C	O4'-C1'-C2'	5.20	112.80	107.60
85	AA	200	U	O3'-P-O5'	-5.20	96.20	104.00
85	AA	227	A	O4'-C4'-C3'	-5.20	98.80	104.00
85	AA	486	G	O4'-C1'-C2'	5.20	112.80	107.60
85	AA	1149	A	C1'-O4'-C4'	-5.20	104.70	109.90
85	AA	1182	A	O5'-C5'-C4'	-5.20	103.70	111.50
85	AA	1230	U	C4'-C3'-O3'	-5.20	105.20	113.00
85	AA	1778	C	O3'-P-O5'	5.20	111.80	104.00
4	A3	92	GLN	CB-CG-CD	-5.20	103.76	112.60
5	A4	80	GLN	N-CA-C	5.20	121.87	110.80
7	A6	112	VAL	N-CA-C	5.20	115.92	110.62
19	AK	53	LYS	N-CA-C	5.20	117.69	111.71
34	BA	90	G	C4'-C3'-C2'	-5.20	97.40	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	167	U	C6-N1-C1'	5.20	136.79	121.20
34	BA	810	A	N9-C1'-C2'	-5.20	104.20	112.00
34	BA	1677	C	P-O3'-C3'	-5.20	112.40	120.20
35	BB	14	C	P-O5'-C5'	-5.20	113.11	120.90
40	BG	78	C	O3'-P-O5'	-5.20	96.20	104.00
54	BU	33	ASN	N-CA-CB	5.20	119.27	110.49
85	AA	203	C	O3'-P-O5'	5.20	111.80	104.00
85	AA	542	G	O4'-C4'-C3'	-5.20	98.80	104.00
85	AA	766	G	C4'-C3'-O3'	-5.20	105.20	113.00
1	A0	105	MET	N-CA-CB	-5.20	102.61	110.77
5	A4	186	VAL	O-C-N	-5.20	117.57	123.03
7	A6	72	GLY	N-CA-C	-5.20	106.47	112.50
7	A6	128	ILE	N-CA-C	-5.20	105.43	110.42
10	A9	125	ASN	O-C-N	-5.20	115.34	121.32
13	AE	46	GLY	CA-C-N	-5.20	112.66	121.85
13	AE	46	GLY	C-N-CA	-5.20	112.66	121.85
25	AR	81	GLY	N-CA-C	5.20	125.50	113.18
34	BA	1646	U	C4'-C3'-C2'	5.20	107.80	102.60
35	BB	843	G	C1'-O4'-C4'	-5.20	104.70	109.90
35	BB	878	G	O5'-C5'-C4'	5.20	119.29	111.50
35	BB	1055	G	P-O5'-C5'	-5.20	113.11	120.90
36	BC	134	G	O3'-P-O5'	-5.20	96.21	104.00
49	BP	52	ASN	N-CA-C	5.20	117.84	110.10
54	BU	7	TYR	CB-CG-CD2	-5.20	113.01	120.80
54	BU	99	SER	CA-C-N	5.20	129.17	120.70
54	BU	99	SER	C-N-CA	5.20	129.17	120.70
65	Bf	106	HIS	CA-C-N	5.20	131.40	122.67
65	Bf	106	HIS	C-N-CA	5.20	131.40	122.67
65	Bf	406	ARG	CD-NE-CZ	5.20	131.67	124.40
77	Br	338	ALA	N-CA-CB	-5.20	102.48	110.12
84	By	169	ASP	N-CA-CB	-5.20	101.71	110.49
85	AA	190	A	O5'-C5'-C4'	-5.20	103.71	111.50
85	AA	767	A	N9-C1'-C2'	-5.20	104.21	112.00
85	AA	935	A	C4'-C3'-O3'	-5.20	105.21	113.00
85	AA	1984	A	O5'-C5'-C4'	-5.20	103.71	111.50
5	A4	69	PRO	CB-CA-C	-5.19	103.38	111.22
15	AG	46	SER	O-C-N	-5.19	115.82	121.53
34	BA	820	C	C4'-C3'-C2'	-5.19	97.41	102.60
35	BB	103	C	P-O3'-C3'	-5.19	112.41	120.20
35	BB	511	A	C4'-C3'-O3'	-5.19	105.21	113.00
40	BG	150	A	O3'-P-O5'	-5.19	96.21	104.00
85	AA	962	U	C5'-C4'-C3'	-5.19	108.21	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1271	U	C1'-O4'-C4'	5.19	115.09	109.90
20	AL	27	ASP	CA-CB-CG	-5.19	107.41	112.60
34	BA	113	G	C3'-C2'-C1'	-5.19	96.11	101.30
34	BA	828	A	C5'-C4'-C3'	5.19	123.79	116.00
34	BA	1710	C	C3'-C2'-C1'	-5.19	96.11	101.30
35	BB	1220	A	C4'-C3'-C2'	-5.19	97.41	102.60
35	BB	1331	U	C5'-C4'-O4'	5.19	116.89	109.10
35	BB	1510	G	C2'-C3'-O3'	5.19	121.49	113.70
65	Bf	62	HIS	CB-CG-CD2	-5.19	124.45	131.20
65	Bf	227	VAL	CA-C-N	5.19	131.59	121.41
65	Bf	227	VAL	C-N-CA	5.19	131.59	121.41
77	Br	139	ARG	N-CA-C	5.19	120.54	113.37
85	AA	61	C	O5'-C5'-C4'	5.19	119.29	111.50
85	AA	696	G	C4-N9-C1'	-5.19	110.92	126.50
85	AA	1646	U	C1'-O4'-C4'	-5.19	104.51	109.70
85	AA	1874	G	C2'-C3'-O3'	5.19	117.29	109.50
25	AR	58	CYS	CA-CB-SG	-5.19	102.46	114.40
27	AT	98	LYS	CA-C-O	-5.19	115.05	120.55
34	BA	74	A	C5'-C4'-C3'	-5.19	108.22	116.00
34	BA	473	A	P-O3'-C3'	-5.19	112.42	120.20
34	BA	575	U	C2'-C3'-O3'	5.19	117.29	109.50
34	BA	1138	C	C5'-C4'-C3'	5.19	123.79	116.00
35	BB	1514	G	O5'-C5'-C4'	-5.19	103.72	111.50
38	BE	76	U	C4'-C3'-C2'	5.19	107.79	102.60
38	BE	104	G	C4'-C3'-O3'	5.19	120.79	113.00
39	BF	11	C	C4'-C3'-C2'	5.19	107.79	102.60
40	BG	38	A	C4'-C3'-C2'	5.19	107.79	102.60
42	BI	54	LYS	N-CA-C	5.19	121.86	110.80
85	AA	314	C	O5'-C5'-C4'	-5.19	103.71	111.50
85	AA	349	C	P-O3'-C3'	-5.19	112.42	120.20
85	AA	769	C	C6-N1-C2	-5.19	104.63	120.20
85	AA	1282	A	C4'-C3'-O3'	-5.19	105.21	113.00
85	AA	1950	G	O5'-C5'-C4'	-5.19	103.71	111.50
6	A5	21	HIS	N-CA-C	-5.19	101.23	109.59
8	A7	29	THR	CA-C-N	5.19	131.45	121.54
8	A7	29	THR	C-N-CA	5.19	131.45	121.54
34	BA	1816	G	C2'-C3'-O3'	5.19	117.28	109.50
35	BB	634	A	C4'-C3'-O3'	-5.19	105.22	113.00
35	BB	732	G	C5'-C4'-O4'	5.19	117.58	109.80
35	BB	787	A	O4'-C1'-C2'	5.19	112.79	107.60
35	BB	1163	U	C4'-C3'-C2'	-5.19	97.41	102.60
35	BB	1415	G	N9-C1'-C2'	5.19	119.78	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BC	16	A	C4'-C3'-C2'	-5.19	97.41	102.60
36	BC	58	G	O3'-P-O5'	-5.19	96.22	104.00
85	AA	48	G	C4'-C3'-C2'	-5.19	97.41	102.60
85	AA	1465	C	C5'-C4'-C3'	5.19	123.78	116.00
4	A3	109	ILE	CB-CA-C	-5.19	104.41	111.15
18	AJ	119	ARG	CB-CA-C	-5.19	99.15	109.99
20	AL	70	SER	O-C-N	-5.19	117.81	123.26
26	AS	133	LEU	CB-CA-C	-5.19	102.03	110.85
34	BA	96	G	O5'-C5'-C4'	-5.19	103.72	111.50
34	BA	306	G	C5'-C4'-C3'	-5.19	108.22	116.00
34	BA	508	C	O4'-C1'-N1	5.19	115.98	108.20
34	BA	1654	G	C1'-O4'-C4'	-5.19	104.71	109.90
35	BB	624	A	N9-C1'-C2'	-5.19	104.22	112.00
47	BN	112	GLU	CA-C-N	5.19	125.74	119.98
47	BN	112	GLU	C-N-CA	5.19	125.74	119.98
62	Bc	22	ARG	N-CA-CB	5.19	118.99	110.90
69	Bj	47	TRP	CA-CB-CG	5.19	123.45	113.60
71	Bl	81	CYS	CA-C-O	5.19	126.08	120.32
72	Bm	17	ALA	N-CA-C	5.19	121.85	110.80
74	Bo	32	SER	CA-C-O	5.19	126.05	120.55
82	Bw	16	MET	CA-C-N	5.19	126.33	119.84
82	Bw	16	MET	C-N-CA	5.19	126.33	119.84
85	AA	666	A	P-O3'-C3'	-5.19	112.42	120.20
85	AA	676	U	P-O5'-C5'	5.19	128.68	120.90
85	AA	767	A	O4'-C1'-C2'	5.19	112.79	107.60
85	AA	1148	G	N9-C1'-C2'	-5.19	104.22	112.00
85	AA	2108	C	P-O3'-C3'	-5.19	112.42	120.20
31	AX	188	MET	CG-SD-CE	-5.19	89.49	100.90
34	BA	1658	G	C1'-O4'-C4'	-5.19	104.71	109.90
35	BB	457	U	C1'-O4'-C4'	-5.19	104.71	109.90
35	BB	691	A	P-O3'-C3'	-5.19	112.42	120.20
85	AA	67	C	C2'-C3'-O3'	5.19	117.28	109.50
85	AA	259	A	O5'-C5'-C4'	-5.19	103.72	111.50
85	AA	374	C	C2'-C3'-O3'	-5.19	105.92	113.70
85	AA	798	A	O4'-C1'-N9	5.19	116.28	108.50
85	AA	1823	G	C5'-C4'-C3'	-5.19	108.22	116.00
34	BA	1193	A	C5'-C4'-C3'	-5.18	108.22	116.00
34	BA	1241	U	O3'-P-O5'	-5.18	96.22	104.00
34	BA	1494	G	C5-C6-O6	-5.18	113.05	128.60
34	BA	1734	U	C5'-C4'-C3'	-5.18	108.22	116.00
35	BB	259	U	O3'-P-O5'	-5.18	96.22	104.00
36	BC	10	C	O3'-P-O5'	-5.18	96.22	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BG	9	G	C3'-C2'-C1'	-5.18	96.11	101.30
62	Bc	23	ASN	CB-CA-C	-5.18	104.91	111.86
62	Bc	130	ARG	N-CA-C	-5.18	106.22	112.54
75	Bp	26	LYS	N-CA-CB	-5.18	101.81	110.83
77	Br	323	ARG	CB-CA-C	-5.18	102.18	110.79
84	By	134	ASP	CA-CB-CG	-5.18	107.42	112.60
85	AA	161	A	C4'-C3'-O3'	-5.18	105.22	113.00
85	AA	1055	U	C5'-C4'-O4'	5.18	117.58	109.80
85	AA	1491	G	O3'-P-O5'	-5.18	96.22	104.00
5	A4	51	VAL	N-CA-C	-5.18	100.74	108.46
16	AH	68	MET	N-CA-C	-5.18	105.63	111.28
34	BA	179	U	O4'-C1'-N1	5.18	116.27	108.50
34	BA	222	C	P-O5'-C5'	-5.18	113.13	120.90
34	BA	518	C	C3'-C2'-O2'	5.18	118.47	110.70
34	BA	865	C	O5'-P-OP2	-5.18	92.45	108.00
34	BA	879	C	C4'-C3'-C2'	5.18	107.78	102.60
34	BA	881	C	O5'-C5'-C4'	-5.18	103.72	111.50
35	BB	730	G	P-O3'-C3'	-5.18	112.43	120.20
35	BB	754	U	C4'-C3'-O3'	5.18	117.17	109.40
35	BB	1333	U	O4'-C1'-C2'	-5.18	102.42	107.60
35	BB	1419	G	C4'-C3'-C2'	-5.18	97.42	102.60
39	BF	62	U	O4'-C1'-C2'	-5.18	100.62	105.80
41	BH	3	U	P-O5'-C5'	-5.18	113.12	120.90
44	BK	70	ILE	N-CA-C	-5.18	105.33	110.62
72	Bm	38	TYR	CA-C-N	5.18	131.44	121.54
72	Bm	38	TYR	C-N-CA	5.18	131.44	121.54
84	By	8	GLN	CA-C-N	5.18	130.14	122.94
84	By	8	GLN	C-N-CA	5.18	130.14	122.94
85	AA	521	A	N9-C1'-C2'	-5.18	106.23	114.00
85	AA	1515	A	C4'-C3'-O3'	-5.18	105.23	113.00
2	A1	118	ILE	CB-CA-C	-5.18	102.79	111.29
8	A7	144	HIS	CA-CB-CG	5.18	118.98	113.80
34	BA	24	C	C1'-O4'-C4'	-5.18	104.72	109.90
34	BA	401	A	C3'-C2'-C1'	-5.18	96.12	101.30
35	BB	395	U	P-O3'-C3'	-5.18	112.43	120.20
38	BE	192	A	C5'-C4'-C3'	-5.18	108.23	116.00
44	BK	51	HIS	CA-CB-CG	-5.18	108.62	113.80
50	BQ	82	ARG	CD-NE-CZ	-5.18	117.15	124.40
57	BX	51	ARG	N-CA-CB	5.18	116.54	111.10
85	AA	1949	U	O3'-P-O5'	-5.18	96.23	104.00
13	AE	134	LYS	O-C-N	-5.18	116.79	121.66
34	BA	219	U	C5'-C4'-O4'	5.18	117.57	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	342	U	P-O5'-C5'	-5.18	113.13	120.90
34	BA	563	A	O4'-C4'-C3'	-5.18	98.82	104.00
34	BA	871	G	OP1-P-O3'	-5.18	92.46	108.00
34	BA	1119	A	N9-C1'-C2'	-5.18	106.23	114.00
35	BB	448	G	C5'-C4'-O4'	5.18	117.57	109.80
35	BB	454	U	C1'-O4'-C4'	-5.18	104.72	109.90
35	BB	1210	U	C1'-O4'-C4'	-5.18	104.72	109.90
35	BB	1443	C	P-O5'-C5'	-5.18	113.13	120.90
36	BC	108	A	O4'-C1'-N9	5.18	116.27	108.50
38	BE	14	C	C2'-C3'-O3'	5.18	117.27	109.50
40	BG	41	U	C1'-O4'-C4'	-5.18	104.72	109.90
42	BI	167	SER	CA-C-N	5.18	131.43	121.54
42	BI	167	SER	C-N-CA	5.18	131.43	121.54
48	BO	119	GLN	N-CA-C	5.18	117.01	111.36
54	BU	46	ALA	CA-C-N	5.18	131.43	121.54
54	BU	46	ALA	C-N-CA	5.18	131.43	121.54
67	Bh	117	GLY	CA-C-N	5.18	127.74	120.28
67	Bh	117	GLY	C-N-CA	5.18	127.74	120.28
85	AA	24	U	O4'-C1'-C2'	5.18	112.78	107.60
85	AA	200	U	P-O3'-C3'	-5.18	112.43	120.20
85	AA	535	G	P-O3'-C3'	-5.18	112.43	120.20
85	AA	856	G	N9-C1'-C2'	-5.18	104.23	112.00
85	AA	865	G	N9-C1'-C2'	-5.18	104.23	112.00
85	AA	1371	C	O5'-C5'-C4'	-5.18	103.73	111.50
85	AA	1469	G	O4'-C1'-C2'	-5.18	102.42	107.60
85	AA	1551	G	P-O5'-C5'	-5.18	113.13	120.90
85	AA	2111	C	P-O5'-C5'	-5.18	113.13	120.90
34	BA	306	G	P-O5'-C5'	-5.18	113.13	120.90
34	BA	332	U	C4'-C3'-C2'	-5.18	97.42	102.60
35	BB	1194	A	N9-C1'-C2'	-5.18	104.23	112.00
35	BB	1423	U	O4'-C4'-C3'	-5.18	98.82	104.00
56	BW	123	GLU	CA-C-N	5.18	127.48	120.44
56	BW	123	GLU	C-N-CA	5.18	127.48	120.44
57	BX	149	SER	CA-C-N	5.18	130.62	120.99
57	BX	149	SER	C-N-CA	5.18	130.62	120.99
65	Bf	324	GLY	N-CA-C	-5.18	103.22	110.88
85	AA	65	A	C5'-C4'-O4'	-5.18	102.03	109.80
85	AA	1095	C	O3'-P-O5'	-5.18	96.23	104.00
85	AA	2099	C	N1-C1'-C2'	5.18	119.77	112.00
85	AA	2199	G	C1'-O4'-C4'	-5.18	104.72	109.90
5	A4	115	GLN	N-CA-CB	-5.18	104.26	112.08
11	AC	183	PHE	CB-CA-C	-5.18	102.80	110.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	230	A	C2'-C3'-O3'	5.18	121.46	113.70
34	BA	367	G	O4'-C4'-C3'	-5.18	100.92	106.10
34	BA	508	C	C1'-O4'-C4'	-5.18	104.52	109.70
34	BA	965	A	C4'-C3'-O3'	-5.18	105.23	113.00
34	BA	1211	G	C3'-C2'-C1'	5.18	106.48	101.30
35	BB	669	A	O4'-C1'-C2'	-5.18	100.62	105.80
35	BB	783	U	P-O3'-C3'	5.18	127.97	120.20
35	BB	832	C	O5'-C5'-C4'	-5.18	103.73	111.50
37	BD	50	A	O4'-C1'-C2'	5.18	112.78	107.60
38	BE	195	G	C1'-O4'-C4'	-5.18	104.72	109.90
47	BN	14	ARG	NE-CZ-NH2	5.18	123.86	119.20
53	BT	31	GLU	CA-C-O	5.18	126.25	120.82
85	AA	150	U	C5'-C4'-C3'	-5.18	108.24	116.00
85	AA	281	C	C5'-C4'-C3'	-5.18	108.23	116.00
85	AA	484	G	O4'-C1'-N9	5.18	116.27	108.50
85	AA	612	A	O4'-C1'-C2'	-5.18	102.42	107.60
85	AA	1311	U	P-O3'-C3'	-5.18	112.44	120.20
85	AA	1521	U	C2'-C3'-O3'	5.18	121.47	113.70
15	AG	93	LYS	CA-C-O	5.17	125.92	119.97
22	AO	77	VAL	CA-C-N	5.17	127.64	120.29
22	AO	77	VAL	C-N-CA	5.17	127.64	120.29
24	AQ	21	MET	CG-SD-CE	-5.17	89.52	100.90
34	BA	278	U	C4'-C3'-O3'	-5.17	105.24	113.00
34	BA	518	C	P-O5'-C5'	-5.17	113.14	120.90
34	BA	678	C	O4'-C1'-C2'	-5.17	102.43	107.60
34	BA	1433	U	N1-C1'-C2'	-5.17	106.24	114.00
35	BB	634	A	C5'-C4'-C3'	-5.17	108.24	116.00
35	BB	1303	A	O5'-C5'-C4'	5.17	119.26	111.50
35	BB	1480	G	C8-N9-C1'	5.17	142.52	127.00
71	Bl	51	LEU	N-CA-CB	-5.17	101.75	110.49
77	Br	107	PHE	N-CA-C	-5.17	98.88	107.99
85	AA	1441	G	O3'-P-O5'	-5.17	96.24	104.00
85	AA	1687	U	P-O5'-C5'	-5.17	113.14	120.90
85	AA	2083	G	O3'-P-O5'	-5.17	96.24	104.00
85	AA	2093	U	P-O3'-C3'	-5.17	112.44	120.20
27	AT	114	VAL	N-CA-CB	5.17	118.67	111.94
31	AX	12	ARG	N-CA-CB	5.17	117.51	110.01
40	BG	31	G	C2'-C3'-O3'	5.17	121.46	113.70
43	BJ	110	SER	CA-C-N	5.17	127.73	120.28
43	BJ	110	SER	C-N-CA	5.17	127.73	120.28
85	AA	607	U	C1'-O4'-C4'	-5.17	104.53	109.70
85	AA	619	A	N9-C1'-C2'	-5.17	106.24	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1268	C	C1'-O4'-C4'	-5.17	104.73	109.90
85	AA	1931	C	C5'-C4'-O4'	-5.17	102.04	109.80
15	AG	45	LEU	N-CA-CB	5.17	117.66	110.26
34	BA	701	G	O4'-C1'-C2'	5.17	112.77	107.60
34	BA	1589	U	C5'-C4'-C3'	5.17	123.76	116.00
34	BA	1782	C	O4'-C1'-N1	5.17	116.26	108.50
35	BB	60	A	N9-C1'-C2'	-5.17	106.24	114.00
35	BB	1201	G	O5'-C5'-C4'	5.17	119.26	111.50
52	BS	49	GLU	CA-C-N	5.17	127.93	120.38
52	BS	49	GLU	C-N-CA	5.17	127.93	120.38
54	BU	127	PRO	N-CA-C	5.17	119.32	111.15
68	Bi	108	ALA	O-C-N	-5.17	116.64	122.12
77	Br	17	VAL	CB-CA-C	-5.17	102.81	111.29
81	Bv	187	PRO	N-CA-C	5.17	123.12	112.47
84	By	160	HIS	N-CA-C	-5.17	105.82	111.82
85	AA	318	A	C2'-C3'-O3'	5.17	121.46	113.70
13	AE	85	ARG	CA-C-O	5.17	126.88	121.19
19	AK	26	THR	N-CA-C	5.17	116.84	108.41
34	BA	539	C	P-O3'-C3'	-5.17	112.45	120.20
34	BA	566	G	O4'-C4'-C3'	-5.17	98.83	104.00
34	BA	1440	C	C5'-C4'-O4'	5.17	117.56	109.80
35	BB	1441	C	O3'-P-O5'	-5.17	96.25	104.00
83	Bx	66	PRO	CA-C-N	5.17	127.72	120.28
83	Bx	66	PRO	C-N-CA	5.17	127.72	120.28
85	AA	336	C	C3'-C2'-C1'	-5.17	96.13	101.30
85	AA	1282	A	C4-N9-C1'	-5.17	110.79	126.30
5	A4	102	ARG	CA-C-O	5.17	126.84	121.31
17	AI	104	TYR	CB-CG-CD2	-5.17	113.05	120.80
24	AQ	51	VAL	O-C-N	-5.17	116.83	122.83
34	BA	294	C	C5'-C4'-C3'	5.17	122.95	115.20
34	BA	484	A	C5'-C4'-C3'	-5.17	108.25	116.00
34	BA	769	U	O4'-C4'-C3'	-5.17	100.93	106.10
34	BA	1482	A	O4'-C1'-C2'	5.17	112.77	107.60
34	BA	1635	A	P-O5'-C5'	-5.17	113.15	120.90
34	BA	1797	A	O5'-C5'-C4'	-5.17	103.95	111.70
35	BB	1091	C	O5'-C5'-C4'	-5.17	103.95	111.70
38	BE	25	U	C3'-C2'-C1'	-5.17	96.13	101.30
64	Be	70	ARG	CB-CG-CD	5.17	123.19	111.30
65	Bf	406	ARG	NE-CZ-NH1	5.17	126.67	121.50
77	Br	108	ARG	N-CA-CB	5.17	118.28	110.42
81	Bv	49	VAL	CB-CA-C	-5.17	102.98	110.63
82	Bw	138	MET	N-CA-CB	-5.17	102.92	110.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	730	G	P-O3'-C3'	-5.17	112.45	120.20
85	AA	807	A	C4'-C3'-C2'	-5.17	97.43	102.60
85	AA	1018	G	P-O3'-C3'	-5.17	112.45	120.20
85	AA	1904	C	O3'-P-O5'	-5.17	96.25	104.00
85	AA	2224	U	C4'-C3'-O3'	-5.17	105.25	113.00
23	AP	248	ASP	CB-CA-C	-5.17	99.99	110.17
34	BA	849	G	P-O5'-C5'	5.17	128.65	120.90
34	BA	1247	G	C4'-C3'-C2'	-5.17	97.43	102.60
44	BK	101	LYS	CA-C-N	5.17	131.41	121.54
44	BK	101	LYS	C-N-CA	5.17	131.41	121.54
58	BY	51	ARG	CA-C-N	-5.17	114.12	122.23
58	BY	51	ARG	C-N-CA	-5.17	114.12	122.23
62	Bc	22	ARG	O-C-N	-5.17	116.42	123.14
64	Be	91	GLY	O-C-N	-5.17	117.01	122.95
80	Bu	11	ALA	CA-C-O	5.17	125.94	120.10
85	AA	1292	A	C2'-C3'-O3'	5.17	121.45	113.70
85	AA	1686	G	P-O5'-C5'	-5.17	113.15	120.90
85	AA	1898	C	C4'-C3'-O3'	5.17	117.15	109.40
85	AA	2009	A	O4'-C1'-C2'	-5.17	102.43	107.60
19	AK	134	LYS	N-CA-C	-5.17	100.31	108.73
34	BA	6	C	O4'-C1'-C2'	5.17	112.77	107.60
34	BA	437	G	P-O3'-C3'	5.17	127.95	120.20
34	BA	448	U	C5'-C4'-C3'	5.17	123.75	116.00
41	BH	119	U	P-O5'-C5'	-5.17	113.15	120.90
47	BN	11	VAL	N-CA-C	-5.17	98.60	109.34
27	AT	73	GLY	N-CA-C	5.16	125.42	113.18
34	BA	1035	A	O4'-C1'-C2'	5.16	110.96	105.80
34	BA	1425	G	C5'-C4'-C3'	-5.16	107.46	115.20
34	BA	1693	U	C2'-C3'-O3'	5.16	117.25	109.50
35	BB	52	G	O5'-C5'-C4'	-5.16	103.75	111.50
35	BB	118	A	N9-C1'-C2'	-5.16	104.25	112.00
35	BB	411	A	P-O5'-C5'	-5.16	113.16	120.90
35	BB	896	C	O5'-C5'-C4'	-5.16	103.95	111.70
35	BB	1294	C	O5'-C5'-C4'	-5.16	103.75	111.50
38	BE	111	C	O4'-C1'-N1	5.16	116.25	108.50
38	BE	176	G	C3'-C2'-C1'	-5.16	96.14	101.30
41	BH	135	U	O4'-C4'-C3'	-5.16	100.94	106.10
51	BR	139	TYR	CA-CB-CG	5.16	123.19	113.90
55	BV	86	ARG	N-CA-C	5.16	117.65	109.96
68	Bi	58	TYR	N-CA-C	5.16	118.84	112.54
68	Bi	65	LYS	N-CA-CB	-5.16	102.25	111.08
74	Bo	57	CYS	CB-CA-C	-5.16	101.33	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	573	U	C4'-C3'-C2'	5.16	107.76	102.60
85	AA	725	G	C1'-O4'-C4'	-5.16	104.74	109.90
85	AA	755	G	O4'-C1'-N9	5.16	116.25	108.50
34	BA	63	A	C3'-C2'-O2'	-5.16	106.86	114.60
34	BA	1035	A	C4'-C3'-C2'	5.16	107.76	102.60
34	BA	1458	A	O3'-P-O5'	5.16	111.74	104.00
34	BA	1732	A	P-O3'-C3'	-5.16	112.46	120.20
35	BB	633	C	C1'-O4'-C4'	-5.16	104.74	109.90
35	BB	1422	G	C5'-C4'-C3'	-5.16	108.26	116.00
37	BD	29	C	P-O3'-C3'	-5.16	112.46	120.20
59	BZ	80	ASP	CA-CB-CG	-5.16	107.44	112.60
60	Ba	110	LEU	CA-C-N	5.16	127.81	120.53
60	Ba	110	LEU	C-N-CA	5.16	127.81	120.53
85	AA	373	G	C4'-C3'-O3'	-5.16	105.26	113.00
85	AA	754	C	P-O5'-C5'	-5.16	113.16	120.90
85	AA	963	U	C5'-C4'-O4'	5.16	117.54	109.80
85	AA	2140	U	O5'-C5'-C4'	-5.16	103.76	111.50
2	A1	38	CYS	CA-CB-SG	5.16	126.27	114.40
17	AI	126	PHE	CB-CA-C	-5.16	101.01	109.99
26	AS	88	ASP	N-CA-C	-5.16	101.23	109.23
34	BA	868	C	O3'-P-O5'	-5.16	96.26	104.00
34	BA	1060	C	O4'-C1'-N1	5.16	115.94	108.20
34	BA	1568	A	P-O5'-C5'	-5.16	113.16	120.90
35	BB	986	C	O4'-C1'-C2'	5.16	110.96	105.80
35	BB	1290	C	C1'-O4'-C4'	-5.16	104.74	109.90
35	BB	1474	A	P-O3'-C3'	5.16	127.94	120.20
38	BE	127	G	C2'-C3'-O3'	5.16	121.44	113.70
39	BF	53	G	C2'-C3'-O3'	5.16	117.24	109.50
77	Br	144	GLU	CA-C-N	5.16	131.40	121.54
77	Br	144	GLU	C-N-CA	5.16	131.40	121.54
85	AA	159	G	C1'-O4'-C4'	-5.16	104.74	109.90
85	AA	373	G	O4'-C4'-C3'	-5.16	98.84	104.00
85	AA	1311	U	P-O5'-C5'	5.16	128.64	120.90
85	AA	2213	A	C5'-C4'-O4'	-5.16	102.06	109.80
85	AA	2221	A	O4'-C4'-C3'	-5.16	98.84	104.00
86	AB	2	C	C5'-C4'-C3'	5.16	123.74	116.00
26	AS	22	TRP	CB-CG-CD2	-5.16	119.58	126.80
34	BA	661	C	O3'-P-O5'	5.16	111.74	104.00
35	BB	64	U	P-O3'-C3'	-5.16	112.46	120.20
35	BB	375	G	C5'-C4'-C3'	-5.16	108.26	116.00
35	BB	894	A	P-O5'-C5'	5.16	128.64	120.90
35	BB	1521	G	P-O5'-C5'	-5.16	113.16	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BC	138	C	C3'-C2'-C1'	-5.16	96.14	101.30
42	BI	131	ASP	N-CA-C	-5.16	105.57	111.14
44	BK	109	ASP	CA-C-N	5.16	131.39	121.54
44	BK	109	ASP	C-N-CA	5.16	131.39	121.54
62	Bc	24	GLY	CA-C-O	5.16	124.63	119.27
75	Bp	11	PHE	N-CA-CB	-5.16	102.53	110.01
82	Bw	119	GLN	N-CA-C	-5.16	105.74	111.36
85	AA	52	U	P-O5'-C5'	5.16	128.64	120.90
85	AA	53	G	C1'-C2'-O2'	5.16	116.14	108.40
85	AA	438	G	C4'-C3'-C2'	-5.16	97.44	102.60
85	AA	687	G	O5'-C5'-C4'	-5.16	103.96	111.70
85	AA	1106	A	O4'-C1'-N9	5.16	116.24	108.50
85	AA	1550	C	C5'-C4'-C3'	-5.16	108.26	116.00
34	BA	192	G	P-O5'-C5'	5.16	128.63	120.90
34	BA	660	C	P-O5'-C5'	-5.16	113.17	120.90
34	BA	1480	C	C4'-C3'-O3'	-5.16	105.27	113.00
35	BB	99	G	C5'-C4'-C3'	-5.16	108.26	116.00
35	BB	1407	U	C4'-C3'-O3'	-5.16	105.26	113.00
47	BN	23	GLN	N-CA-C	5.16	121.78	110.80
53	BT	191	ASP	N-CA-C	5.16	121.78	110.80
85	AA	1817	U	C5'-C4'-C3'	-5.16	108.27	116.00
3	A2	184	ARG	CA-C-N	5.16	127.52	120.46
3	A2	184	ARG	C-N-CA	5.16	127.52	120.46
7	A6	154	HIS	CB-CA-C	-5.16	101.91	110.68
11	AC	242	ASP	CA-CB-CG	5.16	117.76	112.60
23	AP	206	VAL	O-C-N	-5.16	118.48	122.97
34	BA	20	A	N9-C1'-C2'	-5.16	104.27	112.00
34	BA	172	A	C5'-C4'-C3'	-5.16	108.27	116.00
34	BA	700	G	O3'-P-O5'	5.16	111.73	104.00
34	BA	1488	C	O4'-C1'-C2'	5.16	112.76	107.60
35	BB	129	U	C5'-C4'-C3'	5.16	123.73	116.00
35	BB	1267	C	O5'-C5'-C4'	5.16	119.23	111.50
35	BB	1272	G	P-O5'-C5'	5.16	128.63	120.90
35	BB	1440	A	P-O3'-C3'	-5.16	112.47	120.20
49	BP	54	LYS	N-CA-C	-5.16	105.66	111.28
57	BX	104	LEU	CA-C-O	5.16	126.52	120.80
81	Bv	66	MET	CG-SD-CE	-5.16	89.56	100.90
82	Bw	68	ARG	N-CA-C	-5.16	105.57	111.14
85	AA	535	G	C4'-C3'-O3'	-5.16	105.27	113.00
85	AA	583	U	P-O3'-C3'	-5.16	112.47	120.20
85	AA	841	U	C5'-C4'-C3'	-5.16	108.27	116.00
22	AO	54	VAL	N-CA-C	5.15	120.06	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	AT	19	VAL	O-C-N	-5.15	116.87	122.64
34	BA	622	G	O3'-P-O5'	5.15	111.73	104.00
34	BA	1143	U	C5'-C4'-C3'	5.15	123.73	116.00
35	BB	380	G	O4'-C1'-N9	5.15	115.93	108.20
35	BB	483	C	O3'-P-O5'	5.15	111.73	104.00
35	BB	779	C	O3'-P-O5'	-5.15	96.27	104.00
35	BB	1397	G	C4'-C3'-C2'	-5.15	97.45	102.60
35	BB	1537	C	P-O3'-C3'	-5.15	112.47	120.20
40	BG	107	U	N1-C1'-C2'	-5.15	106.27	114.00
69	Bj	147	SER	N-CA-C	5.15	116.58	111.07
85	AA	136	U	C4'-C3'-C2'	-5.15	97.45	102.60
85	AA	1562	U	C4'-C3'-O3'	-5.15	105.27	113.00
5	A4	27	ARG	CB-CA-C	5.15	120.16	110.63
8	A7	291	ILE	CB-CA-C	-5.15	101.91	111.18
34	BA	203	U	C1'-C2'-O2'	5.15	116.13	108.40
35	BB	101	U	C4'-C3'-C2'	-5.15	97.45	102.60
35	BB	973	G	C2'-C3'-O3'	5.15	121.43	113.70
36	BC	86	U	C1'-C2'-O2'	5.15	116.13	108.40
48	BO	86	LEU	N-CA-CB	-5.15	103.89	111.51
50	BQ	20	SER	CA-C-O	5.15	125.72	119.38
53	BT	31	GLU	CB-CG-CD	-5.15	103.84	112.60
70	Bk	50	THR	CA-C-O	5.15	125.88	120.42
84	By	72	LEU	N-CA-CB	5.15	117.48	110.01
85	AA	97	A	C1'-O4'-C4'	-5.15	104.75	109.90
85	AA	926	C	C4'-C3'-O3'	-5.15	105.27	113.00
2	A1	87	VAL	CA-C-N	-5.15	114.39	122.73
2	A1	87	VAL	C-N-CA	-5.15	114.39	122.73
10	A9	128	CYS	CA-C-N	5.15	131.50	121.41
10	A9	128	CYS	C-N-CA	5.15	131.50	121.41
13	AE	58	PHE	CA-C-N	5.15	130.03	122.77
13	AE	58	PHE	C-N-CA	5.15	130.03	122.77
16	AH	102	GLY	CA-C-N	5.15	124.77	119.05
16	AH	102	GLY	C-N-CA	5.15	124.77	119.05
34	BA	218	G	C1'-O4'-C4'	-5.15	104.55	109.70
34	BA	247	U	C1'-O4'-C4'	-5.15	104.55	109.70
34	BA	318	U	P-O3'-C3'	-5.15	112.47	120.20
35	BB	883	G	O4'-C1'-N9	5.15	115.92	108.20
40	BG	172	C	P-O3'-C3'	-5.15	112.47	120.20
50	BQ	198	ALA	CA-C-O	5.15	125.84	119.81
61	Bb	133	LYS	N-CA-CB	5.15	119.19	110.49
85	AA	530	A	P-O3'-C3'	-5.15	112.47	120.20
85	AA	663	C	C3'-C2'-C1'	-5.15	96.15	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1018	G	C1'-O4'-C4'	-5.15	104.75	109.90
85	AA	1369	U	C2'-C3'-O3'	5.15	121.43	113.70
85	AA	1445	C	C4'-C3'-C2'	5.15	107.75	102.60
85	AA	1478	G	C4'-C3'-O3'	-5.15	105.27	113.00
85	AA	1816	C	P-O3'-C3'	5.15	127.93	120.20
85	AA	2083	G	C4'-C3'-O3'	-5.15	105.28	113.00
27	AT	31	GLU	O-C-N	-5.15	116.64	123.13
34	BA	111	U	P-O5'-C5'	-5.15	113.18	120.90
34	BA	299	C	O5'-C5'-C4'	-5.15	103.78	111.50
34	BA	338	U	C4'-C3'-O3'	-5.15	105.28	113.00
34	BA	401	A	C4'-C3'-O3'	-5.15	105.28	113.00
35	BB	1	U	O5'-C5'-C4'	5.15	119.22	111.50
35	BB	291	C	O3'-P-O5'	5.15	111.72	104.00
35	BB	628	A	C4'-C3'-O3'	-5.15	105.28	113.00
85	AA	671	G	P-O3'-C3'	-5.15	112.48	120.20
6	A5	23	LYS	N-CA-C	5.15	121.76	110.80
18	AJ	113	HIS	N-CA-C	5.15	117.79	111.82
23	AP	61	LEU	CB-CA-C	-5.15	102.58	110.81
34	BA	143	A	P-O3'-C3'	-5.15	112.48	120.20
34	BA	503	C	O3'-P-O5'	5.15	111.72	104.00
34	BA	579	U	O5'-C5'-C4'	5.15	119.22	111.50
34	BA	1505	G	C2'-C3'-O3'	5.15	121.42	113.70
34	BA	1840	C	O3'-P-O5'	-5.15	96.28	104.00
35	BB	736	G	O5'-C5'-C4'	-5.15	103.78	111.50
35	BB	782	A	O5'-C5'-C4'	-5.15	103.78	111.50
35	BB	845	C	C1'-O4'-C4'	-5.15	104.75	109.90
35	BB	902	C	C4'-C3'-O3'	-5.15	105.28	113.00
35	BB	1026	G	O3'-P-O5'	5.15	111.72	104.00
35	BB	1143	A	O5'-C5'-C4'	-5.15	103.78	111.50
37	BD	79	G	O4'-C1'-C2'	5.15	112.75	107.60
38	BE	101	C	P-O3'-C3'	-5.15	112.48	120.20
54	BU	107	GLN	CA-C-O	5.15	125.89	119.97
56	BW	44	TYR	CB-CG-CD2	-5.15	113.08	120.80
59	BZ	46	PRO	CA-C-N	5.15	131.24	121.97
59	BZ	46	PRO	C-N-CA	5.15	131.24	121.97
66	Bg	66	GLU	CA-C-O	5.15	126.23	120.82
77	Br	343	MET	CA-C-N	5.15	131.37	121.54
77	Br	343	MET	C-N-CA	5.15	131.37	121.54
85	AA	189	G	O5'-C5'-C4'	-5.15	103.78	111.50
85	AA	831	C	O4'-C4'-C3'	-5.15	98.85	104.00
85	AA	1096	G	C1'-O4'-C4'	-5.15	104.75	109.90
85	AA	1373	U	P-O3'-C3'	5.15	127.92	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1925	A	O3'-P-O5'	-5.15	96.28	104.00
19	AK	84	ALA	CA-C-O	5.15	126.22	120.82
34	BA	554	A	P-O3'-C3'	5.15	127.92	120.20
34	BA	786	U	C4'-C3'-C2'	-5.15	97.45	102.60
37	BD	104	C	N1-C1'-C2'	-5.15	104.28	112.00
42	BI	94	LEU	CA-C-N	5.15	127.89	120.38
42	BI	94	LEU	C-N-CA	5.15	127.89	120.38
64	Be	196	TRP	CB-CG-CD2	-5.15	119.60	126.80
85	AA	393	C	C1'-O4'-C4'	-5.15	104.75	109.90
85	AA	1174	G	P-O5'-C5'	5.15	128.62	120.90
30	AW	80	PHE	CA-CB-CG	-5.14	108.66	113.80
34	BA	270	U	O4'-C4'-C3'	-5.14	100.96	106.10
34	BA	1485	U	C4'-C3'-C2'	5.14	107.74	102.60
35	BB	871	C	O4'-C1'-N1	5.14	116.22	108.50
35	BB	1536	G	P-O5'-C5'	-5.14	113.18	120.90
35	BB	1545	U	C4'-C3'-C2'	-5.14	97.45	102.60
37	BD	36	C	O3'-P-O5'	-5.14	96.28	104.00
38	BE	127	G	P-O3'-C3'	5.14	127.92	120.20
44	BK	82	LYS	O-C-N	-5.14	116.58	122.08
49	BP	120	ARG	N-CA-C	-5.14	105.12	111.40
51	BR	31	GLU	N-CA-C	-5.14	105.75	112.23
58	BY	59	TYR	CA-C-N	-5.14	113.39	120.28
58	BY	59	TYR	C-N-CA	-5.14	113.39	120.28
60	Ba	80	LEU	CA-C-O	5.14	123.68	119.36
70	Bk	72	LYS	N-CA-CB	-5.14	102.55	110.01
74	Bo	20	SER	N-CA-C	5.14	116.57	111.07
77	Br	308	LYS	CA-C-N	5.14	134.35	121.80
77	Br	308	LYS	C-N-CA	5.14	134.35	121.80
85	AA	77	C	C5'-C4'-C3'	-5.14	108.28	116.00
85	AA	1090	A	O4'-C1'-N9	5.14	116.22	108.50
85	AA	1197	U	C5'-C4'-O4'	5.14	117.52	109.80
85	AA	1280	U	C2'-C3'-O3'	5.14	117.22	109.50
85	AA	1421	U	O4'-C1'-C2'	-5.14	100.66	105.80
86	AB	57	G	C5'-C4'-C3'	5.14	123.72	116.00
6	A5	86	THR	CA-C-N	-5.14	112.18	121.69
6	A5	86	THR	C-N-CA	-5.14	112.18	121.69
7	A6	57	LEU	CA-C-O	5.14	126.20	120.90
34	BA	976	C	C1'-O4'-C4'	-5.14	104.76	109.90
35	BB	652	G	C3'-C2'-C1'	5.14	106.64	101.50
35	BB	1142	C	C3'-C2'-C1'	-5.14	96.36	101.50
35	BB	1297	G	O3'-P-O5'	-5.14	96.29	104.00
40	BG	35	G	C4'-C3'-O3'	-5.14	105.28	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BH	41	A	O4'-C4'-C3'	-5.14	100.96	106.10
42	BI	93	VAL	N-CA-C	-5.14	100.34	107.80
43	BJ	127	ARG	CA-C-N	5.14	127.51	120.46
43	BJ	127	ARG	C-N-CA	5.14	127.51	120.46
45	BL	116	HIS	CA-CB-CG	5.14	118.94	113.80
47	BN	66	PRO	N-CA-CB	-5.14	97.85	103.25
77	Br	349	ARG	N-CA-CB	-5.14	101.77	110.41
78	Bs	11	LYS	CA-C-N	5.14	127.42	120.38
78	Bs	11	LYS	C-N-CA	5.14	127.42	120.38
80	Bu	29	ASP	O-C-N	-5.14	117.36	123.22
83	Bx	152	VAL	CB-CA-C	5.14	120.13	112.16
85	AA	510	A	C5'-C4'-O4'	5.14	117.51	109.80
85	AA	587	G	O5'-C5'-C4'	5.14	119.21	111.50
85	AA	1197	U	P-O3'-C3'	-5.14	112.48	120.20
85	AA	1369	U	P-O5'-C5'	-5.14	113.19	120.90
85	AA	1870	C	O3'-P-O5'	-5.14	96.29	104.00
85	AA	2029	G	P-O3'-C3'	-5.14	112.48	120.20
85	AA	2120	C	P-O3'-C3'	-5.14	112.49	120.20
85	AA	2246	U	C2'-C3'-O3'	5.14	117.21	109.50
86	AB	21	A	C4'-C3'-C2'	-5.14	97.46	102.60
18	AJ	28	ARG	CA-C-O	-5.14	113.06	119.54
31	AX	175	HIS	CE1-NE2-CD2	-5.14	103.86	109.00
34	BA	1309	U	C5'-C4'-C3'	5.14	122.91	115.20
38	BE	87	U	C5'-C4'-O4'	5.14	117.51	109.80
38	BE	93	U	C4'-C3'-O3'	-5.14	105.29	113.00
51	BR	41	LEU	CA-C-N	5.14	127.17	120.28
51	BR	41	LEU	C-N-CA	5.14	127.17	120.28
56	BW	51	LEU	N-CA-C	-5.14	103.56	109.93
79	Bt	6	LYS	CB-CA-C	-5.14	100.19	110.42
85	AA	740	A	O4'-C4'-C3'	-5.14	98.86	104.00
85	AA	2095	U	C2'-C3'-O3'	5.14	121.41	113.70
2	A1	245	ASN	CA-CB-CG	-5.14	107.46	112.60
7	A6	173	ARG	CB-CG-CD	5.14	123.12	111.30
19	AK	33	CYS	CB-CA-C	-5.14	104.97	111.70
34	BA	578	C	N1-C1'-C2'	-5.14	104.29	112.00
34	BA	1082	U	O4'-C4'-C3'	5.14	109.14	104.00
34	BA	1674	G	C5'-C4'-C3'	5.14	122.91	115.20
35	BB	608	A	P-O5'-C5'	5.14	128.61	120.90
35	BB	809	U	N1-C1'-C2'	-5.14	104.29	112.00
35	BB	832	C	P-O3'-C3'	-5.14	112.49	120.20
35	BB	1021	C	C4'-C3'-O3'	-5.14	105.29	113.00
35	BB	1036	G	P-O3'-C3'	-5.14	112.49	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BG	135	C	O5'-C5'-C4'	-5.14	103.79	111.50
44	BK	45	GLU	CA-C-N	-5.14	116.22	122.64
44	BK	45	GLU	C-N-CA	-5.14	116.22	122.64
46	BM	74	THR	N-CA-CB	5.14	117.48	110.03
79	Bt	84	VAL	CB-CA-C	-5.14	104.54	110.91
85	AA	267	U	C2'-C3'-O3'	5.14	121.41	113.70
85	AA	554	A	O5'-C5'-C4'	-5.14	103.79	111.50
85	AA	610	C	O3'-P-O5'	-5.14	96.29	104.00
85	AA	1272	G	O4'-C1'-C2'	-5.14	102.46	107.60
85	AA	1894	G	O3'-P-O5'	5.14	111.71	104.00
85	AA	2175	U	P-O5'-C5'	-5.14	113.19	120.90
34	BA	924	U	C5'-C4'-C3'	5.14	123.71	116.00
38	BE	188	C	C3'-C2'-C1'	-5.14	96.36	101.50
47	BN	52	PHE	N-CA-C	5.14	121.16	109.81
84	By	120	ARG	CB-CA-C	5.14	118.01	109.53
85	AA	270	A	C3'-C2'-C1'	-5.14	96.16	101.30
85	AA	278	C	C1'-O4'-C4'	-5.14	104.76	109.90
85	AA	300	C	C5'-C4'-C3'	-5.14	108.29	116.00
85	AA	696	G	C8-N9-C1'	5.14	142.41	127.00
26	AS	107	ARG	N-CA-C	5.14	121.74	110.80
34	BA	911	G	N9-C1'-C2'	-5.14	104.29	112.00
34	BA	1154	U	P-O3'-C3'	-5.14	112.50	120.20
34	BA	1178	U	C2'-C3'-O3'	5.14	121.40	113.70
34	BA	1250	C	O3'-P-O5'	5.14	111.70	104.00
34	BA	1529	G	P-O3'-C3'	-5.14	112.50	120.20
34	BA	1536	A	O4'-C1'-N9	5.14	116.20	108.50
34	BA	1641	G	C4-N9-C1'	-5.14	111.09	126.50
35	BB	1175	A	P-O5'-C5'	-5.14	113.20	120.90
39	BF	55	A	P-O5'-C5'	5.14	128.60	120.90
52	BS	84	SER	CA-C-N	5.14	131.33	123.47
52	BS	84	SER	C-N-CA	5.14	131.33	123.47
80	Bu	148	PHE	N-CA-C	5.14	121.74	110.80
85	AA	292	C	O4'-C4'-C3'	-5.14	98.86	104.00
85	AA	475	A	N9-C1'-C2'	-5.14	104.30	112.00
85	AA	558	U	O5'-C5'-C4'	5.14	119.20	111.50
85	AA	959	C	P-O3'-C3'	-5.14	112.50	120.20
85	AA	1869	U	C5'-C4'-C3'	5.14	123.70	116.00
85	AA	1899	A	C4'-C3'-C2'	-5.14	97.46	102.60
4	A3	207	ALA	N-CA-C	-5.13	105.68	111.28
34	BA	759	A	O3'-P-O5'	-5.13	96.30	104.00
34	BA	1008	A	P-O3'-C3'	-5.13	112.50	120.20
34	BA	1117	G	C2'-C3'-O3'	5.13	121.40	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1124	U	C2'-C3'-O3'	5.13	121.40	113.70
34	BA	1415	C	C2'-C3'-O3'	5.13	121.40	113.70
34	BA	1783	C	C5'-C4'-C3'	5.13	123.70	116.00
35	BB	112	G	O5'-C5'-C4'	-5.13	103.80	111.50
35	BB	1111	C	C1'-O4'-C4'	-5.13	104.77	109.90
36	BC	71	A	O4'-C1'-C2'	-5.13	100.67	105.80
42	BI	58	ASN	CB-CA-C	5.13	119.51	110.37
51	BR	104	GLU	CB-CG-CD	5.13	121.33	112.60
59	BZ	54	ARG	N-CA-C	5.13	117.27	108.90
64	Be	74	GLU	CB-CG-CD	-5.13	103.87	112.60
85	AA	95	U	P-O5'-C5'	-5.13	113.20	120.90
85	AA	680	U	O3'-P-O5'	-5.13	96.30	104.00
85	AA	834	U	C3'-C2'-C1'	-5.13	96.17	101.30
85	AA	1565	G	O5'-C5'-C4'	-5.13	103.80	111.50
85	AA	1789	C	P-O5'-C5'	-5.13	113.20	120.90
34	BA	165	C	O4'-C1'-N1	5.13	115.90	108.20
34	BA	664	C	C3'-C2'-C1'	-5.13	96.17	101.30
34	BA	667	U	C2'-C3'-O3'	5.13	121.40	113.70
34	BA	862	C	N1-C1'-C2'	-5.13	104.30	112.00
34	BA	1791	C	C5'-C4'-C3'	5.13	123.70	116.00
35	BB	1079	G	C5'-C4'-C3'	-5.13	108.30	116.00
35	BB	1347	C	O4'-C1'-N1	5.13	116.20	108.50
39	BF	35	C	C4'-C3'-C2'	-5.13	97.47	102.60
80	Bu	212	ASP	CA-CB-CG	-5.13	107.47	112.60
85	AA	971	U	O4'-C4'-C3'	-5.13	98.87	104.00
85	AA	1851	A	C5'-C4'-C3'	5.13	123.70	116.00
6	A5	84	ASN	N-CA-C	-5.13	99.92	108.34
8	A7	96	LEU	N-CA-C	5.13	116.56	110.97
27	AT	24	ASN	CB-CA-C	5.13	118.61	111.63
34	BA	750	C	C4'-C3'-C2'	-5.13	97.47	102.60
34	BA	1599	A	C5'-C4'-O4'	5.13	117.50	109.80
34	BA	1778	U	C1'-O4'-C4'	-5.13	104.77	109.90
35	BB	377	A	O3'-P-O5'	-5.13	96.30	104.00
38	BE	70	C	C2'-C3'-O3'	5.13	121.40	113.70
47	BN	108	ASN	CA-CB-CG	-5.13	107.47	112.60
55	BV	108	ARG	CA-C-N	5.13	129.41	121.71
55	BV	108	ARG	C-N-CA	5.13	129.41	121.71
63	Bd	40	ALA	CA-C-N	5.13	127.16	120.28
63	Bd	40	ALA	C-N-CA	5.13	127.16	120.28
85	AA	473	C	O4'-C1'-N1	5.13	116.20	108.50
85	AA	1561	A	P-O5'-C5'	-5.13	113.20	120.90
85	AA	2139	G	C4'-C3'-C2'	5.13	107.73	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	AC	227	ARG	CA-CB-CG	5.13	124.36	114.10
35	BB	112	G	C4'-C3'-O3'	-5.13	105.31	113.00
60	Ba	126	TRP	CA-CB-CG	-5.13	103.85	113.60
73	Bn	73	ARG	CA-CB-CG	-5.13	103.84	114.10
77	Br	6	SER	CB-CA-C	5.13	120.63	110.42
5	A4	138	CYS	N-CA-C	-5.13	101.11	108.60
34	BA	1398	C	C4'-C3'-O3'	-5.13	105.31	113.00
35	BB	1154	C	C4'-C3'-C2'	5.13	107.73	102.60
35	BB	1270	C	O5'-C5'-C4'	-5.13	103.81	111.50
39	BF	54	U	C4'-C3'-O3'	5.13	117.09	109.40
41	BH	75	G	C1'-C2'-O2'	5.13	116.09	108.40
44	BK	130	ARG	N-CA-C	-5.13	101.28	109.07
53	BT	87	ALA	N-CA-C	-5.13	105.77	111.36
55	BV	113	GLY	O-C-N	-5.13	120.00	123.95
65	Bf	423	ILE	N-CA-CB	5.13	119.69	111.23
81	Bv	66	MET	N-CA-C	5.13	119.78	111.37
84	By	45	ARG	CB-CG-CD	5.13	123.09	111.30
85	AA	7	G	C5'-C4'-C3'	5.13	123.69	116.00
85	AA	627	A	C4'-C3'-C2'	-5.13	97.47	102.60
85	AA	1162	A	O4'-C1'-N9	5.13	116.19	108.50
85	AA	2176	U	C5'-C4'-C3'	5.13	123.69	116.00
1	A0	129	ALA	N-CA-C	-5.13	101.28	109.23
5	A4	63	ALA	N-CA-C	5.13	117.97	109.46
13	AE	71	ASP	CA-C-N	5.13	127.57	120.29
13	AE	71	ASP	C-N-CA	5.13	127.57	120.29
20	AL	69	ILE	N-CA-C	5.13	115.96	108.53
34	BA	366	G	C5'-C4'-O4'	5.13	117.49	109.80
34	BA	371	U	O5'-C5'-C4'	-5.13	103.81	111.50
34	BA	610	A	C5'-C4'-C3'	-5.13	108.31	116.00
35	BB	467	G	C4'-C3'-O3'	-5.13	105.31	113.00
35	BB	467	G	C5'-C4'-C3'	-5.13	108.31	116.00
35	BB	497	C	O3'-P-O5'	-5.13	96.31	104.00
35	BB	1448	U	C4'-C3'-C2'	-5.13	97.47	102.60
35	BB	1510	G	C1'-O4'-C4'	-5.13	104.77	109.90
36	BC	15	G	C3'-C2'-C1'	-5.13	96.37	101.50
44	BK	9	TYR	CA-CB-CG	-5.13	104.67	113.90
47	BN	13	GLN	CA-C-N	5.13	131.33	121.54
47	BN	13	GLN	C-N-CA	5.13	131.33	121.54
48	BO	129	ASN	CA-CB-CG	5.13	117.73	112.60
65	Bf	110	ASP	N-CA-C	5.13	118.30	110.20
69	Bj	7	GLN	N-CA-CB	-5.13	101.83	110.49
77	Br	90	ALA	N-CA-C	5.13	117.95	109.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	Bu	149	LYS	N-CA-CB	-5.13	103.32	110.29
84	By	135	ALA	N-CA-C	-5.13	104.10	110.41
85	AA	386	G	O4'-C1'-N9	5.13	116.19	108.50
85	AA	455	G	O4'-C4'-C3'	5.13	109.13	104.00
85	AA	600	C	O4'-C1'-N1	5.13	116.19	108.50
85	AA	760	U	C1'-O4'-C4'	-5.13	104.57	109.70
85	AA	1348	C	C4'-C3'-C2'	-5.13	97.47	102.60
85	AA	2002	A	P-O5'-C5'	5.13	128.59	120.90
38	BE	16	C	C3'-C2'-C1'	-5.12	96.17	101.30
44	BK	142	ASP	CA-C-O	5.12	126.17	120.63
62	Bc	15	ASN	CA-C-N	5.12	131.33	121.54
62	Bc	15	ASN	C-N-CA	5.12	131.33	121.54
66	Bg	67	ILE	N-CA-C	-5.12	105.50	110.42
77	Br	181	ARG	N-CA-CB	5.12	117.50	110.07
85	AA	988	C	O4'-C1'-N1	5.12	116.19	108.50
34	BA	302	A	O3'-P-O5'	5.12	111.69	104.00
35	BB	1468	A	C5'-C4'-C3'	-5.12	107.51	115.20
53	BT	132	PHE	N-CA-CB	-5.12	102.45	110.44
57	BX	81	ALA	CA-C-O	-5.12	115.12	120.55
75	Bp	74	HIS	CE1-NE2-CD2	-5.12	103.88	109.00
83	Bx	85	PRO	CA-C-N	5.12	124.92	119.28
83	Bx	85	PRO	C-N-CA	5.12	124.92	119.28
85	AA	177	A	C1'-O4'-C4'	-5.12	104.78	109.90
85	AA	246	C	C4'-C3'-C2'	-5.12	97.48	102.60
85	AA	898	A	P-O3'-C3'	5.12	127.89	120.20
85	AA	963	U	C3'-C2'-C1'	-5.12	96.18	101.30
85	AA	1213	U	P-O3'-C3'	5.12	127.88	120.20
85	AA	1439	A	O5'-C5'-C4'	-5.12	103.81	111.50
5	A4	113	LYS	CA-C-N	5.12	131.32	121.54
5	A4	113	LYS	C-N-CA	5.12	131.32	121.54
6	A5	184	LEU	N-CA-CB	-5.12	102.73	110.77
17	AI	32	LEU	N-CA-CB	5.12	117.44	110.01
18	AJ	70	ASN	CB-CA-C	5.12	118.79	110.24
24	AQ	89	ARG	N-CA-C	-5.12	97.39	107.69
34	BA	84	U	N1-C1'-C2'	5.12	119.68	112.00
34	BA	588	C	C4'-C3'-C2'	-5.12	97.48	102.60
34	BA	610	A	N9-C1'-C2'	-5.12	104.32	112.00
34	BA	626	G	P-O5'-C5'	5.12	128.58	120.90
34	BA	757	G	O4'-C4'-C3'	-5.12	98.88	104.00
34	BA	843	G	O3'-P-O5'	-5.12	96.32	104.00
34	BA	1183	U	O5'-C5'-C4'	5.12	119.18	111.50
34	BA	1441	C	O4'-C1'-N1	5.12	116.18	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1543	A	C1'-O4'-C4'	-5.12	104.78	109.90
35	BB	166	C	C4'-C3'-O3'	-5.12	105.32	113.00
35	BB	648	G	P-O5'-C5'	-5.12	113.22	120.90
35	BB	660	G	C3'-C2'-O2'	-5.12	106.92	114.60
35	BB	869	G	O3'-P-O5'	-5.12	96.32	104.00
35	BB	1311	G	O5'-C5'-C4'	-5.12	103.82	111.50
38	BE	208	G	O5'-C5'-C4'	5.12	119.38	111.70
44	BK	145	VAL	CA-C-N	5.12	124.62	119.19
44	BK	145	VAL	C-N-CA	5.12	124.62	119.19
47	BN	18	ASN	N-CA-CB	-5.12	102.90	110.99
48	BO	61	ILE	O-C-N	-5.12	117.52	123.00
52	BS	3	ARG	NE-CZ-NH2	5.12	123.81	119.20
80	Bu	216	GLN	CB-CG-CD	-5.12	103.89	112.60
85	AA	204	U	O4'-C4'-C3'	-5.12	98.88	104.00
85	AA	277	G	C4'-C3'-O3'	-5.12	105.32	113.00
85	AA	302	C	C5'-C4'-C3'	5.12	123.68	116.00
85	AA	586	G	C4'-C3'-C2'	-5.12	97.48	102.60
85	AA	708	G	P-O5'-C5'	5.12	128.58	120.90
85	AA	721	C	C4'-C3'-O3'	-5.12	105.32	113.00
85	AA	934	A	P-O3'-C3'	-5.12	112.52	120.20
34	BA	115	U	C5'-C4'-O4'	5.12	116.78	109.10
34	BA	143	A	C3'-C2'-C1'	-5.12	96.38	101.50
34	BA	485	C	N1-C1'-C2'	5.12	119.68	112.00
41	BH	24	U	P-O3'-C3'	-5.12	112.52	120.20
48	BO	198	LYS	CB-CA-C	-5.12	103.08	110.96
49	BP	128	PHE	N-CA-C	-5.12	101.66	109.65
51	BR	38	GLY	CA-C-N	5.12	131.32	121.54
51	BR	38	GLY	C-N-CA	5.12	131.32	121.54
70	Bk	117	LYS	CB-CG-CD	5.12	123.08	111.30
85	AA	266	U	C5'-C4'-C3'	5.12	123.68	116.00
85	AA	1363	U	C2'-C3'-O3'	5.12	121.38	113.70
86	AB	71	G	C3'-C2'-O2'	5.12	118.38	110.70
6	A5	36	THR	CA-C-N	-5.12	115.55	122.77
6	A5	36	THR	C-N-CA	-5.12	115.55	122.77
34	BA	994	G	C4'-C3'-O3'	-5.12	105.32	113.00
34	BA	1690	U	P-O5'-C5'	5.12	128.58	120.90
35	BB	994	A	C3'-C2'-C1'	5.12	106.62	101.50
35	BB	1218	G	N9-C1'-C2'	-5.12	104.32	112.00
36	BC	69	U	O5'-C5'-C4'	-5.12	103.82	111.50
36	BC	138	C	O4'-C1'-N1	5.12	116.18	108.50
38	BE	119	U	C2'-C3'-O3'	5.12	117.18	109.50
41	BH	131	A	P-O5'-C5'	-5.12	113.22	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	BK	198	LYS	N-CA-C	5.12	117.74	109.40
48	BO	141	LYS	N-CA-C	-5.12	106.54	112.89
56	BW	11	CYS	N-CA-CB	5.12	119.14	110.49
65	Bf	411	LYS	N-CA-C	-5.12	107.32	113.21
85	AA	147	G	C3'-C2'-C1'	-5.12	96.18	101.30
85	AA	1796	C	C3'-C2'-C1'	-5.12	96.18	101.30
34	BA	1006	G	C5'-C4'-C3'	-5.12	107.53	115.20
36	BC	127	C	C5'-C4'-C3'	-5.12	108.33	116.00
85	AA	586	G	O5'-C5'-C4'	-5.12	103.82	111.50
85	AA	628	C	O4'-C4'-C3'	5.12	109.12	104.00
85	AA	2141	G	O5'-C5'-C4'	-5.12	103.82	111.50
2	A1	244	ILE	CA-C-N	5.12	131.31	121.54
2	A1	244	ILE	C-N-CA	5.12	131.31	121.54
6	A5	26	LYS	CA-CB-CG	-5.12	103.87	114.10
13	AE	168	GLY	N-CA-C	5.12	120.22	113.37
15	AG	101	HIS	CA-CB-CG	-5.12	108.68	113.80
31	AX	155	TYR	CA-CB-CG	-5.12	104.69	113.90
34	BA	175	G	O5'-C5'-C4'	-5.12	103.83	111.50
34	BA	859	G	P-O5'-C5'	5.12	128.57	120.90
35	BB	862	U	C2'-C3'-O3'	5.12	117.17	109.50
38	BE	159	A	O4'-C4'-C3'	-5.12	98.89	104.00
40	BG	3	G	P-O5'-C5'	-5.12	113.23	120.90
41	BH	98	U	P-O5'-C5'	5.12	128.57	120.90
43	BJ	117	VAL	CA-C-N	5.12	124.73	119.05
43	BJ	117	VAL	C-N-CA	5.12	124.73	119.05
44	BK	125	THR	CA-C-O	5.12	126.89	121.11
52	BS	23	GLN	O-C-N	-5.12	115.44	121.32
71	Bl	99	PRO	CB-CA-C	5.12	120.00	111.56
72	Bm	87	SER	CA-C-N	5.12	127.74	120.53
72	Bm	87	SER	C-N-CA	5.12	127.74	120.53
77	Br	104	THR	N-CA-C	5.12	121.70	110.80
80	Bu	18	VAL	O-C-N	-5.12	117.66	123.03
85	AA	512	U	C1'-C2'-O2'	5.12	116.07	108.40
4	A3	184	THR	CA-C-N	5.11	127.84	120.38
4	A3	184	THR	C-N-CA	5.11	127.84	120.38
8	A7	163	SER	CB-CA-C	-5.11	103.51	109.80
15	AG	45	LEU	CB-CA-C	-5.11	99.06	109.65
23	AP	59	THR	N-CA-C	5.11	117.52	109.39
24	AQ	74	TRP	CA-C-N	5.11	130.06	123.00
24	AQ	74	TRP	C-N-CA	5.11	130.06	123.00
34	BA	119	G	O5'-C5'-C4'	5.11	119.37	111.70
34	BA	486	G	C1'-O4'-C4'	5.11	115.01	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	845	U	O4'-C1'-N1	5.11	115.87	108.20
34	BA	1330	G	C5'-C4'-C3'	5.11	123.67	116.00
35	BB	430	A	C4'-C3'-C2'	-5.11	97.49	102.60
35	BB	1311	G	O4'-C1'-C2'	5.11	112.71	107.60
47	BN	22	SER	N-CA-C	-5.11	99.91	110.80
53	BT	139	MET	CB-CA-C	5.11	119.28	110.79
64	Be	78	ALA	O-C-N	-5.11	115.44	121.32
77	Br	213	ASN	CB-CA-C	-5.11	101.41	109.80
85	AA	31	C	C1'-O4'-C4'	-5.11	104.79	109.90
85	AA	334	A	C4'-C3'-C2'	5.11	107.71	102.60
85	AA	761	G	C2'-C3'-O3'	5.11	117.17	109.50
85	AA	1236	G	O5'-C5'-C4'	5.11	119.17	111.50
85	AA	1927	G	C4'-C3'-O3'	-5.11	105.33	113.00
34	BA	275	C	P-O3'-C3'	-5.11	112.53	120.20
34	BA	504	A	P-O5'-C5'	5.11	128.57	120.90
34	BA	750	C	P-O3'-C3'	-5.11	112.53	120.20
34	BA	1490	U	C5'-C4'-O4'	-5.11	102.13	109.80
34	BA	1650	G	C1'-O4'-C4'	-5.11	104.59	109.70
40	BG	171	A	C2'-C3'-O3'	-5.11	106.03	113.70
57	BX	90	THR	CB-CA-C	-5.11	104.20	112.07
59	BZ	120	ASP	CA-C-N	5.11	127.90	120.79
59	BZ	120	ASP	C-N-CA	5.11	127.90	120.79
84	By	161	GLN	O-C-N	-5.11	115.58	122.43
85	AA	1355	U	C5'-C4'-O4'	-5.11	102.13	109.80
34	BA	1625	C	O4'-C1'-N1	5.11	116.17	108.50
35	BB	462	G	C4'-C3'-O3'	-5.11	105.34	113.00
40	BG	73	U	O4'-C1'-C2'	5.11	112.71	107.60
40	BG	140	G	C1'-O4'-C4'	-5.11	104.79	109.90
47	BN	63	VAL	CA-C-O	-5.11	116.57	121.63
52	BS	135	GLU	CA-C-N	5.11	130.90	121.70
52	BS	135	GLU	C-N-CA	5.11	130.90	121.70
68	Bi	26	PHE	CA-CB-CG	-5.11	108.69	113.80
72	Bm	77	ALA	N-CA-C	-5.11	99.92	110.80
83	Bx	51	ARG	CA-C-O	-5.11	115.80	122.14
85	AA	302	C	C2'-C3'-O3'	5.11	121.36	113.70
85	AA	339	A	C4-N9-C1'	-5.11	110.97	126.30
85	AA	495	G	C2'-C3'-O3'	5.11	121.36	113.70
85	AA	527	A	O4'-C4'-C3'	-5.11	98.89	104.00
85	AA	574	U	C1'-O4'-C4'	-5.11	104.79	109.90
85	AA	649	C	C3'-C2'-C1'	-5.11	96.19	101.30
85	AA	833	U	O4'-C1'-N1	5.11	116.17	108.50
85	AA	1420	U	P-O5'-C5'	5.11	128.56	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1731	G	O4'-C1'-C2'	-5.11	102.49	107.60
85	AA	2121	G	C5'-C4'-C3'	5.11	123.67	116.00
85	AA	2134	U	O5'-C5'-C4'	-5.11	103.83	111.50
34	BA	548	G	O4'-C1'-C2'	-5.11	102.49	107.60
34	BA	678	C	C3'-C2'-C1'	5.11	106.41	101.30
35	BB	1183	U	C1'-O4'-C4'	-5.11	104.79	109.90
38	BE	27	A	O5'-C5'-C4'	-5.11	104.04	111.70
61	Bb	13	GLY	N-CA-C	-5.11	107.03	114.90
5	A4	18	PRO	O-C-N	-5.11	115.75	122.64
34	BA	500	C	O5'-C5'-C4'	-5.11	103.84	111.50
34	BA	1222	C	P-O3'-C3'	-5.11	112.54	120.20
34	BA	1642	A	C4'-C3'-C2'	-5.11	97.49	102.60
34	BA	1736	A	O4'-C1'-C2'	-5.11	102.49	107.60
35	BB	620	G	N9-C1'-C2'	-5.11	104.34	112.00
35	BB	1030	U	P-O3'-C3'	5.11	127.86	120.20
40	BG	134	U	O5'-C5'-C4'	-5.11	103.84	111.50
50	BQ	167	TRP	CB-CG-CD2	-5.11	119.65	126.80
65	Bf	76	ILE	N-CA-C	5.11	119.96	109.34
77	Br	175	ALA	N-CA-C	5.11	118.77	112.54
85	AA	431	G	C5'-C4'-C3'	-5.11	108.34	116.00
85	AA	1115	G	O4'-C4'-C3'	-5.11	98.89	104.00
85	AA	1241	A	C5'-C4'-C3'	5.11	123.66	116.00
85	AA	1989	A	C2'-C3'-O3'	5.11	117.16	109.50
2	A1	139	HIS	N-CA-CB	-5.11	101.86	110.49
34	BA	122	U	O4'-C4'-C3'	5.11	109.11	104.00
34	BA	359	G	C4'-C3'-C2'	5.11	107.71	102.60
34	BA	1144	A	O5'-C5'-C4'	-5.11	103.84	111.50
35	BB	410	A	N9-C1'-C2'	-5.11	106.34	114.00
35	BB	496	C	C1'-O4'-C4'	-5.11	104.79	109.90
35	BB	1214	U	C4'-C3'-O3'	-5.11	105.34	113.00
35	BB	1348	C	C3'-C2'-C1'	-5.11	96.19	101.30
38	BE	93	U	C5'-C4'-O4'	5.11	117.46	109.80
60	Ba	99	SER	O-C-N	-5.11	116.50	123.24
72	Bm	101	ALA	N-CA-C	-5.11	105.72	111.28
75	Bp	22	CYS	CA-C-O	-5.11	115.14	121.11
85	AA	4	C	C4'-C3'-C2'	5.11	107.71	102.60
85	AA	429	G	C1'-O4'-C4'	-5.11	104.80	109.90
85	AA	519	A	C5'-C4'-C3'	5.11	123.66	116.00
85	AA	616	A	P-O5'-C5'	-5.11	113.24	120.90
85	AA	749	C	O3'-P-O5'	5.11	111.66	104.00
85	AA	1292	A	C4'-C3'-C2'	5.11	107.70	102.60
85	AA	1495	G	N9-C1'-C2'	-5.11	104.34	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	AK	89	GLN	N-CA-C	-5.10	105.80	111.36
34	BA	300	C	O4'-C4'-C3'	-5.10	98.90	104.00
34	BA	312	U	P-O5'-C5'	-5.10	113.24	120.90
34	BA	1265	G	O4'-C1'-N9	5.10	115.86	108.20
41	BH	75	G	C2'-C3'-O3'	5.10	121.36	113.70
52	BS	151	PHE	CA-CB-CG	5.10	118.90	113.80
85	AA	598	C	O3'-P-O5'	5.10	111.66	104.00
12	AD	5	VAL	N-CA-C	5.10	119.90	108.88
34	BA	121	A	C4'-C3'-O3'	5.10	117.05	109.40
34	BA	265	A	C5'-C4'-C3'	-5.10	108.35	116.00
34	BA	755	G	C1'-O4'-C4'	-5.10	104.80	109.90
34	BA	1225	A	C5'-C4'-C3'	-5.10	108.34	116.00
34	BA	1322	A	C1'-O4'-C4'	-5.10	104.80	109.90
34	BA	1841	A	O5'-C5'-C4'	-5.10	103.85	111.50
35	BB	356	C	C1'-O4'-C4'	-5.10	104.80	109.90
38	BE	23	G	O4'-C1'-N9	5.10	116.15	108.50
38	BE	48	G	P-O5'-C5'	5.10	128.55	120.90
64	Be	237	LEU	CA-C-O	5.10	127.39	121.11
83	Bx	179	MET	CA-C-O	-5.10	113.17	120.16
85	AA	2109	G	O4'-C4'-C3'	-5.10	98.90	104.00
34	BA	46	C	P-O3'-C3'	-5.10	112.55	120.20
34	BA	134	U	C1'-O4'-C4'	-5.10	104.80	109.90
34	BA	1267	A	O4'-C4'-C3'	5.10	111.20	106.10
35	BB	1483	A	C5'-C4'-O4'	5.10	117.45	109.80
85	AA	1268	C	C4'-C3'-O3'	-5.10	105.35	113.00
85	AA	1962	U	C2'-C3'-O3'	5.10	121.35	113.70
85	AA	2106	C	O4'-C1'-N1	5.10	116.15	108.50
86	AB	18	G	O4'-C1'-C2'	-5.10	100.70	105.80
3	A2	69	ASN	OD1-CG-ND2	-5.10	117.50	122.60
25	AR	50	ILE	CA-C-N	5.10	130.59	122.59
25	AR	50	ILE	C-N-CA	5.10	130.59	122.59
30	AW	52	THR	CA-CB-OG1	5.10	117.25	109.60
34	BA	664	C	C4'-C3'-O3'	-5.10	105.35	113.00
34	BA	939	C	C1'-O4'-C4'	-5.10	104.80	109.90
34	BA	1514	A	N9-C1'-C2'	-5.10	106.35	114.00
34	BA	1521	C	P-O3'-C3'	-5.10	112.55	120.20
34	BA	1581	G	C4'-C3'-C2'	-5.10	97.50	102.60
34	BA	1651	C	O4'-C1'-N1	5.10	115.85	108.20
34	BA	1846	G	P-O3'-C3'	-5.10	112.55	120.20
35	BB	111	C	C5'-C4'-O4'	5.10	116.75	109.10
35	BB	990	G	P-O3'-C3'	5.10	127.85	120.20
35	BB	1142	C	O3'-P-O5'	5.10	111.65	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1189	C	C4'-C3'-O3'	-5.10	105.35	113.00
35	BB	1510	G	N9-C1'-C2'	-5.10	104.35	112.00
62	Bc	13	ARG	CD-NE-CZ	5.10	131.54	124.40
68	Bi	65	LYS	N-CA-C	5.10	117.88	109.72
68	Bi	89	GLN	N-CA-C	5.10	117.61	109.96
77	Br	230	VAL	N-CA-C	5.10	119.95	109.34
85	AA	485	A	C4'-C3'-C2'	-5.10	97.50	102.60
85	AA	816	A	C4'-C3'-O3'	-5.10	105.35	113.00
85	AA	835	C	O4'-C1'-N1	5.10	116.15	108.50
8	A7	108	HIS	N-CA-CB	5.10	118.72	110.41
16	AH	131	ASP	CA-CB-CG	-5.10	107.50	112.60
34	BA	21	C	P-O3'-C3'	5.10	127.85	120.20
34	BA	590	U	C3'-C2'-C1'	-5.10	96.20	101.30
34	BA	1439	C	O5'-C5'-C4'	-5.10	103.85	111.50
34	BA	1449	U	C2'-C3'-O3'	5.10	117.14	109.50
34	BA	1461	A	C4'-C3'-O3'	-5.10	105.36	113.00
35	BB	282	A	C5'-C4'-C3'	-5.10	108.35	116.00
35	BB	1535	G	C4'-C3'-C2'	-5.10	97.50	102.60
36	BC	163	A	O5'-C5'-C4'	-5.10	103.85	111.50
39	BF	42	G	P-O3'-C3'	-5.10	112.55	120.20
69	Bj	22	ARG	CA-C-N	5.10	129.63	122.09
69	Bj	22	ARG	C-N-CA	5.10	129.63	122.09
77	Br	92	GLY	O-C-N	5.10	127.19	122.81
85	AA	420	C	C1'-O4'-C4'	-5.10	104.80	109.90
85	AA	861	G	P-O5'-C5'	5.10	128.55	120.90
85	AA	1687	U	C3'-C2'-C1'	-5.10	96.20	101.30
85	AA	2052	U	C5'-C4'-C3'	-5.10	108.35	116.00
34	BA	684	G	C4'-C3'-O3'	5.10	117.05	109.40
38	BE	40	C	O5'-C5'-C4'	-5.10	103.86	111.50
64	Be	236	GLY	N-CA-C	5.10	120.50	111.02
78	Bs	34	CYS	N-CA-CB	-5.10	101.88	110.49
85	AA	106	G	C5'-C4'-C3'	-5.10	108.36	116.00
85	AA	1808	G	C1'-C2'-O2'	-5.10	104.16	111.80
14	AF	123	CYS	N-CA-C	-5.09	97.05	107.70
34	BA	260	A	C1'-O4'-C4'	-5.09	104.61	109.70
34	BA	1194	G	O5'-C5'-C4'	-5.09	103.86	111.50
35	BB	788	U	C5'-C4'-O4'	-5.09	102.16	109.80
35	BB	1548	C	O4'-C1'-N1	5.09	116.14	108.50
41	BH	47	G	O3'-P-O5'	-5.09	96.36	104.00
47	BN	156	SER	N-CA-CB	5.09	119.10	110.49
52	BS	154	LEU	CA-C-N	5.09	131.27	121.54
52	BS	154	LEU	C-N-CA	5.09	131.27	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	BT	98	ARG	N-CA-CB	-5.09	102.62	110.01
64	Be	170	ALA	CA-C-N	5.09	131.40	121.41
64	Be	170	ALA	C-N-CA	5.09	131.40	121.41
65	Bf	300	ARG	CA-C-N	5.09	129.30	121.45
65	Bf	300	ARG	C-N-CA	5.09	129.30	121.45
34	BA	159	U	O4'-C1'-N1	5.09	116.14	108.50
34	BA	559	C	C4'-C3'-C2'	-5.09	97.51	102.60
35	BB	29	C	O4'-C1'-N1	5.09	116.14	108.50
35	BB	855	G	P-O3'-C3'	-5.09	112.56	120.20
37	BD	105	G	P-O3'-C3'	-5.09	112.56	120.20
71	Bl	39	TYR	N-CA-C	-5.09	101.80	109.85
82	Bw	189	HIS	CE1-NE2-CD2	-5.09	103.91	109.00
85	AA	847	G	C1'-O4'-C4'	-5.09	104.81	109.90
34	BA	140	C	P-O5'-C5'	5.09	128.54	120.90
34	BA	757	G	N9-C1'-C2'	5.09	119.64	112.00
34	BA	1830	A	O5'-C5'-C4'	-5.09	104.06	111.70
35	BB	95	A	C3'-C2'-C1'	-5.09	96.21	101.30
35	BB	518	G	C5'-C4'-O4'	5.09	117.44	109.80
35	BB	999	G	O4'-C4'-C3'	-5.09	98.91	104.00
35	BB	1069	C	O4'-C1'-N1	5.09	116.14	108.50
37	BD	82	G	C1'-C2'-O2'	5.09	116.04	108.40
79	Bt	65	THR	N-CA-C	5.09	117.68	110.50
85	AA	894	A	C1'-O4'-C4'	-5.09	104.81	109.90
85	AA	1267	A	C1'-O4'-C4'	-5.09	104.81	109.90
13	AE	42	VAL	N-CA-CB	5.09	119.63	111.23
20	AL	114	THR	N-CA-C	5.09	121.64	110.80
23	AP	69	MET	CB-CA-C	5.09	118.66	109.45
34	BA	888	G	P-O3'-C3'	-5.09	112.57	120.20
34	BA	1105	A	C2'-C3'-O3'	5.09	121.33	113.70
35	BB	439	G	P-O5'-C5'	-5.09	113.27	120.90
35	BB	797	C	O3'-P-O5'	-5.09	96.37	104.00
36	BC	156	A	C2'-C3'-O3'	5.09	121.33	113.70
38	BE	96	G	P-O3'-C3'	-5.09	112.56	120.20
44	BK	153	ARG	CA-C-N	-5.09	112.58	120.31
44	BK	153	ARG	C-N-CA	-5.09	112.58	120.31
62	Bc	135	HIS	CA-C-N	5.09	127.81	120.38
62	Bc	135	HIS	C-N-CA	5.09	127.81	120.38
67	Bh	25	LYS	CA-C-O	5.09	126.67	121.07
70	Bk	63	ASN	N-CA-CB	5.09	118.17	110.28
83	Bx	177	LEU	N-CA-C	5.09	116.83	111.28
85	AA	609	U	C4'-C3'-C2'	-5.09	97.51	102.60
85	AA	1113	G	P-O3'-C3'	-5.09	112.56	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1615	A	C1'-O4'-C4'	-5.09	104.81	109.90
85	AA	1685	G	C4'-C3'-O3'	-5.09	105.37	113.00
5	A4	68	TYR	CB-CA-C	-5.09	101.56	109.55
35	BB	20	U	C4'-C3'-O3'	-5.09	105.37	113.00
35	BB	405	U	C3'-C2'-C1'	5.09	106.39	101.30
37	BD	75	G	O4'-C1'-C2'	-5.09	100.71	105.80
48	BO	136	ARG	CB-CG-CD	5.09	123.00	111.30
85	AA	549	A	O3'-P-O5'	-5.09	96.37	104.00
85	AA	1152	U	O5'-C5'-C4'	-5.09	103.87	111.50
6	A5	199	ASP	CA-C-N	-5.09	111.12	120.84
6	A5	199	ASP	C-N-CA	-5.09	111.12	120.84
28	AU	94	LEU	CA-C-N	5.09	129.55	122.23
28	AU	94	LEU	C-N-CA	5.09	129.55	122.23
32	AY	12	GLY	N-CA-C	-5.09	108.60	115.21
34	BA	143	A	P-O5'-C5'	5.09	128.53	120.90
34	BA	221	G	C4-N9-C1'	-5.09	111.24	126.50
34	BA	406	G	C2'-C3'-O3'	5.09	117.13	109.50
34	BA	721	A	P-O3'-C3'	-5.09	112.57	120.20
34	BA	1160	U	P-O5'-C5'	5.09	128.53	120.90
35	BB	418	G	O4'-C1'-C2'	5.09	112.69	107.60
35	BB	1427	A	O4'-C4'-C3'	-5.09	98.91	104.00
36	BC	38	U	O4'-C1'-N1	5.09	115.83	108.20
38	BE	25	U	C2-N1-C1'	-5.09	102.44	117.70
38	BE	46	G	C4'-C3'-O3'	-5.09	105.37	113.00
42	BI	190	PHE	CA-CB-CG	-5.09	108.71	113.80
45	BL	156	GLY	CA-C-N	5.09	127.10	120.28
45	BL	156	GLY	C-N-CA	5.09	127.10	120.28
49	BP	96	HIS	N-CA-CB	-5.09	102.50	110.44
62	Bc	51	ALA	O-C-N	-5.09	117.17	123.33
85	AA	16	G	P-O5'-C5'	-5.09	113.27	120.90
85	AA	1154	A	P-O3'-C3'	5.09	127.83	120.20
85	AA	1644	G	C5'-C4'-C3'	-5.09	108.37	116.00
85	AA	1718	C	O4'-C1'-N1	5.09	116.13	108.50
85	AA	1934	A	C1'-O4'-C4'	-5.09	104.81	109.90
85	AA	2208	G	O5'-C5'-C4'	-5.09	103.87	111.50
2	A1	44	ILE	CB-CA-C	5.08	118.17	111.81
13	AE	149	LYS	CA-C-O	5.08	126.16	120.82
34	BA	1597	G	C2'-C3'-O3'	5.08	117.13	109.50
35	BB	440	U	C5'-C4'-C3'	5.08	123.63	116.00
35	BB	690	C	C2'-C3'-O3'	5.08	121.33	113.70
40	BG	176	G	P-O3'-C3'	-5.08	112.57	120.20
70	Bk	92	THR	N-CA-C	5.08	121.63	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
75	Bp	71	SER	N-CA-C	5.08	121.63	110.80
85	AA	39	A	O4'-C4'-C3'	-5.08	98.92	104.00
85	AA	334	A	C2'-C3'-O3'	5.08	121.33	113.70
35	BB	11	A	O3'-P-O5'	5.08	111.63	104.00
35	BB	507	G	N9-C1'-C2'	-5.08	104.38	112.00
35	BB	552	C	C4'-C3'-O3'	-5.08	105.38	113.00
35	BB	1180	G	O5'-C5'-C4'	-5.08	103.88	111.50
36	BC	31	A	O4'-C1'-C2'	-5.08	102.52	107.60
41	BH	135	U	C4'-C3'-C2'	5.08	107.68	102.60
64	Be	160	SER	CA-C-N	5.08	129.27	121.19
64	Be	160	SER	C-N-CA	5.08	129.27	121.19
67	Bh	13	LYS	N-CA-CB	5.08	117.38	110.01
77	Br	329	LEU	N-CA-CB	-5.08	102.65	110.12
85	AA	1139	G	O4'-C1'-N9	5.08	116.12	108.50
85	AA	1916	A	C4'-C3'-C2'	-5.08	97.52	102.60
86	AB	39	U	O4'-C4'-C3'	-5.08	98.92	104.00
13	AE	124	THR	CB-CA-C	-5.08	101.76	109.89
20	AL	90	HIS	CA-C-N	5.08	130.03	122.71
20	AL	90	HIS	C-N-CA	5.08	130.03	122.71
34	BA	372	U	C4'-C3'-O3'	-5.08	105.38	113.00
34	BA	1001	G	C1'-O4'-C4'	-5.08	104.82	109.90
34	BA	1202	G	N9-C1'-C2'	-5.08	104.38	112.00
34	BA	1334	G	C5'-C4'-C3'	-5.08	108.38	116.00
34	BA	1793	G	O4'-C1'-N9	5.08	115.82	108.20
35	BB	487	A	O4'-C1'-C2'	5.08	112.68	107.60
35	BB	1115	G	C4'-C3'-C2'	-5.08	97.52	102.60
35	BB	1260	A	N9-C1'-C2'	-5.08	106.38	114.00
35	BB	1290	C	C3'-C2'-C1'	-5.08	96.22	101.30
35	BB	1334	C	O4'-C1'-N1	5.08	116.12	108.50
35	BB	1505	U	P-O3'-C3'	-5.08	112.58	120.20
36	BC	39	G	P-O3'-C3'	-5.08	112.58	120.20
36	BC	124	A	C4-N9-C1'	5.08	141.54	126.30
38	BE	60	C	C4'-C3'-C2'	-5.08	97.52	102.60
52	BS	69	ARG	NE-CZ-NH1	5.08	126.58	121.50
57	BX	101	ASN	OD1-CG-ND2	-5.08	117.52	122.60
72	Bm	13	THR	O-C-N	-5.08	117.25	123.10
82	Bw	180	ASP	N-CA-C	5.08	116.97	108.99
84	By	116	GLU	N-CA-CB	5.08	119.08	110.49
85	AA	271	A	C3'-C2'-C1'	-5.08	96.22	101.30
85	AA	705	G	C1'-O4'-C4'	-5.08	104.82	109.90
85	AA	2150	G	C5'-C4'-C3'	5.08	123.62	116.00
15	AG	67	THR	CA-C-O	-5.08	115.17	121.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	AT	59	GLU	CA-C-N	5.08	130.19	122.37
27	AT	59	GLU	C-N-CA	5.08	130.19	122.37
34	BA	549	G	C3'-C2'-O2'	5.08	118.32	110.70
34	BA	814	C	N1-C1'-C2'	-5.08	104.38	112.00
34	BA	1321	A	C3'-C2'-O2'	5.08	118.32	110.70
34	BA	1482	A	O3'-P-O5'	5.08	111.62	104.00
34	BA	1542	A	N9-C1'-C2'	-5.08	104.38	112.00
34	BA	1796	A	C3'-C2'-C1'	-5.08	96.42	101.50
34	BA	1804	A	O4'-C1'-N9	5.08	115.82	108.20
39	BF	17	U	O3'-P-O5'	5.08	111.62	104.00
40	BG	59	G	P-O3'-C3'	-5.08	112.58	120.20
53	BT	120	TYR	CA-CB-CG	5.08	123.04	113.90
54	BU	97	ARG	O-C-N	-5.08	117.59	123.33
85	AA	1085	U	P-O3'-C3'	5.08	127.82	120.20
4	A3	191	ARG	O-C-N	-5.08	116.84	122.07
4	A3	192	ALA	CA-C-O	5.08	125.93	120.55
9	A8	35	TYR	CA-C-N	5.08	129.33	122.07
9	A8	35	TYR	C-N-CA	5.08	129.33	122.07
21	AM	9	SER	N-CA-C	-5.08	107.76	114.31
34	BA	3	G	C5'-C4'-C3'	5.08	123.62	116.00
34	BA	17	A	O5'-C5'-C4'	-5.08	103.88	111.50
34	BA	806	U	O4'-C1'-N1	5.08	116.12	108.50
34	BA	1170	A	C3'-C2'-C1'	-5.08	96.22	101.30
34	BA	1325	G	C1'-C2'-O2'	5.08	116.02	108.40
34	BA	1470	G	O5'-C5'-C4'	-5.08	104.08	111.70
35	BB	455	G	C4'-C3'-C2'	-5.08	97.52	102.60
36	BC	119	G	C4'-C3'-O3'	-5.08	105.38	113.00
38	BE	36	U	C5'-C4'-O4'	-5.08	102.18	109.80
61	Bb	36	GLY	N-CA-C	-5.08	107.99	115.30
66	Bg	82	SER	N-CA-C	5.08	121.62	110.80
67	Bh	50	ARG	NE-CZ-NH2	5.08	123.77	119.20
85	AA	53	G	C8-N9-C1'	5.08	142.23	127.00
85	AA	137	C	O5'-C5'-C4'	-5.08	103.88	111.50
85	AA	242	G	O4'-C1'-N9	5.08	115.82	108.20
85	AA	1253	G	P-O5'-C5'	-5.08	113.28	120.90
11	AC	212	TRP	N-CA-CB	-5.08	102.65	110.16
34	BA	876	C	C4'-C3'-C2'	5.08	107.68	102.60
34	BA	1480	C	O3'-P-O5'	5.08	111.61	104.00
37	BD	14	C	O4'-C1'-C2'	5.08	112.68	107.60
85	AA	562	C	P-O5'-C5'	5.08	128.52	120.90
85	AA	2073	U	C3'-C2'-O2'	5.08	118.32	110.70
7	A6	65	HIS	CA-C-N	5.08	124.25	118.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	A6	65	HIS	C-N-CA	5.08	124.25	118.97
11	AC	84	ILE	N-CA-C	-5.08	101.10	109.12
34	BA	3	G	C5'-C4'-O4'	-5.08	102.19	109.80
34	BA	418	G	C3'-C2'-C1'	-5.08	96.42	101.50
34	BA	537	C	C4'-C3'-O3'	-5.08	105.39	113.00
34	BA	596	G	C2'-C3'-O3'	5.08	117.11	109.50
34	BA	874	G	O5'-C5'-C4'	5.08	119.11	111.50
34	BA	1522	G	C1'-O4'-C4'	-5.08	104.82	109.90
44	BK	87	MET	N-CA-C	-5.08	100.97	109.24
54	BU	3	HIS	CA-C-N	5.08	128.08	120.87
54	BU	3	HIS	C-N-CA	5.08	128.08	120.87
62	Bc	54	LYS	O-C-N	-5.08	117.38	123.27
65	Bf	293	CYS	N-CA-C	5.08	121.61	110.80
69	Bj	62	HIS	CB-CG-CD2	-5.08	124.60	131.20
75	Bp	43	TYR	CA-CB-CG	-5.08	104.76	113.90
83	Bx	52	ASP	N-CA-C	5.08	121.61	110.80
85	AA	315	U	C3'-C2'-C1'	-5.08	96.22	101.30
85	AA	1674	G	C2'-C3'-O3'	5.08	121.31	113.70
85	AA	1684	U	C4'-C3'-C2'	-5.08	97.53	102.60
8	A7	5	TYR	N-CA-CB	5.07	119.06	110.49
18	AJ	44	HIS	CE1-NE2-CD2	-5.07	103.93	109.00
34	BA	360	C	O4'-C1'-N1	5.07	115.81	108.20
35	BB	154	A	O3'-P-O5'	-5.07	96.39	104.00
35	BB	496	C	C3'-C2'-C1'	-5.07	96.23	101.30
35	BB	709	G	C5'-C4'-C3'	5.07	123.61	116.00
35	BB	726	A	O4'-C1'-N9	5.07	116.11	108.50
41	BH	28	U	C4'-C3'-C2'	5.07	107.67	102.60
48	BO	176	GLU	CA-C-O	5.07	125.93	120.55
77	Br	217	ARG	CA-C-N	5.07	130.83	121.70
77	Br	217	ARG	C-N-CA	5.07	130.83	121.70
85	AA	533	C	O4'-C1'-N1	5.07	116.11	108.50
85	AA	628	C	O3'-P-O5'	-5.07	96.39	104.00
85	AA	1665	G	P-O3'-C3'	-5.07	112.59	120.20
34	BA	247	U	N1-C1'-C2'	5.07	121.61	114.00
34	BA	1203	G	C1'-O4'-C4'	-5.07	104.83	109.90
34	BA	1617	U	C2'-C3'-O3'	5.07	121.31	113.70
35	BB	531	U	C3'-C2'-C1'	5.07	106.37	101.30
35	BB	836	U	C1'-C2'-O2'	5.07	116.01	108.40
35	BB	1223	A	O5'-C5'-C4'	5.07	119.11	111.50
35	BB	1480	G	O4'-C1'-C2'	5.07	112.67	107.60
38	BE	182	U	C4'-C3'-O3'	-5.07	105.39	113.00
85	AA	1881	C	C1'-O4'-C4'	-5.07	104.83	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	1976	G	C4'-C3'-O3'	-5.07	105.39	113.00
85	AA	2039	G	C2'-C3'-O3'	5.07	121.31	113.70
8	A7	63	LEU	N-CA-CB	-5.07	102.05	110.47
19	AK	121	PHE	CA-C-N	5.07	127.08	120.28
19	AK	121	PHE	C-N-CA	5.07	127.08	120.28
34	BA	83	G	O4'-C4'-C3'	-5.07	101.03	106.10
34	BA	572	G	C5'-C4'-O4'	-5.07	102.19	109.80
34	BA	887	U	C5'-C4'-C3'	5.07	123.61	116.00
34	BA	1628	A	P-O5'-C5'	5.07	128.51	120.90
34	BA	1642	A	C1'-O4'-C4'	-5.07	104.83	109.90
35	BB	453	C	O5'-C5'-C4'	5.07	119.11	111.50
35	BB	561	C	O4'-C4'-C3'	-5.07	98.93	104.00
35	BB	1283	C	P-O5'-C5'	-5.07	113.29	120.90
36	BC	53	A	O5'-C5'-C4'	-5.07	103.90	111.50
36	BC	87	C	P-O3'-C3'	-5.07	112.59	120.20
37	BD	116	C	C1'-O4'-C4'	-5.07	104.83	109.90
40	BG	66	C	O4'-C1'-C2'	5.07	112.67	107.60
45	BL	133	ASP	CA-C-N	5.07	129.51	122.77
45	BL	133	ASP	C-N-CA	5.07	129.51	122.77
51	BR	141	ARG	N-CA-CB	-5.07	101.82	111.00
58	BY	55	TRP	N-CA-C	5.07	118.95	112.87
60	Ba	75	ASN	N-CA-CB	5.07	117.75	109.69
62	Bc	109	ARG	N-CA-CB	5.07	118.03	110.22
71	Bl	104	ASN	N-CA-C	-5.07	105.79	112.94
77	Br	105	LYS	CA-C-O	5.07	126.84	121.16
85	AA	117	C	C3'-C2'-C1'	-5.07	96.23	101.30
85	AA	308	U	O4'-C4'-C3'	-5.07	98.93	104.00
85	AA	411	U	O4'-C1'-C2'	5.07	110.87	105.80
85	AA	1057	G	C1'-O4'-C4'	-5.07	104.83	109.90
85	AA	1452	C	C4'-C3'-O3'	-5.07	105.39	113.00
85	AA	1535	C	P-O5'-C5'	-5.07	113.29	120.90
85	AA	1833	C	C5'-C4'-O4'	5.07	117.41	109.80
85	AA	2085	C	O4'-C1'-C2'	5.07	110.87	105.80
34	BA	817	U	C3'-C2'-C1'	-5.07	96.23	101.30
34	BA	1453	U	O4'-C1'-C2'	5.07	110.87	105.80
35	BB	420	U	C3'-C2'-C1'	-5.07	96.23	101.30
35	BB	1145	G	C2'-C3'-O3'	5.07	121.30	113.70
37	BD	7	G	C4'-C3'-O3'	-5.07	105.40	113.00
47	BN	127	LYS	N-CA-CB	-5.07	103.15	110.70
85	AA	688	C	C5'-C4'-O4'	5.07	117.40	109.80
85	AA	754	C	O3'-P-O5'	-5.07	96.40	104.00
1	A0	106	ASP	CB-CA-C	5.07	120.50	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A0	158	ALA	N-CA-C	5.07	116.76	108.55
3	A2	138	TYR	N-CA-CB	-5.07	102.39	109.94
4	A3	34	GLY	CA-C-N	5.07	127.91	120.71
4	A3	34	GLY	C-N-CA	5.07	127.91	120.71
4	A3	93	GLY	N-CA-C	-5.07	108.38	114.66
7	A6	107	ARG	N-CA-C	-5.07	102.14	109.59
26	AS	53	GLU	O-C-N	-5.07	117.81	123.48
34	BA	57	A	P-O5'-C5'	5.07	128.50	120.90
34	BA	932	G	P-O5'-C5'	-5.07	113.30	120.90
35	BB	492	U	O5'-C5'-C4'	-5.07	103.90	111.50
38	BE	23	G	P-O3'-C3'	-5.07	112.60	120.20
38	BE	34	C	P-O3'-C3'	-5.07	112.60	120.20
40	BG	25	G	O5'-C5'-C4'	-5.07	103.90	111.50
40	BG	154	C	P-O3'-C3'	-5.07	112.60	120.20
50	BQ	89	LYS	N-CA-CB	5.07	118.47	110.56
51	BR	13	LYS	N-CA-C	5.07	120.19	112.54
58	BY	44	TYR	CA-C-N	5.07	127.49	120.29
58	BY	44	TYR	C-N-CA	5.07	127.49	120.29
61	Bb	114	HIS	CB-CA-C	-5.07	99.81	110.45
75	Bp	41	HIS	CA-CB-CG	-5.07	108.73	113.80
85	AA	569	A	C4-N9-C1'	-5.07	111.10	126.30
85	AA	934	A	C2'-C3'-O3'	5.07	117.10	109.50
85	AA	1472	G	C1'-O4'-C4'	-5.07	104.83	109.90
1	A0	113	TYR	CA-CB-CG	-5.07	104.78	113.90
2	A1	69	VAL	N-CA-C	5.07	115.77	108.48
34	BA	221	G	C8-N9-C1'	5.07	142.20	127.00
34	BA	342	U	C4'-C3'-O3'	-5.07	105.40	113.00
34	BA	482	C	C1'-O4'-C4'	5.07	114.77	109.70
34	BA	670	U	C5'-C4'-C3'	-5.07	108.40	116.00
34	BA	768	G	C4'-C3'-C2'	-5.07	97.53	102.60
34	BA	1656	A	P-O5'-C5'	5.07	128.50	120.90
34	BA	1693	U	C4'-C3'-C2'	5.07	107.67	102.60
35	BB	497	C	C4'-C3'-C2'	5.07	107.67	102.60
35	BB	851	U	O4'-C1'-N1	5.07	116.10	108.50
38	BE	116	U	O3'-P-O5'	-5.07	96.40	104.00
39	BF	65	U	P-O5'-C5'	5.07	128.50	120.90
39	BF	70	A	O4'-C4'-C3'	-5.07	98.93	104.00
64	Be	89	LEU	CB-CA-C	5.07	118.87	109.70
66	Bg	26	GLN	CA-C-N	5.07	127.02	120.44
66	Bg	26	GLN	C-N-CA	5.07	127.02	120.44
75	Bp	25	VAL	CA-CB-CG2	-5.07	101.79	110.40
79	Bt	49	GLY	N-CA-C	5.07	125.19	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	127	U	O4'-C4'-C3'	-5.07	98.94	104.00
85	AA	536	C	C5'-C4'-C3'	-5.07	108.40	116.00
85	AA	720	A	C3'-C2'-C1'	-5.07	96.23	101.30
85	AA	803	C	O3'-P-O5'	5.07	111.60	104.00
86	AB	17	C	O4'-C1'-N1	5.07	115.80	108.20
2	A1	244	ILE	N-CA-C	5.06	116.29	108.44
29	AV	45	ARG	NE-CZ-NH2	-5.06	114.64	119.20
34	BA	21	C	C2'-C3'-O3'	5.06	121.30	113.70
34	BA	203	U	C2'-C3'-O3'	5.06	121.30	113.70
34	BA	1072	U	C3'-C2'-C1'	-5.06	96.24	101.30
34	BA	1210	A	O3'-P-O5'	-5.06	96.40	104.00
35	BB	1205	A	C4'-C3'-C2'	-5.06	97.54	102.60
56	BW	35	ASN	CA-CB-CG	-5.06	107.54	112.60
85	AA	1055	U	C5'-C4'-C3'	-5.06	108.40	116.00
85	AA	1272	G	P-O3'-C3'	-5.06	112.60	120.20
85	AA	1458	G	C8-N9-C1'	5.06	142.19	127.00
85	AA	1570	A	C2'-C3'-O3'	5.06	117.10	109.50
85	AA	1756	C	P-O5'-C5'	5.06	128.50	120.90
85	AA	1810	C	O4'-C4'-C3'	-5.06	98.94	104.00
1	A0	59	ASP	CB-CA-C	-5.06	102.93	110.88
2	A1	246	VAL	N-CA-CB	-5.06	104.14	110.47
8	A7	152	THR	CA-C-O	5.06	125.82	119.59
13	AE	87	LEU	N-CA-C	-5.06	102.29	110.14
20	AL	33	ARG	CA-C-N	5.06	126.94	120.56
20	AL	33	ARG	C-N-CA	5.06	126.94	120.56
34	BA	875	G	C4-N9-C1'	-5.06	111.31	126.50
35	BB	260	A	O3'-P-O5'	-5.06	96.41	104.00
35	BB	1313	C	C4'-C3'-C2'	5.06	107.66	102.60
35	BB	1459	U	P-O3'-C3'	-5.06	112.61	120.20
35	BB	1504	U	O4'-C1'-C2'	5.06	110.86	105.80
39	BF	63	U	O5'-C5'-C4'	5.06	119.09	111.50
39	BF	71	G	P-O3'-C3'	-5.06	112.61	120.20
41	BH	47	G	C1'-O4'-C4'	-5.06	104.84	109.90
44	BK	137	SER	N-CA-C	-5.06	100.78	109.24
57	BX	139	ASP	CA-C-N	5.06	129.48	122.29
57	BX	139	ASP	C-N-CA	5.06	129.48	122.29
85	AA	133	G	C8-N9-C1'	5.06	142.19	127.00
85	AA	758	C	C4'-C3'-O3'	-5.06	105.41	113.00
85	AA	1270	C	C4'-C3'-C2'	-5.06	97.54	102.60
85	AA	1703	A	O3'-P-O5'	-5.06	96.41	104.00
85	AA	1717	G	C5'-C4'-C3'	5.06	122.79	115.20
85	AA	2148	C	P-O5'-C5'	5.06	128.49	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1622	U	O4'-C4'-C3'	-5.06	98.94	104.00
35	BB	824	C	N1-C1'-C2'	-5.06	104.41	112.00
47	BN	176	LYS	N-CA-C	5.06	121.58	110.80
85	AA	98	U	N1-C1'-C2'	-5.06	104.41	112.00
85	AA	387	U	P-O3'-C3'	5.06	127.79	120.20
85	AA	396	U	C4'-C3'-C2'	5.06	107.66	102.60
85	AA	436	G	O5'-C5'-C4'	-5.06	103.91	111.50
85	AA	1863	A	C1'-O4'-C4'	-5.06	104.84	109.90
3	A2	41	ARG	NE-CZ-NH2	5.06	123.75	119.20
8	A7	103	TYR	CB-CA-C	-5.06	100.75	109.86
35	BB	663	G	C5'-C4'-C3'	-5.06	108.41	116.00
35	BB	837	A	O4'-C4'-C3'	5.06	109.06	104.00
35	BB	838	G	O5'-P-OP1	-5.06	92.82	108.00
36	BC	13	U	C5'-C4'-C3'	5.06	123.59	116.00
41	BH	35	G	C1'-O4'-C4'	-5.06	104.84	109.90
69	Bj	77	ARG	CA-C-N	5.06	126.17	119.84
69	Bj	77	ARG	C-N-CA	5.06	126.17	119.84
75	Bp	7	ASN	CA-C-N	5.06	127.06	120.28
75	Bp	7	ASN	C-N-CA	5.06	127.06	120.28
81	Bv	37	ILE	N-CA-CB	5.06	118.05	111.67
85	AA	167	A	C4'-C3'-C2'	-5.06	97.54	102.60
85	AA	2011	C	C4'-C3'-O3'	-5.06	105.41	113.00
6	A5	64	ASN	CA-C-N	-5.06	115.11	122.65
6	A5	64	ASN	C-N-CA	-5.06	115.11	122.65
7	A6	84	PHE	CA-CB-CG	-5.06	108.74	113.80
8	A7	197	ASN	CA-CB-CG	-5.06	107.54	112.60
34	BA	39	C	C4'-C3'-C2'	5.06	107.66	102.60
34	BA	49	A	O5'-C5'-C4'	-5.06	103.91	111.50
34	BA	951	C	O4'-C1'-N1	5.06	116.09	108.50
34	BA	1117	G	O5'-C5'-C4'	-5.06	103.91	111.50
34	BA	1221	A	P-O5'-C5'	-5.06	113.31	120.90
34	BA	1244	G	P-O3'-C3'	-5.06	112.61	120.20
35	BB	574	G	C5'-C4'-C3'	5.06	122.79	115.20
35	BB	1454	G	O4'-C4'-C3'	-5.06	98.94	104.00
36	BC	130	U	O3'-P-O5'	-5.06	96.41	104.00
46	BM	47	ALA	N-CA-C	5.06	116.79	111.28
48	BO	136	ARG	NH1-CZ-NH2	-5.06	112.73	119.30
67	Bh	16	LYS	CA-C-N	5.06	127.01	120.44
67	Bh	16	LYS	C-N-CA	5.06	127.01	120.44
68	Bi	63	ARG	CB-CA-C	5.06	119.45	110.85
78	Bs	30	ARG	CB-CA-C	5.06	119.37	110.37
81	Bv	95	THR	N-CA-C	-5.06	106.41	112.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	737	G	C2'-C3'-O3'	5.06	121.28	113.70
85	AA	1170	C	O4'-C1'-N1	5.06	116.09	108.50
85	AA	1272	G	C4'-C3'-C2'	-5.06	97.54	102.60
85	AA	2024	U	C2'-C3'-O3'	5.06	117.08	109.50
34	BA	422	C	C4'-C3'-O3'	-5.06	105.42	113.00
34	BA	1460	U	C5'-C4'-C3'	-5.06	108.42	116.00
44	BK	102	MET	N-CA-C	5.06	121.57	110.80
61	Bb	132	LYS	CB-CA-C	5.06	119.34	110.64
82	Bw	235	HIS	CA-CB-CG	5.06	118.86	113.80
85	AA	743	C	C5'-C4'-O4'	-5.06	102.22	109.80
85	AA	1566	A	P-O3'-C3'	-5.06	112.62	120.20
85	AA	2214	A	C1'-O4'-C4'	-5.06	104.84	109.90
7	A6	176	ARG	N-CA-CB	5.05	119.03	110.49
8	A7	23	GLN	OE1-CD-NE2	-5.05	117.55	122.60
20	AL	56	HIS	N-CA-C	5.05	116.48	111.07
34	BA	9	A	C3'-C2'-C1'	-5.05	96.25	101.30
34	BA	88	C	O3'-P-O5'	5.05	111.58	104.00
34	BA	1089	U	P-O5'-C5'	5.05	128.48	120.90
34	BA	1179	U	C2'-C3'-O3'	5.05	121.28	113.70
34	BA	1402	C	P-O5'-C5'	5.05	128.48	120.90
35	BB	1455	A	P-O3'-C3'	5.05	127.78	120.20
38	BE	129	G	C1'-C2'-O2'	5.05	115.98	108.40
39	BF	20	U	P-O5'-C5'	5.05	128.48	120.90
40	BG	73	U	C4'-C3'-C2'	5.05	107.65	102.60
51	BR	112	MET	N-CA-C	5.05	116.81	110.24
61	Bb	48	TYR	N-CA-CB	-5.05	103.10	110.53
73	Bn	77	HIS	CA-CB-CG	-5.05	108.75	113.80
75	Bp	4	GLU	N-CA-CB	-5.05	102.76	110.85
76	Bq	23	VAL	CA-C-N	5.05	126.16	119.84
76	Bq	23	VAL	C-N-CA	5.05	126.16	119.84
85	AA	35	U	C1'-O4'-C4'	-5.05	104.85	109.90
85	AA	88	G	C4'-C3'-C2'	-5.05	97.55	102.60
85	AA	2174	G	O3'-P-O5'	-5.05	96.42	104.00
34	BA	51	C	P-O5'-C5'	-5.05	113.32	120.90
34	BA	1297	G	C5'-C4'-C3'	-5.05	107.62	115.20
35	BB	368	C	P-O3'-C3'	-5.05	112.62	120.20
54	BU	19	PHE	N-CA-C	5.05	121.56	110.80
68	Bi	125	ALA	N-CA-C	5.05	117.05	110.53
69	Bj	5	ARG	N-CA-C	-5.05	96.85	111.00
85	AA	884	A	C4'-C3'-C2'	-5.05	97.55	102.60
85	AA	1593	C	P-O3'-C3'	5.05	127.78	120.20
2	A1	133	ILE	N-CA-CB	5.05	118.28	111.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A3	10	ASN	CA-CB-CG	-5.05	107.55	112.60
13	AE	41	HIS	CE1-NE2-CD2	-5.05	103.95	109.00
20	AL	41	ALA	CA-C-N	5.05	131.19	121.54
20	AL	41	ALA	C-N-CA	5.05	131.19	121.54
21	AM	41	PHE	CA-C-O	5.05	125.77	120.42
34	BA	565	U	C1'-O4'-C4'	-5.05	104.85	109.90
34	BA	608	G	C3'-C2'-C1'	5.05	106.35	101.30
34	BA	1174	A	C4'-C3'-O3'	-5.05	105.42	113.00
34	BA	1767	G	O3'-P-O5'	-5.05	96.42	104.00
47	BN	194	HIS	CB-CG-ND1	5.05	130.28	122.70
50	BQ	49	HIS	CA-CB-CG	5.05	118.85	113.80
50	BQ	54	VAL	N-CA-C	5.05	117.09	108.86
54	BU	4	SER	N-CA-CB	-5.05	102.54	109.97
85	AA	442	G	C1'-O4'-C4'	-5.05	104.85	109.90
85	AA	750	A	C5'-C4'-C3'	-5.05	108.42	116.00
85	AA	1859	C	P-O5'-C5'	-5.05	113.32	120.90
34	BA	203	U	O3'-P-O5'	5.05	111.57	104.00
34	BA	697	A	P-O5'-C5'	5.05	128.47	120.90
34	BA	992	A	O4'-C1'-C2'	5.05	112.65	107.60
34	BA	1401	C	C3'-C2'-C1'	-5.05	96.25	101.30
34	BA	1600	G	C5'-C4'-C3'	-5.05	108.43	116.00
34	BA	1739	G	C1'-O4'-C4'	-5.05	104.85	109.90
35	BB	843	G	C3'-C2'-C1'	-5.05	96.25	101.30
35	BB	967	G	C1'-O4'-C4'	-5.05	104.85	109.90
35	BB	979	G	C4'-C3'-O3'	-5.05	105.42	113.00
36	BC	91	G	N9-C1'-C2'	-5.05	104.42	112.00
36	BC	143	C	C2'-C3'-O3'	5.05	121.27	113.70
48	BO	90	HIS	CA-CB-CG	-5.05	108.75	113.80
77	Br	323	ARG	N-CA-CB	5.05	117.54	110.12
81	Bv	171	MET	N-CA-CB	5.05	119.74	111.31
84	By	119	VAL	CA-C-N	-5.05	114.62	122.09
84	By	119	VAL	C-N-CA	-5.05	114.62	122.09
85	AA	357	C	C3'-C2'-C1'	5.05	106.35	101.30
85	AA	658	C	C1'-O4'-C4'	-5.05	104.85	109.90
85	AA	1282	A	C8-N9-C1'	5.05	142.85	127.70
85	AA	1288	A	C3'-C2'-C1'	-5.05	96.25	101.30
85	AA	1854	U	P-O5'-C5'	-5.05	113.33	120.90
85	AA	2144	C	O3'-P-O5'	-5.05	96.42	104.00
25	AR	18	ILE	N-CA-CB	-5.05	105.60	111.20
34	BA	1134	A	P-O3'-C3'	-5.05	112.63	120.20
35	BB	701	U	C3'-C2'-C1'	-5.05	96.45	101.50
65	Bf	251	ALA	CA-C-N	5.05	127.04	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	Bf	251	ALA	C-N-CA	5.05	127.04	120.28
85	AA	92	G	C4'-C3'-O3'	-5.05	105.43	113.00
85	AA	112	A	O3'-P-O5'	-5.05	96.43	104.00
85	AA	803	C	C2'-C3'-O3'	5.05	121.27	113.70
85	AA	890	U	C5'-C4'-C3'	5.05	123.57	116.00
6	A5	41	ARG	N-CA-C	5.05	121.55	110.80
15	AG	84	ILE	N-CA-CB	-5.05	104.14	111.21
17	AI	32	LEU	CA-C-N	5.05	128.67	120.60
17	AI	32	LEU	C-N-CA	5.05	128.67	120.60
34	BA	203	U	P-O3'-C3'	-5.05	112.63	120.20
34	BA	569	C	P-O5'-C5'	-5.05	113.33	120.90
34	BA	799	A	P-O5'-C5'	-5.05	113.33	120.90
34	BA	809	U	C5'-C4'-C3'	-5.05	108.43	116.00
34	BA	930	A	N9-C1'-C2'	-5.05	104.43	112.00
34	BA	1447	C	P-O5'-C5'	-5.05	113.33	120.90
34	BA	1688	G	C5'-C4'-C3'	-5.05	108.43	116.00
35	BB	589	U	P-O3'-C3'	-5.05	112.63	120.20
35	BB	621	C	C1'-O4'-C4'	-5.05	104.85	109.90
35	BB	654	C	N1-C1'-C2'	-5.05	104.43	112.00
35	BB	822	G	C4'-C3'-C2'	5.05	107.65	102.60
35	BB	1021	C	P-O3'-C3'	-5.05	112.63	120.20
41	BH	54	U	P-O3'-C3'	-5.05	112.63	120.20
49	BP	123	TRP	CB-CG-CD2	-5.05	119.73	126.80
61	Bb	101	LEU	CA-C-N	5.05	127.35	120.54
61	Bb	101	LEU	C-N-CA	5.05	127.35	120.54
65	Bf	59	HIS	N-CA-C	-5.05	98.66	109.81
68	Bi	9	ASN	CA-C-N	5.05	131.05	121.97
68	Bi	9	ASN	C-N-CA	5.05	131.05	121.97
72	Bm	6	ARG	NE-CZ-NH1	5.05	126.55	121.50
77	Br	91	PHE	N-CA-CB	5.05	119.02	110.49
80	Bu	168	VAL	CB-CA-C	-5.05	105.33	112.14
85	AA	304	G	C2'-C3'-O3'	5.05	121.27	113.70
85	AA	1004	G	C3'-C2'-C1'	-5.05	96.25	101.30
85	AA	1036	A	C4'-C3'-O3'	-5.05	105.43	113.00
85	AA	1954	C	C4'-C3'-O3'	-5.05	105.43	113.00
7	A6	70	LEU	CA-C-N	5.04	127.98	120.31
7	A6	70	LEU	C-N-CA	5.04	127.98	120.31
7	A6	102	ASP	CA-CB-CG	5.04	117.64	112.60
18	AJ	3	MET	N-CA-C	-5.04	100.05	110.80
34	BA	166	G	P-O5'-C5'	5.04	128.47	120.90
34	BA	824	C	C5'-C4'-C3'	-5.04	108.43	116.00
35	BB	551	C	P-O5'-C5'	5.04	128.47	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1308	G	C2'-C3'-O3'	5.04	121.27	113.70
38	BE	79	G	P-O3'-C3'	-5.04	112.63	120.20
47	BN	206	ARG	CA-C-O	-5.04	115.07	120.42
68	Bi	67	ILE	O-C-N	-5.04	117.81	123.26
74	Bo	44	LYS	CA-C-N	-5.04	115.99	123.05
74	Bo	44	LYS	C-N-CA	-5.04	115.99	123.05
85	AA	694	A	C4'-C3'-C2'	5.04	107.64	102.60
85	AA	1981	A	C4'-C3'-C2'	-5.04	97.56	102.60
86	AB	32	U	C5'-C4'-C3'	5.04	123.57	116.00
34	BA	519	G	C5'-C4'-O4'	5.04	117.37	109.80
34	BA	1000	G	P-O5'-C5'	-5.04	113.33	120.90
34	BA	1130	U	C4'-C3'-C2'	-5.04	97.56	102.60
34	BA	1522	G	P-O5'-C5'	-5.04	113.34	120.90
34	BA	1619	U	O5'-C5'-C4'	-5.04	103.94	111.50
34	BA	1641	G	C2'-C3'-O3'	5.04	121.27	113.70
35	BB	359	A	O5'-C5'-C4'	-5.04	104.14	111.70
40	BG	132	U	C4'-C3'-C2'	-5.04	97.56	102.60
41	BH	93	G	O4'-C1'-N9	5.04	116.06	108.50
47	BN	34	PRO	N-CA-CB	5.04	108.55	103.25
51	BR	98	ALA	N-CA-C	-5.04	105.78	111.28
56	BW	99	ASP	CA-CB-CG	5.04	117.64	112.60
64	Be	252	VAL	N-CA-C	5.04	116.89	109.63
83	Bx	176	VAL	CA-C-O	5.04	123.39	119.46
85	AA	253	C	O5'-C5'-C4'	5.04	119.07	111.50
85	AA	943	U	P-O5'-C5'	5.04	128.47	120.90
85	AA	1107	A	O5'-C5'-C4'	-5.04	103.94	111.50
19	AK	18	LYS	N-CA-CB	5.04	119.01	110.49
21	AM	87	ARG	N-CA-C	-5.04	101.18	109.40
34	BA	883	C	C2'-C3'-O3'	5.04	117.06	109.50
34	BA	1776	G	N9-C1'-C2'	-5.04	106.44	114.00
34	BA	1812	C	P-O3'-C3'	-5.04	112.64	120.20
37	BD	91	U	C4'-C3'-C2'	5.04	107.64	102.60
40	BG	38	A	P-O5'-C5'	-5.04	113.34	120.90
47	BN	107	LYS	CB-CA-C	5.04	119.78	109.55
1	A0	130	LYS	CB-CA-C	-5.04	101.43	109.75
2	A1	99	LEU	O-C-N	-5.04	117.84	123.48
5	A4	86	GLU	CA-C-O	5.04	125.80	120.10
30	AW	13	VAL	N-CA-C	5.04	115.76	110.62
32	AY	18	THR	N-CA-C	-5.04	103.43	109.83
34	BA	675	C	C5'-C4'-C3'	-5.04	108.44	116.00
34	BA	1221	A	C2'-C3'-O3'	5.04	121.26	113.70
35	BB	1204	C	C4'-C3'-O3'	-5.04	105.44	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	Bh	25	LYS	CA-C-N	5.04	127.34	120.54
67	Bh	25	LYS	C-N-CA	5.04	127.34	120.54
83	Bx	101	ASN	N-CA-C	5.04	116.77	111.28
85	AA	1951	U	P-O5'-C5'	-5.04	113.34	120.90
86	AB	25	C	P-O5'-C5'	5.04	128.46	120.90
9	A8	50	ASN	CB-CA-C	-5.04	100.99	110.67
12	AD	32	THR	CA-C-N	5.04	130.54	122.93
12	AD	32	THR	C-N-CA	5.04	130.54	122.93
34	BA	511	U	O3'-P-O5'	5.04	111.56	104.00
34	BA	512	U	O3'-P-O5'	-5.04	96.44	104.00
34	BA	816	G	O4'-C4'-C3'	-5.04	98.96	104.00
34	BA	1436	A	O5'-C5'-C4'	-5.04	104.14	111.70
34	BA	1790	U	O4'-C1'-C2'	5.04	112.64	107.60
35	BB	72	G	C1'-O4'-C4'	-5.04	104.86	109.90
35	BB	1030	U	O4'-C1'-N1	5.04	116.06	108.50
36	BC	21	U	P-O3'-C3'	-5.04	112.64	120.20
38	BE	167	U	O3'-P-O5'	5.04	111.56	104.00
40	BG	45	G	C1'-O4'-C4'	-5.04	104.86	109.90
49	BP	41	PRO	N-CA-CB	5.04	106.06	101.83
51	BR	3	HIS	CB-CG-ND1	5.04	130.26	122.70
56	BW	72	ARG	CA-C-O	5.04	127.72	120.51
60	Ba	97	ASN	CB-CA-C	-5.04	103.01	110.62
80	Bu	226	ASP	CA-C-N	5.04	131.16	121.54
80	Bu	226	ASP	C-N-CA	5.04	131.16	121.54
84	By	138	VAL	CA-C-N	-5.04	114.15	121.76
84	By	138	VAL	C-N-CA	-5.04	114.15	121.76
85	AA	2163	G	C3'-C2'-C1'	-5.04	96.26	101.30
85	AA	2248	A	C2'-C3'-O3'	5.04	117.06	109.50
34	BA	72	U	O5'-P-OP1	5.04	123.11	108.00
34	BA	1461	A	O3'-P-O5'	-5.04	96.44	104.00
34	BA	1543	A	O4'-C1'-C2'	5.04	112.64	107.60
34	BA	1746	G	C4'-C3'-C2'	-5.04	97.56	102.60
35	BB	707	G	O5'-C5'-C4'	5.04	119.06	111.50
35	BB	1542	C	O4'-C4'-C3'	-5.04	98.96	104.00
43	BJ	12	ALA	N-CA-C	5.04	117.17	111.02
73	Bn	28	HIS	CE1-NE2-CD2	-5.04	103.96	109.00
85	AA	856	G	O4'-C1'-N9	5.04	116.06	108.50
13	AE	124	THR	N-CA-C	5.04	117.51	109.96
34	BA	395	G	C2'-C3'-O3'	5.04	121.25	113.70
34	BA	578	C	P-O5'-C5'	5.04	128.45	120.90
34	BA	1633	C	C5'-C4'-C3'	5.04	123.55	116.00
35	BB	268	G	C4'-C3'-C2'	-5.04	97.56	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	406	A	P-O5'-C5'	-5.04	113.35	120.90
35	BB	574	G	O4'-C4'-C3'	-5.04	101.06	106.10
35	BB	801	G	N9-C1'-C2'	-5.04	104.45	112.00
35	BB	1047	C	C4'-C3'-C2'	5.04	107.64	102.60
35	BB	1532	C	C2'-C3'-O3'	5.04	121.25	113.70
36	BC	90	U	C4'-C3'-O3'	5.04	120.55	113.00
40	BG	144	G	P-O3'-C3'	-5.04	112.65	120.20
44	BK	36	ILE	N-CA-C	-5.04	100.54	108.90
58	BY	17	HIS	CE1-NE2-CD2	-5.04	103.96	109.00
67	Bh	128	ASP	CA-CB-CG	5.04	117.64	112.60
85	AA	47	A	C5'-C4'-O4'	5.04	116.65	109.10
85	AA	315	U	O4'-C4'-C3'	-5.04	98.97	104.00
85	AA	788	G	C2'-C3'-O3'	5.04	121.25	113.70
85	AA	969	U	P-O3'-C3'	5.04	127.75	120.20
85	AA	1442	U	O3'-P-O5'	5.04	111.56	104.00
85	AA	1578	G	O4'-C4'-C3'	-5.04	101.06	106.10
85	AA	2177	C	C4'-C3'-O3'	-5.04	105.45	113.00
8	A7	264	ASP	CA-CB-CG	-5.03	107.57	112.60
30	AW	48	TYR	CB-CG-CD2	-5.03	113.25	120.80
34	BA	135	G	C3'-C2'-C1'	-5.03	96.27	101.30
34	BA	170	U	P-O3'-C3'	-5.03	112.65	120.20
34	BA	711	C	O4'-C4'-C3'	-5.03	101.07	106.10
34	BA	1515	U	O5'-C5'-C4'	5.03	119.05	111.50
34	BA	1776	G	P-O3'-C3'	5.03	127.75	120.20
35	BB	24	C	C3'-C2'-C1'	-5.03	96.47	101.50
35	BB	642	G	C3'-C2'-C1'	-5.03	96.47	101.50
35	BB	1171	U	C4'-C3'-O3'	-5.03	105.45	113.00
35	BB	1483	A	P-O5'-C5'	5.03	128.45	120.90
35	BB	1514	G	C1'-O4'-C4'	-5.03	104.87	109.90
38	BE	166	G	C5'-C4'-C3'	-5.03	108.45	116.00
38	BE	171	U	O4'-C4'-C3'	5.03	109.03	104.00
39	BF	18	U	P-O5'-C5'	-5.03	113.35	120.90
41	BH	73	A	OP1-P-OP2	-5.03	104.50	119.60
43	BJ	147	GLU	CA-C-N	5.03	127.03	120.28
43	BJ	147	GLU	C-N-CA	5.03	127.03	120.28
65	Bf	179	LEU	N-CA-C	5.03	121.52	110.80
83	Bx	201	ASP	O-C-N	-5.03	116.78	122.12
85	AA	962	U	C1'-O4'-C4'	-5.03	104.87	109.90
85	AA	1226	A	O4'-C1'-C2'	-5.03	102.57	107.60
85	AA	2056	C	P-O3'-C3'	-5.03	112.65	120.20
85	AA	2084	U	O4'-C1'-C2'	-5.03	102.57	107.60
5	A4	98	LEU	N-CA-C	5.03	116.72	108.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	974	G	C4'-C3'-O3'	-5.03	105.45	113.00
34	BA	1087	A	P-O3'-C3'	-5.03	112.65	120.20
35	BB	5	A	C3'-C2'-C1'	-5.03	96.27	101.30
35	BB	728	A	O4'-C1'-C2'	5.03	110.83	105.80
68	Bi	49	GLY	N-CA-C	5.03	125.11	113.18
83	Bx	158	LYS	N-CA-C	-5.03	106.73	112.92
85	AA	834	U	C5'-C4'-C3'	-5.03	108.45	116.00
85	AA	1964	A	O4'-C4'-C3'	-5.03	98.97	104.00
3	A2	41	ARG	O-C-N	-5.03	115.74	122.38
11	AC	238	PHE	CA-C-N	5.03	131.15	121.54
11	AC	238	PHE	C-N-CA	5.03	131.15	121.54
26	AS	130	LEU	N-CA-C	-5.03	105.07	111.11
34	BA	91	C	C2'-C3'-O3'	-5.03	106.16	113.70
34	BA	91	C	C4'-C3'-C2'	-5.03	97.57	102.60
34	BA	290	G	C1'-O4'-C4'	-5.03	104.87	109.90
34	BA	588	C	O3'-P-O5'	-5.03	96.45	104.00
35	BB	1388	A	P-O5'-C5'	-5.03	113.35	120.90
38	BE	196	C	P-O5'-C5'	-5.03	113.35	120.90
39	BF	49	C	C3'-C2'-C1'	-5.03	96.27	101.30
42	BI	100	THR	N-CA-CB	5.03	118.99	110.49
47	BN	34	PRO	CA-C-N	5.03	127.02	120.28
47	BN	34	PRO	C-N-CA	5.03	127.02	120.28
77	Br	113	LYS	N-CA-C	-5.03	102.70	109.95
85	AA	483	G	O5'-C5'-C4'	-5.03	103.95	111.50
85	AA	654	A	N1-C6-N6	-5.03	103.51	118.60
85	AA	1154	A	C3'-C2'-C1'	5.03	106.33	101.30
85	AA	1828	C	C4'-C3'-O3'	-5.03	105.45	113.00
6	A5	45	PRO	N-CA-C	-5.03	103.21	110.80
23	AP	243	THR	CA-C-O	5.03	126.32	120.49
25	AR	49	VAL	CA-C-N	5.03	129.98	122.99
25	AR	49	VAL	C-N-CA	5.03	129.98	122.99
34	BA	669	U	O5'-C5'-C4'	-5.03	103.96	111.50
35	BB	517	G	C5'-C4'-C3'	5.03	123.54	116.00
48	BO	131	VAL	N-CA-C	5.03	115.69	107.24
61	Bb	121	VAL	N-CA-C	-5.03	100.41	107.75
82	Bw	124	ARG	NE-CZ-NH2	5.03	123.73	119.20
85	AA	469	G	C8-N9-C4	5.03	121.49	106.40
85	AA	969	U	C4'-C3'-O3'	-5.03	105.46	113.00
85	AA	1345	C	O3'-P-O5'	5.03	111.54	104.00
85	AA	1932	C	O5'-C5'-C4'	5.03	119.04	111.50
8	A7	293	TRP	O-C-N	-5.03	117.28	122.96
19	AK	107	GLU	N-CA-CB	5.03	117.60	110.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	631	G	C8-N9-C1'	5.03	142.08	127.00
34	BA	1569	C	P-O5'-C5'	5.03	128.44	120.90
35	BB	765	G	C5'-C4'-C3'	-5.03	108.46	116.00
35	BB	1319	U	P-O5'-C5'	5.03	128.44	120.90
35	BB	1506	C	O3'-P-O5'	5.03	111.54	104.00
35	BB	1515	C	O3'-P-O5'	-5.03	96.46	104.00
40	BG	40	G	O5'-C5'-C4'	-5.03	103.96	111.50
52	BS	59	ASP	CA-CB-CG	-5.03	107.57	112.60
56	BW	112	LYS	N-CA-C	5.03	121.51	110.80
57	BX	147	ARG	N-CA-C	-5.03	100.97	108.96
62	Bc	79	LYS	CG-CD-CE	5.03	122.86	111.30
65	Bf	426	GLY	N-CA-C	5.03	121.54	115.31
69	Bj	4	PRO	CA-C-N	5.03	130.75	121.70
69	Bj	4	PRO	C-N-CA	5.03	130.75	121.70
82	Bw	102	THR	CB-CA-C	-5.03	102.64	110.74
85	AA	493	A	P-O3'-C3'	-5.03	112.66	120.20
85	AA	902	A	P-O3'-C3'	-5.03	112.66	120.20
85	AA	1001	G	P-O3'-C3'	-5.03	112.66	120.20
85	AA	1735	U	O4'-C4'-C3'	-5.03	98.97	104.00
85	AA	1799	C	P-O5'-C5'	5.03	128.44	120.90
85	AA	1855	U	C1'-C2'-O2'	5.03	115.94	108.40
85	AA	2075	C	C1'-O4'-C4'	-5.03	104.87	109.90
86	AB	68	C	C4'-C3'-C2'	5.03	107.63	102.60
3	A2	82	THR	CA-C-N	5.03	127.43	120.29
3	A2	82	THR	C-N-CA	5.03	127.43	120.29
6	A5	156	SER	N-CA-C	5.03	121.50	110.80
28	AU	70	ILE	N-CA-CB	5.03	119.25	110.65
29	AV	60	LEU	CB-CA-C	5.03	118.12	111.14
34	BA	181	G	C3'-C2'-C1'	-5.03	96.28	101.30
34	BA	278	U	P-O3'-C3'	-5.03	112.66	120.20
34	BA	321	G	C1'-O4'-C4'	-5.03	104.88	109.90
35	BB	3	C	O4'-C1'-C2'	-5.03	102.57	107.60
35	BB	120	C	C3'-C2'-C1'	-5.03	96.27	101.30
35	BB	129	U	O4'-C1'-C2'	5.03	112.62	107.60
36	BC	16	A	C1'-O4'-C4'	-5.03	104.88	109.90
38	BE	8	G	O4'-C1'-N9	5.03	116.04	108.50
40	BG	29	U	C4'-C3'-O3'	-5.03	105.46	113.00
40	BG	112	C	C1'-C2'-O2'	5.03	115.94	108.40
40	BG	112	C	C5'-C4'-O4'	5.03	117.34	109.80
45	BL	174	HIS	CA-CB-CG	-5.03	108.77	113.80
60	Ba	100	ASP	CA-CB-CG	-5.03	107.57	112.60
64	Be	180	LEU	N-CA-C	5.03	121.51	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	Bf	148	VAL	O-C-N	-5.03	116.29	122.57
67	Bh	66	ARG	N-CA-CB	5.03	117.36	110.07
68	Bi	63	ARG	CB-CG-CD	5.03	122.86	111.30
68	Bi	117	ASP	CA-CB-CG	-5.03	107.58	112.60
70	Bk	116	HIS	N-CA-C	-5.03	105.88	111.36
85	AA	21	U	P-O3'-C3'	-5.03	112.66	120.20
85	AA	38	C	C3'-C2'-C1'	-5.03	96.27	101.30
85	AA	633	C	C5'-C4'-O4'	5.03	117.34	109.80
85	AA	991	G	P-O3'-C3'	-5.03	112.66	120.20
85	AA	1502	A	O3'-P-O5'	-5.03	96.46	104.00
85	AA	1579	A	C2'-C3'-O3'	5.03	117.04	109.50
85	AA	2074	G	O4'-C1'-N9	5.03	116.04	108.50
85	AA	2204	A	C4'-C3'-C2'	5.03	107.63	102.60
34	BA	110	C	C4'-C3'-O3'	5.02	120.54	113.00
35	BB	1078	U	C4'-C3'-O3'	-5.02	105.46	113.00
35	BB	1454	G	C1'-O4'-C4'	-5.02	104.88	109.90
37	BD	95	G	P-O5'-C5'	5.02	128.44	120.90
39	BF	52	A	O4'-C4'-C3'	-5.02	98.98	104.00
41	BH	98	U	O5'-P-OP1	5.02	123.07	108.00
82	Bw	134	LEU	N-CA-CB	-5.02	102.66	110.55
85	AA	600	C	C4'-C3'-O3'	5.02	120.54	113.00
86	AB	49	C	O5'-C5'-C4'	5.02	119.04	111.50
6	A5	86	THR	N-CA-C	5.02	116.44	111.07
7	A6	93	ASP	N-CA-CB	-5.02	102.57	110.30
11	AC	157	VAL	N-CA-C	5.02	113.83	107.70
34	BA	540	G	O3'-P-O5'	-5.02	96.47	104.00
34	BA	1496	G	P-O5'-C5'	-5.02	113.37	120.90
34	BA	1532	G	C4'-C3'-O3'	-5.02	105.47	113.00
35	BB	50	A	O5'-C5'-C4'	-5.02	103.97	111.50
35	BB	693	U	C1'-O4'-C4'	-5.02	104.88	109.90
35	BB	746	A	C1'-O4'-C4'	-5.02	104.88	109.90
35	BB	1152	U	C1'-O4'-C4'	-5.02	104.68	109.70
35	BB	1224	C	O4'-C1'-N1	5.02	116.03	108.50
37	BD	44	U	C3'-C2'-C1'	-5.02	96.28	101.30
38	BE	107	U	P-O3'-C3'	-5.02	112.67	120.20
39	BF	53	G	C1'-O4'-C4'	-5.02	104.68	109.70
42	BI	43	PRO	N-CA-C	-5.02	106.29	113.47
65	Bf	161	THR	CA-CB-OG1	5.02	117.14	109.60
65	Bf	430	THR	CA-C-N	5.02	127.51	120.28
65	Bf	430	THR	C-N-CA	5.02	127.51	120.28
67	Bh	147	VAL	N-CA-CB	-5.02	102.65	111.39
83	Bx	37	PRO	CA-N-CD	-5.02	104.97	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	96	C	C4'-C3'-O3'	5.02	116.94	109.40
85	AA	309	G	O4'-C1'-C2'	5.02	112.62	107.60
85	AA	540	A	O4'-C1'-C2'	5.02	112.62	107.60
85	AA	812	C	P-O3'-C3'	-5.02	112.67	120.20
85	AA	821	U	P-O5'-C5'	-5.02	113.36	120.90
85	AA	1074	U	O4'-C1'-N1	5.02	116.03	108.50
85	AA	1992	A	C4'-C3'-C2'	-5.02	97.58	102.60
34	BA	625	U	C5'-C4'-C3'	-5.02	108.47	116.00
34	BA	961	C	C4'-C3'-O3'	-5.02	105.47	113.00
38	BE	102	U	C2'-C3'-O3'	5.02	117.03	109.50
41	BH	56	C	C5'-C4'-C3'	-5.02	108.47	116.00
11	AC	225	ILE	N-CA-C	-5.02	104.31	108.63
21	AM	132	VAL	CA-C-N	5.02	131.13	121.54
21	AM	132	VAL	C-N-CA	5.02	131.13	121.54
27	AT	60	ASN	N-CA-C	-5.02	105.86	112.94
30	AW	34	MET	CG-SD-CE	-5.02	89.86	100.90
34	BA	215	C	C1'-C2'-O2'	-5.02	104.27	111.80
34	BA	918	U	O5'-C5'-C4'	-5.02	103.97	111.50
34	BA	1800	G	C5'-C4'-O4'	5.02	117.33	109.80
35	BB	1393	C	C5'-C4'-C3'	-5.02	107.67	115.20
38	BE	203	C	C6-N1-C2	-5.02	105.14	120.20
40	BG	115	C	P-O3'-C3'	-5.02	112.67	120.20
42	BI	98	ARG	CG-CD-NE	-5.02	100.95	112.00
47	BN	71	ASN	CA-CB-CG	5.02	117.62	112.60
47	BN	113	GLY	CA-C-N	-5.02	113.16	120.29
47	BN	113	GLY	C-N-CA	-5.02	113.16	120.29
53	BT	137	ASN	CA-CB-CG	5.02	117.62	112.60
53	BT	168	GLN	N-CA-C	5.02	116.56	111.14
85	AA	517	A	N9-C1'-C2'	-5.02	104.47	112.00
85	AA	548	G	C1'-O4'-C4'	-5.02	104.88	109.90
85	AA	1424	G	P-O3'-C3'	-5.02	112.67	120.20
85	AA	1597	C	C5'-C4'-O4'	-5.02	102.27	109.80
85	AA	1836	U	C4'-C3'-C2'	-5.02	97.58	102.60
85	AA	2191	C	C4'-C3'-O3'	-5.02	105.47	113.00
1	A0	136	GLY	N-CA-C	-5.02	102.22	110.95
2	A1	173	GLY	N-CA-C	5.02	117.76	111.09
23	AP	232	TYR	N-CA-C	-5.02	105.22	113.50
23	AP	261	ARG	CB-CA-C	5.02	118.07	109.99
34	BA	62	A	P-O3'-C3'	5.02	127.73	120.20
34	BA	661	C	O4'-C1'-C2'	5.02	112.62	107.60
35	BB	134	G	O3'-P-O5'	5.02	111.53	104.00
35	BB	1012	G	P-O3'-C3'	-5.02	112.67	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BB	1313	C	P-O3'-C3'	-5.02	112.67	120.20
38	BE	85	G	C8-N9-C1'	5.02	142.05	127.00
39	BF	4	A	P-O5'-C5'	5.02	128.43	120.90
62	Bc	16	SER	CA-C-N	5.02	131.12	121.54
62	Bc	16	SER	C-N-CA	5.02	131.12	121.54
79	Bt	89	LYS	N-CA-C	-5.02	107.21	113.38
85	AA	56	U	P-O5'-C5'	5.02	128.43	120.90
85	AA	432	A	P-O5'-C5'	-5.02	113.37	120.90
85	AA	740	A	P-O3'-C3'	-5.02	112.67	120.20
85	AA	838	G	O5'-C5'-C4'	5.02	119.03	111.50
85	AA	1185	G	C4'-C3'-C2'	5.02	107.62	102.60
86	AB	15	G	C4'-C3'-O3'	-5.02	105.47	113.00
35	BB	759	C	O3'-P-O5'	-5.02	96.48	104.00
45	BL	16	MET	N-CA-CB	5.02	118.97	110.49
81	Bv	17	SER	N-CA-C	5.02	114.91	108.34
81	Bv	75	ARG	N-CA-C	-5.02	101.78	109.76
85	AA	614	U	N1-C1'-C2'	5.02	119.52	112.00
10	A9	110	ASP	N-CA-C	-5.01	105.52	111.69
34	BA	19	G	C3'-C2'-C1'	-5.01	96.29	101.30
34	BA	688	G	P-O3'-C3'	-5.01	112.68	120.20
34	BA	1131	G	P-O5'-C5'	-5.01	113.38	120.90
35	BB	3	C	C4'-C3'-C2'	-5.01	97.59	102.60
35	BB	56	U	C4'-C3'-O3'	-5.01	105.48	113.00
35	BB	876	G	O3'-P-O5'	5.01	111.52	104.00
35	BB	1203	C	P-O3'-C3'	-5.01	112.68	120.20
36	BC	7	U	C2'-C3'-O3'	5.01	121.22	113.70
36	BC	24	G	C4'-C3'-O3'	-5.01	105.48	113.00
37	BD	106	G	C4'-C3'-C2'	-5.01	97.58	102.60
38	BE	45	G	C2'-C3'-O3'	5.01	121.22	113.70
39	BF	11	C	C5'-C4'-O4'	5.01	116.62	109.10
39	BF	53	G	C3'-C2'-C1'	-5.01	96.49	101.50
47	BN	54	ARG	CD-NE-CZ	-5.01	117.38	124.40
59	BZ	16	HIS	N-CA-C	-5.01	105.70	111.07
81	Bv	58	GLY	CA-C-N	-5.01	113.57	119.84
81	Bv	58	GLY	C-N-CA	-5.01	113.57	119.84
83	Bx	84	VAL	N-CA-CB	5.01	118.23	111.21
84	By	66	SER	CA-C-O	5.01	125.86	120.55
85	AA	44	C	C3'-C2'-C1'	-5.01	96.28	101.30
85	AA	182	C	C5'-C4'-O4'	5.01	117.32	109.80
85	AA	285	C	C3'-C2'-O2'	5.01	118.22	110.70
85	AA	326	C	P-O5'-C5'	5.01	128.42	120.90
85	AA	416	U	P-O3'-C3'	5.01	127.72	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	AA	765	U	O3'-P-O5'	-5.01	96.48	104.00
85	AA	1137	C	P-O5'-C5'	5.01	128.42	120.90
5	A4	165	LYS	O-C-N	-5.01	116.81	122.12
7	A6	127	LEU	CA-C-O	5.01	126.08	120.82
11	AC	124	PHE	N-CA-CB	5.01	117.49	110.12
34	BA	1341	A	O3'-P-O5'	-5.01	96.48	104.00
38	BE	54	U	O4'-C1'-C2'	-5.01	102.59	107.60
51	BR	139	TYR	N-CA-C	-5.01	97.22	107.70
51	BR	150	MET	N-CA-CB	-5.01	102.11	110.83
71	Bl	145	TYR	N-CA-C	-5.01	103.61	108.07
85	AA	2062	U	C2'-C3'-O3'	5.01	121.22	113.70
2	A1	116	SER	N-CA-C	-5.01	107.66	112.97
31	AX	9	MET	N-CA-CB	-5.01	102.80	110.07
34	BA	69	C	C4'-C3'-C2'	5.01	107.61	102.60
34	BA	134	U	C5'-C4'-C3'	-5.01	108.48	116.00
34	BA	260	A	O4'-C1'-N9	5.01	115.72	108.20
34	BA	366	G	P-O5'-C5'	-5.01	113.38	120.90
34	BA	1067	G	O4'-C1'-C2'	5.01	112.61	107.60
34	BA	1233	U	C1'-C2'-O2'	5.01	115.92	108.40
34	BA	1354	G	P-O5'-C5'	-5.01	113.38	120.90
35	BB	645	C	C4'-C3'-C2'	5.01	107.61	102.60
35	BB	818	U	C3'-C2'-C1'	-5.01	96.29	101.30
35	BB	1181	A	O4'-C1'-C2'	5.01	112.61	107.60
51	BR	130	PHE	CA-C-N	5.01	131.23	122.81
51	BR	130	PHE	C-N-CA	5.01	131.23	122.81
57	BX	59	THR	N-CA-C	-5.01	100.13	110.80
70	Bk	82	ALA	N-CA-C	-5.01	100.61	108.63
80	Bu	77	ALA	N-CA-CB	-5.01	102.62	111.39
85	AA	340	G	C1'-O4'-C4'	-5.01	104.89	109.90
85	AA	711	C	C3'-C2'-C1'	5.01	106.31	101.30
85	AA	830	A	N9-C1'-C2'	-5.01	104.48	112.00
85	AA	858	G	C1'-O4'-C4'	-5.01	104.89	109.90
85	AA	905	C	C5'-C4'-O4'	5.01	117.32	109.80
85	AA	997	U	C2'-C3'-O3'	5.01	121.22	113.70
2	A1	248	GLN	N-CA-C	-5.01	105.82	111.28
4	A3	11	GLY	N-CA-C	-5.01	108.34	115.30
34	BA	664	C	P-O5'-C5'	-5.01	113.39	120.90
34	BA	1034	U	C3'-C2'-C1'	-5.01	96.29	101.30
38	BE	70	C	O4'-C1'-N1	5.01	116.01	108.50
38	BE	71	A	O5'-C5'-C4'	5.01	119.02	111.50
65	Bf	372	TYR	CA-C-O	-5.01	117.01	121.67
71	Bl	84	TYR	CA-C-N	-5.01	114.80	122.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
71	Bl	84	TYR	C-N-CA	-5.01	114.80	122.87
85	AA	614	U	O4'-C4'-C3'	5.01	109.01	104.00
85	AA	644	A	O5'-C5'-C4'	-5.01	103.98	111.50
85	AA	846	U	O3'-P-O5'	5.01	111.52	104.00
85	AA	966	G	C4'-C3'-O3'	-5.01	105.49	113.00
85	AA	1458	G	C4-N9-C1'	-5.01	111.47	126.50
85	AA	1717	G	P-O5'-C5'	5.01	128.41	120.90
85	AA	1931	C	P-O3'-C3'	5.01	127.71	120.20
85	AA	2143	U	O4'-C1'-N1	5.01	116.02	108.50
1	A0	150	ASN	CA-CB-CG	-5.01	107.59	112.60
13	AE	125	VAL	CA-C-O	5.01	125.89	120.43
34	BA	450	G	O3'-P-O5'	-5.01	96.49	104.00
34	BA	1301	G	O5'-C5'-C4'	-5.01	103.99	111.50
40	BG	59	G	P-O5'-C5'	5.01	128.41	120.90
41	BH	41	A	C4-N9-C1'	-5.01	111.28	126.30
61	Bb	35	ALA	N-CA-CB	5.01	118.95	110.49
68	Bi	39	GLU	N-CA-C	5.01	117.12	111.11
85	AA	574	U	C3'-C2'-C1'	-5.01	96.29	101.30
85	AA	1268	C	O4'-C1'-N1	5.01	116.01	108.50
85	AA	1270	C	P-O5'-C5'	-5.01	113.39	120.90
85	AA	1621	U	C4'-C3'-O3'	-5.01	105.49	113.00
85	AA	1793	A	C2'-C3'-O3'	5.01	121.21	113.70
4	A3	16	VAL	CA-C-N	-5.01	115.94	123.00
4	A3	16	VAL	C-N-CA	-5.01	115.94	123.00
34	BA	184	C	C1'-O4'-C4'	-5.01	104.89	109.90
34	BA	773	A	C3'-C2'-O2'	-5.01	103.19	110.70
34	BA	1403	G	C2'-C3'-O3'	5.01	117.01	109.50
34	BA	1573	C	O4'-C1'-C2'	5.01	112.61	107.60
35	BB	399	A	O5'-C5'-C4'	-5.01	103.99	111.50
35	BB	505	G	P-O5'-C5'	5.01	128.41	120.90
35	BB	984	U	C2'-C3'-O3'	5.01	117.01	109.50
35	BB	1135	U	P-O3'-C3'	-5.01	112.69	120.20
35	BB	1151	A	P-O5'-C5'	-5.01	113.39	120.90
35	BB	1412	U	C4'-C3'-C2'	-5.01	97.59	102.60
37	BD	5	A	C4'-C3'-C2'	5.01	107.61	102.60
51	BR	53	ALA	N-CA-CB	5.01	118.95	110.49
85	AA	811	A	O5'-C5'-C4'	-5.01	103.99	111.50
85	AA	1226	A	P-O3'-C3'	-5.01	112.69	120.20
4	A3	185	SER	CA-C-N	5.00	126.99	120.28
4	A3	185	SER	C-N-CA	5.00	126.99	120.28
34	BA	433	G	C4'-C3'-C2'	5.00	107.61	102.60
34	BA	1096	C	O4'-C1'-N1	5.00	115.71	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BH	109	G	P-O5'-C5'	-5.00	113.39	120.90
80	Bu	159	THR	CA-C-N	5.00	131.10	121.54
80	Bu	159	THR	C-N-CA	5.00	131.10	121.54
85	AA	35	U	N1-C1'-C2'	5.00	119.51	112.00
85	AA	172	A	N9-C1'-C2'	-5.00	104.49	112.00
85	AA	857	G	C1'-O4'-C4'	-5.00	104.89	109.90
8	A7	108	HIS	CE1-NE2-CD2	-5.00	104.00	109.00
21	AM	122	ARG	CA-C-N	5.00	131.22	121.41
21	AM	122	ARG	C-N-CA	5.00	131.22	121.41
23	AP	101	SER	N-CA-CB	-5.00	102.03	110.49
28	AU	32	LYS	CA-C-N	5.00	131.09	121.54
28	AU	32	LYS	C-N-CA	5.00	131.09	121.54
34	BA	148	G	C5'-C4'-C3'	-5.00	108.49	116.00
34	BA	439	A	P-O5'-C5'	5.00	128.41	120.90
34	BA	587	U	C1'-C2'-O2'	5.00	115.91	108.40
34	BA	713	C	C4'-C3'-O3'	-5.00	105.50	113.00
34	BA	848	U	N1-C1'-C2'	5.00	119.51	112.00
34	BA	868	C	P-O5'-C5'	-5.00	113.39	120.90
34	BA	1794	A	O4'-C4'-C3'	-5.00	99.00	104.00
35	BB	788	U	O3'-P-O5'	5.00	111.51	104.00
37	BD	12	U	C3'-C2'-C1'	-5.00	96.50	101.50
40	BG	15	G	O4'-C4'-C3'	-5.00	99.00	104.00
47	BN	20	CYS	O-C-N	-5.00	115.93	122.59
60	Ba	129	GLN	N-CA-C	5.00	116.42	108.96
65	Bf	210	ILE	N-CA-C	-5.00	101.05	108.45
70	Bk	49	ARG	CB-CG-CD	5.00	122.81	111.30
77	Br	141	HIS	N-CA-C	-5.00	102.11	110.17
85	AA	1626	U	P-O5'-C5'	-5.00	113.39	120.90
85	AA	1732	G	P-O3'-C3'	-5.00	112.70	120.20
85	AA	2074	G	O3'-P-O5'	-5.00	96.49	104.00
4	A3	155	ASP	CA-C-O	5.00	127.66	120.51
34	BA	268	U	C2'-C3'-O3'	5.00	121.20	113.70
34	BA	453	A	O3'-P-O5'	-5.00	96.50	104.00
34	BA	1735	G	C5'-C4'-O4'	-5.00	102.30	109.80
35	BB	379	U	O3'-P-O5'	-5.00	96.50	104.00
36	BC	58	G	N9-C1'-C2'	-5.00	106.50	114.00
37	BD	68	C	P-O3'-C3'	-5.00	112.70	120.20
37	BD	73	U	O4'-C1'-C2'	5.00	112.60	107.60
39	BF	7	G	C4-N9-C1'	5.00	141.51	126.50
42	BI	104	ALA	N-CA-C	5.00	121.45	110.80
47	BN	202	ALA	CA-C-N	5.00	132.70	122.55
47	BN	202	ALA	C-N-CA	5.00	132.70	122.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	BT	135	LYS	N-CA-CB	-5.00	102.77	110.12
62	Bc	74	LYS	N-CA-CB	5.00	118.94	110.49
67	Bh	1	MET	CB-CG-SD	5.00	127.71	112.70
71	Bl	99	PRO	N-CA-C	5.00	122.77	112.47
80	Bu	262	LYS	N-CA-C	5.00	121.45	110.80
81	Bv	79	ARG	CB-CA-C	5.00	117.42	111.22
85	AA	1266	C	P-O3'-C3'	-5.00	112.70	120.20
85	AA	1821	C	O4'-C1'-N1	5.00	116.00	108.50

All (3) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
47	BN	66	PRO	CA
69	Bj	5	ARG	CA
84	By	7	ASP	CA

All (5934) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A0	103	HIS	Sidechain
1	A0	111	ARG	Sidechain
1	A0	114	TYR	Sidechain
1	A0	138	ARG	Sidechain
1	A0	155	ASN	Mainchain
1	A0	157	TYR	Sidechain
1	A0	167	ARG	Sidechain
1	A0	169	ARG	Sidechain
1	A0	176	ARG	Sidechain
1	A0	192	ARG	Sidechain
1	A0	202	ARG	Sidechain
1	A0	210	ARG	Sidechain
1	A0	211	ASP	Peptide
1	A0	213	ARG	Sidechain
1	A0	221	ARG	Sidechain
1	A0	41	ARG	Sidechain
1	A0	43	PHE	Sidechain
1	A0	64	ARG	Sidechain
1	A0	83	TYR	Sidechain
2	A1	10	TYR	Sidechain
2	A1	100	TYR	Sidechain
2	A1	127	TYR	Sidechain
2	A1	132	ARG	Sidechain

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Mol	Chain	Res	Type	Group
2	A1	139	HIS	Sidechain
2	A1	153	ARG	Sidechain
2	A1	159	TYR	Sidechain
2	A1	186	ARG	Sidechain
2	A1	188	ARG	Sidechain
2	A1	206	ARG	Sidechain
2	A1	218	ARG	Sidechain
2	A1	27	ARG	Sidechain
2	A1	29	ARG	Sidechain
2	A1	33	HIS	Sidechain
2	A1	51	TYR	Sidechain
2	A1	87	VAL	Mainchain
2	A1	96	PHE	Sidechain
2	A1	97	ARG	Sidechain
3	A2	122	ARG	Sidechain
3	A2	131	ARG	Sidechain
3	A2	145	ARG	Sidechain
3	A2	190	ARG	Sidechain
3	A2	27	TYR	Sidechain
3	A2	46	ARG	Sidechain
3	A2	48	ARG	Sidechain
3	A2	57	ARG	Sidechain
3	A2	64	PHE	Sidechain
3	A2	80	ARG	Sidechain
3	A2	9	PHE	Sidechain
4	A3	101	ARG	Sidechain
4	A3	104	ILE	Peptide
4	A3	124	ILE	Peptide
4	A3	134	ARG	Sidechain
4	A3	152	ARG	Sidechain
4	A3	162	ARG	Sidechain
4	A3	170	LYS	Peptide
4	A3	173	ARG	Sidechain
4	A3	190	ARG	Sidechain
4	A3	209	ARG	Sidechain
4	A3	212	TYR	Sidechain
4	A3	224	ARG	Sidechain
4	A3	226	ARG	Sidechain
4	A3	25	ARG	Sidechain
4	A3	29	GLY	Peptide
4	A3	31	TYR	Sidechain
4	A3	32	ARG	Sidechain

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Mol	Chain	Res	Type	Group
4	A3	47	ARG	Sidechain
4	A3	59	LYS	Mainchain
4	A3	73	ARG	Sidechain
4	A3	85	PHE	Sidechain
4	A3	89	ARG	Sidechain
4	A3	91	TYR	Sidechain
5	A4	11	ARG	Sidechain
5	A4	114	LEU	Mainchain
5	A4	12	LYS	Mainchain
5	A4	135	ILE	Peptide
5	A4	143	ARG	Sidechain
5	A4	144	ARG	Sidechain
5	A4	146	ARG	Sidechain
5	A4	15	ARG	Sidechain
5	A4	163	ASP	Mainchain,Peptide
5	A4	166	ARG	Sidechain
5	A4	178	TYR	Sidechain
5	A4	184	ARG	Sidechain
5	A4	188	PHE	Sidechain
5	A4	27	ARG	Sidechain
5	A4	35	SER	Mainchain
5	A4	40	ARG	Sidechain
5	A4	45	ARG	Sidechain
5	A4	46	PHE	Sidechain
5	A4	52	ARG	Sidechain
5	A4	60	LYS	Peptide
5	A4	66	ILE	Mainchain
5	A4	68	TYR	Sidechain
5	A4	81	ARG	Sidechain
5	A4	9	LYS	Mainchain
5	A4	90	ARG	Sidechain
5	A4	91	PHE	Sidechain
6	A5	11	ARG	Sidechain
6	A5	110	ARG	Sidechain
6	A5	113	TYR	Sidechain
6	A5	12	LYS	Mainchain
6	A5	13	ILE	Mainchain
6	A5	157	LYS	Mainchain,Peptide
6	A5	160	ARG	Sidechain
6	A5	164	TYR	Sidechain
6	A5	165	ARG	Sidechain
6	A5	172	GLU	Peptide

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Mol	Chain	Res	Type	Group
6	A5	183	ARG	Sidechain
6	A5	187	ARG	Sidechain
6	A5	197	ARG	Sidechain
6	A5	21	HIS	Sidechain
6	A5	22	ARG	Sidechain
6	A5	24	ARG	Sidechain
6	A5	31	ARG	Sidechain
6	A5	42	ARG	Sidechain
6	A5	49	ARG	Sidechain
6	A5	5	ARG	Sidechain
6	A5	7	ARG	Sidechain
6	A5	77	ARG	Sidechain
7	A6	106	ARG	Sidechain
7	A6	113	PHE	Sidechain
7	A6	122	HIS	Sidechain
7	A6	125	ARG	Sidechain
7	A6	131	ARG	Sidechain
7	A6	132	HIS	Sidechain
7	A6	139	ILE	Mainchain
7	A6	15	ARG	Sidechain
7	A6	157	PHE	Sidechain,Mainchain,Peptide
7	A6	170	ARG	Sidechain
7	A6	176	ARG	Sidechain
7	A6	33	TYR	Sidechain
7	A6	36	ARG	Sidechain
7	A6	39	ARG	Sidechain
7	A6	4	TYR	Sidechain
7	A6	52	ARG	Sidechain
7	A6	65	HIS	Sidechain
7	A6	68	ARG	Sidechain
7	A6	77	ARG	Sidechain
7	A6	78	ARG	Sidechain
7	A6	82	TYR	Sidechain
7	A6	84	PHE	Sidechain
7	A6	9	ARG	Sidechain
7	A6	94	TYR	Sidechain
8	A7	103	TYR	Sidechain
8	A7	117	PHE	Sidechain
8	A7	134	ARG	Sidechain
8	A7	159	ARG	Sidechain
8	A7	187	ARG	Sidechain
8	A7	205	SER	Mainchain

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Mol	Chain	Res	Type	Group
8	A7	249	ARG	Sidechain
8	A7	261	ARG	Sidechain
8	A7	284	ILE	Peptide
8	A7	301	TYR	Sidechain
8	A7	310	ARG	Sidechain
8	A7	46	ASN	Peptide
8	A7	49	ARG	Sidechain
8	A7	50	HIS	Sidechain
8	A7	56	TYR	Sidechain
8	A7	62	ARG	Sidechain
8	A7	92	ARG	Sidechain
9	A8	20	ARG	Sidechain
9	A8	33	ARG	Sidechain
9	A8	41	ARG	Sidechain
9	A8	44	PHE	Sidechain
10	A9	103	TYR	Sidechain
10	A9	121	ASP	Peptide
10	A9	150	TYR	Sidechain
10	A9	99	ARG	Peptide
85	AA	1	G	Sidechain
85	AA	10	G	Sidechain
85	AA	100	A	Sidechain
85	AA	1000	U	Sidechain
85	AA	1001	G	Sidechain
85	AA	1002	G	Sidechain
85	AA	1003	G	Sidechain
85	AA	1007	G	Sidechain
85	AA	101	C	Sidechain
85	AA	1010	U	Sidechain
85	AA	1011	G	Sidechain
85	AA	1015	U	Sidechain
85	AA	1016	G	Sidechain
85	AA	1018	G	Sidechain
85	AA	1019	U	Sidechain
85	AA	102	A	Sidechain
85	AA	1021	G	Sidechain
85	AA	1022	G	Sidechain
85	AA	1023	U	Sidechain
85	AA	1024	G	Sidechain
85	AA	1027	U	Sidechain
85	AA	1028	C	Sidechain
85	AA	1030	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1033	C	Sidechain
85	AA	1034	U	Sidechain
85	AA	1037	U	Sidechain
85	AA	104	C	Sidechain
85	AA	1042	G	Sidechain
85	AA	1043	U	Sidechain
85	AA	1044	G	Sidechain
85	AA	105	A	Sidechain
85	AA	1050	C	Sidechain
85	AA	1051	A	Sidechain
85	AA	1053	A	Sidechain
85	AA	1055	U	Sidechain
85	AA	1056	C	Sidechain
85	AA	1058	G	Sidechain
85	AA	106	G	Sidechain
85	AA	1060	U	Sidechain
85	AA	1063	U	Sidechain
85	AA	1064	C	Sidechain
85	AA	1065	G	Sidechain
85	AA	1066	U	Sidechain
85	AA	1067	G	Sidechain
85	AA	1070	G	Sidechain
85	AA	1071	U	Sidechain
85	AA	1072	U	Sidechain
85	AA	1077	U	Sidechain
85	AA	108	C	Sidechain
85	AA	1081	U	Sidechain
85	AA	1082	U	Sidechain
85	AA	1083	C	Sidechain
85	AA	1086	U	Sidechain
85	AA	1089	G	Sidechain
85	AA	109	G	Sidechain
85	AA	1090	A	Sidechain
85	AA	1091	C	Sidechain
85	AA	1092	G	Sidechain
85	AA	1093	C	Sidechain
85	AA	1094	G	Sidechain
85	AA	1096	G	Sidechain
85	AA	1097	G	Sidechain
85	AA	1098	C	Sidechain
85	AA	1099	U	Sidechain
85	AA	110	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1100	U	Sidechain
85	AA	1101	C	Sidechain
85	AA	1102	C	Sidechain
85	AA	1103	A	Sidechain
85	AA	1104	G	Sidechain
85	AA	1105	G	Sidechain
85	AA	1106	A	Sidechain
85	AA	1107	A	Sidechain
85	AA	1108	U	Sidechain
85	AA	1109	G	Sidechain
85	AA	1110	A	Sidechain
85	AA	1111	A	Sidechain
85	AA	1112	G	Sidechain
85	AA	1114	A	Sidechain
85	AA	1116	G	Sidechain
85	AA	1117	G	Sidechain
85	AA	1118	U	Sidechain
85	AA	1119	A	Sidechain
85	AA	1120	G	Sidechain
85	AA	1121	U	Sidechain
85	AA	1122	U	Sidechain
85	AA	1123	C	Sidechain
85	AA	1124	G	Sidechain
85	AA	1125	G	Sidechain
85	AA	1127	G	Sidechain
85	AA	1128	G	Sidechain
85	AA	1129	A	Sidechain
85	AA	113	U	Sidechain
85	AA	1130	G	Sidechain
85	AA	1131	A	Sidechain
85	AA	1132	A	Sidechain
85	AA	1133	C	Sidechain
85	AA	1134	G	Sidechain
85	AA	1135	U	Sidechain
85	AA	1136	A	Sidechain
85	AA	1137	C	Sidechain
85	AA	1139	G	Sidechain
85	AA	114	C	Sidechain
85	AA	1140	G	Sidechain
85	AA	1141	U	Sidechain
85	AA	1143	C	Sidechain
85	AA	1145	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1146	C	Sidechain
85	AA	1147	A	Sidechain
85	AA	1148	G	Sidechain
85	AA	1149	A	Sidechain
85	AA	115	U	Sidechain
85	AA	1151	G	Sidechain
85	AA	1152	U	Sidechain
85	AA	1153	G	Sidechain
85	AA	1155	A	Sidechain
85	AA	1157	U	Sidechain
85	AA	1158	U	Sidechain
85	AA	1159	C	Sidechain
85	AA	116	G	Sidechain
85	AA	1160	U	Sidechain
85	AA	1161	U	Sidechain
85	AA	1162	A	Sidechain
85	AA	1163	G	Sidechain
85	AA	1165	C	Sidechain
85	AA	1166	C	Sidechain
85	AA	1167	G	Sidechain
85	AA	1168	C	Sidechain
85	AA	117	C	Sidechain
85	AA	1170	C	Sidechain
85	AA	1171	C	Sidechain
85	AA	1172	A	Sidechain
85	AA	1173	A	Sidechain
85	AA	1174	G	Sidechain
85	AA	1175	A	Sidechain
85	AA	1176	C	Sidechain
85	AA	1177	G	Sidechain
85	AA	118	C	Sidechain
85	AA	1180	C	Sidechain
85	AA	1181	U	Sidechain
85	AA	1182	A	Sidechain
85	AA	1184	A	Sidechain
85	AA	1185	G	Sidechain
85	AA	1187	G	Sidechain
85	AA	1188	A	Sidechain
85	AA	1189	A	Sidechain
85	AA	119	G	Sidechain
85	AA	1190	G	Sidechain
85	AA	1191	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1193	A	Sidechain
85	AA	1194	U	Sidechain
85	AA	1195	U	Sidechain
85	AA	1196	C	Sidechain
85	AA	1197	U	Sidechain
85	AA	1199	C	Sidechain
85	AA	12	U	Sidechain
85	AA	120	C	Sidechain
85	AA	1200	A	Sidechain
85	AA	1201	A	Sidechain
85	AA	1202	G	Sidechain
85	AA	1205	U	Sidechain
85	AA	1206	A	Sidechain
85	AA	1207	C	Sidechain
85	AA	1209	U	Sidechain
85	AA	121	C	Sidechain
85	AA	1210	U	Sidechain
85	AA	1211	C	Sidechain
85	AA	1212	C	Sidechain
85	AA	1213	U	Sidechain
85	AA	1214	C	Sidechain
85	AA	1215	A	Sidechain
85	AA	1218	C	Sidechain
85	AA	1219	A	Sidechain
85	AA	122	A	Sidechain
85	AA	1220	A	Sidechain
85	AA	1221	G	Sidechain
85	AA	1224	C	Sidechain
85	AA	1225	C	Sidechain
85	AA	1226	A	Sidechain
85	AA	1227	A	Sidechain
85	AA	1228	A	Sidechain
85	AA	1229	G	Sidechain
85	AA	1230	U	Sidechain
85	AA	1231	G	Sidechain
85	AA	1233	G	Sidechain
85	AA	1234	G	Sidechain
85	AA	1235	G	Sidechain
85	AA	1236	G	Sidechain
85	AA	1237	A	Sidechain
85	AA	1238	U	Sidechain
85	AA	1239	C	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	124	A	Sidechain
85	AA	1240	A	Sidechain
85	AA	1241	A	Sidechain
85	AA	1242	A	Sidechain
85	AA	1243	G	Sidechain
85	AA	1244	A	Sidechain
85	AA	1245	U	Sidechain
85	AA	1246	G	Sidechain
85	AA	1248	U	Sidechain
85	AA	1251	G	Sidechain
85	AA	1253	G	Sidechain
85	AA	1257	A	Sidechain
85	AA	1258	U	Sidechain
85	AA	1259	U	Sidechain
85	AA	126	U	Sidechain
85	AA	1260	G	Sidechain
85	AA	1261	U	Sidechain
85	AA	1265	C	Sidechain
85	AA	1268	C	Sidechain
85	AA	127	U	Sidechain
85	AA	1270	C	Sidechain
85	AA	1272	G	Sidechain
85	AA	1273	C	Sidechain
85	AA	1275	A	Sidechain
85	AA	1277	C	Sidechain
85	AA	1278	C	Sidechain
85	AA	1279	A	Sidechain
85	AA	128	U	Sidechain
85	AA	1280	U	Sidechain
85	AA	1281	G	Sidechain
85	AA	1282	A	Sidechain
85	AA	1283	C	Sidechain
85	AA	1284	A	Sidechain
85	AA	1285	C	Sidechain
85	AA	1287	C	Sidechain
85	AA	1288	A	Sidechain
85	AA	1289	U	Sidechain
85	AA	129	U	Sidechain
85	AA	1290	G	Sidechain
85	AA	1291	A	Sidechain
85	AA	1292	A	Sidechain
85	AA	1293	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1294	U	Sidechain
85	AA	1295	G	Sidechain
85	AA	1297	G	Sidechain
85	AA	1299	A	Sidechain
85	AA	13	U	Sidechain
85	AA	130	G	Sidechain
85	AA	1301	C	Sidechain
85	AA	1302	A	Sidechain
85	AA	1304	C	Sidechain
85	AA	1305	A	Sidechain
85	AA	1306	U	Sidechain
85	AA	1310	G	Sidechain
85	AA	1317	U	Sidechain
85	AA	1318	G	Sidechain
85	AA	132	G	Sidechain
85	AA	1324	G	Sidechain
85	AA	1328	U	Sidechain
85	AA	133	G	Sidechain
85	AA	1338	C	Sidechain
85	AA	1341	U	Sidechain
85	AA	1346	C	Sidechain
85	AA	135	C	Sidechain
85	AA	1351	U	Sidechain
85	AA	1352	U	Sidechain
85	AA	1355	U	Sidechain
85	AA	1356	U	Sidechain
85	AA	1357	U	Sidechain
85	AA	1359	U	Sidechain
85	AA	136	U	Sidechain
85	AA	1361	A	Sidechain
85	AA	1363	U	Sidechain
85	AA	1365	U	Sidechain
85	AA	1366	A	Sidechain
85	AA	1367	C	Sidechain
85	AA	1368	G	Sidechain
85	AA	1369	U	Sidechain
85	AA	137	C	Sidechain
85	AA	1371	C	Sidechain
85	AA	1373	U	Sidechain
85	AA	1374	A	Sidechain
85	AA	1375	U	Sidechain
85	AA	1378	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	138	C	Sidechain
85	AA	1380	U	Sidechain
85	AA	1383	C	Sidechain
85	AA	139	G	Sidechain
85	AA	1390	U	Sidechain
85	AA	14	C	Sidechain
85	AA	1409	U	Sidechain
85	AA	1413	G	Sidechain
85	AA	1419	U	Sidechain
85	AA	142	U	Sidechain
85	AA	1421	U	Sidechain
85	AA	1422	A	Sidechain
85	AA	1423	C	Sidechain
85	AA	1427	A	Sidechain
85	AA	1429	U	Sidechain
85	AA	143	U	Sidechain
85	AA	1430	A	Sidechain
85	AA	1431	U	Sidechain
85	AA	1432	C	Sidechain
85	AA	1433	C	Sidechain
85	AA	1434	U	Sidechain
85	AA	1435	C	Sidechain
85	AA	1438	C	Sidechain
85	AA	1441	G	Sidechain
85	AA	1442	U	Sidechain
85	AA	1443	U	Sidechain
85	AA	1444	U	Sidechain
85	AA	1445	C	Sidechain
85	AA	1446	U	Sidechain
85	AA	1447	U	Sidechain
85	AA	1448	A	Sidechain
85	AA	145	C	Sidechain
85	AA	1450	U	Sidechain
85	AA	1451	U	Sidechain
85	AA	1452	C	Sidechain
85	AA	1453	U	Sidechain
85	AA	1455	C	Sidechain
85	AA	1456	A	Sidechain
85	AA	1458	G	Sidechain
85	AA	1459	C	Sidechain
85	AA	146	U	Sidechain
85	AA	1460	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1462	A	Sidechain
85	AA	1464	G	Sidechain
85	AA	1465	C	Sidechain
85	AA	1466	U	Sidechain
85	AA	1467	U	Sidechain
85	AA	1468	G	Sidechain
85	AA	1469	G	Sidechain
85	AA	147	G	Sidechain
85	AA	1470	A	Sidechain
85	AA	1471	G	Sidechain
85	AA	1473	U	Sidechain
85	AA	1474	U	Sidechain
85	AA	1476	C	Sidechain
85	AA	1477	A	Sidechain
85	AA	1478	G	Sidechain
85	AA	1479	U	Sidechain
85	AA	148	G	Sidechain
85	AA	1480	C	Sidechain
85	AA	1481	U	Sidechain
85	AA	1482	C	Sidechain
85	AA	1483	A	Sidechain
85	AA	1484	G	Sidechain
85	AA	1485	G	Sidechain
85	AA	1487	G	Sidechain
85	AA	1488	G	Sidechain
85	AA	1489	G	Sidechain
85	AA	1490	A	Sidechain
85	AA	1491	G	Sidechain
85	AA	1492	U	Sidechain
85	AA	1493	A	Sidechain
85	AA	1495	G	Sidechain
85	AA	1497	U	Sidechain
85	AA	1498	C	Sidechain
85	AA	1499	G	Sidechain
85	AA	15	U	Sidechain
85	AA	150	U	Sidechain
85	AA	1501	A	Sidechain
85	AA	1502	A	Sidechain
85	AA	1503	G	Sidechain
85	AA	1505	G	Sidechain
85	AA	1506	U	Sidechain
85	AA	1507	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1508	A	Sidechain
85	AA	1509	A	Sidechain
85	AA	151	A	Sidechain
85	AA	1510	A	Sidechain
85	AA	1511	C	Sidechain
85	AA	1512	U	Sidechain
85	AA	1513	U	Sidechain
85	AA	1515	A	Sidechain
85	AA	1516	A	Sidechain
85	AA	1517	G	Sidechain
85	AA	1518	A	Sidechain
85	AA	1519	A	Sidechain
85	AA	152	A	Sidechain
85	AA	1521	U	Sidechain
85	AA	1522	U	Sidechain
85	AA	1523	G	Sidechain
85	AA	1524	A	Sidechain
85	AA	1525	C	Sidechain
85	AA	1526	G	Sidechain
85	AA	1529	A	Sidechain
85	AA	153	C	Sidechain
85	AA	1530	U	Sidechain
85	AA	1531	G	Sidechain
85	AA	1532	G	Sidechain
85	AA	1533	C	Sidechain
85	AA	1535	C	Sidechain
85	AA	1536	C	Sidechain
85	AA	1538	C	Sidechain
85	AA	1539	A	Sidechain
85	AA	154	U	Sidechain
85	AA	1540	A	Sidechain
85	AA	1541	G	Sidechain
85	AA	1542	A	Sidechain
85	AA	1543	C	Sidechain
85	AA	1544	G	Sidechain
85	AA	1545	U	Sidechain
85	AA	1546	G	Sidechain
85	AA	1548	A	Sidechain
85	AA	1549	G	Sidechain
85	AA	155	U	Sidechain
85	AA	1551	G	Sidechain
85	AA	1552	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1553	G	Sidechain
85	AA	1554	C	Sidechain
85	AA	1555	G	Sidechain
85	AA	1556	G	Sidechain
85	AA	1557	U	Sidechain
85	AA	1559	U	Sidechain
85	AA	156	G	Sidechain
85	AA	1560	A	Sidechain
85	AA	1561	A	Sidechain
85	AA	1562	U	Sidechain
85	AA	1563	U	Sidechain
85	AA	1564	U	Sidechain
85	AA	1565	G	Sidechain
85	AA	1566	A	Sidechain
85	AA	1569	C	Sidechain
85	AA	157	G	Sidechain
85	AA	1572	C	Sidechain
85	AA	1573	A	Sidechain
85	AA	1574	C	Sidechain
85	AA	1575	G	Sidechain
85	AA	1576	G	Sidechain
85	AA	1577	G	Sidechain
85	AA	1578	G	Sidechain
85	AA	1579	A	Sidechain
85	AA	158	C	Sidechain
85	AA	1580	A	Sidechain
85	AA	1581	C	Sidechain
85	AA	1582	U	Sidechain
85	AA	1583	U	Sidechain
85	AA	1584	U	Sidechain
85	AA	1585	A	Sidechain
85	AA	1589	G	Sidechain
85	AA	159	G	Sidechain
85	AA	1590	A	Sidechain
85	AA	1591	U	Sidechain
85	AA	1592	C	Sidechain
85	AA	1593	C	Sidechain
85	AA	1594	G	Sidechain
85	AA	1595	G	Sidechain
85	AA	1597	C	Sidechain
85	AA	1598	A	Sidechain
85	AA	1599	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	160	A	Sidechain
85	AA	1600	G	Sidechain
85	AA	1601	G	Sidechain
85	AA	1603	G	Sidechain
85	AA	1604	A	Sidechain
85	AA	1605	G	Sidechain
85	AA	1606	G	Sidechain
85	AA	1608	U	Sidechain
85	AA	1609	U	Sidechain
85	AA	161	A	Sidechain
85	AA	1612	C	Sidechain
85	AA	1613	A	Sidechain
85	AA	1614	G	Sidechain
85	AA	1617	G	Sidechain
85	AA	1618	G	Sidechain
85	AA	1619	A	Sidechain
85	AA	162	A	Sidechain
85	AA	1620	G	Sidechain
85	AA	1621	U	Sidechain
85	AA	1622	G	Sidechain
85	AA	1623	U	Sidechain
85	AA	1624	U	Sidechain
85	AA	1626	U	Sidechain
85	AA	1629	C	Sidechain
85	AA	163	C	Sidechain
85	AA	1630	U	Sidechain
85	AA	1631	C	Sidechain
85	AA	1632	G	Sidechain
85	AA	1634	U	Sidechain
85	AA	1635	C	Sidechain
85	AA	1636	C	Sidechain
85	AA	1637	C	Sidechain
85	AA	164	G	Sidechain
85	AA	1641	A	Sidechain
85	AA	1642	A	Sidechain
85	AA	1643	U	Sidechain
85	AA	1644	G	Sidechain
85	AA	1645	G	Sidechain
85	AA	1649	U	Sidechain
85	AA	1650	G	Sidechain
85	AA	1653	U	Sidechain
85	AA	1655	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1656	C	Sidechain
85	AA	1657	C	Sidechain
85	AA	166	C	Sidechain
85	AA	1660	U	Sidechain
85	AA	1661	U	Sidechain
85	AA	1662	U	Sidechain
85	AA	1663	U	Sidechain
85	AA	1666	U	Sidechain
85	AA	1667	C	Sidechain
85	AA	1668	G	Sidechain
85	AA	1669	G	Sidechain
85	AA	1670	U	Sidechain
85	AA	1671	G	Sidechain
85	AA	1672	G	Sidechain
85	AA	1673	A	Sidechain
85	AA	1674	G	Sidechain
85	AA	1676	G	Sidechain
85	AA	1677	A	Sidechain
85	AA	1679	U	Sidechain
85	AA	1680	U	Sidechain
85	AA	1681	G	Sidechain
85	AA	1682	U	Sidechain
85	AA	1683	U	Sidechain
85	AA	1684	U	Sidechain
85	AA	1685	G	Sidechain
85	AA	1686	G	Sidechain
85	AA	1687	U	Sidechain
85	AA	1688	U	Sidechain
85	AA	1689	G	Sidechain
85	AA	169	G	Sidechain
85	AA	1690	A	Sidechain
85	AA	1691	U	Sidechain
85	AA	1693	C	Sidechain
85	AA	1694	C	Sidechain
85	AA	1696	U	Sidechain
85	AA	1698	A	Sidechain
85	AA	1699	A	Sidechain
85	AA	17	C	Sidechain
85	AA	1700	C	Sidechain
85	AA	1703	A	Sidechain
85	AA	1704	C	Sidechain
85	AA	1705	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1706	A	Sidechain
85	AA	1707	G	Sidechain
85	AA	1708	A	Sidechain
85	AA	1709	U	Sidechain
85	AA	171	U	Sidechain
85	AA	1710	C	Sidechain
85	AA	1711	C	Sidechain
85	AA	1712	A	Sidechain
85	AA	1713	A	Sidechain
85	AA	1714	G	Sidechain
85	AA	1715	C	Sidechain
85	AA	1716	U	Sidechain
85	AA	1717	G	Sidechain
85	AA	1718	C	Sidechain
85	AA	1719	C	Sidechain
85	AA	1720	C	Sidechain
85	AA	1721	A	Sidechain
85	AA	1726	G	Sidechain
85	AA	1727	U	Sidechain
85	AA	1728	G	Sidechain
85	AA	1729	C	Sidechain
85	AA	173	A	Sidechain
85	AA	1730	C	Sidechain
85	AA	1731	G	Sidechain
85	AA	1732	G	Sidechain
85	AA	1733	G	Sidechain
85	AA	1734	A	Sidechain
85	AA	1735	U	Sidechain
85	AA	1736	U	Sidechain
85	AA	174	U	Sidechain
85	AA	175	A	Sidechain
85	AA	1751	G	Sidechain
85	AA	1752	C	Sidechain
85	AA	1754	G	Sidechain
85	AA	1755	U	Sidechain
85	AA	1756	C	Sidechain
85	AA	1759	U	Sidechain
85	AA	176	C	Sidechain
85	AA	1762	G	Sidechain
85	AA	1766	G	Sidechain
85	AA	1768	G	Sidechain
85	AA	1771	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1779	C	Sidechain
85	AA	178	U	Sidechain
85	AA	1781	A	Sidechain
85	AA	1782	C	Sidechain
85	AA	1784	G	Sidechain
85	AA	1785	U	Sidechain
85	AA	1786	G	Sidechain
85	AA	1787	G	Sidechain
85	AA	1789	C	Sidechain
85	AA	179	G	Sidechain
85	AA	1790	G	Sidechain
85	AA	1791	U	Sidechain
85	AA	1793	A	Sidechain
85	AA	1794	U	Sidechain
85	AA	1795	C	Sidechain
85	AA	1797	U	Sidechain
85	AA	1799	C	Sidechain
85	AA	18	C	Sidechain
85	AA	180	A	Sidechain
85	AA	1800	U	Sidechain
85	AA	1802	U	Sidechain
85	AA	1805	A	Sidechain
85	AA	1806	C	Sidechain
85	AA	1808	G	Sidechain
85	AA	1809	G	Sidechain
85	AA	181	A	Sidechain
85	AA	1811	C	Sidechain
85	AA	1812	C	Sidechain
85	AA	1814	U	Sidechain
85	AA	1815	U	Sidechain
85	AA	1816	C	Sidechain
85	AA	1817	U	Sidechain
85	AA	1819	U	Sidechain
85	AA	182	C	Sidechain
85	AA	1820	G	Sidechain
85	AA	1822	G	Sidechain
85	AA	1824	G	Sidechain
85	AA	1825	A	Sidechain
85	AA	1826	U	Sidechain
85	AA	1829	C	Sidechain
85	AA	1830	U	Sidechain
85	AA	1831	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1833	C	Sidechain
85	AA	1835	U	Sidechain
85	AA	1836	U	Sidechain
85	AA	1839	G	Sidechain
85	AA	184	A	Sidechain
85	AA	1840	C	Sidechain
85	AA	1842	C	Sidechain
85	AA	1844	A	Sidechain
85	AA	1845	G	Sidechain
85	AA	1846	G	Sidechain
85	AA	1848	G	Sidechain
85	AA	1849	A	Sidechain
85	AA	185	A	Sidechain
85	AA	1850	G	Sidechain
85	AA	1851	A	Sidechain
85	AA	1852	U	Sidechain
85	AA	1853	U	Sidechain
85	AA	1854	U	Sidechain
85	AA	1858	G	Sidechain
85	AA	1860	A	Sidechain
85	AA	1861	A	Sidechain
85	AA	1862	C	Sidechain
85	AA	1863	A	Sidechain
85	AA	1864	G	Sidechain
85	AA	1865	C	Sidechain
85	AA	1866	A	Sidechain
85	AA	1869	U	Sidechain
85	AA	187	C	Sidechain
85	AA	1872	G	Sidechain
85	AA	1873	U	Sidechain
85	AA	1874	G	Sidechain
85	AA	1875	A	Sidechain
85	AA	1876	U	Sidechain
85	AA	1878	C	Sidechain
85	AA	1879	U	Sidechain
85	AA	188	G	Sidechain
85	AA	1881	C	Sidechain
85	AA	1882	U	Sidechain
85	AA	1883	C	Sidechain
85	AA	1885	A	Sidechain
85	AA	1887	G	Sidechain
85	AA	1888	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1889	U	Sidechain
85	AA	1890	C	Sidechain
85	AA	1893	G	Sidechain
85	AA	1894	G	Sidechain
85	AA	1896	G	Sidechain
85	AA	1898	C	Sidechain
85	AA	1899	A	Sidechain
85	AA	190	A	Sidechain
85	AA	1900	C	Sidechain
85	AA	1902	C	Sidechain
85	AA	1904	C	Sidechain
85	AA	1906	C	Sidechain
85	AA	1907	U	Sidechain
85	AA	1908	A	Sidechain
85	AA	191	C	Sidechain
85	AA	1910	A	Sidechain
85	AA	1913	G	Sidechain
85	AA	1918	U	Sidechain
85	AA	1919	G	Sidechain
85	AA	192	G	Sidechain
85	AA	1920	A	Sidechain
85	AA	1921	G	Sidechain
85	AA	1922	A	Sidechain
85	AA	1923	A	Sidechain
85	AA	1924	C	Sidechain
85	AA	1925	A	Sidechain
85	AA	1926	A	Sidechain
85	AA	1927	G	Sidechain
85	AA	1929	G	Sidechain
85	AA	193	C	Sidechain
85	AA	1930	U	Sidechain
85	AA	1931	C	Sidechain
85	AA	1933	G	Sidechain
85	AA	1935	G	Sidechain
85	AA	1938	G	Sidechain
85	AA	194	U	Sidechain
85	AA	1940	A	Sidechain
85	AA	1943	U	Sidechain
85	AA	1947	A	Sidechain
85	AA	1948	A	Sidechain
85	AA	1949	U	Sidechain
85	AA	195	C	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	1951	U	Sidechain
85	AA	1953	G	Sidechain
85	AA	1954	C	Sidechain
85	AA	1955	U	Sidechain
85	AA	1956	C	Sidechain
85	AA	1959	G	Sidechain
85	AA	196	U	Sidechain
85	AA	1960	C	Sidechain
85	AA	1961	U	Sidechain
85	AA	1962	U	Sidechain
85	AA	1963	G	Sidechain
85	AA	1964	A	Sidechain
85	AA	1968	A	Sidechain
85	AA	1969	A	Sidechain
85	AA	197	C	Sidechain
85	AA	1972	A	Sidechain
85	AA	1973	G	Sidechain
85	AA	1976	G	Sidechain
85	AA	1978	G	Sidechain
85	AA	1979	A	Sidechain
85	AA	198	U	Sidechain
85	AA	1981	A	Sidechain
85	AA	1982	C	Sidechain
85	AA	1983	C	Sidechain
85	AA	1984	A	Sidechain
85	AA	1985	C	Sidechain
85	AA	1986	G	Sidechain
85	AA	1987	G	Sidechain
85	AA	1989	A	Sidechain
85	AA	199	U	Sidechain
85	AA	1991	C	Sidechain
85	AA	1992	A	Sidechain
85	AA	1993	C	Sidechain
85	AA	1995	U	Sidechain
85	AA	1996	A	Sidechain
85	AA	1997	G	Sidechain
85	AA	1999	C	Sidechain
85	AA	2	A	Sidechain
85	AA	20	G	Sidechain
85	AA	200	U	Sidechain
85	AA	2000	C	Sidechain
85	AA	2001	C	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	2002	A	Sidechain
85	AA	2003	C	Sidechain
85	AA	2004	U	Sidechain
85	AA	2005	U	Sidechain
85	AA	2006	G	Sidechain
85	AA	2007	G	Sidechain
85	AA	2008	G	Sidechain
85	AA	201	U	Sidechain
85	AA	2010	C	Sidechain
85	AA	2011	C	Sidechain
85	AA	2013	A	Sidechain
85	AA	2014	G	Sidechain
85	AA	2015	U	Sidechain
85	AA	2017	U	Sidechain
85	AA	2018	U	Sidechain
85	AA	2019	G	Sidechain
85	AA	202	U	Sidechain
85	AA	2020	C	Sidechain
85	AA	2021	A	Sidechain
85	AA	2022	A	Sidechain
85	AA	2023	U	Sidechain
85	AA	2024	U	Sidechain
85	AA	2026	U	Sidechain
85	AA	2029	G	Sidechain
85	AA	203	C	Sidechain
85	AA	2030	U	Sidechain
85	AA	2031	C	Sidechain
85	AA	2032	G	Sidechain
85	AA	2034	G	Sidechain
85	AA	2035	C	Sidechain
85	AA	2036	A	Sidechain
85	AA	2038	C	Sidechain
85	AA	2039	G	Sidechain
85	AA	204	U	Sidechain
85	AA	2041	G	Sidechain
85	AA	2042	G	Sidechain
85	AA	2044	A	Sidechain
85	AA	2045	U	Sidechain
85	AA	2046	G	Sidechain
85	AA	2047	U	Sidechain
85	AA	2048	C	Sidechain
85	AA	205	A	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	2052	U	Sidechain
85	AA	2053	A	Sidechain
85	AA	2054	G	Sidechain
85	AA	2055	G	Sidechain
85	AA	2057	G	Sidechain
85	AA	2058	C	Sidechain
85	AA	2059	A	Sidechain
85	AA	206	U	Sidechain
85	AA	2060	G	Sidechain
85	AA	2061	C	Sidechain
85	AA	2062	U	Sidechain
85	AA	2063	C	Sidechain
85	AA	2067	A	Sidechain
85	AA	207	G	Sidechain
85	AA	2073	U	Sidechain
85	AA	2074	G	Sidechain
85	AA	2075	C	Sidechain
85	AA	2077	G	Sidechain
85	AA	2078	A	Sidechain
85	AA	2079	U	Sidechain
85	AA	2080	U	Sidechain
85	AA	2082	C	Sidechain
85	AA	2084	U	Sidechain
85	AA	2085	C	Sidechain
85	AA	2086	C	Sidechain
85	AA	2087	C	Sidechain
85	AA	2088	U	Sidechain
85	AA	2089	G	Sidechain
85	AA	209	C	Sidechain
85	AA	2090	C	Sidechain
85	AA	2094	U	Sidechain
85	AA	2095	U	Sidechain
85	AA	2096	G	Sidechain
85	AA	2098	A	Sidechain
85	AA	2099	C	Sidechain
85	AA	21	U	Sidechain
85	AA	210	G	Sidechain
85	AA	2100	A	Sidechain
85	AA	2102	A	Sidechain
85	AA	2104	C	Sidechain
85	AA	2106	C	Sidechain
85	AA	2107	C	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	2109	G	Sidechain
85	AA	211	C	Sidechain
85	AA	2110	U	Sidechain
85	AA	2112	G	Sidechain
85	AA	2114	U	Sidechain
85	AA	2116	U	Sidechain
85	AA	2117	U	Sidechain
85	AA	2118	U	Sidechain
85	AA	2119	C	Sidechain
85	AA	2120	C	Sidechain
85	AA	2121	G	Sidechain
85	AA	2122	A	Sidechain
85	AA	2123	U	Sidechain
85	AA	2124	G	Sidechain
85	AA	2125	A	Sidechain
85	AA	2126	U	Sidechain
85	AA	2128	G	Sidechain
85	AA	2129	U	Sidechain
85	AA	2130	G	Sidechain
85	AA	2135	A	Sidechain
85	AA	2136	C	Sidechain
85	AA	2138	G	Sidechain
85	AA	2140	U	Sidechain
85	AA	2141	G	Sidechain
85	AA	2142	A	Sidechain
85	AA	2143	U	Sidechain
85	AA	2144	C	Sidechain
85	AA	2145	G	Sidechain
85	AA	2146	G	Sidechain
85	AA	2148	C	Sidechain
85	AA	2149	C	Sidechain
85	AA	215	U	Sidechain
85	AA	2150	G	Sidechain
85	AA	2152	C	Sidechain
85	AA	2153	G	Sidechain
85	AA	2155	U	Sidechain
85	AA	2156	C	Sidechain
85	AA	2158	U	Sidechain
85	AA	2159	C	Sidechain
85	AA	2161	C	Sidechain
85	AA	2162	G	Sidechain
85	AA	2163	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	2164	G	Sidechain
85	AA	2166	G	Sidechain
85	AA	2167	A	Sidechain
85	AA	2169	C	Sidechain
85	AA	2170	G	Sidechain
85	AA	2171	A	Sidechain
85	AA	2172	A	Sidechain
85	AA	2174	G	Sidechain
85	AA	2175	U	Sidechain
85	AA	2176	U	Sidechain
85	AA	2178	A	Sidechain
85	AA	2179	C	Sidechain
85	AA	218	U	Sidechain
85	AA	2180	C	Sidechain
85	AA	2181	G	Sidechain
85	AA	2182	A	Sidechain
85	AA	2183	U	Sidechain
85	AA	2185	U	Sidechain
85	AA	2186	U	Sidechain
85	AA	2189	U	Sidechain
85	AA	219	G	Sidechain
85	AA	2190	U	Sidechain
85	AA	2192	A	Sidechain
85	AA	2193	A	Sidechain
85	AA	2194	U	Sidechain
85	AA	2195	A	Sidechain
85	AA	2196	G	Sidechain
85	AA	2199	G	Sidechain
85	AA	22	A	Sidechain
85	AA	2201	A	Sidechain
85	AA	2202	G	Sidechain
85	AA	2206	A	Sidechain
85	AA	2207	A	Sidechain
85	AA	2208	G	Sidechain
85	AA	2209	U	Sidechain
85	AA	2211	G	Sidechain
85	AA	2213	A	Sidechain
85	AA	2214	A	Sidechain
85	AA	2216	A	Sidechain
85	AA	2217	A	Sidechain
85	AA	2218	G	Sidechain
85	AA	2219	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	2222	G	Sidechain
85	AA	2223	C	Sidechain
85	AA	2224	U	Sidechain
85	AA	2226	U	Sidechain
85	AA	2227	A	Sidechain
85	AA	2228	G	Sidechain
85	AA	2229	G	Sidechain
85	AA	2230	U	Sidechain
85	AA	2231	G	Sidechain
85	AA	2232	A	Sidechain
85	AA	2233	A	Sidechain
85	AA	2234	C	Sidechain
85	AA	2236	U	Sidechain
85	AA	2237	G	Sidechain
85	AA	2238	C	Sidechain
85	AA	2240	G	Sidechain
85	AA	2241	C	Sidechain
85	AA	2245	A	Sidechain
85	AA	2246	U	Sidechain
85	AA	2248	A	Sidechain
85	AA	2250	U	Sidechain
85	AA	228	C	Sidechain
85	AA	229	U	Sidechain
85	AA	23	G	Sidechain
85	AA	233	C	Sidechain
85	AA	234	G	Sidechain
85	AA	236	G	Sidechain
85	AA	237	G	Sidechain
85	AA	239	G	Sidechain
85	AA	24	U	Sidechain
85	AA	240	A	Sidechain
85	AA	242	G	Sidechain
85	AA	243	A	Sidechain
85	AA	244	G	Sidechain
85	AA	245	A	Sidechain
85	AA	246	C	Sidechain
85	AA	248	U	Sidechain
85	AA	249	C	Sidechain
85	AA	250	C	Sidechain
85	AA	251	A	Sidechain
85	AA	252	G	Sidechain
85	AA	253	C	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	254	G	Sidechain
85	AA	255	A	Sidechain
85	AA	259	A	Sidechain
85	AA	26	A	Sidechain
85	AA	260	A	Sidechain
85	AA	261	U	Sidechain
85	AA	264	A	Sidechain
85	AA	265	A	Sidechain
85	AA	266	U	Sidechain
85	AA	267	U	Sidechain
85	AA	268	A	Sidechain
85	AA	269	G	Sidechain
85	AA	27	U	Sidechain
85	AA	270	A	Sidechain
85	AA	271	A	Sidechain
85	AA	275	A	Sidechain
85	AA	276	C	Sidechain
85	AA	277	G	Sidechain
85	AA	281	C	Sidechain
85	AA	282	C	Sidechain
85	AA	283	A	Sidechain
85	AA	286	C	Sidechain
85	AA	287	G	Sidechain
85	AA	288	G	Sidechain
85	AA	289	G	Sidechain
85	AA	290	G	Sidechain
85	AA	293	A	Sidechain
85	AA	294	G	Sidechain
85	AA	296	A	Sidechain
85	AA	297	A	Sidechain
85	AA	298	C	Sidechain
85	AA	299	A	Sidechain
85	AA	30	G	Sidechain
85	AA	300	C	Sidechain
85	AA	301	U	Sidechain
85	AA	302	C	Sidechain
85	AA	303	A	Sidechain
85	AA	304	G	Sidechain
85	AA	306	C	Sidechain
85	AA	307	G	Sidechain
85	AA	308	U	Sidechain
85	AA	309	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	311	U	Sidechain
85	AA	312	G	Sidechain
85	AA	313	A	Sidechain
85	AA	314	C	Sidechain
85	AA	316	C	Sidechain
85	AA	318	A	Sidechain
85	AA	319	U	Sidechain
85	AA	32	U	Sidechain
85	AA	321	C	Sidechain
85	AA	322	A	Sidechain
85	AA	323	U	Sidechain
85	AA	325	C	Sidechain
85	AA	326	C	Sidechain
85	AA	327	G	Sidechain
85	AA	328	U	Sidechain
85	AA	329	G	Sidechain
85	AA	33	U	Sidechain
85	AA	330	C	Sidechain
85	AA	331	G	Sidechain
85	AA	332	A	Sidechain
85	AA	333	A	Sidechain
85	AA	334	A	Sidechain
85	AA	335	G	Sidechain
85	AA	336	C	Sidechain
85	AA	337	C	Sidechain
85	AA	339	A	Sidechain
85	AA	34	G	Sidechain
85	AA	342	C	Sidechain
85	AA	343	U	Sidechain
85	AA	345	U	Sidechain
85	AA	346	U	Sidechain
85	AA	35	U	Sidechain
85	AA	351	C	Sidechain
85	AA	353	G	Sidechain
85	AA	354	C	Sidechain
85	AA	355	G	Sidechain
85	AA	356	U	Sidechain
85	AA	358	U	Sidechain
85	AA	359	A	Sidechain
85	AA	36	U	Sidechain
85	AA	362	G	Sidechain
85	AA	363	A	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	364	C	Sidechain
85	AA	366	A	Sidechain
85	AA	368	C	Sidechain
85	AA	369	A	Sidechain
85	AA	37	U	Sidechain
85	AA	371	C	Sidechain
85	AA	375	C	Sidechain
85	AA	376	C	Sidechain
85	AA	377	U	Sidechain
85	AA	378	A	Sidechain
85	AA	379	U	Sidechain
85	AA	380	C	Sidechain
85	AA	381	A	Sidechain
85	AA	383	C	Sidechain
85	AA	384	C	Sidechain
85	AA	387	U	Sidechain
85	AA	388	G	Sidechain
85	AA	389	A	Sidechain
85	AA	39	A	Sidechain
85	AA	390	U	Sidechain
85	AA	391	G	Sidechain
85	AA	392	G	Sidechain
85	AA	393	C	Sidechain
85	AA	396	U	Sidechain
85	AA	397	G	Sidechain
85	AA	398	U	Sidechain
85	AA	399	A	Sidechain
85	AA	4	C	Sidechain
85	AA	400	G	Sidechain
85	AA	401	U	Sidechain
85	AA	402	G	Sidechain
85	AA	403	G	Sidechain
85	AA	404	A	Sidechain
85	AA	405	C	Sidechain
85	AA	407	G	Sidechain
85	AA	409	C	Sidechain
85	AA	41	G	Sidechain
85	AA	410	A	Sidechain
85	AA	411	U	Sidechain
85	AA	412	G	Sidechain
85	AA	413	G	Sidechain
85	AA	414	C	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	416	U	Sidechain
85	AA	417	U	Sidechain
85	AA	418	G	Sidechain
85	AA	419	A	Sidechain
85	AA	42	G	Sidechain
85	AA	422	G	Sidechain
85	AA	424	A	Sidechain
85	AA	425	G	Sidechain
85	AA	426	C	Sidechain
85	AA	427	G	Sidechain
85	AA	428	G	Sidechain
85	AA	429	G	Sidechain
85	AA	430	G	Sidechain
85	AA	431	G	Sidechain
85	AA	432	A	Sidechain
85	AA	433	U	Sidechain
85	AA	436	G	Sidechain
85	AA	437	G	Sidechain
85	AA	438	G	Sidechain
85	AA	439	U	Sidechain
85	AA	44	C	Sidechain
85	AA	440	U	Sidechain
85	AA	441	C	Sidechain
85	AA	443	A	Sidechain
85	AA	444	U	Sidechain
85	AA	445	U	Sidechain
85	AA	447	C	Sidechain
85	AA	448	G	Sidechain
85	AA	45	U	Sidechain
85	AA	450	A	Sidechain
85	AA	451	G	Sidechain
85	AA	453	G	Sidechain
85	AA	454	G	Sidechain
85	AA	455	G	Sidechain
85	AA	457	G	Sidechain
85	AA	46	U	Sidechain
85	AA	460	U	Sidechain
85	AA	461	G	Sidechain
85	AA	462	A	Sidechain
85	AA	463	G	Sidechain
85	AA	464	A	Sidechain
85	AA	465	A	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	466	A	Sidechain
85	AA	467	U	Sidechain
85	AA	469	G	Sidechain
85	AA	470	C	Sidechain
85	AA	471	U	Sidechain
85	AA	472	A	Sidechain
85	AA	475	A	Sidechain
85	AA	476	C	Sidechain
85	AA	478	U	Sidechain
85	AA	48	G	Sidechain
85	AA	480	U	Sidechain
85	AA	481	A	Sidechain
85	AA	482	C	Sidechain
85	AA	483	G	Sidechain
85	AA	485	A	Sidechain
85	AA	486	G	Sidechain
85	AA	487	G	Sidechain
85	AA	488	G	Sidechain
85	AA	489	C	Sidechain
85	AA	490	A	Sidechain
85	AA	491	G	Sidechain
85	AA	492	C	Sidechain
85	AA	494	G	Sidechain
85	AA	495	G	Sidechain
85	AA	496	C	Sidechain
85	AA	498	C	Sidechain
85	AA	499	G	Sidechain
85	AA	50	C	Sidechain
85	AA	500	C	Sidechain
85	AA	501	A	Sidechain
85	AA	502	A	Sidechain
85	AA	503	A	Sidechain
85	AA	504	U	Sidechain
85	AA	506	G	Sidechain
85	AA	507	C	Sidechain
85	AA	508	C	Sidechain
85	AA	509	C	Sidechain
85	AA	51	A	Sidechain
85	AA	510	A	Sidechain
85	AA	511	A	Sidechain
85	AA	512	U	Sidechain
85	AA	513	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	514	U	Sidechain
85	AA	515	C	Sidechain
85	AA	516	G	Sidechain
85	AA	517	A	Sidechain
85	AA	52	U	Sidechain
85	AA	520	A	Sidechain
85	AA	521	A	Sidechain
85	AA	523	U	Sidechain
85	AA	526	G	Sidechain
85	AA	527	A	Sidechain
85	AA	528	U	Sidechain
85	AA	529	G	Sidechain
85	AA	53	G	Sidechain
85	AA	530	A	Sidechain
85	AA	531	G	Sidechain
85	AA	532	G	Sidechain
85	AA	533	C	Sidechain
85	AA	534	A	Sidechain
85	AA	535	G	Sidechain
85	AA	536	C	Sidechain
85	AA	537	G	Sidechain
85	AA	538	A	Sidechain
85	AA	539	A	Sidechain
85	AA	54	C	Sidechain
85	AA	540	A	Sidechain
85	AA	541	A	Sidechain
85	AA	542	G	Sidechain
85	AA	544	A	Sidechain
85	AA	545	A	Sidechain
85	AA	546	U	Sidechain
85	AA	547	A	Sidechain
85	AA	548	G	Sidechain
85	AA	550	G	Sidechain
85	AA	552	C	Sidechain
85	AA	555	C	Sidechain
85	AA	556	C	Sidechain
85	AA	557	G	Sidechain
85	AA	559	G	Sidechain
85	AA	561	C	Sidechain
85	AA	563	U	Sidechain
85	AA	564	A	Sidechain
85	AA	565	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	566	U	Sidechain
85	AA	567	G	Sidechain
85	AA	569	A	Sidechain
85	AA	57	G	Sidechain
85	AA	570	U	Sidechain
85	AA	571	G	Sidechain
85	AA	572	G	Sidechain
85	AA	573	U	Sidechain
85	AA	575	G	Sidechain
85	AA	576	U	Sidechain
85	AA	577	U	Sidechain
85	AA	578	U	Sidechain
85	AA	579	U	Sidechain
85	AA	582	A	Sidechain
85	AA	584	G	Sidechain
85	AA	585	G	Sidechain
85	AA	586	G	Sidechain
85	AA	587	G	Sidechain
85	AA	588	G	Sidechain
85	AA	589	A	Sidechain
85	AA	59	C	Sidechain
85	AA	590	U	Sidechain
85	AA	591	A	Sidechain
85	AA	592	C	Sidechain
85	AA	593	U	Sidechain
85	AA	595	A	Sidechain
85	AA	596	A	Sidechain
85	AA	597	A	Sidechain
85	AA	6	G	Sidechain
85	AA	60	U	Sidechain
85	AA	600	C	Sidechain
85	AA	601	A	Sidechain
85	AA	602	U	Sidechain
85	AA	603	C	Sidechain
85	AA	604	C	Sidechain
85	AA	605	A	Sidechain
85	AA	609	U	Sidechain
85	AA	61	C	Sidechain
85	AA	610	C	Sidechain
85	AA	611	G	Sidechain
85	AA	613	G	Sidechain
85	AA	614	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	615	A	Sidechain
85	AA	616	A	Sidechain
85	AA	617	C	Sidechain
85	AA	618	A	Sidechain
85	AA	62	A	Sidechain
85	AA	620	U	Sidechain
85	AA	621	U	Sidechain
85	AA	623	G	Sidechain
85	AA	624	A	Sidechain
85	AA	625	G	Sidechain
85	AA	626	G	Sidechain
85	AA	628	C	Sidechain
85	AA	629	A	Sidechain
85	AA	63	G	Sidechain
85	AA	630	A	Sidechain
85	AA	631	G	Sidechain
85	AA	634	U	Sidechain
85	AA	635	G	Sidechain
85	AA	636	G	Sidechain
85	AA	637	U	Sidechain
85	AA	638	G	Sidechain
85	AA	64	A	Sidechain
85	AA	640	C	Sidechain
85	AA	641	A	Sidechain
85	AA	642	G	Sidechain
85	AA	646	C	Sidechain
85	AA	647	C	Sidechain
85	AA	648	G	Sidechain
85	AA	65	A	Sidechain
85	AA	650	G	Sidechain
85	AA	651	G	Sidechain
85	AA	652	U	Sidechain
85	AA	654	A	Sidechain
85	AA	655	U	Sidechain
85	AA	656	U	Sidechain
85	AA	657	C	Sidechain
85	AA	658	C	Sidechain
85	AA	659	A	Sidechain
85	AA	66	U	Sidechain
85	AA	661	C	Sidechain
85	AA	662	U	Sidechain
85	AA	664	C	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	665	A	Sidechain
85	AA	666	A	Sidechain
85	AA	667	A	Sidechain
85	AA	668	A	Sidechain
85	AA	669	G	Sidechain
85	AA	67	C	Sidechain
85	AA	672	U	Sidechain
85	AA	673	A	Sidechain
85	AA	674	U	Sidechain
85	AA	675	A	Sidechain
85	AA	676	U	Sidechain
85	AA	677	U	Sidechain
85	AA	679	A	Sidechain
85	AA	68	A	Sidechain
85	AA	680	U	Sidechain
85	AA	681	G	Sidechain
85	AA	682	C	Sidechain
85	AA	683	U	Sidechain
85	AA	684	G	Sidechain
85	AA	685	U	Sidechain
85	AA	686	U	Sidechain
85	AA	687	G	Sidechain
85	AA	688	C	Sidechain
85	AA	689	U	Sidechain
85	AA	69	C	Sidechain
85	AA	691	U	Sidechain
85	AA	692	U	Sidechain
85	AA	693	A	Sidechain
85	AA	694	A	Sidechain
85	AA	695	A	Sidechain
85	AA	696	G	Sidechain
85	AA	697	G	Sidechain
85	AA	698	G	Sidechain
85	AA	699	U	Sidechain
85	AA	7	G	Sidechain
85	AA	70	U	Sidechain
85	AA	700	U	Sidechain
85	AA	702	G	Sidechain
85	AA	703	U	Sidechain
85	AA	704	A	Sidechain
85	AA	706	U	Sidechain
85	AA	707	U	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	708	G	Sidechain
85	AA	710	A	Sidechain
85	AA	711	C	Sidechain
85	AA	712	U	Sidechain
85	AA	713	G	Sidechain
85	AA	714	U	Sidechain
85	AA	72	C	Sidechain
85	AA	721	C	Sidechain
85	AA	722	G	Sidechain
85	AA	723	U	Sidechain
85	AA	725	G	Sidechain
85	AA	726	U	Sidechain
85	AA	727	U	Sidechain
85	AA	728	U	Sidechain
85	AA	730	G	Sidechain
85	AA	731	U	Sidechain
85	AA	732	G	Sidechain
85	AA	733	C	Sidechain
85	AA	735	G	Sidechain
85	AA	736	U	Sidechain
85	AA	737	G	Sidechain
85	AA	738	C	Sidechain
85	AA	739	C	Sidechain
85	AA	740	A	Sidechain
85	AA	741	G	Sidechain
85	AA	742	U	Sidechain
85	AA	743	C	Sidechain
85	AA	744	C	Sidechain
85	AA	747	U	Sidechain
85	AA	748	C	Sidechain
85	AA	750	A	Sidechain
85	AA	751	C	Sidechain
85	AA	752	C	Sidechain
85	AA	754	C	Sidechain
85	AA	755	G	Sidechain
85	AA	756	G	Sidechain
85	AA	757	A	Sidechain
85	AA	758	C	Sidechain
85	AA	759	G	Sidechain
85	AA	76	G	Sidechain
85	AA	760	U	Sidechain
85	AA	761	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	762	U	Sidechain
85	AA	764	U	Sidechain
85	AA	765	U	Sidechain
85	AA	766	G	Sidechain
85	AA	767	A	Sidechain
85	AA	768	C	Sidechain
85	AA	769	C	Sidechain
85	AA	77	C	Sidechain
85	AA	770	C	Sidechain
85	AA	771	A	Sidechain
85	AA	772	C	Sidechain
85	AA	773	G	Sidechain
85	AA	774	C	Sidechain
85	AA	775	C	Sidechain
85	AA	776	C	Sidechain
85	AA	777	U	Sidechain
85	AA	778	C	Sidechain
85	AA	779	G	Sidechain
85	AA	78	A	Sidechain
85	AA	780	U	Sidechain
85	AA	781	G	Sidechain
85	AA	782	G	Sidechain
85	AA	785	C	Sidechain
85	AA	787	U	Sidechain
85	AA	788	G	Sidechain
85	AA	789	A	Sidechain
85	AA	79	G	Sidechain
85	AA	790	A	Sidechain
85	AA	792	A	Sidechain
85	AA	793	C	Sidechain
85	AA	794	A	Sidechain
85	AA	795	C	Sidechain
85	AA	796	U	Sidechain
85	AA	797	C	Sidechain
85	AA	799	G	Sidechain
85	AA	8	U	Sidechain
85	AA	800	A	Sidechain
85	AA	801	U	Sidechain
85	AA	802	A	Sidechain
85	AA	803	C	Sidechain
85	AA	804	A	Sidechain
85	AA	805	A	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	806	G	Sidechain
85	AA	809	A	Sidechain
85	AA	812	C	Sidechain
85	AA	814	G	Sidechain
85	AA	815	G	Sidechain
85	AA	816	A	Sidechain
85	AA	817	G	Sidechain
85	AA	818	C	Sidechain
85	AA	819	G	Sidechain
85	AA	82	A	Sidechain
85	AA	820	G	Sidechain
85	AA	821	U	Sidechain
85	AA	822	U	Sidechain
85	AA	825	U	Sidechain
85	AA	827	C	Sidechain
85	AA	828	U	Sidechain
85	AA	83	U	Sidechain
85	AA	830	A	Sidechain
85	AA	832	U	Sidechain
85	AA	833	U	Sidechain
85	AA	834	U	Sidechain
85	AA	836	A	Sidechain
85	AA	837	C	Sidechain
85	AA	838	G	Sidechain
85	AA	839	C	Sidechain
85	AA	84	C	Sidechain
85	AA	841	U	Sidechain
85	AA	842	G	Sidechain
85	AA	845	A	Sidechain
85	AA	846	U	Sidechain
85	AA	847	G	Sidechain
85	AA	848	C	Sidechain
85	AA	85	U	Sidechain
85	AA	850	U	Sidechain
85	AA	851	G	Sidechain
85	AA	852	C	Sidechain
85	AA	853	G	Sidechain
85	AA	854	A	Sidechain
85	AA	855	G	Sidechain
85	AA	856	G	Sidechain
85	AA	857	G	Sidechain
85	AA	858	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	859	G	Sidechain
85	AA	86	G	Sidechain
85	AA	860	C	Sidechain
85	AA	861	G	Sidechain
85	AA	862	U	Sidechain
85	AA	863	C	Sidechain
85	AA	864	C	Sidechain
85	AA	866	U	Sidechain
85	AA	867	G	Sidechain
85	AA	868	A	Sidechain
85	AA	869	A	Sidechain
85	AA	87	C	Sidechain
85	AA	871	U	Sidechain
85	AA	872	U	Sidechain
85	AA	873	U	Sidechain
85	AA	875	C	Sidechain
85	AA	878	U	Sidechain
85	AA	879	G	Sidechain
85	AA	880	A	Sidechain
85	AA	881	C	Sidechain
85	AA	882	C	Sidechain
85	AA	883	A	Sidechain
85	AA	884	A	Sidechain
85	AA	885	A	Sidechain
85	AA	887	A	Sidechain
85	AA	888	A	Sidechain
85	AA	889	G	Sidechain
85	AA	89	C	Sidechain
85	AA	890	U	Sidechain
85	AA	891	G	Sidechain
85	AA	892	C	Sidechain
85	AA	893	G	Sidechain
85	AA	894	A	Sidechain
85	AA	896	C	Sidechain
85	AA	897	A	Sidechain
85	AA	898	A	Sidechain
85	AA	899	A	Sidechain
85	AA	9	U	Sidechain
85	AA	90	A	Sidechain
85	AA	900	G	Sidechain
85	AA	901	C	Sidechain
85	AA	902	A	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	903	G	Sidechain
85	AA	906	U	Sidechain
85	AA	908	C	Sidechain
85	AA	91	U	Sidechain
85	AA	910	G	Sidechain
85	AA	911	A	Sidechain
85	AA	912	C	Sidechain
85	AA	913	U	Sidechain
85	AA	914	U	Sidechain
85	AA	916	A	Sidechain
85	AA	917	A	Sidechain
85	AA	918	U	Sidechain
85	AA	92	G	Sidechain
85	AA	920	A	Sidechain
85	AA	921	C	Sidechain
85	AA	922	A	Sidechain
85	AA	924	A	Sidechain
85	AA	925	G	Sidechain
85	AA	926	C	Sidechain
85	AA	929	G	Sidechain
85	AA	93	G	Sidechain
85	AA	930	G	Sidechain
85	AA	931	G	Sidechain
85	AA	932	A	Sidechain
85	AA	933	U	Sidechain
85	AA	934	A	Sidechain
85	AA	935	A	Sidechain
85	AA	936	C	Sidechain
85	AA	937	G	Sidechain
85	AA	939	A	Sidechain
85	AA	94	C	Sidechain
85	AA	940	G	Sidechain
85	AA	941	C	Sidechain
85	AA	943	U	Sidechain
85	AA	944	C	Sidechain
85	AA	945	A	Sidechain
85	AA	95	U	Sidechain
85	AA	957	A	Sidechain
85	AA	958	C	Sidechain
85	AA	959	C	Sidechain
85	AA	96	C	Sidechain
85	AA	960	G	Sidechain

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Mol	Chain	Res	Type	Group
85	AA	961	U	Sidechain
85	AA	963	U	Sidechain
85	AA	964	C	Sidechain
85	AA	966	G	Sidechain
85	AA	968	U	Sidechain
85	AA	969	U	Sidechain
85	AA	97	A	Sidechain
85	AA	970	U	Sidechain
85	AA	971	U	Sidechain
85	AA	972	G	Sidechain
85	AA	973	U	Sidechain
85	AA	974	U	Sidechain
85	AA	976	G	Sidechain
85	AA	977	U	Sidechain
85	AA	978	U	Sidechain
85	AA	979	U	Sidechain
85	AA	98	U	Sidechain
85	AA	980	U	Sidechain
85	AA	981	A	Sidechain
85	AA	982	G	Sidechain
85	AA	983	A	Sidechain
85	AA	985	G	Sidechain
85	AA	986	U	Sidechain
85	AA	987	C	Sidechain
85	AA	989	U	Sidechain
85	AA	99	U	Sidechain
85	AA	991	G	Sidechain
85	AA	993	G	Sidechain
85	AA	994	A	Sidechain
85	AA	995	G	Sidechain
85	AA	997	U	Sidechain
85	AA	998	U	Sidechain
86	AB	1	G	Sidechain
86	AB	11	C	Sidechain
86	AB	12	U	Sidechain
86	AB	14	A	Sidechain
86	AB	18	G	Sidechain
86	AB	2	C	Sidechain
86	AB	20	U	Sidechain
86	AB	21	A	Sidechain
86	AB	22	G	Sidechain
86	AB	23	A	Sidechain

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Mol	Chain	Res	Type	Group
86	AB	24	G	Sidechain
86	AB	25	C	Sidechain
86	AB	26	A	Sidechain
86	AB	27	G	Sidechain
86	AB	28	G	Sidechain
86	AB	32	U	Sidechain
86	AB	37	A	Sidechain
86	AB	39	U	Sidechain
86	AB	40	C	Sidechain
86	AB	43	C	Sidechain
86	AB	45	U	Sidechain
86	AB	46	G	Sidechain
86	AB	49	C	Sidechain
86	AB	5	G	Sidechain
86	AB	50	U	Sidechain
86	AB	51	U	Sidechain
86	AB	54	U	Sidechain
86	AB	56	C	Sidechain
86	AB	57	G	Sidechain
86	AB	58	A	Sidechain
86	AB	6	G	Sidechain
86	AB	61	C	Sidechain
86	AB	62	C	Sidechain
86	AB	63	G	Sidechain
86	AB	65	G	Sidechain
86	AB	66	U	Sidechain
86	AB	67	C	Sidechain
86	AB	68	C	Sidechain
86	AB	69	G	Sidechain
86	AB	7	A	Sidechain
86	AB	70	G	Sidechain
86	AB	72	C	Sidechain
86	AB	73	A	Sidechain
86	AB	8	U	Sidechain
86	AB	9	A	Sidechain
11	AC	118	PHE	Sidechain
11	AC	139	PHE	Sidechain
11	AC	144	PHE	Sidechain
11	AC	156	ARG	Sidechain,Mainchain
11	AC	193	VAL	Mainchain
11	AC	202	ARG	Sidechain
11	AC	204	ARG	Sidechain

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Mol	Chain	Res	Type	Group
11	AC	211	TYR	Sidechain
11	AC	216	ARG	Sidechain
11	AC	222	ARG	Peptide
11	AC	225	ILE	Mainchain
11	AC	228	SER	Mainchain
11	AC	229	VAL	Peptide
11	AC	238	PHE	Mainchain
11	AC	240	TYR	Sidechain
11	AC	241	ARG	Sidechain
11	AC	73	TYR	Sidechain
11	AC	74	ILE	Peptide
11	AC	77	ARG	Mainchain
11	AC	99	ARG	Sidechain
12	AD	14	TYR	Sidechain
12	AD	18	PHE	Sidechain
12	AD	3	THR	Mainchain
12	AD	4	TYR	Sidechain
12	AD	54	ARG	Sidechain
12	AD	59	ARG	Sidechain
12	AD	66	PHE	Sidechain
12	AD	69	ARG	Sidechain
12	AD	88	TYR	Sidechain
12	AD	94	VAL	Peptide
13	AE	103	ARG	Sidechain
13	AE	104	ARG	Sidechain
13	AE	106	TYR	Sidechain
13	AE	113	TYR	Sidechain
13	AE	116	TYR	Sidechain
13	AE	119	ARG	Sidechain
13	AE	120	HIS	Sidechain
13	AE	121	ARG	Sidechain
13	AE	131	PHE	Sidechain
13	AE	145	ARG	Sidechain
13	AE	152	ARG	Sidechain
13	AE	153	TYR	Sidechain
13	AE	171	PHE	Sidechain
13	AE	24	TYR	Sidechain
13	AE	44	ARG	Sidechain
13	AE	45	SER	Peptide
13	AE	50	TYR	Sidechain
13	AE	58	PHE	Sidechain
13	AE	69	TYR	Sidechain

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Mol	Chain	Res	Type	Group
13	AE	72	ARG	Sidechain
13	AE	76	PHE	Sidechain
13	AE	83	ARG	Sidechain
13	AE	88	ARG	Sidechain
13	AE	97	ARG	Sidechain
13	AE	98	ARG	Sidechain
14	AF	108	ARG	Sidechain
14	AF	116	ARG	Sidechain
14	AF	132	ARG	Sidechain
14	AF	41	ARG	Sidechain
14	AF	55	ARG	Sidechain
14	AF	60	ARG	Sidechain
15	AG	104	ARG	Sidechain
15	AG	113	PHE	Sidechain
15	AG	121	ARG	Sidechain
15	AG	124	ARG	Sidechain
15	AG	129	TYR	Sidechain
15	AG	131	ARG	Sidechain
15	AG	134	GLN	Mainchain,Peptide
15	AG	18	TYR	Sidechain
15	AG	21	THR	Peptide
15	AG	3	ARG	Sidechain
15	AG	31	ARG	Sidechain
15	AG	55	ARG	Sidechain
15	AG	69	ARG	Sidechain
15	AG	77	HIS	Sidechain
15	AG	89	TYR	Sidechain
15	AG	94	ARG	Sidechain
16	AH	10	TYR	Sidechain
16	AH	114	ARG	Sidechain
16	AH	13	SER	Peptide
16	AH	21	TYR	Sidechain
16	AH	27	TYR	Sidechain
16	AH	36	HIS	Sidechain
16	AH	60	ASP	Mainchain
16	AH	65	TYR	Sidechain
17	AI	104	TYR	Sidechain
17	AI	122	TYR	Sidechain
17	AI	126	PHE	Sidechain
17	AI	130	TYR	Sidechain
17	AI	144	HIS	Peptide
17	AI	19	PHE	Sidechain

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Mol	Chain	Res	Type	Group
17	AI	25	ARG	Sidechain
17	AI	58	ARG	Sidechain
17	AI	66	ARG	Sidechain
17	AI	68	ARG	Sidechain
18	AJ	12	ARG	Sidechain
18	AJ	128	PHE	Sidechain
18	AJ	129	PHE	Sidechain
18	AJ	19	ARG	Sidechain
18	AJ	20	ARG	Sidechain
18	AJ	46	TYR	Sidechain
18	AJ	54	ASP	Peptide
18	AJ	56	HIS	Sidechain
18	AJ	57	ARG	Sidechain
18	AJ	68	ARG	Sidechain
18	AJ	78	ARG	Sidechain
19	AK	115	TYR	Sidechain
19	AK	126	ASP	Mainchain,Peptide
19	AK	128	ARG	Sidechain
19	AK	129	ARG	Sidechain,Mainchain
19	AK	137	ARG	Sidechain
19	AK	141	ARG	Sidechain
19	AK	148	TYR	Sidechain
19	AK	149	ARG	Sidechain
19	AK	33	CYS	Peptide
19	AK	36	ARG	Sidechain
19	AK	47	PRO	Mainchain
19	AK	65	TYR	Sidechain
19	AK	68	ARG	Sidechain
19	AK	70	ARG	Sidechain
19	AK	74	ARG	Sidechain
19	AK	78	SER	Peptide
19	AK	9	LEU	Peptide
19	AK	98	TYR	Sidechain
20	AL	29	TYR	Sidechain
20	AL	33	ARG	Sidechain
20	AL	53	TYR	Sidechain
20	AL	78	ARG	Sidechain
20	AL	84	TYR	Sidechain
20	AL	90	HIS	Sidechain
21	AM	107	ARG	Sidechain
21	AM	119	ARG	Peptide
21	AM	12	HIS	Peptide

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Mol	Chain	Res	Type	Group
21	AM	121	HIS	Sidechain
21	AM	125	ARG	Sidechain
21	AM	128	TYR	Sidechain
21	AM	131	ARG	Sidechain
21	AM	133	ARG	Peptide
21	AM	142	ARG	Sidechain
21	AM	25	ARG	Sidechain
21	AM	29	PHE	Sidechain
21	AM	38	GLY	Peptide
21	AM	39	ILE	Peptide
21	AM	42	ALA	Peptide
21	AM	80	ILE	Peptide
21	AM	89	ARG	Sidechain
21	AM	9	SER	Peptide
21	AM	90	ASP	Peptide
22	AO	104	SER	Mainchain
22	AO	107	GLU	Mainchain
22	AO	111	ARG	Sidechain
22	AO	118	HIS	Sidechain
22	AO	138	HIS	Sidechain
22	AO	139	ARG	Sidechain
22	AO	158	ARG	Sidechain
22	AO	163	GLU	Peptide
22	AO	27	HIS	Sidechain
22	AO	29	TRP	Mainchain
22	AO	58	HIS	Sidechain
22	AO	60	ARG	Sidechain
22	AO	70	TYR	Sidechain
22	AO	79	ARG	Sidechain
22	AO	84	ARG	Sidechain
22	AO	89	TYR	Sidechain
22	AO	95	ARG	Sidechain
23	AP	108	PHE	Sidechain
23	AP	120	HIS	Sidechain
23	AP	136	ARG	Sidechain
23	AP	153	TYR	Sidechain
23	AP	179	LEU	Mainchain
23	AP	184	ARG	Sidechain
23	AP	207	TYR	Sidechain
23	AP	214	THR	Mainchain
23	AP	215	ARG	Sidechain
23	AP	247	ARG	Sidechain

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Mol	Chain	Res	Type	Group
23	AP	253	HIS	Sidechain
23	AP	59	THR	Mainchain
23	AP	68	SER	Mainchain
23	AP	82	ARG	Sidechain
24	AQ	101	PHE	Peptide
24	AQ	41	ARG	Sidechain,Mainchain
24	AQ	48	ARG	Sidechain
24	AQ	66	PRO	Peptide
24	AQ	67	CYS	Peptide
24	AQ	77	TYR	Sidechain
25	AR	17	TYR	Sidechain
25	AR	20	ARG	Sidechain
25	AR	26	ASN	Mainchain,Peptide
25	AR	34	HIS	Sidechain
25	AR	45	ASP	Mainchain
25	AR	50	ILE	Mainchain
25	AR	62	TYR	Sidechain
25	AR	69	SER	Mainchain
25	AR	7	TYR	Sidechain
25	AR	71	HIS	Sidechain
25	AR	84	ARG	Sidechain
26	AS	119	ARG	Sidechain
26	AS	131	TYR	Sidechain
26	AS	17	ARG	Sidechain
26	AS	18	ARG	Sidechain
26	AS	21	ARG	Sidechain
26	AS	42	GLY	Peptide
26	AS	71	ARG	Sidechain
27	AT	111	ARG	Sidechain
27	AT	114	VAL	Peptide
27	AT	118	ARG	Sidechain
27	AT	120	ARG	Sidechain
27	AT	123	LYS	Peptide
27	AT	125	ARG	Sidechain
27	AT	13	ARG	Sidechain
27	AT	132	MET	Peptide
27	AT	17	PHE	Sidechain
27	AT	25	ARG	Sidechain
27	AT	34	HIS	Sidechain
27	AT	35	PRO	Peptide
27	AT	36	GLY	Mainchain,Peptide
27	AT	37	TRP	Peptide

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Mol	Chain	Res	Type	Group
27	AT	38	CYS	Peptide
27	AT	40	THR	Peptide
27	AT	41	VAL	Peptide
27	AT	54	TYR	Sidechain
27	AT	58	ASP	Mainchain,Peptide
27	AT	65	PHE	Sidechain,Mainchain,Peptide
27	AT	8	ALA	Peptide
27	AT	83	TYR	Sidechain
27	AT	97	ARG	Sidechain
28	AU	105	ARG	Sidechain
28	AU	48	PHE	Sidechain
28	AU	60	VAL	Peptide
28	AU	63	TYR	Sidechain
28	AU	88	HIS	Sidechain
28	AU	91	ARG	Sidechain
28	AU	99	SER	Peptide
29	AV	10	ARG	Sidechain
29	AV	100	TYR	Sidechain
29	AV	17	ARG	Sidechain
29	AV	19	ARG	Sidechain
29	AV	21	ARG	Sidechain
29	AV	30	ARG	Sidechain
29	AV	40	ARG	Sidechain
29	AV	44	ARG	Sidechain
29	AV	5	ARG	Sidechain
29	AV	66	PHE	Sidechain,Peptide
29	AV	72	TYR	Sidechain
29	AV	98	ARG	Sidechain
30	AW	10	TYR	Mainchain,Peptide
30	AW	14	ARG	Sidechain,Mainchain,Peptide
30	AW	17	ARG	Sidechain
30	AW	22	ARG	Sidechain
30	AW	23	ARG	Peptide
30	AW	24	ARG	Sidechain
30	AW	43	ASN	Peptide
30	AW	5	ASP	Peptide
30	AW	58	ASN	Mainchain
30	AW	80	PHE	Sidechain
31	AX	155	TYR	Sidechain
31	AX	166	PHE	Sidechain
31	AX	17	TYR	Sidechain
31	AX	177	ARG	Sidechain

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Mol	Chain	Res	Type	Group
31	AX	191	GLN	Peptide
31	AX	39	ARG	Sidechain
31	AX	55	ARG	Sidechain
31	AX	63	ARG	Sidechain
31	AX	78	TYR	Peptide
31	AX	8	ARG	Sidechain
32	AY	31	ARG	Sidechain
32	AY	33	ARG	Sidechain
32	AY	40	TYR	Sidechain
32	AY	44	TYR	Sidechain,Peptide
32	AY	46	ALA	Mainchain
32	AY	47	LYS	Mainchain
32	AY	55	LEU	Peptide
32	AY	56	ARG	Sidechain
32	AY	59	LYS	Mainchain,Peptide
32	AY	60	GLN	Peptide
32	AY	64	LYS	Peptide
33	AZ	49	ARG	Sidechain
33	AZ	60	ARG	Sidechain
33	AZ	78	ARG	Sidechain
34	BA	1	C	Sidechain
34	BA	10	G	Sidechain
34	BA	100	A	Sidechain
34	BA	1001	G	Sidechain
34	BA	1004	U	Sidechain
34	BA	1005	C	Sidechain
34	BA	1006	G	Sidechain
34	BA	1007	G	Sidechain
34	BA	1009	G	Sidechain
34	BA	101	G	Sidechain
34	BA	1011	G	Sidechain
34	BA	1013	A	Sidechain
34	BA	1014	A	Sidechain
34	BA	1015	G	Sidechain
34	BA	1018	U	Sidechain
34	BA	1019	C	Sidechain
34	BA	102	G	Sidechain
34	BA	1020	A	Sidechain
34	BA	1021	U	Sidechain
34	BA	1022	C	Sidechain
34	BA	1023	G	Sidechain
34	BA	1024	A	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1027	C	Sidechain
34	BA	1028	A	Sidechain
34	BA	1029	C	Sidechain
34	BA	103	G	Sidechain
34	BA	1030	C	Sidechain
34	BA	1032	A	Sidechain
34	BA	1033	G	Sidechain
34	BA	1035	A	Sidechain
34	BA	1036	G	Sidechain
34	BA	1037	C	Sidechain
34	BA	1038	U	Sidechain
34	BA	1039	G	Sidechain
34	BA	1040	G	Sidechain
34	BA	1041	U	Sidechain
34	BA	1042	U	Sidechain
34	BA	1044	A	Sidechain
34	BA	1045	C	Sidechain
34	BA	1046	G	Sidechain
34	BA	1049	G	Sidechain
34	BA	105	U	Sidechain
34	BA	1050	A	Sidechain
34	BA	1051	A	Sidechain
34	BA	1052	G	Sidechain
34	BA	1053	U	Sidechain
34	BA	1054	U	Sidechain
34	BA	1055	U	Sidechain
34	BA	1056	C	Sidechain
34	BA	1057	C	Sidechain
34	BA	1058	C	Sidechain
34	BA	1059	U	Sidechain
34	BA	106	U	Sidechain
34	BA	1062	G	Sidechain
34	BA	1063	G	Sidechain
34	BA	1064	A	Sidechain
34	BA	1065	U	Sidechain
34	BA	1066	A	Sidechain
34	BA	1068	C	Sidechain
34	BA	1069	U	Sidechain
34	BA	107	C	Sidechain
34	BA	1070	G	Sidechain
34	BA	1071	G	Sidechain
34	BA	1072	U	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1073	G	Sidechain
34	BA	1075	U	Sidechain
34	BA	1077	G	Sidechain
34	BA	1078	U	Sidechain
34	BA	1079	C	Sidechain
34	BA	108	A	Sidechain
34	BA	1080	U	Sidechain
34	BA	1081	U	Sidechain
34	BA	1082	U	Sidechain
34	BA	1083	A	Sidechain
34	BA	1084	A	Sidechain
34	BA	1085	G	Sidechain
34	BA	1086	A	Sidechain
34	BA	1087	A	Sidechain
34	BA	1088	G	Sidechain
34	BA	1089	U	Sidechain
34	BA	109	A	Sidechain
34	BA	1091	U	Sidechain
34	BA	1092	U	Sidechain
34	BA	1093	G	Sidechain
34	BA	1094	U	Sidechain
34	BA	1095	G	Sidechain
34	BA	1096	C	Sidechain
34	BA	1097	G	Sidechain
34	BA	1098	G	Sidechain
34	BA	1099	U	Sidechain
34	BA	11	U	Sidechain
34	BA	110	C	Sidechain
34	BA	1105	A	Sidechain
34	BA	1106	A	Sidechain
34	BA	1107	A	Sidechain
34	BA	1108	U	Sidechain
34	BA	1109	G	Sidechain
34	BA	111	U	Sidechain
34	BA	1110	A	Sidechain
34	BA	1111	U	Sidechain
34	BA	1112	U	Sidechain
34	BA	1113	A	Sidechain
34	BA	1114	G	Sidechain
34	BA	1116	G	Sidechain
34	BA	1117	G	Sidechain
34	BA	1119	A	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	112	C	Sidechain
34	BA	1120	U	Sidechain
34	BA	1122	G	Sidechain
34	BA	1127	U	Sidechain
34	BA	1128	C	Sidechain
34	BA	1129	U	Sidechain
34	BA	113	G	Sidechain
34	BA	1130	U	Sidechain
34	BA	1131	G	Sidechain
34	BA	1133	A	Sidechain
34	BA	1134	A	Sidechain
34	BA	1136	A	Sidechain
34	BA	1137	U	Sidechain
34	BA	1138	C	Sidechain
34	BA	1139	G	Sidechain
34	BA	114	U	Sidechain
34	BA	1140	A	Sidechain
34	BA	1142	C	Sidechain
34	BA	1143	U	Sidechain
34	BA	1144	A	Sidechain
34	BA	1145	U	Sidechain
34	BA	1146	U	Sidechain
34	BA	1148	U	Sidechain
34	BA	1149	C	Sidechain
34	BA	115	U	Sidechain
34	BA	1151	A	Sidechain
34	BA	1152	A	Sidechain
34	BA	1153	C	Sidechain
34	BA	1154	U	Sidechain
34	BA	1155	U	Sidechain
34	BA	1156	U	Sidechain
34	BA	1157	A	Sidechain
34	BA	1159	A	Sidechain
34	BA	1161	G	Sidechain
34	BA	1162	U	Sidechain
34	BA	1165	A	Sidechain
34	BA	1167	A	Sidechain
34	BA	1168	C	Sidechain
34	BA	1170	A	Sidechain
34	BA	1171	C	Sidechain
34	BA	1173	C	Sidechain
34	BA	1174	A	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1175	G	Sidechain
34	BA	1176	C	Sidechain
34	BA	1177	C	Sidechain
34	BA	1178	U	Sidechain
34	BA	1179	U	Sidechain
34	BA	118	C	Sidechain
34	BA	1180	A	Sidechain
34	BA	1182	U	Sidechain
34	BA	1183	U	Sidechain
34	BA	1184	A	Sidechain
34	BA	1186	U	Sidechain
34	BA	1187	U	Sidechain
34	BA	1188	U	Sidechain
34	BA	1189	A	Sidechain
34	BA	1190	A	Sidechain
34	BA	1192	A	Sidechain
34	BA	1193	A	Sidechain
34	BA	1194	G	Sidechain
34	BA	1195	G	Sidechain
34	BA	1196	C	Sidechain
34	BA	1197	U	Sidechain
34	BA	1198	U	Sidechain
34	BA	1199	U	Sidechain
34	BA	12	G	Sidechain
34	BA	120	A	Sidechain
34	BA	1203	G	Sidechain
34	BA	1204	U	Sidechain
34	BA	1205	A	Sidechain
34	BA	1206	C	Sidechain
34	BA	1208	U	Sidechain
34	BA	1209	A	Sidechain
34	BA	121	A	Sidechain
34	BA	1210	A	Sidechain
34	BA	1211	G	Sidechain
34	BA	1212	A	Sidechain
34	BA	1214	U	Sidechain
34	BA	1215	U	Sidechain
34	BA	1216	G	Sidechain
34	BA	1217	A	Sidechain
34	BA	1219	G	Sidechain
34	BA	122	U	Sidechain
34	BA	1220	C	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1222	C	Sidechain
34	BA	1224	A	Sidechain
34	BA	1225	A	Sidechain
34	BA	1226	G	Sidechain
34	BA	1227	U	Sidechain
34	BA	1229	G	Sidechain
34	BA	123	C	Sidechain
34	BA	1230	G	Sidechain
34	BA	1231	C	Sidechain
34	BA	1232	C	Sidechain
34	BA	1233	U	Sidechain
34	BA	1236	U	Sidechain
34	BA	1239	G	Sidechain
34	BA	124	G	Sidechain
34	BA	1240	G	Sidechain
34	BA	1241	U	Sidechain
34	BA	1242	A	Sidechain
34	BA	1243	A	Sidechain
34	BA	1244	G	Sidechain
34	BA	1245	C	Sidechain
34	BA	1246	G	Sidechain
34	BA	1247	G	Sidechain
34	BA	1248	A	Sidechain
34	BA	125	G	Sidechain
34	BA	1250	C	Sidechain
34	BA	1252	G	Sidechain
34	BA	1253	G	Sidechain
34	BA	1255	G	Sidechain
34	BA	1256	A	Sidechain
34	BA	1257	U	Sidechain
34	BA	1258	G	Sidechain
34	BA	1259	C	Sidechain
34	BA	126	G	Sidechain
34	BA	1260	G	Sidechain
34	BA	1261	G	Sidechain
34	BA	1263	A	Sidechain
34	BA	1264	U	Sidechain
34	BA	1265	G	Sidechain
34	BA	1267	A	Sidechain
34	BA	1271	C	Sidechain
34	BA	1272	U	Sidechain
34	BA	1273	U	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1274	A	Sidechain
34	BA	1276	G	Sidechain
34	BA	1279	U	Sidechain
34	BA	128	C	Sidechain
34	BA	1280	A	Sidechain
34	BA	1281	U	Sidechain
34	BA	1282	G	Sidechain
34	BA	1283	U	Sidechain
34	BA	1284	G	Sidechain
34	BA	1285	G	Sidechain
34	BA	1287	G	Sidechain
34	BA	1288	U	Sidechain
34	BA	1289	C	Sidechain
34	BA	129	U	Sidechain
34	BA	1290	A	Sidechain
34	BA	1291	A	Sidechain
34	BA	1293	A	Sidechain
34	BA	1294	C	Sidechain
34	BA	1295	U	Sidechain
34	BA	1296	U	Sidechain
34	BA	1297	G	Sidechain
34	BA	1298	U	Sidechain
34	BA	1299	G	Sidechain
34	BA	13	U	Sidechain
34	BA	130	U	Sidechain
34	BA	1300	G	Sidechain
34	BA	1302	C	Sidechain
34	BA	1303	U	Sidechain
34	BA	1305	A	Sidechain
34	BA	1306	U	Sidechain
34	BA	1307	U	Sidechain
34	BA	1310	C	Sidechain
34	BA	1311	G	Sidechain
34	BA	1312	A	Sidechain
34	BA	1314	A	Sidechain
34	BA	1315	C	Sidechain
34	BA	1316	G	Sidechain
34	BA	1317	U	Sidechain
34	BA	1318	G	Sidechain
34	BA	1319	A	Sidechain
34	BA	132	U	Sidechain
34	BA	1320	A	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1321	A	Sidechain
34	BA	1323	G	Sidechain
34	BA	1324	G	Sidechain
34	BA	1325	G	Sidechain
34	BA	1326	U	Sidechain
34	BA	1329	U	Sidechain
34	BA	133	A	Sidechain
34	BA	1330	G	Sidechain
34	BA	1331	G	Sidechain
34	BA	1332	U	Sidechain
34	BA	1333	G	Sidechain
34	BA	1334	G	Sidechain
34	BA	1335	A	Sidechain
34	BA	1336	U	Sidechain
34	BA	1339	G	Sidechain
34	BA	134	U	Sidechain
34	BA	1340	G	Sidechain
34	BA	1342	C	Sidechain
34	BA	1343	A	Sidechain
34	BA	1345	U	Sidechain
34	BA	1346	U	Sidechain
34	BA	1347	G	Sidechain
34	BA	1348	G	Sidechain
34	BA	1349	A	Sidechain
34	BA	135	G	Sidechain
34	BA	1352	G	Sidechain
34	BA	1353	U	Sidechain
34	BA	1354	G	Sidechain
34	BA	1355	G	Sidechain
34	BA	1357	C	Sidechain
34	BA	1359	U	Sidechain
34	BA	1362	A	Sidechain
34	BA	1363	A	Sidechain
34	BA	1366	C	Sidechain
34	BA	1370	A	Sidechain
34	BA	1371	U	Sidechain
34	BA	1372	C	Sidechain
34	BA	1373	C	Sidechain
34	BA	1374	G	Sidechain
34	BA	1377	A	Sidechain
34	BA	1378	A	Sidechain
34	BA	1379	G	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	138	C	Sidechain
34	BA	1380	G	Sidechain
34	BA	1382	G	Sidechain
34	BA	1383	U	Sidechain
34	BA	1384	G	Sidechain
34	BA	1385	U	Sidechain
34	BA	1386	G	Sidechain
34	BA	1387	U	Sidechain
34	BA	139	U	Sidechain
34	BA	1390	C	Sidechain
34	BA	1392	A	Sidechain
34	BA	1395	C	Sidechain
34	BA	1396	A	Sidechain
34	BA	1397	C	Sidechain
34	BA	1399	A	Sidechain
34	BA	14	G	Sidechain
34	BA	140	C	Sidechain
34	BA	1402	C	Sidechain
34	BA	1403	G	Sidechain
34	BA	1406	U	Sidechain
34	BA	1407	C	Sidechain
34	BA	1409	A	Sidechain
34	BA	141	G	Sidechain
34	BA	1410	C	Sidechain
34	BA	1411	C	Sidechain
34	BA	1412	G	Sidechain
34	BA	1413	G	Sidechain
34	BA	1414	C	Sidechain
34	BA	1415	C	Sidechain
34	BA	1416	C	Sidechain
34	BA	1417	C	Sidechain
34	BA	1418	G	Sidechain
34	BA	1419	A	Sidechain
34	BA	142	A	Sidechain
34	BA	1420	A	Sidechain
34	BA	1421	A	Sidechain
34	BA	1422	A	Sidechain
34	BA	1423	U	Sidechain
34	BA	1424	G	Sidechain
34	BA	1425	G	Sidechain
34	BA	1426	A	Sidechain
34	BA	1427	U	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	143	A	Sidechain
34	BA	1430	C	Sidechain
34	BA	1431	G	Sidechain
34	BA	1432	C	Sidechain
34	BA	1433	U	Sidechain
34	BA	1434	U	Sidechain
34	BA	1435	A	Sidechain
34	BA	1437	G	Sidechain
34	BA	1439	C	Sidechain
34	BA	144	C	Sidechain
34	BA	1440	C	Sidechain
34	BA	1441	C	Sidechain
34	BA	1442	A	Sidechain
34	BA	1443	U	Sidechain
34	BA	1444	G	Sidechain
34	BA	1446	G	Sidechain
34	BA	1448	G	Sidechain
34	BA	145	U	Sidechain
34	BA	1450	G	Sidechain
34	BA	1451	A	Sidechain
34	BA	1453	U	Sidechain
34	BA	1454	G	Sidechain
34	BA	1455	C	Sidechain
34	BA	1456	C	Sidechain
34	BA	1458	A	Sidechain
34	BA	1459	U	Sidechain
34	BA	146	G	Sidechain
34	BA	1460	U	Sidechain
34	BA	1461	A	Sidechain
34	BA	1462	U	Sidechain
34	BA	1463	U	Sidechain
34	BA	1464	C	Sidechain
34	BA	1466	U	Sidechain
34	BA	1467	U	Sidechain
34	BA	1468	U	Sidechain
34	BA	1469	G	Sidechain
34	BA	147	U	Sidechain
34	BA	1470	G	Sidechain
34	BA	1472	G	Sidechain
34	BA	1474	G	Sidechain
34	BA	1476	G	Sidechain
34	BA	1477	C	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1478	G	Sidechain
34	BA	148	G	Sidechain
34	BA	1482	A	Sidechain
34	BA	1483	U	Sidechain
34	BA	1485	U	Sidechain
34	BA	1486	U	Sidechain
34	BA	1487	U	Sidechain
34	BA	1488	C	Sidechain
34	BA	149	G	Sidechain
34	BA	1490	U	Sidechain
34	BA	1491	U	Sidechain
34	BA	1492	G	Sidechain
34	BA	1493	U	Sidechain
34	BA	1494	G	Sidechain
34	BA	1496	G	Sidechain
34	BA	1497	A	Sidechain
34	BA	1498	A	Sidechain
34	BA	15	G	Sidechain
34	BA	150	C	Sidechain
34	BA	1500	G	Sidechain
34	BA	1501	U	Sidechain
34	BA	1502	G	Sidechain
34	BA	1503	U	Sidechain
34	BA	1504	A	Sidechain
34	BA	1505	G	Sidechain
34	BA	1506	C	Sidechain
34	BA	1507	C	Sidechain
34	BA	1508	C	Sidechain
34	BA	1509	U	Sidechain
34	BA	151	A	Sidechain
34	BA	1511	C	Sidechain
34	BA	1512	C	Sidechain
34	BA	1513	G	Sidechain
34	BA	1514	A	Sidechain
34	BA	1515	U	Sidechain
34	BA	1516	G	Sidechain
34	BA	1517	U	Sidechain
34	BA	1518	A	Sidechain
34	BA	1519	G	Sidechain
34	BA	152	C	Sidechain
34	BA	1522	G	Sidechain
34	BA	1523	U	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1524	G	Sidechain
34	BA	1525	G	Sidechain
34	BA	1526	C	Sidechain
34	BA	1527	G	Sidechain
34	BA	1530	G	Sidechain
34	BA	1534	U	Sidechain
34	BA	1536	A	Sidechain
34	BA	1537	G	Sidechain
34	BA	1538	G	Sidechain
34	BA	154	A	Sidechain
34	BA	1540	C	Sidechain
34	BA	1541	G	Sidechain
34	BA	1542	A	Sidechain
34	BA	1544	G	Sidechain
34	BA	1546	C	Sidechain
34	BA	1549	U	Sidechain
34	BA	155	U	Sidechain
34	BA	1550	G	Sidechain
34	BA	1551	G	Sidechain
34	BA	1552	C	Sidechain
34	BA	1553	G	Sidechain
34	BA	1554	C	Sidechain
34	BA	1555	G	Sidechain
34	BA	1556	A	Sidechain
34	BA	1557	G	Sidechain
34	BA	156	U	Sidechain
34	BA	1561	C	Sidechain
34	BA	1562	G	Sidechain
34	BA	1563	G	Sidechain
34	BA	1564	A	Sidechain
34	BA	1565	U	Sidechain
34	BA	1566	G	Sidechain
34	BA	1567	G	Sidechain
34	BA	1569	C	Sidechain
34	BA	157	U	Sidechain
34	BA	1570	C	Sidechain
34	BA	1571	C	Sidechain
34	BA	1572	G	Sidechain
34	BA	1573	C	Sidechain
34	BA	1577	U	Sidechain
34	BA	1579	G	Sidechain
34	BA	1580	U	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1582	C	Sidechain
34	BA	1585	A	Sidechain
34	BA	1586	U	Sidechain
34	BA	1587	C	Sidechain
34	BA	1588	U	Sidechain
34	BA	1589	U	Sidechain
34	BA	159	U	Sidechain
34	BA	1590	G	Sidechain
34	BA	1591	G	Sidechain
34	BA	1592	U	Sidechain
34	BA	1595	G	Sidechain
34	BA	1596	C	Sidechain
34	BA	1597	G	Sidechain
34	BA	1598	U	Sidechain
34	BA	1599	A	Sidechain
34	BA	16	C	Sidechain
34	BA	160	G	Sidechain
34	BA	1600	G	Sidechain
34	BA	1601	C	Sidechain
34	BA	1603	A	Sidechain
34	BA	1604	A	Sidechain
34	BA	1605	G	Sidechain
34	BA	1606	A	Sidechain
34	BA	1607	U	Sidechain
34	BA	1609	U	Sidechain
34	BA	161	U	Sidechain
34	BA	1611	A	Sidechain
34	BA	1612	C	Sidechain
34	BA	1613	G	Sidechain
34	BA	1614	G	Sidechain
34	BA	1615	A	Sidechain
34	BA	1616	A	Sidechain
34	BA	1617	U	Sidechain
34	BA	1618	A	Sidechain
34	BA	1619	U	Sidechain
34	BA	162	G	Sidechain
34	BA	1621	U	Sidechain
34	BA	1623	U	Sidechain
34	BA	1624	U	Sidechain
34	BA	1626	U	Sidechain
34	BA	1627	U	Sidechain
34	BA	1628	A	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	163	G	Sidechain
34	BA	1630	A	Sidechain
34	BA	1631	U	Sidechain
34	BA	1632	G	Sidechain
34	BA	1633	C	Sidechain
34	BA	1634	A	Sidechain
34	BA	1636	C	Sidechain
34	BA	1637	G	Sidechain
34	BA	1638	U	Sidechain
34	BA	1639	U	Sidechain
34	BA	1640	G	Sidechain
34	BA	1641	G	Sidechain
34	BA	1642	A	Sidechain
34	BA	1643	U	Sidechain
34	BA	1646	U	Sidechain
34	BA	1647	G	Sidechain
34	BA	1648	G	Sidechain
34	BA	1649	A	Sidechain
34	BA	1650	G	Sidechain
34	BA	1652	G	Sidechain
34	BA	1653	G	Sidechain
34	BA	1654	G	Sidechain
34	BA	1655	G	Sidechain
34	BA	1659	G	Sidechain
34	BA	166	G	Sidechain
34	BA	1660	A	Sidechain
34	BA	1661	U	Sidechain
34	BA	1662	U	Sidechain
34	BA	1663	U	Sidechain
34	BA	1664	C	Sidechain
34	BA	1666	U	Sidechain
34	BA	1668	C	Sidechain
34	BA	1669	C	Sidechain
34	BA	167	U	Sidechain
34	BA	1671	A	Sidechain
34	BA	1672	C	Sidechain
34	BA	1673	G	Sidechain
34	BA	1674	G	Sidechain
34	BA	1675	C	Sidechain
34	BA	1676	A	Sidechain
34	BA	1677	C	Sidechain
34	BA	1678	U	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1679	C	Sidechain
34	BA	168	U	Sidechain
34	BA	1680	G	Sidechain
34	BA	1681	U	Sidechain
34	BA	1683	C	Sidechain
34	BA	1684	A	Sidechain
34	BA	1685	C	Sidechain
34	BA	1686	G	Sidechain
34	BA	1687	A	Sidechain
34	BA	1688	G	Sidechain
34	BA	1689	U	Sidechain
34	BA	1690	U	Sidechain
34	BA	1691	G	Sidechain
34	BA	1692	U	Sidechain
34	BA	1693	U	Sidechain
34	BA	1694	C	Sidechain
34	BA	1695	G	Sidechain
34	BA	1696	G	Sidechain
34	BA	1697	U	Sidechain
34	BA	1699	A	Sidechain
34	BA	17	A	Sidechain
34	BA	170	U	Sidechain
34	BA	1700	C	Sidechain
34	BA	1701	U	Sidechain
34	BA	1702	G	Sidechain
34	BA	1703	A	Sidechain
34	BA	1704	G	Sidechain
34	BA	1705	C	Sidechain
34	BA	1707	C	Sidechain
34	BA	1708	A	Sidechain
34	BA	1709	A	Sidechain
34	BA	171	U	Sidechain
34	BA	1710	C	Sidechain
34	BA	1711	G	Sidechain
34	BA	1712	U	Sidechain
34	BA	1713	U	Sidechain
34	BA	1716	A	Sidechain
34	BA	1718	C	Sidechain
34	BA	1719	G	Sidechain
34	BA	1720	U	Sidechain
34	BA	1721	U	Sidechain
34	BA	1722	U	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1723	U	Sidechain
34	BA	1724	G	Sidechain
34	BA	1726	U	Sidechain
34	BA	1727	A	Sidechain
34	BA	1728	G	Sidechain
34	BA	1729	G	Sidechain
34	BA	173	U	Sidechain
34	BA	1730	A	Sidechain
34	BA	1731	A	Sidechain
34	BA	1732	A	Sidechain
34	BA	1733	G	Sidechain
34	BA	1734	U	Sidechain
34	BA	1735	G	Sidechain
34	BA	1738	G	Sidechain
34	BA	1739	G	Sidechain
34	BA	174	A	Sidechain
34	BA	1740	U	Sidechain
34	BA	1741	G	Sidechain
34	BA	1742	G	Sidechain
34	BA	1743	U	Sidechain
34	BA	1744	C	Sidechain
34	BA	1745	G	Sidechain
34	BA	1746	G	Sidechain
34	BA	1747	C	Sidechain
34	BA	1748	G	Sidechain
34	BA	175	G	Sidechain
34	BA	1754	C	Sidechain
34	BA	1756	C	Sidechain
34	BA	1759	U	Sidechain
34	BA	1765	G	Sidechain
34	BA	177	G	Sidechain
34	BA	1771	U	Sidechain
34	BA	1772	G	Sidechain
34	BA	1775	U	Sidechain
34	BA	1779	U	Sidechain
34	BA	178	C	Sidechain
34	BA	1780	U	Sidechain
34	BA	1781	A	Sidechain
34	BA	1783	C	Sidechain
34	BA	1784	G	Sidechain
34	BA	1785	G	Sidechain
34	BA	1786	C	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1787	U	Sidechain
34	BA	1788	U	Sidechain
34	BA	179	U	Sidechain
34	BA	1790	U	Sidechain
34	BA	1792	U	Sidechain
34	BA	1793	G	Sidechain
34	BA	1795	A	Sidechain
34	BA	1796	A	Sidechain
34	BA	1797	A	Sidechain
34	BA	1798	G	Sidechain
34	BA	1799	G	Sidechain
34	BA	18	G	Sidechain
34	BA	180	G	Sidechain
34	BA	1800	G	Sidechain
34	BA	1801	G	Sidechain
34	BA	1802	C	Sidechain
34	BA	1803	A	Sidechain
34	BA	1806	A	Sidechain
34	BA	1807	G	Sidechain
34	BA	1808	A	Sidechain
34	BA	1809	G	Sidechain
34	BA	181	G	Sidechain
34	BA	1814	U	Sidechain
34	BA	1815	G	Sidechain
34	BA	1816	G	Sidechain
34	BA	1817	G	Sidechain
34	BA	1818	A	Sidechain
34	BA	1819	U	Sidechain
34	BA	182	U	Sidechain
34	BA	1820	G	Sidechain
34	BA	1821	A	Sidechain
34	BA	1822	U	Sidechain
34	BA	1823	A	Sidechain
34	BA	1824	U	Sidechain
34	BA	1825	U	Sidechain
34	BA	1826	C	Sidechain
34	BA	1827	C	Sidechain
34	BA	1828	A	Sidechain
34	BA	1829	A	Sidechain
34	BA	183	G	Sidechain
34	BA	1831	A	Sidechain
34	BA	1833	G	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1834	A	Sidechain
34	BA	1836	A	Sidechain
34	BA	1837	U	Sidechain
34	BA	1838	U	Sidechain
34	BA	1839	G	Sidechain
34	BA	1841	A	Sidechain
34	BA	1842	U	Sidechain
34	BA	1844	U	Sidechain
34	BA	1845	G	Sidechain
34	BA	1846	G	Sidechain
34	BA	1847	G	Sidechain
34	BA	185	A	Sidechain
34	BA	186	G	Sidechain
34	BA	188	C	Sidechain
34	BA	189	G	Sidechain
34	BA	19	G	Sidechain
34	BA	190	U	Sidechain
34	BA	192	G	Sidechain
34	BA	193	C	Sidechain
34	BA	194	G	Sidechain
34	BA	195	G	Sidechain
34	BA	197	A	Sidechain
34	BA	198	U	Sidechain
34	BA	199	U	Sidechain
34	BA	2	A	Sidechain
34	BA	20	A	Sidechain
34	BA	201	A	Sidechain
34	BA	202	A	Sidechain
34	BA	203	U	Sidechain
34	BA	204	U	Sidechain
34	BA	205	G	Sidechain
34	BA	206	C	Sidechain
34	BA	207	A	Sidechain
34	BA	208	A	Sidechain
34	BA	209	A	Sidechain
34	BA	21	C	Sidechain
34	BA	210	G	Sidechain
34	BA	211	C	Sidechain
34	BA	212	A	Sidechain
34	BA	213	A	Sidechain
34	BA	214	A	Sidechain
34	BA	215	C	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	216	C	Sidechain
34	BA	217	C	Sidechain
34	BA	218	G	Sidechain
34	BA	22	C	Sidechain
34	BA	220	U	Sidechain
34	BA	221	G	Sidechain
34	BA	222	C	Sidechain
34	BA	224	G	Sidechain
34	BA	225	A	Sidechain
34	BA	226	A	Sidechain
34	BA	227	C	Sidechain
34	BA	228	A	Sidechain
34	BA	229	C	Sidechain
34	BA	23	A	Sidechain
34	BA	230	A	Sidechain
34	BA	231	U	Sidechain
34	BA	232	U	Sidechain
34	BA	233	U	Sidechain
34	BA	235	C	Sidechain
34	BA	236	A	Sidechain
34	BA	237	A	Sidechain
34	BA	238	C	Sidechain
34	BA	24	C	Sidechain
34	BA	240	C	Sidechain
34	BA	241	U	Sidechain
34	BA	242	U	Sidechain
34	BA	243	C	Sidechain
34	BA	244	A	Sidechain
34	BA	245	U	Sidechain
34	BA	246	G	Sidechain
34	BA	247	U	Sidechain
34	BA	248	G	Sidechain
34	BA	249	A	Sidechain
34	BA	25	C	Sidechain
34	BA	250	G	Sidechain
34	BA	251	U	Sidechain
34	BA	252	A	Sidechain
34	BA	253	U	Sidechain
34	BA	254	U	Sidechain
34	BA	255	G	Sidechain
34	BA	256	A	Sidechain
34	BA	257	G	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	259	C	Sidechain
34	BA	26	C	Sidechain
34	BA	260	A	Sidechain
34	BA	261	A	Sidechain
34	BA	262	A	Sidechain
34	BA	263	G	Sidechain
34	BA	264	A	Sidechain
34	BA	265	A	Sidechain
34	BA	266	G	Sidechain
34	BA	267	G	Sidechain
34	BA	268	U	Sidechain
34	BA	269	G	Sidechain
34	BA	270	U	Sidechain
34	BA	271	C	Sidechain
34	BA	273	G	Sidechain
34	BA	275	C	Sidechain
34	BA	277	A	Sidechain
34	BA	278	U	Sidechain
34	BA	279	U	Sidechain
34	BA	280	A	Sidechain
34	BA	281	C	Sidechain
34	BA	282	A	Sidechain
34	BA	283	U	Sidechain
34	BA	284	U	Sidechain
34	BA	285	C	Sidechain
34	BA	286	C	Sidechain
34	BA	288	U	Sidechain
34	BA	289	A	Sidechain
34	BA	29	U	Sidechain
34	BA	290	G	Sidechain
34	BA	291	C	Sidechain
34	BA	293	A	Sidechain
34	BA	294	C	Sidechain
34	BA	295	G	Sidechain
34	BA	296	G	Sidechain
34	BA	297	A	Sidechain
34	BA	298	G	Sidechain
34	BA	299	C	Sidechain
34	BA	3	G	Sidechain
34	BA	30	A	Sidechain
34	BA	300	C	Sidechain
34	BA	301	U	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	302	A	Sidechain
34	BA	303	C	Sidechain
34	BA	304	G	Sidechain
34	BA	309	U	Sidechain
34	BA	31	A	Sidechain
34	BA	312	U	Sidechain
34	BA	313	C	Sidechain
34	BA	314	A	Sidechain
34	BA	315	U	Sidechain
34	BA	316	G	Sidechain
34	BA	318	U	Sidechain
34	BA	319	C	Sidechain
34	BA	32	A	Sidechain
34	BA	320	G	Sidechain
34	BA	321	G	Sidechain
34	BA	322	U	Sidechain
34	BA	323	C	Sidechain
34	BA	324	C	Sidechain
34	BA	325	A	Sidechain
34	BA	326	A	Sidechain
34	BA	327	G	Sidechain
34	BA	328	A	Sidechain
34	BA	329	G	Sidechain
34	BA	331	G	Sidechain
34	BA	332	U	Sidechain
34	BA	334	G	Sidechain
34	BA	335	C	Sidechain
34	BA	336	A	Sidechain
34	BA	338	U	Sidechain
34	BA	339	G	Sidechain
34	BA	34	U	Sidechain
34	BA	340	U	Sidechain
34	BA	341	U	Sidechain
34	BA	342	U	Sidechain
34	BA	343	G	Sidechain
34	BA	344	G	Sidechain
34	BA	345	G	Sidechain
34	BA	348	U	Sidechain
34	BA	349	G	Sidechain
34	BA	35	U	Sidechain
34	BA	352	G	Sidechain
34	BA	353	U	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	355	U	Sidechain
34	BA	358	A	Sidechain
34	BA	359	G	Sidechain
34	BA	36	A	Sidechain
34	BA	360	C	Sidechain
34	BA	361	C	Sidechain
34	BA	362	G	Sidechain
34	BA	363	G	Sidechain
34	BA	364	C	Sidechain
34	BA	365	A	Sidechain
34	BA	366	G	Sidechain
34	BA	367	G	Sidechain
34	BA	368	U	Sidechain
34	BA	369	A	Sidechain
34	BA	370	U	Sidechain
34	BA	371	U	Sidechain
34	BA	372	U	Sidechain
34	BA	376	U	Sidechain
34	BA	377	G	Sidechain
34	BA	378	C	Sidechain
34	BA	379	C	Sidechain
34	BA	38	G	Sidechain
34	BA	382	G	Sidechain
34	BA	383	G	Sidechain
34	BA	384	U	Sidechain
34	BA	385	U	Sidechain
34	BA	386	A	Sidechain
34	BA	387	A	Sidechain
34	BA	388	A	Sidechain
34	BA	39	C	Sidechain
34	BA	390	A	Sidechain
34	BA	391	U	Sidechain
34	BA	393	G	Sidechain
34	BA	395	G	Sidechain
34	BA	396	U	Sidechain
34	BA	397	A	Sidechain
34	BA	398	G	Sidechain
34	BA	399	G	Sidechain
34	BA	400	A	Sidechain
34	BA	401	A	Sidechain
34	BA	402	G	Sidechain
34	BA	403	A	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	405	C	Sidechain
34	BA	406	G	Sidechain
34	BA	407	A	Sidechain
34	BA	408	U	Sidechain
34	BA	409	A	Sidechain
34	BA	41	U	Sidechain
34	BA	410	G	Sidechain
34	BA	411	C	Sidechain
34	BA	413	A	Sidechain
34	BA	415	C	Sidechain
34	BA	416	A	Sidechain
34	BA	417	A	Sidechain
34	BA	418	G	Sidechain
34	BA	419	U	Sidechain
34	BA	42	A	Sidechain
34	BA	420	A	Sidechain
34	BA	422	C	Sidechain
34	BA	423	G	Sidechain
34	BA	424	U	Sidechain
34	BA	425	G	Sidechain
34	BA	426	A	Sidechain
34	BA	427	G	Sidechain
34	BA	429	G	Sidechain
34	BA	43	U	Sidechain
34	BA	431	A	Sidechain
34	BA	433	G	Sidechain
34	BA	434	U	Sidechain
34	BA	435	U	Sidechain
34	BA	436	U	Sidechain
34	BA	437	G	Sidechain
34	BA	438	A	Sidechain
34	BA	441	A	Sidechain
34	BA	442	G	Sidechain
34	BA	443	U	Sidechain
34	BA	445	C	Sidechain
34	BA	446	U	Sidechain
34	BA	448	U	Sidechain
34	BA	449	G	Sidechain
34	BA	453	A	Sidechain
34	BA	454	G	Sidechain
34	BA	455	A	Sidechain
34	BA	457	A	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	458	G	Sidechain
34	BA	46	C	Sidechain
34	BA	460	G	Sidechain
34	BA	462	C	Sidechain
34	BA	463	A	Sidechain
34	BA	464	U	Sidechain
34	BA	466	G	Sidechain
34	BA	467	A	Sidechain
34	BA	469	C	Sidechain
34	BA	471	U	Sidechain
34	BA	472	G	Sidechain
34	BA	473	A	Sidechain
34	BA	474	A	Sidechain
34	BA	475	A	Sidechain
34	BA	476	U	Sidechain
34	BA	477	C	Sidechain
34	BA	478	G	Sidechain
34	BA	479	U	Sidechain
34	BA	48	C	Sidechain
34	BA	480	G	Sidechain
34	BA	481	A	Sidechain
34	BA	484	A	Sidechain
34	BA	485	C	Sidechain
34	BA	486	G	Sidechain
34	BA	488	C	Sidechain
34	BA	49	A	Sidechain
34	BA	490	A	Sidechain
34	BA	491	U	Sidechain
34	BA	492	G	Sidechain
34	BA	495	A	Sidechain
34	BA	496	G	Sidechain
34	BA	498	A	Sidechain
34	BA	499	C	Sidechain
34	BA	500	C	Sidechain
34	BA	501	U	Sidechain
34	BA	502	U	Sidechain
34	BA	503	C	Sidechain
34	BA	504	A	Sidechain
34	BA	505	U	Sidechain
34	BA	506	U	Sidechain
34	BA	507	U	Sidechain
34	BA	51	C	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	510	U	Sidechain
34	BA	511	U	Sidechain
34	BA	512	U	Sidechain
34	BA	513	U	Sidechain
34	BA	514	U	Sidechain
34	BA	515	U	Sidechain
34	BA	516	U	Sidechain
34	BA	517	A	Sidechain
34	BA	518	C	Sidechain
34	BA	519	G	Sidechain
34	BA	52	G	Sidechain
34	BA	520	G	Sidechain
34	BA	521	C	Sidechain
34	BA	522	C	Sidechain
34	BA	523	A	Sidechain
34	BA	525	A	Sidechain
34	BA	526	C	Sidechain
34	BA	527	C	Sidechain
34	BA	528	C	Sidechain
34	BA	529	A	Sidechain
34	BA	53	G	Sidechain
34	BA	530	A	Sidechain
34	BA	531	C	Sidechain
34	BA	532	C	Sidechain
34	BA	533	U	Sidechain
34	BA	534	C	Sidechain
34	BA	535	G	Sidechain
34	BA	537	C	Sidechain
34	BA	538	G	Sidechain
34	BA	539	C	Sidechain
34	BA	540	G	Sidechain
34	BA	541	C	Sidechain
34	BA	542	A	Sidechain
34	BA	543	A	Sidechain
34	BA	544	U	Sidechain
34	BA	546	U	Sidechain
34	BA	548	G	Sidechain
34	BA	549	G	Sidechain
34	BA	55	G	Sidechain
34	BA	550	U	Sidechain
34	BA	555	C	Sidechain
34	BA	556	A	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	557	U	Sidechain
34	BA	559	C	Sidechain
34	BA	56	G	Sidechain
34	BA	560	U	Sidechain
34	BA	563	A	Sidechain
34	BA	564	C	Sidechain
34	BA	565	U	Sidechain
34	BA	566	G	Sidechain
34	BA	567	U	Sidechain
34	BA	568	G	Sidechain
34	BA	569	C	Sidechain
34	BA	57	A	Sidechain
34	BA	570	G	Sidechain
34	BA	571	G	Sidechain
34	BA	572	G	Sidechain
34	BA	573	U	Sidechain
34	BA	574	U	Sidechain
34	BA	575	U	Sidechain
34	BA	578	C	Sidechain
34	BA	579	U	Sidechain
34	BA	58	A	Sidechain
34	BA	581	U	Sidechain
34	BA	582	U	Sidechain
34	BA	583	G	Sidechain
34	BA	584	A	Sidechain
34	BA	585	G	Sidechain
34	BA	586	G	Sidechain
34	BA	588	C	Sidechain
34	BA	589	A	Sidechain
34	BA	59	A	Sidechain
34	BA	590	U	Sidechain
34	BA	591	G	Sidechain
34	BA	592	G	Sidechain
34	BA	593	G	Sidechain
34	BA	594	G	Sidechain
34	BA	595	U	Sidechain
34	BA	596	G	Sidechain
34	BA	597	C	Sidechain
34	BA	598	G	Sidechain
34	BA	599	U	Sidechain
34	BA	6	C	Sidechain
34	BA	60	A	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	600	G	Sidechain
34	BA	601	A	Sidechain
34	BA	602	G	Sidechain
34	BA	605	G	Sidechain
34	BA	606	G	Sidechain
34	BA	607	C	Sidechain
34	BA	608	G	Sidechain
34	BA	61	G	Sidechain
34	BA	610	A	Sidechain
34	BA	611	A	Sidechain
34	BA	613	A	Sidechain
34	BA	615	A	Sidechain
34	BA	616	G	Sidechain
34	BA	621	G	Sidechain
34	BA	622	G	Sidechain
34	BA	623	U	Sidechain
34	BA	624	G	Sidechain
34	BA	625	U	Sidechain
34	BA	626	G	Sidechain
34	BA	627	U	Sidechain
34	BA	628	U	Sidechain
34	BA	629	G	Sidechain
34	BA	63	A	Sidechain
34	BA	630	U	Sidechain
34	BA	631	G	Sidechain
34	BA	633	G	Sidechain
34	BA	641	U	Sidechain
34	BA	649	A	Sidechain
34	BA	651	U	Sidechain
34	BA	652	C	Sidechain
34	BA	653	U	Sidechain
34	BA	654	C	Sidechain
34	BA	656	U	Sidechain
34	BA	657	C	Sidechain
34	BA	659	U	Sidechain
34	BA	660	C	Sidechain
34	BA	661	C	Sidechain
34	BA	662	U	Sidechain
34	BA	663	U	Sidechain
34	BA	664	C	Sidechain
34	BA	665	C	Sidechain
34	BA	666	C	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	667	U	Sidechain
34	BA	668	G	Sidechain
34	BA	669	U	Sidechain
34	BA	67	A	Sidechain
34	BA	670	U	Sidechain
34	BA	671	C	Sidechain
34	BA	672	G	Sidechain
34	BA	673	U	Sidechain
34	BA	674	G	Sidechain
34	BA	675	C	Sidechain
34	BA	676	G	Sidechain
34	BA	677	U	Sidechain
34	BA	678	C	Sidechain
34	BA	679	U	Sidechain
34	BA	68	A	Sidechain
34	BA	680	C	Sidechain
34	BA	681	G	Sidechain
34	BA	682	A	Sidechain
34	BA	683	C	Sidechain
34	BA	684	G	Sidechain
34	BA	685	C	Sidechain
34	BA	686	U	Sidechain
34	BA	687	G	Sidechain
34	BA	688	G	Sidechain
34	BA	689	C	Sidechain
34	BA	69	C	Sidechain
34	BA	690	G	Sidechain
34	BA	691	A	Sidechain
34	BA	692	U	Sidechain
34	BA	693	G	Sidechain
34	BA	695	A	Sidechain
34	BA	696	A	Sidechain
34	BA	697	A	Sidechain
34	BA	699	G	Sidechain
34	BA	7	U	Sidechain
34	BA	70	C	Sidechain
34	BA	700	G	Sidechain
34	BA	701	G	Sidechain
34	BA	703	U	Sidechain
34	BA	704	G	Sidechain
34	BA	705	C	Sidechain
34	BA	706	C	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	707	C	Sidechain
34	BA	708	C	Sidechain
34	BA	709	C	Sidechain
34	BA	71	G	Sidechain
34	BA	710	A	Sidechain
34	BA	711	C	Sidechain
34	BA	712	C	Sidechain
34	BA	713	C	Sidechain
34	BA	714	G	Sidechain
34	BA	715	U	Sidechain
34	BA	716	C	Sidechain
34	BA	717	U	Sidechain
34	BA	718	U	Sidechain
34	BA	719	G	Sidechain
34	BA	72	U	Sidechain
34	BA	721	A	Sidechain
34	BA	723	C	Sidechain
34	BA	725	C	Sidechain
34	BA	726	G	Sidechain
34	BA	727	G	Sidechain
34	BA	728	A	Sidechain
34	BA	73	G	Sidechain
34	BA	730	C	Sidechain
34	BA	731	A	Sidechain
34	BA	732	A	Sidechain
34	BA	733	G	Sidechain
34	BA	736	G	Sidechain
34	BA	738	C	Sidechain
34	BA	739	A	Sidechain
34	BA	740	A	Sidechain
34	BA	741	A	Sidechain
34	BA	742	C	Sidechain
34	BA	743	A	Sidechain
34	BA	744	G	Sidechain
34	BA	745	A	Sidechain
34	BA	746	C	Sidechain
34	BA	747	G	Sidechain
34	BA	75	U	Sidechain
34	BA	751	A	Sidechain
34	BA	753	G	Sidechain
34	BA	755	G	Sidechain
34	BA	756	A	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	757	G	Sidechain
34	BA	758	G	Sidechain
34	BA	759	A	Sidechain
34	BA	76	U	Sidechain
34	BA	761	U	Sidechain
34	BA	762	A	Sidechain
34	BA	763	U	Sidechain
34	BA	764	G	Sidechain
34	BA	765	U	Sidechain
34	BA	766	A	Sidechain
34	BA	767	U	Sidechain
34	BA	769	U	Sidechain
34	BA	77	C	Sidechain
34	BA	770	G	Sidechain
34	BA	771	A	Sidechain
34	BA	772	G	Sidechain
34	BA	773	A	Sidechain
34	BA	774	A	Sidechain
34	BA	775	C	Sidechain
34	BA	776	U	Sidechain
34	BA	777	C	Sidechain
34	BA	779	U	Sidechain
34	BA	78	U	Sidechain
34	BA	780	U	Sidechain
34	BA	781	U	Sidechain
34	BA	782	C	Sidechain
34	BA	783	U	Sidechain
34	BA	785	G	Sidechain
34	BA	786	U	Sidechain
34	BA	787	A	Sidechain
34	BA	788	C	Sidechain
34	BA	789	U	Sidechain
34	BA	79	C	Sidechain
34	BA	790	G	Sidechain
34	BA	792	A	Sidechain
34	BA	794	G	Sidechain
34	BA	796	G	Sidechain
34	BA	798	G	Sidechain
34	BA	799	A	Sidechain
34	BA	8	G	Sidechain
34	BA	80	U	Sidechain
34	BA	800	G	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	801	U	Sidechain
34	BA	802	G	Sidechain
34	BA	803	U	Sidechain
34	BA	804	G	Sidechain
34	BA	805	A	Sidechain
34	BA	806	U	Sidechain
34	BA	807	U	Sidechain
34	BA	808	U	Sidechain
34	BA	812	A	Sidechain
34	BA	814	C	Sidechain
34	BA	815	C	Sidechain
34	BA	816	G	Sidechain
34	BA	817	U	Sidechain
34	BA	819	G	Sidechain
34	BA	82	A	Sidechain
34	BA	820	C	Sidechain
34	BA	821	G	Sidechain
34	BA	822	U	Sidechain
34	BA	823	G	Sidechain
34	BA	824	C	Sidechain
34	BA	825	G	Sidechain
34	BA	828	A	Sidechain
34	BA	829	U	Sidechain
34	BA	83	G	Sidechain
34	BA	830	U	Sidechain
34	BA	832	C	Sidechain
34	BA	833	U	Sidechain
34	BA	834	C	Sidechain
34	BA	835	U	Sidechain
34	BA	836	U	Sidechain
34	BA	837	U	Sidechain
34	BA	838	U	Sidechain
34	BA	839	U	Sidechain
34	BA	84	U	Sidechain
34	BA	840	U	Sidechain
34	BA	842	U	Sidechain
34	BA	844	U	Sidechain
34	BA	845	U	Sidechain
34	BA	847	U	Sidechain
34	BA	848	U	Sidechain
34	BA	849	G	Sidechain
34	BA	852	C	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	853	A	Sidechain
34	BA	854	A	Sidechain
34	BA	855	C	Sidechain
34	BA	858	C	Sidechain
34	BA	859	G	Sidechain
34	BA	86	A	Sidechain
34	BA	860	G	Sidechain
34	BA	862	C	Sidechain
34	BA	863	G	Sidechain
34	BA	864	G	Sidechain
34	BA	87	G	Sidechain
34	BA	870	C	Sidechain
34	BA	871	G	Sidechain
34	BA	872	U	Sidechain
34	BA	873	G	Sidechain
34	BA	874	G	Sidechain
34	BA	875	G	Sidechain
34	BA	876	C	Sidechain
34	BA	877	U	Sidechain
34	BA	878	G	Sidechain
34	BA	879	C	Sidechain
34	BA	88	C	Sidechain
34	BA	880	G	Sidechain
34	BA	882	G	Sidechain
34	BA	883	C	Sidechain
34	BA	884	G	Sidechain
34	BA	886	G	Sidechain
34	BA	887	U	Sidechain
34	BA	889	U	Sidechain
34	BA	89	G	Sidechain
34	BA	890	G	Sidechain
34	BA	893	U	Sidechain
34	BA	894	G	Sidechain
34	BA	895	U	Sidechain
34	BA	896	U	Sidechain
34	BA	897	U	Sidechain
34	BA	898	G	Sidechain
34	BA	899	G	Sidechain
34	BA	9	A	Sidechain
34	BA	90	G	Sidechain
34	BA	900	A	Sidechain
34	BA	901	C	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	902	C	Sidechain
34	BA	903	C	Sidechain
34	BA	904	G	Sidechain
34	BA	905	A	Sidechain
34	BA	906	A	Sidechain
34	BA	909	G	Sidechain
34	BA	91	C	Sidechain
34	BA	910	U	Sidechain
34	BA	912	G	Sidechain
34	BA	913	U	Sidechain
34	BA	914	G	Sidechain
34	BA	915	A	Sidechain
34	BA	916	A	Sidechain
34	BA	917	C	Sidechain
34	BA	918	U	Sidechain
34	BA	919	A	Sidechain
34	BA	92	G	Sidechain
34	BA	920	U	Sidechain
34	BA	921	G	Sidechain
34	BA	923	C	Sidechain
34	BA	924	U	Sidechain
34	BA	925	G	Sidechain
34	BA	926	A	Sidechain
34	BA	928	C	Sidechain
34	BA	929	A	Sidechain
34	BA	93	A	Sidechain
34	BA	930	A	Sidechain
34	BA	931	G	Sidechain
34	BA	932	G	Sidechain
34	BA	933	U	Sidechain
34	BA	934	G	Sidechain
34	BA	937	G	Sidechain
34	BA	939	C	Sidechain
34	BA	94	G	Sidechain
34	BA	940	C	Sidechain
34	BA	941	G	Sidechain
34	BA	942	G	Sidechain
34	BA	944	G	Sidechain
34	BA	945	A	Sidechain
34	BA	946	A	Sidechain
34	BA	947	A	Sidechain
34	BA	95	C	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	950	C	Sidechain
34	BA	952	G	Sidechain
34	BA	953	G	Sidechain
34	BA	954	U	Sidechain
34	BA	956	G	Sidechain
34	BA	957	A	Sidechain
34	BA	959	G	Sidechain
34	BA	96	G	Sidechain
34	BA	960	C	Sidechain
34	BA	961	C	Sidechain
34	BA	962	U	Sidechain
34	BA	963	G	Sidechain
34	BA	964	U	Sidechain
34	BA	965	A	Sidechain
34	BA	968	G	Sidechain
34	BA	97	A	Sidechain
34	BA	970	U	Sidechain
34	BA	972	C	Sidechain
34	BA	974	G	Sidechain
34	BA	975	A	Sidechain
34	BA	976	C	Sidechain
34	BA	977	G	Sidechain
34	BA	98	A	Sidechain
34	BA	980	C	Sidechain
34	BA	982	A	Sidechain
34	BA	984	U	Sidechain
34	BA	985	C	Sidechain
34	BA	986	G	Sidechain
34	BA	987	C	Sidechain
34	BA	99	G	Sidechain
34	BA	991	U	Sidechain
34	BA	992	A	Sidechain
34	BA	993	C	Sidechain
34	BA	994	G	Sidechain
34	BA	996	U	Sidechain
34	BA	997	U	Sidechain
34	BA	998	U	Sidechain
34	BA	999	G	Sidechain
35	BB	1	U	Sidechain
35	BB	100	A	Sidechain
35	BB	1001	G	Sidechain
35	BB	1003	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	1004	A	Sidechain
35	BB	1005	A	Sidechain
35	BB	1007	U	Sidechain
35	BB	101	U	Sidechain
35	BB	1012	G	Sidechain
35	BB	1014	U	Sidechain
35	BB	1015	U	Sidechain
35	BB	1016	C	Sidechain
35	BB	1017	U	Sidechain
35	BB	1018	U	Sidechain
35	BB	1019	C	Sidechain
35	BB	102	G	Sidechain
35	BB	1020	U	Sidechain
35	BB	1021	C	Sidechain
35	BB	1022	C	Sidechain
35	BB	1023	G	Sidechain
35	BB	1024	G	Sidechain
35	BB	1025	A	Sidechain
35	BB	1026	G	Sidechain
35	BB	1027	U	Sidechain
35	BB	1028	C	Sidechain
35	BB	1029	U	Sidechain
35	BB	1030	U	Sidechain
35	BB	1031	G	Sidechain
35	BB	1032	U	Sidechain
35	BB	1033	U	Sidechain
35	BB	1034	U	Sidechain
35	BB	1035	C	Sidechain
35	BB	1036	G	Sidechain
35	BB	1037	A	Sidechain
35	BB	1038	G	Sidechain
35	BB	104	G	Sidechain
35	BB	1040	C	Sidechain
35	BB	1041	A	Sidechain
35	BB	1042	U	Sidechain
35	BB	1044	U	Sidechain
35	BB	1045	G	Sidechain
35	BB	1048	A	Sidechain
35	BB	1049	G	Sidechain
35	BB	105	U	Sidechain
35	BB	1051	U	Sidechain
35	BB	1053	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	1054	G	Sidechain
35	BB	1055	G	Sidechain
35	BB	1056	A	Sidechain
35	BB	1057	G	Sidechain
35	BB	1058	U	Sidechain
35	BB	1059	U	Sidechain
35	BB	1060	U	Sidechain
35	BB	1062	G	Sidechain
35	BB	1063	C	Sidechain
35	BB	1064	U	Sidechain
35	BB	1066	G	Sidechain
35	BB	1068	G	Sidechain
35	BB	1070	G	Sidechain
35	BB	1071	G	Sidechain
35	BB	1072	C	Sidechain
35	BB	1073	A	Sidechain
35	BB	1074	U	Sidechain
35	BB	1075	A	Sidechain
35	BB	1078	U	Sidechain
35	BB	1079	G	Sidechain
35	BB	108	G	Sidechain
35	BB	1081	U	Sidechain
35	BB	1082	A	Sidechain
35	BB	1083	C	Sidechain
35	BB	1084	A	Sidechain
35	BB	1085	C	Sidechain
35	BB	1086	G	Sidechain
35	BB	1087	A	Sidechain
35	BB	1088	C	Sidechain
35	BB	109	U	Sidechain
35	BB	1090	A	Sidechain
35	BB	1092	G	Sidechain
35	BB	1093	C	Sidechain
35	BB	1094	A	Sidechain
35	BB	1095	G	Sidechain
35	BB	1097	U	Sidechain
35	BB	1098	G	Sidechain
35	BB	1099	U	Sidechain
35	BB	110	U	Sidechain
35	BB	1100	C	Sidechain
35	BB	1102	U	Sidechain
35	BB	1103	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	1104	A	Sidechain
35	BB	1105	G	Sidechain
35	BB	1106	G	Sidechain
35	BB	1107	C	Sidechain
35	BB	1108	G	Sidechain
35	BB	1109	A	Sidechain
35	BB	111	C	Sidechain
35	BB	1110	G	Sidechain
35	BB	1112	U	Sidechain
35	BB	1114	A	Sidechain
35	BB	1115	G	Sidechain
35	BB	1116	U	Sidechain
35	BB	112	G	Sidechain
35	BB	1120	A	Sidechain
35	BB	1122	C	Sidechain
35	BB	1123	A	Sidechain
35	BB	1124	G	Sidechain
35	BB	1125	A	Sidechain
35	BB	1126	A	Sidechain
35	BB	1128	U	Sidechain
35	BB	1129	C	Sidechain
35	BB	1130	U	Sidechain
35	BB	1131	C	Sidechain
35	BB	1132	A	Sidechain
35	BB	1134	G	Sidechain
35	BB	1136	G	Sidechain
35	BB	1137	G	Sidechain
35	BB	1138	A	Sidechain
35	BB	114	A	Sidechain
35	BB	1140	C	Sidechain
35	BB	1142	C	Sidechain
35	BB	1143	A	Sidechain
35	BB	1144	A	Sidechain
35	BB	1145	G	Sidechain
35	BB	1148	U	Sidechain
35	BB	1149	A	Sidechain
35	BB	115	A	Sidechain
35	BB	1151	A	Sidechain
35	BB	1152	U	Sidechain
35	BB	1153	G	Sidechain
35	BB	1154	C	Sidechain
35	BB	1155	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	1156	U	Sidechain
35	BB	1159	U	Sidechain
35	BB	116	G	Sidechain
35	BB	1160	U	Sidechain
35	BB	1161	G	Sidechain
35	BB	1163	U	Sidechain
35	BB	1164	U	Sidechain
35	BB	1165	A	Sidechain
35	BB	1166	A	Sidechain
35	BB	1167	C	Sidechain
35	BB	1168	G	Sidechain
35	BB	1169	A	Sidechain
35	BB	1170	U	Sidechain
35	BB	1172	U	Sidechain
35	BB	1174	C	Sidechain
35	BB	1175	A	Sidechain
35	BB	1177	U	Sidechain
35	BB	1178	A	Sidechain
35	BB	1180	G	Sidechain
35	BB	1181	A	Sidechain
35	BB	1183	U	Sidechain
35	BB	1184	C	Sidechain
35	BB	1185	G	Sidechain
35	BB	1186	A	Sidechain
35	BB	1187	G	Sidechain
35	BB	119	G	Sidechain
35	BB	1190	U	Sidechain
35	BB	1192	C	Sidechain
35	BB	1193	G	Sidechain
35	BB	1194	A	Sidechain
35	BB	1195	A	Sidechain
35	BB	1196	A	Sidechain
35	BB	1197	G	Sidechain
35	BB	12	G	Sidechain
35	BB	1200	A	Sidechain
35	BB	1201	G	Sidechain
35	BB	1202	G	Sidechain
35	BB	1203	C	Sidechain
35	BB	1205	A	Sidechain
35	BB	1207	C	Sidechain
35	BB	1208	G	Sidechain
35	BB	1209	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	121	A	Sidechain
35	BB	1210	U	Sidechain
35	BB	1211	C	Sidechain
35	BB	1212	C	Sidechain
35	BB	1213	U	Sidechain
35	BB	1214	U	Sidechain
35	BB	1215	U	Sidechain
35	BB	1216	G	Sidechain
35	BB	1217	C	Sidechain
35	BB	1218	G	Sidechain
35	BB	122	U	Sidechain
35	BB	1220	A	Sidechain
35	BB	1221	G	Sidechain
35	BB	1222	A	Sidechain
35	BB	1223	A	Sidechain
35	BB	1225	A	Sidechain
35	BB	1226	G	Sidechain
35	BB	1227	G	Sidechain
35	BB	1229	A	Sidechain
35	BB	123	U	Sidechain
35	BB	1230	A	Sidechain
35	BB	1232	A	Sidechain
35	BB	1233	U	Sidechain
35	BB	1234	G	Sidechain
35	BB	1236	A	Sidechain
35	BB	1240	A	Sidechain
35	BB	1241	U	Sidechain
35	BB	1243	A	Sidechain
35	BB	1244	U	Sidechain
35	BB	1246	C	Sidechain
35	BB	1248	A	Sidechain
35	BB	1249	G	Sidechain
35	BB	125	G	Sidechain
35	BB	1251	G	Sidechain
35	BB	1252	G	Sidechain
35	BB	1253	U	Sidechain
35	BB	1254	G	Sidechain
35	BB	1256	C	Sidechain
35	BB	1257	A	Sidechain
35	BB	1258	G	Sidechain
35	BB	1259	A	Sidechain
35	BB	1261	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	1262	A	Sidechain
35	BB	1265	U	Sidechain
35	BB	1266	A	Sidechain
35	BB	1267	C	Sidechain
35	BB	127	U	Sidechain
35	BB	1270	C	Sidechain
35	BB	1271	A	Sidechain
35	BB	1272	G	Sidechain
35	BB	1273	G	Sidechain
35	BB	1274	G	Sidechain
35	BB	1276	U	Sidechain
35	BB	1279	C	Sidechain
35	BB	128	C	Sidechain
35	BB	1280	U	Sidechain
35	BB	1281	G	Sidechain
35	BB	1282	G	Sidechain
35	BB	1283	C	Sidechain
35	BB	1284	U	Sidechain
35	BB	1285	U	Sidechain
35	BB	1286	G	Sidechain
35	BB	1287	U	Sidechain
35	BB	1289	G	Sidechain
35	BB	129	U	Sidechain
35	BB	1290	C	Sidechain
35	BB	1291	G	Sidechain
35	BB	1292	G	Sidechain
35	BB	1293	C	Sidechain
35	BB	1295	A	Sidechain
35	BB	1297	G	Sidechain
35	BB	1299	G	Sidechain
35	BB	13	A	Sidechain
35	BB	1300	U	Sidechain
35	BB	1301	U	Sidechain
35	BB	1302	C	Sidechain
35	BB	1304	U	Sidechain
35	BB	1305	A	Sidechain
35	BB	1307	C	Sidechain
35	BB	1310	C	Sidechain
35	BB	1312	U	Sidechain
35	BB	1315	C	Sidechain
35	BB	1316	U	Sidechain
35	BB	1317	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	1318	U	Sidechain
35	BB	1319	U	Sidechain
35	BB	132	G	Sidechain
35	BB	1320	U	Sidechain
35	BB	1321	G	Sidechain
35	BB	1323	U	Sidechain
35	BB	1324	C	Sidechain
35	BB	1326	U	Sidechain
35	BB	1327	U	Sidechain
35	BB	133	G	Sidechain
35	BB	1330	A	Sidechain
35	BB	1331	U	Sidechain
35	BB	1332	G	Sidechain
35	BB	1333	U	Sidechain
35	BB	1334	C	Sidechain
35	BB	1335	G	Sidechain
35	BB	1337	C	Sidechain
35	BB	1338	U	Sidechain
35	BB	1339	C	Sidechain
35	BB	1340	U	Sidechain
35	BB	1341	U	Sidechain
35	BB	1342	C	Sidechain
35	BB	1343	C	Sidechain
35	BB	1345	A	Sidechain
35	BB	1346	A	Sidechain
35	BB	1348	C	Sidechain
35	BB	135	C	Sidechain
35	BB	1350	A	Sidechain
35	BB	1353	G	Sidechain
35	BB	1354	C	Sidechain
35	BB	1356	G	Sidechain
35	BB	1357	C	Sidechain
35	BB	1360	A	Sidechain
35	BB	1361	A	Sidechain
35	BB	1362	G	Sidechain
35	BB	1364	C	Sidechain
35	BB	1367	U	Sidechain
35	BB	1368	A	Sidechain
35	BB	1369	A	Sidechain
35	BB	137	A	Sidechain
35	BB	1370	G	Sidechain
35	BB	1372	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	1374	U	Sidechain
35	BB	1375	G	Sidechain
35	BB	1376	G	Sidechain
35	BB	1377	A	Sidechain
35	BB	1378	U	Sidechain
35	BB	1379	U	Sidechain
35	BB	138	A	Sidechain
35	BB	1381	U	Sidechain
35	BB	1382	U	Sidechain
35	BB	1383	C	Sidechain
35	BB	1384	A	Sidechain
35	BB	1385	C	Sidechain
35	BB	1386	C	Sidechain
35	BB	1387	C	Sidechain
35	BB	1388	A	Sidechain
35	BB	139	G	Sidechain
35	BB	1390	U	Sidechain
35	BB	1391	G	Sidechain
35	BB	1392	A	Sidechain
35	BB	1393	C	Sidechain
35	BB	1394	A	Sidechain
35	BB	1395	G	Sidechain
35	BB	1396	G	Sidechain
35	BB	1397	G	Sidechain
35	BB	1399	A	Sidechain
35	BB	14	C	Sidechain
35	BB	1400	C	Sidechain
35	BB	1401	G	Sidechain
35	BB	1402	U	Sidechain
35	BB	1403	G	Sidechain
35	BB	1404	A	Sidechain
35	BB	1406	C	Sidechain
35	BB	1407	U	Sidechain
35	BB	1408	G	Sidechain
35	BB	1409	G	Sidechain
35	BB	1410	G	Sidechain
35	BB	1411	U	Sidechain
35	BB	1413	U	Sidechain
35	BB	1415	G	Sidechain
35	BB	1416	A	Sidechain
35	BB	1417	C	Sidechain
35	BB	1418	C	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	1419	G	Sidechain
35	BB	142	G	Sidechain
35	BB	1420	U	Sidechain
35	BB	1422	G	Sidechain
35	BB	1423	U	Sidechain
35	BB	1424	G	Sidechain
35	BB	1425	A	Sidechain
35	BB	1426	G	Sidechain
35	BB	1427	A	Sidechain
35	BB	1429	A	Sidechain
35	BB	143	G	Sidechain
35	BB	1430	G	Sidechain
35	BB	1432	U	Sidechain
35	BB	1433	U	Sidechain
35	BB	1434	G	Sidechain
35	BB	1435	G	Sidechain
35	BB	1436	U	Sidechain
35	BB	1437	U	Sidechain
35	BB	1438	U	Sidechain
35	BB	1439	U	Sidechain
35	BB	144	G	Sidechain
35	BB	1441	C	Sidechain
35	BB	1442	C	Sidechain
35	BB	1443	C	Sidechain
35	BB	1445	A	Sidechain
35	BB	1446	C	Sidechain
35	BB	1447	U	Sidechain
35	BB	1448	U	Sidechain
35	BB	1452	U	Sidechain
35	BB	1453	G	Sidechain
35	BB	1454	G	Sidechain
35	BB	1455	A	Sidechain
35	BB	1456	G	Sidechain
35	BB	1458	U	Sidechain
35	BB	1459	U	Sidechain
35	BB	1461	C	Sidechain
35	BB	1462	G	Sidechain
35	BB	1464	G	Sidechain
35	BB	1465	U	Sidechain
35	BB	1466	A	Sidechain
35	BB	1467	A	Sidechain
35	BB	1468	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	1469	A	Sidechain
35	BB	1470	G	Sidechain
35	BB	1472	U	Sidechain
35	BB	1473	U	Sidechain
35	BB	1474	A	Sidechain
35	BB	1475	U	Sidechain
35	BB	1477	C	Sidechain
35	BB	1478	G	Sidechain
35	BB	148	C	Sidechain
35	BB	1480	G	Sidechain
35	BB	1481	C	Sidechain
35	BB	1482	A	Sidechain
35	BB	1484	A	Sidechain
35	BB	1485	G	Sidechain
35	BB	1487	G	Sidechain
35	BB	1488	G	Sidechain
35	BB	1489	A	Sidechain
35	BB	149	A	Sidechain
35	BB	1490	G	Sidechain
35	BB	1492	C	Sidechain
35	BB	1494	G	Sidechain
35	BB	1495	U	Sidechain
35	BB	1496	C	Sidechain
35	BB	1497	C	Sidechain
35	BB	1498	G	Sidechain
35	BB	15	C	Sidechain
35	BB	1500	U	Sidechain
35	BB	1501	U	Sidechain
35	BB	1502	U	Sidechain
35	BB	1503	U	Sidechain
35	BB	1505	U	Sidechain
35	BB	1506	C	Sidechain
35	BB	1507	U	Sidechain
35	BB	1508	G	Sidechain
35	BB	1509	G	Sidechain
35	BB	1510	G	Sidechain
35	BB	1511	U	Sidechain
35	BB	1512	C	Sidechain
35	BB	1513	U	Sidechain
35	BB	1517	G	Sidechain
35	BB	1518	U	Sidechain
35	BB	152	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	1520	C	Sidechain
35	BB	1521	G	Sidechain
35	BB	1523	U	Sidechain
35	BB	1527	A	Sidechain
35	BB	1528	U	Sidechain
35	BB	1529	G	Sidechain
35	BB	1530	U	Sidechain
35	BB	1532	C	Sidechain
35	BB	1533	U	Sidechain
35	BB	1534	U	Sidechain
35	BB	1538	G	Sidechain
35	BB	1539	C	Sidechain
35	BB	154	A	Sidechain
35	BB	1541	G	Sidechain
35	BB	1542	C	Sidechain
35	BB	1543	C	Sidechain
35	BB	1547	U	Sidechain
35	BB	1548	C	Sidechain
35	BB	156	G	Sidechain
35	BB	157	G	Sidechain
35	BB	16	G	Sidechain
35	BB	163	G	Sidechain
35	BB	164	U	Sidechain
35	BB	168	U	Sidechain
35	BB	17	U	Sidechain
35	BB	2	C	Sidechain
35	BB	20	U	Sidechain
35	BB	21	C	Sidechain
35	BB	23	U	Sidechain
35	BB	24	C	Sidechain
35	BB	25	A	Sidechain
35	BB	256	G	Sidechain
35	BB	265	C	Sidechain
35	BB	266	C	Sidechain
35	BB	267	C	Sidechain
35	BB	27	C	Sidechain
35	BB	273	G	Sidechain
35	BB	274	U	Sidechain
35	BB	278	U	Sidechain
35	BB	279	A	Sidechain
35	BB	281	U	Sidechain
35	BB	285	C	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	289	U	Sidechain
35	BB	29	C	Sidechain
35	BB	292	U	Sidechain
35	BB	298	G	Sidechain
35	BB	3	C	Sidechain
35	BB	30	A	Sidechain
35	BB	305	U	Sidechain
35	BB	307	A	Sidechain
35	BB	31	U	Sidechain
35	BB	311	C	Sidechain
35	BB	314	A	Sidechain
35	BB	315	C	Sidechain
35	BB	317	C	Sidechain
35	BB	32	C	Sidechain
35	BB	323	C	Sidechain
35	BB	325	G	Sidechain
35	BB	326	G	Sidechain
35	BB	328	G	Sidechain
35	BB	33	A	Sidechain
35	BB	332	U	Sidechain
35	BB	339	C	Sidechain
35	BB	34	G	Sidechain
35	BB	341	U	Sidechain
35	BB	345	U	Sidechain
35	BB	348	G	Sidechain
35	BB	353	G	Sidechain
35	BB	357	C	Sidechain
35	BB	358	U	Sidechain
35	BB	359	A	Sidechain
35	BB	36	U	Sidechain
35	BB	361	A	Sidechain
35	BB	362	A	Sidechain
35	BB	364	U	Sidechain
35	BB	365	U	Sidechain
35	BB	366	G	Sidechain
35	BB	367	C	Sidechain
35	BB	368	C	Sidechain
35	BB	369	A	Sidechain
35	BB	37	C	Sidechain
35	BB	370	A	Sidechain
35	BB	371	C	Sidechain
35	BB	372	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	373	C	Sidechain
35	BB	374	A	Sidechain
35	BB	375	G	Sidechain
35	BB	376	A	Sidechain
35	BB	377	A	Sidechain
35	BB	38	C	Sidechain
35	BB	380	G	Sidechain
35	BB	382	U	Sidechain
35	BB	383	U	Sidechain
35	BB	384	A	Sidechain
35	BB	386	G	Sidechain
35	BB	387	G	Sidechain
35	BB	388	C	Sidechain
35	BB	389	G	Sidechain
35	BB	39	C	Sidechain
35	BB	390	G	Sidechain
35	BB	391	G	Sidechain
35	BB	392	G	Sidechain
35	BB	393	A	Sidechain
35	BB	395	U	Sidechain
35	BB	396	C	Sidechain
35	BB	398	A	Sidechain
35	BB	399	A	Sidechain
35	BB	40	C	Sidechain
35	BB	400	C	Sidechain
35	BB	401	U	Sidechain
35	BB	402	G	Sidechain
35	BB	403	U	Sidechain
35	BB	404	A	Sidechain
35	BB	405	U	Sidechain
35	BB	406	A	Sidechain
35	BB	407	A	Sidechain
35	BB	409	U	Sidechain
35	BB	41	A	Sidechain
35	BB	413	A	Sidechain
35	BB	414	C	Sidechain
35	BB	415	A	Sidechain
35	BB	416	U	Sidechain
35	BB	417	A	Sidechain
35	BB	418	G	Sidechain
35	BB	419	G	Sidechain
35	BB	42	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	420	U	Sidechain
35	BB	421	U	Sidechain
35	BB	423	G	Sidechain
35	BB	424	U	Sidechain
35	BB	425	G	Sidechain
35	BB	427	U	Sidechain
35	BB	428	G	Sidechain
35	BB	429	C	Sidechain
35	BB	43	G	Sidechain
35	BB	431	U	Sidechain
35	BB	432	C	Sidechain
35	BB	433	C	Sidechain
35	BB	434	A	Sidechain
35	BB	435	A	Sidechain
35	BB	436	G	Sidechain
35	BB	437	U	Sidechain
35	BB	439	G	Sidechain
35	BB	440	U	Sidechain
35	BB	441	G	Sidechain
35	BB	442	U	Sidechain
35	BB	443	A	Sidechain
35	BB	444	U	Sidechain
35	BB	445	G	Sidechain
35	BB	448	G	Sidechain
35	BB	449	C	Sidechain
35	BB	45	A	Sidechain
35	BB	450	A	Sidechain
35	BB	451	A	Sidechain
35	BB	452	A	Sidechain
35	BB	454	U	Sidechain
35	BB	455	G	Sidechain
35	BB	456	A	Sidechain
35	BB	457	U	Sidechain
35	BB	458	U	Sidechain
35	BB	459	U	Sidechain
35	BB	46	U	Sidechain
35	BB	460	C	Sidechain
35	BB	461	U	Sidechain
35	BB	462	G	Sidechain
35	BB	464	C	Sidechain
35	BB	466	A	Sidechain
35	BB	469	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	47	C	Sidechain
35	BB	471	U	Sidechain
35	BB	472	C	Sidechain
35	BB	473	U	Sidechain
35	BB	474	G	Sidechain
35	BB	475	A	Sidechain
35	BB	476	A	Sidechain
35	BB	477	U	Sidechain
35	BB	478	G	Sidechain
35	BB	48	G	Sidechain
35	BB	481	A	Sidechain
35	BB	484	G	Sidechain
35	BB	486	G	Sidechain
35	BB	487	A	Sidechain
35	BB	488	G	Sidechain
35	BB	489	A	Sidechain
35	BB	490	G	Sidechain
35	BB	491	A	Sidechain
35	BB	492	U	Sidechain
35	BB	493	U	Sidechain
35	BB	497	C	Sidechain
35	BB	498	G	Sidechain
35	BB	499	A	Sidechain
35	BB	5	A	Sidechain
35	BB	50	A	Sidechain
35	BB	502	C	Sidechain
35	BB	503	G	Sidechain
35	BB	504	C	Sidechain
35	BB	507	G	Sidechain
35	BB	508	U	Sidechain
35	BB	51	U	Sidechain
35	BB	510	A	Sidechain
35	BB	512	C	Sidechain
35	BB	514	G	Sidechain
35	BB	515	C	Sidechain
35	BB	516	G	Sidechain
35	BB	517	G	Sidechain
35	BB	519	A	Sidechain
35	BB	52	G	Sidechain
35	BB	522	A	Sidechain
35	BB	524	C	Sidechain
35	BB	525	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	526	A	Sidechain
35	BB	528	G	Sidechain
35	BB	53	C	Sidechain
35	BB	530	C	Sidechain
35	BB	533	U	Sidechain
35	BB	534	C	Sidechain
35	BB	536	U	Sidechain
35	BB	537	A	Sidechain
35	BB	538	A	Sidechain
35	BB	539	G	Sidechain
35	BB	54	U	Sidechain
35	BB	540	G	Sidechain
35	BB	544	C	Sidechain
35	BB	545	C	Sidechain
35	BB	546	A	Sidechain
35	BB	547	A	Sidechain
35	BB	549	U	Sidechain
35	BB	550	G	Sidechain
35	BB	551	C	Sidechain
35	BB	553	U	Sidechain
35	BB	555	G	Sidechain
35	BB	556	U	Sidechain
35	BB	557	C	Sidechain
35	BB	558	U	Sidechain
35	BB	559	U	Sidechain
35	BB	56	U	Sidechain
35	BB	560	C	Sidechain
35	BB	561	C	Sidechain
35	BB	563	A	Sidechain
35	BB	564	U	Sidechain
35	BB	565	U	Sidechain
35	BB	57	G	Sidechain
35	BB	571	C	Sidechain
35	BB	572	G	Sidechain
35	BB	574	G	Sidechain
35	BB	575	C	Sidechain
35	BB	576	A	Sidechain
35	BB	577	U	Sidechain
35	BB	578	G	Sidechain
35	BB	579	A	Sidechain
35	BB	58	G	Sidechain
35	BB	580	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	581	U	Sidechain
35	BB	582	G	Sidechain
35	BB	583	G	Sidechain
35	BB	585	U	Sidechain
35	BB	587	A	Sidechain
35	BB	588	A	Sidechain
35	BB	589	U	Sidechain
35	BB	59	U	Sidechain
35	BB	590	G	Sidechain
35	BB	591	A	Sidechain
35	BB	592	G	Sidechain
35	BB	593	A	Sidechain
35	BB	594	U	Sidechain
35	BB	595	U	Sidechain
35	BB	597	C	Sidechain
35	BB	598	C	Sidechain
35	BB	599	U	Sidechain
35	BB	6	A	Sidechain
35	BB	60	A	Sidechain
35	BB	600	C	Sidechain
35	BB	601	U	Sidechain
35	BB	603	U	Sidechain
35	BB	604	C	Sidechain
35	BB	606	C	Sidechain
35	BB	607	G	Sidechain
35	BB	608	A	Sidechain
35	BB	61	A	Sidechain
35	BB	610	U	Sidechain
35	BB	611	U	Sidechain
35	BB	612	A	Sidechain
35	BB	614	U	Sidechain
35	BB	615	A	Sidechain
35	BB	616	U	Sidechain
35	BB	618	U	Sidechain
35	BB	62	C	Sidechain
35	BB	621	C	Sidechain
35	BB	622	G	Sidechain
35	BB	623	A	Sidechain
35	BB	624	A	Sidechain
35	BB	626	C	Sidechain
35	BB	628	A	Sidechain
35	BB	629	C	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	631	G	Sidechain
35	BB	632	U	Sidechain
35	BB	633	C	Sidechain
35	BB	634	A	Sidechain
35	BB	638	G	Sidechain
35	BB	639	A	Sidechain
35	BB	64	U	Sidechain
35	BB	641	C	Sidechain
35	BB	643	G	Sidechain
35	BB	644	A	Sidechain
35	BB	645	C	Sidechain
35	BB	646	U	Sidechain
35	BB	647	U	Sidechain
35	BB	649	A	Sidechain
35	BB	650	A	Sidechain
35	BB	651	G	Sidechain
35	BB	652	G	Sidechain
35	BB	653	G	Sidechain
35	BB	654	C	Sidechain
35	BB	655	U	Sidechain
35	BB	658	G	Sidechain
35	BB	659	C	Sidechain
35	BB	66	G	Sidechain
35	BB	660	G	Sidechain
35	BB	661	G	Sidechain
35	BB	663	G	Sidechain
35	BB	664	A	Sidechain
35	BB	665	A	Sidechain
35	BB	666	A	Sidechain
35	BB	667	G	Sidechain
35	BB	668	A	Sidechain
35	BB	67	A	Sidechain
35	BB	670	G	Sidechain
35	BB	671	A	Sidechain
35	BB	672	C	Sidechain
35	BB	674	C	Sidechain
35	BB	675	U	Sidechain
35	BB	676	G	Sidechain
35	BB	677	U	Sidechain
35	BB	678	U	Sidechain
35	BB	680	A	Sidechain
35	BB	681	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	682	U	Sidechain
35	BB	683	U	Sidechain
35	BB	684	U	Sidechain
35	BB	685	G	Sidechain
35	BB	686	A	Sidechain
35	BB	687	C	Sidechain
35	BB	688	U	Sidechain
35	BB	69	A	Sidechain
35	BB	692	G	Sidechain
35	BB	693	U	Sidechain
35	BB	694	C	Sidechain
35	BB	695	U	Sidechain
35	BB	696	G	Sidechain
35	BB	697	G	Sidechain
35	BB	698	C	Sidechain
35	BB	699	U	Sidechain
35	BB	70	A	Sidechain
35	BB	700	C	Sidechain
35	BB	701	U	Sidechain
35	BB	702	G	Sidechain
35	BB	703	U	Sidechain
35	BB	706	G	Sidechain
35	BB	709	G	Sidechain
35	BB	71	A	Sidechain
35	BB	711	C	Sidechain
35	BB	713	U	Sidechain
35	BB	714	U	Sidechain
35	BB	715	G	Sidechain
35	BB	716	G	Sidechain
35	BB	717	A	Sidechain
35	BB	719	G	Sidechain
35	BB	72	G	Sidechain
35	BB	723	A	Sidechain
35	BB	724	G	Sidechain
35	BB	726	A	Sidechain
35	BB	728	A	Sidechain
35	BB	729	G	Sidechain
35	BB	734	A	Sidechain
35	BB	736	G	Sidechain
35	BB	737	C	Sidechain
35	BB	738	G	Sidechain
35	BB	74	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	741	A	Sidechain
35	BB	744	U	Sidechain
35	BB	746	A	Sidechain
35	BB	748	A	Sidechain
35	BB	749	U	Sidechain
35	BB	750	G	Sidechain
35	BB	751	A	Sidechain
35	BB	753	A	Sidechain
35	BB	754	U	Sidechain
35	BB	756	C	Sidechain
35	BB	757	C	Sidechain
35	BB	760	C	Sidechain
35	BB	762	C	Sidechain
35	BB	763	U	Sidechain
35	BB	764	C	Sidechain
35	BB	766	G	Sidechain
35	BB	767	A	Sidechain
35	BB	768	A	Sidechain
35	BB	769	C	Sidechain
35	BB	770	G	Sidechain
35	BB	772	U	Sidechain
35	BB	773	G	Sidechain
35	BB	774	C	Sidechain
35	BB	775	U	Sidechain
35	BB	776	U	Sidechain
35	BB	777	C	Sidechain
35	BB	778	A	Sidechain
35	BB	779	C	Sidechain
35	BB	780	U	Sidechain
35	BB	781	U	Sidechain
35	BB	782	A	Sidechain
35	BB	783	U	Sidechain
35	BB	785	G	Sidechain
35	BB	786	A	Sidechain
35	BB	788	U	Sidechain
35	BB	789	G	Sidechain
35	BB	790	A	Sidechain
35	BB	791	A	Sidechain
35	BB	792	G	Sidechain
35	BB	793	A	Sidechain
35	BB	794	G	Sidechain
35	BB	795	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	797	C	Sidechain
35	BB	798	A	Sidechain
35	BB	799	A	Sidechain
35	BB	8	U	Sidechain
35	BB	80	C	Sidechain
35	BB	800	U	Sidechain
35	BB	801	G	Sidechain
35	BB	802	G	Sidechain
35	BB	803	U	Sidechain
35	BB	804	U	Sidechain
35	BB	805	G	Sidechain
35	BB	807	U	Sidechain
35	BB	808	U	Sidechain
35	BB	809	U	Sidechain
35	BB	81	A	Sidechain
35	BB	810	G	Sidechain
35	BB	812	G	Sidechain
35	BB	815	G	Sidechain
35	BB	816	U	Sidechain
35	BB	818	U	Sidechain
35	BB	822	G	Sidechain
35	BB	825	U	Sidechain
35	BB	826	G	Sidechain
35	BB	827	U	Sidechain
35	BB	828	G	Sidechain
35	BB	83	G	Sidechain
35	BB	830	G	Sidechain
35	BB	831	C	Sidechain
35	BB	832	C	Sidechain
35	BB	833	G	Sidechain
35	BB	834	U	Sidechain
35	BB	835	C	Sidechain
35	BB	836	U	Sidechain
35	BB	837	A	Sidechain
35	BB	838	G	Sidechain
35	BB	84	G	Sidechain
35	BB	840	C	Sidechain
35	BB	842	G	Sidechain
35	BB	843	G	Sidechain
35	BB	844	G	Sidechain
35	BB	845	C	Sidechain
35	BB	846	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	847	U	Sidechain
35	BB	85	A	Sidechain
35	BB	850	U	Sidechain
35	BB	851	U	Sidechain
35	BB	852	G	Sidechain
35	BB	853	U	Sidechain
35	BB	854	G	Sidechain
35	BB	855	G	Sidechain
35	BB	856	U	Sidechain
35	BB	859	U	Sidechain
35	BB	860	U	Sidechain
35	BB	862	U	Sidechain
35	BB	864	U	Sidechain
35	BB	866	A	Sidechain
35	BB	868	C	Sidechain
35	BB	869	G	Sidechain
35	BB	870	C	Sidechain
35	BB	877	A	Sidechain
35	BB	878	G	Sidechain
35	BB	879	G	Sidechain
35	BB	88	U	Sidechain
35	BB	881	G	Sidechain
35	BB	882	U	Sidechain
35	BB	884	U	Sidechain
35	BB	885	U	Sidechain
35	BB	886	G	Sidechain
35	BB	891	U	Sidechain
35	BB	893	U	Sidechain
35	BB	894	A	Sidechain
35	BB	895	U	Sidechain
35	BB	896	C	Sidechain
35	BB	897	C	Sidechain
35	BB	898	U	Sidechain
35	BB	899	C	Sidechain
35	BB	90	G	Sidechain
35	BB	901	U	Sidechain
35	BB	903	U	Sidechain
35	BB	91	G	Sidechain
35	BB	910	C	Sidechain
35	BB	915	U	Sidechain
35	BB	93	A	Sidechain
35	BB	931	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BB	934	U	Sidechain
35	BB	94	A	Sidechain
35	BB	943	U	Sidechain
35	BB	95	A	Sidechain
35	BB	953	G	Sidechain
35	BB	956	G	Sidechain
35	BB	958	C	Sidechain
35	BB	959	C	Sidechain
35	BB	96	A	Sidechain
35	BB	964	G	Sidechain
35	BB	965	G	Sidechain
35	BB	966	C	Sidechain
35	BB	967	G	Sidechain
35	BB	968	C	Sidechain
35	BB	97	U	Sidechain
35	BB	971	A	Sidechain
35	BB	972	C	Sidechain
35	BB	973	G	Sidechain
35	BB	975	G	Sidechain
35	BB	976	U	Sidechain
35	BB	977	G	Sidechain
35	BB	978	C	Sidechain
35	BB	979	G	Sidechain
35	BB	98	A	Sidechain
35	BB	981	A	Sidechain
35	BB	984	U	Sidechain
35	BB	986	C	Sidechain
35	BB	987	U	Sidechain
35	BB	988	G	Sidechain
35	BB	989	C	Sidechain
35	BB	99	G	Sidechain
35	BB	991	C	Sidechain
35	BB	992	C	Sidechain
35	BB	993	A	Sidechain
35	BB	994	A	Sidechain
35	BB	995	C	Sidechain
35	BB	996	G	Sidechain
35	BB	997	G	Sidechain
35	BB	998	G	Sidechain
36	BC	1	A	Sidechain
36	BC	100	U	Sidechain
36	BC	101	U	Sidechain

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Mol	Chain	Res	Type	Group
36	BC	102	G	Sidechain
36	BC	103	A	Sidechain
36	BC	104	A	Sidechain
36	BC	106	G	Sidechain
36	BC	107	C	Sidechain
36	BC	109	A	Sidechain
36	BC	11	G	Sidechain
36	BC	111	C	Sidechain
36	BC	119	G	Sidechain
36	BC	12	A	Sidechain
36	BC	120	G	Sidechain
36	BC	121	G	Sidechain
36	BC	123	G	Sidechain
36	BC	125	A	Sidechain
36	BC	126	G	Sidechain
36	BC	128	U	Sidechain
36	BC	129	C	Sidechain
36	BC	13	U	Sidechain
36	BC	130	U	Sidechain
36	BC	131	C	Sidechain
36	BC	134	G	Sidechain
36	BC	136	G	Sidechain
36	BC	138	C	Sidechain
36	BC	139	A	Sidechain
36	BC	14	G	Sidechain
36	BC	140	U	Sidechain
36	BC	141	C	Sidechain
36	BC	142	C	Sidechain
36	BC	143	C	Sidechain
36	BC	144	C	Sidechain
36	BC	145	G	Sidechain
36	BC	146	U	Sidechain
36	BC	147	G	Sidechain
36	BC	148	C	Sidechain
36	BC	149	A	Sidechain
36	BC	15	G	Sidechain
36	BC	150	U	Sidechain
36	BC	151	G	Sidechain
36	BC	152	C	Sidechain
36	BC	154	A	Sidechain
36	BC	155	C	Sidechain
36	BC	156	A	Sidechain

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Mol	Chain	Res	Type	Group
36	BC	157	U	Sidechain
36	BC	158	U	Sidechain
36	BC	159	U	Sidechain
36	BC	16	A	Sidechain
36	BC	160	C	Sidechain
36	BC	163	A	Sidechain
36	BC	164	G	Sidechain
36	BC	165	U	Sidechain
36	BC	166	G	Sidechain
36	BC	167	U	Sidechain
36	BC	168	C	Sidechain
36	BC	169	G	Sidechain
36	BC	17	U	Sidechain
36	BC	18	G	Sidechain
36	BC	19	A	Sidechain
36	BC	2	A	Sidechain
36	BC	20	C	Sidechain
36	BC	21	U	Sidechain
36	BC	22	U	Sidechain
36	BC	23	G	Sidechain
36	BC	25	C	Sidechain
36	BC	26	U	Sidechain
36	BC	27	U	Sidechain
36	BC	28	C	Sidechain
36	BC	3	C	Sidechain
36	BC	30	U	Sidechain
36	BC	31	A	Sidechain
36	BC	33	U	Sidechain
36	BC	34	U	Sidechain
36	BC	36	G	Sidechain
36	BC	37	U	Sidechain
36	BC	38	U	Sidechain
36	BC	4	G	Sidechain
36	BC	40	A	Sidechain
36	BC	41	A	Sidechain
36	BC	42	G	Sidechain
36	BC	43	A	Sidechain
36	BC	44	A	Sidechain
36	BC	45	C	Sidechain
36	BC	47	C	Sidechain
36	BC	48	A	Sidechain
36	BC	49	G	Sidechain

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Mol	Chain	Res	Type	Group
36	BC	5	U	Sidechain
36	BC	50	C	Sidechain
36	BC	51	A	Sidechain
36	BC	53	A	Sidechain
36	BC	54	G	Sidechain
36	BC	56	G	Sidechain
36	BC	58	G	Sidechain
36	BC	59	A	Sidechain
36	BC	6	G	Sidechain
36	BC	60	U	Sidechain
36	BC	61	A	Sidechain
36	BC	62	A	Sidechain
36	BC	63	G	Sidechain
36	BC	64	U	Sidechain
36	BC	68	A	Sidechain
36	BC	69	U	Sidechain
36	BC	7	U	Sidechain
36	BC	70	C	Sidechain
36	BC	71	A	Sidechain
36	BC	74	U	Sidechain
36	BC	75	G	Sidechain
36	BC	76	C	Sidechain
36	BC	78	G	Sidechain
36	BC	79	A	Sidechain
36	BC	8	C	Sidechain
36	BC	80	A	Sidechain
36	BC	81	U	Sidechain
36	BC	82	C	Sidechain
36	BC	83	A	Sidechain
36	BC	84	U	Sidechain
36	BC	86	U	Sidechain
36	BC	88	A	Sidechain
36	BC	89	U	Sidechain
36	BC	9	G	Sidechain
36	BC	90	U	Sidechain
36	BC	91	G	Sidechain
36	BC	92	C	Sidechain
36	BC	94	C	Sidechain
36	BC	95	A	Sidechain
36	BC	97	U	Sidechain
36	BC	99	U	Sidechain
37	BD	1	G	Sidechain

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Mol	Chain	Res	Type	Group
37	BD	100	A	Sidechain
37	BD	101	A	Sidechain
37	BD	102	C	Sidechain
37	BD	103	C	Sidechain
37	BD	104	C	Sidechain
37	BD	105	G	Sidechain
37	BD	106	G	Sidechain
37	BD	108	G	Sidechain
37	BD	109	U	Sidechain
37	BD	11	A	Sidechain
37	BD	110	G	Sidechain
37	BD	112	U	Sidechain
37	BD	113	G	Sidechain
37	BD	117	U	Sidechain
37	BD	118	C	Sidechain
37	BD	119	U	Sidechain
37	BD	12	U	Sidechain
37	BD	14	C	Sidechain
37	BD	15	U	Sidechain
37	BD	16	U	Sidechain
37	BD	17	G	Sidechain
37	BD	18	G	Sidechain
37	BD	2	G	Sidechain
37	BD	22	A	Sidechain
37	BD	24	U	Sidechain
37	BD	25	G	Sidechain
37	BD	27	A	Sidechain
37	BD	28	C	Sidechain
37	BD	29	C	Sidechain
37	BD	3	G	Sidechain
37	BD	30	A	Sidechain
37	BD	31	U	Sidechain
37	BD	32	A	Sidechain
37	BD	34	C	Sidechain
37	BD	35	C	Sidechain
37	BD	36	C	Sidechain
37	BD	37	G	Sidechain
37	BD	38	U	Sidechain
37	BD	4	U	Sidechain
37	BD	41	G	Sidechain
37	BD	46	G	Sidechain
37	BD	47	U	Sidechain

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Mol	Chain	Res	Type	Group
37	BD	48	G	Sidechain
37	BD	49	A	Sidechain
37	BD	5	A	Sidechain
37	BD	52	U	Sidechain
37	BD	53	U	Sidechain
37	BD	54	A	Sidechain
37	BD	56	G	Sidechain
37	BD	57	C	Sidechain
37	BD	58	G	Sidechain
37	BD	61	C	Sidechain
37	BD	63	C	Sidechain
37	BD	64	A	Sidechain
37	BD	65	G	Sidechain
37	BD	66	G	Sidechain
37	BD	68	C	Sidechain
37	BD	69	U	Sidechain
37	BD	7	G	Sidechain
37	BD	70	C	Sidechain
37	BD	71	G	Sidechain
37	BD	72	U	Sidechain
37	BD	73	U	Sidechain
37	BD	74	A	Sidechain
37	BD	75	G	Sidechain
37	BD	76	U	Sidechain
37	BD	77	A	Sidechain
37	BD	78	C	Sidechain
37	BD	8	A	Sidechain
37	BD	80	G	Sidechain
37	BD	81	C	Sidechain
37	BD	82	G	Sidechain
37	BD	83	A	Sidechain
37	BD	84	U	Sidechain
37	BD	85	C	Sidechain
37	BD	86	A	Sidechain
37	BD	87	G	Sidechain
37	BD	88	U	Sidechain
37	BD	89	G	Sidechain
37	BD	9	C	Sidechain
37	BD	90	A	Sidechain
37	BD	92	G	Sidechain
37	BD	93	G	Sidechain
37	BD	94	C	Sidechain

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Mol	Chain	Res	Type	Group
37	BD	95	G	Sidechain
37	BD	96	C	Sidechain
37	BD	97	U	Sidechain
37	BD	99	G	Sidechain
38	BE	1	U	Sidechain
38	BE	10	G	Sidechain
38	BE	100	U	Sidechain
38	BE	101	C	Sidechain
38	BE	102	U	Sidechain
38	BE	104	G	Sidechain
38	BE	105	A	Sidechain
38	BE	106	C	Sidechain
38	BE	107	U	Sidechain
38	BE	108	U	Sidechain
38	BE	109	C	Sidechain
38	BE	11	A	Sidechain
38	BE	110	U	Sidechain
38	BE	111	C	Sidechain
38	BE	112	G	Sidechain
38	BE	113	C	Sidechain
38	BE	114	G	Sidechain
38	BE	115	U	Sidechain
38	BE	116	U	Sidechain
38	BE	117	A	Sidechain
38	BE	119	U	Sidechain
38	BE	120	C	Sidechain
38	BE	121	G	Sidechain
38	BE	122	G	Sidechain
38	BE	123	A	Sidechain
38	BE	124	G	Sidechain
38	BE	125	C	Sidechain
38	BE	126	G	Sidechain
38	BE	127	G	Sidechain
38	BE	128	G	Sidechain
38	BE	129	G	Sidechain
38	BE	13	A	Sidechain
38	BE	130	G	Sidechain
38	BE	132	U	Sidechain
38	BE	133	C	Sidechain
38	BE	134	A	Sidechain
38	BE	135	A	Sidechain
38	BE	136	G	Sidechain

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Mol	Chain	Res	Type	Group
38	BE	14	C	Sidechain
38	BE	140	G	Sidechain
38	BE	141	A	Sidechain
38	BE	142	A	Sidechain
38	BE	143	A	Sidechain
38	BE	145	A	Sidechain
38	BE	146	U	Sidechain
38	BE	147	G	Sidechain
38	BE	149	A	Sidechain
38	BE	15	A	Sidechain
38	BE	150	G	Sidechain
38	BE	152	U	Sidechain
38	BE	153	C	Sidechain
38	BE	154	A	Sidechain
38	BE	155	C	Sidechain
38	BE	158	U	Sidechain
38	BE	159	A	Sidechain
38	BE	160	C	Sidechain
38	BE	161	G	Sidechain
38	BE	163	A	Sidechain
38	BE	164	C	Sidechain
38	BE	165	U	Sidechain
38	BE	167	U	Sidechain
38	BE	168	C	Sidechain
38	BE	169	C	Sidechain
38	BE	17	U	Sidechain
38	BE	170	U	Sidechain
38	BE	171	U	Sidechain
38	BE	172	U	Sidechain
38	BE	173	G	Sidechain
38	BE	174	U	Sidechain
38	BE	175	U	Sidechain
38	BE	176	G	Sidechain
38	BE	177	U	Sidechain
38	BE	178	G	Sidechain
38	BE	179	A	Sidechain
38	BE	18	U	Sidechain
38	BE	180	G	Sidechain
38	BE	181	U	Sidechain
38	BE	182	U	Sidechain
38	BE	183	C	Sidechain
38	BE	184	G	Sidechain

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Mol	Chain	Res	Type	Group
38	BE	185	G	Sidechain
38	BE	186	C	Sidechain
38	BE	187	G	Sidechain
38	BE	188	C	Sidechain
38	BE	19	G	Sidechain
38	BE	190	U	Sidechain
38	BE	191	U	Sidechain
38	BE	192	A	Sidechain
38	BE	193	A	Sidechain
38	BE	194	A	Sidechain
38	BE	195	G	Sidechain
38	BE	196	C	Sidechain
38	BE	198	A	Sidechain
38	BE	20	C	Sidechain
38	BE	200	A	Sidechain
38	BE	201	A	Sidechain
38	BE	202	C	Sidechain
38	BE	203	C	Sidechain
38	BE	204	U	Sidechain
38	BE	205	G	Sidechain
38	BE	206	G	Sidechain
38	BE	207	G	Sidechain
38	BE	208	G	Sidechain
38	BE	21	C	Sidechain
38	BE	22	A	Sidechain
38	BE	23	G	Sidechain
38	BE	24	G	Sidechain
38	BE	25	U	Sidechain
38	BE	26	G	Sidechain
38	BE	27	A	Sidechain
38	BE	29	C	Sidechain
38	BE	30	C	Sidechain
38	BE	31	A	Sidechain
38	BE	32	U	Sidechain
38	BE	33	C	Sidechain
38	BE	35	A	Sidechain
38	BE	36	U	Sidechain
38	BE	37	C	Sidechain
38	BE	4	A	Sidechain
38	BE	40	C	Sidechain
38	BE	41	C	Sidechain
38	BE	43	A	Sidechain

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Mol	Chain	Res	Type	Group
38	BE	44	C	Sidechain
38	BE	46	G	Sidechain
38	BE	47	U	Sidechain
38	BE	48	G	Sidechain
38	BE	49	A	Sidechain
38	BE	5	A	Sidechain
38	BE	51	C	Sidechain
38	BE	52	U	Sidechain
38	BE	53	U	Sidechain
38	BE	54	U	Sidechain
38	BE	55	C	Sidechain
38	BE	57	U	Sidechain
38	BE	58	U	Sidechain
38	BE	59	U	Sidechain
38	BE	6	A	Sidechain
38	BE	60	C	Sidechain
38	BE	61	A	Sidechain
38	BE	63	C	Sidechain
38	BE	64	A	Sidechain
38	BE	65	U	Sidechain
38	BE	67	A	Sidechain
38	BE	68	U	Sidechain
38	BE	69	C	Sidechain
38	BE	7	U	Sidechain
38	BE	70	C	Sidechain
38	BE	71	A	Sidechain
38	BE	72	C	Sidechain
38	BE	74	U	Sidechain
38	BE	75	C	Sidechain
38	BE	76	U	Sidechain
38	BE	79	G	Sidechain
38	BE	80	G	Sidechain
38	BE	82	C	Sidechain
38	BE	83	U	Sidechain
38	BE	86	C	Sidechain
38	BE	87	U	Sidechain
38	BE	88	G	Sidechain
38	BE	89	G	Sidechain
38	BE	9	C	Sidechain
38	BE	90	G	Sidechain
38	BE	91	G	Sidechain
38	BE	92	C	Sidechain

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Mol	Chain	Res	Type	Group
38	BE	93	U	Sidechain
38	BE	94	U	Sidechain
38	BE	96	G	Sidechain
38	BE	97	G	Sidechain
38	BE	98	C	Sidechain
39	BF	10	A	Sidechain
39	BF	12	U	Sidechain
39	BF	13	U	Sidechain
39	BF	14	C	Sidechain
39	BF	15	U	Sidechain
39	BF	16	C	Sidechain
39	BF	17	U	Sidechain
39	BF	19	A	Sidechain
39	BF	2	G	Sidechain
39	BF	20	U	Sidechain
39	BF	21	C	Sidechain
39	BF	22	U	Sidechain
39	BF	23	G	Sidechain
39	BF	24	G	Sidechain
39	BF	25	G	Sidechain
39	BF	26	U	Sidechain
39	BF	27	G	Sidechain
39	BF	28	C	Sidechain
39	BF	29	U	Sidechain
39	BF	3	A	Sidechain
39	BF	30	C	Sidechain
39	BF	32	G	Sidechain
39	BF	33	C	Sidechain
39	BF	34	C	Sidechain
39	BF	38	C	Sidechain
39	BF	39	C	Sidechain
39	BF	4	A	Sidechain
39	BF	40	U	Sidechain
39	BF	41	U	Sidechain
39	BF	43	U	Sidechain
39	BF	44	C	Sidechain
39	BF	46	G	Sidechain
39	BF	48	G	Sidechain
39	BF	5	U	Sidechain
39	BF	50	C	Sidechain
39	BF	51	C	Sidechain
39	BF	52	A	Sidechain

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Mol	Chain	Res	Type	Group
39	BF	53	G	Sidechain
39	BF	54	U	Sidechain
39	BF	55	A	Sidechain
39	BF	56	C	Sidechain
39	BF	57	C	Sidechain
39	BF	58	U	Sidechain
39	BF	59	U	Sidechain
39	BF	6	C	Sidechain
39	BF	60	C	Sidechain
39	BF	61	A	Sidechain
39	BF	62	U	Sidechain
39	BF	63	U	Sidechain
39	BF	64	U	Sidechain
39	BF	65	U	Sidechain
39	BF	66	C	Sidechain
39	BF	67	A	Sidechain
39	BF	68	C	Sidechain
39	BF	69	A	Sidechain
39	BF	7	G	Sidechain
39	BF	70	A	Sidechain
39	BF	71	G	Sidechain
39	BF	72	A	Sidechain
39	BF	8	C	Sidechain
39	BF	9	C	Sidechain
40	BG	1	G	Sidechain
40	BG	10	U	Sidechain
40	BG	100	G	Sidechain
40	BG	101	G	Sidechain
40	BG	102	G	Sidechain
40	BG	103	C	Sidechain
40	BG	104	A	Sidechain
40	BG	106	G	Sidechain
40	BG	107	U	Sidechain
40	BG	11	G	Sidechain
40	BG	110	U	Sidechain
40	BG	111	C	Sidechain
40	BG	112	C	Sidechain
40	BG	113	G	Sidechain
40	BG	114	A	Sidechain
40	BG	115	C	Sidechain
40	BG	118	U	Sidechain
40	BG	119	A	Sidechain

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Mol	Chain	Res	Type	Group
40	BG	12	A	Sidechain
40	BG	120	U	Sidechain
40	BG	121	C	Sidechain
40	BG	122	G	Sidechain
40	BG	123	C	Sidechain
40	BG	124	A	Sidechain
40	BG	125	C	Sidechain
40	BG	126	G	Sidechain
40	BG	127	G	Sidechain
40	BG	128	U	Sidechain
40	BG	129	G	Sidechain
40	BG	13	A	Sidechain
40	BG	130	G	Sidechain
40	BG	131	U	Sidechain
40	BG	132	U	Sidechain
40	BG	133	C	Sidechain
40	BG	135	C	Sidechain
40	BG	136	G	Sidechain
40	BG	137	G	Sidechain
40	BG	138	C	Sidechain
40	BG	139	U	Sidechain
40	BG	140	G	Sidechain
40	BG	143	C	Sidechain
40	BG	144	G	Sidechain
40	BG	145	C	Sidechain
40	BG	146	C	Sidechain
40	BG	147	U	Sidechain
40	BG	148	C	Sidechain
40	BG	149	U	Sidechain
40	BG	15	G	Sidechain
40	BG	150	A	Sidechain
40	BG	151	A	Sidechain
40	BG	152	G	Sidechain
40	BG	153	C	Sidechain
40	BG	154	C	Sidechain
40	BG	155	A	Sidechain
40	BG	156	G	Sidechain
40	BG	157	A	Sidechain
40	BG	158	A	Sidechain
40	BG	159	A	Sidechain
40	BG	160	C	Sidechain
40	BG	163	G	Sidechain

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Mol	Chain	Res	Type	Group
40	BG	164	U	Sidechain
40	BG	166	C	Sidechain
40	BG	167	C	Sidechain
40	BG	168	A	Sidechain
40	BG	169	A	Sidechain
40	BG	17	A	Sidechain
40	BG	170	G	Sidechain
40	BG	171	A	Sidechain
40	BG	172	C	Sidechain
40	BG	173	C	Sidechain
40	BG	174	G	Sidechain
40	BG	176	G	Sidechain
40	BG	177	U	Sidechain
40	BG	178	G	Sidechain
40	BG	181	C	Sidechain
40	BG	182	G	Sidechain
40	BG	2	U	Sidechain
40	BG	20	U	Sidechain
40	BG	21	C	Sidechain
40	BG	22	G	Sidechain
40	BG	24	A	Sidechain
40	BG	25	G	Sidechain
40	BG	26	G	Sidechain
40	BG	27	C	Sidechain
40	BG	29	U	Sidechain
40	BG	31	G	Sidechain
40	BG	32	U	Sidechain
40	BG	33	G	Sidechain
40	BG	34	A	Sidechain
40	BG	35	G	Sidechain
40	BG	36	G	Sidechain
40	BG	37	G	Sidechain
40	BG	39	A	Sidechain
40	BG	4	A	Sidechain
40	BG	40	G	Sidechain
40	BG	41	U	Sidechain
40	BG	42	A	Sidechain
40	BG	43	U	Sidechain
40	BG	45	G	Sidechain
40	BG	47	G	Sidechain
40	BG	48	U	Sidechain
40	BG	49	A	Sidechain

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Mol	Chain	Res	Type	Group
40	BG	5	G	Sidechain
40	BG	50	G	Sidechain
40	BG	53	C	Sidechain
40	BG	54	G	Sidechain
40	BG	56	G	Sidechain
40	BG	58	G	Sidechain
40	BG	60	A	Sidechain
40	BG	61	A	Sidechain
40	BG	62	C	Sidechain
40	BG	63	U	Sidechain
40	BG	64	C	Sidechain
40	BG	65	C	Sidechain
40	BG	66	C	Sidechain
40	BG	68	U	Sidechain
40	BG	69	G	Sidechain
40	BG	70	C	Sidechain
40	BG	71	C	Sidechain
40	BG	72	G	Sidechain
40	BG	73	U	Sidechain
40	BG	74	G	Sidechain
40	BG	75	C	Sidechain
40	BG	76	C	Sidechain
40	BG	77	U	Sidechain
40	BG	78	C	Sidechain
40	BG	79	U	Sidechain
40	BG	8	U	Sidechain
40	BG	80	G	Sidechain
40	BG	81	G	Sidechain
40	BG	83	U	Sidechain
40	BG	84	U	Sidechain
40	BG	85	C	Sidechain
40	BG	86	U	Sidechain
40	BG	89	A	Sidechain
40	BG	9	G	Sidechain
40	BG	90	G	Sidechain
40	BG	93	U	Sidechain
40	BG	94	G	Sidechain
40	BG	95	U	Sidechain
40	BG	96	C	Sidechain
40	BG	97	G	Sidechain
40	BG	98	A	Sidechain
40	BG	99	A	Sidechain

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Mol	Chain	Res	Type	Group
41	BH	10	U	Sidechain
41	BH	100	A	Sidechain
41	BH	101	A	Sidechain
41	BH	102	C	Sidechain
41	BH	104	U	Sidechain
41	BH	105	U	Sidechain
41	BH	106	G	Sidechain
41	BH	107	A	Sidechain
41	BH	108	U	Sidechain
41	BH	109	G	Sidechain
41	BH	11	C	Sidechain
41	BH	110	C	Sidechain
41	BH	113	G	Sidechain
41	BH	114	G	Sidechain
41	BH	115	A	Sidechain
41	BH	116	A	Sidechain
41	BH	117	U	Sidechain
41	BH	118	U	Sidechain
41	BH	119	U	Sidechain
41	BH	12	U	Sidechain
41	BH	120	C	Sidechain
41	BH	121	A	Sidechain
41	BH	123	G	Sidechain
41	BH	124	C	Sidechain
41	BH	126	C	Sidechain
41	BH	127	A	Sidechain
41	BH	128	G	Sidechain
41	BH	130	G	Sidechain
41	BH	132	C	Sidechain
41	BH	133	U	Sidechain
41	BH	134	U	Sidechain
41	BH	135	U	Sidechain
41	BH	15	A	Sidechain
41	BH	16	A	Sidechain
41	BH	19	G	Sidechain
41	BH	2	U	Sidechain
41	BH	21	G	Sidechain
41	BH	22	A	Sidechain
41	BH	23	G	Sidechain
41	BH	24	U	Sidechain
41	BH	25	A	Sidechain
41	BH	26	C	Sidechain

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Mol	Chain	Res	Type	Group
41	BH	27	A	Sidechain
41	BH	28	U	Sidechain
41	BH	29	G	Sidechain
41	BH	3	U	Sidechain
41	BH	30	C	Sidechain
41	BH	31	A	Sidechain
41	BH	32	U	Sidechain
41	BH	33	G	Sidechain
41	BH	34	G	Sidechain
41	BH	36	C	Sidechain
41	BH	37	U	Sidechain
41	BH	38	G	Sidechain
41	BH	39	G	Sidechain
41	BH	4	U	Sidechain
41	BH	41	A	Sidechain
41	BH	42	U	Sidechain
41	BH	43	G	Sidechain
41	BH	44	A	Sidechain
41	BH	48	G	Sidechain
41	BH	49	C	Sidechain
41	BH	5	G	Sidechain
41	BH	50	A	Sidechain
41	BH	51	C	Sidechain
41	BH	52	G	Sidechain
41	BH	54	U	Sidechain
41	BH	6	U	Sidechain
41	BH	62	C	Sidechain
41	BH	63	G	Sidechain
41	BH	65	G	Sidechain
41	BH	7	C	Sidechain
41	BH	70	U	Sidechain
41	BH	71	C	Sidechain
41	BH	74	G	Sidechain
41	BH	75	G	Sidechain
41	BH	76	G	Sidechain
41	BH	79	A	Sidechain
41	BH	8	C	Sidechain
41	BH	81	U	Sidechain
41	BH	82	U	Sidechain
41	BH	84	A	Sidechain
41	BH	93	G	Sidechain
41	BH	94	G	Sidechain

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Mol	Chain	Res	Type	Group
41	BH	96	G	Sidechain
41	BH	98	U	Sidechain
41	BH	99	G	Sidechain
42	BI	101	ARG	Sidechain
42	BI	119	ARG	Sidechain
42	BI	147	ARG	Sidechain
42	BI	149	ARG	Sidechain
42	BI	15	VAL	Mainchain,Peptide
42	BI	16	ARG	Sidechain
42	BI	20	TYR	Sidechain
42	BI	25	TYR	Sidechain
42	BI	33	TYR	Sidechain
42	BI	39	ARG	Mainchain
42	BI	49	HIS	Sidechain
42	BI	51	ARG	Sidechain
42	BI	66	ARG	Sidechain
42	BI	71	MET	Peptide
42	BI	73	ARG	Sidechain
42	BI	77	TRP	Mainchain
42	BI	79	LYS	Peptide
42	BI	94	LEU	Mainchain
43	BJ	104	TYR	Sidechain
43	BJ	20	ARG	Sidechain
43	BJ	25	PHE	Peptide
43	BJ	45	ARG	Sidechain
43	BJ	57	ARG	Sidechain
43	BJ	59	ARG	Peptide
43	BJ	9	LEU	Peptide
44	BK	116	ARG	Sidechain
44	BK	119	TYR	Sidechain
44	BK	139	ARG	Sidechain
44	BK	168	SER	Peptide
44	BK	17	TYR	Sidechain
44	BK	174	THR	Peptide
44	BK	181	TYR	Sidechain
44	BK	185	ARG	Sidechain
44	BK	193	ARG	Sidechain
44	BK	196	HIS	Sidechain
44	BK	206	ILE	Peptide
44	BK	209	TYR	Sidechain
44	BK	21	ARG	Sidechain
44	BK	4	ARG	Sidechain

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Mol	Chain	Res	Type	Group
44	BK	40	ARG	Sidechain
44	BK	51	HIS	Sidechain
44	BK	56	GLU	Peptide
44	BK	69	ARG	Sidechain
44	BK	7	ARG	Sidechain
44	BK	75	TYR	Sidechain
44	BK	79	ARG	Sidechain
44	BK	85	PHE	Sidechain
44	BK	86	HIS	Sidechain
44	BK	88	ARG	Sidechain
44	BK	95	HIS	Sidechain
44	BK	99	ILE	Peptide
45	BL	113	ILE	Peptide
45	BL	116	HIS	Sidechain
45	BL	123	TYR	Sidechain
45	BL	140	ARG	Sidechain
45	BL	148	ARG	Sidechain
45	BL	15	PRO	Peptide
45	BL	151	ARG	Sidechain
45	BL	154	ARG	Sidechain
45	BL	159	HIS	Sidechain
45	BL	17	ARG	Sidechain
45	BL	174	HIS	Mainchain
45	BL	58	ARG	Sidechain
45	BL	62	ARG	Sidechain
45	BL	64	PHE	Sidechain
45	BL	67	ARG	Sidechain
47	BN	10	HIS	Sidechain
47	BN	101	ARG	Sidechain
47	BN	104	ARG	Sidechain
47	BN	105	ARG	Sidechain,Mainchain
47	BN	12	HIS	Sidechain
47	BN	124	TYR	Sidechain
47	BN	135	ARG	Sidechain
47	BN	14	ARG	Sidechain
47	BN	143	ALA	Peptide
47	BN	154	ASP	Peptide
47	BN	155	ARG	Mainchain
47	BN	157	ARG	Sidechain
47	BN	18	ASN	Mainchain
47	BN	187	TYR	Sidechain
47	BN	203	ARG	Sidechain

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Mol	Chain	Res	Type	Group
47	BN	204	ASN	Peptide
47	BN	214	GLU	Mainchain
47	BN	42	ARG	Sidechain
47	BN	44	ARG	Sidechain
47	BN	51	ILE	Mainchain,Peptide
47	BN	54	ARG	Sidechain
47	BN	60	ARG	Sidechain
47	BN	63	VAL	Peptide
47	BN	67	THR	Mainchain,Peptide
47	BN	69	ARG	Sidechain
47	BN	74	ARG	Sidechain
47	BN	80	PHE	Sidechain
47	BN	96	ARG	Sidechain
48	BO	108	ARG	Sidechain
48	BO	109	TYR	Sidechain
48	BO	118	ARG	Sidechain
48	BO	119	GLN	Mainchain
48	BO	123	TYR	Sidechain
48	BO	127	PRO	Peptide
48	BO	144	ARG	Sidechain
48	BO	153	ARG	Sidechain
48	BO	154	PHE	Sidechain
48	BO	179	ARG	Sidechain
48	BO	186	HIS	Sidechain
48	BO	201	ARG	Sidechain
48	BO	219	PHE	Sidechain
48	BO	23	ASP	Peptide
48	BO	24	ILE	Mainchain
48	BO	55	ARG	Sidechain
48	BO	67	ARG	Sidechain
48	BO	72	TYR	Sidechain
48	BO	89	PHE	Sidechain,Mainchain
48	BO	91	HIS	Sidechain
49	BP	11	ARG	Sidechain
49	BP	110	ARG	Sidechain
49	BP	120	ARG	Sidechain
49	BP	122	TYR	Sidechain
49	BP	127	ILE	Peptide
49	BP	135	ASN	Peptide
49	BP	14	ARG	Sidechain
49	BP	140	HIS	Sidechain
49	BP	150	ASN	Mainchain

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Mol	Chain	Res	Type	Group
49	BP	151	ALA	Mainchain
49	BP	155	ASP	Peptide
49	BP	157	THR	Mainchain,Peptide
49	BP	158	PRO	Peptide
49	BP	17	ARG	Sidechain
49	BP	171	ARG	Sidechain
49	BP	20	ARG	Sidechain
49	BP	3	LYS	Peptide
49	BP	35	ARG	Sidechain
49	BP	6	TYR	Sidechain
49	BP	8	ARG	Sidechain
49	BP	87	TYR	Sidechain
49	BP	96	HIS	Sidechain
49	BP	97	ARG	Sidechain
50	BQ	101	PRO	Mainchain,Peptide
50	BQ	109	ARG	Sidechain,Peptide
50	BQ	116	ARG	Sidechain
50	BQ	129	ASN	Mainchain
50	BQ	147	TYR	Sidechain
50	BQ	160	ARG	Sidechain
50	BQ	179	ARG	Sidechain
50	BQ	186	ARG	Sidechain
50	BQ	188	HIS	Sidechain
50	BQ	189	ARG	Sidechain
50	BQ	192	ARG	Sidechain
50	BQ	194	LYS	Peptide
50	BQ	204	SER	Mainchain
50	BQ	205	ARG	Sidechain
50	BQ	206	ARG	Sidechain
50	BQ	221	ARG	Sidechain
50	BQ	48	ARG	Sidechain
50	BQ	61	ARG	Sidechain
50	BQ	66	ARG	Sidechain
50	BQ	70	TYR	Sidechain
50	BQ	76	TYR	Sidechain
50	BQ	80	ARG	Sidechain
50	BQ	82	ARG	Sidechain
50	BQ	85	ARG	Sidechain
50	BQ	88	ARG	Sidechain
50	BQ	98	TYR	Sidechain
51	BR	102	ALA	Mainchain
51	BR	127	ARG	Sidechain

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Mol	Chain	Res	Type	Group
51	BR	131	ARG	Sidechain
51	BR	133	HIS	Sidechain
51	BR	141	ARG	Sidechain
51	BR	145	HIS	Sidechain
51	BR	149	PHE	Sidechain
51	BR	154	GLN	Mainchain,Peptide
51	BR	26	TYR	Sidechain
51	BR	39	MET	Peptide
51	BR	4	TYR	Sidechain
51	BR	48	TYR	Sidechain
51	BR	49	ARG	Sidechain
51	BR	56	ARG	Sidechain
51	BR	58	ILE	Mainchain
51	BR	6	ARG	Sidechain
51	BR	60	PHE	Sidechain
51	BR	63	TYR	Sidechain
51	BR	65	GLY	Mainchain,Peptide
52	BS	116	HIS	Sidechain
52	BS	119	ARG	Sidechain
52	BS	121	HIS	Sidechain
52	BS	134	HIS	Sidechain
52	BS	137	ARG	Sidechain
52	BS	138	ARG	Sidechain
52	BS	14	ARG	Sidechain
52	BS	156	ARG	Sidechain
52	BS	170	LYS	Peptide
52	BS	2	VAL	Peptide
52	BS	24	PRO	Peptide
52	BS	27	TYR	Sidechain
52	BS	29	PHE	Peptide
52	BS	3	ARG	Sidechain
52	BS	4	PRO	Peptide
52	BS	42	ARG	Sidechain
52	BS	57	HIS	Sidechain
52	BS	76	TYR	Sidechain
52	BS	89	TYR	Sidechain
52	BS	9	TYR	Sidechain
52	BS	96	PHE	Sidechain
53	BT	100	ARG	Sidechain
53	BT	103	ARG	Sidechain
53	BT	104	ARG	Sidechain
53	BT	117	ARG	Sidechain

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Mol	Chain	Res	Type	Group
53	BT	120	TYR	Sidechain
53	BT	121	ARG	Sidechain
53	BT	131	VAL	Mainchain
53	BT	153	ARG	Sidechain
53	BT	16	ARG	Sidechain
53	BT	160	ALA	Peptide
53	BT	171	ARG	Sidechain
53	BT	179	LYS	Mainchain,Peptide
53	BT	185	ARG	Sidechain
53	BT	189	ARG	Sidechain
53	BT	191	ASP	Peptide
53	BT	21	ARG	Sidechain
53	BT	38	ARG	Sidechain
53	BT	62	ARG	Sidechain
53	BT	74	ARG	Sidechain
53	BT	75	HIS	Sidechain
53	BT	80	ARG	Sidechain
53	BT	81	ARG	Sidechain
53	BT	97	ARG	Sidechain
54	BU	12	ARG	Sidechain
54	BU	120	LYS	Peptide
54	BU	123	THR	Peptide
54	BU	133	ARG	Sidechain,Peptide
54	BU	141	LYS	Peptide
54	BU	148	ARG	Sidechain
54	BU	150	THR	Peptide
54	BU	157	ILE	Peptide
54	BU	19	PHE	Sidechain
54	BU	20	ARG	Sidechain
54	BU	34	PHE	Sidechain
54	BU	39	TYR	Sidechain
54	BU	49	ARG	Sidechain
54	BU	56	TYR	Sidechain,Peptide
54	BU	57	TYR	Sidechain
54	BU	7	TYR	Sidechain
54	BU	81	ARG	Sidechain
54	BU	83	ARG	Sidechain
54	BU	88	ARG	Sidechain
55	BV	108	ARG	Sidechain
55	BV	121	TYR	Sidechain
55	BV	43	ILE	Peptide
55	BV	50	TYR	Sidechain

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Mol	Chain	Res	Type	Group
55	BV	51	PHE	Sidechain
55	BV	92	TYR	Sidechain
56	BW	134	HIS	Sidechain
56	BW	135	ALA	Peptide
56	BW	37	TYR	Sidechain
56	BW	44	TYR	Sidechain
56	BW	6	ALA	Peptide
56	BW	72	ARG	Sidechain
56	BW	73	ARG	Mainchain,Peptide
56	BW	84	ARG	Sidechain
56	BW	89	ARG	Sidechain
57	BX	125	TYR	Sidechain
57	BX	147	ARG	Sidechain
57	BX	46	ARG	Sidechain
57	BX	49	TYR	Sidechain
57	BX	60	TYR	Sidechain
57	BX	61	ARG	Sidechain,Mainchain
58	BY	17	HIS	Sidechain
58	BY	19	ARG	Sidechain
58	BY	2	ARG	Sidechain
58	BY	21	TYR	Sidechain
58	BY	29	THR	Peptide
58	BY	46	ARG	Sidechain
58	BY	53	ILE	Mainchain
58	BY	57	ARG	Sidechain
58	BY	59	TYR	Sidechain
58	BY	61	ARG	Sidechain
58	BY	62	ILE	Mainchain
58	BY	63	HIS	Sidechain
58	BY	66	THR	Peptide
58	BY	70	ARG	Sidechain
58	BY	84	ARG	Sidechain
59	BZ	111	ARG	Sidechain
59	BZ	121	ARG	Sidechain
59	BZ	13	ARG	Sidechain
59	BZ	24	ARG	Sidechain
59	BZ	25	ARG	Sidechain
59	BZ	54	ARG	Sidechain
59	BZ	57	ARG	Sidechain
59	BZ	7	ARG	Sidechain,Mainchain
59	BZ	71	TYR	Sidechain
59	BZ	72	ARG	Sidechain

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Mol	Chain	Res	Type	Group
59	BZ	78	HIS	Sidechain
60	Ba	100	ASP	Peptide
60	Ba	113	ARG	Sidechain
60	Ba	127	PHE	Sidechain
60	Ba	130	ARG	Sidechain
60	Ba	16	ARG	Sidechain
60	Ba	17	TYR	Sidechain
60	Ba	3	PHE	Sidechain
60	Ba	37	TYR	Sidechain
60	Ba	59	ARG	Peptide
60	Ba	62	THR	Mainchain
60	Ba	64	ARG	Sidechain
60	Ba	70	PHE	Sidechain
60	Ba	72	ARG	Sidechain
60	Ba	76	HIS	Sidechain
60	Ba	78	HIS	Sidechain
60	Ba	79	PHE	Sidechain
60	Ba	84	TYR	Sidechain
60	Ba	90	ARG	Sidechain
60	Ba	91	GLU	Peptide
60	Ba	95	ARG	Sidechain
61	Bb	106	TYR	Sidechain
61	Bb	110	LEU	Mainchain
61	Bb	117	ALA	Peptide
61	Bb	12	ARG	Sidechain
61	Bb	122	LYS	Mainchain
61	Bb	14	SER	Peptide
61	Bb	19	TYR	Sidechain
61	Bb	26	ARG	Sidechain
61	Bb	32	ARG	Sidechain
61	Bb	42	ARG	Sidechain
61	Bb	48	TYR	Sidechain
61	Bb	53	PHE	Sidechain
61	Bb	61	TYR	Sidechain
61	Bb	69	TRP	Mainchain
61	Bb	9	ARG	Sidechain
62	Bc	107	TYR	Sidechain
62	Bc	109	ARG	Sidechain
62	Bc	127	ARG	Sidechain
62	Bc	13	ARG	Sidechain
62	Bc	130	ARG	Sidechain
62	Bc	135	HIS	Peptide

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Mol	Chain	Res	Type	Group
62	Bc	137	HIS	Sidechain
62	Bc	142	ARG	Sidechain
62	Bc	18	PHE	Sidechain
62	Bc	22	ARG	Sidechain
62	Bc	26	ARG	Mainchain
62	Bc	27	LEU	Mainchain
62	Bc	32	PHE	Sidechain
62	Bc	34	ASN	Peptide
62	Bc	41	ARG	Sidechain
62	Bc	45	PHE	Sidechain
62	Bc	51	ALA	Mainchain
62	Bc	59	ARG	Sidechain,Peptide
62	Bc	83	GLU	Peptide
62	Bc	93	ARG	Sidechain,Mainchain,Peptide
62	Bc	96	ALA	Mainchain,Peptide
62	Bc	97	ASP	Peptide
62	Bc	99	ARG	Peptide
63	Bd	10	HIS	Sidechain
63	Bd	18	ARG	Sidechain
63	Bd	19	ASN	Peptide
63	Bd	28	TYR	Sidechain
63	Bd	31	ASN	Mainchain,Peptide
63	Bd	34	ARG	Sidechain
63	Bd	49	LYS	Peptide
63	Bd	59	ARG	Sidechain
63	Bd	61	GLU	Sidechain
64	Be	128	ARG	Sidechain
64	Be	133	TYR	Sidechain
64	Be	145	ARG	Sidechain
64	Be	147	ARG	Sidechain
64	Be	163	ARG	Sidechain
64	Be	186	PHE	Sidechain
64	Be	189	PHE	Mainchain
64	Be	200	ARG	Sidechain
64	Be	204	ARG	Sidechain,Mainchain
64	Be	207	VAL	Mainchain
64	Be	211	HIS	Sidechain
64	Be	221	HIS	Sidechain
64	Be	245	ARG	Sidechain
64	Be	250	ARG	Sidechain
64	Be	253	ARG	Sidechain
64	Be	71	ARG	Sidechain

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Mol	Chain	Res	Type	Group
64	Be	72	VAL	Mainchain
64	Be	83	PHE	Sidechain
64	Be	89	LEU	Mainchain,Peptide
65	Bf	100	TYR	Sidechain
65	Bf	106	HIS	Sidechain
65	Bf	111	VAL	Mainchain
65	Bf	150	HIS	Sidechain
65	Bf	167	ARG	Sidechain
65	Bf	168	ARG	Sidechain
65	Bf	173	TRP	Peptide
65	Bf	184	ARG	Sidechain
65	Bf	189	ARG	Sidechain
65	Bf	212	ARG	Sidechain
65	Bf	216	HIS	Sidechain
65	Bf	223	ARG	Sidechain
65	Bf	226	ARG	Sidechain
65	Bf	260	ARG	Sidechain
65	Bf	265	PHE	Sidechain
65	Bf	295	PRO	Mainchain
65	Bf	296	ARG	Sidechain
65	Bf	299	HIS	Sidechain
65	Bf	300	ARG	Sidechain
65	Bf	312	HIS	Sidechain
65	Bf	315	ARG	Sidechain
65	Bf	318	TYR	Sidechain
65	Bf	339	TYR	Sidechain
65	Bf	343	ARG	Sidechain
65	Bf	348	GLU	Mainchain
65	Bf	356	TYR	Sidechain
65	Bf	373	GLY	Peptide
65	Bf	376	ARG	Sidechain
65	Bf	392	ARG	Sidechain
65	Bf	397	ARG	Sidechain
65	Bf	404	THR	Peptide
65	Bf	407	LYS	Peptide
65	Bf	412	ILE	Mainchain
65	Bf	416	PHE	Sidechain
65	Bf	425	HIS	Sidechain
65	Bf	427	ARG	Sidechain
65	Bf	428	PHE	Sidechain
65	Bf	438	TYR	Sidechain
65	Bf	445	ARG	Sidechain

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Mol	Chain	Res	Type	Group
65	Bf	447	ARG	Sidechain,Mainchain
65	Bf	451	ARG	Sidechain
65	Bf	453	ARG	Sidechain
65	Bf	54	HIS	Sidechain
65	Bf	57	PHE	Sidechain
65	Bf	62	HIS	Sidechain
65	Bf	77	ARG	Sidechain
65	Bf	79	ARG	Sidechain
66	Bg	105	ASP	Mainchain,Peptide
66	Bg	34	TYR	Sidechain
66	Bg	46	ARG	Sidechain
66	Bg	59	CYS	Mainchain
66	Bg	79	HIS	Sidechain
66	Bg	81	TYR	Sidechain
66	Bg	99	CYS	Mainchain
67	Bh	121	LYS	Peptide
67	Bh	134	PHE	Sidechain
67	Bh	146	ARG	Sidechain
67	Bh	148	ARG	Sidechain
67	Bh	164	LYS	Mainchain,Peptide
67	Bh	167	TYR	Sidechain
67	Bh	175	VAL	Mainchain
67	Bh	178	PHE	Sidechain
67	Bh	183	THR	Mainchain
67	Bh	29	ALA	Mainchain
67	Bh	3	ARG	Sidechain
67	Bh	40	ARG	Sidechain
67	Bh	60	ALA	Mainchain,Peptide
67	Bh	64	ARG	Sidechain
67	Bh	71	ALA	Mainchain
67	Bh	73	LEU	Mainchain
67	Bh	74	PHE	Sidechain
67	Bh	79	ARG	Sidechain
67	Bh	82	ASP	Peptide
67	Bh	91	HIS	Sidechain
67	Bh	99	ARG	Sidechain
68	Bi	106	ARG	Sidechain
68	Bi	111	ARG	Sidechain
68	Bi	114	HIS	Sidechain
68	Bi	119	ARG	Sidechain
68	Bi	3	LYS	Peptide
68	Bi	45	ARG	Sidechain

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Mol	Chain	Res	Type	Group
68	Bi	46	ARG	Sidechain
68	Bi	47	TYR	Sidechain
68	Bi	5	PHE	Sidechain
68	Bi	62	ARG	Sidechain
68	Bi	68	THR	Mainchain
68	Bi	84	TYR	Sidechain
68	Bi	99	HIS	Sidechain
69	Bj	10	ARG	Sidechain
69	Bj	14	TYR	Sidechain
69	Bj	17	ARG	Sidechain
69	Bj	2	SER	Mainchain
69	Bj	20	ARG	Sidechain
69	Bj	22	ARG	Sidechain
69	Bj	3	CYS	Peptide
69	Bj	30	ARG	Sidechain
69	Bj	36	ARG	Sidechain
69	Bj	39	ARG	Sidechain
69	Bj	45	THR	Peptide
69	Bj	46	PRO	Mainchain
69	Bj	5	ARG	Sidechain
69	Bj	53	ARG	Sidechain
69	Bj	6	VAL	Mainchain
69	Bj	62	HIS	Sidechain
69	Bj	66	ARG	Sidechain
69	Bj	77	ARG	Sidechain
69	Bj	8	TYR	Sidechain
69	Bj	85	HIS	Sidechain,Mainchain
69	Bj	9	ARG	Sidechain
69	Bj	94	ARG	Sidechain
70	Bk	106	ARG	Sidechain
70	Bk	110	ARG	Sidechain
70	Bk	116	HIS	Sidechain
70	Bk	123	TYR	Sidechain
70	Bk	47	ARG	Sidechain
70	Bk	67	ARG	Sidechain
70	Bk	81	SER	Mainchain,Peptide
70	Bk	87	LEU	Mainchain
70	Bk	88	ARG	Sidechain
70	Bk	94	ARG	Sidechain
70	Bk	95	ARG	Sidechain
71	Bl	101	ARG	Sidechain
71	Bl	102	ARG	Sidechain

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Mol	Chain	Res	Type	Group
71	Bl	103	SER	Peptide
71	Bl	106	ARG	Sidechain
71	Bl	114	ARG	Sidechain
71	Bl	116	HIS	Sidechain
71	Bl	130	SER	Peptide
71	Bl	139	ARG	Sidechain
71	Bl	148	ARG	Sidechain
71	Bl	34	LYS	Peptide
71	Bl	35	SER	Peptide
71	Bl	39	TYR	Sidechain
71	Bl	47	TYR	Sidechain
71	Bl	75	TYR	Sidechain
71	Bl	79	ARG	Sidechain
71	Bl	82	TYR	Sidechain
71	Bl	84	TYR	Sidechain
71	Bl	89	ILE	Peptide
71	Bl	91	ARG	Sidechain
71	Bl	93	VAL	Peptide
71	Bl	94	ARG	Sidechain
71	Bl	98	ALA	Mainchain,Peptide
72	Bm	12	ARG	Sidechain
72	Bm	13	THR	Peptide
72	Bm	27	ARG	Sidechain
72	Bm	28	ARG	Sidechain
72	Bm	31	ARG	Sidechain
72	Bm	37	ARG	Sidechain
72	Bm	38	TYR	Sidechain
72	Bm	42	HIS	Mainchain
72	Bm	63	ARG	Sidechain
72	Bm	70	ARG	Sidechain
72	Bm	76	ARG	Sidechain,Mainchain
72	Bm	77	ALA	Peptide
72	Bm	84	ARG	Sidechain
72	Bm	9	PRO	Peptide
72	Bm	94	ARG	Sidechain
73	Bn	11	ARG	Sidechain
73	Bn	21	ARG	Sidechain
73	Bn	31	TRP	Mainchain
73	Bn	45	ARG	Sidechain
73	Bn	58	ARG	Sidechain
73	Bn	66	TYR	Sidechain
73	Bn	72	ARG	Sidechain

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Mol	Chain	Res	Type	Group
73	Bn	73	ARG	Sidechain
73	Bn	75	ARG	Sidechain
73	Bn	76	ASN	Mainchain,Peptide
73	Bn	78	PHE	Mainchain,Peptide
73	Bn	79	LYS	Mainchain
74	Bo	14	TYR	Sidechain
74	Bo	17	ARG	Sidechain
74	Bo	18	TYR	Sidechain
74	Bo	25	ARG	Sidechain
74	Bo	4	ARG	Sidechain
74	Bo	49	ARG	Sidechain
74	Bo	57	CYS	Mainchain
74	Bo	59	GLY	Mainchain,Peptide
74	Bo	69	TYR	Sidechain
74	Bo	85	ARG	Sidechain
74	Bo	87	ARG	Sidechain
75	Bp	11	PHE	Sidechain
75	Bp	21	ARG	Sidechain
75	Bp	30	LYS	Peptide
75	Bp	37	ARG	Sidechain
75	Bp	72	ARG	Sidechain
75	Bp	79	THR	Peptide
76	Bq	13	TYR	Sidechain
76	Bq	21	ARG	Sidechain
76	Bq	25	TYR	Sidechain
76	Bq	3	ARG	Sidechain
76	Bq	30	ARG	Sidechain
76	Bq	42	ARG	Sidechain
76	Bq	43	HIS	Sidechain
76	Bq	45	ARG	Sidechain,Peptide
77	Br	10	TYR	Sidechain
77	Br	103	PRO	Mainchain,Peptide
77	Br	107	PHE	Peptide
77	Br	109	ARG	Sidechain
77	Br	132	LEU	Mainchain,Peptide
77	Br	139	ARG	Sidechain
77	Br	160	TYR	Sidechain
77	Br	169	PHE	Sidechain
77	Br	174	GLY	Mainchain,Peptide
77	Br	198	ARG	Sidechain
77	Br	203	ARG	Sidechain
77	Br	204	ARG	Sidechain

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Mol	Chain	Res	Type	Group
77	Br	217	ARG	Sidechain,Peptide
77	Br	219	PHE	Sidechain
77	Br	220	ARG	Sidechain
77	Br	225	LEU	Mainchain
77	Br	246	ARG	Sidechain
77	Br	250	TRP	Peptide
77	Br	262	PHE	Sidechain
77	Br	264	THR	Mainchain
77	Br	265	PHE	Sidechain
77	Br	275	PHE	Sidechain
77	Br	289	ARG	Sidechain
77	Br	297	ARG	Sidechain
77	Br	298	ARG	Sidechain
77	Br	299	VAL	Peptide
77	Br	309	ARG	Sidechain
77	Br	313	TYR	Sidechain
77	Br	32	ARG	Sidechain
77	Br	320	ILE	Peptide
77	Br	323	ARG	Sidechain
77	Br	326	ARG	Sidechain
77	Br	328	ARG	Sidechain
77	Br	33	HIS	Sidechain
77	Br	349	ARG	Sidechain,Mainchain
77	Br	364	ARG	Sidechain
77	Br	4	ARG	Sidechain
77	Br	48	ARG	Sidechain
77	Br	55	ARG	Sidechain
77	Br	74	ARG	Sidechain
77	Br	79	HIS	Sidechain
78	Bs	2	MET	Mainchain
78	Bs	21	ARG	Sidechain
78	Bs	22	ARG	Sidechain
78	Bs	24	TYR	Sidechain
78	Bs	41	HIS	Sidechain
79	Bt	15	GLU	Peptide
79	Bt	16	ARG	Sidechain
79	Bt	2	VAL	Mainchain
79	Bt	20	HIS	Sidechain
79	Bt	23	PHE	Sidechain
79	Bt	28	TYR	Sidechain
79	Bt	4	TYR	Sidechain
79	Bt	48	SER	Mainchain

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Mol	Chain	Res	Type	Group
79	Bt	58	PHE	Sidechain
79	Bt	61	LYS	Mainchain
79	Bt	90	HIS	Sidechain,Mainchain
79	Bt	91	PHE	Sidechain
80	Bu	108	ARG	Sidechain
80	Bu	12	TYR	Sidechain
80	Bu	13	TYR	Sidechain
80	Bu	132	VAL	Peptide
80	Bu	133	ARG	Sidechain
80	Bu	145	ARG	Sidechain
80	Bu	146	PHE	Sidechain
80	Bu	147	PRO	Peptide
80	Bu	148	PHE	Sidechain
80	Bu	164	ARG	Sidechain
80	Bu	182	ARG	Sidechain
80	Bu	189	TYR	Sidechain
80	Bu	202	ARG	Sidechain
80	Bu	204	ARG	Sidechain
80	Bu	206	PHE	Sidechain
80	Bu	213	TYR	Sidechain
80	Bu	218	ARG	Sidechain
80	Bu	226	ASP	Peptide
80	Bu	23	ARG	Sidechain
80	Bu	232	PHE	Sidechain
80	Bu	236	ILE	Mainchain
80	Bu	238	ALA	Mainchain
80	Bu	24	ARG	Sidechain
80	Bu	249	TYR	Sidechain
80	Bu	257	ARG	Sidechain
80	Bu	264	ARG	Sidechain
80	Bu	278	TYR	Sidechain
80	Bu	30	TYR	Sidechain
80	Bu	33	ARG	Sidechain
80	Bu	44	PHE	Sidechain
80	Bu	54	ARG	Sidechain
80	Bu	79	TYR	Sidechain
80	Bu	81	HIS	Sidechain
80	Bu	99	TYR	Sidechain
81	Bv	147	ARG	Sidechain
81	Bv	15	LYS	Peptide
81	Bv	170	GLU	Peptide
81	Bv	174	TYR	Sidechain

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Mol	Chain	Res	Type	Group
81	Bv	176	HIS	Sidechain
81	Bv	179	PHE	Sidechain
81	Bv	18	ARG	Sidechain
81	Bv	188	HIS	Sidechain
81	Bv	189	ARG	Sidechain
81	Bv	23	TYR	Sidechain
81	Bv	27	ARG	Sidechain
81	Bv	3	ALA	Peptide
81	Bv	42	ARG	Sidechain
81	Bv	44	ARG	Sidechain
81	Bv	46	ARG	Sidechain
81	Bv	64	GLY	Peptide
81	Bv	68	TYR	Mainchain,Peptide
81	Bv	74	ARG	Sidechain
81	Bv	79	ARG	Sidechain
81	Bv	8	ALA	Peptide
81	Bv	87	ARG	Sidechain
82	Bw	103	ARG	Sidechain
82	Bw	138	MET	Mainchain
82	Bw	151	TYR	Sidechain
82	Bw	160	ARG	Sidechain
82	Bw	164	TYR	Sidechain
82	Bw	166	ARG	Sidechain
82	Bw	168	HIS	Sidechain,Mainchain
82	Bw	18	ALA	Mainchain
82	Bw	188	TYR	Mainchain
82	Bw	204	TYR	Sidechain
82	Bw	224	PRO	Mainchain,Peptide
82	Bw	240	GLY	Peptide
82	Bw	245	ARG	Sidechain
82	Bw	251	ARG	Sidechain
82	Bw	255	ARG	Sidechain
82	Bw	27	ALA	Peptide
82	Bw	30	ARG	Sidechain
82	Bw	36	GLN	Mainchain
82	Bw	40	ASN	Mainchain
82	Bw	41	PHE	Sidechain
82	Bw	42	LYS	Mainchain,Peptide
82	Bw	44	ALA	Mainchain
82	Bw	60	TYR	Sidechain
82	Bw	70	TYR	Sidechain
82	Bw	81	ARG	Sidechain

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Mol	Chain	Res	Type	Group
82	Bw	82	ARG	Sidechain
82	Bw	85	ARG	Sidechain
82	Bw	90	TYR	Sidechain
82	Bw	91	TYR	Sidechain
83	Bx	118	ARG	Sidechain
83	Bx	121	ARG	Sidechain
83	Bx	162	ARG	Sidechain
83	Bx	171	ASP	Peptide
83	Bx	198	ARG	Sidechain
83	Bx	215	ASP	Mainchain
83	Bx	234	ARG	Sidechain
83	Bx	265	ARG	Sidechain
83	Bx	269	ASN	Mainchain
83	Bx	273	ALA	Peptide
83	Bx	38	SER	Peptide
83	Bx	43	ARG	Sidechain
83	Bx	45	LYS	Mainchain,Peptide
83	Bx	47	PHE	Sidechain
83	Bx	57	ARG	Sidechain
83	Bx	61	ARG	Sidechain
83	Bx	64	ARG	Sidechain
83	Bx	91	PHE	Sidechain
84	By	120	ARG	Sidechain
84	By	121	ARG	Sidechain
84	By	127	ASP	Mainchain,Peptide
84	By	131	TYR	Sidechain
84	By	132	ARG	Sidechain
84	By	138	VAL	Mainchain,Peptide
84	By	140	ASP	Mainchain
84	By	154	ARG	Sidechain
84	By	171	ARG	Sidechain
84	By	186	GLU	Mainchain
84	By	2	LYS	Mainchain
84	By	38	ARG	Sidechain
84	By	41	GLN	Peptide
84	By	45	ARG	Sidechain
84	By	47	ASN	Mainchain
84	By	51	ARG	Sidechain
84	By	6	HIS	Sidechain,Peptide
84	By	7	ASP	Mainchain,Peptide
84	By	74	HIS	Sidechain
84	By	76	ARG	Sidechain

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Mol	Chain	Res	Type	Group
84	By	8	GLN	Peptide
84	By	94	TYR	Sidechain
84	By	96	HIS	Sidechain

5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A0	1782	0	1855	90	0
2	A1	1940	0	2043	95	0
3	A2	1484	0	1547	87	0
4	A3	2003	0	2138	161	0
5	A4	1592	0	1688	145	0
6	A5	1551	0	1660	87	0
7	A6	1518	0	1571	106	0
8	A7	2412	0	2334	82	0
9	A8	334	0	343	13	0
10	A9	530	0	527	18	0
11	AC	1620	0	1660	90	0
12	AD	853	0	857	38	0
13	AE	1300	0	1359	77	0
14	AF	940	0	962	6	0
15	AG	1148	0	1226	89	0
16	AH	922	0	923	47	0
17	AI	1074	0	1097	49	0
18	AJ	1018	0	1050	63	0
19	AK	1190	0	1254	35	0
20	AL	1021	0	1096	50	0
21	AM	1229	0	1291	94	0
22	AO	1181	0	1240	52	0
23	AP	1731	0	1782	141	0
24	AQ	827	0	883	41	0
25	AR	603	0	593	56	0
26	AS	1116	0	1170	42	0
27	AT	1050	0	1141	102	0
28	AU	673	0	735	26	0
29	AV	809	0	841	38	0
30	AW	636	0	648	34	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	AX	1628	0	1695	45	0
32	AY	514	0	571	55	0
33	AZ	526	0	550	26	0
34	BA	39395	0	19108	6454	0
35	BB	31164	0	15283	4032	0
36	BC	3584	0	1759	750	0
37	BD	2533	0	1235	422	0
38	BE	4441	0	2194	750	0
39	BF	1521	0	773	253	0
40	BG	3896	0	1874	666	0
41	BH	2867	0	1408	507	0
42	BI	1527	0	1646	122	0
43	BJ	1717	0	1815	9	0
44	BK	1725	0	1797	143	0
45	BL	1363	0	1402	86	0
46	BM	1022	0	1109	3	0
47	BN	1762	0	1869	242	0
48	BO	1627	0	1761	102	0
49	BP	1484	0	1601	148	0
50	BQ	1716	0	1796	97	0
51	BR	1245	0	1301	82	0
52	BS	1473	0	1512	98	0
53	BT	1672	0	1799	142	0
54	BU	1260	0	1315	79	0
55	BV	863	0	908	53	0
56	BW	1042	0	1106	60	0
57	BX	990	0	1059	75	0
58	BY	836	0	863	138	0
59	BZ	1008	0	1088	56	0
60	Ba	1091	0	1162	76	0
61	Bb	1137	0	1174	94	0
62	Bc	1129	0	1214	130	0
63	Bd	571	0	595	82	0
64	Be	1390	0	1444	97	0
65	Bf	3317	0	3451	225	0
66	Bg	735	0	754	61	0
67	Bh	1526	0	1654	120	0
68	Bi	1054	0	1113	50	0
69	Bj	1293	0	1420	105	0
70	Bk	719	0	811	66	0
71	Bl	936	0	968	75	0
72	Bm	849	0	934	55	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
73	Bn	699	0	718	61	0
74	Bo	715	0	743	49	0
75	Bp	656	0	717	52	0
76	Bq	457	0	495	34	0
77	Br	2883	0	3011	197	0
78	Bs	427	0	465	16	0
79	Bt	866	0	922	72	0
80	Bu	2354	0	2425	165	0
81	Bv	1222	0	1318	76	0
82	Bw	2066	0	2180	148	0
83	Bx	1908	0	2047	123	0
84	By	1540	0	1608	98	0
85	AA	47370	0	23451	5919	0
86	AB	1557	0	775	109	0
All	All	232955	0	167280	23332	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 59.

All (23332) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:214:A:C6	34:BA:214:A:C5	1.79	1.69
21:AM:13:ILE:HG23	45:BL:123:TYR:CE2	1.20	1.68
34:BA:547:C:C4'	34:BA:547:C:C3'	1.78	1.59
21:AM:13:ILE:CG2	45:BL:123:TYR:HE2	1.06	1.57
34:BA:214:A:N3	34:BA:214:A:C2	1.70	1.56
34:BA:214:A:C2	34:BA:214:A:N1	1.69	1.56
85:AA:469:G:C5	85:AA:469:G:C4	1.94	1.56
42:BI:79:LYS:HZ3	63:Bd:65:ALA:C	1.05	1.54
34:BA:214:A:C6	34:BA:214:A:N1	1.75	1.53
34:BA:743:A:C8	34:BA:743:A:N9	1.75	1.53
1:A0:228:GLN:CG	83:Bx:275:ALA:HB3	1.08	1.53
41:BH:98:U:C5	55:BV:59:GLY:HA2	1.40	1.53
42:BI:76:VAL:CG2	63:Bd:62:ARG:HG3	1.34	1.52
85:AA:464:A:C8	85:AA:466:A:H8	1.28	1.51
1:A0:228:GLN:HG2	83:Bx:275:ALA:CB	1.06	1.50
35:BB:852:G:C2'	69:Bj:118:LYS:HG2	1.37	1.49
34:BA:874:G:C2	34:BA:875:G:C5	1.87	1.48
58:BY:79:THR:HG23	85:AA:2163:G:C4'	1.44	1.48
34:BA:743:A:N9	34:BA:743:A:C4	1.82	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:6:HIS:CE1	53:BT:191:ASP:C	1.91	1.46
3:A2:184:ARG:HH22	86:AB:41:C:C4'	1.28	1.43
35:BB:525:U:O4	85:AA:2113:U:C5'	1.66	1.42
34:BA:214:A:C5	34:BA:214:A:C4	1.77	1.41
58:BY:82:ALA:HB1	85:AA:2159:C:N3	1.30	1.41
35:BB:851:U:OP2	69:Bj:121:ARG:CZ	1.65	1.41
34:BA:557:U:C2'	34:BA:557:U:C3'	1.77	1.40
35:BB:525:U:O4	85:AA:2113:U:C4'	1.71	1.39
5:A4:6:HIS:CE1	53:BT:191:ASP:O	1.71	1.39
85:AA:466:A:H3'	85:AA:466:A:N3	1.40	1.36
41:BH:98:U:H5	55:BV:59:GLY:CA	1.34	1.36
34:BA:743:A:C5	47:BN:7:ALA:CA	2.07	1.35
35:BB:852:G:H2'	69:Bj:118:LYS:CG	1.56	1.35
58:BY:79:THR:HG23	85:AA:2163:G:C5'	1.56	1.34
3:A2:184:ARG:NH2	86:AB:41:C:H4'	1.42	1.34
41:BH:98:U:C5	55:BV:59:GLY:CA	2.07	1.34
4:A3:9:ARG:CD	58:BY:84:ARG:CZ	2.04	1.34
41:BH:98:U:OP2	55:BV:63:LYS:HB2	1.27	1.32
34:BA:743:A:C5	47:BN:7:ALA:C	2.07	1.32
41:BH:97:C:OP2	55:BV:63:LYS:HE3	1.28	1.32
58:BY:82:ALA:HB1	85:AA:2159:C:C2	1.66	1.30
35:BB:852:G:O2'	69:Bj:118:LYS:CE	1.77	1.29
58:BY:82:ALA:CB	85:AA:2159:C:N3	1.93	1.29
85:AA:464:A:C8	85:AA:466:A:C8	2.20	1.29
5:A4:6:HIS:HE1	53:BT:192:ASP:CA	1.43	1.29
4:A3:9:ARG:HD2	58:BY:84:ARG:NH1	1.48	1.28
34:BA:874:G:N1	34:BA:875:G:C5	1.79	1.28
34:BA:549:G:H5''	52:BS:147:HIS:O	1.33	1.28
21:AM:13:ILE:CG2	45:BL:123:TYR:CE2	1.91	1.26
5:A4:6:HIS:CE1	53:BT:192:ASP:CA	2.19	1.26
58:BY:81:ARG:HG2	85:AA:2162:G:O5'	1.34	1.25
58:BY:98:ARG:NH2	85:AA:2161:C:OP1	1.66	1.25
42:BI:79:LYS:NZ	63:Bd:65:ALA:C	1.93	1.25
5:A4:6:HIS:NE2	53:BT:191:ASP:O	1.69	1.25
34:BA:647:U:O2'	34:BA:648:C:C6	1.70	1.24
53:BT:177:GLU:HG2	85:AA:999:A:N7	1.49	1.24
58:BY:79:THR:CG2	85:AA:2163:G:H4'	1.68	1.24
42:BI:79:LYS:O	63:Bd:71:LYS:O	1.54	1.24
34:BA:743:A:C8	47:BN:7:ALA:CA	2.20	1.23
34:BA:874:G:C2	34:BA:875:G:C4	2.26	1.23
5:A4:6:HIS:NE2	53:BT:191:ASP:HB3	1.54	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:BY:79:THR:CG2	85:AA:2163:G:C4'	2.15	1.22
4:A3:9:ARG:HD2	58:BY:84:ARG:CZ	1.66	1.22
35:BB:852:G:O2'	69:Bj:118:LYS:HE2	1.07	1.22
34:BA:549:G:O4'	52:BS:147:HIS:CB	1.71	1.21
58:BY:81:ARG:CD	85:AA:2163:G:OP2	1.78	1.21
41:BH:98:U:OP2	55:BV:63:LYS:CB	1.86	1.21
4:A3:9:ARG:NH1	58:BY:84:ARG:NH1	1.87	1.21
34:BA:549:G:C5'	52:BS:147:HIS:C	2.00	1.20
42:BI:76:VAL:HG21	63:Bd:62:ARG:CG	1.70	1.20
42:BI:79:LYS:NZ	63:Bd:65:ALA:O	1.74	1.18
15:AG:123:HIS:NE2	34:BA:946:A:H4'	1.54	1.18
53:BT:177:GLU:CG	85:AA:999:A:N7	2.07	1.18
69:Bj:114:VAL:CG2	69:Bj:118:LYS:HE3	1.74	1.18
53:BT:181:ARG:HD3	85:AA:999:A:O2'	1.25	1.16
42:BI:79:LYS:HD2	63:Bd:69:ALA:O	1.45	1.16
3:A2:184:ARG:NH2	86:AB:41:C:C5'	2.08	1.16
4:A3:9:ARG:CD	58:BY:84:ARG:NH1	2.06	1.16
34:BA:743:A:C8	47:BN:7:ALA:C	2.23	1.16
58:BY:79:THR:CG2	85:AA:2163:G:H5''	1.74	1.15
21:AM:13:ILE:HG21	45:BL:123:TYR:HE2	1.10	1.15
35:BB:853:U:H3'	69:Bj:122:ALA:CB	1.76	1.15
4:A3:9:ARG:CD	58:BY:84:ARG:NH2	2.10	1.15
34:BA:743:A:C4	47:BN:7:ALA:CA	2.29	1.15
63:Bd:37:TRP:CZ3	80:Bu:42:THR:HG22	1.82	1.15
85:AA:466:A:N3	85:AA:466:A:C3'	2.09	1.14
85:AA:464:A:N7	85:AA:466:A:C8	2.14	1.14
42:BI:79:LYS:CD	63:Bd:65:ALA:O	1.95	1.14
53:BT:181:ARG:CD	85:AA:999:A:O2'	1.92	1.13
34:BA:561:U:H2'	34:BA:562:C:C6	1.83	1.13
41:BH:99:G:OP1	55:BV:58:ASN:N	1.70	1.12
53:BT:177:GLU:OE2	85:AA:999:A:N7	1.82	1.12
4:A3:9:ARG:HD3	58:BY:84:ARG:CZ	1.79	1.12
35:BB:525:U:O4	85:AA:2113:U:H5'	1.31	1.12
34:BA:862:C:N3	34:BA:874:G:N2	1.96	1.11
34:BA:214:A:C4	62:Bc:78:LYS:CE	2.34	1.11
85:AA:464:A:N7	85:AA:466:A:H8	1.48	1.11
1:A0:228:GLN:HG2	83:Bx:275:ALA:HB2	1.30	1.10
35:BB:525:U:C4	85:AA:2113:U:H4'	1.84	1.10
34:BA:743:A:N7	47:BN:7:ALA:CA	2.14	1.10
42:BI:79:LYS:HZ3	63:Bd:65:ALA:CA	1.63	1.10
34:BA:743:A:C4	47:BN:7:ALA:C	2.29	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:549:G:H4'	52:BS:147:HIS:C	1.76	1.09
34:BA:214:A:C4	62:Bc:78:LYS:CD	2.34	1.09
35:BB:525:U:O4	85:AA:2113:U:H4'	1.41	1.09
6:A5:181:GLU:HB2	41:BH:93:G:OP2	1.44	1.09
35:BB:1166:A:H5'	35:BB:1167:C:H5''	1.25	1.09
34:BA:214:A:C6	62:Bc:78:LYS:CE	2.36	1.08
34:BA:546:U:O3'	34:BA:547:C:P	2.11	1.08
35:BB:531:U:H5'	85:AA:2231:G:O6	1.53	1.08
4:A3:75:SER:HB2	58:BY:27:LEU:HD22	1.35	1.08
34:BA:214:A:C5	62:Bc:78:LYS:CD	2.35	1.08
4:A3:9:ARG:CZ	58:BY:84:ARG:NH1	2.16	1.07
5:A4:6:HIS:CE1	53:BT:192:ASP:HA	1.82	1.07
58:BY:81:ARG:HD2	85:AA:2163:G:OP2	1.35	1.07
1:A0:228:GLN:HG3	83:Bx:275:ALA:HB3	1.14	1.07
35:BB:526:A:N6	85:AA:2112:G:O2'	1.87	1.07
34:BA:214:A:C2	62:Bc:78:LYS:CE	2.37	1.07
35:BB:970:C:H2'	35:BB:971:A:H5'	1.33	1.07
4:A3:9:ARG:HD2	58:BY:84:ARG:NH2	1.70	1.06
41:BH:97:C:OP2	55:BV:63:LYS:CE	2.02	1.06
34:BA:214:A:C2	62:Bc:78:LYS:CD	2.38	1.06
35:BB:530:C:H5''	85:AA:2231:G:H2'	1.37	1.06
34:BA:214:A:C5	62:Bc:78:LYS:CE	2.38	1.06
34:BA:1197:U:OP1	63:Bd:57:LYS:NZ	1.88	1.06
34:BA:214:A:C6	62:Bc:78:LYS:CD	2.38	1.06
58:BY:79:THR:CG2	85:AA:2163:G:C5'	2.29	1.06
34:BA:549:G:C4'	52:BS:147:HIS:C	2.28	1.05
53:BT:177:GLU:CD	85:AA:999:A:N7	2.13	1.05
34:BA:874:G:C6	34:BA:875:G:C6	2.40	1.05
3:A2:184:ARG:NH2	86:AB:41:C:H5''	1.72	1.04
34:BA:874:G:C6	34:BA:875:G:O6	2.10	1.04
35:BB:852:G:C2'	69:Bj:118:LYS:CG	2.22	1.04
58:BY:83:GLU:HB3	85:AA:2161:C:O4'	1.58	1.04
5:A4:6:HIS:NE2	53:BT:191:ASP:C	2.13	1.03
41:BH:98:U:H5	55:BV:59:GLY:HA3	1.20	1.03
35:BB:853:U:H3'	69:Bj:122:ALA:HB2	1.38	1.03
85:AA:466:A:H3'	85:AA:466:A:C2	1.92	1.03
34:BA:799:A:C8	34:BA:857:C:H5''	1.94	1.01
34:BA:862:C:H3'	34:BA:863:G:H5''	1.40	1.01
34:BA:549:G:H4'	52:BS:148:ASN:N	1.75	1.01
42:BI:76:VAL:CG2	63:Bd:62:ARG:CG	2.30	1.01
6:A5:183:ARG:CD	41:BH:93:G:O5'	2.08	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AM:13:ILE:HG23	45:BL:123:TYR:CD2	1.96	1.00
56:BW:69:PRO:CD	85:AA:2126:U:OP1	2.09	1.00
58:BY:81:ARG:CG	85:AA:2162:G:O5'	2.10	1.00
4:A3:9:ARG:NH1	58:BY:84:ARG:HH11	1.53	1.00
5:A4:104:ILE:HG22	5:A4:105:THR:H	1.25	1.00
53:BT:170:ARG:N	85:AA:957:A:H61	1.60	1.00
34:BA:561:U:H2'	34:BA:562:C:H6	1.24	1.00
35:BB:851:U:OP2	69:Bj:121:ARG:NH2	1.93	1.00
3:A2:184:ARG:CZ	86:AB:41:C:H4'	1.92	0.99
34:BA:743:A:N7	47:BN:7:ALA:C	2.19	0.99
34:BA:874:G:N1	34:BA:875:G:C6	2.29	0.99
3:A2:184:ARG:HH22	86:AB:41:C:C5'	1.73	0.99
5:A4:6:HIS:HE1	53:BT:192:ASP:CB	1.75	0.99
35:BB:530:C:OP2	85:AA:2231:G:H1'	1.59	0.99
4:A3:9:ARG:HD3	58:BY:84:ARG:NH2	1.75	0.98
41:BH:99:G:OP1	55:BV:57:LEU:C	2.05	0.98
61:Bb:126:VAL:HG21	61:Bb:130:ALA:HB2	1.46	0.98
35:BB:837:A:H5''	35:BB:1026:G:C5	1.99	0.98
58:BY:79:THR:HG23	85:AA:2163:G:H4'	0.99	0.98
3:A2:184:ARG:HH22	86:AB:41:C:H4'	0.82	0.97
5:A4:6:HIS:NE2	53:BT:191:ASP:CB	2.28	0.97
42:BI:79:LYS:NZ	63:Bd:65:ALA:HA	1.77	0.97
42:BI:79:LYS:CE	63:Bd:65:ALA:O	2.12	0.97
5:A4:6:HIS:CE1	53:BT:192:ASP:N	2.33	0.97
3:A2:184:ARG:NH2	86:AB:41:C:C4'	2.05	0.96
4:A3:118:LYS:HE2	58:BY:80:VAL:HG12	1.47	0.96
41:BH:97:C:H4'	55:BV:64:LEU:H	1.29	0.96
34:BA:549:G:O4'	52:BS:147:HIS:HB2	0.81	0.96
42:BI:79:LYS:NZ	63:Bd:65:ALA:CA	2.23	0.96
4:A3:9:ARG:HH11	58:BY:84:ARG:HH12	1.07	0.95
41:BH:98:U:OP1	55:BV:63:LYS:O	1.85	0.95
4:A3:9:ARG:HH11	58:BY:84:ARG:NH1	1.53	0.95
35:BB:526:A:C2	85:AA:2113:U:H5''	2.01	0.95
6:A5:183:ARG:HD3	41:BH:93:G:P	2.07	0.95
5:A4:6:HIS:HE1	53:BT:192:ASP:N	1.65	0.94
34:BA:862:C:N4	34:BA:863:G:C8	2.34	0.94
38:BE:112:G:H3'	38:BE:113:C:H5''	1.49	0.94
35:BB:529:A:H1'	85:AA:2111:C:H4'	1.50	0.94
42:BI:76:VAL:HG22	63:Bd:62:ARG:HG3	1.46	0.94
56:BW:69:PRO:HG2	85:AA:2126:U:OP1	1.68	0.94
4:A3:118:LYS:HE2	58:BY:80:VAL:CG1	1.97	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:13:LEU:HD12	5:A4:47:HIS:CD2	2.03	0.93
34:BA:214:A:N3	62:Bc:78:LYS:CE	2.31	0.93
85:AA:1139:G:H2'	85:AA:1140:G:H5''	1.48	0.93
4:A3:9:ARG:HD2	58:BY:84:ARG:HH12	1.26	0.93
49:BP:93:ARG:HA	49:BP:96:HIS:CE1	2.02	0.92
42:BI:79:LYS:O	63:Bd:71:LYS:C	2.12	0.92
35:BB:1166:A:C5'	35:BB:1167:C:H5''	2.00	0.92
13:AE:172:SER:HA	85:AA:941:C:C5	2.04	0.92
35:BB:851:U:O2'	69:Bj:122:ALA:HB2	1.68	0.92
34:BA:549:G:H5''	52:BS:147:HIS:C	1.76	0.92
53:BT:177:GLU:HG2	85:AA:999:A:C8	2.05	0.92
58:BY:82:ALA:O	85:AA:2162:G:H5'	1.71	0.92
56:BW:69:PRO:CG	85:AA:2126:U:OP1	2.18	0.91
1:A0:228:GLN:CG	83:Bx:275:ALA:CB	1.90	0.91
6:A5:181:GLU:CB	41:BH:93:G:OP2	2.13	0.91
20:AL:90:HIS:CD2	20:AL:90:HIS:H	1.85	0.91
85:AA:2044:A:OP2	86:AB:35:A:H4'	1.70	0.91
58:BY:79:THR:HG21	85:AA:2163:G:O3'	1.69	0.91
35:BB:805:G:H1	35:BB:835:C:H42	1.17	0.91
42:BI:76:VAL:HG21	63:Bd:62:ARG:HG3	0.92	0.91
40:BG:140:G:H5''	84:By:74:HIS:CE1	2.05	0.91
15:AG:140:LYS:NZ	34:BA:946:A:H5''	1.85	0.90
34:BA:743:A:N9	47:BN:7:ALA:CA	2.35	0.90
34:BA:743:A:N9	47:BN:7:ALA:HA	1.87	0.90
34:BA:803:U:H2'	34:BA:804:G:C8	2.07	0.90
58:BY:79:THR:HG23	85:AA:2163:G:H5''	1.35	0.90
41:BH:98:U:OP2	55:BV:58:ASN:O	1.90	0.89
34:BA:197:A:H2'	34:BA:280:A:H61	1.36	0.89
34:BA:214:A:C4	62:Bc:78:LYS:HD3	2.04	0.89
1:A0:228:GLN:HG2	83:Bx:275:ALA:HB1	1.48	0.89
34:BA:744:G:C4	47:BN:6:ASN:HA	2.06	0.89
4:A3:9:ARG:CZ	58:BY:84:ARG:HH11	1.80	0.89
34:BA:1210:A:H4'	54:BU:131:SER:HA	1.53	0.89
58:BY:82:ALA:HB2	85:AA:2159:C:N3	1.88	0.89
6:A5:183:ARG:HD3	41:BH:93:G:O5'	1.71	0.89
34:BA:214:A:N3	62:Bc:78:LYS:CD	2.36	0.89
34:BA:647:U:O2'	34:BA:648:C:H6	1.49	0.88
81:Bv:188:HIS:CD2	81:Bv:188:HIS:H	1.84	0.88
35:BB:852:G:C3'	69:Bj:118:LYS:HG2	2.03	0.88
38:BE:91:G:H22	38:BE:129:G:H1	1.20	0.88
58:BY:79:THR:CG2	85:AA:2163:G:O3'	2.22	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:59:U:H3'	35:BB:60:A:H5''	1.55	0.87
36:BC:26:U:H4'	77:Br:52:ALA:HB3	1.55	0.87
34:BA:675:C:C5	34:BA:676:G:C5	2.62	0.87
34:BA:214:A:C2	62:Bc:78:LYS:HD2	2.09	0.86
53:BT:177:GLU:OE2	85:AA:999:A:C8	2.27	0.86
85:AA:1959:G:H1	85:AA:1978:G:H1	1.20	0.86
35:BB:1404:A:H5''	35:BB:1405:G:H5'	1.57	0.86
4:A3:9:ARG:NE	58:BY:84:ARG:NH1	2.24	0.86
34:BA:214:A:N1	62:Bc:78:LYS:CE	2.38	0.86
35:BB:525:U:C4	85:AA:2113:U:C5'	2.58	0.86
69:Bj:114:VAL:HG23	69:Bj:118:LYS:HE3	1.56	0.86
85:AA:495:G:H5'	85:AA:495:G:C8	2.10	0.86
85:AA:1917:G:H22	85:AA:1995:U:H3	1.20	0.86
56:BW:69:PRO:HD2	85:AA:2126:U:OP1	1.75	0.86
19:AK:103:HIS:CG	19:AK:104:ASN:H	1.93	0.86
34:BA:1696:G:H3'	34:BA:1697:U:C6	2.10	0.86
35:BB:531:U:C5'	85:AA:2231:G:O6	2.24	0.86
35:BB:837:A:H5''	35:BB:1026:G:C4	2.10	0.86
41:BH:97:C:H4'	55:BV:64:LEU:N	1.87	0.86
63:Bd:37:TRP:CE3	80:Bu:42:THR:HG22	2.10	0.86
23:AP:158:ILE:HG22	23:AP:159:GLY:H	1.39	0.86
34:BA:331:G:H1	34:BA:356:C:H3'	1.40	0.86
34:BA:1488:C:H2'	34:BA:1489:U:C6	2.11	0.86
34:BA:1597:G:H1	51:BR:141:ARG:HH22	1.23	0.86
27:AT:42:PRO:HA	85:AA:591:A:H4'	1.57	0.86
34:BA:63:A:C2	34:BA:65:A:H1'	2.11	0.85
34:BA:214:A:C5	62:Bc:78:LYS:HE3	2.11	0.85
82:Bw:235:HIS:CE1	82:Bw:237:VAL:HG22	2.11	0.85
23:AP:149:VAL:HG13	23:AP:231:THR:HG21	1.58	0.85
34:BA:743:A:N9	47:BN:7:ALA:C	2.34	0.85
34:BA:862:C:C3'	34:BA:863:G:H5''	2.06	0.85
82:Bw:235:HIS:HE1	82:Bw:237:VAL:HG22	1.40	0.85
49:BP:122:TYR:H	49:BP:123:TRP:HD1	1.23	0.85
5:A4:6:HIS:CE1	53:BT:192:ASP:CB	2.56	0.85
34:BA:647:U:HO2'	34:BA:648:C:H6	1.18	0.85
44:BK:146:PRO:HA	44:BK:149:LEU:HD12	1.59	0.85
58:BY:80:VAL:C	85:AA:2163:G:H5'	2.01	0.85
34:BA:214:A:C4	62:Bc:78:LYS:HE2	2.09	0.85
35:BB:851:U:OP2	69:Bj:121:ARG:NH1	2.10	0.85
35:BB:852:G:H2'	69:Bj:118:LYS:HG2	0.85	0.85
41:BH:98:U:P	55:BV:58:ASN:O	2.35	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1399:A:C5	65:Bf:311:TRP:CE2	2.64	0.84
3:A2:184:ARG:NH1	86:AB:41:C:H4'	1.93	0.84
34:BA:543:A:C2	34:BA:564:C:C5	2.65	0.84
35:BB:1464:G:C6	40:BG:24:A:H5'	2.12	0.84
5:A4:6:HIS:ND1	53:BT:192:ASP:HA	1.92	0.84
34:BA:214:A:N1	62:Bc:78:LYS:CD	2.40	0.84
85:AA:458:C:N4	85:AA:466:A:H62	1.74	0.84
34:BA:936:A:H5''	74:Bo:4:ARG:HH21	1.42	0.84
76:Bq:43:HIS:CD2	76:Bq:44:TRP:H	1.95	0.84
4:A3:75:SER:HB2	58:BY:27:LEU:CD2	2.06	0.84
76:Bq:43:HIS:CE1	76:Bq:45:ARG:H	1.95	0.84
38:BE:27:A:H61	38:BE:192:A:H3'	1.41	0.84
34:BA:237:A:H3'	34:BA:238:C:C6	2.12	0.84
35:BB:852:G:HO2'	69:Bj:118:LYS:HE2	1.41	0.84
8:A7:249:ARG:HH22	8:A7:315:SER:N	1.76	0.84
34:BA:757:G:H4'	34:BA:758:G:C4	2.12	0.84
34:BA:1011:G:H2'	34:BA:1013:A:C5	2.13	0.83
85:AA:466:A:C2	85:AA:469:G:N7	2.47	0.83
35:BB:853:U:C5	69:Bj:119:LYS:HG3	2.13	0.83
85:AA:466:A:C4	85:AA:469:G:N7	2.45	0.83
85:AA:1139:G:C2'	85:AA:1140:G:H5''	2.07	0.83
34:BA:1299:G:H1	34:BA:1440:C:H42	1.22	0.83
69:Bj:114:VAL:HG21	69:Bj:118:LYS:HE3	1.61	0.83
35:BB:404:A:C5	35:BB:410:A:C2	2.67	0.83
3:A2:113:ARG:NH2	86:AB:34:G:OP1	2.12	0.83
42:BI:29:LEU:HD21	77:Br:282:LEU:HD11	1.59	0.83
23:AP:189:VAL:HG13	85:AA:2:A:H3'	1.59	0.83
41:BH:33:G:HO2'	41:BH:34:G:H8	1.25	0.82
58:BY:83:GLU:HA	85:AA:2161:C:H4'	1.60	0.82
35:BB:1511:U:H2'	35:BB:1512:C:H5'	1.61	0.82
85:AA:179:G:H2'	85:AA:180:A:C5	2.14	0.82
34:BA:603:U:C5	34:BA:680:C:C5	2.67	0.82
38:BE:32:U:C2	38:BE:183:C:C5	2.68	0.82
6:A5:110:ARG:NH2	41:BH:92:A:O2'	2.12	0.82
34:BA:195:G:C8	34:BA:290:G:C2	2.66	0.82
54:BU:69:PRO:HD3	63:Bd:37:TRP:NE1	1.94	0.82
85:AA:249:C:H2'	85:AA:250:C:C6	2.15	0.82
58:BY:83:GLU:HB3	85:AA:2161:C:C4'	2.10	0.82
15:AG:123:HIS:HB2	34:BA:945:A:C2	2.15	0.81
34:BA:19:G:H1	36:BC:35:C:H42	1.25	0.81
34:BA:549:G:C5'	52:BS:147:HIS:O	2.07	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:138:A:C3'	35:BB:139:G:H5'	2.10	0.81
35:BB:1147:G:C5	35:BB:1148:U:C4	2.67	0.81
82:Bw:168:HIS:CG	82:Bw:177:LYS:HA	2.15	0.81
85:AA:466:A:N3	85:AA:466:A:C2'	2.40	0.81
8:A7:73:VAL:HG23	8:A7:82:ALA:HB1	1.61	0.81
34:BA:603:U:C5	34:BA:680:C:C4	2.68	0.81
41:BH:98:U:C4	55:BV:59:GLY:HA2	2.13	0.81
35:BB:806:U:C5	35:BB:807:U:C4	2.69	0.81
6:A5:123:ALA:HA	41:BH:91:G:O6	1.79	0.81
35:BB:805:G:H3'	35:BB:806:U:C5	2.16	0.81
35:BB:851:U:O2'	69:Bj:122:ALA:CB	2.28	0.81
38:BE:101:C:C4	38:BE:117:A:C5	2.69	0.81
34:BA:741:A:N7	47:BN:10:HIS:HD2	1.79	0.81
34:BA:1708:A:C6	34:BA:1709:A:H1'	2.16	0.81
35:BB:525:U:N3	85:AA:2113:U:H4'	1.95	0.81
5:A4:13:LEU:HD12	5:A4:47:HIS:CG	2.15	0.81
41:BH:20:A:C2	41:BH:21:G:H1'	2.16	0.81
34:BA:237:A:H3'	34:BA:238:C:C5	2.14	0.81
34:BA:862:C:N4	34:BA:863:G:N9	2.29	0.81
35:BB:847:U:H3'	35:BB:848:A:C5'	2.10	0.81
57:BX:158:ALA:HA	57:BX:163:LEU:HD12	1.63	0.81
6:A5:183:ARG:CD	41:BH:93:G:P	2.68	0.80
34:BA:195:G:C6	34:BA:289:A:C6	2.69	0.80
34:BA:359:G:H3'	34:BA:360:C:H4'	1.63	0.80
34:BA:743:A:N9	34:BA:743:A:C5	2.48	0.80
35:BB:61:A:H2'	35:BB:62:C:C2	2.16	0.80
85:AA:2121:G:H2'	85:AA:2122:A:C8	2.14	0.80
34:BA:874:G:O6	34:BA:875:G:O6	1.99	0.80
35:BB:424:U:H3	35:BB:448:G:H1	1.26	0.80
52:BS:131:ILE:HG21	52:BS:136:VAL:H	1.45	0.80
58:BY:79:THR:CG2	85:AA:2163:G:C3'	2.59	0.80
41:BH:38:G:C6	41:BH:114:G:C5	2.69	0.80
85:AA:627:A:H2'	85:AA:628:C:C5	2.16	0.80
2:A1:198:HIS:CE1	85:AA:926:C:H5'	2.17	0.80
7:A6:111:VAL:HG21	7:A6:147:VAL:HG21	1.64	0.80
85:AA:1464:G:H5''	85:AA:1464:G:C8	2.16	0.80
42:BI:79:LYS:HD2	63:Bd:65:ALA:O	1.82	0.80
85:AA:942:A:H5''	85:AA:943:U:C6	2.17	0.80
34:BA:616:G:H2'	34:BA:617:G:H1'	1.63	0.80
41:BH:32:U:C5	41:BH:33:G:C6	2.70	0.80
62:Bc:90:VAL:HA	82:Bw:3:MET:HE1	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AT:126:GLY:HA3	85:AA:152:A:H4'	1.63	0.80
34:BA:400:A:C2	34:BA:401:A:H1'	2.16	0.80
35:BB:837:A:H5''	35:BB:1026:G:C6	2.16	0.80
34:BA:296:G:H2'	34:BA:297:A:H4'	1.63	0.80
34:BA:763:U:C6	34:BA:770:G:H1'	2.17	0.80
38:BE:23:G:C2	38:BE:25:U:C6	2.69	0.80
53:BT:181:ARG:NH1	85:AA:999:A:N9	2.19	0.80
34:BA:120:A:C2	83:Bx:112:PRO:HA	2.17	0.79
34:BA:1287:G:C6	34:BA:1436:A:C2	2.70	0.79
37:BD:67:C:H5''	80:Bu:13:TYR:CZ	2.17	0.79
51:BR:51:VAL:HA	51:BR:55:THR:HG22	1.63	0.79
35:BB:71:A:H61	35:BB:615:A:H1'	1.47	0.79
15:AG:140:LYS:NZ	34:BA:946:A:C5'	2.45	0.79
34:BA:1648:G:H5'	34:BA:1648:G:C8	2.17	0.79
35:BB:1298:C:H3'	35:BB:1299:G:C8	2.17	0.79
3:A2:152:LEU:HD21	85:AA:1911:A:C5	2.17	0.79
34:BA:1043:C:C5	34:BA:1581:G:C6	2.71	0.79
34:BA:1480:C:C2	82:Bw:25:GLU:HG2	2.18	0.79
85:AA:2119:C:H42	85:AA:2199:G:H1	1.28	0.79
17:AI:51:ARG:HH12	17:AI:55:HIS:CG	2.00	0.79
38:BE:73:A:C2	38:BE:88:G:C2	2.70	0.79
85:AA:959:C:H3'	85:AA:960:G:C8	2.18	0.79
85:AA:1226:A:C5	85:AA:1227:A:C8	2.70	0.79
34:BA:17:A:H2'	34:BA:18:G:C8	2.17	0.79
34:BA:1732:A:H61	34:BA:1792:U:H3	1.30	0.79
74:Bo:35:ALA:HB3	74:Bo:37:HIS:CE1	2.17	0.79
85:AA:310:U:H3	85:AA:316:C:H42	1.30	0.79
34:BA:769:U:H3'	34:BA:770:G:H21	1.48	0.79
34:BA:938:C:H2'	34:BA:939:C:C6	2.17	0.79
35:BB:526:A:C2	85:AA:2113:U:C5'	2.56	0.79
35:BB:1133:C:H5'	80:Bu:2:THR:HB	1.65	0.79
83:Bx:178:TRP:CD1	83:Bx:178:TRP:H	1.99	0.79
34:BA:295:G:C2	73:Bn:77:HIS:CE1	2.72	0.78
34:BA:1715:C:H4'	34:BA:1718:C:C5	2.18	0.78
35:BB:28:G:C6	35:BB:32:C:C6	2.70	0.78
35:BB:1023:G:H2'	35:BB:1024:G:C8	2.18	0.78
38:BE:112:G:H3'	38:BE:113:C:C5'	2.12	0.78
40:BG:152:G:H5'	84:By:38:ARG:HH12	1.48	0.78
41:BH:98:U:C5	55:BV:59:GLY:HA3	1.99	0.78
85:AA:1675:U:C5	85:AA:1676:G:C5	2.71	0.78
85:AA:51:A:H2'	85:AA:52:U:H5'	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2139:G:H2'	85:AA:2140:U:C6	2.19	0.78
34:BA:483:A:C4	40:BG:17:A:H5'	2.19	0.78
35:BB:134:G:C5	35:BB:135:C:C5	2.72	0.78
41:BH:73:A:H61	55:BV:60:ARG:HG3	1.47	0.78
41:BH:127:A:C2	41:BH:128:G:C4	2.71	0.78
35:BB:126:C:H4'	41:BH:102:C:H4'	1.66	0.78
77:Br:63:ALA:HA	77:Br:79:HIS:CG	2.18	0.78
10:A9:95:LEU:HD13	85:AA:1628:U:C5	2.19	0.78
34:BA:1538:G:O4'	68:Bi:101:VAL:HG22	1.83	0.78
35:BB:655:U:H3	35:BB:1449:G:H1	1.30	0.78
85:AA:160:A:H1'	85:AA:481:A:C5	2.18	0.78
34:BA:620:C:H42	34:BA:662:U:H3	1.31	0.78
34:BA:756:A:H3'	34:BA:757:G:C8	2.19	0.78
34:BA:855:C:H42	34:BA:882:G:H1	1.30	0.78
34:BA:1557:G:C5	34:BA:1558:C:C5	2.72	0.78
40:BG:152:G:C5'	84:By:38:ARG:HH12	1.96	0.78
41:BH:29:G:C2	41:BH:127:A:C2	2.72	0.78
85:AA:38:C:H1'	85:AA:541:A:C2	2.19	0.78
85:AA:1598:A:H61	85:AA:1639:U:H3	1.28	0.78
34:BA:483:A:H5'	34:BA:484:A:C5'	2.14	0.78
34:BA:798:G:C5	34:BA:800:G:C8	2.73	0.78
34:BA:828:A:C2	34:BA:840:U:C2	2.72	0.78
35:BB:700:C:C4	35:BB:701:U:C5	2.72	0.78
38:BE:21:C:H2'	38:BE:23:G:C8	2.18	0.78
85:AA:963:U:H4'	85:AA:964:C:C5	2.19	0.78
34:BA:1711:G:H5''	34:BA:1711:G:C8	2.19	0.77
37:BD:48:G:H5''	80:Bu:235:PHE:CZ	2.19	0.77
34:BA:1186:U:H6	34:BA:1189:A:C8	2.02	0.77
44:BK:32:ARG:H	44:BK:69:ARG:HH12	1.32	0.77
67:Bh:64:ARG:HA	67:Bh:64:ARG:HE	1.48	0.77
83:Bx:269:ASN:CG	83:Bx:272:ALA:HB3	2.09	0.77
85:AA:703:U:H3	85:AA:1219:A:H62	1.32	0.77
85:AA:1457:C:H3'	85:AA:1458:G:C8	2.19	0.77
35:BB:794:G:C6	35:BB:795:A:C5	2.72	0.77
34:BA:743:A:C4	47:BN:8:ILE:N	2.52	0.77
36:BC:125:A:C2	36:BC:126:G:C4	2.73	0.77
85:AA:268:A:H5'	85:AA:981:A:C2	2.19	0.77
4:A3:118:LYS:CE	58:BY:80:VAL:HG13	2.15	0.77
5:A4:6:HIS:CE1	53:BT:192:ASP:HB2	2.18	0.77
38:BE:189:A:C5	74:Bo:51:ALA:HA	2.20	0.77
77:Br:65:SER:HA	77:Br:76:PRO:HA	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2215:C:H5'	85:AA:2215:C:H6	1.49	0.77
27:AT:132:MET:HE2	27:AT:132:MET:H	1.50	0.77
34:BA:557:U:C3'	34:BA:557:U:C6	2.68	0.77
34:BA:756:A:C5	34:BA:757:G:H1'	2.20	0.77
37:BD:72:U:H3'	37:BD:73:U:C5	2.20	0.77
85:AA:883:A:H3'	85:AA:884:A:H62	1.48	0.77
34:BA:1537:G:H2'	68:Bi:101:VAL:HG21	1.65	0.76
79:Bt:2:VAL:HG22	79:Bt:91:PHE:HA	1.66	0.76
85:AA:181:A:H3'	85:AA:182:C:H5'	1.66	0.76
85:AA:495:G:H5'	85:AA:495:G:H8	1.47	0.76
34:BA:2:A:H2'	34:BA:3:G:C8	2.20	0.76
58:BY:80:VAL:CA	85:AA:2163:G:H5'	2.15	0.76
85:AA:289:G:H2'	85:AA:290:G:H5'	1.66	0.76
34:BA:216:C:C6	34:BA:217:C:C2	2.74	0.76
35:BB:138:A:H3'	35:BB:139:G:H5'	1.67	0.76
35:BB:416:U:H2'	35:BB:417:A:C5	2.19	0.76
34:BA:631:G:H22	34:BA:651:U:H1'	1.51	0.76
34:BA:696:A:H2'	34:BA:697:A:C8	2.20	0.76
35:BB:364:U:C5	35:BB:365:U:C4	2.73	0.76
35:BB:850:U:H1'	35:BB:852:G:OP2	1.85	0.76
85:AA:561:C:C5	85:AA:562:C:C2	2.74	0.76
3:A2:44:LYS:HA	85:AA:2082:C:C5	2.21	0.76
35:BB:362:A:C6	35:BB:363:A:C8	2.74	0.76
35:BB:817:C:C2	35:BB:823:G:C2	2.73	0.76
80:Bu:150:ALA:O	80:Bu:179:VAL:HG22	1.86	0.76
85:AA:2215:C:H5'	85:AA:2215:C:C6	2.21	0.76
34:BA:288:U:H2'	34:BA:289:A:C8	2.20	0.76
34:BA:817:U:C5'	63:Bd:55:ALA:HB2	2.16	0.76
2:A1:29:ARG:HG2	2:A1:78:LYS:HB2	1.67	0.76
15:AG:140:LYS:HZ3	34:BA:946:A:C5'	1.99	0.76
26:AS:65:ALA:HA	85:AA:640:C:C5'	2.16	0.76
34:BA:9:A:H5''	34:BA:9:A:C8	2.20	0.76
34:BA:214:A:C6	62:Bc:78:LYS:HE3	2.20	0.76
35:BB:1108:G:C6	35:BB:1157:G:C6	2.73	0.76
36:BC:79:A:H2'	36:BC:81:U:C5	2.21	0.76
38:BE:6:A:H5''	38:BE:7:U:OP2	1.85	0.76
67:Bh:72:SER:HA	67:Bh:76:ARG:H	1.51	0.76
34:BA:194:G:C6	34:BA:195:G:C6	2.73	0.76
40:BG:4:A:C2	40:BG:21:C:C5	2.74	0.76
85:AA:681:G:C2	85:AA:687:G:C8	2.73	0.76
85:AA:721:C:H2'	85:AA:722:G:C8	2.21	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:160:G:H3'	34:BA:161:U:H5	1.51	0.75
34:BA:1527:G:C5	34:BA:1581:G:C6	2.74	0.75
40:BG:181:C:H2'	40:BG:182:G:C8	2.21	0.75
52:BS:121:HIS:CD2	52:BS:121:HIS:H	2.02	0.75
58:BY:79:THR:CB	85:AA:2163:G:H5''	2.17	0.75
66:Bg:44:THR:HG21	66:Bg:104:THR:HG22	1.67	0.75
24:AQ:15:GLN:HE22	24:AQ:115:HIS:CE1	2.03	0.75
34:BA:12:G:C4	34:BA:13:U:C5	2.74	0.75
38:BE:116:U:H4'	38:BE:119:U:H4'	1.68	0.75
41:BH:30:C:H2'	41:BH:31:A:C8	2.21	0.75
53:BT:170:ARG:N	85:AA:957:A:N6	2.33	0.75
85:AA:39:A:H1'	85:AA:540:A:C6	2.21	0.75
85:AA:1465:C:H2'	85:AA:1469:G:C8	2.21	0.75
24:AQ:16:ARG:HH21	24:AQ:116:ASP:N	1.84	0.75
27:AT:10:VAL:HG11	27:AT:37:TRP:CH2	2.21	0.75
34:BA:780:U:C5	34:BA:781:U:H1'	2.21	0.75
34:BA:1529:G:C6	34:BA:1530:G:C5	2.74	0.75
35:BB:1353:G:C6	35:BB:1365:G:C6	2.74	0.75
85:AA:1823:G:H3'	85:AA:1824:G:C8	2.22	0.75
34:BA:615:A:C2	34:BA:616:G:C4	2.73	0.75
34:BA:647:U:O2'	34:BA:648:C:C5	2.11	0.75
35:BB:485:U:H2'	35:BB:486:G:C8	2.21	0.75
37:BD:85:C:H2'	37:BD:86:A:C8	2.21	0.75
65:Bf:164:GLU:CD	65:Bf:164:GLU:H	1.94	0.75
85:AA:959:C:C4	85:AA:995:G:C2	2.75	0.75
85:AA:1978:G:H1'	85:AA:1984:A:C4	2.21	0.75
34:BA:1292:A:H5'	71:Bl:116:HIS:CE1	2.21	0.75
36:BC:59:A:C2	36:BC:61:A:C2	2.75	0.75
3:A2:152:LEU:HD21	85:AA:1911:A:C6	2.21	0.75
33:AZ:64:MET:HE3	33:AZ:64:MET:HA	1.69	0.75
34:BA:359:G:C6	34:BA:362:G:H5''	2.22	0.75
34:BA:610:A:C2	34:BA:670:U:C2	2.75	0.75
34:BA:1143:U:H2'	34:BA:1144:A:C8	2.22	0.75
34:BA:1178:U:H2'	34:BA:1179:U:C6	2.22	0.75
35:BB:674:C:H2'	35:BB:675:U:C6	2.21	0.75
85:AA:959:C:C6	85:AA:960:G:C5	2.75	0.75
85:AA:1525:C:H2'	85:AA:1526:G:C8	2.21	0.75
34:BA:387:A:H2'	34:BA:388:A:C8	2.21	0.75
35:BB:853:U:C6	69:Bj:119:LYS:HG3	2.22	0.75
6:A5:106:ALA:HB1	6:A5:179:LEU:HD23	1.69	0.75
26:AS:65:ALA:HA	85:AA:640:C:H5'	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:141:G:C6	34:BA:142:A:C6	2.75	0.75
37:BD:13:A:H1'	80:Bu:21:ARG:HH12	1.52	0.75
38:BE:106:C:H3'	53:BT:121:ARG:HH21	1.52	0.75
85:AA:2139:G:H2'	85:AA:2140:U:C5	2.22	0.75
21:AM:13:ILE:HG21	45:BL:125:PRO:HG3	1.68	0.75
54:BU:22:HIS:CG	80:Bu:17:GLN:HE22	2.04	0.75
85:AA:1457:C:H2'	85:AA:1458:G:C5'	2.17	0.75
34:BA:399:G:C2	36:BC:29:C:C2	2.75	0.74
34:BA:480:G:C5	34:BA:481:A:C5	2.74	0.74
35:BB:1062:G:H2'	35:BB:1063:C:C6	2.22	0.74
38:BE:6:A:H5'	69:Bj:85:HIS:CE1	2.21	0.74
69:Bj:87:GLN:CD	69:Bj:87:GLN:H	1.94	0.74
85:AA:2006:G:C6	85:AA:2007:G:C4	2.75	0.74
35:BB:1296:A:C2	35:BB:1297:G:H1'	2.23	0.74
38:BE:111:C:H2'	38:BE:112:G:C4	2.21	0.74
53:BT:66:MET:HE1	53:BT:75:HIS:CG	2.22	0.74
85:AA:573:U:H2'	85:AA:574:U:H6	1.51	0.74
34:BA:212:A:C2	34:BA:213:A:C4	2.76	0.74
34:BA:545:U:C5	34:BA:546:U:C5	2.75	0.74
34:BA:1609:U:H2'	34:BA:1610:A:C8	2.23	0.74
38:BE:1:U:C2	38:BE:12:A:H1'	2.22	0.74
83:Bx:221:GLN:HA	83:Bx:224:LEU:HD22	1.68	0.74
85:AA:466:A:C5	85:AA:469:G:N7	2.53	0.74
34:BA:362:G:C4	72:Bm:38:TYR:CD2	2.75	0.74
34:BA:1677:C:H2'	34:BA:1679:C:C5	2.22	0.74
35:BB:852:G:H2'	69:Bj:118:LYS:HG3	1.66	0.74
35:BB:112:G:H3'	35:BB:112:G:N3	2.02	0.74
35:BB:138:A:H3'	35:BB:139:G:C5'	2.15	0.74
64:Be:249:SER:OG	85:AA:1236:G:N7	2.19	0.74
85:AA:903:G:H2'	85:AA:904:U:C6	2.22	0.74
7:A6:39:ARG:HA	7:A6:42:TRP:CE3	2.23	0.74
34:BA:1409:A:C2	34:BA:1410:C:C2	2.75	0.74
38:BE:64:A:C2	38:BE:141:A:C6	2.75	0.74
85:AA:573:U:H2'	85:AA:574:U:C6	2.23	0.74
85:AA:2003:C:C5	85:AA:2006:G:C6	2.76	0.74
35:BB:836:U:H2'	35:BB:837:A:C8	2.23	0.74
64:Be:112:ILE:HG23	64:Be:133:TYR:CD2	2.23	0.74
85:AA:959:C:H3'	85:AA:960:G:H8	1.52	0.74
34:BA:92:G:C5	34:BA:93:A:C5	2.75	0.74
34:BA:1114:G:H1'	44:BK:195:LEU:HD22	1.68	0.74
35:BB:1499:U:C5	35:BB:1500:U:C5	2.76	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1535:G:H4'	35:BB:1536:G:C8	2.23	0.74
36:BC:146:U:H2'	36:BC:147:G:H5''	1.69	0.74
85:AA:399:A:H2'	85:AA:400:G:C8	2.23	0.74
85:AA:660:G:H2'	85:AA:661:C:C6	2.23	0.74
85:AA:928:U:H2'	85:AA:929:G:C8	2.22	0.74
34:BA:1547:G:C2	34:BA:1562:G:C5	2.76	0.74
35:BB:805:G:H3'	35:BB:806:U:C6	2.23	0.74
35:BB:1404:A:C6	35:BB:1440:A:C2	2.76	0.74
36:BC:96:A:H2'	36:BC:97:U:C6	2.23	0.74
85:AA:406:U:H2'	85:AA:407:G:C8	2.22	0.74
85:AA:1288:A:C2	85:AA:1289:U:C2	2.76	0.74
6:A5:217:LYS:NZ	35:BB:365:U:OP1	2.17	0.74
7:A6:33:TYR:CD2	7:A6:104:LEU:HD13	2.23	0.74
34:BA:603:U:H2'	34:BA:680:C:H1'	1.70	0.74
34:BA:678:C:C5	34:BA:679:U:C5	2.76	0.74
34:BA:1343:A:C2	34:BA:1344:G:C4	2.75	0.74
35:BB:802:G:H2'	35:BB:804:U:C5	2.23	0.74
47:BN:200:PHE:CZ	47:BN:207:ALA:HA	2.23	0.74
85:AA:20:G:H4'	85:AA:645:C:C4	2.23	0.74
85:AA:2081:A:C5	85:AA:2082:C:H5	2.06	0.74
34:BA:325:A:H3'	34:BA:326:A:O4'	1.88	0.73
34:BA:447:U:H2'	34:BA:448:U:C6	2.23	0.73
34:BA:603:U:C5	34:BA:1492:G:C5	2.76	0.73
35:BB:1:U:H3'	35:BB:2:C:H4'	1.70	0.73
35:BB:987:U:C2	74:Bo:41:PHE:CE1	2.75	0.73
40:BG:155:A:C5	40:BG:156:G:C5	2.76	0.73
51:BR:15:ALA:HB3	51:BR:150:MET:SD	2.28	0.73
65:Bf:299:HIS:CD2	65:Bf:300:ARG:H	2.06	0.73
67:Bh:92:LEU:HD12	67:Bh:145:GLY:C	2.13	0.73
85:AA:105:A:H2'	85:AA:106:G:C8	2.23	0.73
85:AA:249:C:H2'	85:AA:250:C:H6	1.52	0.73
85:AA:367:A:H3'	85:AA:368:C:C6	2.23	0.73
85:AA:516:G:H2'	85:AA:517:A:C8	2.23	0.73
85:AA:655:U:C6	85:AA:655:U:H3'	2.22	0.73
34:BA:339:G:H4'	79:Bt:50:TYR:CE1	2.23	0.73
34:BA:471:U:C5	34:BA:472:G:C5	2.76	0.73
41:BH:29:G:H2'	41:BH:30:C:H5'	1.68	0.73
64:Be:148:LEU:CD2	64:Be:158:VAL:HG22	2.18	0.73
85:AA:979:U:H3'	85:AA:980:U:C6	2.21	0.73
85:AA:2145:G:C5	85:AA:2146:G:C5	2.75	0.73
34:BA:631:G:C6	34:BA:632:U:C4	2.76	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1557:G:C6	34:BA:1558:C:C4	2.77	0.73
85:AA:147:G:C4	85:AA:177:A:C2	2.76	0.73
85:AA:433:U:H6	85:AA:433:U:O5'	1.71	0.73
85:AA:806:G:H1	85:AA:872:U:H3	1.36	0.73
85:AA:2216:A:H5'	85:AA:2218:G:N7	2.03	0.73
1:A0:41:ARG:HH22	1:A0:234:HIS:CD2	2.05	0.73
4:A3:9:ARG:HD2	58:BY:84:ARG:HH22	1.50	0.73
35:BB:1215:U:H3	35:BB:1248:A:H61	1.35	0.73
36:BC:129:C:H2'	36:BC:131:C:C5	2.23	0.73
38:BE:101:C:H2'	38:BE:117:A:H61	1.53	0.73
75:Bp:10:GLU:CD	75:Bp:10:GLU:H	1.97	0.73
85:AA:16:G:H2'	85:AA:17:C:C6	2.23	0.73
85:AA:421:G:C6	85:AA:422:G:C5	2.76	0.73
85:AA:438:G:C8	85:AA:438:G:H5''	2.24	0.73
3:A2:184:ARG:HH12	86:AB:41:C:H4'	1.53	0.73
15:AG:77:HIS:CD2	85:AA:941:C:H5''	2.24	0.73
65:Bf:127:VAL:HG12	65:Bf:383:LYS:HA	1.70	0.73
85:AA:942:A:H5''	85:AA:943:U:C5	2.23	0.73
85:AA:1128:G:H2'	85:AA:1129:A:C8	2.22	0.73
85:AA:1150:G:H2'	85:AA:1151:G:C8	2.23	0.73
34:BA:768:G:C4	34:BA:769:U:C5	2.76	0.73
35:BB:4:C:C4	38:BE:13:A:C8	2.76	0.73
35:BB:1333:U:H3	35:BB:1410:G:H1	1.35	0.73
42:BI:79:LYS:HZ1	63:Bd:65:ALA:HA	1.52	0.73
61:Bb:40:HIS:CE1	61:Bb:41:HIS:CE1	2.77	0.73
85:AA:986:U:H2'	85:AA:987:C:C6	2.22	0.73
33:AZ:78:ARG:HH12	33:AZ:99:ALA:HB2	1.52	0.73
34:BA:960:C:H2'	34:BA:961:C:C6	2.23	0.73
34:BA:1731:A:N7	34:BA:1793:G:H1'	2.04	0.73
35:BB:471:U:H2'	35:BB:472:C:C6	2.23	0.73
35:BB:1465:U:H3'	35:BB:1466:A:C8	2.24	0.73
53:BT:170:ARG:CA	85:AA:957:A:H61	2.01	0.73
65:Bf:410:GLU:HG3	65:Bf:412:ILE:HG23	1.71	0.73
85:AA:547:A:C5	85:AA:582:A:C2	2.77	0.73
34:BA:152:C:H42	34:BA:327:G:H3'	1.53	0.73
34:BA:798:G:N1	61:Bb:114:HIS:CG	2.57	0.73
34:BA:1287:G:H2'	34:BA:1288:U:C6	2.24	0.73
35:BB:776:U:H3'	35:BB:777:C:C6	2.23	0.73
35:BB:1220:A:C8	35:BB:1220:A:H3'	2.23	0.73
35:BB:1493:A:C2	35:BB:1494:G:C4	2.76	0.73
41:BH:112:U:H2'	41:BH:113:G:C8	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BI:72:ARG:HG2	63:Bd:62:ARG:CZ	2.19	0.73
85:AA:520:A:H4'	85:AA:521:A:H3'	1.70	0.73
13:AE:125:VAL:HG22	13:AE:155:VAL:HG23	1.70	0.73
34:BA:1211:G:H5''	34:BA:1211:G:H8	1.53	0.73
34:BA:1244:G:C5	35:BB:640:A:C2	2.77	0.73
34:BA:1426:A:OP2	34:BA:1426:A:C8	2.41	0.73
35:BB:93:A:C5	35:BB:94:A:C5	2.77	0.73
35:BB:1498:G:N2	35:BB:1507:U:H3	1.86	0.73
37:BD:9:C:H3'	37:BD:10:C:C6	2.24	0.73
38:BE:31:A:H2'	38:BE:32:U:C2	2.24	0.73
41:BH:3:U:H3'	41:BH:4:U:C5	2.24	0.73
56:BW:57:GLY:H	56:BW:80:ILE:HG23	1.53	0.73
34:BA:1418:G:C6	34:BA:1419:A:C6	2.77	0.73
35:BB:1019:C:C4	35:BB:1020:U:C4	2.77	0.73
85:AA:136:U:H4'	85:AA:137:C:C5	2.24	0.73
1:A0:89:THR:H	1:A0:103:HIS:CE1	2.07	0.72
34:BA:203:U:H2'	34:BA:204:U:C6	2.24	0.72
34:BA:874:G:C2'	34:BA:875:G:H8	2.02	0.72
35:BB:1030:U:H3'	35:BB:1031:G:H5''	1.70	0.72
36:BC:104:A:H4'	36:BC:105:C:C5	2.24	0.72
36:BC:123:G:H22	36:BC:140:U:H3	1.33	0.72
39:BF:30:C:C2	49:BP:2:VAL:HG11	2.24	0.72
85:AA:1157:U:H3'	85:AA:1158:U:H5''	1.71	0.72
18:AJ:26:LEU:HD11	18:AJ:60:LYS:HB3	1.71	0.72
34:BA:1735:G:H2'	34:BA:1736:A:C8	2.24	0.72
35:BB:852:G:O2'	69:Bj:118:LYS:CD	2.36	0.72
76:Bq:43:HIS:CE1	76:Bq:45:ARG:N	2.57	0.72
85:AA:197:C:H42	85:AA:209:C:C5'	2.02	0.72
34:BA:89:G:H3'	34:BA:91:C:C6	2.25	0.72
34:BA:235:C:H2'	34:BA:236:A:C8	2.24	0.72
34:BA:685:C:C4	34:BA:1487:U:H5'	2.24	0.72
34:BA:1333:G:C2	34:BA:1409:A:C2	2.77	0.72
35:BB:481:A:C2	35:BB:482:A:C2	2.77	0.72
35:BB:1351:G:H2'	35:BB:1352:C:C6	2.25	0.72
38:BE:124:G:C5	38:BE:125:C:C5	2.78	0.72
85:AA:519:A:H2'	85:AA:521:A:C8	2.23	0.72
34:BA:209:A:H61	34:BA:223:U:H3	1.37	0.72
34:BA:262:A:C2	34:BA:280:A:C6	2.77	0.72
34:BA:544:U:C4	34:BA:545:U:C5	2.76	0.72
34:BA:549:G:O3'	52:BS:148:ASN:HB2	1.90	0.72
34:BA:743:A:C8	47:BN:7:ALA:HA	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:136:G:C2	40:BG:137:G:H1'	2.24	0.72
41:BH:31:A:C2	41:BH:32:U:C5	2.77	0.72
51:BR:26:TYR:OH	51:BR:119:VAL:HG12	1.89	0.72
85:AA:559:G:C6	85:AA:569:A:C2	2.76	0.72
85:AA:714:U:H2'	85:AA:715:G:H5'	1.71	0.72
85:AA:787:U:C5	85:AA:788:G:C6	2.76	0.72
5:A4:6:HIS:CD2	53:BT:191:ASP:O	2.42	0.72
34:BA:214:A:C6	62:Bc:78:LYS:CG	2.72	0.72
34:BA:605:G:C6	34:BA:606:G:C5	2.78	0.72
34:BA:1297:G:C2	34:BA:1298:U:C5	2.78	0.72
58:BY:82:ALA:CB	85:AA:2159:C:C4	2.72	0.72
85:AA:33:U:C5	85:AA:538:A:C5	2.78	0.72
85:AA:160:A:C6	85:AA:161:A:C4	2.77	0.72
85:AA:278:C:H2'	85:AA:279:C:C6	2.25	0.72
5:A4:69:PRO:O	5:A4:73:ILE:HG23	1.88	0.72
6:A5:123:ALA:CA	41:BH:91:G:O6	2.37	0.72
34:BA:15:G:C2	36:BC:153:C:C2	2.78	0.72
34:BA:674:G:H3'	34:BA:675:C:C6	2.24	0.72
34:BA:1484:A:C2	34:BA:1502:G:C4	2.77	0.72
35:BB:817:C:C5	35:BB:818:U:C5	2.78	0.72
36:BC:18:G:C6	36:BC:19:A:C6	2.78	0.72
38:BE:89:G:H1'	38:BE:134:A:C6	2.24	0.72
39:BF:18:U:H5	71:Bl:141:ARG:HH22	1.37	0.72
85:AA:65:A:H3'	85:AA:66:U:C6	2.24	0.72
85:AA:268:A:H3'	85:AA:269:G:H5'	1.70	0.72
85:AA:1115:G:H1'	85:AA:1214:C:C5	2.25	0.72
85:AA:1260:G:H2'	85:AA:1261:U:C5	2.25	0.72
23:AP:238:ASP:OD2	25:AR:6:THR:HG21	1.90	0.72
34:BA:214:A:C5	62:Bc:78:LYS:HD3	2.25	0.72
34:BA:603:U:C2	34:BA:680:C:H2'	2.24	0.72
36:BC:92:C:C4	36:BC:93:C:C4	2.78	0.72
41:BH:30:C:C4	41:BH:31:A:C6	2.78	0.72
42:BI:79:LYS:HD3	63:Bd:65:ALA:O	1.87	0.72
70:Bk:103:GLU:CD	70:Bk:103:GLU:H	1.98	0.72
85:AA:2127:G:C2	85:AA:2128:G:C4	2.78	0.72
35:BB:991:C:H3'	35:BB:992:C:C4	2.25	0.72
36:BC:36:G:C8	70:Bk:93:HIS:CE1	2.78	0.72
41:BH:32:U:C5	41:BH:33:G:C5	2.77	0.72
53:BT:170:ARG:H	85:AA:957:A:H61	1.35	0.72
58:BY:79:THR:OG1	85:AA:2163:G:H5''	1.90	0.72
68:Bi:24:GLU:CD	68:Bi:24:GLU:H	1.96	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:480:U:H3'	85:AA:482:C:C5	2.24	0.72
85:AA:2121:G:H1	85:AA:2197:A:H61	1.37	0.72
4:A3:118:LYS:CE	58:BY:80:VAL:CG1	2.67	0.72
34:BA:623:U:H4'	54:BU:137:PHE:CE2	2.25	0.72
35:BB:434:A:H2'	35:BB:435:A:C8	2.24	0.72
35:BB:665:A:C6	35:BB:666:A:C5	2.78	0.72
35:BB:804:U:C5	35:BB:805:G:C8	2.77	0.72
35:BB:1208:G:C4	35:BB:1253:U:C6	2.78	0.72
36:BC:119:G:H2'	36:BC:120:G:C8	2.24	0.72
41:BH:31:A:C2	41:BH:125:U:C2	2.77	0.72
84:By:160:HIS:CE1	84:By:178:TYR:CD1	2.78	0.72
85:AA:15:U:H3	85:AA:1516:A:H61	1.37	0.72
34:BA:126:G:C5	34:BA:127:U:C5	2.78	0.72
34:BA:1533:G:C6	34:BA:1534:U:C4	2.78	0.72
35:BB:1086:G:C6	35:BB:1087:A:C5	2.77	0.72
36:BC:161:U:C4	36:BC:162:C:C5	2.78	0.72
40:BG:169:A:H3'	40:BG:173:C:C5	2.25	0.72
73:Bn:28:HIS:CD2	73:Bn:30:GLN:H	2.08	0.72
85:AA:270:A:C2	85:AA:271:A:C5	2.77	0.72
27:AT:10:VAL:HG21	27:AT:37:TRP:CD2	2.24	0.71
34:BA:113:G:C8	34:BA:113:G:H3'	2.25	0.71
34:BA:481:A:C2	36:BC:8:C:N3	2.58	0.71
35:BB:798:A:N7	35:BB:976:U:H3'	2.04	0.71
36:BC:125:A:C6	36:BC:126:G:C6	2.78	0.71
39:BF:73:U:C5	81:Bv:143:VAL:HA	2.25	0.71
85:AA:2053:A:H2'	85:AA:2054:G:H5'	1.72	0.71
34:BA:339:G:H2'	34:BA:340:U:C6	2.25	0.71
34:BA:617:G:C6	34:BA:618:G:C6	2.78	0.71
34:BA:960:C:H2'	34:BA:961:C:C5	2.25	0.71
34:BA:1263:A:C5	34:BA:1264:U:C5	2.78	0.71
36:BC:149:A:C2	36:BC:150:U:C2	2.78	0.71
38:BE:159:A:C2	38:BE:161:G:H1'	2.25	0.71
39:BF:24:G:C5	48:BO:187:HIS:CG	2.78	0.71
49:BP:136:PRO:HB2	49:BP:140:HIS:HB3	1.71	0.71
85:AA:43:A:C5	85:AA:443:A:C2	2.78	0.71
85:AA:194:U:H2'	85:AA:195:C:C6	2.24	0.71
27:AT:37:TRP:CG	27:AT:40:THR:HG1	2.07	0.71
34:BA:156:U:C4	34:BA:166:G:H4'	2.24	0.71
34:BA:1095:G:C6	34:BA:1096:C:C5	2.78	0.71
35:BB:837:A:C5'	35:BB:1026:G:C5	2.72	0.71
35:BB:1294:C:H1'	44:BK:157:MET:HE2	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BS:131:ILE:CG2	52:BS:136:VAL:H	2.02	0.71
67:Bh:69:THR:O	67:Bh:73:LEU:HB2	1.90	0.71
85:AA:381:A:N1	85:AA:416:U:C4	2.58	0.71
4:A3:177:PRO:HA	85:AA:65:A:C4	2.26	0.71
34:BA:301:U:H3'	34:BA:303:C:H1'	1.72	0.71
34:BA:678:C:C5	34:BA:679:U:C4	2.78	0.71
34:BA:740:A:H5'	47:BN:12:HIS:CE1	2.25	0.71
34:BA:758:G:H8	34:BA:759:A:C8	2.08	0.71
34:BA:804:G:H3'	34:BA:805:A:C8	2.24	0.71
35:BB:1130:U:H2'	35:BB:1131:C:C6	2.25	0.71
38:BE:192:A:H2'	38:BE:193:A:C8	2.24	0.71
47:BN:80:PHE:CZ	47:BN:121:LEU:HD21	2.25	0.71
85:AA:197:C:H42	85:AA:209:C:H5''	1.55	0.71
11:AC:229:VAL:HG22	11:AC:231:TRP:H	1.55	0.71
19:AK:128:ARG:HB2	19:AK:128:ARG:HH11	1.55	0.71
34:BA:862:C:N3	34:BA:874:G:C2	2.33	0.71
34:BA:1343:A:C2	40:BG:144:G:C5	2.78	0.71
35:BB:57:G:C6	35:BB:58:G:C4	2.78	0.71
35:BB:60:A:H4'	35:BB:61:A:H5''	1.72	0.71
35:BB:879:G:H2'	35:BB:880:G:C8	2.25	0.71
35:BB:1166:A:H3'	35:BB:1167:C:H4'	1.71	0.71
85:AA:337:C:H2'	85:AA:338:G:H5'	1.72	0.71
85:AA:464:A:C5	85:AA:466:A:C8	2.79	0.71
85:AA:2182:A:H3'	85:AA:2183:U:C6	2.25	0.71
27:AT:61:GLN:HA	27:AT:89:MET:SD	2.30	0.71
34:BA:72:U:H2'	34:BA:73:G:C5	2.26	0.71
34:BA:412:G:C4	34:BA:418:G:C5	2.79	0.71
35:BB:484:G:C5	35:BB:485:U:C5	2.78	0.71
35:BB:1415:G:C6	35:BB:1416:A:C5	2.79	0.71
36:BC:9:G:C5	36:BC:10:C:C6	2.77	0.71
38:BE:101:C:H2'	38:BE:117:A:N6	2.06	0.71
40:BG:28:A:H2'	40:BG:29:U:C6	2.25	0.71
62:Bc:99:ARG:H	62:Bc:102:LEU:HD12	1.54	0.71
85:AA:454:G:H2'	85:AA:455:G:C8	2.26	0.71
85:AA:985:G:C5	85:AA:986:U:C4	2.78	0.71
85:AA:1150:G:C6	85:AA:1151:G:C6	2.78	0.71
34:BA:573:U:H4'	34:BA:1448:G:C5'	2.20	0.71
34:BA:607:C:C6	34:BA:674:G:H4'	2.26	0.71
34:BA:1293:A:C5	34:BA:1295:U:C4	2.79	0.71
35:BB:1404:A:H1'	35:BB:1439:U:C4	2.25	0.71
35:BB:1405:G:C5	65:Bf:306:ALA:HB1	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:102:G:C2	34:BA:103:G:H1'	2.26	0.71
34:BA:214:A:H3'	34:BA:215:C:C6	2.25	0.71
34:BA:543:A:H2'	34:BA:544:U:H6	1.56	0.71
34:BA:758:G:C8	34:BA:759:A:C8	2.79	0.71
34:BA:1635:A:H2'	34:BA:1636:C:C5	2.26	0.71
34:BA:1687:A:C6	34:BA:1688:G:C6	2.79	0.71
35:BB:99:G:C5	35:BB:100:A:C5	2.78	0.71
35:BB:1524:G:C2	35:BB:1544:A:C2	2.78	0.71
40:BG:4:A:C2	40:BG:5:G:C4	2.79	0.71
48:BO:182:LYS:HZ3	48:BO:186:HIS:CE1	2.09	0.71
58:BY:54:ALA:HA	58:BY:59:TYR:CD2	2.25	0.71
85:AA:638:G:C6	85:AA:652:U:H1'	2.26	0.71
85:AA:1109:G:C5	85:AA:1110:A:C5	2.79	0.71
85:AA:1839:G:H2'	85:AA:1840:C:C6	2.26	0.71
15:AG:140:LYS:HZ1	34:BA:946:A:H5''	1.56	0.71
34:BA:248:G:C8	34:BA:437:G:C4	2.79	0.71
34:BA:712:C:H2'	34:BA:713:C:C6	2.26	0.71
34:BA:1131:G:C5	34:BA:1133:A:H1'	2.25	0.71
35:BB:878:G:H4'	35:BB:879:G:OP1	1.90	0.71
36:BC:18:G:C5	36:BC:19:A:C5	2.79	0.71
85:AA:555:C:H2'	85:AA:556:C:C6	2.25	0.71
85:AA:1195:U:H2'	85:AA:1196:C:C6	2.26	0.71
85:AA:2150:G:C2	85:AA:2169:C:C2	2.79	0.71
85:AA:2208:G:C8	85:AA:2208:G:H5''	2.26	0.71
11:AC:55:LEU:HA	11:AC:60:HIS:CD2	2.26	0.70
34:BA:262:A:H2	34:BA:279:U:C5	2.09	0.70
34:BA:850:C:H2'	34:BA:851:C:C6	2.26	0.70
34:BA:1346:U:H3	34:BA:1399:A:H61	1.39	0.70
35:BB:665:A:C4	35:BB:666:A:C8	2.79	0.70
38:BE:154:A:C2	38:BE:155:C:H2'	2.26	0.70
85:AA:2132:A:C2	85:AA:2133:A:C4	2.79	0.70
21:AM:99:LEU:HB3	21:AM:104:VAL:HG22	1.72	0.70
34:BA:874:G:H2'	34:BA:875:G:H8	1.55	0.70
35:BB:101:U:H2'	35:BB:102:G:C8	2.26	0.70
35:BB:815:G:C2	35:BB:825:U:C2	2.80	0.70
35:BB:1002:G:C2	35:BB:1017:U:C2	2.78	0.70
38:BE:60:C:H2'	38:BE:61:A:C8	2.26	0.70
38:BE:115:U:H2'	38:BE:116:U:C6	2.26	0.70
19:AK:130:CYS:SG	85:AA:2074:G:C8	2.83	0.70
34:BA:947:A:C5	34:BA:948:C:H1'	2.25	0.70
34:BA:1040:G:C6	34:BA:1041:U:C2	2.79	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1083:A:C8	34:BA:1168:C:H2'	2.26	0.70
35:BB:730:G:H21	35:BB:760:C:H41	1.37	0.70
35:BB:1214:U:H2'	35:BB:1215:U:C6	2.26	0.70
35:BB:1274:G:C4	35:BB:1327:U:C5	2.79	0.70
38:BE:13:A:C8	38:BE:13:A:H5''	2.26	0.70
38:BE:149:A:H2	38:BE:164:C:C2	2.10	0.70
45:BL:18:GLU:CD	45:BL:18:GLU:H	1.99	0.70
85:AA:811:A:C2	85:AA:867:G:C6	2.78	0.70
4:A3:75:SER:CB	58:BY:27:LEU:HD22	2.19	0.70
15:AG:77:HIS:CE1	15:AG:78:LYS:HZ2	2.09	0.70
34:BA:678:C:C4	34:BA:679:U:C4	2.79	0.70
34:BA:1001:G:C5	34:BA:1002:U:C5	2.79	0.70
35:BB:526:A:C6	85:AA:2113:U:H5'	2.11	0.70
35:BB:797:C:C5	35:BB:978:C:C5	2.79	0.70
58:BY:81:ARG:CG	85:AA:2162:G:C5'	2.68	0.70
85:AA:170:C:H2'	85:AA:171:U:C5	2.25	0.70
85:AA:988:C:H3'	85:AA:989:U:H2'	1.72	0.70
34:BA:749:G:H1	34:BA:887:U:H3	1.40	0.70
34:BA:1732:A:C2	34:BA:1733:G:C4	2.80	0.70
35:BB:4:C:C2	38:BE:13:A:H1'	2.27	0.70
35:BB:554:C:C5	35:BB:565:U:C6	2.80	0.70
36:BC:48:A:H4'	70:Bk:52:ARG:HH22	1.57	0.70
85:AA:466:A:C6	85:AA:469:G:N7	2.60	0.70
3:A2:41:ARG:HE	3:A2:43:GLN:CD	2.00	0.70
20:AL:90:HIS:CD2	20:AL:90:HIS:N	2.60	0.70
34:BA:874:G:H2'	34:BA:875:G:C8	2.26	0.70
34:BA:1113:A:C2	34:BA:1114:G:C4	2.79	0.70
34:BA:1479:G:H4'	62:Bc:99:ARG:HB2	1.72	0.70
35:BB:131:A:C5	35:BB:132:G:C5	2.80	0.70
35:BB:673:C:H1'	35:BB:1277:A:C6	2.27	0.70
35:BB:1144:A:C6	35:BB:1145:G:C6	2.79	0.70
40:BG:65:C:H2'	40:BG:66:C:C6	2.27	0.70
77:Br:50:PRO:HB3	77:Br:110:TRP:CD2	2.27	0.70
85:AA:1293:U:C4	85:AA:1294:U:C5	2.79	0.70
85:AA:1985:C:C6	85:AA:1985:C:H5''	2.27	0.70
5:A4:104:ILE:CG2	5:A4:105:THR:H	2.04	0.70
34:BA:207:A:H5''	34:BA:209:A:C8	2.27	0.70
34:BA:365:A:C6	34:BA:377:G:C6	2.79	0.70
34:BA:1172:C:H2'	34:BA:1173:C:C6	2.27	0.70
34:BA:1481:U:H3'	34:BA:1482:A:H5'	1.74	0.70
34:BA:1747:C:H2'	34:BA:1748:G:C8	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:16:G:C5	35:BB:17:U:C4	2.79	0.70
35:BB:665:A:C6	35:BB:1404:A:C5	2.80	0.70
40:BG:72:G:C6	40:BG:73:U:C4	2.80	0.70
85:AA:1242:A:C2	85:AA:1243:G:H1'	2.26	0.70
85:AA:1959:G:H2'	85:AA:1960:C:H5''	1.74	0.70
85:AA:2081:A:C5	85:AA:2082:C:C5	2.80	0.70
34:BA:239:C:C5	34:BA:240:C:C5	2.79	0.70
34:BA:702:G:C6	34:BA:703:U:C4	2.80	0.70
34:BA:768:G:C2	34:BA:769:U:C5	2.80	0.70
34:BA:1597:G:C2	35:BB:622:G:C5	2.78	0.70
34:BA:1706:A:C2	34:BA:1800:G:H1'	2.26	0.70
40:BG:81:G:C5	40:BG:82:U:C4	2.80	0.70
85:AA:1434:U:C4	85:AA:1438:C:H5'	2.27	0.70
85:AA:2138:G:C6	85:AA:2139:G:C6	2.79	0.70
4:A3:118:LYS:NZ	58:BY:80:VAL:O	2.23	0.70
17:AI:133:VAL:HG11	85:AA:1897:A:C2	2.27	0.70
34:BA:172:A:C6	34:BA:316:G:C5	2.78	0.70
34:BA:213:A:C2	34:BA:217:C:C2	2.80	0.70
34:BA:487:A:C6	35:BB:651:G:C5	2.80	0.70
34:BA:547:C:C3'	34:BA:547:C:H4'	2.16	0.70
34:BA:616:G:H2'	34:BA:617:G:C1'	2.21	0.70
34:BA:802:G:C6	34:BA:803:U:C4	2.80	0.70
34:BA:925:G:C5	34:BA:999:G:C6	2.80	0.70
34:BA:1846:G:H1'	35:BB:5:A:C2	2.26	0.70
36:BC:25:C:H2'	36:BC:26:U:C5	2.26	0.70
39:BF:37:C:H2'	39:BF:38:C:C6	2.27	0.70
39:BF:51:C:C2	39:BF:52:A:C8	2.80	0.70
58:BY:79:THR:HG21	85:AA:2163:G:C3'	2.21	0.70
85:AA:1034:U:H2'	85:AA:1035:C:H3'	1.74	0.70
85:AA:1462:A:H2'	85:AA:1463:A:C8	2.26	0.70
85:AA:1650:G:H2'	85:AA:1869:U:C5	2.26	0.70
85:AA:1916:A:C2	85:AA:1996:A:N1	2.60	0.70
86:AB:56:C:H3'	86:AB:57:G:H5''	1.72	0.70
34:BA:185:A:C4	34:BA:304:G:C6	2.80	0.70
34:BA:346:A:H4'	34:BA:347:A:C2	2.27	0.70
34:BA:705:C:H2'	34:BA:706:C:C6	2.26	0.70
34:BA:756:A:H5''	34:BA:757:G:C6	2.27	0.70
34:BA:1095:G:C5	34:BA:1163:G:C6	2.80	0.70
35:BB:1209:A:C4	35:BB:1210:U:C5	2.80	0.70
35:BB:1226:G:C5	47:BN:192:LYS:HE2	2.27	0.70
35:BB:1292:G:C6	35:BB:1293:C:C4	2.80	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:166:G:H2'	36:BC:167:U:C6	2.27	0.70
37:BD:47:U:C4	37:BD:48:G:N7	2.60	0.70
40:BG:97:G:C4	40:BG:98:A:C8	2.80	0.70
40:BG:140:G:C5'	84:By:74:HIS:CE1	2.74	0.70
40:BG:164:U:O5'	40:BG:164:U:H6	1.74	0.70
40:BG:181:C:C4	40:BG:182:G:C6	2.79	0.70
85:AA:1016:G:H4'	85:AA:1056:C:C4	2.26	0.70
34:BA:358:A:H2'	34:BA:360:C:C5	2.26	0.69
34:BA:367:G:C6	50:BQ:196:HIS:CD2	2.80	0.69
34:BA:556:A:C8	34:BA:557:U:C5	2.79	0.69
34:BA:705:C:H2'	34:BA:706:C:C5	2.27	0.69
34:BA:1555:G:H2'	34:BA:1556:A:C8	2.26	0.69
34:BA:1719:G:C5	34:BA:1720:U:C5	2.80	0.69
35:BB:1423:U:C4	35:BB:1424:G:C5	2.80	0.69
36:BC:106:G:C2	36:BC:115:G:C4	2.80	0.69
38:BE:119:U:H2'	66:Bg:39:GLN:HE22	1.56	0.69
58:BY:81:ARG:HG2	85:AA:2162:G:P	2.32	0.69
74:Bo:55:TRP:CD1	74:Bo:71:LEU:HD13	2.27	0.69
85:AA:342:C:C4	85:AA:348:G:C6	2.80	0.69
85:AA:1811:C:H3'	85:AA:1812:C:C4'	2.22	0.69
23:AP:239:LEU:HD12	25:AR:6:THR:HG22	1.73	0.69
34:BA:481:A:C2	36:BC:7:U:C2	2.79	0.69
34:BA:817:U:H4'	63:Bd:55:ALA:HB2	1.74	0.69
34:BA:827:A:C2	34:BA:828:A:C4	2.80	0.69
34:BA:1212:A:C2	34:BA:1213:A:C4	2.79	0.69
34:BA:1627:U:H3	67:Bh:79:ARG:HG3	1.55	0.69
34:BA:1690:U:H5'	57:BX:135:LEU:HD13	1.75	0.69
35:BB:841:U:H1'	35:BB:975:G:C2	2.27	0.69
36:BC:152:C:H2'	36:BC:153:C:C6	2.26	0.69
40:BG:31:G:C5	40:BG:175:G:C6	2.79	0.69
51:BR:126:ARG:HA	51:BR:140:MET:SD	2.32	0.69
81:Bv:152:ASN:O	81:Bv:156:THR:HG23	1.91	0.69
85:AA:159:G:C5	85:AA:164:G:C6	2.80	0.69
85:AA:396:U:H3'	85:AA:397:G:C8	2.27	0.69
4:A3:12:THR:HG21	4:A3:130:VAL:HG23	1.74	0.69
7:A6:132:HIS:CE1	7:A6:157:PHE:CE1	2.79	0.69
15:AG:128:TYR:CD2	85:AA:1214:C:H4'	2.27	0.69
34:BA:374:U:C2	34:BA:375:C:C6	2.80	0.69
34:BA:533:U:H2'	34:BA:534:C:C5	2.27	0.69
34:BA:545:U:C5	34:BA:546:U:C6	2.79	0.69
34:BA:726:G:C6	34:BA:727:G:C5	2.80	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:932:G:C6	34:BA:933:U:C2	2.80	0.69
35:BB:134:G:C4	35:BB:135:C:C6	2.80	0.69
35:BB:620:G:C5	35:BB:621:C:C6	2.80	0.69
36:BC:24:G:C5	36:BC:25:C:C4	2.79	0.69
36:BC:149:A:C6	36:BC:150:U:C4	2.80	0.69
37:BD:106:G:C2	37:BD:107:G:C4	2.80	0.69
47:BN:80:PHE:HB3	47:BN:85:LEU:HD11	1.74	0.69
84:By:94:TYR:CD1	84:By:98:PRO:HA	2.27	0.69
85:AA:665:A:H2'	85:AA:666:A:C8	2.27	0.69
34:BA:888:G:C6	34:BA:889:U:C4	2.80	0.69
34:BA:1122:G:C6	34:BA:1123:G:C5	2.80	0.69
37:BD:98:G:C6	37:BD:99:G:C4	2.80	0.69
40:BG:137:G:C5	40:BG:138:C:C5	2.80	0.69
58:BY:81:ARG:N	85:AA:2163:G:H5'	2.06	0.69
65:Bf:352:ALA:HB2	65:Bf:363:ILE:HG23	1.73	0.69
85:AA:362:G:C6	85:AA:363:A:C6	2.80	0.69
85:AA:1993:C:C4	85:AA:1994:G:C6	2.80	0.69
2:A1:126:VAL:O	85:AA:310:U:H4'	1.92	0.69
4:A3:118:LYS:HE3	58:BY:80:VAL:HG13	1.74	0.69
34:BA:320:G:C6	34:BA:321:G:C5	2.80	0.69
34:BA:1657:A:C5	34:BA:1658:G:C8	2.81	0.69
35:BB:707:G:C6	35:BB:708:C:C4	2.81	0.69
35:BB:853:U:H3'	69:Bj:122:ALA:HB1	1.73	0.69
36:BC:105:C:C6	36:BC:149:A:C2	2.81	0.69
37:BD:32:A:C2	37:BD:41:G:C6	2.81	0.69
38:BE:1:U:C4	38:BE:12:A:H1'	2.27	0.69
38:BE:105:A:H2'	38:BE:106:C:C6	2.27	0.69
40:BG:1:G:C6	40:BG:2:U:H1'	2.27	0.69
85:AA:63:G:H4'	85:AA:335:G:H1'	1.74	0.69
85:AA:625:G:C8	85:AA:656:U:C2	2.81	0.69
85:AA:911:A:C4	85:AA:912:C:C5	2.80	0.69
85:AA:940:G:H4'	85:AA:941:C:C5	2.27	0.69
85:AA:2004:U:H3'	85:AA:2005:U:H4'	1.75	0.69
34:BA:596:G:H1'	34:BA:1494:G:C6	2.27	0.69
34:BA:741:A:N7	47:BN:10:HIS:CD2	2.60	0.69
34:BA:919:A:C6	34:BA:920:U:C4	2.81	0.69
34:BA:1115:A:C2	34:BA:1144:A:C2	2.80	0.69
34:BA:1413:G:C6	34:BA:1414:C:C4	2.80	0.69
35:BB:529:A:H1'	85:AA:2111:C:C4'	2.22	0.69
35:BB:798:A:C6	35:BB:976:U:C4	2.81	0.69
35:BB:1401:G:H3'	35:BB:1402:U:C6	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BF:36:G:C6	39:BF:48:G:C6	2.81	0.69
39:BF:72:A:H62	81:Bv:143:VAL:HG21	1.57	0.69
40:BG:149:U:H1'	40:BG:150:A:H5''	1.74	0.69
64:Be:249:SER:OG	85:AA:1236:G:C6	2.45	0.69
80:Bu:249:TYR:HB3	80:Bu:253:HIS:CE1	2.26	0.69
85:AA:53:G:C2	85:AA:493:A:C2	2.81	0.69
85:AA:786:G:C5	85:AA:787:U:C4	2.80	0.69
85:AA:938:A:C5	85:AA:939:A:C8	2.80	0.69
85:AA:1726:G:H1'	85:AA:1817:U:C2	2.28	0.69
5:A4:21:GLU:CD	5:A4:21:GLU:H	1.99	0.69
7:A6:147:VAL:HG12	7:A6:148:ARG:H	1.58	0.69
32:AY:60:GLN:HG3	85:AA:631:G:H4'	1.75	0.69
34:BA:194:G:C8	34:BA:195:G:C8	2.81	0.69
34:BA:620:C:C4	34:BA:621:G:C5	2.81	0.69
34:BA:1231:C:C2	34:BA:1232:C:C5	2.80	0.69
34:BA:1412:G:H21	52:BS:116:HIS:CE1	2.11	0.69
34:BA:1496:G:H5''	34:BA:1497:A:C8	2.28	0.69
34:BA:1617:U:C4	34:BA:1633:C:H2'	2.28	0.69
35:BB:843:G:C2	35:BB:970:C:C2	2.81	0.69
35:BB:1280:U:C4	35:BB:1281:G:C5	2.80	0.69
35:BB:1465:U:C4	35:BB:1466:A:H1'	2.27	0.69
36:BC:125:A:C2	36:BC:139:A:C5	2.81	0.69
85:AA:270:A:C2	85:AA:979:U:N3	2.59	0.69
85:AA:709:A:C5	85:AA:710:A:C2	2.80	0.69
6:A5:110:ARG:HG3	6:A5:179:LEU:HD22	1.75	0.69
15:AG:91:LEU:HD11	85:AA:1117:G:H4'	1.74	0.69
32:AY:56:ARG:HE	32:AY:57:MET:H	1.38	0.69
34:BA:741:A:C8	47:BN:10:HIS:HD2	2.11	0.69
34:BA:856:G:C5	34:BA:857:C:C5	2.81	0.69
34:BA:938:C:H2'	34:BA:939:C:C5	2.28	0.69
34:BA:1013:A:C8	34:BA:1013:A:OP1	2.46	0.69
34:BA:1115:A:C2	34:BA:1116:G:C4	2.80	0.69
34:BA:1133:A:C6	34:BA:1134:A:C6	2.81	0.69
34:BA:1174:A:H61	34:BA:1197:U:H3	1.41	0.69
34:BA:1210:A:H2'	34:BA:1210:A:N3	2.08	0.69
34:BA:1522:G:C4	34:BA:1523:U:C5	2.80	0.69
35:BB:526:A:H61	85:AA:2112:G:C2'	2.05	0.69
35:BB:1358:A:C2	35:BB:1359:G:H1'	2.28	0.69
35:BB:1454:G:H2'	35:BB:1455:A:C8	2.27	0.69
36:BC:117:A:C6	36:BC:147:G:C6	2.81	0.69
36:BC:119:G:C6	36:BC:120:G:C5	2.80	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:130:G:H3'	38:BE:131:C:H6	1.57	0.69
38:BE:201:A:C5	38:BE:202:C:C4	2.80	0.69
39:BF:53:G:H4'	39:BF:54:U:H6	1.58	0.69
41:BH:23:G:C4	41:BH:24:U:C2	2.81	0.69
47:BN:12:HIS:CE1	47:BN:13:GLN:HG3	2.27	0.69
62:Bc:83:GLU:CD	62:Bc:85:GLY:H	2.00	0.69
80:Bu:76:MET:HB2	80:Bu:109:MET:SD	2.31	0.69
85:AA:287:G:C6	85:AA:288:G:C6	2.80	0.69
85:AA:342:C:C5	85:AA:343:U:C4	2.81	0.69
85:AA:577:U:C3'	85:AA:578:U:H5''	2.23	0.69
85:AA:794:A:H1'	85:AA:801:U:C2	2.28	0.69
85:AA:866:U:H2'	85:AA:867:G:H8	1.58	0.69
85:AA:940:G:H2'	85:AA:1108:U:C2	2.27	0.69
85:AA:1244:A:C5	85:AA:1245:U:C5	2.81	0.69
85:AA:1362:A:H2'	85:AA:1363:U:C6	2.28	0.69
85:AA:1521:U:H2'	85:AA:1522:U:C6	2.27	0.69
85:AA:1688:U:C2	85:AA:1692:U:C4	2.80	0.69
85:AA:2198:G:C2	85:AA:2199:G:H1'	2.27	0.69
15:AG:123:HIS:HB2	34:BA:945:A:H2	1.55	0.69
21:AM:40:ARG:HB3	21:AM:98:HIS:CE1	2.28	0.69
34:BA:18:G:H3'	34:BA:19:G:H8	1.58	0.69
34:BA:126:G:C6	34:BA:127:U:C4	2.81	0.69
34:BA:397:A:H4'	73:Bn:71:HIS:CD2	2.28	0.69
34:BA:672:G:H2'	34:BA:673:U:C6	2.28	0.69
34:BA:743:A:C8	47:BN:7:ALA:CB	2.75	0.69
34:BA:1203:G:C5	34:BA:1204:U:C5	2.81	0.69
35:BB:484:G:C6	35:BB:485:U:C4	2.81	0.69
36:BC:75:G:C8	76:Bq:30:ARG:HG2	2.27	0.69
40:BG:31:G:C4	40:BG:175:G:C2	2.81	0.69
81:Bv:188:HIS:CD2	81:Bv:188:HIS:N	2.57	0.69
85:AA:423:G:C2	85:AA:424:A:C4	2.81	0.69
85:AA:736:U:H3'	85:AA:736:U:C6	2.27	0.69
85:AA:966:G:C2	85:AA:967:C:C2	2.81	0.69
85:AA:1139:G:H2'	85:AA:1140:G:C5'	2.21	0.69
34:BA:45:A:C4	34:BA:47:U:C4	2.81	0.69
34:BA:911:G:C5	34:BA:912:G:C8	2.81	0.69
35:BB:701:U:C5	35:BB:1040:C:OP2	2.45	0.69
35:BB:975:G:C2	35:BB:976:U:C5	2.81	0.69
35:BB:1458:U:C2	39:BF:14:C:C5	2.81	0.69
36:BC:125:A:C6	36:BC:126:G:C5	2.81	0.69
85:AA:1792:C:C3'	85:AA:1793:A:H5'	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A2:12:TRP:CD2	3:A2:94:PRO:HD2	2.27	0.68
34:BA:301:U:H5''	34:BA:302:A:H5'	1.75	0.68
34:BA:316:G:C6	34:BA:318:U:C6	2.82	0.68
34:BA:942:G:C2	34:BA:950:C:C2	2.81	0.68
34:BA:1533:G:C5	34:BA:1534:U:C5	2.81	0.68
35:BB:620:G:C5	35:BB:621:C:C5	2.81	0.68
36:BC:49:G:C5	36:BC:50:C:C4	2.82	0.68
37:BD:52:U:H2'	37:BD:53:U:C6	2.27	0.68
49:BP:122:TYR:N	49:BP:123:TRP:HD1	1.91	0.68
85:AA:356:U:C5	85:AA:357:C:C5	2.80	0.68
85:AA:743:C:H2'	85:AA:744:C:C6	2.29	0.68
85:AA:2049:U:C2	85:AA:2081:A:C5	2.80	0.68
13:AE:41:HIS:CD2	85:AA:971:U:H5''	2.29	0.68
34:BA:539:C:H1'	34:BA:571:G:H1	1.58	0.68
34:BA:1174:A:C6	34:BA:1175:G:C6	2.81	0.68
34:BA:1327:G:C6	34:BA:1328:U:C4	2.82	0.68
35:BB:362:A:H2	35:BB:364:U:C4	2.12	0.68
35:BB:428:G:H2'	35:BB:429:C:C6	2.29	0.68
35:BB:567:G:C6	35:BB:568:A:C5	2.81	0.68
35:BB:799:A:C5	35:BB:972:C:OP1	2.46	0.68
36:BC:73:U:C6	36:BC:74:U:H5	2.11	0.68
31:AX:144:GLN:HE22	85:AA:653:A:H3'	1.58	0.68
34:BA:232:U:C4	34:BA:233:U:C4	2.82	0.68
34:BA:523:A:C6	34:BA:524:G:C6	2.80	0.68
34:BA:895:U:H3'	47:BN:9:PRO:CB	2.23	0.68
34:BA:1711:G:C4	34:BA:1719:G:C2	2.82	0.68
35:BB:877:A:C4	60:Ba:93:ARG:HB2	2.28	0.68
35:BB:1120:A:H5''	45:BL:102:ASN:HD22	1.58	0.68
35:BB:1342:C:H2'	35:BB:1343:C:C6	2.28	0.68
36:BC:152:C:H2'	36:BC:153:C:C5	2.29	0.68
85:AA:186:U:H3'	85:AA:186:U:C6	2.27	0.68
85:AA:2184:A:C2	85:AA:2185:U:C2	2.81	0.68
86:AB:25:C:H2'	86:AB:26:A:C8	2.28	0.68
34:BA:229:C:H2'	34:BA:230:A:C8	2.27	0.68
34:BA:338:U:H2'	34:BA:339:G:C8	2.29	0.68
34:BA:518:C:H2'	34:BA:684:G:H21	1.57	0.68
34:BA:540:G:H22	34:BA:567:U:H3	1.40	0.68
34:BA:817:U:C4'	63:Bd:55:ALA:HB2	2.23	0.68
35:BB:1340:U:H2'	35:BB:1341:U:C6	2.29	0.68
36:BC:39:G:H1'	36:BC:104:A:N1	2.07	0.68
36:BC:44:A:C2	36:BC:45:C:C2	2.81	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BD:68:C:C2	37:BD:69:U:C6	2.82	0.68
85:AA:636:G:C5	85:AA:637:U:C4	2.80	0.68
85:AA:638:G:H4'	85:AA:640:C:C2	2.28	0.68
85:AA:942:A:OP1	85:AA:945:A:C8	2.47	0.68
85:AA:2153:G:C2	85:AA:2166:G:C2	2.81	0.68
34:BA:13:U:C2	36:BC:155:C:C2	2.82	0.68
34:BA:195:G:C2	34:BA:289:A:C2	2.82	0.68
34:BA:543:A:C2	34:BA:544:U:C6	2.81	0.68
34:BA:763:U:C5	34:BA:770:G:H1'	2.27	0.68
34:BA:1346:U:C2	34:BA:1400:A:C2	2.82	0.68
34:BA:1431:G:C4	34:BA:1432:C:C5	2.82	0.68
35:BB:1144:A:H2'	35:BB:1145:G:C8	2.27	0.68
37:BD:94:C:C2	37:BD:95:G:C5	2.82	0.68
38:BE:2:G:C8	38:BE:8:G:C2	2.81	0.68
38:BE:157:C:C5	38:BE:158:U:C2	2.82	0.68
40:BG:178:G:C6	40:BG:179:C:C4	2.82	0.68
41:BH:1:U:H3'	41:BH:2:U:H5'	1.76	0.68
41:BH:116:A:H3'	41:BH:117:U:H2'	1.74	0.68
85:AA:317:A:C5	85:AA:318:A:C5	2.81	0.68
85:AA:402:G:C5	85:AA:404:A:C8	2.81	0.68
85:AA:905:C:H4'	85:AA:908:C:C5	2.29	0.68
34:BA:2:A:N1	36:BC:169:G:C6	2.61	0.68
34:BA:124:G:C2	34:BA:141:G:C6	2.82	0.68
34:BA:160:G:H3'	34:BA:161:U:C5	2.27	0.68
34:BA:293:A:C6	34:BA:294:C:C4	2.82	0.68
34:BA:817:U:H5''	63:Bd:55:ALA:HB2	1.74	0.68
34:BA:1570:C:H2'	34:BA:1571:C:C6	2.29	0.68
35:BB:35:G:H2'	35:BB:36:U:C6	2.29	0.68
36:BC:7:U:H2'	36:BC:8:C:C6	2.28	0.68
38:BE:141:A:N7	38:BE:144:A:C4	2.62	0.68
40:BG:157:A:C2	40:BG:159:A:C8	2.82	0.68
85:AA:366:A:H2'	85:AA:367:A:C8	2.29	0.68
85:AA:477:U:H2'	85:AA:478:U:C6	2.27	0.68
85:AA:1255:C:C5	85:AA:1256:C:C5	2.81	0.68
5:A4:114:LEU:H	5:A4:114:LEU:HD22	1.59	0.68
11:AC:153:MET:HE1	11:AC:155:PRO:HB3	1.76	0.68
34:BA:8:G:C2	36:BC:163:A:C2	2.81	0.68
34:BA:214:A:N3	62:Bc:78:LYS:HE2	2.08	0.68
34:BA:768:G:C5	34:BA:769:U:H5	2.12	0.68
34:BA:1699:A:C5	34:BA:1700:C:C6	2.81	0.68
35:BB:1121:A:C4'	45:BL:112:GLY:HA3	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1292:G:C5	35:BB:1293:C:C5	2.82	0.68
38:BE:89:G:C6	38:BE:90:G:C6	2.81	0.68
38:BE:107:U:H2'	38:BE:108:U:C6	2.28	0.68
49:BP:122:TYR:H	49:BP:123:TRP:CD1	2.10	0.68
54:BU:56:TYR:HB3	54:BU:57:TYR:CZ	2.28	0.68
80:Bu:90:HIS:CE1	80:Bu:238:ALA:HB3	2.29	0.68
85:AA:725:G:H1'	85:AA:777:U:H1'	1.76	0.68
23:AP:43:TRP:CD2	23:AP:75:GLN:HB2	2.29	0.68
34:BA:127:U:H2'	34:BA:128:C:C6	2.28	0.68
34:BA:288:U:C4	34:BA:289:A:C4	2.81	0.68
34:BA:405:C:H2'	34:BA:406:G:C8	2.28	0.68
34:BA:597:C:H2'	34:BA:598:G:C8	2.29	0.68
34:BA:670:U:C5	34:BA:671:C:C5	2.81	0.68
34:BA:800:G:C5	34:BA:801:U:C4	2.81	0.68
34:BA:1432:C:H4'	48:BO:36:ARG:HE	1.59	0.68
34:BA:1820:G:H2'	34:BA:1821:A:C8	2.28	0.68
35:BB:529:A:N3	85:AA:2111:C:H1'	2.08	0.68
35:BB:700:C:C4	35:BB:701:U:H5	2.11	0.68
35:BB:1213:U:H2'	35:BB:1214:U:C6	2.29	0.68
36:BC:5:U:H2'	36:BC:6:G:C8	2.28	0.68
36:BC:29:C:H2'	36:BC:30:U:C6	2.28	0.68
38:BE:45:G:C6	38:BE:46:G:C5	2.82	0.68
40:BG:33:G:C2	40:BG:169:A:H5'	2.29	0.68
75:Bp:23:VAL:HG22	75:Bp:24:LYS:H	1.57	0.68
83:Bx:220:ASP:O	83:Bx:224:LEU:HD13	1.94	0.68
85:AA:135:C:C6	85:AA:137:C:H1'	2.29	0.68
85:AA:271:A:C2	85:AA:978:U:C2	2.82	0.68
85:AA:1099:U:C4	85:AA:1100:U:C4	2.81	0.68
13:AE:41:HIS:CG	85:AA:971:U:H5''	2.28	0.68
34:BA:124:G:C2	34:BA:125:G:C5	2.82	0.68
34:BA:327:G:H4'	72:Bm:42:HIS:CE1	2.28	0.68
34:BA:484:A:C2	36:BC:6:G:C4	2.82	0.68
35:BB:362:A:C5	35:BB:363:A:H1'	2.28	0.68
35:BB:1358:A:C4	35:BB:1359:G:C8	2.82	0.68
37:BD:22:A:C4	80:Bu:278:TYR:CE2	2.81	0.68
38:BE:84:U:C5	38:BE:85:G:H1'	2.29	0.68
47:BN:12:HIS:H	47:BN:12:HIS:CD2	2.12	0.68
80:Bu:49:TYR:CZ	80:Bu:66:HIS:HB2	2.29	0.68
85:AA:1911:A:H1'	85:AA:1913:G:C8	2.29	0.68
85:AA:2147:A:C4	85:AA:2148:C:C6	2.82	0.68
34:BA:194:G:C5	34:BA:195:G:C6	2.82	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:556:A:C5	34:BA:557:U:C6	2.82	0.68
34:BA:677:U:H1'	34:BA:678:C:C4	2.29	0.68
34:BA:680:C:H4'	34:BA:681:G:C8	2.29	0.68
34:BA:802:G:C5	34:BA:803:U:C5	2.81	0.68
35:BB:500:C:C6	35:BB:501:G:C8	2.82	0.68
35:BB:706:G:H1	35:BB:775:U:H3	1.41	0.68
35:BB:1102:U:C6	35:BB:1103:A:C6	2.82	0.68
40:BG:72:G:C2	40:BG:73:U:C2	2.82	0.68
65:Bf:339:TYR:HB3	65:Bf:381:MET:HE2	1.76	0.68
80:Bu:204:ARG:NH1	80:Bu:209:HIS:CD2	2.62	0.68
85:AA:748:C:C2	85:AA:757:A:C2	2.81	0.68
22:AO:54:VAL:HG11	22:AO:69:TRP:CD2	2.29	0.67
34:BA:132:U:H2'	34:BA:133:A:C8	2.29	0.67
34:BA:527:C:H2'	34:BA:528:C:C6	2.29	0.67
34:BA:564:C:C5	34:BA:565:U:C6	2.82	0.67
34:BA:719:G:H1	35:BB:1326:U:H5'	1.59	0.67
35:BB:877:A:H2'	60:Ba:94:GLY:H	1.59	0.67
35:BB:1081:U:C5	35:BB:1082:A:C4	2.82	0.67
35:BB:1127:A:C8	45:BL:64:PHE:CE2	2.82	0.67
35:BB:1161:G:C8	35:BB:1163:U:C4	2.83	0.67
36:BC:91:G:C6	36:BC:92:C:C4	2.82	0.67
40:BG:173:C:H2'	40:BG:174:G:C8	2.29	0.67
64:Be:132:ASP:O	64:Be:169:VAL:HG23	1.93	0.67
85:AA:80:G:HO2'	85:AA:81:A:H8	1.42	0.67
85:AA:749:C:C2	85:AA:756:G:C2	2.83	0.67
85:AA:938:A:C6	85:AA:939:A:C4	2.82	0.67
85:AA:1105:G:H8	85:AA:1106:A:H3'	1.59	0.67
85:AA:1445:C:H2'	85:AA:1446:U:C5	2.30	0.67
85:AA:1923:A:H4'	85:AA:1923:A:OP1	1.94	0.67
15:AG:120:SER:OG	34:BA:945:A:N1	2.23	0.67
34:BA:533:U:C5	34:BA:575:U:C4	2.82	0.67
34:BA:1209:A:H2'	34:BA:1210:A:C8	2.30	0.67
34:BA:1599:A:C5	34:BA:1600:G:H1'	2.30	0.67
34:BA:1663:U:C2	34:BA:1664:C:C5	2.81	0.67
34:BA:1682:A:H2'	34:BA:1683:C:C6	2.30	0.67
34:BA:1816:G:H3'	34:BA:1818:A:C8	2.29	0.67
35:BB:126:C:C2	35:BB:127:U:C5	2.83	0.67
35:BB:1464:G:C6	40:BG:24:A:C5'	2.77	0.67
36:BC:36:G:C4	70:Bk:93:HIS:CE1	2.82	0.67
38:BE:158:U:C4	38:BE:159:A:C6	2.82	0.67
40:BG:80:G:C6	40:BG:81:G:C6	2.83	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:177:A:C2	85:AA:178:U:C2	2.81	0.67
85:AA:1227:A:C6	85:AA:1228:A:C4	2.81	0.67
85:AA:1985:C:H5'	85:AA:1986:G:C5'	2.24	0.67
34:BA:481:A:H2	36:BC:7:U:C2	2.13	0.67
34:BA:817:U:H5''	63:Bd:55:ALA:CB	2.24	0.67
34:BA:1014:A:C2	34:BA:1016:A:C8	2.82	0.67
35:BB:1210:U:C6	35:BB:1211:C:C5	2.82	0.67
36:BC:14:G:C5	36:BC:15:G:C5	2.82	0.67
36:BC:18:G:C4	36:BC:19:A:C8	2.83	0.67
85:AA:352:G:C2	85:AA:353:G:C5	2.83	0.67
85:AA:959:C:C5	85:AA:960:G:C4	2.82	0.67
27:AT:25:ARG:NH2	27:AT:81:LEU:HD22	2.09	0.67
34:BA:110:C:H3'	34:BA:110:C:C6	2.29	0.67
34:BA:264:A:H3'	34:BA:265:A:C8	2.29	0.67
34:BA:1603:A:C4	34:BA:1604:A:C8	2.82	0.67
36:BC:50:C:H1'	70:Bk:44:ARG:HH21	1.59	0.67
38:BE:43:A:C2	38:BE:44:C:C5	2.83	0.67
40:BG:77:U:C6	40:BG:78:C:C6	2.83	0.67
44:BK:150:GLU:HG2	44:BK:154:ARG:HH12	1.59	0.67
51:BR:82:ARG:HA	51:BR:83:TRP:CE3	2.30	0.67
58:BY:80:VAL:CG2	85:AA:2162:G:O2'	2.43	0.67
73:Bn:28:HIS:CE1	73:Bn:30:GLN:HB2	2.29	0.67
85:AA:309:G:C5	85:AA:310:U:C4	2.83	0.67
85:AA:520:A:H5''	85:AA:521:A:H2'	1.77	0.67
85:AA:944:C:C5	85:AA:945:A:C4	2.82	0.67
86:AB:68:C:H2'	86:AB:69:G:C8	2.29	0.67
20:AL:28:PHE:CG	85:AA:1826:U:H6	2.12	0.67
34:BA:167:U:H3	34:BA:321:G:H1	1.41	0.67
34:BA:255:G:H3'	34:BA:256:A:H5'	1.75	0.67
34:BA:485:C:H4'	34:BA:705:C:H5'	1.76	0.67
34:BA:800:G:C2	34:BA:801:U:C2	2.82	0.67
34:BA:1816:G:H2'	34:BA:1818:A:C8	2.29	0.67
35:BB:530:C:C5'	85:AA:2231:G:H2'	2.20	0.67
37:BD:46:G:C6	37:BD:47:U:C4	2.83	0.67
58:BY:33:LEU:HD23	58:BY:34:THR:H	1.58	0.67
85:AA:103:U:H2'	85:AA:104:C:C6	2.30	0.67
85:AA:164:G:C6	85:AA:165:C:C5	2.82	0.67
85:AA:930:G:H1'	85:AA:932:A:H62	1.59	0.67
85:AA:1009:G:H2'	85:AA:1010:U:C6	2.29	0.67
85:AA:1830:U:O5'	85:AA:1830:U:H6	1.77	0.67
34:BA:162:G:C6	34:BA:321:G:C8	2.83	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:890:G:C6	34:BA:891:C:C4	2.82	0.67
34:BA:991:U:H2'	34:BA:992:A:C8	2.29	0.67
34:BA:1040:G:C4	34:BA:1041:U:C6	2.82	0.67
34:BA:1222:C:H2'	34:BA:1223:C:C6	2.30	0.67
34:BA:1646:U:C5	34:BA:1647:G:C5	2.82	0.67
34:BA:1702:G:H2'	34:BA:1703:A:N9	2.10	0.67
35:BB:1053:G:N3	35:BB:1053:G:H2'	2.08	0.67
35:BB:1257:A:H5''	35:BB:1258:G:O5'	1.94	0.67
36:BC:44:A:H2'	36:BC:45:C:C6	2.30	0.67
36:BC:67:U:H2'	36:BC:68:A:C8	2.30	0.67
36:BC:145:G:C6	36:BC:146:U:C4	2.82	0.67
37:BD:86:A:C2	37:BD:87:G:C4	2.82	0.67
40:BG:127:G:C2	40:BG:163:G:C2	2.83	0.67
42:BI:79:LYS:C	63:Bd:71:LYS:C	2.62	0.67
77:Br:188:ILE:HG22	77:Br:199:ARG:O	1.95	0.67
85:AA:63:G:C6	85:AA:85:U:C2	2.82	0.67
85:AA:868:A:H3'	85:AA:869:A:C8	2.30	0.67
85:AA:1288:A:H1'	85:AA:1455:C:H1'	1.77	0.67
34:BA:57:A:C6	34:BA:58:A:C5	2.82	0.67
34:BA:65:A:C2	34:BA:66:C:H1'	2.29	0.67
34:BA:165:C:C5	34:BA:322:U:N3	2.62	0.67
34:BA:301:U:H5''	34:BA:302:A:C5'	2.24	0.67
34:BA:715:U:H2'	34:BA:716:C:C6	2.30	0.67
34:BA:1434:U:H4'	48:BO:149:ARG:HH21	1.57	0.67
35:BB:817:C:N3	35:BB:818:U:H1'	2.09	0.67
35:BB:1223:A:H5'	35:BB:1227:G:C8	2.30	0.67
35:BB:1346:A:H2'	35:BB:1368:A:H61	1.59	0.67
35:BB:1512:C:C6	35:BB:1512:C:H3'	2.30	0.67
39:BF:34:C:H2'	39:BF:35:C:C6	2.30	0.67
40:BG:162:A:H2'	40:BG:163:G:C8	2.30	0.67
47:BN:6:ASN:HD22	47:BN:7:ALA:H	1.42	0.67
85:AA:147:G:C5	85:AA:177:A:C2	2.83	0.67
85:AA:792:A:C6	85:AA:800:A:H2'	2.30	0.67
85:AA:890:U:H2'	85:AA:917:A:C2	2.30	0.67
85:AA:894:A:C5	85:AA:899:A:H1'	2.30	0.67
85:AA:1105:G:C5	85:AA:1106:A:C5	2.83	0.67
85:AA:2003:C:C5	85:AA:2006:G:C5	2.82	0.67
34:BA:201:A:C6	34:BA:275:C:H1'	2.30	0.67
34:BA:501:U:C2'	34:BA:502:U:H5'	2.23	0.67
34:BA:897:U:H3'	47:BN:14:ARG:NH1	2.09	0.67
34:BA:1297:G:C2	34:BA:1298:U:H5	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1726:U:C4	34:BA:1728:G:C5	2.83	0.67
35:BB:85:A:C4	35:BB:603:U:C2	2.83	0.67
35:BB:460:C:C4	35:BB:461:U:C4	2.83	0.67
36:BC:26:U:H2'	36:BC:27:U:C6	2.30	0.67
40:BG:128:U:C2	40:BG:163:G:C2	2.82	0.67
41:BH:73:A:N6	55:BV:60:ARG:HG3	2.10	0.67
73:Bn:69:VAL:HG12	73:Bn:73:ARG:HE	1.58	0.67
85:AA:419:A:C5	85:AA:420:C:C6	2.82	0.67
85:AA:1242:A:C2	85:AA:1261:U:H1'	2.30	0.67
85:AA:1522:U:H3	85:AA:2100:A:H61	1.41	0.67
85:AA:1846:G:H2'	85:AA:1847:U:C6	2.30	0.67
85:AA:2204:A:C2	85:AA:2205:A:C4	2.83	0.67
85:AA:2221:A:C6	85:AA:2244:G:C5	2.83	0.67
8:A7:97:GLN:CD	8:A7:97:GLN:H	2.03	0.67
34:BA:72:U:H2'	34:BA:73:G:C4	2.30	0.67
34:BA:805:A:N3	34:BA:807:U:H1'	2.10	0.67
34:BA:1511:C:H2'	34:BA:1512:C:C6	2.30	0.67
34:BA:1539:A:C4	34:BA:1568:A:C6	2.83	0.67
35:BB:62:C:C2	35:BB:63:A:C2	2.82	0.67
35:BB:844:G:C5	35:BB:845:C:C5	2.83	0.67
35:BB:867:C:C4	35:BB:868:C:C4	2.83	0.67
35:BB:1133:C:H5'	80:Bu:2:THR:CB	2.25	0.67
35:BB:1147:G:H2'	35:BB:1148:U:C6	2.29	0.67
35:BB:1291:G:C6	35:BB:1314:G:C6	2.83	0.67
35:BB:1336:G:H2'	35:BB:1337:C:C6	2.30	0.67
65:Bf:288:ARG:CZ	65:Bf:324:GLY:HA3	2.25	0.67
84:By:106:GLN:CD	84:By:106:GLN:H	2.03	0.67
85:AA:559:G:C5	85:AA:569:A:C2	2.83	0.67
85:AA:1955:U:C5	85:AA:1956:C:C5	2.82	0.67
15:AG:77:HIS:CE1	15:AG:78:LYS:NZ	2.62	0.67
27:AT:101:LEU:HD22	27:AT:103:MET:SD	2.35	0.67
34:BA:204:U:H2'	34:BA:205:G:C8	2.30	0.67
34:BA:262:A:H5'	77:Br:220:ARG:HH11	1.59	0.67
34:BA:743:A:C4	47:BN:7:ALA:N	2.63	0.67
34:BA:798:G:H1'	61:Bb:114:HIS:CE1	2.30	0.67
34:BA:1097:G:C4	35:BB:1084:A:C2	2.83	0.67
34:BA:1113:A:C2	44:BK:196:HIS:CE1	2.83	0.67
34:BA:1637:G:C5	34:BA:1638:U:C4	2.83	0.67
34:BA:1697:U:OP2	34:BA:1697:U:H6	1.78	0.67
34:BA:1825:U:H6	34:BA:1825:U:C5'	2.08	0.67
35:BB:99:G:C6	35:BB:100:A:C6	2.83	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:875:G:C2	35:BB:960:C:C2	2.83	0.67
35:BB:1004:A:C2	35:BB:1005:A:C4	2.83	0.67
35:BB:1153:G:C5	35:BB:1154:C:C5	2.82	0.67
36:BC:9:G:C6	36:BC:10:C:C4	2.82	0.67
38:BE:165:U:H3'	38:BE:166:G:C8	2.30	0.67
49:BP:99:LYS:HA	49:BP:102:PHE:CD2	2.30	0.67
85:AA:116:G:C8	85:AA:117:C:C5	2.83	0.67
85:AA:335:G:C6	85:AA:355:G:C4	2.83	0.67
85:AA:342:C:C6	85:AA:343:U:C5	2.83	0.67
85:AA:348:G:C6	85:AA:349:C:C4	2.82	0.67
85:AA:1292:A:H5''	85:AA:1292:A:H8	1.59	0.67
23:AP:64:ILE:HG23	23:AP:69:MET:HB2	1.78	0.66
34:BA:321:G:C6	34:BA:322:U:C4	2.83	0.66
34:BA:955:G:C6	34:BA:956:G:C6	2.83	0.66
34:BA:1198:U:C5	34:BA:1201:G:H4'	2.30	0.66
34:BA:1287:G:C6	34:BA:1288:U:C4	2.83	0.66
34:BA:1412:G:N2	52:BS:116:HIS:CE1	2.63	0.66
34:BA:1699:A:H3'	34:BA:1699:A:C8	2.28	0.66
35:BB:108:G:C5	35:BB:109:U:C4	2.83	0.66
35:BB:376:A:C2	35:BB:377:A:C4	2.83	0.66
36:BC:97:U:C6	36:BC:98:C:N3	2.63	0.66
38:BE:6:A:H5'	69:Bj:85:HIS:CD2	2.31	0.66
40:BG:39:A:C5	65:Bf:64:HIS:CD2	2.83	0.66
57:BX:80:ASP:CG	57:BX:81:ALA:H	2.02	0.66
85:AA:9:U:C2	85:AA:11:A:H5''	2.30	0.66
85:AA:55:A:C5	85:AA:468:A:C2	2.84	0.66
85:AA:68:A:C6	85:AA:69:C:C2	2.83	0.66
85:AA:378:A:C2	85:AA:380:C:C2	2.83	0.66
6:A5:130:THR:CB	6:A5:158:LEU:HD22	2.26	0.66
34:BA:194:G:C6	34:BA:195:G:O6	2.48	0.66
34:BA:508:C:H4'	34:BA:511:U:O2	1.95	0.66
34:BA:539:C:H2'	34:BA:540:G:C8	2.30	0.66
34:BA:561:U:O2	34:BA:562:C:N1	2.28	0.66
34:BA:1418:G:C5	34:BA:1419:A:C5	2.84	0.66
34:BA:1547:G:C5	34:BA:1562:G:C6	2.83	0.66
35:BB:35:G:C5	35:BB:36:U:C4	2.83	0.66
35:BB:823:G:C2	35:BB:824:C:H1'	2.30	0.66
35:BB:1210:U:C5	35:BB:1211:C:C4	2.84	0.66
35:BB:1418:C:H2'	35:BB:1419:G:C8	2.30	0.66
41:BH:97:C:O2'	55:BV:64:LEU:O	2.11	0.66
85:AA:202:U:C6	85:AA:203:C:H3'	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:355:G:C6	85:AA:356:U:C4	2.84	0.66
85:AA:438:G:C6	85:AA:439:U:C5	2.83	0.66
85:AA:551:C:C4	85:AA:552:C:C4	2.83	0.66
85:AA:854:A:H5'	85:AA:855:G:O4'	1.94	0.66
85:AA:937:G:H5''	85:AA:938:A:N7	2.10	0.66
85:AA:1281:G:H2'	85:AA:1282:A:C8	2.31	0.66
85:AA:1665:G:C5	85:AA:1705:G:C2	2.82	0.66
85:AA:2076:C:H2'	85:AA:2077:G:C8	2.30	0.66
86:AB:32:U:C5	86:AB:33:U:C4	2.84	0.66
7:A6:175:LYS:HD3	7:A6:178:ALA:HB3	1.76	0.66
23:AP:70:PRO:HB3	25:AR:34:HIS:CE1	2.31	0.66
28:AU:32:LYS:HB3	85:AA:2039:G:C5	2.31	0.66
34:BA:266:G:C6	34:BA:277:A:C5	2.83	0.66
34:BA:1744:C:O2	34:BA:1781:A:C2	2.49	0.66
35:BB:639:A:H5''	35:BB:640:A:H5''	1.78	0.66
36:BC:125:A:C2	36:BC:139:A:C6	2.82	0.66
41:BH:13:C:C5	41:BH:14:C:C2	2.83	0.66
45:BL:53:VAL:HG22	45:BL:75:HIS:CE1	2.31	0.66
69:Bj:114:VAL:CG2	69:Bj:118:LYS:CE	2.66	0.66
81:Bv:69:SER:HB2	81:Bv:71:VAL:HG23	1.78	0.66
85:AA:270:A:C2	85:AA:271:A:C4	2.83	0.66
85:AA:330:C:C5'	85:AA:331:G:C8	2.79	0.66
85:AA:879:G:C2	85:AA:880:A:C4	2.83	0.66
85:AA:1450:U:H3'	85:AA:1451:U:C6	2.31	0.66
2:A1:23:VAL:HG13	2:A1:24:PHE:H	1.59	0.66
4:A3:227:LYS:O	4:A3:231:HIS:CD2	2.48	0.66
6:A5:183:ARG:CG	41:BH:93:G:O5'	2.43	0.66
34:BA:2:A:C2	36:BC:169:G:C2	2.83	0.66
34:BA:146:G:C5	34:BA:147:U:C6	2.84	0.66
34:BA:214:A:H3'	34:BA:215:C:C5	2.30	0.66
34:BA:703:U:H5'	34:BA:1548:A:C2	2.30	0.66
34:BA:742:C:N3	47:BN:10:HIS:CG	2.63	0.66
34:BA:790:G:C2	34:BA:794:G:C5	2.84	0.66
34:BA:1151:A:H2'	34:BA:1152:A:C8	2.31	0.66
34:BA:1495:A:H2'	34:BA:1498:A:C8	2.31	0.66
34:BA:1780:U:H2'	34:BA:1781:A:C8	2.31	0.66
34:BA:1845:G:N2	35:BB:5:A:C2	2.63	0.66
35:BB:852:G:O2'	69:Bj:118:LYS:CG	2.40	0.66
35:BB:1385:C:H2'	35:BB:1386:C:C6	2.30	0.66
40:BG:159:A:H2'	40:BG:160:C:C6	2.30	0.66
54:BU:132:THR:HG23	54:BU:133:ARG:H	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:443:A:H2'	85:AA:444:U:C6	2.30	0.66
85:AA:680:U:C2	85:AA:682:C:C5	2.84	0.66
85:AA:826:C:H5'	85:AA:856:G:C2	2.30	0.66
85:AA:1194:U:C2	85:AA:1195:U:C6	2.83	0.66
85:AA:1559:U:H2'	85:AA:1560:A:H3'	1.76	0.66
34:BA:18:G:C6	36:BC:37:U:C5	2.84	0.66
34:BA:62:A:N9	34:BA:74:A:H1'	2.11	0.66
34:BA:161:U:C2	34:BA:165:C:C4	2.83	0.66
34:BA:331:G:C6	34:BA:356:C:C5	2.83	0.66
34:BA:955:G:C5	34:BA:956:G:C5	2.83	0.66
34:BA:1101:A:C5	34:BA:1102:A:C8	2.84	0.66
34:BA:1305:A:C5	34:BA:1310:C:H1'	2.31	0.66
34:BA:1481:U:H3'	34:BA:1482:A:C5'	2.25	0.66
34:BA:1560:U:H2'	34:BA:1561:C:C6	2.30	0.66
34:BA:1825:U:C5'	34:BA:1825:U:C6	2.79	0.66
35:BB:846:A:C2	35:BB:967:G:C4	2.83	0.66
35:BB:1224:C:C4	35:BB:1227:G:C2	2.84	0.66
35:BB:1298:C:H3'	35:BB:1299:G:H8	1.60	0.66
37:BD:23:A:H2'	37:BD:24:U:C6	2.30	0.66
38:BE:101:C:C5	38:BE:117:A:C5	2.84	0.66
40:BG:74:G:C5	40:BG:75:C:C5	2.84	0.66
75:Bp:26:LYS:O	75:Bp:32:THR:HA	1.95	0.66
85:AA:340:G:C6	85:AA:350:U:C4	2.83	0.66
85:AA:1197:U:C4	85:AA:1198:U:C5	2.84	0.66
85:AA:1720:C:C4	85:AA:1821:C:N3	2.64	0.66
85:AA:2062:U:H5'	85:AA:2062:U:C6	2.31	0.66
5:A4:36:HIS:H	5:A4:36:HIS:CD2	2.14	0.66
34:BA:18:G:H3'	34:BA:19:G:C8	2.30	0.66
34:BA:25:C:C2	34:BA:54:A:C6	2.82	0.66
34:BA:216:C:C6	34:BA:216:C:H3'	2.31	0.66
34:BA:279:U:H3'	34:BA:280:A:C8	2.30	0.66
34:BA:533:U:H5	34:BA:575:U:C4	2.13	0.66
34:BA:1052:G:C4	34:BA:1230:G:C8	2.83	0.66
34:BA:1186:U:C6	34:BA:1189:A:C8	2.84	0.66
34:BA:1537:G:C2'	68:Bi:101:VAL:HG21	2.25	0.66
35:BB:805:G:C3'	35:BB:806:U:C6	2.77	0.66
35:BB:805:G:C5	35:BB:806:U:C4	2.83	0.66
37:BD:77:A:C2	37:BD:100:A:C4	2.84	0.66
38:BE:43:A:C2	38:BE:44:C:C4	2.83	0.66
40:BG:88:G:C6	40:BG:89:A:C5	2.83	0.66
85:AA:192:G:C6	85:AA:247:G:C6	2.84	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:268:A:C2	85:AA:973:U:C2	2.83	0.66
85:AA:709:A:O2'	85:AA:710:A:H5'	1.96	0.66
85:AA:1003:G:C5	85:AA:1004:G:C5	2.83	0.66
27:AT:93:GLU:CD	27:AT:98:LYS:HA	2.20	0.66
34:BA:131:A:C6	34:BA:184:C:H5''	2.30	0.66
34:BA:161:U:C6	34:BA:161:U:O5'	2.49	0.66
34:BA:1494:G:H1'	34:BA:1495:A:H5''	1.76	0.66
35:BB:406:A:H3'	35:BB:407:A:H2'	1.78	0.66
35:BB:609:G:H2'	35:BB:610:U:C6	2.31	0.66
36:BC:118:U:H2'	36:BC:119:G:C8	2.30	0.66
40:BG:29:U:O5'	40:BG:29:U:H6	1.77	0.66
40:BG:169:A:H3'	40:BG:173:C:C4	2.31	0.66
41:BH:134:U:C6	41:BH:134:U:H3'	2.31	0.66
44:BK:195:LEU:HD23	44:BK:196:HIS:H	1.61	0.66
47:BN:68:VAL:O	47:BN:72:MET:HE1	1.96	0.66
48:BO:182:LYS:NZ	48:BO:186:HIS:CE1	2.63	0.66
64:Be:148:LEU:HD22	64:Be:158:VAL:HG22	1.78	0.66
85:AA:470:C:C4	85:AA:471:U:C4	2.84	0.66
85:AA:818:C:C4	85:AA:863:C:O2	2.49	0.66
85:AA:1003:G:C6	85:AA:1004:G:C6	2.84	0.66
85:AA:2196:G:H2'	85:AA:2197:A:C8	2.31	0.66
6:A5:120:ASP:CG	6:A5:121:LEU:H	2.03	0.66
34:BA:825:G:H1	34:BA:842:U:H3	1.43	0.66
34:BA:945:A:H3'	34:BA:946:A:O4'	1.96	0.66
34:BA:1289:C:C4	34:BA:1290:A:C6	2.83	0.66
34:BA:1293:A:C2	34:BA:1295:U:C2	2.83	0.66
34:BA:1293:A:C6	34:BA:1295:U:C4	2.84	0.66
38:BE:47:U:H2'	38:BE:48:G:C8	2.31	0.66
40:BG:28:A:C6	40:BG:29:U:C4	2.84	0.66
40:BG:34:A:C6	40:BG:35:G:H1'	2.31	0.66
41:BH:133:U:C5	41:BH:134:U:H1'	2.31	0.66
42:BI:72:ARG:HG3	63:Bd:62:ARG:HH12	1.60	0.66
64:Be:249:SER:OG	85:AA:1236:G:O6	2.13	0.66
85:AA:959:C:C5	85:AA:960:G:C5	2.84	0.66
85:AA:1457:C:H2'	85:AA:1458:G:H5'	1.75	0.66
85:AA:2145:G:H2'	85:AA:2146:G:O4'	1.95	0.66
85:AA:2147:A:C5	85:AA:2148:C:C6	2.84	0.66
17:AI:133:VAL:HG13	85:AA:1558:U:H1'	1.77	0.66
34:BA:55:G:H2'	34:BA:56:G:C8	2.30	0.66
34:BA:503:C:H42	34:BA:699:G:H1	1.42	0.66
34:BA:1230:G:C5	34:BA:1231:C:C4	2.83	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1475:G:H2'	34:BA:1476:G:C8	2.30	0.66
34:BA:1719:G:C6	34:BA:1720:U:C4	2.84	0.66
34:BA:1807:G:C4	34:BA:1808:A:C8	2.84	0.66
38:BE:16:C:C5	38:BE:17:U:C5	2.84	0.66
80:Bu:246:GLU:HA	80:Bu:249:TYR:CD2	2.30	0.66
85:AA:330:C:H5''	85:AA:331:G:C8	2.30	0.66
85:AA:809:A:N1	85:AA:869:A:C2	2.63	0.66
85:AA:1453:U:H3'	85:AA:1454:U:H6	1.61	0.66
85:AA:2036:A:OP2	85:AA:2036:A:C8	2.49	0.66
34:BA:63:A:C6	34:BA:65:A:C4	2.84	0.66
34:BA:172:A:C6	34:BA:316:G:C6	2.84	0.66
34:BA:536:C:C5	34:BA:537:C:C5	2.84	0.66
34:BA:557:U:C5	34:BA:558:C:OP2	2.49	0.66
34:BA:946:A:C6	34:BA:947:A:C4	2.84	0.66
34:BA:1072:U:O4	34:BA:1073:G:C8	2.49	0.66
34:BA:1073:G:C5	34:BA:1074:C:C5	2.84	0.66
34:BA:1102:A:C2	34:BA:1103:G:C4	2.84	0.66
35:BB:545:C:C2	35:BB:572:G:C8	2.84	0.66
35:BB:1075:A:C5	35:BB:1076:U:C6	2.84	0.66
38:BE:49:A:C6	38:BE:50:G:C5	2.84	0.66
38:BE:128:G:H2'	38:BE:129:G:C8	2.32	0.66
49:BP:98:ALA:HB1	49:BP:102:PHE:CZ	2.31	0.66
53:BT:23:TRP:CH2	53:BT:25:ASP:HA	2.31	0.66
58:BY:80:VAL:O	85:AA:2162:G:O3'	2.06	0.66
85:AA:423:G:C6	85:AA:424:A:C5	2.83	0.66
85:AA:1013:C:C5	85:AA:1053:A:C2	2.83	0.66
85:AA:1247:A:H2'	85:AA:1248:U:H5'	1.76	0.66
16:AH:21:TYR:CE1	16:AH:87:HIS:CE1	2.83	0.65
34:BA:475:A:C2	34:BA:1592:U:H4'	2.31	0.65
34:BA:545:U:N3	34:BA:563:A:C2	2.64	0.65
34:BA:827:A:C2	34:BA:841:G:C4	2.83	0.65
34:BA:925:G:C6	34:BA:926:A:C5	2.84	0.65
34:BA:1638:U:H2'	34:BA:1639:U:C6	2.31	0.65
34:BA:1667:G:H3'	34:BA:1668:C:H6	1.61	0.65
35:BB:104:G:H1'	35:BB:119:G:C2	2.31	0.65
35:BB:525:U:H3	85:AA:2113:U:H4'	1.60	0.65
35:BB:530:C:H5''	85:AA:2231:G:C2'	2.22	0.65
35:BB:1195:A:H3'	35:BB:1195:A:C8	2.31	0.65
36:BC:145:G:C5	36:BC:146:U:C5	2.84	0.65
38:BE:94:U:H2'	38:BE:95:G:C8	2.31	0.65
51:BR:89:VAL:HA	51:BR:92:LEU:HD12	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BX:151:SER:HB2	57:BX:152:TYR:CE2	2.30	0.65
85:AA:2195:A:C6	85:AA:2196:G:C6	2.85	0.65
85:AA:2198:G:C6	85:AA:2199:G:C4	2.84	0.65
1:A0:99:LEU:HD23	1:A0:234:HIS:CD2	2.31	0.65
34:BA:23:A:C5	34:BA:395:G:C4	2.84	0.65
34:BA:566:G:C8	34:BA:566:G:H3'	2.31	0.65
34:BA:1158:A:C4	34:BA:1159:A:C8	2.84	0.65
34:BA:1160:U:H4'	37:BD:80:G:H4'	1.78	0.65
34:BA:1211:G:OP1	34:BA:1211:G:C8	2.49	0.65
34:BA:1484:A:C6	34:BA:1485:U:C5	2.84	0.65
34:BA:1533:G:C5	34:BA:1534:U:C4	2.84	0.65
35:BB:484:G:C5	35:BB:485:U:C4	2.84	0.65
35:BB:526:A:C8	35:BB:527:U:C5	2.84	0.65
35:BB:806:U:C5	35:BB:807:U:C5	2.84	0.65
35:BB:1165:A:H4'	35:BB:1166:A:OP1	1.95	0.65
35:BB:1277:A:C6	35:BB:1278:A:C5	2.84	0.65
35:BB:1351:G:H2'	35:BB:1352:C:H6	1.61	0.65
38:BE:2:G:C5	38:BE:8:G:C4	2.84	0.65
38:BE:6:A:H5'	69:Bj:85:HIS:CG	2.31	0.65
44:BK:47:PRO:HA	44:BK:171:TRP:CE2	2.32	0.65
57:BX:158:ALA:HB1	57:BX:163:LEU:HB2	1.78	0.65
65:Bf:346:SER:HA	67:Bh:1:MET:SD	2.37	0.65
85:AA:160:A:C2	85:AA:161:A:H1'	2.31	0.65
85:AA:352:G:H2'	85:AA:353:G:C8	2.31	0.65
85:AA:587:G:C6	85:AA:588:G:C5	2.84	0.65
85:AA:972:G:C4	85:AA:973:U:H5	2.14	0.65
85:AA:1449:C:C2	85:AA:1450:U:H1'	2.32	0.65
85:AA:2127:G:C6	85:AA:2128:G:C5	2.84	0.65
3:A2:42:TRP:CE2	3:A2:52:ILE:HG22	2.30	0.65
34:BA:81:C:H1'	34:BA:100:A:H61	1.61	0.65
34:BA:672:G:C2	34:BA:673:U:C2	2.83	0.65
34:BA:704:G:C6	34:BA:705:C:C4	2.85	0.65
36:BC:9:G:C5	36:BC:10:C:C5	2.84	0.65
36:BC:129:C:H3'	36:BC:130:U:C5'	2.25	0.65
38:BE:20:C:C2	38:BE:21:C:C6	2.83	0.65
38:BE:73:A:C2	38:BE:74:U:C6	2.84	0.65
40:BG:11:G:O5'	40:BG:11:G:C8	2.49	0.65
55:BV:108:ARG:HH12	55:BV:110:LEU:HD23	1.60	0.65
85:AA:1197:U:C5	85:AA:1198:U:C5	2.84	0.65
5:A4:5:PRO:HD3	5:A4:30:PHE:CE2	2.31	0.65
34:BA:600:G:C6	34:BA:602:G:C6	2.85	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1551:G:H2'	34:BA:1552:C:C6	2.31	0.65
34:BA:1637:G:C4	34:BA:1638:U:C5	2.85	0.65
34:BA:1658:G:H1	35:BB:20:U:H3	1.42	0.65
35:BB:802:G:H2'	35:BB:804:U:C6	2.32	0.65
35:BB:1070:G:C4	35:BB:1071:G:C8	2.85	0.65
35:BB:1174:C:C4	35:BB:1176:G:C5	2.85	0.65
37:BD:43:U:C4	37:BD:44:U:C4	2.84	0.65
41:BH:42:U:C6	41:BH:110:C:C4	2.84	0.65
56:BW:127:LEU:HG	56:BW:128:TRP:CD2	2.32	0.65
85:AA:83:U:H2'	85:AA:84:C:H6	1.61	0.65
85:AA:1135:U:H2'	85:AA:1136:A:C8	2.31	0.65
85:AA:1198:U:H2'	85:AA:1199:C:C6	2.32	0.65
85:AA:1519:A:C6	85:AA:1520:A:C6	2.85	0.65
85:AA:1522:U:O5'	85:AA:1522:U:H6	1.80	0.65
20:AL:28:PHE:CD2	85:AA:1826:U:H6	2.15	0.65
23:AP:153:TYR:HA	23:AP:162:HIS:CE1	2.32	0.65
34:BA:2:A:H3'	34:BA:2:A:C8	2.32	0.65
34:BA:743:A:C5	47:BN:7:ALA:N	2.64	0.65
34:BA:888:G:C5	34:BA:889:U:C5	2.84	0.65
34:BA:899:G:C8	34:BA:1032:A:C5	2.84	0.65
34:BA:971:G:H2'	34:BA:972:C:C6	2.32	0.65
34:BA:1122:G:C2	34:BA:1139:G:H1'	2.32	0.65
34:BA:1522:G:C6	34:BA:1523:U:C4	2.84	0.65
35:BB:1299:G:H2'	35:BB:1356:G:N2	2.12	0.65
35:BB:1488:G:C6	35:BB:1489:A:C8	2.85	0.65
35:BB:1512:C:C4	35:BB:1513:U:C5	2.85	0.65
38:BE:74:U:C5	38:BE:75:C:C4	2.85	0.65
38:BE:126:G:C2	38:BE:127:G:C4	2.85	0.65
39:BF:19:A:C2	39:BF:20:U:C2	2.85	0.65
40:BG:95:U:H5''	53:BT:58:HIS:CE1	2.31	0.65
85:AA:429:G:C6	85:AA:430:G:H1'	2.32	0.65
85:AA:911:A:C5	85:AA:912:C:C5	2.84	0.65
85:AA:1549:G:C5	85:AA:1550:C:C5	2.85	0.65
23:AP:100:THR:HA	85:AA:1523:G:H4'	1.79	0.65
25:AR:75:HIS:CG	30:AW:4:PHE:CD1	2.85	0.65
34:BA:412:G:H2'	34:BA:413:A:C8	2.32	0.65
34:BA:626:G:C6	34:BA:627:U:C2	2.85	0.65
34:BA:830:U:H2'	34:BA:831:U:C6	2.31	0.65
34:BA:979:G:C8	34:BA:981:A:C8	2.85	0.65
34:BA:1691:G:H5'	57:BX:133:ASN:HD22	1.62	0.65
35:BB:510:A:C2	35:BB:580:A:C4	2.84	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:796:C:C2	35:BB:978:C:C5	2.84	0.65
35:BB:1102:U:C2	35:BB:1103:A:C2	2.84	0.65
35:BB:1232:A:C5	35:BB:1245:A:C2	2.84	0.65
35:BB:1459:U:C2	35:BB:1461:C:H3'	2.32	0.65
37:BD:93:G:H2'	37:BD:94:C:C6	2.30	0.65
38:BE:68:U:H2'	38:BE:69:C:C6	2.32	0.65
41:BH:106:G:C2	41:BH:107:A:C2	2.84	0.65
51:BR:122:ALA:HB2	51:BR:145:HIS:CD2	2.32	0.65
64:Be:131:GLY:H	64:Be:169:VAL:HG21	1.62	0.65
66:Bg:26:GLN:HA	66:Bg:29:MET:SD	2.36	0.65
76:Bq:43:HIS:CG	76:Bq:44:TRP:N	2.64	0.65
85:AA:401:U:C4	85:AA:402:G:C5	2.84	0.65
85:AA:1167:G:H2'	85:AA:1168:C:C6	2.32	0.65
85:AA:1304:C:H3'	85:AA:1305:A:C8	2.31	0.65
85:AA:2003:C:H2'	85:AA:2035:C:C5	2.32	0.65
85:AA:2228:G:C6	85:AA:2229:G:C5	2.85	0.65
4:A3:25:ARG:NH2	4:A3:31:TYR:H	1.95	0.65
24:AQ:21:MET:HE1	24:AQ:86:VAL:HG12	1.79	0.65
34:BA:464:U:H6	51:BR:3:HIS:CG	2.15	0.65
34:BA:603:U:C4	34:BA:680:C:C6	2.85	0.65
34:BA:728:A:C6	34:BA:1593:U:C4	2.84	0.65
34:BA:792:A:H2'	34:BA:793:A:C8	2.32	0.65
34:BA:919:A:C2	34:BA:920:U:C2	2.85	0.65
34:BA:1433:U:H4'	34:BA:1435:A:H5''	1.78	0.65
34:BA:1476:G:H2'	34:BA:1477:C:H5'	1.79	0.65
34:BA:1603:A:C5	35:BB:33:A:C5	2.84	0.65
34:BA:1611:A:C5	34:BA:1612:C:C5	2.85	0.65
34:BA:1617:U:C4	34:BA:1633:C:C2'	2.79	0.65
34:BA:1742:G:C2	34:BA:1783:C:C2	2.84	0.65
34:BA:1789:A:H2'	34:BA:1790:U:C5	2.32	0.65
34:BA:1815:G:C6	34:BA:1832:A:C6	2.85	0.65
35:BB:14:C:C5	35:BB:15:C:C5	2.85	0.65
35:BB:131:A:H2'	35:BB:132:G:C8	2.32	0.65
35:BB:1178:A:C5	35:BB:1179:C:C4	2.84	0.65
35:BB:1493:A:C6	35:BB:1494:G:C5	2.84	0.65
36:BC:37:U:OP2	70:Bk:93:HIS:CE1	2.50	0.65
37:BD:46:G:N1	37:BD:47:U:C4	2.65	0.65
65:Bf:403:GLN:O	65:Bf:408:LEU:HD23	1.97	0.65
80:Bu:90:HIS:CD2	80:Bu:235:PHE:HA	2.32	0.65
85:AA:33:U:C5	85:AA:538:A:C6	2.85	0.65
85:AA:100:A:C2	85:AA:375:C:C5	2.84	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AP:139:MET:HG2	23:AP:140:ILE:HG23	1.79	0.65
34:BA:262:A:C2	34:BA:279:U:C5	2.85	0.65
34:BA:272:A:C2	34:BA:275:C:C5	2.85	0.65
34:BA:563:A:C2	34:BA:564:C:C2	2.84	0.65
34:BA:805:A:C2	34:BA:807:U:C5	2.85	0.65
35:BB:542:A:C2	35:BB:579:A:C4	2.85	0.65
35:BB:1361:A:C2	35:BB:1362:G:C4	2.84	0.65
35:BB:1484:A:C6	35:BB:1485:G:C4	2.85	0.65
36:BC:105:C:H1'	36:BC:149:A:C5	2.31	0.65
38:BE:149:A:C2	38:BE:163:A:N1	2.65	0.65
62:Bc:99:ARG:N	62:Bc:102:LEU:HD12	2.11	0.65
84:By:131:TYR:CD2	84:By:143:VAL:HB	2.31	0.65
85:AA:181:A:H3'	85:AA:182:C:C5'	2.26	0.65
85:AA:268:A:H3'	85:AA:269:G:C5'	2.26	0.65
85:AA:680:U:C5	85:AA:682:C:H2'	2.32	0.65
85:AA:1252:A:C2	85:AA:1254:A:C4	2.85	0.65
13:AE:172:SER:HA	85:AA:941:C:C6	2.32	0.65
15:AG:77:HIS:CE1	85:AA:1107:A:C2	2.85	0.65
34:BA:398:G:C2	36:BC:30:U:N3	2.65	0.65
34:BA:456:G:C2	34:BA:457:A:H1'	2.32	0.65
34:BA:483:A:H5'	34:BA:484:A:H5'	1.79	0.65
34:BA:496:G:C6	34:BA:497:U:C4	2.85	0.65
34:BA:605:G:C6	34:BA:606:G:C4	2.85	0.65
34:BA:740:A:O4'	47:BN:12:HIS:CD2	2.50	0.65
34:BA:783:U:H2'	34:BA:784:C:C6	2.32	0.65
34:BA:1023:G:C4	35:BB:1267:C:C2	2.85	0.65
34:BA:1070:G:C2	34:BA:1071:G:C4	2.85	0.65
34:BA:1088:G:C5	63:Bd:17:HIS:CG	2.84	0.65
34:BA:1257:U:H5'	34:BA:1257:U:C6	2.32	0.65
34:BA:1640:G:H2'	34:BA:1641:G:C8	2.32	0.65
36:BC:113:G:C4	36:BC:114:C:C6	2.84	0.65
37:BD:94:C:H3'	37:BD:95:G:C8	2.31	0.65
39:BF:3:A:C6	39:BF:4:A:C5	2.84	0.65
63:Bd:37:TRP:CE3	80:Bu:42:THR:CG2	2.80	0.65
65:Bf:347:MET:HE2	65:Bf:348:GLU:O	1.97	0.65
67:Bh:64:ARG:HA	67:Bh:64:ARG:NE	2.11	0.65
82:Bw:35:GLN:CD	82:Bw:35:GLN:H	2.05	0.65
85:AA:526:G:C6	85:AA:527:A:C4	2.85	0.65
85:AA:1105:G:C8	85:AA:1106:A:H3'	2.31	0.65
34:BA:900:A:C4	47:BN:14:ARG:HG3	2.32	0.65
34:BA:1169:A:C4	63:Bd:29:MET:HE1	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1834:A:C2	34:BA:1835:A:H1'	2.32	0.65
35:BB:59:U:H3'	35:BB:60:A:C5'	2.26	0.65
35:BB:432:C:C4	35:BB:433:C:C4	2.85	0.65
36:BC:125:A:C4	36:BC:126:G:C8	2.85	0.65
65:Bf:83:PHE:C	65:Bf:400:MET:HE1	2.22	0.65
75:Bp:25:VAL:HG22	75:Bp:34:PHE:CE2	2.32	0.65
80:Bu:207:GLY:HA2	80:Bu:209:HIS:CE1	2.31	0.65
85:AA:701:C:C4	85:AA:702:G:C5	2.85	0.65
85:AA:2130:G:C5	85:AA:2131:C:C5	2.85	0.65
34:BA:6:C:C2	36:BC:166:G:C2	2.86	0.64
34:BA:366:G:C2	34:BA:376:U:C2	2.86	0.64
34:BA:836:U:C5	34:BA:837:U:C4	2.84	0.64
34:BA:942:G:C6	34:BA:943:G:C5	2.84	0.64
34:BA:1744:C:C2	34:BA:1781:A:C2	2.85	0.64
35:BB:385:C:C5	35:BB:386:G:C8	2.85	0.64
35:BB:798:A:N6	35:BB:976:U:C4	2.65	0.64
35:BB:1004:A:C2	35:BB:1015:U:C2	2.84	0.64
37:BD:71:G:C5	37:BD:72:U:C5	2.85	0.64
38:BE:165:U:H3'	38:BE:166:G:H8	1.61	0.64
82:Bw:197:GLU:HA	82:Bw:200:VAL:HG22	1.79	0.64
85:AA:362:G:H2'	85:AA:363:A:C8	2.32	0.64
85:AA:456:A:C4	85:AA:457:G:C8	2.84	0.64
85:AA:1247:A:C2'	85:AA:1248:U:H5'	2.25	0.64
85:AA:2214:A:H2'	85:AA:2215:C:H5''	1.79	0.64
8:A7:5:TYR:HB3	8:A7:313:GLY:H	1.61	0.64
34:BA:135:G:C6	34:BA:136:A:C5	2.85	0.64
34:BA:320:G:H2'	34:BA:321:G:C8	2.31	0.64
34:BA:331:G:C6	34:BA:356:C:C6	2.85	0.64
34:BA:980:C:C2	35:BB:33:A:C8	2.86	0.64
34:BA:1181:G:C5	34:BA:1192:A:C2	2.85	0.64
34:BA:1463:U:H2'	34:BA:1464:C:C6	2.32	0.64
34:BA:1622:U:C4	34:BA:1623:U:H1'	2.32	0.64
35:BB:500:C:C5	35:BB:501:G:C8	2.85	0.64
35:BB:645:C:H2'	35:BB:646:U:C6	2.32	0.64
35:BB:679:G:C4	35:BB:680:A:C8	2.84	0.64
35:BB:1115:G:C6	35:BB:1134:G:C2	2.84	0.64
36:BC:106:G:C5	36:BC:115:G:C6	2.85	0.64
36:BC:126:G:C5	36:BC:127:C:C5	2.86	0.64
38:BE:74:U:C5	38:BE:75:C:C5	2.86	0.64
40:BG:72:G:C5	40:BG:73:U:C4	2.84	0.64
41:BH:43:G:C5	41:BH:44:A:C5	2.85	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BI:16:ARG:O	42:BI:17:HIS:CD2	2.50	0.64
49:BP:74:LEU:HD23	49:BP:75:LYS:HG3	1.78	0.64
85:AA:81:A:C8	85:AA:82:A:C4	2.85	0.64
85:AA:170:C:H2'	85:AA:171:U:C6	2.33	0.64
85:AA:378:A:C2	85:AA:381:A:C8	2.85	0.64
85:AA:382:G:C6	85:AA:415:G:C6	2.85	0.64
85:AA:577:U:C2'	85:AA:578:U:H5''	2.26	0.64
85:AA:1190:G:H2'	85:AA:1226:A:H5'	1.79	0.64
85:AA:1657:C:H2'	85:AA:1658:G:C8	2.33	0.64
85:AA:2074:G:H2'	85:AA:2075:C:C6	2.32	0.64
85:AA:2117:U:H2'	85:AA:2118:U:C6	2.33	0.64
85:AA:2125:A:C2	85:AA:2193:A:N1	2.65	0.64
85:AA:2146:G:C2	85:AA:2171:A:C6	2.84	0.64
6:A5:22:ARG:HH11	85:AA:450:A:H5''	1.61	0.64
34:BA:8:G:C4	34:BA:9:A:C8	2.85	0.64
34:BA:938:C:H2'	34:BA:939:C:H6	1.62	0.64
34:BA:1563:G:C4	34:BA:1565:U:C5	2.85	0.64
34:BA:1577:U:H2'	34:BA:1578:A:C8	2.31	0.64
35:BB:608:A:C2	35:BB:609:G:C5	2.85	0.64
35:BB:645:C:H2'	35:BB:646:U:C5	2.32	0.64
35:BB:661:G:C6	35:BB:662:G:C5	2.86	0.64
35:BB:810:G:C2	35:BB:811:C:C2	2.84	0.64
35:BB:1156:U:O5'	35:BB:1156:U:H6	1.80	0.64
35:BB:1519:U:C4	35:BB:1520:C:C5	2.84	0.64
36:BC:40:A:C2	36:BC:41:A:C4	2.85	0.64
39:BF:55:A:H3'	39:BF:56:C:C6	2.32	0.64
41:BH:32:U:H3'	41:BH:33:G:C8	2.32	0.64
44:BK:171:TRP:CE2	44:BK:181:TYR:CE1	2.85	0.64
71:BI:44:LEU:HD11	71:BI:59:ALA:HB1	1.78	0.64
80:BU:81:HIS:CE1	80:BU:81:HIS:H	2.14	0.64
85:AA:689:U:H3	85:AA:1483:A:H61	1.44	0.64
85:AA:805:A:H61	85:AA:874:A:H5''	1.61	0.64
85:AA:1829:C:H2'	85:AA:1830:U:C6	2.32	0.64
85:AA:2053:A:H2'	85:AA:2054:G:C5'	2.26	0.64
27:AT:117:ARG:HA	27:AT:120:ARG:CZ	2.28	0.64
34:BA:543:A:C2	34:BA:544:U:C4	2.85	0.64
34:BA:753:G:C6	34:BA:754:G:C5	2.86	0.64
34:BA:990:G:C5	34:BA:991:U:C5	2.85	0.64
35:BB:95:A:C4	35:BB:96:A:N7	2.66	0.64
35:BB:438:G:C2	35:BB:439:G:C8	2.86	0.64
35:BB:1109:A:C6	35:BB:1110:G:C5	2.86	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1545:U:C2	35:BB:1546:C:C6	2.85	0.64
36:BC:108:A:H2'	36:BC:109:A:C8	2.32	0.64
37:BD:5:A:H2'	37:BD:6:C:C6	2.33	0.64
53:BT:66:MET:HE1	53:BT:75:HIS:CD2	2.33	0.64
80:Bu:204:ARG:HD3	80:Bu:209:HIS:CE1	2.32	0.64
85:AA:820:G:H2'	85:AA:821:U:C6	2.33	0.64
85:AA:1271:U:C4	85:AA:1272:G:C6	2.86	0.64
8:A7:159:ARG:HH11	8:A7:159:ARG:HA	1.63	0.64
34:BA:471:U:O2	36:BC:17:U:C2	2.51	0.64
34:BA:523:A:C2	34:BA:524:G:C4	2.85	0.64
34:BA:818:G:C5	34:BA:853:A:C6	2.85	0.64
34:BA:999:G:C6	34:BA:1000:G:C5	2.84	0.64
35:BB:16:G:H2'	35:BB:17:U:C6	2.31	0.64
35:BB:489:A:C6	35:BB:490:G:C6	2.86	0.64
35:BB:637:G:C5	35:BB:638:G:C5	2.85	0.64
35:BB:849:A:H5'	35:BB:850:U:H5''	1.79	0.64
36:BC:106:G:C6	36:BC:115:G:C5	2.86	0.64
38:BE:26:G:H3'	38:BE:26:G:C8	2.32	0.64
41:BH:3:U:H2'	41:BH:4:U:C6	2.32	0.64
54:BU:149:ARG:HD2	54:BU:150:THR:HG22	1.80	0.64
67:Bh:90:ILE:HA	67:Bh:91:HIS:CE1	2.32	0.64
71:Bl:74:TRP:CE3	81:Bv:188:HIS:HD2	2.16	0.64
82:Bw:35:GLN:HA	82:Bw:39:GLU:H	1.62	0.64
85:AA:124:A:C5	85:AA:185:A:C2	2.85	0.64
85:AA:244:G:C6	85:AA:245:A:C5	2.85	0.64
85:AA:345:U:H2'	85:AA:346:U:H5'	1.78	0.64
85:AA:835:C:C5	85:AA:836:A:C8	2.85	0.64
85:AA:928:U:C4	85:AA:929:G:C5	2.85	0.64
85:AA:2147:A:C2	85:AA:2172:A:C4	2.86	0.64
24:AQ:65:THR:HG22	24:AQ:67:CYS:H	1.63	0.64
34:BA:293:A:C5	34:BA:294:C:C5	2.85	0.64
34:BA:746:C:H2'	34:BA:747:G:C8	2.32	0.64
34:BA:799:A:C8	34:BA:857:C:C5'	2.77	0.64
34:BA:911:G:C6	34:BA:912:G:C5	2.85	0.64
34:BA:1274:A:C2	34:BA:1467:U:C2	2.85	0.64
34:BA:1841:A:H3'	34:BA:1842:U:C6	2.33	0.64
35:BB:125:G:C5	35:BB:126:C:C5	2.86	0.64
35:BB:674:C:C2	35:BB:675:U:C5	2.85	0.64
35:BB:716:G:H2'	35:BB:717:A:C8	2.32	0.64
35:BB:823:G:N2	35:BB:824:C:H1'	2.13	0.64
35:BB:1175:A:C2	35:BB:1177:U:H1'	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1298:C:C4	35:BB:1299:G:C6	2.86	0.64
37:BD:1:G:C4	37:BD:2:G:C8	2.86	0.64
37:BD:75:G:C4	37:BD:99:G:C6	2.85	0.64
37:BD:89:G:C5	37:BD:90:A:C6	2.86	0.64
39:BF:9:C:H3'	39:BF:10:A:C8	2.32	0.64
40:BG:176:G:C6	40:BG:177:U:C4	2.86	0.64
52:BS:8:HIS:CD2	52:BS:32:PHE:CE2	2.86	0.64
65:Bf:187:PHE:CE2	65:Bf:190:THR:HG21	2.32	0.64
77:Br:120:ARG:HB3	77:Br:275:PHE:CZ	2.33	0.64
85:AA:484:G:C6	85:AA:485:A:C5	2.86	0.64
85:AA:899:A:C5	85:AA:900:G:C8	2.85	0.64
85:AA:944:C:C4	85:AA:945:A:C4	2.86	0.64
85:AA:1034:U:H2'	85:AA:1035:C:H2'	1.80	0.64
85:AA:1502:A:C5	85:AA:1503:G:H1'	2.32	0.64
85:AA:1699:A:C2	85:AA:1700:C:C2	2.85	0.64
86:AB:9:A:H2'	86:AB:11:C:H41	1.63	0.64
10:A9:135:ALA:HB2	85:AA:1629:C:H1'	1.79	0.64
11:AC:54:LEU:HA	11:AC:57:MET:SD	2.38	0.64
27:AT:34:HIS:CE1	85:AA:604:C:H42	2.16	0.64
34:BA:74:A:C5	34:BA:75:U:C6	2.86	0.64
34:BA:125:G:C6	34:BA:126:G:C6	2.85	0.64
34:BA:161:U:C2	34:BA:323:C:C6	2.85	0.64
34:BA:367:G:C6	61:Bb:62:HIS:CE1	2.86	0.64
34:BA:412:G:C5	34:BA:413:A:C5	2.85	0.64
34:BA:749:G:C5	34:BA:888:G:C2	2.86	0.64
34:BA:757:G:H4'	34:BA:758:G:C5	2.31	0.64
34:BA:1270:G:C6	34:BA:1271:C:C2	2.86	0.64
34:BA:1604:A:C2	35:BB:63:A:C6	2.86	0.64
35:BB:126:C:O2'	41:BH:102:C:O2'	2.16	0.64
35:BB:831:C:H2'	35:BB:832:C:H6	1.63	0.64
35:BB:992:C:C2'	64:Be:70:ARG:HE	2.10	0.64
35:BB:1076:U:H2'	35:BB:1077:C:C6	2.33	0.64
35:BB:1203:C:C5	35:BB:1204:C:C5	2.86	0.64
38:BE:21:C:C2	38:BE:198:A:C2	2.85	0.64
38:BE:93:U:H2'	38:BE:94:U:C6	2.33	0.64
40:BG:165:C:H2'	40:BG:166:C:C6	2.33	0.64
82:Bw:235:HIS:CD2	82:Bw:236:PHE:N	2.65	0.64
85:AA:912:C:C5	85:AA:913:U:C4	2.86	0.64
85:AA:959:C:C5	85:AA:960:G:C6	2.86	0.64
85:AA:1181:U:H1'	85:AA:1182:A:C6	2.33	0.64
85:AA:1457:C:C2'	85:AA:1458:G:H5'	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1695:G:H2'	85:AA:1696:U:C6	2.33	0.64
85:AA:1728:G:H2'	85:AA:1729:C:H5	1.62	0.64
85:AA:2147:A:C6	85:AA:2148:C:C2	2.86	0.64
11:AC:192:PHE:CZ	25:AR:65:CYS:HA	2.33	0.64
34:BA:542:A:N3	34:BA:566:G:C2	2.66	0.64
34:BA:561:U:C2	34:BA:562:C:C5	2.85	0.64
34:BA:743:A:C8	47:BN:7:ALA:O	2.50	0.64
34:BA:982:A:C5	34:BA:1020:A:C2	2.86	0.64
34:BA:1092:U:H6	34:BA:1092:U:O5'	1.81	0.64
34:BA:1131:G:C6	34:BA:1133:A:H1'	2.31	0.64
35:BB:787:A:H2'	35:BB:788:U:C6	2.33	0.64
35:BB:846:A:C4	35:BB:967:G:C2	2.86	0.64
35:BB:1432:U:H2'	35:BB:1433:U:C6	2.33	0.64
38:BE:90:G:H2'	38:BE:91:G:C8	2.32	0.64
39:BF:27:G:H2'	39:BF:28:C:C2	2.32	0.64
48:BO:201:ARG:HB3	49:BP:124:ALA:CB	2.27	0.64
49:BP:172:LYS:HA	49:BP:175:LEU:HD12	1.78	0.64
85:AA:106:G:H3'	85:AA:107:A:C8	2.33	0.64
85:AA:338:G:C6	85:AA:339:A:C5	2.85	0.64
85:AA:419:A:H3'	85:AA:420:C:C6	2.32	0.64
85:AA:508:C:O4'	85:AA:595:A:C2	2.51	0.64
85:AA:1369:U:H2'	85:AA:1370:G:C8	2.33	0.64
85:AA:2180:C:H3'	85:AA:2181:G:H8	1.63	0.64
6:A5:21:HIS:CD2	85:AA:99:U:H4'	2.33	0.64
34:BA:60:A:C6	34:BA:61:G:C6	2.86	0.64
34:BA:157:U:H5''	34:BA:325:A:H61	1.62	0.64
34:BA:191:G:C6	34:BA:293:A:C6	2.86	0.64
34:BA:212:A:C6	34:BA:213:A:C5	2.86	0.64
34:BA:503:C:H2'	34:BA:504:A:C8	2.33	0.64
34:BA:566:G:C2	34:BA:567:U:C6	2.85	0.64
34:BA:602:G:H2'	34:BA:603:U:H5'	1.80	0.64
34:BA:758:G:H2'	34:BA:759:A:O4'	1.98	0.64
34:BA:1001:G:C6	34:BA:1002:U:C4	2.86	0.64
34:BA:1038:U:H3'	61:Bb:26:ARG:HH22	1.61	0.64
34:BA:1846:G:C6	35:BB:5:A:N6	2.64	0.64
35:BB:817:C:C5	35:BB:818:U:C4	2.85	0.64
35:BB:1155:U:N3	35:BB:1156:U:C4	2.65	0.64
35:BB:1166:A:H5'	35:BB:1167:C:C5'	2.17	0.64
38:BE:107:U:C2	38:BE:108:U:C5	2.86	0.64
40:BG:140:G:H1	40:BG:147:U:H2'	1.63	0.64
40:BG:181:C:C5	40:BG:182:G:C6	2.86	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:Bd:37:TRP:CH2	80:Bu:42:THR:HG22	2.33	0.64
70:Bk:66:GLU:HA	70:Bk:69:ASN:HD22	1.63	0.64
85:AA:57:G:C5	85:AA:58:C:C4	2.86	0.64
85:AA:912:C:C4	85:AA:913:U:C4	2.86	0.64
85:AA:1105:G:C8	85:AA:1106:A:C4	2.86	0.64
85:AA:2057:G:H22	85:AA:2073:U:H3	1.46	0.64
85:AA:2145:G:C6	85:AA:2146:G:C6	2.86	0.64
85:AA:2152:C:C2	85:AA:2167:A:C2	2.86	0.64
22:AO:99:LYS:HA	22:AO:109:THR:HA	1.79	0.64
34:BA:13:U:N3	36:BC:155:C:C2	2.66	0.64
34:BA:451:A:C2	34:BA:452:A:C4	2.86	0.64
34:BA:543:A:C2	34:BA:544:U:C5	2.86	0.64
34:BA:836:U:C4	34:BA:837:U:C2	2.86	0.64
35:BB:378:C:C4	35:BB:379:U:C4	2.86	0.64
35:BB:1045:G:C5	35:BB:1046:C:C5	2.86	0.64
49:BP:136:PRO:HD2	49:BP:141:LYS:HA	1.78	0.64
71:Bl:74:TRP:CG	81:Bv:188:HIS:HB3	2.33	0.64
85:AA:778:C:C2	85:AA:779:G:C8	2.86	0.64
85:AA:1916:A:N1	85:AA:1996:A:N1	2.46	0.64
85:AA:1922:A:H3'	85:AA:1922:A:C8	2.33	0.64
85:AA:2205:A:H2'	85:AA:2206:A:C8	2.32	0.64
3:A2:184:ARG:HH21	86:AB:41:C:H5''	1.63	0.63
11:AC:184:CYS:SG	11:AC:196:ALA:HB1	2.38	0.63
21:AM:12:HIS:HB2	21:AM:13:ILE:HG22	1.80	0.63
34:BA:92:G:C4	34:BA:93:A:C8	2.86	0.63
34:BA:162:G:C8	34:BA:322:U:O4	2.51	0.63
34:BA:391:U:H4'	34:BA:392:A:C8	2.33	0.63
34:BA:519:G:H3'	34:BA:520:G:C8	2.32	0.63
34:BA:530:A:H5'	77:Br:347:LYS:HB3	1.80	0.63
34:BA:608:G:C6	34:BA:609:G:C6	2.86	0.63
34:BA:782:C:C4	34:BA:783:U:C4	2.86	0.63
34:BA:858:C:C6	34:BA:858:C:O5'	2.51	0.63
35:BB:997:G:C6	35:BB:998:G:C5	2.85	0.63
35:BB:1058:U:H2'	35:BB:1059:U:C6	2.33	0.63
36:BC:92:C:H2'	36:BC:93:C:C6	2.33	0.63
38:BE:58:U:C2	38:BE:59:U:C5	2.87	0.63
38:BE:85:G:C5	38:BE:86:C:H1'	2.33	0.63
38:BE:140:G:C8	38:BE:141:A:C2	2.86	0.63
41:BH:34:G:C2	41:BH:121:A:C2	2.87	0.63
48:BO:168:TYR:CD1	65:Bf:147:PRO:HA	2.32	0.63
64:Be:80:GLU:HA	64:Be:170:ALA:HB2	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:61:C:C4	85:AA:62:A:C6	2.86	0.63
85:AA:255:A:C2	85:AA:325:C:C2	2.85	0.63
85:AA:381:A:C6	85:AA:416:U:N3	2.67	0.63
85:AA:471:U:H2'	85:AA:472:A:C8	2.33	0.63
85:AA:542:G:C6	85:AA:543:A:C5	2.85	0.63
85:AA:720:A:C2	85:AA:721:C:C2	2.86	0.63
85:AA:792:A:C5	85:AA:800:A:N3	2.66	0.63
85:AA:902:A:C6	85:AA:914:U:H1'	2.34	0.63
85:AA:1119:A:C2	85:AA:1206:A:C2	2.85	0.63
85:AA:1448:A:C2	85:AA:1449:C:C2	2.86	0.63
85:AA:1536:C:OP2	85:AA:1536:C:H4'	1.97	0.63
85:AA:1823:G:H3'	85:AA:1824:G:H8	1.61	0.63
85:AA:2237:G:H2'	85:AA:2238:C:C6	2.33	0.63
34:BA:456:G:C6	34:BA:457:A:C4	2.85	0.63
34:BA:561:U:C2	34:BA:562:C:C6	2.87	0.63
34:BA:1244:G:C6	35:BB:640:A:C2	2.86	0.63
34:BA:1248:A:C2	34:BA:1249:G:C8	2.86	0.63
34:BA:1507:C:H2'	34:BA:1508:C:C6	2.33	0.63
34:BA:1524:G:H2'	34:BA:1524:G:N3	2.13	0.63
35:BB:13:A:C5	35:BB:14:C:C6	2.87	0.63
35:BB:43:G:C4	35:BB:44:C:C5	2.85	0.63
36:BC:106:G:C5	36:BC:107:C:C5	2.86	0.63
36:BC:156:A:H3'	36:BC:159:U:N3	2.13	0.63
38:BE:49:A:C4	38:BE:50:G:C8	2.87	0.63
39:BF:47:C:C2	39:BF:48:G:C8	2.86	0.63
40:BG:44:G:C2	40:BG:67:A:C4	2.86	0.63
41:BH:117:U:H5'	41:BH:117:U:C6	2.33	0.63
44:BK:86:HIS:CD2	44:BK:139:ARG:HE	2.17	0.63
65:Bf:342:GLY:HA3	65:Bf:379:TYR:CE1	2.33	0.63
77:Br:11:SER:H	77:Br:16:LYS:HA	1.62	0.63
85:AA:394:C:H2'	85:AA:395:G:C8	2.33	0.63
85:AA:453:G:H2'	85:AA:454:G:H8	1.62	0.63
85:AA:1549:G:C4	85:AA:1550:C:C5	2.86	0.63
85:AA:1713:A:H2'	85:AA:1714:G:C8	2.34	0.63
85:AA:1826:U:C2	85:AA:1828:C:C6	2.86	0.63
85:AA:1960:C:H5'	85:AA:1960:C:H6	1.63	0.63
5:A4:6:HIS:HE1	53:BT:192:ASP:HB2	1.53	0.63
11:AC:121:ARG:HA	11:AC:124:PHE:CD2	2.33	0.63
34:BA:3:G:C2	34:BA:4:A:C8	2.85	0.63
34:BA:12:G:C5	34:BA:13:U:C5	2.86	0.63
34:BA:400:A:C2	36:BC:28:C:C2	2.86	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:501:U:C5	34:BA:1548:A:C8	2.87	0.63
34:BA:785:G:C5	34:BA:786:U:C5	2.86	0.63
34:BA:856:G:C6	34:BA:857:C:C4	2.86	0.63
34:BA:968:G:C5	34:BA:969:A:C5	2.85	0.63
34:BA:1163:G:C6	34:BA:1164:C:C5	2.87	0.63
35:BB:4:C:H1'	38:BE:13:A:H1'	1.79	0.63
35:BB:385:C:C4'	40:BG:108:G:H21	2.11	0.63
35:BB:849:A:C5'	35:BB:850:U:H5''	2.27	0.63
35:BB:857:G:C4	35:BB:866:A:C2	2.86	0.63
35:BB:870:C:C5	35:BB:871:C:C5	2.86	0.63
35:BB:1019:C:C4	35:BB:1020:U:C5	2.86	0.63
35:BB:1067:G:C6	35:BB:1068:G:C4	2.86	0.63
35:BB:1447:U:C2	35:BB:1448:U:C5	2.86	0.63
38:BE:73:A:C6	38:BE:74:U:C5	2.86	0.63
40:BG:58:G:C6	40:BG:59:G:C4	2.86	0.63
41:BH:23:G:H3'	41:BH:24:U:C5'	2.28	0.63
41:BH:119:U:H2'	41:BH:120:C:C6	2.32	0.63
60:Ba:84:TYR:HH	60:Ba:126:TRP:CG	2.17	0.63
81:Bv:52:LYS:C	81:Bv:60:LEU:HD23	2.23	0.63
85:AA:660:G:C2	85:AA:661:C:C2	2.85	0.63
85:AA:739:C:H2'	85:AA:740:A:H3'	1.81	0.63
85:AA:1199:C:H2'	85:AA:1200:A:C8	2.32	0.63
85:AA:1811:C:H3'	85:AA:1812:C:H4'	1.80	0.63
3:A2:17:LEU:HD21	3:A2:93:ASN:HD22	1.63	0.63
4:A3:22:VAL:HA	4:A3:26:VAL:HG12	1.81	0.63
6:A5:203:LEU:HD12	6:A5:204:GLU:H	1.64	0.63
7:A6:84:PHE:HB2	7:A6:106:ARG:HE	1.63	0.63
15:AG:77:HIS:CD2	85:AA:941:C:C5'	2.81	0.63
15:AG:104:ARG:HH12	85:AA:1199:C:H4'	1.62	0.63
34:BA:15:G:C6	36:BC:153:C:N3	2.67	0.63
34:BA:133:A:C8	34:BA:134:U:C6	2.87	0.63
34:BA:186:G:C2	34:BA:301:U:C2	2.86	0.63
34:BA:603:U:H2'	34:BA:680:C:C2	2.33	0.63
34:BA:616:G:N1	34:BA:617:G:C6	2.67	0.63
34:BA:692:U:C2	34:BA:696:A:H1'	2.33	0.63
34:BA:745:A:C5	34:BA:746:C:C5	2.86	0.63
34:BA:753:G:C2	34:BA:785:G:C4	2.86	0.63
34:BA:795:G:C6	34:BA:796:G:C6	2.86	0.63
34:BA:982:A:C4	34:BA:1020:A:C2	2.86	0.63
34:BA:1136:A:C6	34:BA:1137:U:C2	2.86	0.63
34:BA:1413:G:C4	34:BA:1414:C:C5	2.86	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1648:G:C8	34:BA:1648:G:C5'	2.81	0.63
34:BA:1723:U:O2	34:BA:1799:G:C5	2.51	0.63
34:BA:1790:U:H2'	34:BA:1791:C:C6	2.34	0.63
35:BB:65:A:H61	35:BB:618:U:H3	1.47	0.63
35:BB:130:G:C4	35:BB:374:A:C2	2.87	0.63
35:BB:1439:U:H6	35:BB:1439:U:O5'	1.80	0.63
35:BB:1455:A:H3'	35:BB:1456:G:H8	1.63	0.63
36:BC:54:G:C2	36:BC:55:U:H1'	2.34	0.63
37:BD:47:U:C4	37:BD:48:G:C5	2.86	0.63
38:BE:101:C:C4	38:BE:117:A:C6	2.87	0.63
40:BG:72:G:C5	40:BG:73:U:C5	2.87	0.63
62:Bc:62:LEU:HD23	62:Bc:81:VAL:HG23	1.79	0.63
82:Bw:29:LYS:HG3	82:Bw:33:PHE:CE2	2.33	0.63
85:AA:342:C:C2	85:AA:348:G:C2	2.87	0.63
85:AA:347:U:C5	85:AA:348:G:C8	2.87	0.63
85:AA:416:U:H5'	85:AA:418:G:C8	2.33	0.63
85:AA:531:G:C6	85:AA:532:G:C6	2.86	0.63
85:AA:1843:A:H2'	85:AA:1844:A:C8	2.33	0.63
85:AA:2130:G:C6	85:AA:2131:C:C4	2.87	0.63
21:AM:13:ILE:HG21	45:BL:123:TYR:CE2	1.98	0.63
34:BA:15:G:C6	34:BA:16:C:C4	2.86	0.63
34:BA:318:U:H2'	34:BA:319:C:C6	2.34	0.63
34:BA:892:C:H2'	34:BA:893:U:C6	2.34	0.63
34:BA:933:U:C4	34:BA:934:G:C4	2.87	0.63
34:BA:1550:G:C6	34:BA:1560:U:C4	2.87	0.63
34:BA:1595:G:C5	34:BA:1596:C:C4	2.86	0.63
34:BA:1840:C:H2'	34:BA:1841:A:C8	2.34	0.63
35:BB:501:G:C6	35:BB:502:C:C4	2.86	0.63
35:BB:668:A:C2	35:BB:1330:A:C6	2.86	0.63
35:BB:1230:A:C5	47:BN:206:ARG:NH2	2.67	0.63
35:BB:1464:G:C5	40:BG:24:A:OP2	2.52	0.63
37:BD:8:A:C2	37:BD:9:C:C2	2.87	0.63
37:BD:56:G:H3'	37:BD:57:C:C6	2.32	0.63
85:AA:63:G:H1'	85:AA:174:U:C5	2.33	0.63
85:AA:480:U:H2'	85:AA:482:C:C6	2.33	0.63
85:AA:642:G:C5	85:AA:643:C:C5	2.86	0.63
1:A0:113:TYR:CE1	1:A0:116:LEU:HD22	2.34	0.63
34:BA:21:C:H3'	34:BA:22:C:C6	2.34	0.63
34:BA:126:G:C5	34:BA:127:U:C4	2.87	0.63
34:BA:165:C:C5	34:BA:322:U:C4	2.87	0.63
34:BA:296:G:H2'	34:BA:297:A:C4'	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:473:A:C5	36:BC:16:A:H1'	2.34	0.63
34:BA:478:G:C4	34:BA:479:U:C6	2.86	0.63
34:BA:739:A:HO2'	47:BN:12:HIS:CD2	2.16	0.63
34:BA:753:G:C2	34:BA:754:G:C4	2.86	0.63
34:BA:1786:C:H2'	34:BA:1787:U:C6	2.33	0.63
35:BB:806:U:C6	35:BB:807:U:C5	2.86	0.63
38:BE:154:A:H4'	38:BE:157:C:C5	2.34	0.63
40:BG:75:C:C5'	65:Bf:387:ALA:HA	2.28	0.63
40:BG:92:U:H2'	40:BG:93:U:C6	2.34	0.63
65:Bf:142:GLY:O	65:Bf:153:ILE:HG23	1.98	0.63
85:AA:407:G:C5	85:AA:408:C:C5	2.87	0.63
85:AA:452:A:H3'	85:AA:467:U:C5	2.34	0.63
85:AA:719:C:C2	85:AA:782:G:C2	2.87	0.63
85:AA:911:A:C5	85:AA:912:C:C4	2.85	0.63
85:AA:942:A:H5''	85:AA:943:U:H6	1.62	0.63
85:AA:1115:G:H2'	85:AA:1116:G:H5'	1.80	0.63
85:AA:1726:G:C4	85:AA:1727:U:C5	2.87	0.63
34:BA:248:G:H1'	34:BA:437:G:C5	2.34	0.63
34:BA:340:U:H5'	79:Bt:50:TYR:CE2	2.34	0.63
34:BA:516:U:C2	34:BA:517:A:C8	2.87	0.63
34:BA:672:G:C5	34:BA:673:U:C4	2.87	0.63
34:BA:1088:G:C8	63:Bd:17:HIS:CD2	2.87	0.63
34:BA:1420:A:C2	35:BB:1345:A:C8	2.87	0.63
34:BA:1816:G:C5	34:BA:1818:A:C6	2.86	0.63
35:BB:620:G:C4	35:BB:621:C:C6	2.86	0.63
35:BB:715:G:H2'	35:BB:716:G:C8	2.34	0.63
35:BB:786:A:H2'	35:BB:787:A:C8	2.33	0.63
35:BB:1171:U:H2'	35:BB:1172:U:C6	2.33	0.63
35:BB:1178:A:H2'	35:BB:1179:C:C6	2.33	0.63
36:BC:69:U:H2'	36:BC:70:C:C6	2.34	0.63
38:BE:104:G:H2'	38:BE:105:A:C8	2.33	0.63
83:Bx:111:ALA:HB1	83:Bx:202:ALA:O	1.99	0.63
84:By:10:THR:HG22	84:By:11:PHE:H	1.64	0.63
85:AA:1140:G:C2	85:AA:1171:C:C2	2.87	0.63
85:AA:1565:G:C6	85:AA:1566:A:C6	2.87	0.63
23:AP:74:HIS:CD2	23:AP:143:LYS:HD3	2.34	0.63
23:AP:239:LEU:CD1	25:AR:6:THR:HG22	2.29	0.63
34:BA:128:C:H2'	34:BA:129:U:C6	2.34	0.63
34:BA:137:C:H2'	34:BA:138:C:C6	2.34	0.63
34:BA:140:C:O5'	34:BA:140:C:C6	2.52	0.63
34:BA:371:U:H1'	35:BB:489:A:C2	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:399:G:N1	36:BC:29:C:C4	2.67	0.63
34:BA:544:U:C6	34:BA:544:U:H3'	2.33	0.63
34:BA:561:U:O2	34:BA:562:C:C2	2.52	0.63
34:BA:799:A:H8	34:BA:857:C:H5''	1.61	0.63
34:BA:941:G:C2	34:BA:951:C:C2	2.87	0.63
34:BA:1796:A:H1'	34:BA:1798:G:H4'	1.79	0.63
35:BB:7:C:H2'	35:BB:8:U:C6	2.33	0.63
35:BB:653:G:OP2	40:BG:171:A:H1'	1.98	0.63
35:BB:657:A:C5	35:BB:658:G:C8	2.87	0.63
35:BB:706:G:C2	35:BB:776:U:C4	2.86	0.63
35:BB:799:A:N6	35:BB:976:U:C5	2.66	0.63
35:BB:872:A:C4	35:BB:963:G:C2	2.86	0.63
35:BB:1222:A:H3'	35:BB:1222:A:C8	2.33	0.63
35:BB:1295:A:H2	35:BB:1308:G:HO2'	1.47	0.63
35:BB:1372:G:C5	35:BB:1373:U:C5	2.87	0.63
36:BC:135:A:C2	36:BC:136:G:C4	2.87	0.63
38:BE:2:G:C6	38:BE:8:G:C8	2.87	0.63
39:BF:60:C:H2'	39:BF:62:U:C2	2.34	0.63
40:BG:31:G:C4	40:BG:175:G:N1	2.67	0.63
40:BG:32:U:H5''	65:Bf:212:ARG:HH22	1.64	0.63
42:BI:79:LYS:NZ	63:Bd:68:ALA:HB3	2.14	0.63
66:Bg:53:VAL:HG22	66:Bg:102:SER:OG	1.98	0.63
85:AA:1727:U:H1'	85:AA:1816:C:C4	2.34	0.63
85:AA:2129:U:C4	85:AA:2130:G:C5	2.87	0.63
34:BA:187:G:C2	34:BA:188:C:C2	2.87	0.63
34:BA:227:C:C2'	34:BA:228:A:H5'	2.28	0.63
34:BA:937:G:C5	34:BA:938:C:C5	2.86	0.63
34:BA:986:G:C2	34:BA:987:C:C2	2.86	0.63
34:BA:1566:G:C6	34:BA:1567:G:C6	2.86	0.63
34:BA:1691:G:C4	34:BA:1825:U:C6	2.86	0.63
35:BB:1003:G:N2	35:BB:1004:A:C4	2.67	0.63
35:BB:1098:G:C2	35:BB:1254:G:C6	2.87	0.63
35:BB:1335:G:C6	35:BB:1336:G:C6	2.86	0.63
36:BC:36:G:C5	70:Bk:93:HIS:CE1	2.86	0.63
40:BG:136:G:C5	40:BG:137:G:C8	2.87	0.63
41:BH:49:C:H4'	41:BH:50:A:C5	2.33	0.63
41:BH:73:A:H61	55:BV:60:ARG:CG	2.12	0.63
52:BS:98:ASP:CG	52:BS:99:VAL:H	2.07	0.63
67:Bh:50:ARG:HE	67:Bh:54:HIS:CE1	2.17	0.63
85:AA:244:G:C5	85:AA:245:A:C8	2.87	0.63
85:AA:342:C:C6	85:AA:343:U:C4	2.87	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1718:C:H2'	85:AA:1719:C:H3'	1.81	0.63
85:AA:2103:C:H2'	85:AA:2216:A:H61	1.63	0.63
32:AY:49:LEU:HB2	85:AA:557:G:H4'	1.80	0.62
34:BA:40:A:C5	35:BB:1260:A:C6	2.86	0.62
34:BA:470:C:H2'	34:BA:471:U:C6	2.33	0.62
34:BA:631:G:C5	34:BA:632:U:C5	2.87	0.62
34:BA:740:A:O4'	47:BN:12:HIS:CG	2.50	0.62
34:BA:764:G:N1	34:BA:769:U:C5	2.66	0.62
34:BA:772:G:C8	47:BN:33:GLN:HB3	2.33	0.62
34:BA:1572:G:C6	34:BA:1573:C:C4	2.87	0.62
35:BB:62:C:N3	35:BB:63:A:C6	2.67	0.62
35:BB:531:U:H2'	35:BB:532:C:C6	2.34	0.62
35:BB:776:U:H3'	35:BB:777:C:C5	2.34	0.62
35:BB:969:C:C2	35:BB:970:C:C6	2.87	0.62
35:BB:1399:A:N7	65:Bf:312:HIS:CE1	2.67	0.62
37:BD:98:G:C5	37:BD:99:G:C5	2.87	0.62
40:BG:9:G:N1	40:BG:15:G:N1	2.47	0.62
40:BG:52:A:H4'	84:By:96:HIS:CE1	2.33	0.62
41:BH:44:A:C6	41:BH:45:G:C4	2.87	0.62
62:Bc:111:ARG:HA	82:Bw:16:MET:HB3	1.79	0.62
66:Bg:88:LEU:HD12	66:Bg:98:ALA:HB1	1.80	0.62
85:AA:210:G:O6	85:AA:244:G:C4	2.51	0.62
85:AA:1204:A:C5	85:AA:1205:U:C4	2.87	0.62
85:AA:1731:G:H2'	85:AA:1732:G:C8	2.34	0.62
11:AC:212:TRP:CZ2	11:AC:234:LYS:HA	2.33	0.62
29:AV:83:ILE:HG13	29:AV:84:HIS:H	1.64	0.62
34:BA:31:A:H2'	34:BA:32:A:C8	2.33	0.62
34:BA:480:G:C5	34:BA:481:A:C6	2.86	0.62
34:BA:575:U:C6	34:BA:579:U:N3	2.67	0.62
34:BA:593:G:C5	34:BA:594:G:C2	2.88	0.62
34:BA:603:U:C5	34:BA:680:C:C6	2.87	0.62
34:BA:742:C:C4	47:BN:10:HIS:CD2	2.87	0.62
34:BA:1045:C:H2'	34:BA:1046:G:C8	2.34	0.62
34:BA:1656:A:C6	34:BA:1657:A:C5	2.87	0.62
35:BB:312:U:H2'	35:BB:313:C:C6	2.35	0.62
35:BB:406:A:C3'	35:BB:407:A:H2'	2.29	0.62
35:BB:493:U:C4	35:BB:494:C:C5	2.88	0.62
35:BB:643:G:H2'	35:BB:644:A:C8	2.33	0.62
35:BB:832:C:H3'	35:BB:833:G:H8	1.64	0.62
36:BC:126:G:C4	36:BC:127:C:C6	2.87	0.62
37:BD:33:U:C2	80:Bu:213:TYR:CD1	2.87	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BF:24:G:H3'	39:BF:25:G:N7	2.15	0.62
41:BH:1:U:H3'	41:BH:2:U:C5'	2.29	0.62
47:BN:171:ARG:HG3	47:BN:172:GLU:H	1.61	0.62
48:BO:166:TRP:CD2	48:BO:166:TRP:C	2.75	0.62
76:Bq:43:HIS:CG	76:Bq:44:TRP:H	2.16	0.62
85:AA:396:U:H3'	85:AA:397:G:H8	1.62	0.62
85:AA:887:A:C5	85:AA:889:G:C6	2.86	0.62
85:AA:1495:G:C5	85:AA:1496:U:C6	2.87	0.62
85:AA:2095:U:H2'	85:AA:2096:G:C8	2.34	0.62
8:A7:234:MET:HE2	8:A7:268:LYS:HA	1.81	0.62
15:AG:77:HIS:CE1	85:AA:1107:A:N1	2.68	0.62
34:BA:162:G:C6	34:BA:321:G:N7	2.67	0.62
34:BA:513:U:C4	34:BA:690:G:C2	2.87	0.62
34:BA:625:U:H2'	34:BA:626:G:C8	2.34	0.62
34:BA:849:G:C2	34:BA:850:C:C5	2.88	0.62
34:BA:1087:A:N1	34:BA:1213:A:N1	2.47	0.62
34:BA:1109:G:C5	34:BA:1110:A:C8	2.87	0.62
34:BA:1291:A:C2	34:BA:1292:A:C2	2.87	0.62
34:BA:1354:G:C8	34:BA:1356:C:H5''	2.34	0.62
34:BA:1431:G:C5	34:BA:1432:C:C5	2.87	0.62
34:BA:1527:G:C6	34:BA:1581:G:C6	2.87	0.62
34:BA:1539:A:C6	34:BA:1568:A:C2	2.86	0.62
34:BA:1833:G:H2'	34:BA:1834:A:C8	2.35	0.62
35:BB:28:G:C5	35:BB:32:C:C5	2.86	0.62
35:BB:470:C:H2'	35:BB:471:U:C6	2.34	0.62
35:BB:618:U:H2'	35:BB:619:A:C8	2.34	0.62
35:BB:996:G:H5'	83:Bx:40:PHE:HB3	1.80	0.62
35:BB:1026:G:C8	35:BB:1027:U:C5	2.87	0.62
35:BB:1382:U:C5	35:BB:1383:C:C5	2.87	0.62
37:BD:46:G:C5	37:BD:47:U:C5	2.88	0.62
49:BP:153:LYS:HA	49:BP:159:ALA:HB3	1.81	0.62
67:Bh:156:GLU:HG3	67:Bh:167:TYR:CD1	2.34	0.62
73:Bn:28:HIS:CD2	73:Bn:29:VAL:N	2.67	0.62
77:Br:17:VAL:HB	77:Br:19:GLY:H	1.62	0.62
85:AA:42:G:C4	85:AA:502:A:C2	2.88	0.62
85:AA:465:A:H5'	85:AA:466:A:H5'	1.81	0.62
85:AA:1538:C:H2'	85:AA:1539:A:C8	2.34	0.62
34:BA:102:G:C5	34:BA:103:G:C8	2.87	0.62
34:BA:607:C:C6	34:BA:607:C:O5'	2.51	0.62
34:BA:704:G:C5	34:BA:705:C:C4	2.87	0.62
34:BA:908:G:C5	34:BA:909:G:C8	2.87	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1208:U:C6	34:BA:1210:A:C5	2.88	0.62
34:BA:1502:G:C6	34:BA:1503:U:C6	2.87	0.62
34:BA:1686:G:H2'	34:BA:1687:A:C8	2.34	0.62
35:BB:14:C:C4	35:BB:15:C:C4	2.87	0.62
35:BB:602:G:C2	35:BB:607:G:C6	2.87	0.62
35:BB:666:A:H2'	35:BB:667:G:C8	2.35	0.62
35:BB:1162:A:C2	35:BB:1201:G:C6	2.86	0.62
35:BB:1335:G:C6	35:BB:1336:G:C5	2.87	0.62
35:BB:1479:C:C4	35:BB:1480:G:C5	2.88	0.62
35:BB:1521:G:C2	35:BB:1547:U:C2	2.87	0.62
38:BE:96:G:N1	38:BE:124:G:N1	2.46	0.62
38:BE:144:A:C4	38:BE:145:A:C8	2.87	0.62
38:BE:152:U:H2'	38:BE:153:C:C5	2.35	0.62
38:BE:166:G:C6	38:BE:167:U:C4	2.87	0.62
40:BG:25:G:C6	40:BG:181:C:C4	2.87	0.62
85:AA:309:G:C6	85:AA:310:U:C4	2.88	0.62
85:AA:367:A:H3'	85:AA:368:C:C5	2.34	0.62
85:AA:380:C:C2	85:AA:421:G:C2	2.88	0.62
85:AA:929:G:H2'	85:AA:930:G:C8	2.34	0.62
85:AA:1286:C:C4	85:AA:1287:C:C5	2.87	0.62
85:AA:1293:U:C4	85:AA:1294:U:C6	2.87	0.62
85:AA:1437:G:H2'	85:AA:1438:C:C6	2.34	0.62
85:AA:1515:A:C4	85:AA:1516:A:C8	2.88	0.62
85:AA:2192:A:H2'	85:AA:2193:A:C8	2.34	0.62
3:A2:46:ARG:HA	3:A2:49:LYS:HE2	1.82	0.62
5:A4:148:ARG:HB2	5:A4:152:SER:H	1.65	0.62
6:A5:183:ARG:HG3	41:BH:93:G:O5'	1.97	0.62
16:AH:43:ARG:HH21	85:AA:1144:G:H5'	1.65	0.62
21:AM:138:CYS:HB2	85:AA:1898:C:C4	2.35	0.62
34:BA:595:U:C5	34:BA:1488:C:OP2	2.52	0.62
34:BA:613:A:C2	34:BA:614:A:C4	2.88	0.62
34:BA:690:G:H1'	34:BA:691:A:C2	2.35	0.62
34:BA:702:G:H2'	34:BA:703:U:C6	2.33	0.62
34:BA:850:C:C4	34:BA:851:C:C4	2.88	0.62
34:BA:1007:G:C8	34:BA:1024:A:C4	2.88	0.62
34:BA:1097:G:C2	35:BB:1084:A:C5	2.88	0.62
34:BA:1186:U:C6	34:BA:1189:A:N7	2.67	0.62
34:BA:1454:G:N2	34:BA:1455:C:C2	2.67	0.62
35:BB:129:U:H3	35:BB:374:A:H61	1.48	0.62
35:BB:434:A:C2	35:BB:435:A:C4	2.87	0.62
35:BB:471:U:H2'	35:BB:472:C:C5	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:474:G:C5	35:BB:475:A:C5	2.88	0.62
35:BB:603:U:C5	35:BB:604:C:C5	2.86	0.62
35:BB:676:G:C6	35:BB:678:U:C4	2.88	0.62
35:BB:1003:G:H1	35:BB:1015:U:H3	1.47	0.62
35:BB:1118:G:C6	35:BB:1119:G:C5	2.87	0.62
40:BG:33:G:H1	40:BG:169:A:C5'	2.13	0.62
41:BH:29:G:C6	41:BH:30:C:C6	2.88	0.62
41:BH:34:G:C2	41:BH:35:G:C4	2.87	0.62
41:BH:131:A:C4	41:BH:132:C:C6	2.88	0.62
44:BK:62:SER:HA	44:BK:65:LEU:HD12	1.80	0.62
69:Bj:60:LEU:HD13	69:Bj:64:LYS:HB3	1.79	0.62
77:Br:157:VAL:HA	77:Br:160:TYR:CZ	2.35	0.62
85:AA:132:G:C2	85:AA:139:G:C2	2.87	0.62
85:AA:956:C:H3'	85:AA:957:A:H4'	1.82	0.62
85:AA:1450:U:C5	85:AA:1451:U:C4	2.87	0.62
85:AA:1584:U:H1'	85:AA:1585:A:C5	2.34	0.62
85:AA:2193:A:C6	85:AA:2194:U:C4	2.87	0.62
1:A0:228:GLN:CD	83:Bx:275:ALA:CB	2.72	0.62
3:A2:190:ARG:HG2	16:AH:65:TYR:CZ	2.34	0.62
15:AG:140:LYS:HZ3	34:BA:946:A:H5''	1.56	0.62
34:BA:108:A:C4	34:BA:386:A:C6	2.87	0.62
34:BA:115:U:H5''	34:BA:327:G:C2	2.35	0.62
34:BA:268:U:H4'	59:BZ:97:HIS:CD2	2.34	0.62
34:BA:325:A:H2'	34:BA:326:A:C4'	2.30	0.62
34:BA:400:A:C2	36:BC:28:C:N3	2.67	0.62
34:BA:474:A:C2	34:BA:475:A:C2	2.87	0.62
34:BA:481:A:C2	36:BC:7:U:N3	2.68	0.62
34:BA:483:A:H5'	34:BA:484:A:H5''	1.82	0.62
34:BA:610:A:C6	34:BA:611:A:C5	2.87	0.62
34:BA:679:U:C6	34:BA:680:C:C4	2.87	0.62
34:BA:718:U:C4	34:BA:719:G:C5	2.87	0.62
34:BA:1180:A:H5'	63:Bd:46:ARG:NH2	2.14	0.62
34:BA:1289:C:H2'	34:BA:1290:A:C2	2.34	0.62
34:BA:1431:G:C5	34:BA:1432:C:C4	2.87	0.62
34:BA:1513:G:H2'	34:BA:1514:A:C8	2.34	0.62
35:BB:1408:G:C6	35:BB:1437:U:C4	2.87	0.62
35:BB:1527:A:C2	35:BB:1528:U:H1'	2.34	0.62
35:BB:1536:G:H8	35:BB:1536:G:H5''	1.64	0.62
35:BB:1541:G:C2	35:BB:1542:C:C2	2.88	0.62
37:BD:110:G:C6	37:BD:111:U:C4	2.88	0.62
50:BQ:28:TRP:HE1	50:BQ:61:ARG:HG2	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:Bf:70:ARG:HE	65:Bf:289:TRP:NE1	1.97	0.62
78:Bs:14:ASN:HB2	78:Bs:15:TRP:CE2	2.35	0.62
83:Bx:110:TYR:CE2	83:Bx:216:VAL:HG23	2.33	0.62
85:AA:162:A:C2	85:AA:485:A:H4'	2.35	0.62
85:AA:764:U:H3'	85:AA:767:A:C6	2.34	0.62
85:AA:1115:G:H1'	85:AA:1214:C:C6	2.35	0.62
85:AA:1120:G:H1	85:AA:1205:U:H3	1.45	0.62
85:AA:1139:G:C2	85:AA:1172:A:C2	2.87	0.62
85:AA:1451:U:C5	85:AA:1452:C:C4	2.87	0.62
5:A4:3:ALA:HB3	5:A4:30:PHE:CD1	2.34	0.62
34:BA:111:U:C5	34:BA:383:G:C2	2.87	0.62
34:BA:143:A:H4'	34:BA:144:C:H5'	1.80	0.62
34:BA:283:U:C6	34:BA:284:U:C4	2.87	0.62
34:BA:489:A:C6	34:BA:490:A:C4	2.88	0.62
34:BA:521:C:C5	34:BA:522:C:C2	2.88	0.62
34:BA:1722:U:H4'	34:BA:1723:U:H5'	1.80	0.62
35:BB:72:G:C6	35:BB:73:G:C6	2.88	0.62
35:BB:124:G:N1	35:BB:380:G:C5	2.68	0.62
35:BB:125:G:C6	35:BB:126:C:C4	2.88	0.62
35:BB:129:U:C2	35:BB:375:G:C2	2.87	0.62
35:BB:434:A:C5	35:BB:435:A:C6	2.87	0.62
35:BB:1324:C:H3'	63:Bd:2:ALA:HB2	1.81	0.62
35:BB:1382:U:C5	35:BB:1383:C:C4	2.87	0.62
35:BB:1401:G:N7	35:BB:1402:U:C4	2.67	0.62
36:BC:68:A:C6	36:BC:91:G:C6	2.88	0.62
38:BE:104:G:C5	38:BE:105:A:C5	2.87	0.62
42:BI:154:GLU:O	42:BI:158:HIS:CE1	2.53	0.62
65:Bf:277:THR:HB	65:Bf:328:TYR:H	1.63	0.62
80:Bu:95:TYR:CE2	80:Bu:187:PRO:HG2	2.35	0.62
85:AA:35:U:C6	85:AA:35:U:H5''	2.35	0.62
85:AA:48:G:C2	85:AA:497:G:H1'	2.35	0.62
85:AA:790:A:H5'	85:AA:792:A:H1'	1.81	0.62
85:AA:1877:G:H2'	85:AA:1878:C:C6	2.34	0.62
85:AA:2180:C:H3'	85:AA:2181:G:C8	2.34	0.62
85:AA:2192:A:C2	85:AA:2193:A:C4	2.88	0.62
5:A4:145:TRP:CG	5:A4:155:MET:HA	2.35	0.62
34:BA:146:G:C6	34:BA:147:U:C6	2.87	0.62
34:BA:561:U:C2'	34:BA:562:C:C6	2.73	0.62
34:BA:708:C:H2'	34:BA:709:C:C6	2.35	0.62
34:BA:721:A:H2'	34:BA:722:A:C8	2.35	0.62
34:BA:1140:A:H5'	34:BA:1141:C:OP2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1163:G:C6	34:BA:1164:C:C4	2.88	0.62
34:BA:1197:U:H2'	34:BA:1201:G:C8	2.35	0.62
34:BA:1239:G:C5	34:BA:1240:G:C6	2.88	0.62
34:BA:1699:A:C6	34:BA:1700:C:C5	2.87	0.62
35:BB:93:A:H3'	35:BB:94:A:C8	2.34	0.62
35:BB:605:C:H2'	35:BB:606:C:C4	2.35	0.62
35:BB:817:C:C4	35:BB:818:U:C2	2.88	0.62
35:BB:975:G:C2	35:BB:976:U:C4	2.87	0.62
35:BB:1079:G:C5	35:BB:1080:U:C5	2.88	0.62
35:BB:1431:G:C5	35:BB:1432:U:C5	2.88	0.62
38:BE:74:U:C4	38:BE:75:C:C2	2.87	0.62
38:BE:96:G:N2	38:BE:125:C:C2	2.68	0.62
38:BE:149:A:N1	38:BE:163:A:N1	2.48	0.62
39:BF:17:U:C2	71:Bl:85:HIS:CE1	2.88	0.62
40:BG:72:G:C6	40:BG:126:G:C6	2.88	0.62
64:Be:90:CYS:HA	64:Be:94:ALA:HB2	1.81	0.62
67:Bh:91:HIS:CD2	67:Bh:146:ARG:HD2	2.34	0.62
85:AA:438:G:C2	85:AA:439:U:C6	2.87	0.62
85:AA:639:C:C2	85:AA:650:G:C6	2.88	0.62
85:AA:851:G:H2'	85:AA:852:C:C6	2.34	0.62
85:AA:989:U:H4'	85:AA:991:G:C8	2.34	0.62
85:AA:1001:G:C6	85:AA:1002:G:C5	2.88	0.62
85:AA:1153:G:H3'	85:AA:1153:G:C8	2.33	0.62
85:AA:2133:A:C2	85:AA:2186:U:C2	2.88	0.62
1:A0:115:LEU:HD13	1:A0:213:ARG:HH22	1.64	0.62
5:A4:12:LYS:HA	5:A4:15:ARG:HA	1.80	0.62
6:A5:22:ARG:HH11	85:AA:450:A:C5'	2.12	0.62
34:BA:166:G:H22	34:BA:324:C:H41	1.48	0.62
34:BA:373:G:C6	34:BA:374:U:C4	2.88	0.62
34:BA:398:G:C2	36:BC:30:U:C2	2.88	0.62
34:BA:412:G:C6	34:BA:413:A:C6	2.87	0.62
34:BA:529:A:C6	34:BA:583:G:C6	2.88	0.62
34:BA:759:A:C2	34:BA:760:G:C4	2.88	0.62
34:BA:798:G:C4	34:BA:800:G:C8	2.88	0.62
34:BA:835:U:C5	34:BA:836:U:C6	2.88	0.62
34:BA:1458:A:C5	34:BA:1460:U:C5	2.88	0.62
34:BA:1484:A:C4	34:BA:1502:G:C2	2.88	0.62
34:BA:1614:G:O6	34:BA:1616:A:C4	2.52	0.62
35:BB:5:A:H1'	38:BE:11:A:C2	2.35	0.62
35:BB:846:A:C2	35:BB:847:U:O4'	2.52	0.62
35:BB:1070:G:C5	35:BB:1071:G:C8	2.88	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1143:A:C5	35:BB:1144:A:C5	2.87	0.62
35:BB:1219:A:C4	35:BB:1220:A:C8	2.87	0.62
35:BB:1291:G:C6	35:BB:1314:G:C5	2.88	0.62
35:BB:1359:G:H3'	35:BB:1360:A:C8	2.35	0.62
35:BB:1483:A:H3'	35:BB:1484:A:C8	2.34	0.62
41:BH:39:G:C2	41:BH:40:C:C2	2.88	0.62
73:Bn:25:ASN:CG	73:Bn:26:ALA:H	2.07	0.62
73:Bn:47:TYR:HB3	73:Bn:49:TRP:CE2	2.35	0.62
85:AA:506:G:C6	85:AA:534:A:C6	2.88	0.62
85:AA:879:G:C6	85:AA:880:A:C6	2.87	0.62
85:AA:928:U:C4	85:AA:929:G:C6	2.87	0.62
85:AA:1153:G:C8	85:AA:1154:A:C4	2.88	0.62
85:AA:1535:C:C6	85:AA:2049:U:OP2	2.53	0.62
85:AA:1588:A:C2	85:AA:1892:G:C2	2.88	0.62
85:AA:1792:C:C4'	85:AA:1793:A:H5'	2.30	0.62
5:A4:178:TYR:HA	5:A4:181:LEU:HD12	1.82	0.62
13:AE:141:VAL:HG12	13:AE:155:VAL:HA	1.81	0.62
15:AG:123:HIS:CB	34:BA:945:A:C2	2.83	0.62
34:BA:152:C:C4	72:Bm:37:ARG:NH2	2.68	0.62
34:BA:161:U:C5	34:BA:165:C:C2	2.87	0.62
34:BA:331:G:H5'	50:BQ:137:TRP:CE3	2.34	0.62
34:BA:482:C:C2	36:BC:6:G:C2	2.87	0.62
34:BA:1307:U:H3'	34:BA:1309:U:H5''	1.82	0.62
34:BA:1488:C:C6	34:BA:1489:U:C5	2.87	0.62
34:BA:1838:U:H2'	34:BA:1839:G:C8	2.35	0.62
35:BB:9:G:C2	35:BB:10:C:C2	2.88	0.62
35:BB:694:C:H2'	35:BB:695:U:C6	2.35	0.62
35:BB:1105:G:C6	35:BB:1106:G:C5	2.88	0.62
35:BB:1208:G:C6	35:BB:1253:U:H3'	2.35	0.62
39:BF:73:U:C5	81:Bv:109:GLU:N	2.67	0.62
41:BH:38:G:N1	41:BH:113:G:N1	2.48	0.62
41:BH:110:C:C4	41:BH:111:U:C4	2.88	0.62
44:BK:210:ASN:O	80:Bu:299:VAL:HG21	1.99	0.62
67:Bh:60:ALA:HB1	67:Bh:64:ARG:HB2	1.82	0.62
82:Bw:114:GLN:CD	82:Bw:114:GLN:H	2.08	0.62
85:AA:20:G:H5''	85:AA:645:C:C2	2.33	0.62
85:AA:135:C:C5	85:AA:137:C:O2	2.53	0.62
85:AA:684:G:C6	85:AA:688:C:C2	2.88	0.62
85:AA:704:A:C4	85:AA:1219:A:C5	2.88	0.62
85:AA:931:G:H2'	85:AA:932:A:C8	2.35	0.62
85:AA:1548:A:H2'	85:AA:1549:G:C8	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1857:G:C6	85:AA:1858:G:C5	2.88	0.62
85:AA:2141:G:C2	85:AA:2178:A:C2	2.88	0.62
85:AA:2177:C:H2'	85:AA:2178:A:C8	2.35	0.62
34:BA:19:G:C8	34:BA:1716:A:C2	2.87	0.61
34:BA:295:G:C2	73:Bn:77:HIS:HE1	2.15	0.61
34:BA:471:U:C2	36:BC:16:A:N6	2.68	0.61
34:BA:520:G:N1	34:BA:684:G:C6	2.66	0.61
34:BA:580:U:H3'	34:BA:581:U:H4'	1.82	0.61
34:BA:613:A:N1	34:BA:668:G:H1'	2.14	0.61
34:BA:679:U:H3'	34:BA:680:C:C6	2.34	0.61
34:BA:891:C:H2'	34:BA:892:C:C6	2.34	0.61
34:BA:1113:A:H2	44:BK:196:HIS:CE1	2.17	0.61
34:BA:1603:A:C6	35:BB:33:A:C4	2.88	0.61
34:BA:1616:A:H4'	34:BA:1617:U:C4	2.35	0.61
34:BA:1659:G:H3'	34:BA:1660:A:C2	2.35	0.61
35:BB:650:A:H2'	35:BB:651:G:H8	1.65	0.61
35:BB:1401:G:C8	35:BB:1402:U:C5	2.87	0.61
38:BE:64:A:C6	38:BE:141:A:N7	2.68	0.61
38:BE:124:G:C4	38:BE:125:C:C6	2.88	0.61
40:BG:75:C:H5'	65:Bf:387:ALA:HA	1.81	0.61
41:BH:25:A:C6	41:BH:128:G:H2'	2.35	0.61
41:BH:98:U:OP1	55:BV:63:LYS:C	2.42	0.61
58:BY:83:GLU:CA	85:AA:2161:C:H4'	2.29	0.61
73:Bn:28:HIS:HD1	73:Bn:31:TRP:CG	2.18	0.61
77:Br:235:LEU:HA	77:Br:238:LEU:HD12	1.82	0.61
85:AA:245:A:C6	85:AA:246:C:C4	2.88	0.61
85:AA:767:A:H2'	85:AA:768:C:C6	2.35	0.61
85:AA:944:C:H3'	85:AA:945:A:C5'	2.30	0.61
85:AA:1206:A:H2'	85:AA:1207:C:C6	2.35	0.61
85:AA:1867:G:C2	85:AA:1868:G:C4	2.87	0.61
34:BA:909:G:C5	34:BA:910:U:C5	2.87	0.61
34:BA:1437:G:C5	34:BA:1438:C:C4	2.87	0.61
34:BA:1702:G:C5	34:BA:1703:A:C6	2.88	0.61
35:BB:430:A:C2	35:BB:441:G:C2	2.88	0.61
35:BB:636:G:C6	35:BB:637:G:C6	2.88	0.61
35:BB:681:G:C5	35:BB:682:U:C4	2.88	0.61
35:BB:809:U:H3'	35:BB:809:U:C6	2.35	0.61
35:BB:1165:A:H2'	35:BB:1167:C:C6	2.35	0.61
35:BB:1269:A:C5	35:BB:1270:C:C5	2.88	0.61
35:BB:1382:U:C4	35:BB:1383:C:C2	2.88	0.61
35:BB:1404:A:C5'	35:BB:1405:G:H5'	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:11:G:C6	36:BC:12:A:C5	2.88	0.61
36:BC:168:C:N3	36:BC:169:G:C5	2.68	0.61
38:BE:49:A:C2	38:BE:50:G:C4	2.87	0.61
38:BE:97:G:N2	38:BE:123:A:C2	2.69	0.61
85:AA:419:A:C4	85:AA:420:C:C6	2.88	0.61
85:AA:702:G:C6	85:AA:1218:C:C5	2.88	0.61
85:AA:927:A:C2	85:AA:928:U:C2	2.88	0.61
85:AA:1128:G:H1	85:AA:1198:U:H3	1.47	0.61
85:AA:1216:A:H2'	85:AA:1217:U:O4'	2.00	0.61
85:AA:1595:G:C6	85:AA:1883:C:N3	2.68	0.61
85:AA:1856:G:C2	85:AA:1857:G:H1'	2.35	0.61
85:AA:2121:G:C2'	85:AA:2122:A:C8	2.82	0.61
85:AA:2148:C:C2	85:AA:2149:C:C6	2.88	0.61
34:BA:108:A:C5	34:BA:386:A:C4	2.89	0.61
34:BA:588:C:O2	34:BA:589:A:C5	2.54	0.61
34:BA:604:G:OP2	34:BA:605:G:C6	2.54	0.61
34:BA:743:A:C4	47:BN:6:ASN:C	2.78	0.61
34:BA:754:G:C6	34:BA:755:G:C5	2.88	0.61
34:BA:990:G:C4	34:BA:991:U:C5	2.88	0.61
34:BA:1118:C:H2'	34:BA:1119:A:H5''	1.82	0.61
34:BA:1474:G:C6	34:BA:1475:G:C5	2.88	0.61
34:BA:1618:A:C4	34:BA:1632:G:C5	2.87	0.61
35:BB:9:G:H2'	35:BB:10:C:C6	2.35	0.61
35:BB:108:G:H2'	35:BB:109:U:C6	2.35	0.61
35:BB:361:A:C5	35:BB:362:A:C5	2.88	0.61
35:BB:406:A:C4	73:Bn:3:LYS:HG3	2.34	0.61
35:BB:546:A:C5	35:BB:550:G:C2	2.88	0.61
35:BB:666:A:C5	35:BB:667:G:C5	2.87	0.61
35:BB:863:U:C6	35:BB:864:U:C6	2.88	0.61
35:BB:1195:A:H2'	35:BB:1196:A:C8	2.35	0.61
35:BB:1332:G:C5	35:BB:1403:G:C5	2.88	0.61
36:BC:54:G:C5	36:BC:55:U:C6	2.88	0.61
36:BC:113:G:C5	36:BC:114:C:C5	2.88	0.61
38:BE:23:G:C2	38:BE:25:U:C5	2.88	0.61
39:BF:51:C:C2	39:BF:52:A:H8	2.19	0.61
41:BH:111:U:C5	41:BH:112:U:C4	2.87	0.61
42:BI:114:LYS:HG3	42:BI:115:SER:H	1.65	0.61
62:Bc:139:LYS:HA	62:Bc:142:ARG:HB3	1.82	0.61
85:AA:493:A:C2	85:AA:494:G:H1'	2.35	0.61
85:AA:771:A:N3	85:AA:772:C:C5	2.68	0.61
85:AA:1466:U:C4'	85:AA:1466:U:C6	2.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2127:G:C6	85:AA:2192:A:C6	2.88	0.61
85:AA:2153:G:C2	85:AA:2154:C:C2	2.87	0.61
17:AI:133:VAL:HB	85:AA:1897:A:H2'	1.83	0.61
34:BA:263:G:C6	34:BA:273:G:C5	2.87	0.61
34:BA:442:G:C5	34:BA:467:A:C2	2.87	0.61
34:BA:542:A:C2	34:BA:543:A:C4	2.88	0.61
34:BA:565:U:C4	34:BA:566:G:N7	2.68	0.61
34:BA:617:G:H2'	34:BA:618:G:C8	2.35	0.61
34:BA:707:C:H2'	34:BA:708:C:C6	2.36	0.61
35:BB:62:C:C4	35:BB:63:A:C6	2.89	0.61
35:BB:314:A:H3'	35:BB:315:C:C6	2.35	0.61
35:BB:375:G:C6	35:BB:376:A:C5	2.89	0.61
35:BB:785:G:C5	35:BB:1036:G:C2	2.88	0.61
35:BB:1109:A:H2'	35:BB:1110:G:C8	2.36	0.61
35:BB:1117:G:H1'	80:Bu:3:PHE:CD1	2.36	0.61
35:BB:1406:C:H2'	35:BB:1407:U:C6	2.35	0.61
37:BD:16:U:C2	37:BD:64:A:C2	2.89	0.61
38:BE:194:A:C8	38:BE:195:G:C8	2.89	0.61
40:BG:97:G:H3'	40:BG:98:A:C8	2.36	0.61
81:Bv:50:ILE:HB	81:Bv:60:LEU:HD22	1.82	0.61
82:Bw:189:HIS:CE1	82:Bw:190:ASN:OD1	2.54	0.61
85:AA:55:A:C4	85:AA:491:G:C2	2.88	0.61
85:AA:81:A:C8	85:AA:82:A:C5	2.87	0.61
85:AA:289:G:C2'	85:AA:290:G:H5'	2.30	0.61
85:AA:597:A:C5	85:AA:598:C:C6	2.88	0.61
85:AA:777:U:C5	85:AA:778:C:C5	2.88	0.61
85:AA:1180:C:H2'	85:AA:1181:U:C4	2.35	0.61
85:AA:1545:U:H3'	85:AA:1546:G:C8	2.35	0.61
85:AA:1670:U:H6	85:AA:1670:U:O5'	1.84	0.61
85:AA:2105:G:C6	85:AA:2106:C:C4	2.89	0.61
6:A5:186:ALA:HA	6:A5:203:LEU:H	1.66	0.61
34:BA:6:C:OP1	83:Bx:206:LYS:HD3	2.00	0.61
34:BA:87:G:C6	34:BA:96:G:C4	2.88	0.61
34:BA:411:C:C2	34:BA:413:A:C6	2.88	0.61
34:BA:542:A:C2	34:BA:543:A:N9	2.69	0.61
34:BA:754:G:C2	34:BA:755:G:C4	2.88	0.61
34:BA:772:G:C8	47:BN:34:PRO:HD3	2.35	0.61
34:BA:774:A:C6	34:BA:775:C:C4	2.88	0.61
34:BA:892:C:H2'	34:BA:893:U:H6	1.65	0.61
34:BA:919:A:H2'	34:BA:920:U:C6	2.35	0.61
34:BA:1009:G:C2	34:BA:1010:C:C2	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1123:G:C5	34:BA:1124:U:C6	2.88	0.61
34:BA:1186:U:H6	34:BA:1189:A:N7	1.98	0.61
34:BA:1230:G:C6	34:BA:1231:C:C4	2.89	0.61
35:BB:124:G:H2'	35:BB:125:G:C8	2.35	0.61
35:BB:576:A:C1'	35:BB:1420:U:H4'	2.30	0.61
35:BB:793:A:C6	35:BB:794:G:C5	2.87	0.61
35:BB:850:U:C5	35:BB:854:G:H1'	2.35	0.61
35:BB:1208:G:C5	35:BB:1253:U:C6	2.88	0.61
35:BB:1209:A:H2'	35:BB:1210:U:C6	2.35	0.61
35:BB:1209:A:C5	35:BB:1258:G:C4	2.88	0.61
35:BB:1464:G:O5'	35:BB:1464:G:C8	2.53	0.61
36:BC:103:A:C8	36:BC:104:A:C8	2.89	0.61
38:BE:101:C:C5	38:BE:117:A:C6	2.88	0.61
41:BH:29:G:C8	41:BH:29:G:H3'	2.34	0.61
56:BW:79:VAL:HG11	56:BW:128:TRP:CE2	2.36	0.61
80:Bu:186:PHE:CD1	80:Bu:201:HIS:CE1	2.89	0.61
82:Bw:55:LEU:HA	82:Bw:58:LEU:HD12	1.81	0.61
85:AA:36:U:H3	85:AA:542:G:H1	1.47	0.61
85:AA:126:U:C4	85:AA:182:C:H5''	2.36	0.61
85:AA:172:A:C5	85:AA:173:A:C2	2.88	0.61
85:AA:344:U:C5	85:AA:345:U:C4	2.88	0.61
85:AA:684:G:N2	85:AA:1485:G:H1	1.98	0.61
85:AA:811:A:C2	85:AA:867:G:C5	2.88	0.61
85:AA:925:G:C5	85:AA:926:C:C5	2.88	0.61
85:AA:2132:A:C6	85:AA:2187:G:C6	2.89	0.61
6:A5:106:ALA:HB3	6:A5:182:GLY:HA2	1.81	0.61
23:AP:188:ILE:HG23	23:AP:206:VAL:O	2.00	0.61
27:AT:10:VAL:HG23	27:AT:36:GLY:O	2.00	0.61
34:BA:132:U:C2	34:BA:133:A:C5	2.88	0.61
34:BA:195:G:O6	34:BA:289:A:C6	2.54	0.61
34:BA:293:A:H2'	34:BA:294:C:C6	2.35	0.61
34:BA:501:U:H2'	34:BA:502:U:H5'	1.83	0.61
34:BA:623:U:H4'	54:BU:137:PHE:CZ	2.35	0.61
34:BA:785:G:C4	34:BA:786:U:C5	2.88	0.61
34:BA:1545:C:H2'	34:BA:1546:C:C6	2.36	0.61
34:BA:1585:A:C4	34:BA:1587:C:H1'	2.35	0.61
35:BB:52:G:H2'	35:BB:53:C:C6	2.35	0.61
35:BB:125:G:C4	35:BB:126:C:C5	2.88	0.61
35:BB:609:G:C6	35:BB:610:U:C4	2.88	0.61
35:BB:996:G:C6	35:BB:997:G:C5	2.87	0.61
35:BB:1220:A:C8	35:BB:1220:A:C3'	2.84	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1269:A:C6	35:BB:1270:C:C4	2.88	0.61
36:BC:133:C:C5	36:BC:134:G:H1'	2.36	0.61
36:BC:168:C:N3	36:BC:169:G:C6	2.68	0.61
38:BE:13:A:H3'	38:BE:14:C:C6	2.35	0.61
38:BE:122:G:C6	38:BE:123:A:C5	2.88	0.61
39:BF:62:U:H1'	39:BF:63:U:C2	2.36	0.61
40:BG:31:G:N1	40:BG:174:G:N1	2.49	0.61
54:BU:56:TYR:HB3	54:BU:57:TYR:CE1	2.36	0.61
82:Bw:193:ILE:HG23	82:Bw:198:ASP:HB2	1.82	0.61
85:AA:151:A:H3'	85:AA:152:A:C8	2.36	0.61
85:AA:429:G:C5	85:AA:430:G:H1'	2.35	0.61
85:AA:453:G:H2'	85:AA:454:G:C8	2.35	0.61
85:AA:1090:A:H2'	85:AA:1091:C:C5	2.35	0.61
85:AA:1244:A:C6	85:AA:1245:U:C4	2.88	0.61
85:AA:1462:A:C6	85:AA:1463:A:C6	2.88	0.61
85:AA:1618:G:H3'	85:AA:1619:A:C8	2.36	0.61
85:AA:1731:G:C2	85:AA:1732:G:C5	2.88	0.61
85:AA:2229:G:H3'	85:AA:2230:U:C5	2.36	0.61
29:AV:19:ARG:CZ	85:AA:1190:G:H5''	2.31	0.61
34:BA:740:A:N7	47:BN:10:HIS:CD2	2.69	0.61
34:BA:1310:C:C4	34:BA:1311:G:C5	2.88	0.61
34:BA:1506:C:H2'	34:BA:1507:C:C6	2.36	0.61
34:BA:1553:G:N1	34:BA:1557:G:C6	2.69	0.61
35:BB:81:A:C6	35:BB:82:G:C6	2.87	0.61
35:BB:465:C:H4'	35:BB:466:A:C8	2.35	0.61
35:BB:489:A:C2	35:BB:490:G:C4	2.89	0.61
35:BB:529:A:C4	85:AA:2111:C:O2'	2.53	0.61
35:BB:975:G:N1	35:BB:976:U:C4	2.69	0.61
38:BE:11:A:OP2	69:Bj:71:HIS:CD2	2.52	0.61
40:BG:30:C:H5''	65:Bf:77:ARG:HH12	1.66	0.61
40:BG:160:C:C2	40:BG:161:C:C5	2.88	0.61
41:BH:39:G:H5''	65:Bf:427:ARG:HH21	1.64	0.61
48:BO:46:LEU:HD11	48:BO:112:ARG:HH21	1.66	0.61
71:Bl:47:TYR:CD1	71:Bl:56:LYS:HA	2.34	0.61
85:AA:180:A:C5	85:AA:333:A:OP1	2.54	0.61
85:AA:180:A:C2	85:AA:333:A:C8	2.88	0.61
85:AA:355:G:C5	85:AA:356:U:C5	2.88	0.61
85:AA:402:G:C4	85:AA:404:A:C8	2.88	0.61
85:AA:842:G:H2'	85:AA:843:U:C6	2.35	0.61
85:AA:1018:G:H1	85:AA:1050:C:N4	1.98	0.61
85:AA:1121:U:C4	85:AA:1122:U:C4	2.89	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1171:C:H2'	85:AA:1172:A:C8	2.34	0.61
85:AA:1927:G:H1	85:AA:1984:A:H61	1.48	0.61
85:AA:2080:U:C2	85:AA:2081:A:C8	2.88	0.61
85:AA:2142:A:N1	85:AA:2176:U:C2	2.69	0.61
23:AP:175:VAL:HG11	23:AP:223:ALA:CB	2.31	0.61
34:BA:56:G:C6	36:BC:33:U:O4	2.54	0.61
34:BA:60:A:C5	34:BA:61:G:C5	2.89	0.61
34:BA:273:G:C6	34:BA:274:C:C4	2.89	0.61
34:BA:464:U:C5	51:BR:3:HIS:CD2	2.89	0.61
34:BA:749:G:C6	34:BA:888:G:C4	2.88	0.61
34:BA:1016:A:C5	34:BA:1017:C:C4	2.88	0.61
34:BA:1297:G:C5	49:BP:19:PRO:HD3	2.36	0.61
34:BA:1339:G:H3'	34:BA:1340:G:H5''	1.81	0.61
34:BA:1618:A:C2	34:BA:1632:G:C2	2.89	0.61
35:BB:607:G:H5''	35:BB:607:G:C8	2.35	0.61
35:BB:804:U:C4	35:BB:805:G:C4	2.89	0.61
35:BB:869:G:H2'	35:BB:870:C:C5	2.35	0.61
35:BB:1079:G:C6	35:BB:1080:U:C4	2.89	0.61
35:BB:1081:U:O4	54:BU:3:HIS:CE1	2.54	0.61
40:BG:25:G:H3'	40:BG:25:G:C8	2.36	0.61
40:BG:127:G:N1	40:BG:163:G:N1	2.49	0.61
40:BG:176:G:C5	40:BG:177:U:C5	2.89	0.61
49:BP:29:ASP:HB2	49:BP:37:LEU:HD23	1.81	0.61
57:BX:132:VAL:HG22	57:BX:146:ILE:HG22	1.82	0.61
66:Bg:53:VAL:HG23	66:Bg:76:THR:HG21	1.82	0.61
75:Bp:29:PRO:O	75:Bp:31:VAL:HG12	2.01	0.61
85:AA:26:A:C4	85:AA:27:U:C5	2.89	0.61
85:AA:156:G:C6	85:AA:157:G:C8	2.89	0.61
85:AA:274:A:C2	85:AA:975:G:C5	2.87	0.61
85:AA:659:A:C2	85:AA:660:G:C8	2.88	0.61
85:AA:1209:U:H2'	85:AA:1210:U:C6	2.36	0.61
85:AA:1486:G:C5	85:AA:1487:G:C8	2.88	0.61
85:AA:1648:G:H2'	85:AA:1649:U:C6	2.35	0.61
85:AA:1696:U:H3'	85:AA:1697:C:C6	2.35	0.61
85:AA:1897:A:C2	85:AA:1898:C:C4	2.89	0.61
85:AA:2228:G:H2'	85:AA:2229:G:C8	2.35	0.61
1:A0:101:GLN:O	1:A0:103:HIS:CE1	2.53	0.61
1:A0:140:PHE:HB3	1:A0:215:ARG:HE	1.66	0.61
3:A2:129:PRO:HD3	33:AZ:90:LEU:HD12	1.82	0.61
4:A3:3:LEU:O	4:A3:15:GLN:HA	2.01	0.61
4:A3:60:GLU:N	85:AA:159:G:H4'	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:125:G:C5'	50:BQ:158:ALA:HB2	2.31	0.61
34:BA:248:G:C8	34:BA:437:G:N3	2.68	0.61
34:BA:290:G:C5	34:BA:291:C:C5	2.88	0.61
34:BA:293:A:C5	34:BA:294:C:C4	2.89	0.61
34:BA:485:C:H2'	34:BA:486:G:C8	2.36	0.61
34:BA:501:U:C4	34:BA:1548:A:C8	2.89	0.61
34:BA:739:A:C2	47:BN:11:VAL:HG23	2.36	0.61
34:BA:804:G:O6	34:BA:805:A:C2	2.53	0.61
34:BA:1293:A:C5	34:BA:1454:G:N2	2.69	0.61
34:BA:1321:A:H1'	35:BB:1314:G:H4'	1.83	0.61
34:BA:1637:G:C2	34:BA:1638:U:C2	2.89	0.61
34:BA:1736:A:C6	34:BA:1737:A:C5	2.89	0.61
35:BB:34:G:C6	35:BB:35:G:C5	2.89	0.61
35:BB:1209:A:C6	35:BB:1210:U:C4	2.88	0.61
35:BB:1369:A:H4'	35:BB:1370:G:C8	2.35	0.61
37:BD:22:A:H1'	80:Bu:278:TYR:CZ	2.35	0.61
37:BD:34:C:C5	37:BD:35:C:C5	2.89	0.61
38:BE:106:C:H3'	53:BT:121:ARG:NH2	2.15	0.61
62:Bc:92:LYS:HZ2	82:Bw:18:ALA:C	2.09	0.61
85:AA:108:C:N3	85:AA:369:A:C2	2.69	0.61
85:AA:180:A:H2	85:AA:333:A:C8	2.19	0.61
85:AA:309:G:C6	85:AA:317:A:C6	2.89	0.61
85:AA:356:U:C4	85:AA:357:C:C5	2.88	0.61
85:AA:697:G:H3'	85:AA:698:G:H5''	1.81	0.61
85:AA:737:G:OP1	85:AA:740:A:C8	2.53	0.61
85:AA:739:C:H3'	85:AA:739:C:C6	2.35	0.61
85:AA:2004:U:C3'	85:AA:2005:U:H4'	2.31	0.61
86:AB:11:C:H42	86:AB:24:G:H1	1.49	0.61
34:BA:108:A:C6	34:BA:386:A:C4	2.89	0.61
34:BA:169:C:C2	34:BA:320:G:C6	2.89	0.61
34:BA:194:G:H8	34:BA:195:G:H3'	1.66	0.61
34:BA:342:U:C4	34:BA:348:U:C4	2.88	0.61
34:BA:542:A:C2	34:BA:566:G:C2	2.89	0.61
34:BA:595:U:C5	34:BA:1487:U:H3'	2.35	0.61
34:BA:624:G:H1'	82:Bw:87:HIS:CD2	2.36	0.61
34:BA:720:A:C5	34:BA:724:A:C5	2.89	0.61
34:BA:721:A:C6	35:BB:642:G:C6	2.89	0.61
34:BA:1007:G:C4	34:BA:1024:A:C6	2.89	0.61
34:BA:1435:A:C8	34:BA:1437:G:C8	2.89	0.61
34:BA:1472:G:C2	34:BA:1511:C:C2	2.88	0.61
34:BA:1557:G:C5	34:BA:1558:C:C4	2.89	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1617:U:C6	34:BA:1617:U:H3'	2.36	0.61
35:BB:412:A:C6	35:BB:548:A:C4	2.89	0.61
35:BB:823:G:N1	35:BB:824:C:C2	2.69	0.61
35:BB:834:U:OP2	35:BB:834:U:C6	2.54	0.61
35:BB:837:A:OP2	35:BB:838:G:C6	2.54	0.61
35:BB:1087:A:C6	35:BB:1088:C:C4	2.89	0.61
35:BB:1162:A:C2	35:BB:1201:G:C5	2.89	0.61
35:BB:1299:G:H3'	35:BB:1302:C:H42	1.66	0.61
35:BB:1419:G:C6	35:BB:1420:U:C4	2.89	0.61
37:BD:89:G:C4	37:BD:90:A:C6	2.89	0.61
37:BD:106:G:C6	37:BD:107:G:C6	2.89	0.61
38:BE:64:A:C2	38:BE:140:G:C2	2.89	0.61
38:BE:160:C:N4	53:BT:46:LYS:HB2	2.16	0.61
39:BF:64:U:OP1	39:BF:65:U:C4	2.54	0.61
47:BN:163:VAL:HG22	47:BN:164:GLY:H	1.65	0.61
49:BP:128:PHE:CZ	49:BP:140:HIS:CE1	2.88	0.61
51:BR:82:ARG:HA	51:BR:83:TRP:CZ3	2.35	0.61
58:BY:10:HIS:HB2	58:BY:57:ARG:HB2	1.83	0.61
58:BY:80:VAL:HG22	85:AA:2162:G:O2'	2.01	0.61
84:By:11:PHE:CG	84:By:53:PHE:CD1	2.89	0.61
85:AA:685:U:C4	85:AA:686:U:C4	2.88	0.61
85:AA:738:C:H41	85:AA:759:G:H3'	1.66	0.61
85:AA:813:G:C6	85:AA:865:G:C6	2.88	0.61
85:AA:1530:U:H2'	85:AA:1531:G:C8	2.35	0.61
85:AA:1909:C:H2'	85:AA:2039:G:H4'	1.83	0.61
85:AA:1961:U:H2'	85:AA:1962:U:C6	2.36	0.61
85:AA:2036:A:C4	85:AA:2037:A:C8	2.89	0.61
18:AJ:66:ASN:HD21	18:AJ:68:ARG:HG2	1.66	0.60
23:AP:74:HIS:CD2	23:AP:74:HIS:C	2.79	0.60
34:BA:172:A:C4	34:BA:316:G:C2	2.89	0.60
34:BA:232:U:C5	34:BA:233:U:C5	2.89	0.60
34:BA:442:G:C4	34:BA:467:A:C6	2.89	0.60
34:BA:471:U:H3	36:BC:17:U:H3	1.47	0.60
34:BA:481:A:N1	36:BC:7:U:N3	2.49	0.60
34:BA:744:G:C6	34:BA:745:A:C5	2.89	0.60
34:BA:761:U:C4	34:BA:762:A:C5	2.89	0.60
34:BA:895:U:H3'	47:BN:9:PRO:HB3	1.83	0.60
34:BA:1230:G:C2	34:BA:1231:C:C2	2.89	0.60
34:BA:1321:A:C6	34:BA:1322:A:C5	2.89	0.60
34:BA:1557:G:C4	34:BA:1558:C:C6	2.88	0.60
35:BB:6:A:H2'	35:BB:7:C:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:124:G:C6	35:BB:380:G:C5	2.89	0.60
35:BB:1013:U:C4	35:BB:1014:U:C5	2.89	0.60
35:BB:1307:C:C4	35:BB:1308:G:C5	2.89	0.60
35:BB:1427:A:C6	35:BB:1428:C:C4	2.88	0.60
36:BC:7:U:H3'	36:BC:8:C:C6	2.36	0.60
36:BC:66:G:C5	36:BC:67:U:C5	2.89	0.60
36:BC:119:G:C2	36:BC:120:G:C4	2.89	0.60
38:BE:116:U:H2'	38:BE:117:A:C2	2.36	0.60
40:BG:178:G:C5	40:BG:179:C:C5	2.89	0.60
51:BR:119:VAL:HG13	51:BR:146:VAL:HG22	1.83	0.60
54:BU:135:GLY:HA3	82:Bw:93:GLU:HA	1.82	0.60
85:AA:107:A:C8	85:AA:107:A:OP2	2.54	0.60
85:AA:125:A:C6	85:AA:126:U:C4	2.89	0.60
85:AA:419:A:H3'	85:AA:420:C:C5	2.35	0.60
85:AA:530:A:C6	85:AA:531:G:H1'	2.36	0.60
85:AA:1213:U:H4'	85:AA:1214:C:H5'	1.82	0.60
85:AA:1551:G:H21	85:AA:1573:A:H62	1.47	0.60
85:AA:1696:U:C4	85:AA:1697:C:C4	2.89	0.60
5:A4:3:ALA:HB3	5:A4:30:PHE:HD1	1.66	0.60
17:AI:86:HIS:CG	85:AA:1892:G:H5'	2.37	0.60
34:BA:7:U:H5''	50:BQ:57:ARG:CZ	2.31	0.60
34:BA:8:G:N1	36:BC:163:A:C6	2.69	0.60
34:BA:67:A:H3'	34:BA:68:A:H8	1.66	0.60
34:BA:542:A:N3	34:BA:543:A:C8	2.68	0.60
34:BA:612:U:C4	34:BA:613:A:H1'	2.34	0.60
34:BA:740:A:H5'	47:BN:12:HIS:NE2	2.15	0.60
34:BA:766:A:C2	34:BA:768:G:H3'	2.36	0.60
34:BA:957:A:C6	34:BA:958:G:C6	2.88	0.60
34:BA:1497:A:C2	82:Bw:21:VAL:O	2.54	0.60
34:BA:1702:G:H2'	34:BA:1703:A:C8	2.36	0.60
34:BA:1742:G:C6	34:BA:1743:U:C4	2.89	0.60
35:BB:386:G:C6	35:BB:387:G:C5	2.89	0.60
35:BB:495:A:H2'	35:BB:496:C:C6	2.37	0.60
35:BB:650:A:H2'	35:BB:651:G:C8	2.36	0.60
35:BB:660:G:C2	35:BB:1440:A:C2	2.89	0.60
35:BB:805:G:H1	35:BB:835:C:N4	1.94	0.60
35:BB:1139:A:C6	35:BB:1140:C:C4	2.90	0.60
35:BB:1203:C:H2'	35:BB:1204:C:O4'	2.00	0.60
35:BB:1215:U:H2'	35:BB:1216:G:C8	2.36	0.60
35:BB:1482:A:H2'	35:BB:1483:A:C8	2.36	0.60
36:BC:18:G:C5	36:BC:19:A:C6	2.88	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:161:U:H1'	57:BX:60:TYR:CG	2.36	0.60
38:BE:45:G:C5	38:BE:46:G:C5	2.89	0.60
38:BE:68:U:H2'	38:BE:69:C:H6	1.66	0.60
40:BG:162:A:C2	40:BG:163:G:C4	2.89	0.60
41:BH:26:C:OP2	41:BH:26:C:C5	2.53	0.60
41:BH:60:A:H2'	41:BH:61:C:H4'	1.82	0.60
41:BH:96:G:H3'	55:BV:63:LYS:HE2	1.83	0.60
41:BH:132:C:H5''	51:BR:46:GLN:HE21	1.64	0.60
51:BR:36:ILE:O	51:BR:44:ALA:HB1	2.00	0.60
60:Ba:24:ILE:HA	60:Ba:42:LEU:HD23	1.82	0.60
64:Be:115:ASN:HD21	64:Be:128:ARG:HA	1.66	0.60
65:Bf:340:GLN:HB2	65:Bf:381:MET:SD	2.41	0.60
66:Bg:44:THR:HG22	66:Bg:50:SER:N	2.17	0.60
85:AA:287:G:C5	85:AA:288:G:C5	2.89	0.60
85:AA:428:G:C8	85:AA:428:G:H5''	2.35	0.60
85:AA:442:G:H2'	85:AA:442:G:N3	2.16	0.60
85:AA:522:A:H4'	85:AA:523:U:H3'	1.83	0.60
85:AA:567:G:C2	85:AA:568:C:C2	2.89	0.60
85:AA:609:U:C5	85:AA:610:C:C6	2.89	0.60
85:AA:675:A:H2'	85:AA:676:U:C6	2.36	0.60
85:AA:793:C:H3'	85:AA:794:A:C8	2.36	0.60
85:AA:805:A:O5'	85:AA:806:G:H1'	2.01	0.60
85:AA:911:A:H2'	85:AA:912:C:C6	2.36	0.60
85:AA:2061:C:H42	85:AA:2069:A:N6	1.97	0.60
12:AD:33:TRP:CE3	85:AA:1957:C:C4	2.89	0.60
34:BA:165:C:H1'	34:BA:166:G:C8	2.35	0.60
34:BA:186:G:N1	34:BA:301:U:C2	2.69	0.60
34:BA:230:A:H2'	34:BA:231:U:C6	2.36	0.60
34:BA:329:G:C2	34:BA:382:G:C5	2.89	0.60
34:BA:449:G:C2	34:BA:453:A:C5	2.89	0.60
34:BA:542:A:C2	34:BA:543:A:C8	2.90	0.60
34:BA:543:A:C2	34:BA:564:C:H5	2.14	0.60
34:BA:609:G:C6	34:BA:610:A:N7	2.69	0.60
34:BA:692:U:O2	34:BA:696:A:H1'	2.01	0.60
34:BA:1708:A:C8	34:BA:1709:A:C8	2.89	0.60
35:BB:402:G:C5	35:BB:403:U:C5	2.89	0.60
35:BB:421:U:H4'	64:Be:244:GLY:O	2.01	0.60
35:BB:808:U:C4	35:BB:809:U:C2	2.89	0.60
35:BB:1467:A:N7	35:BB:1468:A:C5	2.69	0.60
35:BB:1510:G:H2'	35:BB:1511:U:C6	2.36	0.60
35:BB:1523:U:C2	35:BB:1524:G:C8	2.90	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:15:G:C5	40:BG:16:G:C8	2.90	0.60
41:BH:39:G:C6	41:BH:40:C:C4	2.88	0.60
41:BH:97:C:O3'	55:BV:63:LYS:C	2.45	0.60
85:AA:102:A:C8	85:AA:103:U:C5	2.90	0.60
85:AA:132:G:C6	85:AA:133:G:C6	2.89	0.60
85:AA:133:G:C2	85:AA:134:U:C2	2.89	0.60
85:AA:146:U:C2	85:AA:333:A:C5	2.88	0.60
85:AA:637:U:H3'	85:AA:638:G:C8	2.36	0.60
85:AA:775:C:H2'	85:AA:776:C:C5	2.36	0.60
85:AA:901:C:H4'	85:AA:902:A:C5'	2.31	0.60
85:AA:1260:G:H2'	85:AA:1261:U:C6	2.36	0.60
85:AA:2113:U:H2'	85:AA:2114:U:C6	2.35	0.60
85:AA:2153:G:C6	85:AA:2154:C:C4	2.89	0.60
5:A4:27:ARG:HA	5:A4:30:PHE:CZ	2.36	0.60
9:A8:23:VAL:H	9:A8:38:ASN:HB3	1.65	0.60
33:AZ:78:ARG:NH2	33:AZ:79:ASN:H	1.99	0.60
34:BA:172:A:N1	34:BA:316:G:C4	2.70	0.60
34:BA:1023:G:C2	35:BB:1267:C:C6	2.89	0.60
34:BA:1129:U:H3'	34:BA:1130:U:C6	2.35	0.60
34:BA:1208:U:H1'	34:BA:1209:A:H3'	1.83	0.60
34:BA:1310:C:C4	34:BA:1311:G:C6	2.89	0.60
34:BA:1334:G:O6	34:BA:1335:A:C5	2.55	0.60
34:BA:1560:U:H2'	34:BA:1561:C:C5	2.37	0.60
34:BA:1633:C:C5'	34:BA:1634:A:H3'	2.30	0.60
34:BA:1652:G:C6	34:BA:1653:G:C5	2.89	0.60
34:BA:1812:C:C4	34:BA:1835:A:C6	2.88	0.60
35:BB:517:G:C2	35:BB:534:C:C2	2.89	0.60
35:BB:561:C:C2	35:BB:564:U:C5	2.89	0.60
35:BB:562:A:H2'	35:BB:563:A:C8	2.36	0.60
35:BB:665:A:C5	35:BB:666:A:N7	2.70	0.60
35:BB:841:U:C2	35:BB:975:G:N1	2.69	0.60
35:BB:968:C:C2	35:BB:969:C:C6	2.90	0.60
35:BB:1003:G:N2	35:BB:1016:C:H1'	2.16	0.60
35:BB:1144:A:N1	35:BB:1145:G:C6	2.69	0.60
35:BB:1222:A:H2'	35:BB:1227:G:H2'	1.82	0.60
37:BD:110:G:C5	37:BD:111:U:C5	2.89	0.60
41:BH:55:C:C2	41:BH:67:G:C2	2.89	0.60
41:BH:129:G:C2'	67:Bh:54:HIS:CE1	2.85	0.60
62:Bc:134:MET:SD	62:Bc:137:HIS:CE1	2.94	0.60
85:AA:671:G:C5	85:AA:672:U:C5	2.89	0.60
85:AA:709:A:C5	85:AA:1112:G:C6	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1189:A:C6	85:AA:1190:G:C5	2.89	0.60
85:AA:1917:G:C2	85:AA:1996:A:N1	2.69	0.60
2:A1:211:SER:H	2:A1:242:LEU:HD22	1.66	0.60
17:AI:40:PHE:CZ	17:AI:93:THR:HG22	2.35	0.60
27:AT:38:CYS:HB3	85:AA:605:A:OP1	2.02	0.60
31:AX:166:PHE:CE2	31:AX:200:LEU:HD21	2.36	0.60
34:BA:98:A:H2'	34:BA:99:G:N3	2.16	0.60
34:BA:234:A:H3'	34:BA:235:C:C5	2.37	0.60
34:BA:542:A:C2	34:BA:566:G:C6	2.90	0.60
34:BA:668:G:C5	34:BA:669:U:C6	2.90	0.60
34:BA:750:C:C2	34:BA:751:A:C8	2.90	0.60
34:BA:943:G:C6	34:BA:944:G:C5	2.89	0.60
34:BA:995:A:H5'	64:Be:183:GLY:HA2	1.84	0.60
34:BA:1209:A:C2	54:BU:127:PRO:HA	2.36	0.60
34:BA:1244:G:C2	35:BB:640:A:C5	2.89	0.60
34:BA:1333:G:N3	34:BA:1409:A:C2	2.69	0.60
34:BA:1576:C:H2'	34:BA:1577:U:C6	2.36	0.60
34:BA:1816:G:H2'	34:BA:1818:A:C4	2.37	0.60
34:BA:1846:G:C5	35:BB:5:A:N6	2.69	0.60
35:BB:624:A:C2	35:BB:625:A:C4	2.90	0.60
35:BB:1125:A:C6	35:BB:1126:A:C5	2.90	0.60
35:BB:1252:G:C4	35:BB:1253:U:C5	2.88	0.60
35:BB:1338:U:C2	35:BB:1339:C:C5	2.89	0.60
35:BB:1399:A:C4	65:Bf:311:TRP:CZ2	2.89	0.60
35:BB:1423:U:C4	35:BB:1424:G:C4	2.90	0.60
36:BC:90:U:C2	36:BC:91:G:C8	2.90	0.60
38:BE:20:C:C2	38:BE:21:C:C5	2.90	0.60
38:BE:23:G:N2	38:BE:197:A:C4	2.70	0.60
38:BE:89:G:C5	38:BE:90:G:C5	2.89	0.60
38:BE:101:C:N3	38:BE:120:C:C2	2.69	0.60
40:BG:17:A:C5	40:BG:18:U:C5	2.89	0.60
40:BG:166:C:H2'	40:BG:167:C:H5''	1.82	0.60
44:BK:43:VAL:HG13	44:BK:195:LEU:O	2.01	0.60
69:Bj:8:TYR:CG	69:Bj:13:HIS:CD2	2.89	0.60
85:AA:323:U:C4	85:AA:324:U:C5	2.89	0.60
85:AA:631:G:H2'	85:AA:633:C:C5	2.37	0.60
85:AA:706:U:H6	85:AA:706:U:O5'	1.85	0.60
85:AA:749:C:C4	85:AA:756:G:C6	2.90	0.60
85:AA:801:U:C5	85:AA:802:A:C4	2.89	0.60
85:AA:877:G:C6	85:AA:878:U:C2	2.90	0.60
85:AA:903:G:H2'	85:AA:904:U:H6	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2059:A:C4	85:AA:2072:G:C2	2.89	0.60
12:AD:33:TRP:CD2	85:AA:1957:C:C5	2.90	0.60
15:AG:98:MET:SD	15:AG:115:LEU:HG	2.41	0.60
34:BA:257:G:H1	34:BA:274:C:H42	1.47	0.60
34:BA:452:A:C5	34:BA:453:A:H1'	2.37	0.60
34:BA:556:A:C8	34:BA:557:U:C6	2.89	0.60
34:BA:563:A:C2	34:BA:564:C:N1	2.70	0.60
34:BA:621:G:C2	34:BA:662:U:C2	2.90	0.60
34:BA:958:G:C4	34:BA:960:C:C5	2.89	0.60
34:BA:1046:G:C6	34:BA:1522:G:C6	2.90	0.60
34:BA:1813:C:H2'	34:BA:1814:U:C6	2.36	0.60
35:BB:364:U:C6	35:BB:365:U:C5	2.89	0.60
35:BB:679:G:C6	35:BB:680:A:C5	2.89	0.60
35:BB:735:A:C6	35:BB:755:A:C6	2.89	0.60
35:BB:801:G:C6	35:BB:802:G:C5	2.90	0.60
35:BB:854:G:C2	35:BB:855:G:C4	2.89	0.60
35:BB:1058:U:C2	35:BB:1059:U:C5	2.89	0.60
35:BB:1427:A:C5	35:BB:1428:C:C4	2.90	0.60
35:BB:1516:C:C2	35:BB:1517:G:C5	2.89	0.60
36:BC:44:A:C4	36:BC:45:C:C5	2.89	0.60
37:BD:9:C:H3'	37:BD:10:C:H6	1.67	0.60
39:BF:22:U:OP2	39:BF:22:U:C6	2.55	0.60
41:BH:68:G:C5	41:BH:69:C:C5	2.89	0.60
62:Bc:63:THR:HB	62:Bc:80:THR:HB	1.83	0.60
65:Bf:76:ILE:HA	65:Bf:330:HIS:CE1	2.37	0.60
72:Bm:42:HIS:CD2	72:Bm:44:LYS:HB3	2.36	0.60
85:AA:51:A:H2'	85:AA:52:U:C5'	2.29	0.60
85:AA:338:G:C6	85:AA:352:G:C6	2.89	0.60
85:AA:636:G:C2	85:AA:637:U:C2	2.90	0.60
85:AA:722:G:C6	85:AA:723:U:C2	2.90	0.60
85:AA:1105:G:H2'	85:AA:1106:A:N3	2.17	0.60
85:AA:1119:A:N1	85:AA:1206:A:N1	2.49	0.60
85:AA:1373:U:H5'	85:AA:1373:U:H6	1.67	0.60
85:AA:1564:U:H2'	85:AA:1565:G:C8	2.36	0.60
85:AA:2022:A:C8	85:AA:2026:U:OP2	2.55	0.60
85:AA:2173:A:C2	85:AA:2174:G:H1'	2.36	0.60
85:AA:2237:G:H2'	85:AA:2238:C:H6	1.65	0.60
1:A0:228:GLN:CD	83:Bx:275:ALA:HB3	2.15	0.60
3:A2:12:TRP:CE2	3:A2:94:PRO:HD2	2.36	0.60
7:A6:158:ALA:HB3	7:A6:161:SER:HB2	1.83	0.60
8:A7:23:GLN:HE22	8:A7:247:PRO:HG3	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AH:64:PRO:HA	16:AH:104:GLY:HA2	1.84	0.60
23:AP:123:VAL:C	23:AP:142:ALA:HA	2.26	0.60
27:AT:10:VAL:HG21	27:AT:37:TRP:CG	2.36	0.60
34:BA:417:A:C8	34:BA:419:U:C2	2.89	0.60
34:BA:557:U:H4'	34:BA:557:U:O2'	1.99	0.60
34:BA:856:G:C4	34:BA:857:C:C6	2.89	0.60
34:BA:859:G:C6	34:BA:860:G:C8	2.90	0.60
34:BA:1197:U:H5''	63:Bd:57:LYS:HE3	1.83	0.60
34:BA:1300:G:C6	34:BA:1440:C:C4	2.90	0.60
34:BA:1396:A:C5	34:BA:1397:C:C6	2.90	0.60
34:BA:1437:G:C6	34:BA:1438:C:C4	2.90	0.60
34:BA:1816:G:C2	34:BA:1827:C:C2	2.89	0.60
35:BB:109:U:H2'	35:BB:111:C:C4	2.36	0.60
35:BB:390:G:C6	35:BB:391:G:C5	2.89	0.60
35:BB:699:U:C6	35:BB:1044:U:O4	2.55	0.60
35:BB:1508:G:C4	35:BB:1509:G:C8	2.90	0.60
36:BC:75:G:C4	36:BC:76:C:C5	2.89	0.60
38:BE:13:A:C2	38:BE:14:C:C6	2.89	0.60
38:BE:50:G:C6	38:BE:51:C:C5	2.89	0.60
41:BH:34:G:C6	41:BH:121:A:C2	2.90	0.60
41:BH:43:G:C2	41:BH:44:A:C4	2.89	0.60
41:BH:63:G:H5''	41:BH:63:G:C8	2.37	0.60
42:BI:72:ARG:HG2	63:Bd:62:ARG:NH2	2.16	0.60
42:BI:91:GLY:HA2	42:BI:110:LEU:HD12	1.83	0.60
58:BY:83:GLU:OE1	85:AA:2160:U:O5'	2.19	0.60
65:Bf:437:TRP:CD1	65:Bf:438:TYR:CE1	2.90	0.60
79:Bt:11:HIS:HA	79:Bt:20:HIS:HA	1.83	0.60
85:AA:23:G:C6	85:AA:24:U:C4	2.89	0.60
85:AA:280:U:C2	85:AA:290:G:C2	2.90	0.60
85:AA:293:A:H4'	85:AA:294:G:OP2	2.02	0.60
85:AA:464:A:C4	85:AA:466:A:H1'	2.36	0.60
85:AA:629:A:C6	85:AA:630:A:C2	2.90	0.60
85:AA:813:G:C2	85:AA:814:G:C8	2.90	0.60
85:AA:844:C:C2	85:AA:847:G:C6	2.89	0.60
85:AA:866:U:H2'	85:AA:867:G:C8	2.35	0.60
85:AA:1004:G:C6	85:AA:1005:C:C5	2.90	0.60
85:AA:1115:G:C2'	85:AA:1116:G:H5'	2.31	0.60
85:AA:1121:U:C5	85:AA:1122:U:C5	2.89	0.60
85:AA:1230:U:H2'	85:AA:1231:G:C8	2.36	0.60
85:AA:1867:G:C6	85:AA:1868:G:C5	2.89	0.60
2:A1:122:LYS:HB2	2:A1:139:HIS:CG	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:13:U:N3	36:BC:154:A:C6	2.70	0.60
34:BA:201:A:H2	34:BA:272:A:N1	1.99	0.60
34:BA:267:G:C2	34:BA:276:C:C2	2.89	0.60
34:BA:603:U:C6	34:BA:1492:G:C6	2.89	0.60
34:BA:812:A:C5	34:BA:813:C:C4	2.89	0.60
34:BA:1184:A:C8	34:BA:1185:U:C5	2.89	0.60
34:BA:1296:U:OP2	34:BA:1296:U:C5	2.55	0.60
34:BA:1662:U:C5	35:BB:18:A:N1	2.69	0.60
35:BB:82:G:C6	35:BB:83:G:C4	2.89	0.60
35:BB:376:A:N1	35:BB:377:A:C5	2.69	0.60
35:BB:605:C:H3'	35:BB:606:C:H2'	1.82	0.60
35:BB:1490:G:C6	35:BB:1491:G:C5	2.89	0.60
37:BD:51:G:H5''	37:BD:51:G:C8	2.37	0.60
38:BE:131:C:H2'	38:BE:132:U:C6	2.35	0.60
38:BE:161:G:H3'	38:BE:162:U:H6	1.66	0.60
38:BE:196:C:H2'	38:BE:197:A:C8	2.36	0.60
39:BF:26:U:H2'	39:BF:27:G:C5	2.36	0.60
40:BG:181:C:C2'	40:BG:182:G:C8	2.85	0.60
85:AA:187:C:H2'	85:AA:252:G:H21	1.66	0.60
85:AA:698:G:H1'	85:AA:1276:A:C2	2.36	0.60
85:AA:1466:U:H2'	85:AA:1467:U:H5''	1.84	0.60
85:AA:2174:G:C5	85:AA:2175:U:C5	2.89	0.60
86:AB:7:A:C2	86:AB:49:C:C2	2.89	0.60
4:A3:39:GLY:O	4:A3:46:PHE:HB2	2.02	0.60
34:BA:92:G:C5	34:BA:93:A:C6	2.90	0.60
34:BA:583:G:H2'	34:BA:584:A:C8	2.37	0.60
34:BA:923:C:C2	34:BA:924:U:C5	2.89	0.60
34:BA:1057:C:H4'	61:Bb:39:HIS:CD2	2.37	0.60
34:BA:1070:G:C2	34:BA:1224:A:C2	2.90	0.60
34:BA:1671:A:C5	34:BA:1672:C:C6	2.90	0.60
34:BA:1738:G:C2	34:BA:1739:G:C4	2.90	0.60
34:BA:1788:U:C5	34:BA:1789:A:C5	2.90	0.60
35:BB:3:C:H42	35:BB:5:A:N6	1.98	0.60
35:BB:28:G:C2	35:BB:34:G:C5	2.90	0.60
35:BB:694:C:H4'	64:Be:228:HIS:CE1	2.36	0.60
35:BB:1306:G:C2	35:BB:1307:C:H1'	2.37	0.60
35:BB:1399:A:C5	65:Bf:311:TRP:CZ2	2.89	0.60
35:BB:1489:A:C6	49:BP:158:PRO:HG3	2.37	0.60
37:BD:54:A:C5	37:BD:55:A:C8	2.90	0.60
38:BE:35:A:C5	38:BE:36:U:C4	2.90	0.60
40:BG:76:C:C5	40:BG:118:U:C4	2.90	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BH:52:G:C5	41:BH:53:C:C5	2.90	0.60
62:Bc:19:LEU:HD21	62:Bc:26:ARG:HB3	1.84	0.60
71:Bl:79:ARG:HA	71:Bl:110:GLY:O	2.01	0.60
83:Bx:45:LYS:HB2	83:Bx:47:PHE:CZ	2.36	0.60
85:AA:435:A:C8	85:AA:436:G:C8	2.90	0.60
85:AA:1114:A:C2	85:AA:1213:U:H1'	2.37	0.60
85:AA:1125:G:C6	85:AA:1193:A:C5	2.90	0.60
85:AA:1153:G:O6	85:AA:1155:A:C4	2.54	0.60
1:A0:113:TYR:CE2	1:A0:116:LEU:HD13	2.37	0.60
34:BA:13:U:O2	36:BC:154:A:C2	2.55	0.60
34:BA:57:A:C4	34:BA:58:A:C8	2.90	0.60
34:BA:73:G:C5	47:BN:106:ARG:HA	2.36	0.60
34:BA:125:G:C6	34:BA:126:G:C5	2.89	0.60
34:BA:343:G:C6	34:BA:344:G:C5	2.90	0.60
34:BA:362:G:C5	72:Bm:38:TYR:CD2	2.89	0.60
34:BA:438:A:C2	34:BA:439:A:C5	2.90	0.60
34:BA:680:C:H3'	34:BA:680:C:OP2	2.02	0.60
34:BA:739:A:H4'	47:BN:13:GLN:CD	2.26	0.60
34:BA:1249:G:C6	34:BA:1250:C:C4	2.90	0.60
34:BA:1616:A:H5'	34:BA:1634:A:N1	2.17	0.60
35:BB:72:G:C6	35:BB:73:G:C5	2.89	0.60
35:BB:707:G:C5	35:BB:708:C:C5	2.90	0.60
35:BB:853:U:C3'	69:Bj:122:ALA:CB	2.68	0.60
35:BB:1233:U:C2	35:BB:1234:G:C8	2.89	0.60
35:BB:1465:U:H3'	35:BB:1466:A:H8	1.66	0.60
36:BC:26:U:H2'	36:BC:27:U:C5	2.36	0.60
36:BC:40:A:C6	36:BC:41:A:C6	2.90	0.60
37:BD:7:G:C6	37:BD:113:G:C6	2.90	0.60
37:BD:72:U:C5	37:BD:73:U:O4	2.55	0.60
37:BD:89:G:C4	37:BD:90:A:C5	2.89	0.60
38:BE:73:A:C2	38:BE:74:U:C5	2.89	0.60
85:AA:162:A:O2'	85:AA:164:G:H5'	2.02	0.60
85:AA:185:A:H3'	85:AA:185:A:C8	2.37	0.60
85:AA:363:A:C8	85:AA:363:A:H5''	2.37	0.60
85:AA:1287:C:H41	85:AA:1468:G:H4'	1.66	0.60
85:AA:1484:G:H2'	85:AA:1485:G:C8	2.36	0.60
85:AA:1515:A:C2	85:AA:1516:A:C4	2.89	0.60
85:AA:1524:A:H2'	85:AA:1525:C:C6	2.37	0.60
85:AA:1728:G:H2'	85:AA:1729:C:C5	2.35	0.60
85:AA:1867:G:C4	85:AA:1868:G:C8	2.90	0.60
85:AA:1984:A:C6	85:AA:1985:C:C5	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A0:133:ASP:CG	1:A0:183:ILE:HG23	2.26	0.59
16:AH:23:VAL:HG22	16:AH:25:HIS:CD2	2.37	0.59
21:AM:83:TRP:CZ3	21:AM:84:PHE:HB3	2.37	0.59
34:BA:114:U:C2	34:BA:327:G:H2'	2.37	0.59
34:BA:167:U:C2	34:BA:168:U:C6	2.89	0.59
34:BA:226:A:H3'	34:BA:227:C:H5''	1.83	0.59
34:BA:245:U:H2'	34:BA:246:G:C8	2.37	0.59
34:BA:401:A:C4	34:BA:402:G:C8	2.90	0.59
34:BA:498:A:C2	34:BA:499:C:C2	2.90	0.59
34:BA:520:G:C5	34:BA:521:C:H1'	2.37	0.59
34:BA:593:G:C6	34:BA:594:G:C6	2.90	0.59
34:BA:715:U:H2'	34:BA:716:C:C5	2.37	0.59
34:BA:955:G:C6	34:BA:956:G:C5	2.90	0.59
34:BA:1177:C:H2'	34:BA:1178:U:C6	2.37	0.59
34:BA:1656:A:C2	34:BA:1657:A:C4	2.90	0.59
34:BA:1667:G:H3'	34:BA:1668:C:C6	2.37	0.59
34:BA:1719:G:C4	34:BA:1720:U:C6	2.90	0.59
34:BA:1846:G:H1'	35:BB:5:A:H2	1.66	0.59
35:BB:128:C:C2	35:BB:376:A:C2	2.90	0.59
35:BB:458:U:C4	35:BB:459:U:C5	2.90	0.59
35:BB:551:C:C5	35:BB:575:C:C6	2.90	0.59
35:BB:569:G:C6	35:BB:570:A:C5	2.90	0.59
35:BB:1003:G:N2	35:BB:1016:C:C2	2.70	0.59
35:BB:1027:U:C5	35:BB:1028:C:C5	2.90	0.59
35:BB:1209:A:C5	35:BB:1210:U:C4	2.89	0.59
35:BB:1212:C:H2'	35:BB:1213:U:C5	2.36	0.59
35:BB:1372:G:C6	35:BB:1373:U:C4	2.89	0.59
35:BB:1427:A:C5	35:BB:1428:C:C5	2.89	0.59
35:BB:1427:A:C4	35:BB:1428:C:C5	2.90	0.59
40:BG:69:G:C2	40:BG:70:C:C2	2.89	0.59
42:BI:72:ARG:HG3	63:Bd:62:ARG:NH1	2.16	0.59
48:BO:168:TYR:CG	65:Bf:147:PRO:HA	2.36	0.59
57:BX:127:VAL:HG12	57:BX:152:TYR:CD1	2.37	0.59
69:Bj:57:THR:HG23	69:Bj:73:LYS:HA	1.83	0.59
82:Bw:2:PHE:CD2	82:Bw:22:PRO:CD	2.85	0.59
82:Bw:156:LEU:HD23	82:Bw:204:TYR:CD2	2.37	0.59
85:AA:378:A:C6	85:AA:381:A:N7	2.70	0.59
85:AA:783:C:H2'	85:AA:784:C:H6	1.67	0.59
85:AA:1690:A:C2	85:AA:1692:U:H5'	2.37	0.59
86:AB:5:G:C6	86:AB:6:G:C5	2.89	0.59
4:A3:143:LYS:HA	4:A3:146:LYS:HE2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:9:LYS:NZ	53:BT:188:ALA:HB1	2.16	0.59
5:A4:141:VAL:HG11	5:A4:191:MET:HG2	1.84	0.59
12:AD:99:LYS:HZ3	12:AD:102:HIS:CE1	2.21	0.59
15:AG:140:LYS:HZ3	34:BA:946:A:H5'	1.68	0.59
23:AP:189:VAL:HG11	23:AP:208:THR:O	2.02	0.59
34:BA:390:A:H2'	34:BA:391:U:C6	2.36	0.59
34:BA:439:A:C2	34:BA:441:A:C4	2.90	0.59
34:BA:678:C:C6	34:BA:679:U:C5	2.90	0.59
34:BA:986:G:H2'	34:BA:987:C:C6	2.37	0.59
34:BA:1196:C:C2	34:BA:1197:U:C5	2.90	0.59
34:BA:1209:A:H2'	34:BA:1210:A:H8	1.66	0.59
34:BA:1469:G:C6	34:BA:1513:G:C6	2.91	0.59
34:BA:1563:G:C6	34:BA:1565:U:C4	2.90	0.59
34:BA:1618:A:C4	34:BA:1632:G:C6	2.89	0.59
34:BA:1642:A:H4'	67:Bh:133:THR:HG23	1.83	0.59
34:BA:1723:U:O2	34:BA:1799:G:C6	2.55	0.59
35:BB:130:G:C6	35:BB:374:A:C6	2.90	0.59
35:BB:462:G:C5	35:BB:463:C:C5	2.91	0.59
35:BB:472:C:C2	35:BB:506:G:C2	2.90	0.59
35:BB:524:C:H41	85:AA:2114:U:H5'	1.65	0.59
35:BB:647:U:C2	35:BB:648:G:C8	2.90	0.59
35:BB:658:G:C6	35:BB:659:C:C2	2.91	0.59
35:BB:679:G:C2	35:BB:680:A:C4	2.90	0.59
35:BB:702:G:N7	35:BB:1039:A:H2'	2.17	0.59
35:BB:808:U:C5	35:BB:809:U:C6	2.91	0.59
35:BB:1075:A:H1'	35:BB:1256:C:C2	2.37	0.59
35:BB:1077:C:C2	35:BB:1096:G:C2	2.90	0.59
35:BB:1353:G:C2	35:BB:1365:G:C4	2.91	0.59
36:BC:43:A:C2	36:BC:101:U:H1'	2.37	0.59
36:BC:75:G:C5	36:BC:76:C:C4	2.90	0.59
38:BE:128:G:C2	38:BE:129:G:C5	2.90	0.59
41:BH:15:A:C4	41:BH:16:A:C8	2.91	0.59
41:BH:40:C:C4	41:BH:41:A:C5	2.90	0.59
54:BU:75:ILE:HA	54:BU:87:LYS:O	2.02	0.59
65:Bf:107:ILE:HG21	65:Bf:127:VAL:HG13	1.84	0.59
79:Bt:23:PHE:CZ	79:Bt:74:CYS:HB2	2.37	0.59
80:Bu:49:TYR:CE1	80:Bu:66:HIS:CG	2.91	0.59
80:Bu:186:PHE:CE1	80:Bu:201:HIS:CE1	2.90	0.59
85:AA:466:A:N1	85:AA:469:G:N7	2.50	0.59
85:AA:499:G:C2	85:AA:501:A:C8	2.90	0.59
85:AA:808:A:C6	85:AA:809:A:C8	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1254:A:C5	85:AA:1255:C:C5	2.90	0.59
85:AA:1696:U:H3'	85:AA:1697:C:H6	1.66	0.59
85:AA:1928:A:C5'	85:AA:1959:G:H1'	2.32	0.59
85:AA:2237:G:C6	85:AA:2238:C:C4	2.91	0.59
6:A5:45:PRO:HB2	6:A5:53:PHE:CE1	2.38	0.59
6:A5:130:THR:HG21	6:A5:158:LEU:HD13	1.83	0.59
15:AG:29:SER:O	15:AG:33:VAL:HG13	2.02	0.59
34:BA:147:U:C5	34:BA:148:G:N7	2.70	0.59
34:BA:732:A:C4	34:BA:733:G:C8	2.90	0.59
34:BA:1073:G:C2	34:BA:1221:A:C4	2.90	0.59
34:BA:1234:U:C5	34:BA:1235:C:C5	2.89	0.59
34:BA:1470:G:C2	34:BA:1472:G:C4	2.91	0.59
34:BA:1641:G:H2'	34:BA:1642:A:C8	2.36	0.59
34:BA:1682:A:C6	34:BA:1683:C:C4	2.90	0.59
34:BA:1820:G:C6	34:BA:1821:A:C6	2.90	0.59
35:BB:376:A:C6	35:BB:377:A:C5	2.91	0.59
35:BB:392:G:C2	35:BB:597:C:C2	2.91	0.59
35:BB:467:G:C6	35:BB:468:U:C4	2.91	0.59
35:BB:773:G:C6	35:BB:774:C:C4	2.90	0.59
35:BB:814:A:C2	35:BB:815:G:C4	2.90	0.59
35:BB:997:G:C5	35:BB:998:G:C8	2.90	0.59
35:BB:1484:A:H2'	35:BB:1485:G:O4'	2.01	0.59
35:BB:1490:G:C5	35:BB:1491:G:C8	2.91	0.59
36:BC:36:G:C5	70:Bk:93:HIS:NE2	2.71	0.59
37:BD:3:G:C6	37:BD:4:U:C4	2.90	0.59
38:BE:101:C:C2	38:BE:117:A:N1	2.70	0.59
40:BG:77:U:C5	40:BG:78:C:C6	2.90	0.59
41:BH:101:A:H2'	41:BH:102:C:H5'	1.84	0.59
41:BH:125:U:H4'	67:Bh:184:LYS:HE2	1.84	0.59
41:BH:131:A:C2	41:BH:132:C:H1'	2.38	0.59
62:Bc:109:ARG:O	62:Bc:113:MET:HG2	2.02	0.59
77:Br:265:PHE:HA	77:Br:277:LEU:O	2.02	0.59
85:AA:989:U:C4'	85:AA:991:G:C8	2.85	0.59
85:AA:1286:C:C2	85:AA:1472:G:C2	2.89	0.59
85:AA:1430:A:C6	85:AA:1431:U:C2	2.89	0.59
85:AA:1887:G:C6	85:AA:1888:U:C4	2.90	0.59
85:AA:2105:G:C5	85:AA:2106:C:C5	2.90	0.59
1:A0:199:LEU:CD2	1:A0:212:LEU:HD21	2.32	0.59
2:A1:54:ASN:HB3	2:A1:56:LEU:H	1.67	0.59
25:AR:74:ASN:O	25:AR:78:ILE:HG23	2.02	0.59
30:AW:14:ARG:HH12	85:AA:1363:U:H4'	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AY:60:GLN:HG2	85:AA:632:U:C5	2.38	0.59
34:BA:23:A:C5	34:BA:24:C:C5	2.90	0.59
34:BA:86:A:C5	34:BA:87:G:C8	2.90	0.59
34:BA:88:C:C2	34:BA:89:G:C8	2.90	0.59
34:BA:234:A:H3'	34:BA:235:C:C6	2.38	0.59
34:BA:316:G:H1'	34:BA:317:U:C5	2.38	0.59
34:BA:575:U:H4'	34:BA:576:C:OP2	2.03	0.59
34:BA:631:G:N2	34:BA:651:U:H1'	2.17	0.59
34:BA:946:A:OP2	34:BA:946:A:C8	2.56	0.59
34:BA:1009:G:C5	34:BA:1010:C:C4	2.90	0.59
34:BA:1173:C:C2	34:BA:1202:G:C2	2.91	0.59
34:BA:1203:G:C6	34:BA:1204:U:C4	2.90	0.59
34:BA:1243:A:C8	34:BA:1245:C:C6	2.89	0.59
34:BA:1327:G:C5	34:BA:1328:U:C5	2.89	0.59
34:BA:1627:U:C2	34:BA:1628:A:C8	2.90	0.59
34:BA:1706:A:H1'	34:BA:1800:G:C2	2.36	0.59
34:BA:1808:A:C5	34:BA:1809:G:C8	2.91	0.59
35:BB:83:G:H1	35:BB:604:C:H42	1.49	0.59
35:BB:697:G:H2'	35:BB:698:C:C6	2.37	0.59
35:BB:824:C:H2'	35:BB:825:U:H5'	1.83	0.59
35:BB:1003:G:C2	35:BB:1016:C:C2	2.89	0.59
35:BB:1092:G:C5	35:BB:1093:C:C5	2.90	0.59
35:BB:1147:G:C2	35:BB:1148:U:C2	2.90	0.59
35:BB:1165:A:C5	35:BB:1167:C:C4	2.91	0.59
35:BB:1405:G:C6	65:Bf:306:ALA:HB1	2.38	0.59
35:BB:1443:C:C4	35:BB:1444:U:C4	2.90	0.59
35:BB:1507:U:C5'	49:BP:171:ARG:HE	2.16	0.59
37:BD:54:A:C6	37:BD:55:A:C5	2.90	0.59
37:BD:66:G:C6	37:BD:67:C:C4	2.91	0.59
37:BD:68:C:C2	37:BD:108:G:C2	2.91	0.59
38:BE:91:G:C2	38:BE:92:C:C5	2.90	0.59
38:BE:109:C:H3'	53:BT:103:ARG:HH21	1.66	0.59
40:BG:74:G:C2	40:BG:124:A:C4	2.91	0.59
49:BP:153:LYS:O	49:BP:160:ALA:HB3	2.01	0.59
64:Be:109:GLU:CD	64:Be:138:SER:HA	2.27	0.59
75:Bp:9:LYS:HZ3	75:Bp:10:GLU:CD	2.10	0.59
82:Bw:189:HIS:CD2	82:Bw:189:HIS:C	2.80	0.59
85:AA:163:C:H42	85:AA:486:G:H5''	1.68	0.59
85:AA:268:A:H3'	85:AA:268:A:C8	2.37	0.59
85:AA:474:C:C2	85:AA:475:A:C8	2.90	0.59
85:AA:514:U:H2'	85:AA:515:C:C6	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:577:U:H2'	85:AA:578:U:H5''	1.83	0.59
85:AA:709:A:C6	85:AA:1112:G:C5	2.90	0.59
85:AA:941:C:H4'	85:AA:942:A:OP1	2.03	0.59
85:AA:993:G:C2	85:AA:994:A:C4	2.90	0.59
85:AA:1111:A:C6	85:AA:1212:C:C5	2.90	0.59
85:AA:1114:A:C2	85:AA:1214:C:C5	2.90	0.59
85:AA:1523:G:C6	85:AA:1524:A:C6	2.90	0.59
85:AA:1908:A:H2'	85:AA:1909:C:C6	2.38	0.59
85:AA:2083:G:C5	85:AA:2084:U:C4	2.90	0.59
1:A0:32:VAL:HG13	1:A0:43:PHE:CZ	2.38	0.59
11:AC:139:PHE:CE2	11:AC:141:PRO:HA	2.37	0.59
15:AG:113:PHE:CZ	85:AA:1188:A:C6	2.91	0.59
34:BA:44:U:C4	34:BA:45:A:C6	2.91	0.59
34:BA:395:G:N2	36:BC:34:U:H5	2.00	0.59
34:BA:543:A:H2	34:BA:544:U:C2	2.20	0.59
34:BA:632:U:C4	34:BA:633:G:N7	2.70	0.59
34:BA:747:G:C6	34:BA:748:C:C4	2.90	0.59
34:BA:908:G:C6	34:BA:909:G:C5	2.90	0.59
34:BA:1124:U:H6	34:BA:1124:U:H5''	1.67	0.59
34:BA:1293:A:C6	34:BA:1454:G:C2	2.90	0.59
34:BA:1305:A:C4	34:BA:1310:C:H1'	2.37	0.59
34:BA:1603:A:C4	35:BB:33:A:C2	2.90	0.59
34:BA:1649:A:N7	35:BB:49:A:C2	2.71	0.59
34:BA:1820:G:C5	34:BA:1821:A:C6	2.91	0.59
35:BB:97:U:H3'	35:BB:98:A:C5	2.37	0.59
35:BB:131:A:C6	35:BB:132:G:C5	2.90	0.59
35:BB:851:U:O2'	35:BB:853:U:H5''	2.03	0.59
35:BB:1019:C:C2	35:BB:1020:U:C6	2.91	0.59
35:BB:1514:G:C6	35:BB:1515:C:C4	2.89	0.59
37:BD:95:G:C2	37:BD:96:C:C5	2.90	0.59
38:BE:23:G:C6	38:BE:25:U:C4	2.91	0.59
41:BH:29:G:C5	41:BH:30:C:C6	2.91	0.59
71:Bl:81:CYS:SG	71:Bl:141:ARG:HB2	2.42	0.59
82:Bw:235:HIS:CD2	82:Bw:236:PHE:H	2.21	0.59
85:AA:33:U:C4	85:AA:538:A:C5	2.90	0.59
85:AA:595:A:C2	85:AA:596:A:H1'	2.38	0.59
85:AA:687:G:OP2	85:AA:1476:C:C6	2.55	0.59
85:AA:1066:U:H3	85:AA:1087:G:H1	1.51	0.59
85:AA:1527:G:C5	85:AA:2219:G:C5	2.90	0.59
85:AA:1535:C:H5	85:AA:2049:U:C6	2.21	0.59
85:AA:1660:U:C2	85:AA:1864:G:C2	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2143:U:H2'	85:AA:2144:C:O4'	2.02	0.59
5:A4:27:ARG:HA	5:A4:30:PHE:CE2	2.37	0.59
17:AI:122:TYR:CE2	17:AI:124:GLY:HA3	2.37	0.59
20:AL:26:LYS:O	20:AL:55:THR:HG23	2.02	0.59
22:AO:39:PHE:HB2	22:AO:71:TYR:CD1	2.38	0.59
23:AP:123:VAL:HG21	23:AP:225:PHE:CD1	2.36	0.59
34:BA:67:A:H3'	34:BA:68:A:C8	2.38	0.59
34:BA:148:G:C2	34:BA:149:G:C8	2.90	0.59
34:BA:172:A:C2	34:BA:173:U:C2	2.90	0.59
34:BA:339:G:C5	34:BA:340:U:C4	2.90	0.59
34:BA:430:A:H2'	34:BA:431:A:C8	2.38	0.59
34:BA:547:C:O2'	34:BA:548:G:C8	2.56	0.59
34:BA:658:C:H2'	34:BA:660:C:C6	2.37	0.59
34:BA:704:G:C2	34:BA:705:C:C2	2.90	0.59
34:BA:838:U:C4	34:BA:839:U:H1'	2.38	0.59
34:BA:1125:G:C2	34:BA:1136:A:C2	2.91	0.59
34:BA:1275:G:N1	34:BA:1276:G:C4	2.71	0.59
34:BA:1550:G:C2	34:BA:1560:U:C2	2.91	0.59
35:BB:469:G:C5	35:BB:470:C:C4	2.91	0.59
35:BB:1120:A:H4'	45:BL:110:GLY:C	2.28	0.59
35:BB:1165:A:N1	35:BB:1186:A:C2	2.70	0.59
35:BB:1457:A:C2	35:BB:1458:U:O4	2.56	0.59
36:BC:102:G:C6	36:BC:104:A:N1	2.70	0.59
37:BD:79:G:C2	37:BD:98:G:C4	2.90	0.59
38:BE:64:A:C2	38:BE:140:G:C4	2.91	0.59
38:BE:181:U:O5'	38:BE:181:U:H6	1.85	0.59
40:BG:114:A:C5	40:BG:115:C:C6	2.90	0.59
41:BH:10:U:C4	41:BH:20:A:N1	2.71	0.59
41:BH:39:G:C6	41:BH:113:G:O6	2.55	0.59
50:BQ:167:TRP:CE2	50:BQ:168:ILE:HG13	2.37	0.59
56:BW:89:ARG:HE	56:BW:93:THR:CG2	2.16	0.59
57:BX:130:VAL:HG11	57:BX:147:ARG:HH11	1.68	0.59
85:AA:25:C:H4'	85:AA:26:A:H5''	1.85	0.59
85:AA:181:A:C3'	85:AA:182:C:H5'	2.32	0.59
85:AA:430:G:N2	85:AA:442:G:H1'	2.18	0.59
85:AA:572:G:C6	85:AA:573:U:C4	2.90	0.59
85:AA:763:U:C4	85:AA:764:U:C2	2.90	0.59
85:AA:979:U:C5	85:AA:980:U:C4	2.91	0.59
85:AA:1490:A:C2	85:AA:1491:G:H1'	2.36	0.59
85:AA:1671:G:C2	85:AA:1699:A:C5	2.90	0.59
85:AA:1762:G:H2'	85:AA:1763:G:C8	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1955:U:O2	85:AA:1958:C:C5	2.56	0.59
85:AA:1962:U:H3	85:AA:1975:G:H1	1.50	0.59
85:AA:2140:U:C4	85:AA:2141:G:C5	2.91	0.59
85:AA:2215:C:C5	85:AA:2218:G:C4	2.90	0.59
86:AB:31:A:C6	86:AB:32:U:C5	2.90	0.59
7:A6:18:PHE:HB2	85:AA:628:C:H4'	1.85	0.59
34:BA:86:A:H3'	34:BA:86:A:OP1	2.03	0.59
34:BA:138:C:C2	34:BA:139:U:C5	2.90	0.59
34:BA:149:G:C2	34:BA:150:C:C2	2.90	0.59
34:BA:208:A:O3'	34:BA:209:A:C8	2.56	0.59
34:BA:792:A:C2	34:BA:793:A:C4	2.91	0.59
34:BA:912:G:C6	34:BA:913:U:C4	2.91	0.59
34:BA:919:A:C5	34:BA:920:U:C4	2.90	0.59
34:BA:1285:G:C2	34:BA:1456:C:C2	2.91	0.59
34:BA:1295:U:H3	34:BA:1442:A:H61	1.51	0.59
34:BA:1522:G:C5	34:BA:1523:U:C5	2.91	0.59
34:BA:1529:G:C6	34:BA:1578:A:C6	2.90	0.59
34:BA:1593:U:H3	35:BB:627:G:H1	1.49	0.59
34:BA:1797:A:OP1	34:BA:1797:A:H3'	2.03	0.59
34:BA:1825:U:C6	34:BA:1825:U:H5'	2.36	0.59
34:BA:1832:A:H2'	34:BA:1833:G:O4'	2.02	0.59
35:BB:404:A:C2	35:BB:410:A:C4	2.90	0.59
35:BB:893:U:C5	35:BB:894:A:C8	2.90	0.59
35:BB:1114:A:C2	35:BB:1137:G:C4	2.90	0.59
35:BB:1141:A:C2	35:BB:1142:C:C2	2.90	0.59
35:BB:1165:A:N1	35:BB:1186:A:N1	2.51	0.59
35:BB:1191:G:H2'	35:BB:1192:C:C6	2.38	0.59
35:BB:1271:A:C6	35:BB:1272:G:C5	2.91	0.59
35:BB:1296:A:C2	35:BB:1309:A:H1'	2.37	0.59
35:BB:1319:U:H2'	35:BB:1320:U:C6	2.37	0.59
35:BB:1434:G:C5	35:BB:1435:G:C4	2.91	0.59
35:BB:1460:G:OP2	35:BB:1460:G:H4'	2.02	0.59
36:BC:137:C:C2	36:BC:138:C:C6	2.91	0.59
36:BC:157:U:H1'	36:BC:158:U:C5	2.38	0.59
40:BG:19:C:C4	40:BG:20:U:C4	2.90	0.59
42:BI:57:ASN:ND2	42:BI:57:ASN:H	1.98	0.59
62:Bc:76:MET:HE1	62:Bc:81:VAL:HG12	1.82	0.59
77:Br:349:ARG:O	77:Br:353:HIS:CE1	2.55	0.59
85:AA:519:A:C2'	85:AA:521:A:C8	2.86	0.59
85:AA:571:G:C2	85:AA:572:G:C4	2.91	0.59
85:AA:826:C:C6	85:AA:827:C:C5	2.91	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:856:G:N2	85:AA:857:G:H1'	2.18	0.59
85:AA:1480:C:C6	85:AA:1480:C:H3'	2.38	0.59
85:AA:1675:U:C4	85:AA:1676:G:C5	2.90	0.59
85:AA:1916:A:C2	85:AA:1996:A:C2	2.90	0.59
85:AA:1962:U:H2'	85:AA:1963:G:C8	2.38	0.59
85:AA:2244:G:H3'	85:AA:2246:U:OP2	2.03	0.59
4:A3:177:PRO:HA	85:AA:65:A:H1'	1.85	0.59
6:A5:25:MET:HA	85:AA:465:A:N1	2.17	0.59
19:AK:33:CYS:HA	85:AA:1792:C:C5	2.38	0.59
34:BA:19:G:C2	36:BC:36:G:C2	2.91	0.59
34:BA:78:U:C2	34:BA:79:C:C5	2.90	0.59
34:BA:268:U:O2'	59:BZ:97:HIS:CE1	2.55	0.59
34:BA:269:G:N2	34:BA:437:G:H3'	2.18	0.59
34:BA:277:A:C5	34:BA:278:U:C5	2.90	0.59
34:BA:319:C:C2	34:BA:320:G:C8	2.91	0.59
34:BA:556:A:C4	34:BA:557:U:C6	2.91	0.59
34:BA:561:U:O2'	34:BA:562:C:O4'	2.13	0.59
34:BA:728:A:C2	34:BA:1593:U:C2	2.90	0.59
34:BA:1023:G:C5	35:BB:1267:C:H1'	2.38	0.59
34:BA:1194:G:H2'	34:BA:1195:G:C8	2.38	0.59
34:BA:1291:A:C6	34:BA:1292:A:N1	2.71	0.59
34:BA:1293:A:C2	34:BA:1295:U:O2	2.56	0.59
34:BA:1555:G:C6	34:BA:1556:A:C6	2.90	0.59
35:BB:6:A:C2	35:BB:7:C:C2	2.91	0.59
35:BB:22:A:C2	35:BB:26:C:C6	2.91	0.59
35:BB:376:A:H2'	35:BB:377:A:C8	2.36	0.59
35:BB:428:G:C4	35:BB:429:C:C5	2.91	0.59
35:BB:817:C:C4	35:BB:823:G:N1	2.71	0.59
35:BB:853:U:H5	69:Bj:119:LYS:HG3	1.64	0.59
35:BB:1121:A:H3'	35:BB:1122:C:H6	1.67	0.59
35:BB:1143:A:C6	35:BB:1144:A:C6	2.91	0.59
35:BB:1155:U:H2'	35:BB:1156:U:C6	2.37	0.59
35:BB:1203:C:C4	35:BB:1204:C:C4	2.90	0.59
35:BB:1254:G:C6	79:Bt:62:ALA:O	2.56	0.59
35:BB:1431:G:C6	35:BB:1432:U:C4	2.91	0.59
35:BB:1446:C:H2'	35:BB:1447:U:C6	2.37	0.59
35:BB:1478:G:C6	35:BB:1479:C:C4	2.90	0.59
35:BB:1543:C:C2	35:BB:1544:A:C8	2.91	0.59
37:BD:108:G:C6	37:BD:109:U:C4	2.91	0.59
38:BE:22:A:OP2	38:BE:23:G:H5'	2.03	0.59
39:BF:2:G:C8	81:Bv:75:ARG:NE	2.70	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BN:49:LYS:HA	47:BN:52:PHE:CE2	2.38	0.59
73:Bn:24:ARG:HG3	73:Bn:25:ASN:H	1.68	0.59
84:By:122:GLN:HE21	84:By:155:GLU:HG3	1.68	0.59
85:AA:410:A:C6	85:AA:411:U:C4	2.91	0.59
85:AA:501:A:H2'	85:AA:502:A:C2	2.38	0.59
85:AA:551:C:H2'	85:AA:552:C:C6	2.37	0.59
85:AA:905:C:H4'	85:AA:908:C:C4	2.37	0.59
85:AA:1116:G:H2'	85:AA:1117:G:O4'	2.02	0.59
85:AA:1287:C:C5	85:AA:1468:G:H5''	2.37	0.59
2:A1:122:LYS:O	2:A1:139:HIS:CD2	2.55	0.59
8:A7:179:LYS:HB3	8:A7:188:LEU:HD13	1.85	0.59
21:AM:122:ARG:HH12	85:AA:2024:U:H4'	1.68	0.59
34:BA:161:U:C4	34:BA:323:C:C2	2.91	0.59
34:BA:195:G:C6	34:BA:289:A:N1	2.71	0.59
34:BA:435:U:C4	34:BA:436:U:N3	2.71	0.59
34:BA:498:A:C6	34:BA:704:G:C6	2.91	0.59
34:BA:594:G:C4	34:BA:684:G:C5	2.91	0.59
34:BA:595:U:H5	34:BA:1487:U:H3'	1.68	0.59
34:BA:729:C:H2'	34:BA:730:C:C6	2.37	0.59
34:BA:744:G:C8	47:BN:6:ASN:C	2.81	0.59
34:BA:800:G:H2'	34:BA:801:U:C6	2.37	0.59
34:BA:861:C:N4	34:BA:874:G:O6	2.35	0.59
34:BA:979:G:C4	34:BA:981:A:C5	2.91	0.59
34:BA:1084:A:H3'	34:BA:1085:G:C8	2.38	0.59
34:BA:1266:A:H2'	34:BA:1267:A:C8	2.38	0.59
34:BA:1287:G:H2'	34:BA:1288:U:C5	2.38	0.59
34:BA:1437:G:C5	34:BA:1438:C:C5	2.90	0.59
34:BA:1502:G:C2	34:BA:1503:U:H1'	2.38	0.59
34:BA:1533:G:H4'	77:Br:240:PRO:CB	2.33	0.59
34:BA:1782:C:H4'	60:Ba:59:ARG:HD3	1.85	0.59
35:BB:877:A:H3'	35:BB:877:A:N3	2.17	0.59
35:BB:1055:G:C2	35:BB:1056:A:C8	2.91	0.59
35:BB:1130:U:H2'	35:BB:1131:C:C5	2.38	0.59
35:BB:1139:A:C5	35:BB:1140:C:C5	2.90	0.59
35:BB:1468:A:H8	48:BO:129:ASN:HD22	1.51	0.59
38:BE:125:C:O2	38:BE:126:G:C8	2.56	0.59
38:BE:127:G:N1	38:BE:128:G:C5	2.70	0.59
40:BG:25:G:C6	40:BG:26:G:C5	2.90	0.59
40:BG:28:A:C5	40:BG:29:U:C4	2.90	0.59
40:BG:116:G:C5	40:BG:117:C:C5	2.91	0.59
41:BH:1:U:C3'	41:BH:2:U:H5'	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BH:10:U:C2	41:BH:20:A:C2	2.90	0.59
47:BN:63:VAL:HG22	47:BN:75:ARG:O	2.03	0.59
48:BO:145:HIS:CE1	48:BO:146:ASN:HD21	2.20	0.59
49:BP:119:SER:O	49:BP:123:TRP:CD1	2.56	0.59
49:BP:136:PRO:CB	49:BP:140:HIS:HB3	2.32	0.59
63:Bd:7:HIS:CE1	63:Bd:8:THR:O	2.56	0.59
85:AA:93:G:N2	85:AA:491:G:H5'	2.18	0.59
85:AA:114:C:H42	85:AA:365:G:H1	1.51	0.59
85:AA:258:G:C6	85:AA:259:A:C5	2.91	0.59
85:AA:376:C:C6	85:AA:423:G:C2	2.91	0.59
85:AA:431:G:C2	85:AA:441:C:C2	2.91	0.59
85:AA:454:G:C2	85:AA:455:G:C4	2.91	0.59
85:AA:479:C:C2	85:AA:485:A:C2	2.91	0.59
85:AA:506:G:C2	85:AA:507:C:C5	2.91	0.59
85:AA:772:C:C6	85:AA:773:G:H8	2.21	0.59
85:AA:879:G:C5	85:AA:880:A:C5	2.90	0.59
85:AA:1129:A:H3'	85:AA:1130:G:H5''	1.83	0.59
85:AA:1669:G:H2'	85:AA:1670:U:C6	2.38	0.59
85:AA:1790:G:H2'	85:AA:1791:U:C4	2.37	0.59
85:AA:1908:A:C5	85:AA:1909:C:C4	2.91	0.59
85:AA:2218:G:H4'	85:AA:2219:G:O5'	2.02	0.59
34:BA:161:U:C6	34:BA:165:C:C2	2.90	0.59
34:BA:185:A:C2	34:BA:304:G:C5	2.91	0.59
34:BA:262:A:P	77:Br:217:ARG:HH11	2.26	0.59
34:BA:304:G:C6	34:BA:305:C:C5	2.91	0.59
34:BA:587:U:C6	34:BA:587:U:H5''	2.37	0.59
34:BA:690:G:H1'	34:BA:691:A:C4	2.37	0.59
34:BA:1226:G:C5	34:BA:1227:U:C5	2.91	0.59
34:BA:1229:G:C4	35:BB:1275:A:C2	2.90	0.59
34:BA:1316:G:C4	34:BA:1317:U:C4	2.91	0.59
34:BA:1425:G:C5	34:BA:1426:A:C6	2.91	0.59
34:BA:1511:C:H2'	34:BA:1512:C:C5	2.38	0.59
34:BA:1550:G:C6	34:BA:1551:G:C5	2.91	0.59
34:BA:1800:G:C2	34:BA:1801:G:C4	2.91	0.59
35:BB:68:G:H2'	35:BB:69:A:C4	2.38	0.59
35:BB:670:G:C8	35:BB:1330:A:C8	2.91	0.59
35:BB:687:C:H2'	35:BB:688:U:C6	2.38	0.59
35:BB:781:U:H6	35:BB:781:U:OP1	1.86	0.59
35:BB:784:C:H2'	35:BB:785:G:H8	1.66	0.59
35:BB:836:U:H3'	35:BB:837:A:C8	2.38	0.59
35:BB:857:G:C5	35:BB:858:U:C5	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1121:A:H4'	35:BB:1121:A:OP1	2.02	0.59
35:BB:1196:A:H1'	80:Bu:36:MET:SD	2.43	0.59
35:BB:1491:G:C6	35:BB:1492:C:C4	2.91	0.59
36:BC:35:C:C2	36:BC:36:G:C8	2.90	0.59
36:BC:49:G:H2'	36:BC:50:C:C6	2.37	0.59
36:BC:124:A:N1	36:BC:139:A:N1	2.50	0.59
37:BD:8:A:C5	37:BD:9:C:C5	2.91	0.59
39:BF:19:A:H2'	39:BF:20:U:C5	2.38	0.59
39:BF:72:A:C2	81:Bv:66:MET:HE1	2.38	0.59
41:BH:39:G:C4	41:BH:113:G:N1	2.70	0.59
44:BK:33:THR:H	44:BK:69:ARG:NH1	2.01	0.59
63:Bd:7:HIS:CG	63:Bd:8:THR:N	2.71	0.59
64:Be:249:SER:OG	85:AA:1236:G:C5	2.55	0.59
71:Bl:74:TRP:CZ3	81:Bv:188:HIS:HD2	2.20	0.59
77:Br:133:PRO:HB3	77:Br:149:VAL:HG11	1.83	0.59
82:Bw:207:GLY:HA3	82:Bw:209:HIS:CD2	2.38	0.59
85:AA:157:G:C2	85:AA:166:C:C2	2.91	0.59
85:AA:348:G:C5	85:AA:349:C:C5	2.90	0.59
85:AA:914:U:H3'	85:AA:915:G:C8	2.38	0.59
85:AA:1453:U:H3'	85:AA:1454:U:C6	2.37	0.59
85:AA:1469:G:N2	85:AA:1471:G:C4	2.71	0.59
85:AA:1541:G:C2	85:AA:1542:A:C5	2.91	0.59
85:AA:1887:G:C5	85:AA:1888:U:C5	2.91	0.59
85:AA:2046:G:H2'	85:AA:2047:U:C6	2.38	0.59
85:AA:2122:A:C8	85:AA:2122:A:O5'	2.56	0.59
85:AA:2127:G:C4	85:AA:2192:A:C2	2.91	0.59
9:A8:23:VAL:H	9:A8:38:ASN:CB	2.15	0.58
21:AM:83:TRP:CZ3	85:AA:1968:A:C2	2.91	0.58
27:AT:15:SER:HA	85:AA:906:U:C5	2.38	0.58
27:AT:21:LYS:HD2	27:AT:21:LYS:H	1.67	0.58
34:BA:13:U:N3	36:BC:155:C:N3	2.51	0.58
34:BA:52:G:C6	34:BA:53:G:C4	2.91	0.58
34:BA:58:A:C4	34:BA:59:A:C8	2.91	0.58
34:BA:125:G:N2	34:BA:139:U:H1'	2.17	0.58
34:BA:141:G:C2	34:BA:142:A:C4	2.91	0.58
34:BA:744:G:C8	34:BA:744:G:O5'	2.56	0.58
34:BA:765:U:C6	59:BZ:2:VAL:HG12	2.38	0.58
34:BA:798:G:C4	34:BA:800:G:N9	2.70	0.58
34:BA:1412:G:C4	34:BA:1413:G:C8	2.91	0.58
34:BA:1739:G:N1	34:BA:1785:G:N1	2.51	0.58
35:BB:8:U:H2'	35:BB:9:G:C8	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:483:C:C5	35:BB:484:G:C8	2.90	0.58
35:BB:608:A:C2	35:BB:609:G:C4	2.90	0.58
35:BB:802:G:H2'	35:BB:804:U:C4	2.38	0.58
35:BB:837:A:H5''	35:BB:1026:G:N3	2.17	0.58
35:BB:889:U:H2'	35:BB:891:U:C5	2.38	0.58
35:BB:1110:G:N2	35:BB:1155:U:C2	2.71	0.58
35:BB:1141:A:C5	35:BB:1142:C:C4	2.91	0.58
35:BB:1455:A:C2	35:BB:1456:G:C5	2.90	0.58
36:BC:96:A:C5	36:BC:97:U:C4	2.91	0.58
37:BD:32:A:C6	37:BD:41:G:C4	2.91	0.58
37:BD:48:G:N2	37:BD:49:A:H62	2.01	0.58
37:BD:67:C:H5''	80:Bu:13:TYR:CE2	2.37	0.58
38:BE:51:C:N3	38:BE:52:U:C5	2.71	0.58
38:BE:196:C:H2'	38:BE:197:A:H8	1.67	0.58
40:BG:17:A:C6	40:BG:18:U:C4	2.91	0.58
40:BG:69:G:H2'	40:BG:70:C:C6	2.38	0.58
41:BH:38:G:O6	41:BH:113:G:C6	2.56	0.58
61:Bb:126:VAL:HG21	61:Bb:130:ALA:CB	2.28	0.58
85:AA:93:G:C6	85:AA:94:C:C4	2.91	0.58
85:AA:636:G:C6	85:AA:637:U:C4	2.90	0.58
85:AA:744:C:C2	85:AA:745:C:C6	2.91	0.58
85:AA:879:G:C2	85:AA:927:A:C4	2.91	0.58
85:AA:1515:A:C6	85:AA:1516:A:C5	2.91	0.58
85:AA:1565:G:C5	85:AA:1566:A:C5	2.91	0.58
85:AA:2009:A:C6	85:AA:2036:A:C8	2.91	0.58
13:AE:171:PHE:CE1	85:AA:943:U:C4	2.91	0.58
34:BA:171:U:C6	34:BA:171:U:H3'	2.38	0.58
34:BA:258:C:C2	34:BA:259:C:C5	2.91	0.58
34:BA:333:A:C2	34:BA:357:A:C8	2.91	0.58
34:BA:355:U:C4	34:BA:356:C:C4	2.91	0.58
34:BA:409:A:H2'	34:BA:410:G:O4'	2.03	0.58
34:BA:424:U:H2'	34:BA:425:G:C8	2.38	0.58
34:BA:480:G:C6	36:BC:9:G:C6	2.91	0.58
34:BA:597:C:C5	34:BA:598:G:C5	2.92	0.58
34:BA:602:G:C2'	34:BA:603:U:H5'	2.33	0.58
34:BA:747:G:C5	34:BA:748:C:C5	2.91	0.58
34:BA:756:A:C4	34:BA:757:G:H1'	2.37	0.58
34:BA:804:G:N7	34:BA:805:A:C4	2.71	0.58
34:BA:1001:G:C4	34:BA:1002:U:C6	2.90	0.58
34:BA:1001:G:H2'	34:BA:1002:U:H6	1.68	0.58
34:BA:1025:A:C4	34:BA:1026:C:C5	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1046:G:N1	34:BA:1522:G:C6	2.71	0.58
34:BA:1479:G:H4'	62:Bc:99:ARG:CB	2.32	0.58
34:BA:1648:G:C8	34:BA:1650:G:C6	2.92	0.58
35:BB:426:A:C8	35:BB:428:G:C4	2.90	0.58
35:BB:516:G:C2	35:BB:517:G:C4	2.90	0.58
35:BB:766:G:H2'	35:BB:767:A:C8	2.37	0.58
35:BB:815:G:C2	35:BB:816:U:C2	2.91	0.58
35:BB:1125:A:C5	35:BB:1126:A:C4	2.91	0.58
35:BB:1205:A:C8	35:BB:1206:G:C8	2.92	0.58
35:BB:1382:U:H3'	35:BB:1383:C:H6	1.68	0.58
35:BB:1514:G:C5	35:BB:1515:C:C5	2.92	0.58
37:BD:101:A:C5	37:BD:102:C:C5	2.91	0.58
37:BD:106:G:C6	37:BD:107:G:C5	2.91	0.58
38:BE:141:A:C8	38:BE:144:A:C8	2.91	0.58
38:BE:152:U:C4	38:BE:154:A:C2	2.91	0.58
40:BG:49:A:C5	40:BG:51:U:C4	2.91	0.58
40:BG:76:C:C5	40:BG:122:G:C2	2.92	0.58
44:BK:134:ILE:HG22	44:BK:136:LEU:O	2.02	0.58
66:Bg:50:SER:HA	66:Bg:104:THR:HA	1.85	0.58
71:Bl:84:TYR:O	71:Bl:105:THR:HG23	2.03	0.58
85:AA:386:G:C4	85:AA:387:U:H5'	2.38	0.58
85:AA:826:C:C6	85:AA:827:C:H5	2.21	0.58
85:AA:1016:G:H1'	85:AA:1055:U:C5	2.37	0.58
85:AA:1262:A:C6	85:AA:1263:G:C4	2.91	0.58
85:AA:1495:G:C5	85:AA:1496:U:C5	2.91	0.58
85:AA:2059:A:C6	85:AA:2072:G:C6	2.90	0.58
11:AC:79:SER:HA	20:AL:128:PRO:N	2.18	0.58
24:AQ:42:ASN:N	24:AQ:43:GLU:HA	2.18	0.58
32:AY:35:PHE:CD1	32:AY:38:LEU:HD12	2.38	0.58
34:BA:19:G:H1'	36:BC:103:A:N3	2.19	0.58
34:BA:38:G:C6	34:BA:39:C:C2	2.91	0.58
34:BA:162:G:C2	34:BA:320:G:C8	2.90	0.58
34:BA:264:A:C6	34:BA:279:U:H1'	2.38	0.58
34:BA:399:G:C6	34:BA:400:A:C8	2.91	0.58
34:BA:633:G:N3	34:BA:649:A:C2	2.71	0.58
34:BA:687:G:H3'	34:BA:687:G:C8	2.38	0.58
34:BA:738:C:C6	34:BA:739:A:C8	2.92	0.58
34:BA:1002:U:C6	34:BA:1002:U:O5'	2.56	0.58
34:BA:1069:U:H2'	34:BA:1070:G:C8	2.38	0.58
34:BA:1476:G:C2'	34:BA:1477:C:H5'	2.33	0.58
34:BA:1566:G:C5	34:BA:1567:G:C5	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1825:U:H6	34:BA:1825:U:H5''	1.67	0.58
35:BB:363:A:C4	35:BB:364:U:O4	2.55	0.58
35:BB:378:C:C2	35:BB:379:U:C6	2.90	0.58
35:BB:412:A:C4	35:BB:548:A:C6	2.91	0.58
35:BB:834:U:H2'	35:BB:835:C:C6	2.38	0.58
35:BB:1099:U:C4	35:BB:1100:C:C5	2.91	0.58
35:BB:1272:G:C6	35:BB:1273:G:C5	2.92	0.58
35:BB:1316:U:H2'	35:BB:1317:U:C6	2.38	0.58
35:BB:1452:U:N3	40:BG:171:A:C2	2.71	0.58
35:BB:1457:A:C5	35:BB:1462:G:O6	2.56	0.58
37:BD:2:G:C6	37:BD:3:G:C5	2.92	0.58
37:BD:31:U:H3	37:BD:46:G:H1	1.52	0.58
39:BF:51:C:O2	39:BF:52:A:H8	1.85	0.58
40:BG:30:C:C2	40:BG:176:G:C2	2.91	0.58
41:BH:3:U:H2'	41:BH:4:U:C5	2.38	0.58
51:BR:56:ARG:HD2	51:BR:57:CYS:H	1.67	0.58
53:BT:99:LEU:HA	53:BT:102:LEU:HG	1.84	0.58
59:BZ:49:LYS:HA	59:BZ:70:CYS:SG	2.43	0.58
60:Ba:92:LEU:HD13	60:Ba:96:ILE:HA	1.85	0.58
76:Bq:43:HIS:CD2	76:Bq:44:TRP:N	2.70	0.58
80:Bu:253:HIS:N	80:Bu:253:HIS:CD2	2.65	0.58
84:By:6:HIS:O	84:By:6:HIS:CD2	2.57	0.58
85:AA:317:A:H2'	85:AA:318:A:C8	2.38	0.58
85:AA:385:A:C5	85:AA:389:A:C2	2.91	0.58
85:AA:456:A:C6	85:AA:457:G:C5	2.91	0.58
85:AA:564:A:H2'	85:AA:565:G:H5'	1.84	0.58
85:AA:681:G:C5	85:AA:687:G:C6	2.91	0.58
85:AA:1116:G:C6	85:AA:1117:G:C5	2.91	0.58
85:AA:2132:A:C2	85:AA:2187:G:C2	2.92	0.58
29:AV:15:CYS:HA	85:AA:1449:C:H4'	1.85	0.58
34:BA:92:G:C6	34:BA:93:A:C6	2.91	0.58
34:BA:368:U:C5	35:BB:1234:G:H1'	2.38	0.58
34:BA:546:U:HO3'	34:BA:547:C:P	2.26	0.58
34:BA:659:U:H3'	34:BA:660:C:H5''	1.85	0.58
34:BA:1691:G:C2	34:BA:1825:U:C5	2.92	0.58
34:BA:1831:A:H61	75:Bp:67:ILE:HG21	1.68	0.58
35:BB:1:U:C3'	35:BB:2:C:H4'	2.32	0.58
35:BB:77:A:C6	35:BB:78:C:C5	2.92	0.58
35:BB:154:A:H2'	35:BB:155:G:C8	2.39	0.58
35:BB:614:U:H3'	35:BB:615:A:C8	2.39	0.58
35:BB:635:A:H61	35:BB:646:U:H3	1.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:823:G:C6	35:BB:824:C:C6	2.91	0.58
35:BB:1382:U:H3'	35:BB:1383:C:C6	2.37	0.58
35:BB:1544:A:C6	35:BB:1545:U:C4	2.92	0.58
36:BC:49:G:C2	36:BC:50:C:C2	2.92	0.58
36:BC:106:G:C6	36:BC:107:C:C5	2.91	0.58
37:BD:25:G:H3'	37:BD:25:G:C8	2.37	0.58
37:BD:76:U:O4	37:BD:100:A:C8	2.56	0.58
38:BE:120:C:C4	38:BE:121:G:C4	2.91	0.58
38:BE:142:A:C2	75:Bp:69:VAL:HG22	2.38	0.58
39:BF:28:C:C6	52:BS:177:VAL:HB	2.39	0.58
40:BG:149:U:C2	40:BG:150:A:C5	2.92	0.58
41:BH:98:U:P	55:BV:63:LYS:CB	2.90	0.58
42:BI:156:VAL:HA	42:BI:159:PHE:CD1	2.38	0.58
49:BP:24:VAL:HG22	49:BP:25:GLY:H	1.67	0.58
53:BT:170:ARG:CA	85:AA:957:A:N6	2.64	0.58
80:Bu:76:MET:HE2	80:Bu:108:ARG:HB3	1.84	0.58
85:AA:83:U:H2'	85:AA:84:C:C6	2.37	0.58
85:AA:188:G:C4	85:AA:189:G:C8	2.92	0.58
85:AA:823:C:C2	85:AA:858:G:C2	2.92	0.58
85:AA:1292:A:C6	85:AA:1293:U:C4	2.92	0.58
85:AA:1434:U:C4	85:AA:1438:C:C5'	2.86	0.58
85:AA:1458:G:C6	85:AA:1459:C:C4	2.91	0.58
85:AA:1797:U:H2'	85:AA:1799:C:OP1	2.03	0.58
85:AA:2073:U:C2	85:AA:2074:G:C8	2.91	0.58
85:AA:2120:C:C4	85:AA:2121:G:C5	2.92	0.58
34:BA:174:A:C2	34:BA:313:C:O2	2.56	0.58
34:BA:186:G:C2	34:BA:187:G:C4	2.92	0.58
34:BA:236:A:H1'	34:BA:239:C:H5	1.68	0.58
34:BA:291:C:C2	34:BA:292:C:C6	2.91	0.58
34:BA:401:A:H5'	59:BZ:5:LYS:HZ3	1.68	0.58
34:BA:508:C:H4'	34:BA:511:U:C2	2.39	0.58
34:BA:529:A:N1	34:BA:530:A:C5	2.72	0.58
34:BA:544:U:C6	34:BA:544:U:C3'	2.86	0.58
34:BA:598:G:H3'	34:BA:1494:G:C5'	2.34	0.58
34:BA:747:G:C6	34:BA:890:G:C6	2.91	0.58
34:BA:946:A:C6	34:BA:947:A:C5	2.92	0.58
34:BA:1025:A:C5	34:BA:1026:C:C4	2.91	0.58
34:BA:1098:G:C2	35:BB:1084:A:C2	2.92	0.58
34:BA:1107:A:C4	34:BA:1108:U:C6	2.92	0.58
34:BA:1705:C:H3'	34:BA:1722:U:O4	2.04	0.58
34:BA:1731:A:C5	34:BA:1793:G:H1'	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1809:G:OP1	69:Bj:62:HIS:CE1	2.56	0.58
35:BB:6:A:C4	35:BB:7:C:C5	2.92	0.58
35:BB:85:A:C5	35:BB:91:G:C5	2.92	0.58
35:BB:281:U:H3	35:BB:301:G:H1	1.52	0.58
35:BB:525:U:C4	85:AA:2113:U:H5'	2.28	0.58
35:BB:562:A:C6	35:BB:563:A:C2	2.91	0.58
35:BB:696:G:C2	35:BB:697:G:C5	2.92	0.58
35:BB:1246:C:C4	35:BB:1247:C:C5	2.92	0.58
35:BB:1396:G:C2	35:BB:1397:G:C8	2.92	0.58
36:BC:54:G:C4	36:BC:55:U:C6	2.91	0.58
36:BC:150:U:H2'	36:BC:151:G:C8	2.39	0.58
37:BD:30:A:H1'	37:BD:49:A:N1	2.18	0.58
38:BE:136:G:H2'	38:BE:137:A:C8	2.38	0.58
40:BG:84:U:C5	67:Bh:101:PHE:CE1	2.91	0.58
76:Bq:25:TYR:CZ	76:Bq:29:LEU:HD11	2.39	0.58
82:Bw:2:PHE:CD2	82:Bw:22:PRO:HD3	2.39	0.58
85:AA:52:U:H2'	85:AA:53:G:C8	2.38	0.58
85:AA:57:G:C4	85:AA:58:C:C5	2.92	0.58
85:AA:337:C:C2'	85:AA:338:G:H5'	2.32	0.58
85:AA:423:G:N1	85:AA:424:A:C4	2.71	0.58
85:AA:963:U:H4'	85:AA:964:C:C4	2.38	0.58
85:AA:972:G:C4	85:AA:973:U:C5	2.90	0.58
85:AA:1439:A:C6	85:AA:1440:C:C5	2.91	0.58
85:AA:1466:U:C6	85:AA:1466:U:C3'	2.87	0.58
85:AA:1699:A:H2'	85:AA:1700:C:C6	2.39	0.58
85:AA:1726:G:H1	85:AA:1814:U:H3	1.52	0.58
85:AA:1984:A:C5	85:AA:1985:C:C5	2.90	0.58
85:AA:2195:A:C5	85:AA:2196:G:C5	2.91	0.58
16:AH:57:ALA:HB3	16:AH:60:ASP:HB3	1.86	0.58
20:AL:102:ASP:CG	20:AL:122:PRO:HA	2.28	0.58
23:AP:60:SER:HA	23:AP:80:LEU:HD21	1.86	0.58
23:AP:101:SER:HA	85:AA:2102:A:H61	1.67	0.58
26:AS:17:ARG:HH22	85:AA:684:G:H3'	1.68	0.58
26:AS:57:VAL:HG21	26:AS:115:ILE:HG22	1.84	0.58
34:BA:58:A:C2	34:BA:59:A:H1'	2.39	0.58
34:BA:144:C:H5'	34:BA:145:U:C6	2.38	0.58
34:BA:178:C:C2	34:BA:179:U:C4	2.92	0.58
34:BA:387:A:C2	34:BA:388:A:C6	2.91	0.58
34:BA:1225:A:C5	34:BA:1226:G:C5	2.92	0.58
35:BB:100:A:H5''	53:BT:84:THR:HA	1.85	0.58
35:BB:362:A:C4	35:BB:363:A:H1'	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:503:G:H3'	35:BB:504:C:C6	2.37	0.58
35:BB:543:G:C5	35:BB:544:C:C4	2.91	0.58
35:BB:596:C:H2'	35:BB:597:C:H6	1.69	0.58
35:BB:824:C:H2'	35:BB:825:U:C5'	2.34	0.58
35:BB:845:C:H2'	35:BB:846:A:C8	2.39	0.58
35:BB:851:U:H5'	69:Bj:121:ARG:HG2	1.84	0.58
35:BB:1004:A:C2	35:BB:1015:U:O2	2.56	0.58
35:BB:1103:A:C6	35:BB:1105:G:C4	2.92	0.58
35:BB:1165:A:C2	35:BB:1186:A:C2	2.92	0.58
35:BB:1220:A:C6	35:BB:1221:G:C5	2.91	0.58
35:BB:1241:U:C4	35:BB:1242:C:C5	2.91	0.58
35:BB:1493:A:C6	35:BB:1514:G:C6	2.91	0.58
37:BD:30:A:C6	37:BD:48:G:C6	2.90	0.58
38:BE:48:G:C2	38:BE:61:A:C2	2.91	0.58
38:BE:120:C:C4	38:BE:121:G:C5	2.91	0.58
39:BF:25:G:H5'	48:BO:55:ARG:HH12	1.68	0.58
39:BF:63:U:O5'	39:BF:63:U:C6	2.57	0.58
40:BG:38:A:H2	40:BG:164:U:H3	1.51	0.58
44:BK:51:HIS:CD2	44:BK:166:VAL:O	2.57	0.58
47:BN:59:LEU:HA	47:BN:158:TYR:CE2	2.39	0.58
56:BW:116:ILE:HG22	56:BW:117:ALA:H	1.68	0.58
58:BY:33:LEU:HD22	58:BY:35:PHE:CZ	2.38	0.58
82:Bw:42:LYS:C	82:Bw:46:ALA:H	2.12	0.58
85:AA:585:G:H5''	85:AA:586:G:C8	2.39	0.58
85:AA:641:A:C4	85:AA:642:G:H1'	2.38	0.58
85:AA:880:A:C2	85:AA:881:C:C2	2.91	0.58
85:AA:890:U:O2	85:AA:917:A:C2	2.56	0.58
85:AA:931:G:H2'	85:AA:931:G:N3	2.18	0.58
85:AA:1114:A:C6	85:AA:1214:C:N4	2.71	0.58
85:AA:1432:C:N3	85:AA:1435:C:C2	2.71	0.58
85:AA:1499:G:C2	85:AA:1503:G:C6	2.91	0.58
8:A7:34:THR:HG23	8:A7:73:VAL:HB	1.86	0.58
12:AD:98:HIS:CE1	12:AD:100:VAL:HG12	2.39	0.58
13:AE:19:GLN:NE2	13:AE:24:TYR:HA	2.18	0.58
21:AM:5:LEU:HD23	28:AU:50:LYS:HA	1.85	0.58
23:AP:216:THR:HG21	85:AA:14:C:OP1	2.03	0.58
27:AT:10:VAL:HG22	27:AT:34:HIS:HB3	1.86	0.58
29:AV:86:ARG:CZ	85:AA:1529:A:H4'	2.34	0.58
34:BA:63:A:C2	34:BA:65:A:C1'	2.85	0.58
34:BA:212:A:C6	34:BA:213:A:C6	2.92	0.58
34:BA:481:A:C2	36:BC:8:C:C2	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:804:G:C6	34:BA:805:A:N3	2.71	0.58
34:BA:835:U:C6	34:BA:836:U:C6	2.91	0.58
34:BA:1203:G:C5	34:BA:1204:U:C6	2.92	0.58
34:BA:1256:A:H4'	68:Bi:44:ARG:HH22	1.67	0.58
34:BA:1557:G:C4	34:BA:1558:C:C5	2.92	0.58
34:BA:1652:G:C5	34:BA:1653:G:C8	2.92	0.58
34:BA:1657:A:C6	34:BA:1658:G:C4	2.91	0.58
34:BA:1708:A:N3	34:BA:1708:A:H2'	2.18	0.58
34:BA:1781:A:C2	34:BA:1782:C:N1	2.72	0.58
35:BB:85:A:C2	35:BB:91:G:C8	2.92	0.58
35:BB:110:U:C4	35:BB:587:A:C4	2.91	0.58
35:BB:402:G:C6	35:BB:403:U:C4	2.92	0.58
35:BB:412:A:C5	35:BB:548:A:C6	2.92	0.58
35:BB:439:G:C2	35:BB:440:U:C5	2.90	0.58
35:BB:595:U:C2	35:BB:596:C:C5	2.92	0.58
35:BB:665:A:C2	35:BB:666:A:C4	2.92	0.58
35:BB:1157:G:C6	35:BB:1158:C:C4	2.92	0.58
35:BB:1221:G:C6	35:BB:1222:A:N1	2.72	0.58
37:BD:108:G:C5	37:BD:109:U:C4	2.92	0.58
38:BE:56:U:H2'	38:BE:57:U:H5'	1.85	0.58
38:BE:133:C:H1'	38:BE:134:A:C8	2.39	0.58
38:BE:150:G:C5	38:BE:163:A:C2	2.91	0.58
38:BE:201:A:C4	38:BE:202:C:C2	2.91	0.58
39:BF:36:G:C2	39:BF:48:G:C4	2.92	0.58
40:BG:45:G:C2	40:BG:66:C:C2	2.92	0.58
40:BG:111:C:C2	40:BG:112:C:C6	2.91	0.58
58:BY:33:LEU:HB3	58:BY:35:PHE:CE2	2.39	0.58
58:BY:63:HIS:O	58:BY:63:HIS:CG	2.54	0.58
58:BY:83:GLU:CB	85:AA:2161:C:C4'	2.82	0.58
67:Bh:50:ARG:CG	67:Bh:54:HIS:CE1	2.87	0.58
85:AA:128:U:H1'	85:AA:180:A:H4'	1.85	0.58
85:AA:159:G:C2	85:AA:164:G:C5	2.92	0.58
85:AA:210:G:C8	85:AA:242:G:OP1	2.56	0.58
85:AA:520:A:C5'	85:AA:521:A:H3'	2.34	0.58
85:AA:541:A:C2	85:AA:542:G:C8	2.90	0.58
85:AA:571:G:C6	85:AA:572:G:C6	2.91	0.58
85:AA:715:G:C6	85:AA:716:G:C5	2.92	0.58
85:AA:867:G:O2'	85:AA:868:A:C8	2.52	0.58
85:AA:895:C:H2'	85:AA:896:C:C6	2.38	0.58
85:AA:932:A:C4	85:AA:933:U:C4	2.92	0.58
85:AA:983:A:H2'	85:AA:984:A:C8	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1296:G:H1	85:AA:1446:U:H3	1.50	0.58
85:AA:2160:U:H4'	85:AA:2161:C:C6	2.38	0.58
21:AM:49:ALA:HB2	21:AM:71:VAL:HG21	1.86	0.58
34:BA:12:G:H5''	57:BX:64:ALA:HB2	1.84	0.58
34:BA:18:G:H1	36:BC:149:A:H61	1.52	0.58
34:BA:20:A:C2	36:BC:35:C:C4	2.91	0.58
34:BA:29:U:H2'	34:BA:30:A:C8	2.39	0.58
34:BA:238:C:C6	34:BA:238:C:H3'	2.38	0.58
34:BA:248:G:H2'	59:BZ:59:LYS:HA	1.86	0.58
34:BA:359:G:OP2	34:BA:360:C:C2	2.56	0.58
34:BA:484:A:N1	36:BC:6:G:C6	2.71	0.58
34:BA:596:G:N1	34:BA:1488:C:C6	2.72	0.58
34:BA:743:A:N7	47:BN:7:ALA:CB	2.67	0.58
34:BA:768:G:C4	34:BA:769:U:H5	2.18	0.58
34:BA:943:G:C2	34:BA:944:G:C4	2.92	0.58
34:BA:1418:G:C6	34:BA:1419:A:C5	2.90	0.58
34:BA:1610:A:C6	34:BA:1611:A:C5	2.92	0.58
34:BA:1744:C:H2'	34:BA:1745:G:C8	2.39	0.58
35:BB:124:G:C5	35:BB:380:G:O6	2.57	0.58
35:BB:372:U:H2'	35:BB:373:C:C6	2.39	0.58
35:BB:612:A:C5	35:BB:613:C:C5	2.92	0.58
35:BB:614:U:C2	35:BB:615:A:C8	2.92	0.58
35:BB:769:C:H1'	35:BB:770:G:C4	2.37	0.58
35:BB:856:U:C2	35:BB:857:G:C8	2.92	0.58
35:BB:1109:A:C2	35:BB:1110:G:C4	2.90	0.58
35:BB:1120:A:C2	35:BB:1129:C:C2	2.92	0.58
35:BB:1171:U:H5'	54:BU:88:ARG:O	2.04	0.58
35:BB:1239:A:C2	35:BB:1240:A:C4	2.92	0.58
35:BB:1342:C:N3	35:BB:1397:G:C6	2.72	0.58
36:BC:7:U:C6	36:BC:8:C:C5	2.92	0.58
37:BD:79:G:C6	37:BD:98:G:C6	2.91	0.58
40:BG:179:C:H2'	40:BG:180:C:H6	1.69	0.58
41:BH:40:C:C4	41:BH:41:A:C4	2.91	0.58
41:BH:97:C:H6	55:BV:63:LYS:HG2	1.68	0.58
41:BH:121:A:C2	41:BH:123:G:C8	2.91	0.58
58:BY:16:GLY:C	58:BY:17:HIS:CD2	2.82	0.58
75:Bp:3:ARG:HG2	75:Bp:41:HIS:CG	2.39	0.58
80:Bu:33:ARG:O	80:Bu:37:VAL:HG23	2.04	0.58
80:Bu:75:VAL:HG21	80:Bu:109:MET:HE1	1.86	0.58
82:Bw:29:LYS:HG2	82:Bw:33:PHE:CD2	2.39	0.58
83:Bx:145:VAL:HG23	83:Bx:213:PHE:CE1	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:116:G:C8	85:AA:117:C:C6	2.92	0.58
85:AA:166:C:C2	85:AA:167:A:C8	2.92	0.58
85:AA:348:G:C2	85:AA:349:C:C2	2.91	0.58
85:AA:907:G:H2'	85:AA:908:C:C5	2.39	0.58
85:AA:1240:A:C2	85:AA:1263:G:C6	2.92	0.58
85:AA:1686:G:C5	85:AA:1687:U:C5	2.92	0.58
85:AA:1916:A:C2	85:AA:1997:G:C2	2.92	0.58
85:AA:2128:G:O2'	85:AA:2129:U:H5'	2.04	0.58
3:A2:49:LYS:O	3:A2:52:ILE:HG23	2.04	0.58
21:AM:138:CYS:SG	85:AA:1898:C:C2	2.96	0.58
34:BA:425:G:C6	34:BA:426:A:C6	2.91	0.58
34:BA:734:G:H2'	34:BA:1582:C:H42	1.69	0.58
34:BA:759:A:H2'	34:BA:760:G:C8	2.38	0.58
34:BA:774:A:C5	34:BA:775:C:C6	2.92	0.58
34:BA:774:A:C5	34:BA:775:C:C5	2.91	0.58
34:BA:814:C:H1'	42:BI:101:ARG:HH12	1.68	0.58
34:BA:936:A:C6	34:BA:937:G:C5	2.91	0.58
34:BA:1044:A:C6	34:BA:1525:G:C5	2.92	0.58
34:BA:1107:A:C5	34:BA:1108:U:C5	2.91	0.58
34:BA:1174:A:C5	34:BA:1175:G:C5	2.92	0.58
34:BA:1210:A:H4'	54:BU:131:SER:CA	2.32	0.58
34:BA:1432:C:H4'	48:BO:36:ARG:NE	2.19	0.58
34:BA:1464:C:H2'	34:BA:1465:C:C6	2.38	0.58
34:BA:1469:G:H2'	34:BA:1470:G:C8	2.38	0.58
35:BB:534:C:C4	35:BB:535:U:C4	2.91	0.58
35:BB:1098:G:C2	35:BB:1254:G:C5	2.92	0.58
35:BB:1236:A:C6	35:BB:1237:C:C5	2.92	0.58
35:BB:1291:G:N2	35:BB:1292:G:H1'	2.19	0.58
35:BB:1504:U:C4	49:BP:139:TRP:CE2	2.91	0.58
35:BB:1511:U:C4	35:BB:1512:C:C5	2.91	0.58
36:BC:22:U:C5	59:BZ:17:PHE:CE2	2.91	0.58
36:BC:88:A:H8	36:BC:88:A:O5'	1.86	0.58
36:BC:117:A:C6	36:BC:118:U:C4	2.92	0.58
38:BE:20:C:C2	38:BE:199:A:C2	2.91	0.58
38:BE:108:U:H2'	38:BE:109:C:H1'	1.86	0.58
38:BE:115:U:C4	38:BE:116:U:C4	2.92	0.58
40:BG:44:G:C5	40:BG:67:A:C6	2.92	0.58
56:BW:36:LEU:HD22	56:BW:62:ALA:HB3	1.85	0.58
60:Ba:56:MET:HE2	60:Ba:64:ARG:CZ	2.34	0.58
85:AA:48:G:C6	85:AA:497:G:C2	2.92	0.58
85:AA:63:G:N1	85:AA:64:A:C5	2.71	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:291:G:C6	85:AA:292:C:C5	2.92	0.58
85:AA:382:G:C6	85:AA:383:C:C4	2.92	0.58
85:AA:427:G:C2	85:AA:448:G:C2	2.92	0.58
85:AA:584:G:C6	85:AA:585:G:C4	2.92	0.58
85:AA:806:G:C4	85:AA:807:A:C8	2.92	0.58
85:AA:903:G:H2'	85:AA:904:U:C5	2.39	0.58
85:AA:959:C:C6	85:AA:995:G:N2	2.72	0.58
85:AA:1289:U:C3'	85:AA:1290:G:H4'	2.34	0.58
85:AA:1934:A:C2	85:AA:1935:G:C5	2.92	0.58
4:A3:45:ALA:HB3	4:A3:46:PHE:CZ	2.38	0.58
7:A6:82:TYR:HA	7:A6:148:ARG:HA	1.83	0.58
11:AC:236:ASP:OD1	20:AL:90:HIS:CD2	2.57	0.58
17:AI:45:HIS:HE1	85:AA:2014:G:C8	2.21	0.58
22:AO:63:ALA:N	85:AA:1916:A:H5''	2.19	0.58
23:AP:139:MET:HE2	23:AP:140:ILE:CG2	2.33	0.58
26:AS:131:TYR:HA	26:AS:134:TYR:CE2	2.38	0.58
34:BA:293:A:C2	34:BA:294:C:C2	2.91	0.58
34:BA:295:G:N1	73:Bn:77:HIS:CE1	2.71	0.58
34:BA:297:A:C5	36:BC:32:U:C4	2.91	0.58
34:BA:362:G:C6	72:Bm:38:TYR:CG	2.91	0.58
34:BA:499:C:H5''	71:Bl:89:ILE:HG13	1.85	0.58
34:BA:596:G:N1	34:BA:1488:C:C5	2.72	0.58
34:BA:666:C:C2	34:BA:667:U:C6	2.92	0.58
34:BA:679:U:C5	34:BA:680:C:C4	2.92	0.58
34:BA:825:G:C6	34:BA:843:G:C6	2.92	0.58
34:BA:1095:G:C5	34:BA:1096:C:C5	2.92	0.58
34:BA:1291:A:C5	34:BA:1292:A:C6	2.92	0.58
34:BA:1465:C:H2'	34:BA:1466:U:C6	2.39	0.58
34:BA:1562:G:H2'	34:BA:1563:G:C8	2.38	0.58
34:BA:1660:A:H62	76:Bq:5:LYS:NZ	2.01	0.58
34:BA:1719:G:N2	34:BA:1720:U:C2	2.72	0.58
35:BB:414:C:C2	35:BB:415:A:C8	2.92	0.58
35:BB:794:G:C2	35:BB:795:A:C4	2.91	0.58
35:BB:825:U:C2	35:BB:826:G:C8	2.91	0.58
35:BB:1141:A:C6	35:BB:1142:C:C4	2.92	0.58
35:BB:1162:A:C5	35:BB:1201:G:C4	2.91	0.58
35:BB:1197:G:C5	35:BB:1198:C:C4	2.92	0.58
35:BB:1216:G:C6	35:BB:1248:A:C6	2.92	0.58
35:BB:1232:A:C2	35:BB:1233:U:C5	2.92	0.58
35:BB:1480:G:H22	35:BB:1482:A:H3'	1.68	0.58
36:BC:139:A:H3'	36:BC:140:U:C5	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BD:70:C:H2'	37:BD:71:G:C8	2.39	0.58
37:BD:115:A:C6	37:BD:116:C:C4	2.92	0.58
38:BE:111:C:O3'	38:BE:112:G:C8	2.56	0.58
38:BE:144:A:C8	38:BE:144:A:OP1	2.56	0.58
38:BE:166:G:C2	38:BE:167:U:C2	2.92	0.58
40:BG:72:G:N1	40:BG:126:G:C5	2.72	0.58
41:BH:38:G:N1	41:BH:113:G:C2	2.72	0.58
45:BL:110:GLY:HA3	45:BL:135:TYR:CD1	2.39	0.58
56:BW:47:ARG:HH11	56:BW:47:ARG:HB3	1.68	0.58
77:Br:26:VAL:HG23	77:Br:27:PHE:CD1	2.39	0.58
77:Br:100:MET:SD	77:Br:103:PRO:HA	2.44	0.58
85:AA:71:G:H2'	85:AA:76:G:H1	1.69	0.58
85:AA:513:G:C5	85:AA:514:U:C4	2.91	0.58
85:AA:553:G:H1	85:AA:574:U:H3	1.52	0.58
85:AA:768:C:H2'	85:AA:769:C:C6	2.38	0.58
85:AA:787:U:C5	85:AA:788:G:N1	2.71	0.58
85:AA:821:U:O2	85:AA:861:G:C2	2.56	0.58
85:AA:1102:C:H2'	85:AA:1103:A:C8	2.38	0.58
85:AA:1210:U:H2'	85:AA:1211:C:C6	2.39	0.58
85:AA:1656:C:H2'	85:AA:1657:C:C6	2.39	0.58
85:AA:1688:U:H1'	85:AA:1692:U:C2	2.39	0.58
85:AA:1706:A:OP2	85:AA:1706:A:C8	2.56	0.58
85:AA:1863:A:C6	85:AA:1864:G:C5	2.92	0.58
85:AA:1910:A:C6	85:AA:2006:G:H4'	2.39	0.58
85:AA:1984:A:C6	85:AA:1985:C:C4	2.92	0.58
85:AA:2127:G:H2'	85:AA:2128:G:C8	2.38	0.58
85:AA:2142:A:N1	85:AA:2176:U:N3	2.52	0.58
5:A4:108:PRO:HB3	5:A4:116:GLN:CD	2.28	0.57
6:A5:113:TYR:CZ	6:A5:117:TYR:CD2	2.92	0.57
34:BA:89:G:C8	34:BA:91:C:C4	2.92	0.57
34:BA:264:A:OP1	77:Br:221:ASN:HA	2.04	0.57
34:BA:288:U:N3	34:BA:289:A:C4	2.72	0.57
34:BA:373:G:C6	34:BA:374:U:C5	2.92	0.57
34:BA:474:A:C6	34:BA:475:A:C6	2.92	0.57
34:BA:609:G:N1	34:BA:610:A:C5	2.71	0.57
34:BA:843:G:C2	34:BA:844:U:C2	2.92	0.57
34:BA:897:U:H3'	47:BN:14:ARG:CZ	2.34	0.57
34:BA:933:U:C5	34:BA:934:G:C5	2.92	0.57
34:BA:1007:G:C4	34:BA:1024:A:C5	2.92	0.57
34:BA:1124:U:C6	34:BA:1124:U:H5''	2.39	0.57
34:BA:1293:A:C6	34:BA:1454:G:N2	2.72	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1319:A:C4	37:BD:88:U:H5''	2.38	0.57
34:BA:1451:A:H2'	34:BA:1452:U:H4'	1.85	0.57
34:BA:1458:A:C4	34:BA:1460:U:C5	2.92	0.57
34:BA:1551:G:C6	34:BA:1552:C:C4	2.91	0.57
34:BA:1656:A:H2'	34:BA:1657:A:C8	2.38	0.57
34:BA:1745:G:C6	34:BA:1746:G:C5	2.92	0.57
35:BB:35:G:C6	35:BB:36:U:C4	2.91	0.57
35:BB:43:G:C5	35:BB:44:C:C5	2.91	0.57
35:BB:127:U:C2	35:BB:128:C:C5	2.92	0.57
35:BB:481:A:C2	35:BB:499:A:C2	2.92	0.57
35:BB:798:A:C2	35:BB:799:A:C6	2.92	0.57
35:BB:801:G:H2'	35:BB:802:G:O4'	2.04	0.57
35:BB:1251:G:H3'	35:BB:1251:G:C8	2.39	0.57
35:BB:1354:C:H5'	35:BB:1354:C:C6	2.38	0.57
36:BC:68:A:C6	36:BC:69:U:C4	2.92	0.57
36:BC:149:A:C5	36:BC:150:U:C5	2.92	0.57
36:BC:151:G:H2'	36:BC:152:C:C6	2.39	0.57
37:BD:27:A:C2	37:BD:28:C:C2	2.92	0.57
38:BE:20:C:N4	38:BE:198:A:H61	2.01	0.57
38:BE:25:U:C6	38:BE:25:U:OP2	2.57	0.57
40:BG:29:U:H4'	65:Bf:168:ARG:NH1	2.19	0.57
40:BG:42:A:C4	40:BG:43:U:C5	2.92	0.57
40:BG:88:G:C2	40:BG:89:A:C4	2.92	0.57
40:BG:108:G:C5	40:BG:109:C:C5	2.92	0.57
66:Bg:38:THR:HG21	66:Bg:63:ARG:NH1	2.19	0.57
85:AA:147:G:C6	85:AA:177:A:C5	2.92	0.57
85:AA:200:U:H2'	85:AA:201:U:C6	2.39	0.57
85:AA:395:G:C6	85:AA:396:U:C4	2.92	0.57
85:AA:399:A:C6	85:AA:400:G:C6	2.92	0.57
85:AA:684:G:N1	85:AA:688:C:C2	2.72	0.57
85:AA:779:G:C2	85:AA:780:U:C4	2.92	0.57
85:AA:910:G:C2	85:AA:911:A:C5	2.92	0.57
85:AA:984:A:C8	85:AA:984:A:H5''	2.39	0.57
85:AA:1441:G:C5	85:AA:1442:U:C5	2.91	0.57
85:AA:2009:A:C4	85:AA:2036:A:C5	2.92	0.57
6:A5:156:SER:C	6:A5:159:LYS:H	2.12	0.57
19:AK:141:ARG:HG2	85:AA:2053:A:H5''	1.85	0.57
23:AP:158:ILE:HG22	23:AP:159:GLY:N	2.15	0.57
34:BA:513:U:O4	34:BA:690:G:C6	2.57	0.57
34:BA:543:A:N1	34:BA:564:C:C5	2.73	0.57
34:BA:596:G:H1'	34:BA:1494:G:O6	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:676:G:C6	34:BA:677:U:C2	2.91	0.57
34:BA:959:G:C2	35:BB:401:U:H1'	2.39	0.57
34:BA:1088:G:C6	63:Bd:17:HIS:CG	2.92	0.57
34:BA:1597:G:C2	35:BB:622:G:C6	2.92	0.57
34:BA:1701:U:O2	38:BE:192:A:C2	2.57	0.57
34:BA:1792:U:H3'	34:BA:1793:G:H8	1.68	0.57
35:BB:379:U:C6	35:BB:379:U:O5'	2.58	0.57
35:BB:411:A:C5	35:BB:413:A:C5	2.92	0.57
35:BB:810:G:C5	35:BB:811:C:C5	2.92	0.57
35:BB:877:A:C2	35:BB:878:G:C5	2.92	0.57
35:BB:882:U:C4	35:BB:896:C:C6	2.92	0.57
35:BB:1081:U:C4	35:BB:1082:A:C5	2.92	0.57
35:BB:1114:A:C2	35:BB:1137:G:C5	2.92	0.57
35:BB:1154:C:H2'	35:BB:1155:U:C6	2.40	0.57
35:BB:1295:A:H2'	35:BB:1303:A:C6	2.38	0.57
35:BB:1482:A:C2	35:BB:1483:A:C4	2.92	0.57
37:BD:68:C:C4	37:BD:69:U:C4	2.91	0.57
37:BD:106:G:H2'	37:BD:107:G:C8	2.39	0.57
38:BE:9:C:C2	38:BE:12:A:C2	2.92	0.57
39:BF:36:G:C2	39:BF:37:C:C2	2.92	0.57
40:BG:127:G:N2	40:BG:163:G:C4	2.73	0.57
40:BG:162:A:C2	40:BG:163:G:C5	2.92	0.57
41:BH:38:G:C6	41:BH:114:G:C4	2.92	0.57
41:BH:67:G:C6	41:BH:68:G:C5	2.92	0.57
42:BI:2:GLY:CA	82:Bw:107:ILE:HG21	2.34	0.57
44:BK:85:PHE:N	44:BK:85:PHE:CD1	2.70	0.57
48:BO:63:GLY:H	48:BO:154:PHE:HA	1.68	0.57
52:BS:113:ALA:O	52:BS:117:ARG:HA	2.04	0.57
85:AA:146:U:C2	85:AA:333:A:C4	2.92	0.57
85:AA:175:A:C6	85:AA:176:C:C5	2.92	0.57
85:AA:477:U:H2'	85:AA:478:U:H6	1.70	0.57
85:AA:635:G:C2	85:AA:659:A:C2	2.92	0.57
85:AA:730:G:C4	85:AA:731:U:C5	2.91	0.57
85:AA:1226:A:C6	85:AA:1227:A:C5	2.92	0.57
85:AA:1242:A:H62	85:AA:1260:G:H21	1.52	0.57
85:AA:1544:G:C2	85:AA:2046:G:C5	2.93	0.57
85:AA:1586:C:C2	85:AA:1587:C:C5	2.91	0.57
85:AA:1731:G:C6	85:AA:1808:G:C5	2.92	0.57
85:AA:2187:G:C2	85:AA:2188:C:C2	2.92	0.57
21:AM:42:ALA:HB3	21:AM:45:VAL:H	1.69	0.57
34:BA:377:G:C6	34:BA:378:C:C4	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:384:U:C5'	50:BQ:167:TRP:CH2	2.88	0.57
34:BA:446:U:C2	34:BA:447:U:C6	2.93	0.57
34:BA:529:A:C6	34:BA:530:A:C5	2.92	0.57
34:BA:714:G:N7	34:BA:715:U:C5	2.72	0.57
34:BA:745:A:C6	34:BA:746:C:C4	2.92	0.57
34:BA:1042:U:C6	34:BA:1582:C:C5	2.92	0.57
34:BA:1066:A:C6	34:BA:1067:G:C5	2.91	0.57
34:BA:1168:C:C2	34:BA:1170:A:C5	2.92	0.57
34:BA:1175:G:C6	34:BA:1176:C:C4	2.91	0.57
34:BA:1213:A:C5	34:BA:1214:U:C5	2.93	0.57
34:BA:1307:U:C5	34:BA:1310:C:H5'	2.39	0.57
34:BA:1307:U:H5	34:BA:1310:C:H5'	1.68	0.57
34:BA:1504:A:C2	62:Bc:40:LYS:O	2.57	0.57
34:BA:1608:C:C2	34:BA:1642:A:C2	2.92	0.57
35:BB:68:G:H2'	35:BB:69:A:C5	2.39	0.57
35:BB:425:G:C5	35:BB:446:U:C4	2.92	0.57
35:BB:626:C:H2'	35:BB:627:G:C8	2.39	0.57
35:BB:778:A:C5	35:BB:779:C:C5	2.92	0.57
35:BB:1271:A:C5	35:BB:1272:G:C8	2.92	0.57
35:BB:1291:G:C2	35:BB:1314:G:C4	2.93	0.57
35:BB:1337:C:C6	35:BB:1338:U:H5	2.23	0.57
35:BB:1381:U:C5	35:BB:1382:U:C4	2.92	0.57
35:BB:1384:A:C5	35:BB:1385:C:C4	2.92	0.57
35:BB:1508:G:C2	35:BB:1509:G:C4	2.92	0.57
35:BB:1522:G:N2	35:BB:1546:C:C2	2.72	0.57
36:BC:53:A:C2	36:BC:54:G:H1'	2.40	0.57
37:BD:108:G:C4	37:BD:109:U:C5	2.92	0.57
38:BE:26:G:C8	38:BE:26:G:C3'	2.85	0.57
41:BH:23:G:C5	41:BH:24:U:C2	2.92	0.57
45:BL:81:LYS:HA	45:BL:84:GLU:CD	2.29	0.57
66:Bg:58:ASN:N	66:Bg:58:ASN:HD22	2.00	0.57
70:Bk:74:TYR:CE2	70:Bk:84:PRO:HD2	2.39	0.57
71:Bl:85:HIS:HA	71:Bl:105:THR:HA	1.86	0.57
83:Bx:97:ARG:HA	83:Bx:100:ARG:NE	2.19	0.57
85:AA:39:A:C6	85:AA:537:G:C2	2.92	0.57
85:AA:116:G:H3'	85:AA:117:C:C6	2.39	0.57
85:AA:157:G:H2'	85:AA:158:C:H6	1.69	0.57
85:AA:205:A:H5''	85:AA:301:U:C5	2.39	0.57
85:AA:582:A:C4	85:AA:583:U:C6	2.92	0.57
85:AA:896:C:H2'	85:AA:897:A:C8	2.39	0.57
85:AA:1098:C:H2'	85:AA:1099:U:C6	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1974:C:C2	85:AA:1975:G:C8	2.92	0.57
85:AA:1992:A:H3'	85:AA:1992:A:C8	2.39	0.57
85:AA:2080:U:C2	85:AA:2081:A:N7	2.72	0.57
85:AA:2117:U:C2	85:AA:2202:G:C2	2.93	0.57
85:AA:2132:A:C6	85:AA:2133:A:C5	2.93	0.57
7:A6:170:ARG:HH21	85:AA:610:C:N4	2.02	0.57
29:AV:41:PHE:O	85:AA:2250:U:C2	2.58	0.57
34:BA:14:G:C2	36:BC:153:C:O2	2.57	0.57
34:BA:38:G:C5	35:BB:1259:A:C2	2.92	0.57
34:BA:265:A:C2	34:BA:278:U:H1'	2.38	0.57
34:BA:313:C:N3	34:BA:315:U:C4	2.72	0.57
34:BA:1044:A:C4	34:BA:1045:C:C5	2.92	0.57
34:BA:1227:U:O5'	34:BA:1227:U:H6	1.88	0.57
34:BA:1239:G:C6	34:BA:1240:G:C6	2.92	0.57
34:BA:1425:G:H1'	34:BA:1426:A:OP2	2.04	0.57
34:BA:1475:G:C6	34:BA:1476:G:C6	2.92	0.57
34:BA:1808:A:N7	34:BA:1809:G:C8	2.72	0.57
35:BB:434:A:C5	35:BB:435:A:C5	2.92	0.57
35:BB:518:G:C2	35:BB:519:A:C8	2.92	0.57
35:BB:634:A:C6	35:BB:648:G:C6	2.92	0.57
35:BB:692:G:C4	35:BB:693:U:C5	2.91	0.57
35:BB:857:G:C6	35:BB:866:A:C6	2.92	0.57
35:BB:1213:U:C2	35:BB:1214:U:C5	2.93	0.57
35:BB:1423:U:C5	35:BB:1424:G:C5	2.92	0.57
35:BB:1484:A:C2	35:BB:1485:G:H1'	2.39	0.57
38:BE:117:A:H2'	66:Bg:96:PHE:CZ	2.39	0.57
38:BE:194:A:H8	38:BE:194:A:O5'	1.87	0.57
40:BG:4:A:N3	40:BG:21:C:C5	2.72	0.57
40:BG:16:G:C2	40:BG:17:A:C5	2.92	0.57
41:BH:20:A:C2	41:BH:21:G:C1'	2.86	0.57
41:BH:98:U:P	55:BV:63:LYS:C	2.87	0.57
54:BU:65:TRP:CE2	54:BU:66:ASN:HB2	2.39	0.57
64:Be:196:TRP:CD1	64:Be:197:PRO:HA	2.40	0.57
70:Bk:116:HIS:CD2	70:Bk:117:LYS:HG3	2.40	0.57
82:Bw:15:VAL:HG22	82:Bw:16:MET:H	1.69	0.57
85:AA:44:C:C5	85:AA:45:U:C5	2.92	0.57
85:AA:84:C:C2	85:AA:85:U:H5''	2.39	0.57
85:AA:449:G:C6	85:AA:450:A:C5	2.92	0.57
85:AA:543:A:C2	85:AA:544:A:H1'	2.38	0.57
85:AA:1144:G:H2'	85:AA:1145:U:O4'	2.03	0.57
85:AA:1265:C:C2	85:AA:1266:C:C6	2.92	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1494:C:H4'	85:AA:1495:G:H5'	1.85	0.57
85:AA:1495:G:C6	85:AA:1496:U:C4	2.93	0.57
85:AA:1544:G:C5	85:AA:2046:G:C6	2.92	0.57
85:AA:1709:U:H3	85:AA:1858:G:H22	1.52	0.57
85:AA:1854:U:C4	85:AA:1855:U:C5	2.93	0.57
85:AA:1868:G:C6	85:AA:1869:U:C2	2.93	0.57
85:AA:2014:G:N2	85:AA:2030:U:C2	2.72	0.57
34:BA:19:G:C6	36:BC:36:G:N1	2.72	0.57
34:BA:437:G:N3	34:BA:461:A:C2	2.72	0.57
34:BA:523:A:C6	34:BA:524:G:C5	2.92	0.57
34:BA:542:A:C2	34:BA:566:G:N1	2.73	0.57
34:BA:780:U:C6	34:BA:781:U:H1'	2.39	0.57
34:BA:982:A:H5''	34:BA:982:A:C8	2.39	0.57
34:BA:1195:G:C6	34:BA:1196:C:C4	2.92	0.57
34:BA:1311:G:C2	34:BA:1312:A:C2	2.92	0.57
34:BA:1319:A:C2	37:BD:87:G:H3'	2.38	0.57
34:BA:1508:C:C2	34:BA:1509:U:C5	2.92	0.57
34:BA:1614:G:C6	34:BA:1634:A:C5	2.92	0.57
34:BA:1719:G:C6	34:BA:1720:U:C5	2.92	0.57
34:BA:1738:G:C4	34:BA:1739:G:C8	2.93	0.57
35:BB:411:A:C6	35:BB:413:A:C4	2.92	0.57
35:BB:557:C:N3	35:BB:570:A:C2	2.72	0.57
35:BB:867:C:H2'	35:BB:868:C:O4'	2.04	0.57
35:BB:1056:A:C2	35:BB:1057:G:C4	2.92	0.57
35:BB:1105:G:H4'	35:BB:1201:G:H2'	1.84	0.57
35:BB:1288:G:C6	35:BB:1289:G:C5	2.92	0.57
35:BB:1359:G:C5	35:BB:1360:A:C8	2.91	0.57
35:BB:1427:A:C8	64:Be:215:ASN:OD1	2.57	0.57
36:BC:25:C:H2'	36:BC:26:U:C4	2.39	0.57
36:BC:74:U:O5'	36:BC:74:U:C6	2.57	0.57
36:BC:125:A:C2	36:BC:139:A:C4	2.93	0.57
37:BD:8:A:C6	37:BD:9:C:C4	2.91	0.57
38:BE:160:C:C5	53:BT:43:LYS:HB3	2.40	0.57
39:BF:33:C:C5	39:BF:34:C:O2	2.58	0.57
39:BF:53:G:H4'	39:BF:54:U:H2'	1.86	0.57
40:BG:81:G:C2	40:BG:82:U:C2	2.93	0.57
41:BH:39:G:C4	41:BH:40:C:C5	2.93	0.57
41:BH:43:G:H2'	41:BH:44:A:C8	2.40	0.57
47:BN:174:PRO:HA	61:Bb:96:LEU:HD13	1.86	0.57
49:BP:110:ARG:HH12	81:Bv:192:TRP:CD1	2.22	0.57
62:Bc:93:ARG:HE	62:Bc:94:ALA:HA	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:86:G:H2'	85:AA:87:C:C6	2.39	0.57
85:AA:200:U:C6	85:AA:200:U:H3'	2.39	0.57
85:AA:406:U:C4	85:AA:407:G:C6	2.92	0.57
85:AA:577:U:C3'	85:AA:578:U:C5'	2.83	0.57
85:AA:740:A:C5	85:AA:741:G:H5'	2.40	0.57
85:AA:914:U:C4	85:AA:915:G:C4	2.92	0.57
85:AA:937:G:H3'	85:AA:937:G:C8	2.38	0.57
85:AA:1105:G:C8	85:AA:1107:A:OP2	2.57	0.57
85:AA:1111:A:C5	85:AA:1212:C:C5	2.92	0.57
85:AA:1182:A:H3'	85:AA:1182:A:C8	2.39	0.57
85:AA:1190:G:C2'	85:AA:1226:A:H5'	2.35	0.57
85:AA:1226:A:C6	85:AA:1227:A:C4	2.93	0.57
85:AA:1448:A:C5	85:AA:1449:C:C4	2.92	0.57
85:AA:1458:G:H2'	85:AA:1459:C:C6	2.39	0.57
85:AA:1601:G:C6	85:AA:1602:U:C4	2.92	0.57
85:AA:2086:C:C2	85:AA:2087:C:C6	2.92	0.57
7:A6:175:LYS:CD	7:A6:178:ALA:HB3	2.35	0.57
10:A9:97:LYS:HE2	85:AA:1606:G:C8	2.39	0.57
21:AM:37:ILE:HG23	21:AM:38:GLY:H	1.68	0.57
23:AP:182:ALA:HA	23:AP:207:TYR:CE2	2.40	0.57
25:AR:12:VAL:HG12	25:AR:13:ASN:O	2.05	0.57
34:BA:44:U:C5	34:BA:45:A:C4	2.92	0.57
34:BA:117:C:C2	34:BA:118:C:C5	2.93	0.57
34:BA:120:A:C8	83:Bx:117:ALA:HB3	2.39	0.57
34:BA:288:U:C4	34:BA:289:A:C5	2.92	0.57
34:BA:367:G:C4	61:Bb:62:HIS:CG	2.93	0.57
34:BA:369:A:C2	35:BB:1242:C:H1'	2.40	0.57
34:BA:596:G:C6	34:BA:1488:C:C5	2.93	0.57
34:BA:597:C:C4	34:BA:598:G:C6	2.93	0.57
34:BA:703:U:C5'	34:BA:1548:A:C2	2.87	0.57
34:BA:734:G:C5	34:BA:1582:C:C4	2.93	0.57
34:BA:1122:G:C5	34:BA:1139:G:C2	2.93	0.57
34:BA:1273:U:C2	34:BA:1515:U:H1'	2.40	0.57
34:BA:1303:U:H3	34:BA:1435:A:H61	1.51	0.57
34:BA:1304:C:H42	34:BA:1433:U:H1'	1.70	0.57
34:BA:1322:A:H2'	34:BA:1323:G:H5'	1.86	0.57
34:BA:1413:G:H2'	34:BA:1414:C:C6	2.40	0.57
34:BA:1639:U:H2'	34:BA:1640:G:C8	2.40	0.57
35:BB:364:U:C6	35:BB:365:U:C6	2.93	0.57
35:BB:367:C:H2'	35:BB:368:C:C6	2.39	0.57
35:BB:796:C:H4'	35:BB:837:A:N3	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:805:G:OP1	35:BB:805:G:H4'	2.03	0.57
35:BB:840:C:H2'	35:BB:841:U:C6	2.39	0.57
35:BB:1391:G:C6	35:BB:1392:A:C6	2.93	0.57
35:BB:1430:G:C6	35:BB:1431:G:C5	2.92	0.57
35:BB:1486:C:H2'	35:BB:1487:G:C8	2.40	0.57
36:BC:73:U:C5	36:BC:74:U:H5	2.22	0.57
37:BD:33:U:C4	80:Bu:213:TYR:CZ	2.93	0.57
37:BD:106:G:C4	37:BD:107:G:C8	2.93	0.57
38:BE:33:C:C4	38:BE:34:C:C4	2.93	0.57
38:BE:119:U:C2'	66:Bg:39:GLN:HE22	2.17	0.57
40:BG:152:G:C5	40:BG:153:C:C5	2.92	0.57
41:BH:126:C:H2'	41:BH:127:A:C8	2.39	0.57
45:BL:103:PHE:CG	45:BL:109:PHE:HB3	2.39	0.57
53:BT:178:LEU:HG	85:AA:999:A:N6	1.98	0.57
66:Bg:81:TYR:CE2	66:Bg:88:LEU:HD23	2.39	0.57
67:Bh:50:ARG:HG2	67:Bh:54:HIS:CE1	2.40	0.57
85:AA:94:C:H1'	85:AA:491:G:C5'	2.35	0.57
85:AA:269:G:OP2	85:AA:270:A:C4	2.57	0.57
85:AA:420:C:C6	85:AA:420:C:O5'	2.58	0.57
85:AA:557:G:C4	85:AA:571:G:C2	2.93	0.57
85:AA:703:U:O5'	85:AA:703:U:H6	1.87	0.57
85:AA:709:A:C6	85:AA:710:A:C5	2.92	0.57
85:AA:883:A:H2'	85:AA:884:A:N7	2.20	0.57
85:AA:1227:A:H2'	85:AA:1228:A:O4'	2.05	0.57
85:AA:1299:A:H61	85:AA:1443:U:H3	1.52	0.57
85:AA:1988:A:C2	85:AA:1989:A:C6	2.92	0.57
85:AA:2117:U:H1'	85:AA:2202:G:N2	2.20	0.57
85:AA:2222:G:C5	85:AA:2223:C:C4	2.93	0.57
1:A0:118:LYS:HE2	29:AV:41:PHE:HB2	1.86	0.57
23:AP:43:TRP:CE2	23:AP:75:GLN:HB3	2.38	0.57
34:BA:14:G:C4	34:BA:15:G:C8	2.93	0.57
34:BA:220:U:C4	34:BA:221:G:C5	2.93	0.57
34:BA:365:A:N1	34:BA:366:G:C5	2.73	0.57
34:BA:402:G:C6	34:BA:404:C:C4	2.93	0.57
34:BA:511:U:H3'	34:BA:512:U:C6	2.40	0.57
34:BA:532:C:C5	34:BA:533:U:C6	2.92	0.57
34:BA:561:U:N3	34:BA:562:C:C4	2.73	0.57
34:BA:674:G:H2'	34:BA:675:C:H5'	1.86	0.57
34:BA:1046:G:H2'	34:BA:1047:U:C6	2.40	0.57
34:BA:1052:G:C5	34:BA:1230:G:C5	2.93	0.57
34:BA:1243:A:H3'	34:BA:1245:C:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1264:U:C6	34:BA:1264:U:OP2	2.58	0.57
34:BA:1283:U:H6	34:BA:1283:U:O5'	1.87	0.57
34:BA:1405:A:H2'	34:BA:1406:U:O4'	2.04	0.57
34:BA:1495:A:C8	34:BA:1498:A:C5	2.93	0.57
34:BA:1504:A:H3'	62:Bc:41:ARG:HA	1.86	0.57
34:BA:1610:A:C2	34:BA:1611:A:C4	2.93	0.57
34:BA:1831:A:OP1	34:BA:1831:A:C6	2.58	0.57
35:BB:43:G:H2'	35:BB:44:C:C6	2.39	0.57
35:BB:73:G:H3'	35:BB:74:U:C6	2.39	0.57
35:BB:140:U:H3	35:BB:320:G:H1	1.53	0.57
35:BB:521:U:H3'	35:BB:528:G:H1	1.68	0.57
35:BB:662:G:C6	35:BB:663:G:C5	2.93	0.57
35:BB:876:G:H2'	35:BB:901:U:C6	2.39	0.57
35:BB:986:C:H4'	35:BB:987:U:C5'	2.34	0.57
35:BB:993:A:N6	38:BE:201:A:H4'	2.20	0.57
35:BB:994:A:N1	38:BE:202:C:H4'	2.19	0.57
35:BB:1069:C:C4	35:BB:1070:G:C4	2.92	0.57
35:BB:1115:G:C6	35:BB:1116:U:C4	2.92	0.57
35:BB:1274:G:C8	35:BB:1327:U:H3'	2.39	0.57
36:BC:168:C:O2	36:BC:169:G:C4	2.58	0.57
37:BD:84:U:C2	37:BD:85:C:C6	2.93	0.57
38:BE:23:G:C2	38:BE:197:A:C5	2.92	0.57
38:BE:98:C:C4	38:BE:99:C:C5	2.92	0.57
40:BG:139:U:C4	40:BG:140:G:C8	2.93	0.57
44:BK:75:TYR:CE1	44:BK:150:GLU:CD	2.83	0.57
47:BN:16:HIS:CG	47:BN:17:TRP:CD1	2.93	0.57
53:BT:115:ILE:CG2	53:BT:120:TYR:HB2	2.33	0.57
56:BW:69:PRO:HG2	85:AA:2126:U:P	2.45	0.57
61:Bb:4:ARG:HA	61:Bb:9:ARG:HE	1.68	0.57
67:Bh:71:ALA:HB3	67:Bh:76:ARG:HH12	1.68	0.57
70:Bk:74:TYR:CZ	70:Bk:84:PRO:HD2	2.40	0.57
85:AA:156:G:C2	85:AA:167:A:C2	2.92	0.57
85:AA:160:A:H1'	85:AA:481:A:C6	2.38	0.57
85:AA:452:A:C8	85:AA:467:U:N3	2.73	0.57
85:AA:569:A:C6	85:AA:570:U:C4	2.93	0.57
85:AA:678:A:C6	85:AA:679:A:C5	2.93	0.57
85:AA:867:G:C8	85:AA:867:G:H3'	2.37	0.57
85:AA:1001:G:C6	85:AA:1002:G:C6	2.93	0.57
85:AA:1457:C:C3'	85:AA:1458:G:H5'	2.35	0.57
85:AA:1611:A:H3'	85:AA:1622:G:C8	2.40	0.57
85:AA:1814:U:H1'	85:AA:1815:U:C5	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1924:C:H2'	85:AA:1925:A:C8	2.40	0.57
2:A1:125:ASN:HB3	2:A1:137:VAL:CG1	2.34	0.57
2:A1:176:LYS:H	2:A1:192:ILE:HB	1.68	0.57
11:AC:121:ARG:HA	11:AC:124:PHE:CE2	2.40	0.57
15:AG:140:LYS:HZ1	34:BA:946:A:C5'	2.14	0.57
27:AT:93:GLU:OE1	27:AT:98:LYS:HA	2.05	0.57
28:AU:44:ASN:HD22	28:AU:77:ILE:C	2.12	0.57
34:BA:176:G:C2	34:BA:311:C:C2	2.93	0.57
34:BA:201:A:C2	34:BA:272:A:N1	2.73	0.57
34:BA:404:C:C2	34:BA:405:C:C5	2.92	0.57
34:BA:752:A:H4'	34:BA:753:G:O5'	2.03	0.57
34:BA:775:C:C2	34:BA:776:U:H1'	2.40	0.57
34:BA:1192:A:C6	34:BA:1193:A:C5	2.92	0.57
34:BA:1202:G:C6	34:BA:1203:G:C5	2.93	0.57
34:BA:1287:G:C4	34:BA:1436:A:C5	2.92	0.57
34:BA:1296:U:OP2	34:BA:1296:U:C4	2.57	0.57
34:BA:1333:G:H2'	34:BA:1334:G:H5''	1.86	0.57
34:BA:1347:G:C6	34:BA:1348:G:C5	2.93	0.57
34:BA:1451:A:H4'	49:BP:19:PRO:HB3	1.87	0.57
34:BA:1469:G:C2	34:BA:1470:G:C4	2.93	0.57
34:BA:1636:C:N3	34:BA:1676:A:H1'	2.19	0.57
35:BB:125:G:C4	35:BB:126:C:C6	2.93	0.57
35:BB:134:G:C5	35:BB:135:C:C6	2.93	0.57
35:BB:576:A:H1'	35:BB:1420:U:C5'	2.34	0.57
35:BB:836:U:C6	35:BB:836:U:O5'	2.58	0.57
35:BB:996:G:H3'	35:BB:996:G:C8	2.40	0.57
35:BB:1263:A:C5	35:BB:1264:U:C5	2.92	0.57
35:BB:1296:A:C5	35:BB:1309:A:C5	2.93	0.57
36:BC:75:G:C5	36:BC:76:C:C5	2.93	0.57
37:BD:101:A:C4	37:BD:102:C:C5	2.93	0.57
38:BE:74:U:C5	38:BE:75:C:C6	2.93	0.57
38:BE:101:C:C4	38:BE:120:C:C5	2.93	0.57
40:BG:176:G:H2'	40:BG:177:U:C6	2.39	0.57
41:BH:42:U:C6	41:BH:42:U:O5'	2.58	0.57
58:BY:33:LEU:HD22	58:BY:35:PHE:CE1	2.39	0.57
58:BY:81:ARG:HG3	85:AA:2162:G:C5'	2.35	0.57
65:Bf:264:VAL:HB	65:Bf:265:PHE:CE2	2.40	0.57
69:Bj:21:MET:HA	69:Bj:35:LYS:HA	1.85	0.57
85:AA:28:A:C5	85:AA:29:U:C5	2.92	0.57
85:AA:88:G:C5	85:AA:89:C:C4	2.92	0.57
85:AA:97:A:C8	85:AA:97:A:H3'	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:116:G:H1'	85:AA:462:A:C8	2.39	0.57
85:AA:455:G:H1	85:AA:472:A:H61	1.52	0.57
85:AA:877:G:C5	85:AA:878:U:C6	2.93	0.57
85:AA:924:A:N6	85:AA:925:G:C6	2.73	0.57
85:AA:1263:G:C6	85:AA:1264:U:C4	2.93	0.57
85:AA:1434:U:C5	85:AA:1438:C:H5'	2.40	0.57
85:AA:1486:G:C2	85:AA:1514:A:C6	2.93	0.57
85:AA:1537:A:H2'	85:AA:1538:C:O4'	2.05	0.57
85:AA:1678:U:C2	85:AA:1679:U:C6	2.93	0.57
85:AA:1678:U:C4	85:AA:1679:U:C5	2.93	0.57
85:AA:1819:U:H2'	85:AA:1820:G:C8	2.40	0.57
85:AA:2106:C:H42	85:AA:2214:A:N6	2.02	0.57
85:AA:2139:G:C2	85:AA:2140:U:C4	2.92	0.57
86:AB:7:A:N1	86:AB:67:C:C2	2.73	0.57
20:AL:35:VAL:HG21	20:AL:51:ALA:HB2	1.86	0.57
31:AX:38:HIS:CE1	31:AX:40:VAL:HB	2.39	0.57
34:BA:6:C:C2	36:BC:166:G:N1	2.72	0.57
34:BA:198:U:C5	34:BA:262:A:C6	2.92	0.57
34:BA:230:A:H2'	34:BA:231:U:C5	2.40	0.57
34:BA:313:C:O5'	34:BA:314:A:H5''	2.05	0.57
34:BA:358:A:H2'	34:BA:360:C:C4	2.40	0.57
34:BA:490:A:H2'	34:BA:491:U:C6	2.40	0.57
34:BA:699:G:N2	34:BA:700:G:C4	2.72	0.57
34:BA:821:G:N2	42:BI:73:ARG:HH12	2.03	0.57
34:BA:1070:G:C6	34:BA:1071:G:C5	2.93	0.57
34:BA:1123:G:C4	34:BA:1124:U:C6	2.92	0.57
34:BA:1210:A:C8	54:BU:129:LYS:HB2	2.40	0.57
34:BA:1213:A:H2'	34:BA:1214:U:H6	1.70	0.57
34:BA:1692:U:C5	35:BB:12:G:C5	2.93	0.57
34:BA:1695:G:H3'	34:BA:1696:G:H8	1.70	0.57
34:BA:1702:G:C4	34:BA:1703:A:C6	2.93	0.57
34:BA:1792:U:C4	34:BA:1793:G:C5	2.93	0.57
35:BB:85:A:C2	35:BB:603:U:H1'	2.40	0.57
35:BB:454:U:H5'	35:BB:581:U:OP2	2.05	0.57
35:BB:844:G:C4	35:BB:845:C:C6	2.93	0.57
35:BB:1101:C:H1'	35:BB:1104:A:C2	2.40	0.57
35:BB:1145:G:C5	35:BB:1146:C:C5	2.93	0.57
35:BB:1153:G:C6	35:BB:1154:C:C4	2.92	0.57
35:BB:1353:G:C2	35:BB:1354:C:C6	2.92	0.57
35:BB:1353:G:N1	35:BB:1365:G:C5	2.73	0.57
35:BB:1399:A:C4	65:Bf:311:TRP:CH2	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1444:U:H2'	35:BB:1445:A:C8	2.39	0.57
35:BB:1457:A:C6	35:BB:1462:G:C6	2.93	0.57
35:BB:1521:G:C2	35:BB:1522:G:C4	2.93	0.57
36:BC:37:U:OP2	70:Bk:93:HIS:HE1	1.87	0.57
36:BC:90:U:C6	36:BC:90:U:H3'	2.39	0.57
38:BE:8:G:H2'	38:BE:9:C:C6	2.40	0.57
38:BE:153:C:C5	38:BE:154:A:C4	2.93	0.57
38:BE:159:A:N1	38:BE:161:G:H1'	2.19	0.57
39:BF:69:A:OP2	39:BF:69:A:C8	2.57	0.57
40:BG:148:C:C6	40:BG:148:C:O5'	2.58	0.57
45:BL:40:ALA:HB2	45:BL:130:TYR:CE2	2.39	0.57
49:BP:164:VAL:CG1	49:BP:168:ARG:HH21	2.17	0.57
51:BR:111:LYS:C	51:BR:152:GLN:HE21	2.13	0.57
61:Bb:108:LYS:HG2	61:Bb:125:TRP:CD1	2.40	0.57
73:Bn:18:LEU:HD12	73:Bn:19:CYS:H	1.70	0.57
75:Bp:10:GLU:CD	75:Bp:10:GLU:N	2.63	0.57
82:Bw:37:GLN:HB3	82:Bw:38:THR:HG23	1.87	0.57
82:Bw:175:ARG:HG3	82:Bw:218:TRP:CG	2.40	0.57
85:AA:50:C:C2	85:AA:495:G:C6	2.92	0.57
85:AA:90:A:C4	85:AA:464:A:C2	2.93	0.57
85:AA:281:C:C4	85:AA:289:G:C4	2.93	0.57
85:AA:725:G:C4	85:AA:777:U:C2	2.93	0.57
85:AA:806:G:C2	85:AA:807:A:C4	2.92	0.57
85:AA:880:A:C6	85:AA:881:C:C4	2.93	0.57
85:AA:897:A:C8	85:AA:897:A:H3'	2.39	0.57
85:AA:1123:C:H2'	85:AA:1124:G:C8	2.40	0.57
85:AA:1133:C:C6	85:AA:1133:C:OP2	2.58	0.57
85:AA:1231:G:C6	85:AA:1269:A:C2	2.93	0.57
85:AA:1293:U:H3	85:AA:1450:U:H3	1.50	0.57
85:AA:1480:C:C5	85:AA:1481:U:C5	2.93	0.57
85:AA:2105:G:H2'	85:AA:2106:C:O4'	2.04	0.57
85:AA:2150:G:C2	85:AA:2169:C:N3	2.73	0.57
85:AA:2169:C:H2'	85:AA:2170:G:C8	2.40	0.57
86:AB:7:A:C2	86:AB:49:C:N3	2.72	0.57
5:A4:183:HIS:HE1	85:AA:786:G:C4	2.23	0.57
13:AE:56:LEU:HG	85:AA:313:A:C4	2.40	0.57
34:BA:187:G:H2'	34:BA:188:C:C6	2.39	0.57
34:BA:263:G:C6	34:BA:273:G:C4	2.92	0.57
34:BA:325:A:H5''	34:BA:325:A:C8	2.39	0.57
34:BA:446:U:C4	34:BA:447:U:C4	2.93	0.57
34:BA:616:G:C6	34:BA:617:G:C5	2.92	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:965:A:H4'	34:BA:1649:A:C6	2.40	0.57
34:BA:1285:G:C6	34:BA:1456:C:C4	2.93	0.57
34:BA:1522:G:C6	34:BA:1523:U:O4	2.58	0.57
34:BA:1566:G:C5	34:BA:1567:G:C6	2.92	0.57
35:BB:50:A:C2	35:BB:51:U:H1'	2.40	0.57
35:BB:446:U:O4'	35:BB:448:G:C8	2.58	0.57
35:BB:824:C:C6	35:BB:824:C:H3'	2.39	0.57
35:BB:868:C:C2	35:BB:869:G:C8	2.93	0.57
35:BB:976:U:O5'	35:BB:976:U:C6	2.58	0.57
35:BB:1197:G:C5	35:BB:1198:C:C5	2.93	0.57
35:BB:1314:G:C6	35:BB:1315:C:C4	2.92	0.57
35:BB:1381:U:C5	35:BB:1382:U:C5	2.92	0.57
36:BC:155:C:O2'	36:BC:156:A:H5'	2.05	0.57
37:BD:7:G:C6	37:BD:8:A:C6	2.92	0.57
37:BD:42:A:C5	37:BD:43:U:C5	2.93	0.57
37:BD:95:G:C5	37:BD:96:C:H5	2.23	0.57
38:BE:89:G:C5	38:BE:90:G:C6	2.92	0.57
38:BE:110:U:C5	38:BE:111:C:C5	2.93	0.57
40:BG:35:G:C2	40:BG:36:G:C4	2.92	0.57
40:BG:57:A:C5	40:BG:58:G:H1'	2.40	0.57
40:BG:136:G:C6	40:BG:137:G:C8	2.93	0.57
47:BN:16:HIS:CD2	47:BN:17:TRP:CD1	2.93	0.57
57:BX:60:TYR:CZ	57:BX:62:ARG:HD2	2.39	0.57
59:BZ:51:ASP:CG	59:BZ:107:LYS:H	2.12	0.57
82:Bw:193:ILE:HG23	82:Bw:198:ASP:CB	2.35	0.57
85:AA:369:A:H2	85:AA:370:A:C8	2.23	0.57
85:AA:757:A:C2	85:AA:758:C:C2	2.93	0.57
85:AA:994:A:C5	85:AA:995:G:C8	2.93	0.57
85:AA:1502:A:C6	85:AA:1503:G:H1'	2.39	0.57
85:AA:1970:A:H2'	85:AA:1971:G:H5'	1.85	0.57
85:AA:1992:A:C8	85:AA:1992:A:C3'	2.88	0.57
85:AA:2153:G:C5	85:AA:2154:C:C5	2.93	0.57
85:AA:2210:C:H2'	85:AA:2211:G:C8	2.40	0.57
85:AA:2218:G:H4'	85:AA:2219:G:C5'	2.34	0.57
86:AB:4:C:H1'	86:AB:70:G:H22	1.70	0.57
4:A3:210:ARG:HH22	4:A3:211:GLU:CD	2.11	0.56
5:A4:58:ARG:HH21	5:A4:173:LEU:CG	2.18	0.56
8:A7:195:HIS:CE1	8:A7:219:VAL:O	2.58	0.56
24:AQ:64:LYS:HE2	24:AQ:73:THR:O	2.04	0.56
27:AT:17:PHE:CZ	85:AA:906:U:C2	2.93	0.56
30:AW:29:PRO:HB2	85:AA:1208:C:C4	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:53:G:H1'	50:BQ:178:GLN:HE21	1.70	0.56
34:BA:185:A:C5	34:BA:304:G:C6	2.93	0.56
34:BA:220:U:C4	34:BA:221:G:N7	2.73	0.56
34:BA:265:A:N1	34:BA:277:A:N1	2.52	0.56
34:BA:297:A:C2	36:BC:32:U:C5	2.93	0.56
34:BA:649:A:C6	34:BA:650:C:C5	2.93	0.56
34:BA:776:U:C2	34:BA:777:C:C6	2.93	0.56
34:BA:1066:A:C2	34:BA:1067:G:C4	2.93	0.56
34:BA:1107:A:C2	34:BA:1108:U:N1	2.73	0.56
34:BA:1466:U:C4	34:BA:1467:U:C5	2.92	0.56
34:BA:1480:C:C2	82:Bw:25:GLU:CG	2.87	0.56
34:BA:1550:G:C6	34:BA:1551:G:N7	2.73	0.56
34:BA:1675:C:H2'	34:BA:1675:C:O2	2.05	0.56
34:BA:1688:G:O4'	34:BA:1821:A:C2	2.58	0.56
34:BA:1804:A:C2	34:BA:1807:G:C8	2.93	0.56
34:BA:1822:U:H4'	35:BB:18:A:H4'	1.85	0.56
35:BB:5:A:C1'	38:BE:11:A:C2	2.87	0.56
35:BB:13:A:C5	35:BB:14:C:C5	2.92	0.56
35:BB:99:G:C4	35:BB:100:A:C8	2.93	0.56
35:BB:955:U:C4	35:BB:956:G:C4	2.93	0.56
35:BB:1033:U:C4	35:BB:1034:U:C4	2.93	0.56
35:BB:1070:G:C2	35:BB:1071:G:H1'	2.40	0.56
35:BB:1175:A:N1	35:BB:1177:U:C2	2.73	0.56
35:BB:1342:C:H2'	35:BB:1343:C:H6	1.68	0.56
35:BB:1415:G:C4	35:BB:1416:A:C8	2.92	0.56
36:BC:29:C:H2'	36:BC:30:U:C5	2.38	0.56
36:BC:91:G:C5	36:BC:92:C:C4	2.93	0.56
36:BC:123:G:N2	36:BC:140:U:H3	2.03	0.56
36:BC:136:G:C5	36:BC:137:C:C5	2.92	0.56
37:BD:46:G:C6	37:BD:47:U:C5	2.93	0.56
38:BE:114:G:C6	38:BE:115:U:C4	2.94	0.56
41:BH:111:U:C4	41:BH:112:U:C4	2.93	0.56
42:BI:76:VAL:HA	63:Bd:66:HIS:HE1	1.70	0.56
49:BP:28:VAL:HG21	49:BP:39:GLU:HB2	1.86	0.56
52:BS:44:TRP:HA	52:BS:44:TRP:CE3	2.40	0.56
64:Be:185:SER:HB2	64:Be:196:TRP:CH2	2.40	0.56
71:Bl:84:TYR:CZ	71:Bl:106:ARG:HB2	2.40	0.56
77:Br:12:ALA:H	77:Br:154:GLU:HG3	1.70	0.56
77:Br:23:LEU:CD1	77:Br:25:ALA:H	2.18	0.56
80:Bu:115:LEU:H	80:Bu:115:LEU:HD12	1.70	0.56
85:AA:86:G:C6	85:AA:87:C:C4	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:366:A:C5	85:AA:367:A:C5	2.93	0.56
85:AA:549:A:N1	85:AA:550:G:C5	2.73	0.56
85:AA:702:G:H3'	85:AA:1218:C:N4	2.20	0.56
85:AA:782:G:C5	85:AA:783:C:C5	2.93	0.56
85:AA:933:U:H2'	85:AA:934:A:C5	2.40	0.56
85:AA:1090:A:H2'	85:AA:1091:C:C6	2.39	0.56
85:AA:1122:U:H2'	85:AA:1123:C:C6	2.40	0.56
85:AA:1128:G:C2	85:AA:1199:C:C2	2.93	0.56
85:AA:1172:A:C2	85:AA:1173:A:C4	2.93	0.56
85:AA:1240:A:C8	85:AA:1260:G:O6	2.58	0.56
85:AA:1430:A:C2	85:AA:1431:U:H1'	2.40	0.56
85:AA:1471:G:N1	85:AA:1472:G:C5	2.73	0.56
85:AA:1588:A:H2'	85:AA:1589:G:C8	2.40	0.56
85:AA:1675:U:C4	85:AA:1676:G:C6	2.92	0.56
85:AA:1926:A:C6	85:AA:1927:G:C6	2.93	0.56
3:A2:184:ARG:HH12	86:AB:41:C:C4'	2.17	0.56
20:AL:103:LYS:HG3	20:AL:104:GLN:H	1.70	0.56
23:AP:43:TRP:CE2	23:AP:75:GLN:CB	2.88	0.56
27:AT:120:ARG:HD3	27:AT:134:THR:HG23	1.88	0.56
32:AY:57:MET:HA	32:AY:57:MET:HE3	1.87	0.56
34:BA:48:C:H2'	34:BA:49:A:C8	2.39	0.56
34:BA:500:C:C2	34:BA:702:G:C2	2.94	0.56
34:BA:745:A:C5	34:BA:746:C:C4	2.93	0.56
34:BA:1015:G:O6	34:BA:1023:G:C2	2.58	0.56
34:BA:1025:A:H2'	34:BA:1026:C:C6	2.40	0.56
34:BA:1050:A:C8	34:BA:1517:U:O4	2.58	0.56
34:BA:1052:G:C6	34:BA:1230:G:C4	2.93	0.56
34:BA:1119:A:N6	34:BA:1139:G:H1	2.03	0.56
34:BA:1133:A:C2	34:BA:1134:A:C4	2.93	0.56
34:BA:1398:C:H2'	34:BA:1399:A:C8	2.40	0.56
34:BA:1615:A:H3'	34:BA:1615:A:C8	2.40	0.56
35:BB:22:A:C6	35:BB:26:C:C2	2.93	0.56
35:BB:124:G:C6	35:BB:125:G:C5	2.92	0.56
35:BB:620:G:C6	35:BB:621:C:C2	2.93	0.56
35:BB:851:U:OP2	69:Bj:121:ARG:NE	2.33	0.56
35:BB:1096:G:C2	35:BB:1097:U:C6	2.93	0.56
35:BB:1274:G:C2	35:BB:1327:U:C4	2.93	0.56
35:BB:1455:A:C2	35:BB:1456:G:C4	2.93	0.56
35:BB:1467:A:H3'	35:BB:1467:A:C8	2.40	0.56
35:BB:1487:G:C2	35:BB:1488:G:C4	2.93	0.56
38:BE:158:U:H3'	38:BE:159:A:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:186:C:C5	38:BE:189:A:C5	2.93	0.56
38:BE:187:G:C2	64:Be:174:ARG:HB2	2.40	0.56
40:BG:81:G:C6	40:BG:82:U:C4	2.93	0.56
41:BH:106:G:H2'	41:BH:107:A:C8	2.40	0.56
47:BN:52:PHE:CE1	47:BN:153:GLN:HA	2.40	0.56
52:BS:163:LYS:HG2	71:Bl:118:THR:HG23	1.87	0.56
61:Bb:16:PHE:CE1	61:Bb:21:ARG:HA	2.41	0.56
85:AA:521:A:C8	85:AA:525:C:OP2	2.58	0.56
85:AA:577:U:C4	85:AA:578:U:C4	2.92	0.56
85:AA:899:A:H3'	85:AA:899:A:C8	2.40	0.56
85:AA:959:C:C5	85:AA:995:G:N2	2.72	0.56
85:AA:1345:C:H2'	85:AA:1346:C:C6	2.40	0.56
85:AA:1580:A:C6	85:AA:2021:A:C6	2.94	0.56
85:AA:1651:C:C2	85:AA:1866:A:C6	2.94	0.56
85:AA:1665:G:C8	85:AA:1665:G:H5''	2.41	0.56
85:AA:1926:A:C2	85:AA:1927:G:C4	2.93	0.56
85:AA:1928:A:H5'	85:AA:1959:G:H1'	1.87	0.56
85:AA:2016:A:H61	85:AA:2027:U:H3	1.51	0.56
4:A3:2:LYS:O	4:A3:111:VAL:HG12	2.05	0.56
13:AE:38:SER:OG	13:AE:41:HIS:CE1	2.58	0.56
21:AM:72:ILE:O	21:AM:98:HIS:CE1	2.58	0.56
22:AO:99:LYS:HD3	85:AA:1991:C:H4'	1.87	0.56
27:AT:17:PHE:CE2	85:AA:906:U:C4	2.93	0.56
34:BA:248:G:C1'	34:BA:437:G:C5	2.88	0.56
34:BA:354:G:C6	34:BA:355:U:C2	2.92	0.56
34:BA:397:A:C2	36:BC:31:A:C4	2.94	0.56
34:BA:399:G:C2	34:BA:400:A:N9	2.73	0.56
34:BA:399:G:C5	34:BA:400:A:C8	2.93	0.56
34:BA:487:A:C2	35:BB:651:G:H2'	2.40	0.56
34:BA:493:G:C2	34:BA:709:C:C2	2.92	0.56
34:BA:536:C:C6	34:BA:537:C:C5	2.94	0.56
34:BA:587:U:H2'	34:BA:588:C:C5	2.40	0.56
34:BA:755:G:O4'	34:BA:888:G:H4'	2.05	0.56
34:BA:755:G:C4'	34:BA:888:G:H4'	2.35	0.56
34:BA:810:A:C6	34:BA:811:C:C4	2.94	0.56
34:BA:909:G:C4	34:BA:910:U:C5	2.92	0.56
34:BA:1073:G:C4	34:BA:1221:A:C6	2.92	0.56
34:BA:1073:G:C6	34:BA:1074:C:C4	2.93	0.56
34:BA:1086:A:N1	34:BA:1215:U:C2	2.73	0.56
34:BA:1095:G:C4	34:BA:1163:G:C6	2.93	0.56
34:BA:1111:U:H1'	34:BA:1148:U:H3	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1183:U:H3	80:Bu:132:VAL:HG11	1.70	0.56
34:BA:1218:G:C6	34:BA:1219:G:C5	2.93	0.56
34:BA:1287:G:C6	34:BA:1288:U:O4	2.57	0.56
34:BA:1334:G:C5	34:BA:1335:A:C8	2.94	0.56
34:BA:1503:U:C5	62:Bc:101:ASP:HB3	2.40	0.56
34:BA:1547:G:C6	34:BA:1562:G:C6	2.94	0.56
34:BA:1578:A:C6	34:BA:1580:U:C4	2.94	0.56
34:BA:1637:G:C6	34:BA:1638:U:C4	2.94	0.56
34:BA:1662:U:C4	35:BB:18:A:N1	2.73	0.56
34:BA:1740:U:H3	34:BA:1784:G:N2	2.03	0.56
35:BB:66:G:C2	35:BB:67:A:C4	2.93	0.56
35:BB:124:G:C5	35:BB:380:G:C6	2.92	0.56
35:BB:134:G:C6	35:BB:135:C:C4	2.93	0.56
35:BB:394:A:N1	35:BB:595:U:C4	2.74	0.56
35:BB:693:U:C2	35:BB:694:C:C5	2.93	0.56
35:BB:702:G:H2'	35:BB:703:U:C6	2.40	0.56
35:BB:844:G:C6	35:BB:845:C:C4	2.93	0.56
35:BB:1004:A:N1	35:BB:1015:U:C2	2.74	0.56
35:BB:1161:G:N1	35:BB:1199:A:C6	2.73	0.56
35:BB:1206:G:H5''	35:BB:1207:C:H5'	1.88	0.56
35:BB:1239:A:C4	35:BB:1240:A:C8	2.94	0.56
35:BB:1254:G:C5	79:Bt:62:ALA:HB1	2.40	0.56
35:BB:1300:U:C4	35:BB:1301:U:C6	2.93	0.56
35:BB:1332:G:C5	35:BB:1403:G:C6	2.94	0.56
35:BB:1381:U:C6	35:BB:1382:U:C5	2.92	0.56
35:BB:1399:A:C8	65:Bf:311:TRP:CD2	2.94	0.56
35:BB:1404:A:C5	35:BB:1440:A:N1	2.73	0.56
35:BB:1535:G:OP1	41:BH:27:A:C5	2.59	0.56
37:BD:5:A:C6	37:BD:115:A:C6	2.93	0.56
37:BD:84:U:C2	37:BD:85:C:C5	2.93	0.56
38:BE:6:A:H5'	69:Bj:85:HIS:ND1	2.20	0.56
38:BE:23:G:C6	38:BE:197:A:C6	2.94	0.56
38:BE:62:C:H2'	38:BE:168:C:C5	2.40	0.56
38:BE:87:U:C2	38:BE:88:G:C8	2.94	0.56
38:BE:101:C:N4	38:BE:117:A:C5	2.73	0.56
38:BE:110:U:C4	38:BE:111:C:C5	2.93	0.56
38:BE:149:A:H2'	38:BE:150:G:C8	2.40	0.56
39:BF:20:U:H2'	39:BF:21:C:H4'	1.87	0.56
39:BF:32:G:C6	39:BF:51:C:N3	2.73	0.56
40:BG:25:G:C5	40:BG:181:C:C4	2.94	0.56
40:BG:44:G:C4	40:BG:67:A:C2	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:90:G:C6	40:BG:110:U:O4	2.57	0.56
40:BG:137:G:C6	40:BG:138:C:C4	2.92	0.56
41:BH:52:G:C6	41:BH:53:C:C4	2.92	0.56
50:BQ:156:HIS:HD2	50:BQ:158:ALA:HB3	1.70	0.56
55:BV:93:LEU:O	55:BV:97:PHE:HB3	2.05	0.56
57:BX:155:LEU:O	57:BX:158:ALA:HB3	2.05	0.56
62:Bc:19:LEU:HD23	62:Bc:20:GLN:N	2.19	0.56
65:Bf:77:ARG:NH2	65:Bf:234:VAL:HG13	2.20	0.56
67:Bh:92:LEU:HB2	67:Bh:145:GLY:O	2.04	0.56
81:Bv:186:ALA:C	81:Bv:188:HIS:CE1	2.83	0.56
82:Bw:6:LEU:HD23	82:Bw:6:LEU:H	1.71	0.56
85:AA:107:A:C2	85:AA:108:C:C6	2.94	0.56
85:AA:116:G:H3'	85:AA:117:C:C5	2.40	0.56
85:AA:251:A:C8	85:AA:253:C:C5	2.93	0.56
85:AA:479:C:N3	85:AA:485:A:N1	2.54	0.56
85:AA:510:A:C2	85:AA:511:A:C5	2.94	0.56
85:AA:593:U:C5	85:AA:594:C:C5	2.93	0.56
85:AA:912:C:H2'	85:AA:913:U:C6	2.39	0.56
85:AA:966:G:C5	85:AA:967:C:C4	2.94	0.56
85:AA:1033:C:H2'	85:AA:1034:U:C6	2.40	0.56
85:AA:1109:G:C6	85:AA:1110:A:C6	2.93	0.56
85:AA:1264:U:H3'	85:AA:1265:C:C5	2.40	0.56
85:AA:1374:A:C2	85:AA:1430:A:C4	2.93	0.56
85:AA:1465:C:C2'	85:AA:1469:G:C8	2.88	0.56
85:AA:1549:G:C6	85:AA:1550:C:C4	2.93	0.56
85:AA:1830:U:C2	85:AA:1845:G:C2	2.94	0.56
85:AA:2072:G:C2	85:AA:2073:U:C6	2.93	0.56
85:AA:2138:G:C5	85:AA:2139:G:C5	2.93	0.56
85:AA:2187:G:C6	85:AA:2188:C:C4	2.93	0.56
85:AA:2208:G:C6	85:AA:2209:U:C4	2.93	0.56
86:AB:72:C:C2	86:AB:73:A:C8	2.93	0.56
2:A1:197:ARG:HA	2:A1:203:ASP:CG	2.31	0.56
11:AC:59:CYS:C	11:AC:200:ASN:HB3	2.29	0.56
11:AC:227:ARG:HE	85:AA:755:G:H4'	1.70	0.56
13:AE:145:ARG:HD2	85:AA:112:A:H5'	1.88	0.56
32:AY:31:ARG:O	85:AA:546:U:C5	2.58	0.56
34:BA:12:G:N2	36:BC:156:A:C4	2.74	0.56
34:BA:227:C:H2'	34:BA:228:A:H5'	1.87	0.56
34:BA:233:U:H2'	34:BA:234:A:C8	2.41	0.56
34:BA:340:U:C2	34:BA:341:U:C5	2.93	0.56
34:BA:367:G:C5	61:Bb:62:HIS:CG	2.94	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:383:G:C2	34:BA:384:U:C5	2.92	0.56
34:BA:387:A:N1	34:BA:388:A:C6	2.74	0.56
34:BA:786:U:C5	34:BA:786:U:OP2	2.58	0.56
34:BA:935:A:C8	34:BA:957:A:C5	2.92	0.56
34:BA:1611:A:C6	34:BA:1612:C:C4	2.92	0.56
34:BA:1692:U:C6	35:BB:12:G:C5	2.93	0.56
34:BA:1718:C:H2'	34:BA:1719:G:H8	1.70	0.56
34:BA:1812:C:C2	34:BA:1813:C:C5	2.93	0.56
34:BA:1830:A:H3'	34:BA:1831:A:C5'	2.34	0.56
35:BB:62:C:C4	35:BB:63:A:C5	2.93	0.56
35:BB:637:G:H3'	35:BB:638:G:C8	2.40	0.56
35:BB:643:G:C2	35:BB:644:A:C2	2.94	0.56
35:BB:661:G:C4	35:BB:662:G:C8	2.94	0.56
35:BB:702:G:C5	35:BB:1039:A:C4	2.93	0.56
35:BB:880:G:H1	35:BB:898:U:H3	1.53	0.56
35:BB:1174:C:C5	35:BB:1176:G:C4	2.93	0.56
35:BB:1209:A:C5	35:BB:1210:U:C5	2.94	0.56
35:BB:1277:A:N1	35:BB:1278:A:C4	2.73	0.56
35:BB:1382:U:C6	35:BB:1383:C:C5	2.93	0.56
35:BB:1386:C:C2	35:BB:1387:C:C5	2.93	0.56
35:BB:1511:U:H2'	35:BB:1512:C:C5'	2.33	0.56
37:BD:30:A:H1'	37:BD:49:A:C2	2.40	0.56
38:BE:15:A:O5'	38:BE:15:A:C8	2.59	0.56
38:BE:23:G:C6	38:BE:197:A:N6	2.74	0.56
40:BG:88:G:N1	40:BG:89:A:C4	2.74	0.56
40:BG:162:A:C6	40:BG:163:G:C6	2.93	0.56
40:BG:181:C:H3'	40:BG:182:G:C8	2.40	0.56
42:BI:79:LYS:CE	63:Bd:65:ALA:HA	2.35	0.56
47:BN:59:LEU:HA	47:BN:158:TYR:CZ	2.40	0.56
57:BX:58:HIS:C	57:BX:58:HIS:CD2	2.82	0.56
65:Bf:223:ARG:HH11	65:Bf:225:ASN:C	2.14	0.56
85:AA:500:C:C5	85:AA:501:A:C6	2.94	0.56
85:AA:790:A:O4'	85:AA:792:A:C5	2.57	0.56
85:AA:817:G:C8	85:AA:819:G:N7	2.73	0.56
85:AA:1153:G:C4	85:AA:1154:A:C5	2.94	0.56
85:AA:1153:G:H1'	85:AA:1154:A:C2	2.41	0.56
85:AA:1262:A:C2	85:AA:1263:G:H1'	2.40	0.56
85:AA:1671:G:C6	85:AA:1672:G:C5	2.93	0.56
85:AA:1953:G:C6	85:AA:1954:C:C4	2.93	0.56
85:AA:2240:G:C6	85:AA:2241:C:C5	2.92	0.56
4:A3:64:MET:CE	4:A3:109:ILE:HG23	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AJ:96:SER:HB3	18:AJ:99:PHE:CZ	2.40	0.56
34:BA:5:C:C2	34:BA:6:C:C6	2.94	0.56
34:BA:166:G:C8	34:BA:167:U:C6	2.94	0.56
34:BA:213:A:H2'	34:BA:217:C:H42	1.70	0.56
34:BA:248:G:C4	34:BA:437:G:H2'	2.39	0.56
34:BA:290:G:C6	34:BA:291:C:C4	2.93	0.56
34:BA:342:U:C2	34:BA:348:U:C5	2.93	0.56
34:BA:343:G:C5	34:BA:344:G:N7	2.73	0.56
34:BA:390:A:H4'	47:BN:28:LYS:HE2	1.87	0.56
34:BA:463:A:C5	34:BA:466:G:C5	2.94	0.56
34:BA:588:C:C2	34:BA:589:A:C5	2.93	0.56
34:BA:604:G:H5'	34:BA:605:G:C8	2.40	0.56
34:BA:1082:U:H1'	34:BA:1206:C:H2'	1.86	0.56
34:BA:1125:G:C2	34:BA:1126:U:C4	2.93	0.56
34:BA:1189:A:C6	34:BA:1190:A:C6	2.94	0.56
34:BA:1272:U:H2'	34:BA:1273:U:C6	2.41	0.56
34:BA:1296:U:H3'	49:BP:54:LYS:HZ2	1.70	0.56
34:BA:1681:U:C4	35:BB:24:C:C2	2.93	0.56
34:BA:1736:A:C4	34:BA:1737:A:C8	2.93	0.56
35:BB:95:A:C6	35:BB:96:A:C5	2.94	0.56
35:BB:98:A:H1'	35:BB:388:C:H2'	1.87	0.56
35:BB:681:G:C4	35:BB:682:U:C6	2.94	0.56
35:BB:793:A:C4	35:BB:794:G:C8	2.94	0.56
35:BB:794:G:H1	35:BB:1028:C:H42	1.52	0.56
35:BB:852:G:C5	69:Bj:117:GLU:OE2	2.59	0.56
35:BB:870:C:N4	35:BB:964:G:H1	2.04	0.56
35:BB:996:G:C8	35:BB:996:G:C3'	2.88	0.56
35:BB:1276:U:H5'	35:BB:1276:U:H6	1.70	0.56
35:BB:1478:G:C5	35:BB:1479:C:C5	2.93	0.56
36:BC:60:U:O4	70:Bk:60:THR:HA	2.04	0.56
38:BE:130:G:H3'	38:BE:131:C:C6	2.40	0.56
39:BF:8:C:H2'	39:BF:10:A:C6	2.40	0.56
40:BG:31:G:C4	40:BG:175:G:C6	2.93	0.56
41:BH:43:G:C4	41:BH:44:A:C5	2.94	0.56
47:BN:76:LEU:H	47:BN:76:LEU:HD22	1.71	0.56
47:BN:76:LEU:HD22	47:BN:76:LEU:N	2.20	0.56
49:BP:164:VAL:HG11	49:BP:168:ARG:HH21	1.70	0.56
60:Ba:53:VAL:HG22	60:Ba:56:MET:HE3	1.87	0.56
62:Bc:134:MET:HB3	62:Bc:137:HIS:CD2	2.41	0.56
73:Bn:28:HIS:CE1	73:Bn:30:GLN:H	2.24	0.56
75:Bp:3:ARG:CZ	75:Bp:41:HIS:CE1	2.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:Br:164:LYS:HA	77:Br:167:MET:SD	2.44	0.56
77:Br:295:GLU:CD	77:Br:295:GLU:N	2.63	0.56
79:Bt:10:MET:HE1	79:Bt:72:LEU:HD22	1.85	0.56
85:AA:210:G:O6	85:AA:244:G:C5	2.59	0.56
85:AA:722:G:C8	85:AA:723:U:C5	2.93	0.56
85:AA:906:U:H1'	85:AA:908:C:H5''	1.88	0.56
85:AA:1254:A:C6	85:AA:1255:C:C5	2.93	0.56
85:AA:1288:A:N3	85:AA:1455:C:H1'	2.21	0.56
85:AA:1451:U:C4	85:AA:1452:C:C2	2.94	0.56
85:AA:1521:U:O5'	85:AA:1521:U:H6	1.88	0.56
85:AA:1524:A:C5	85:AA:1525:C:C4	2.93	0.56
85:AA:1560:A:N7	85:AA:1561:A:C4	2.73	0.56
85:AA:1888:U:H2'	85:AA:1889:U:C6	2.40	0.56
85:AA:1923:A:C5	85:AA:2074:G:H1'	2.41	0.56
85:AA:1956:C:H4'	85:AA:1958:C:H6	1.69	0.56
85:AA:2137:A:C2	85:AA:2138:G:H1'	2.40	0.56
2:A1:69:VAL:H	2:A1:73:PRO:HA	1.70	0.56
27:AT:67:PHE:CD1	85:AA:593:U:H4'	2.41	0.56
34:BA:82:A:C4	34:BA:84:U:C4	2.93	0.56
34:BA:518:C:H2'	34:BA:684:G:N2	2.20	0.56
34:BA:615:A:C6	34:BA:616:G:C6	2.93	0.56
34:BA:717:U:O5'	34:BA:717:U:C6	2.58	0.56
34:BA:815:C:C4	42:BI:72:ARG:NH1	2.73	0.56
34:BA:1016:A:C5	34:BA:1017:C:C5	2.94	0.56
34:BA:1123:G:C5	34:BA:1124:U:C5	2.93	0.56
34:BA:1125:G:H2'	34:BA:1126:U:C6	2.41	0.56
34:BA:1412:G:C2	52:BS:116:HIS:CE1	2.94	0.56
34:BA:1431:G:C6	34:BA:1432:C:C4	2.93	0.56
34:BA:1604:A:H5''	34:BA:1605:G:H5'	1.88	0.56
34:BA:1646:U:C5	34:BA:1647:G:C6	2.93	0.56
34:BA:1655:G:C2	35:BB:38:C:C2	2.93	0.56
34:BA:1706:A:C6	34:BA:1707:C:C2	2.94	0.56
34:BA:1816:G:C6	34:BA:1818:A:C6	2.94	0.56
34:BA:1833:G:C6	34:BA:1834:A:C5	2.92	0.56
35:BB:104:G:H1'	35:BB:119:G:N1	2.20	0.56
35:BB:109:U:H6	35:BB:109:U:O5'	1.89	0.56
35:BB:363:A:C5	35:BB:364:U:O4	2.59	0.56
35:BB:380:G:C6	35:BB:381:C:N3	2.73	0.56
35:BB:583:G:C6	35:BB:584:A:C5	2.93	0.56
35:BB:844:G:C2	35:BB:845:C:C2	2.93	0.56
35:BB:1051:U:H6	35:BB:1051:U:O5'	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1235:A:C4	61:Bb:60:HIS:CE1	2.94	0.56
35:BB:1313:C:H5'	44:BK:160:PRO:HB3	1.87	0.56
35:BB:1342:C:C2	35:BB:1343:C:C5	2.94	0.56
36:BC:1:A:H3'	36:BC:2:A:N7	2.20	0.56
36:BC:14:G:C6	36:BC:15:G:C6	2.94	0.56
37:BD:47:U:C2	37:BD:48:G:C8	2.93	0.56
37:BD:56:G:H3'	37:BD:57:C:H6	1.70	0.56
37:BD:98:G:C2	37:BD:99:G:H1'	2.40	0.56
38:BE:73:A:N1	38:BE:74:U:C4	2.74	0.56
39:BF:48:G:C2	39:BF:49:C:C6	2.94	0.56
39:BF:49:C:C2	39:BF:50:C:C5	2.94	0.56
40:BG:69:G:C6	40:BG:70:C:C4	2.94	0.56
40:BG:88:G:N1	40:BG:112:C:C2	2.73	0.56
41:BH:31:A:C8	41:BH:33:G:O6	2.59	0.56
41:BH:104:U:H2'	41:BH:105:U:C6	2.40	0.56
50:BQ:144:PHE:HB2	50:BQ:146:TRP:CZ2	2.41	0.56
81:Bv:62:ILE:O	81:Bv:73:ILE:HA	2.04	0.56
85:AA:20:G:C5	85:AA:21:U:C5	2.94	0.56
85:AA:322:A:H2'	85:AA:323:U:C6	2.40	0.56
85:AA:345:U:H2'	85:AA:346:U:C5'	2.35	0.56
85:AA:383:C:C4	85:AA:384:C:C4	2.93	0.56
85:AA:460:U:H3	85:AA:464:A:H62	1.54	0.56
85:AA:786:G:C4	85:AA:787:U:C5	2.93	0.56
85:AA:856:G:C6	85:AA:857:G:C5	2.92	0.56
85:AA:900:G:C6	85:AA:901:C:C5	2.93	0.56
85:AA:910:G:H1	85:AA:911:A:N6	2.03	0.56
85:AA:1209:U:OP2	85:AA:1209:U:C6	2.59	0.56
85:AA:1246:G:C2	85:AA:1257:A:C4	2.94	0.56
85:AA:1505:G:H2'	85:AA:1506:U:O4'	2.05	0.56
85:AA:1601:G:C5	85:AA:1602:U:C5	2.94	0.56
85:AA:1618:G:C5	85:AA:1619:A:C5	2.93	0.56
85:AA:2060:G:C5	85:AA:2061:C:C5	2.94	0.56
7:A6:62:PRO:O	7:A6:65:HIS:CD2	2.59	0.56
8:A7:137:ASN:HD21	8:A7:141:GLU:HB2	1.71	0.56
15:AG:105:ASN:CG	15:AG:106:THR:H	2.13	0.56
34:BA:304:G:C6	34:BA:305:C:C4	2.94	0.56
34:BA:431:A:C6	34:BA:432:A:C4	2.94	0.56
34:BA:487:A:C2	35:BB:652:G:H5'	2.41	0.56
34:BA:487:A:C5	35:BB:651:G:C6	2.94	0.56
34:BA:627:U:H2'	34:BA:629:G:N7	2.21	0.56
34:BA:636:G:H1	34:BA:645:U:H3	1.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:749:G:C6	34:BA:750:C:C4	2.93	0.56
34:BA:844:U:O5'	34:BA:844:U:H6	1.89	0.56
34:BA:1054:U:H3'	34:BA:1055:U:C5	2.41	0.56
34:BA:1097:G:C5	35:BB:1084:A:C2	2.93	0.56
34:BA:1169:A:C6	63:Bd:29:MET:SD	2.98	0.56
34:BA:1171:C:H2'	34:BA:1172:C:C6	2.41	0.56
34:BA:1258:G:C5	34:BA:1259:C:C5	2.94	0.56
34:BA:1262:A:C2	34:BA:1265:G:C6	2.93	0.56
34:BA:1406:U:H2'	34:BA:1407:C:C6	2.40	0.56
34:BA:1637:G:C5	34:BA:1638:U:C5	2.94	0.56
34:BA:1789:A:H2'	34:BA:1790:U:C6	2.40	0.56
35:BB:100:A:C6	35:BB:101:U:C4	2.94	0.56
35:BB:101:U:H5''	53:BT:85:ARG:HB2	1.86	0.56
35:BB:633:C:C2	35:BB:649:A:C2	2.93	0.56
35:BB:657:A:C6	35:BB:658:G:C5	2.94	0.56
35:BB:692:G:C5	35:BB:693:U:C4	2.94	0.56
35:BB:1026:G:H2'	35:BB:1027:U:C6	2.40	0.56
35:BB:1061:G:C2	35:BB:1062:G:C4	2.94	0.56
35:BB:1205:A:N7	35:BB:1206:G:C5	2.73	0.56
35:BB:1344:U:C4	35:BB:1369:A:C2	2.94	0.56
36:BC:53:A:C5	36:BC:54:G:C5	2.94	0.56
36:BC:73:U:C5	36:BC:74:U:C5	2.93	0.56
36:BC:112:G:C5	57:BX:111:ARG:CZ	2.89	0.56
38:BE:101:C:C2	38:BE:120:C:C2	2.93	0.56
38:BE:150:G:C6	38:BE:163:A:C2	2.93	0.56
39:BF:6:C:H1'	39:BF:7:G:C8	2.41	0.56
40:BG:141:A:C2	40:BG:142:A:H1'	2.40	0.56
41:BH:13:C:C4	41:BH:14:C:C2	2.94	0.56
41:BH:41:A:N7	58:BY:55:TRP:CZ2	2.74	0.56
47:BN:16:HIS:CG	47:BN:17:TRP:HD1	2.24	0.56
47:BN:124:TYR:HA	47:BN:161:ALA:HB1	1.88	0.56
49:BP:6:TYR:HB2	49:BP:8:ARG:HE	1.71	0.56
57:BX:60:TYR:CE2	57:BX:62:ARG:HD2	2.40	0.56
58:BY:16:GLY:O	58:BY:17:HIS:CD2	2.59	0.56
64:Be:136:ILE:HG22	64:Be:138:SER:H	1.70	0.56
67:Bh:128:ASP:HB3	67:Bh:170:ILE:O	2.06	0.56
71:Bl:74:TRP:CE3	81:Bv:188:HIS:CD2	2.94	0.56
85:AA:23:G:H1	85:AA:676:U:H3	1.54	0.56
85:AA:178:U:H2'	85:AA:179:G:H4'	1.87	0.56
85:AA:355:G:C6	85:AA:356:U:C5	2.94	0.56
85:AA:553:G:C6	85:AA:575:G:C6	2.94	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:554:A:H2'	85:AA:555:C:C6	2.41	0.56
85:AA:559:G:C6	85:AA:560:C:C4	2.94	0.56
85:AA:577:U:C4	85:AA:578:U:C5	2.94	0.56
85:AA:732:G:C6	85:AA:733:C:C2	2.93	0.56
85:AA:1094:G:C5	85:AA:1095:C:C5	2.94	0.56
85:AA:1244:A:C4	85:AA:1245:U:C5	2.94	0.56
85:AA:1535:C:C5	85:AA:2049:U:C6	2.92	0.56
85:AA:1545:U:C6	85:AA:1545:U:H5''	2.41	0.56
85:AA:1596:A:C5	85:AA:1597:C:C5	2.93	0.56
85:AA:2170:G:C2	85:AA:2171:A:H1'	2.40	0.56
85:AA:2222:G:C5	85:AA:2223:C:C5	2.94	0.56
4:A3:202:VAL:HG12	85:AA:123:A:H5'	1.87	0.56
7:A6:10:VAL:H	85:AA:541:A:H4'	1.69	0.56
34:BA:79:C:C2	34:BA:102:G:C2	2.94	0.56
34:BA:316:G:C5	34:BA:318:U:C6	2.94	0.56
34:BA:464:U:C6	51:BR:3:HIS:CD2	2.94	0.56
34:BA:704:G:H2'	34:BA:705:C:C6	2.41	0.56
34:BA:874:G:N2	34:BA:875:G:C4	2.72	0.56
34:BA:890:G:C5	34:BA:891:C:C5	2.94	0.56
34:BA:895:U:C3'	47:BN:9:PRO:HB3	2.36	0.56
34:BA:906:A:C4'	35:BB:1270:C:H4'	2.36	0.56
34:BA:1168:C:C4	34:BA:1170:A:C2	2.94	0.56
34:BA:1178:U:H2'	34:BA:1179:U:C5	2.40	0.56
34:BA:1230:G:H2'	34:BA:1231:C:C6	2.41	0.56
34:BA:1347:G:C2	34:BA:1399:A:C2	2.94	0.56
34:BA:1437:G:C4	34:BA:1438:C:C5	2.94	0.56
34:BA:1628:A:C5	34:BA:1629:A:C5	2.94	0.56
35:BB:72:G:C4	35:BB:73:G:C8	2.94	0.56
35:BB:121:A:C6	35:BB:122:U:C4	2.94	0.56
35:BB:130:G:C5	35:BB:374:A:C6	2.93	0.56
35:BB:501:G:N1	35:BB:502:C:C2	2.73	0.56
35:BB:558:U:H4'	85:AA:2197:A:O2'	2.06	0.56
35:BB:608:A:H2'	35:BB:609:G:C8	2.40	0.56
35:BB:666:A:C5	35:BB:667:G:C4	2.94	0.56
35:BB:704:G:C5	35:BB:778:A:C6	2.93	0.56
35:BB:797:C:N4	35:BB:978:C:C2	2.73	0.56
35:BB:1019:C:C5	35:BB:1020:U:C5	2.93	0.56
35:BB:1288:G:C4	35:BB:1319:U:C4	2.94	0.56
36:BC:9:G:O6	36:BC:10:C:C4	2.59	0.56
36:BC:132:U:C5	36:BC:133:C:C5	2.94	0.56
37:BD:66:G:C2	37:BD:67:C:H1'	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BD:72:U:C6	37:BD:73:U:O4	2.59	0.56
37:BD:86:A:C6	37:BD:87:G:C6	2.94	0.56
38:BE:14:C:N3	38:BE:204:U:C4	2.74	0.56
38:BE:192:A:C2	38:BE:193:A:C5	2.94	0.56
40:BG:74:G:C4	40:BG:75:C:C6	2.93	0.56
48:BO:93:SER:O	48:BO:97:VAL:HG23	2.04	0.56
49:BP:132:ASP:HB2	49:BP:140:HIS:CE1	2.41	0.56
83:Bx:178:TRP:CE2	83:Bx:179:MET:SD	2.99	0.56
85:AA:466:A:C2	85:AA:467:U:H5'	2.41	0.56
85:AA:615:A:H3'	85:AA:616:A:H5'	1.88	0.56
85:AA:768:C:H2'	85:AA:769:C:N1	2.20	0.56
85:AA:789:A:C5	85:AA:802:A:C4	2.93	0.56
85:AA:871:U:C2	85:AA:872:U:C5	2.94	0.56
85:AA:1273:C:H5'	85:AA:1504:A:H4'	1.87	0.56
85:AA:1295:G:C8	85:AA:1295:G:H3'	2.41	0.56
85:AA:1366:A:H3'	85:AA:1366:A:C8	2.41	0.56
85:AA:1486:G:C6	85:AA:1487:G:C5	2.93	0.56
85:AA:1709:U:H2'	85:AA:1710:C:C6	2.40	0.56
85:AA:2121:G:H3'	85:AA:2122:A:N7	2.21	0.56
85:AA:2141:G:C2	85:AA:2178:A:N1	2.74	0.56
85:AA:2166:G:C6	85:AA:2167:A:C5	2.94	0.56
4:A3:70:ALA:HB3	4:A3:102:GLY:HA3	1.88	0.56
4:A3:111:VAL:HG11	85:AA:158:C:H5'	1.87	0.56
8:A7:131:ASN:HA	8:A7:154:TRP:HA	1.88	0.56
11:AC:71:LYS:HA	11:AC:73:TYR:CE2	2.40	0.56
27:AT:10:VAL:HG21	27:AT:37:TRP:CE2	2.41	0.56
28:AU:32:LYS:O	85:AA:2039:G:C8	2.59	0.56
28:AU:81:LEU:HB2	85:AA:2000:C:C2	2.41	0.56
34:BA:8:G:N1	36:BC:163:A:N1	2.54	0.56
34:BA:108:A:C5	34:BA:386:A:C5	2.94	0.56
34:BA:214:A:C2	34:BA:214:A:C4	2.90	0.56
34:BA:672:G:C6	34:BA:673:U:N3	2.74	0.56
34:BA:818:G:C6	34:BA:853:A:C6	2.93	0.56
34:BA:846:U:C5'	42:BI:73:ARG:HH21	2.19	0.56
34:BA:856:G:N1	34:BA:857:C:C2	2.73	0.56
34:BA:1007:G:C5	34:BA:1024:A:C5	2.94	0.56
34:BA:1263:A:H3'	34:BA:1264:U:H5	1.71	0.56
34:BA:1339:G:H3'	34:BA:1340:G:C5'	2.36	0.56
34:BA:1657:A:C4	34:BA:1658:G:C8	2.93	0.56
34:BA:1795:A:C2	34:BA:1796:A:N7	2.74	0.56
35:BB:50:A:C2	35:BB:51:U:C1'	2.89	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:127:U:C2	35:BB:377:A:C2	2.94	0.56
35:BB:515:C:H3'	35:BB:540:G:C8	2.40	0.56
35:BB:545:C:H2'	35:BB:572:G:C8	2.41	0.56
35:BB:661:G:C6	35:BB:1445:A:N3	2.74	0.56
35:BB:665:A:C6	35:BB:666:A:C6	2.94	0.56
35:BB:1026:G:C8	35:BB:1027:U:C4	2.93	0.56
35:BB:1086:G:N1	35:BB:1087:A:C4	2.74	0.56
35:BB:1271:A:N6	35:BB:1272:G:C6	2.73	0.56
35:BB:1465:U:C5	35:BB:1466:A:C4	2.94	0.56
35:BB:1516:C:C4	35:BB:1517:G:C6	2.93	0.56
36:BC:18:G:C4	36:BC:19:A:C5	2.93	0.56
36:BC:95:A:C2	36:BC:96:A:C4	2.94	0.56
37:BD:113:G:C6	37:BD:114:U:C4	2.94	0.56
38:BE:7:U:H4'	38:BE:127:G:H5'	1.86	0.56
38:BE:116:U:H2'	38:BE:117:A:N3	2.21	0.56
40:BG:3:G:C2	40:BG:4:A:C8	2.93	0.56
41:BH:10:U:C4	41:BH:20:A:C6	2.94	0.56
41:BH:35:G:C5	41:BH:36:C:C5	2.94	0.56
48:BO:197:TRP:CD2	49:BP:125:ARG:CZ	2.89	0.56
49:BP:119:SER:O	49:BP:123:TRP:CG	2.58	0.56
53:BT:6:LEU:HD13	53:BT:6:LEU:O	2.05	0.56
53:BT:60:ARG:HG3	53:BT:63:TRP:CE2	2.40	0.56
81:Bv:93:VAL:HA	81:Bv:157:ALA:HB1	1.88	0.56
85:AA:13:U:C4	85:AA:14:C:C6	2.94	0.56
85:AA:63:G:H4'	85:AA:335:G:C1'	2.36	0.56
85:AA:105:A:C6	85:AA:373:G:C2	2.94	0.56
85:AA:427:G:C6	85:AA:428:G:C5	2.94	0.56
85:AA:685:U:H5'	85:AA:686:U:OP2	2.06	0.56
85:AA:719:C:C2	85:AA:720:A:C8	2.93	0.56
85:AA:741:G:N3	85:AA:742:U:C4	2.74	0.56
85:AA:968:U:H3	85:AA:984:A:H61	1.54	0.56
85:AA:1121:U:C5	85:AA:1122:U:C4	2.94	0.56
85:AA:1272:G:H2'	85:AA:1273:C:C6	2.40	0.56
85:AA:1297:G:C2	85:AA:1298:G:C4	2.93	0.56
85:AA:1480:C:C6	85:AA:1480:C:C3'	2.89	0.56
85:AA:1799:C:C6	85:AA:1808:G:H8	2.23	0.56
85:AA:1858:G:C5	85:AA:1859:C:C5	2.94	0.56
85:AA:2033:C:H2'	85:AA:2034:G:C8	2.40	0.56
85:AA:2115:G:C6	85:AA:2116:U:C5	2.94	0.56
85:AA:2139:G:C2'	85:AA:2140:U:C6	2.88	0.56
5:A4:145:TRP:CD1	5:A4:155:MET:HA	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A6:39:ARG:HA	7:A6:42:TRP:CD2	2.41	0.56
18:AJ:2:THR:CA	85:AA:1284:A:H4'	2.36	0.56
19:AK:79:GLY:H	85:AA:2076:C:P	2.29	0.56
22:AO:134:LYS:HG2	85:AA:1806:C:C4	2.41	0.56
34:BA:27:G:C6	34:BA:52:G:C6	2.94	0.56
34:BA:44:U:C5	34:BA:45:A:C5	2.94	0.56
34:BA:58:A:C5	34:BA:59:A:C8	2.94	0.56
34:BA:99:G:C5	34:BA:100:A:C6	2.94	0.56
34:BA:102:G:C6	34:BA:103:G:C4	2.94	0.56
34:BA:126:G:C4	34:BA:127:U:C6	2.93	0.56
34:BA:161:U:H5'	34:BA:165:C:C5'	2.35	0.56
34:BA:177:G:N2	34:BA:309:U:H3	2.04	0.56
34:BA:223:U:C2	34:BA:224:G:C8	2.94	0.56
34:BA:238:C:C6	34:BA:238:C:C3'	2.89	0.56
34:BA:339:G:C6	34:BA:340:U:C4	2.94	0.56
34:BA:386:A:H2'	34:BA:387:A:C8	2.41	0.56
34:BA:424:U:C4	34:BA:1019:C:C4	2.93	0.56
34:BA:502:U:O2	34:BA:701:G:C4	2.59	0.56
34:BA:610:A:C5	34:BA:611:A:C8	2.94	0.56
34:BA:668:G:N1	34:BA:669:U:C2	2.74	0.56
34:BA:696:A:C6	34:BA:697:A:C6	2.94	0.56
34:BA:698:U:C4	34:BA:699:G:N7	2.73	0.56
34:BA:736:G:C4	34:BA:901:C:H1'	2.40	0.56
34:BA:743:A:C8	47:BN:7:ALA:HB1	2.40	0.56
34:BA:976:C:C4	34:BA:977:G:C5	2.94	0.56
34:BA:1293:A:H2'	34:BA:1295:U:C6	2.41	0.56
34:BA:1746:G:H22	34:BA:1778:U:H3	1.54	0.56
34:BA:1788:U:C4	34:BA:1789:A:C5	2.94	0.56
35:BB:122:U:C4	35:BB:123:U:C4	2.94	0.56
35:BB:124:G:C6	35:BB:380:G:C6	2.94	0.56
35:BB:557:C:C2	35:BB:558:U:C5	2.94	0.56
35:BB:612:A:C6	35:BB:613:C:C4	2.94	0.56
35:BB:662:G:C4	35:BB:663:G:C8	2.94	0.56
35:BB:759:C:H4'	43:BJ:161:CYS:HB3	1.88	0.56
35:BB:793:A:OP2	35:BB:793:A:C8	2.58	0.56
35:BB:1002:G:C2	35:BB:1003:G:C4	2.93	0.56
35:BB:1016:C:C2	35:BB:1017:U:C6	2.94	0.56
35:BB:1066:G:C8	44:BK:111:LEU:CD2	2.88	0.56
35:BB:1082:A:C2	35:BB:1088:C:C4	2.94	0.56
35:BB:1162:A:C4	35:BB:1201:G:C4	2.95	0.56
35:BB:1291:G:N2	35:BB:1314:G:H1'	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1353:G:H1	35:BB:1364:C:H42	1.52	0.56
35:BB:1404:A:C4	35:BB:1440:A:C6	2.94	0.56
35:BB:1508:G:C6	35:BB:1509:G:C5	2.94	0.56
36:BC:6:G:C5	36:BC:7:U:O4	2.59	0.56
36:BC:68:A:C5	36:BC:69:U:C5	2.94	0.56
36:BC:82:C:C2	36:BC:84:U:C5	2.94	0.56
37:BD:94:C:N3	37:BD:95:G:C6	2.74	0.56
38:BE:121:G:C6	38:BE:122:G:C5	2.93	0.56
38:BE:161:G:H3'	38:BE:162:U:C6	2.41	0.56
40:BG:56:G:C6	40:BG:57:A:C5	2.94	0.56
40:BG:81:G:H2'	40:BG:82:U:C6	2.41	0.56
40:BG:152:G:C5	40:BG:153:C:C4	2.94	0.56
44:BK:83:GLU:C	44:BK:85:PHE:H	2.14	0.56
47:BN:52:PHE:O	47:BN:152:THR:HA	2.06	0.56
48:BO:52:THR:HA	48:BO:121:VAL:O	2.05	0.56
49:BP:98:ALA:HB1	49:BP:102:PHE:CE1	2.41	0.56
54:BU:69:PRO:HD3	63:Bd:37:TRP:CE2	2.40	0.56
80:Bu:107:ARG:NE	80:Bu:120:VAL:HG23	2.20	0.56
85:AA:15:U:H1'	85:AA:693:A:C4	2.41	0.56
85:AA:30:G:C6	85:AA:671:G:C6	2.94	0.56
85:AA:161:A:H2'	85:AA:162:A:C8	2.41	0.56
85:AA:192:G:C2	85:AA:194:U:C2	2.94	0.56
85:AA:924:A:C6	85:AA:925:G:C5	2.94	0.56
85:AA:1034:U:C6	85:AA:1036:A:OP2	2.59	0.56
85:AA:1300:A:C6	85:AA:1443:U:C4	2.94	0.56
85:AA:1456:A:H2'	85:AA:1457:C:C6	2.41	0.56
85:AA:1560:A:H2'	85:AA:1561:A:H5'	1.88	0.56
85:AA:1563:U:C4	85:AA:1585:A:C2	2.94	0.56
85:AA:1599:G:C6	85:AA:1600:G:C5	2.94	0.56
85:AA:1627:U:C5	85:AA:1628:U:C5	2.94	0.56
85:AA:2112:G:C5	85:AA:2113:U:C5	2.94	0.56
85:AA:2137:A:C6	85:AA:2138:G:C5	2.93	0.56
85:AA:2199:G:N2	85:AA:2200:A:C4	2.74	0.56
86:AB:9:A:C2'	86:AB:11:C:H41	2.19	0.56
1:A0:21:GLN:CD	1:A0:26:ARG:HA	2.31	0.55
4:A3:167:LYS:HB2	4:A3:170:LYS:HB2	1.86	0.55
7:A6:171:VAL:C	7:A6:174:VAL:H	2.15	0.55
27:AT:11:THR:HG22	27:AT:13:ARG:HD3	1.87	0.55
34:BA:186:G:C2	34:BA:187:G:C5	2.94	0.55
34:BA:295:G:C6	34:BA:296:G:N7	2.74	0.55
34:BA:519:G:H5'	34:BA:520:G:C5	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:533:U:C5	34:BA:579:U:O2	2.59	0.55
34:BA:545:U:C4	34:BA:546:U:N1	2.74	0.55
34:BA:633:G:C4	34:BA:649:A:C2	2.94	0.55
34:BA:767:U:N3	34:BA:768:G:C5	2.75	0.55
34:BA:1411:C:H2'	34:BA:1412:G:C8	2.40	0.55
34:BA:1583:A:C2	34:BA:1584:G:C2	2.94	0.55
34:BA:1609:U:C2	34:BA:1641:G:C2	2.94	0.55
34:BA:1686:G:C2	34:BA:1687:A:C4	2.93	0.55
34:BA:1846:G:O6	35:BB:2:C:C4	2.58	0.55
35:BB:145:G:H1'	35:BB:148:C:C5	2.41	0.55
35:BB:386:G:H3'	35:BB:387:G:H8	1.72	0.55
35:BB:643:G:C5	35:BB:644:A:C6	2.93	0.55
35:BB:1017:U:C2	35:BB:1018:U:C6	2.93	0.55
35:BB:1100:C:C2	35:BB:1141:A:C6	2.94	0.55
35:BB:1457:A:C6	35:BB:1462:G:O6	2.59	0.55
36:BC:9:G:C6	36:BC:10:C:C5	2.94	0.55
37:BD:71:G:C4	37:BD:105:G:C2	2.94	0.55
38:BE:66:A:H3'	38:BE:67:A:H8	1.70	0.55
39:BF:22:U:H5'	39:BF:57:C:H1'	1.88	0.55
40:BG:33:G:N2	40:BG:169:A:H5'	2.21	0.55
40:BG:146:C:H1'	78:Bs:30:ARG:CZ	2.35	0.55
41:BH:43:G:C6	41:BH:44:A:C6	2.94	0.55
42:BI:112:PHE:H	42:BI:117:ARG:NH2	2.04	0.55
79:Bt:28:TYR:CZ	79:Bt:30:ALA:HA	2.41	0.55
82:Bw:140:ASN:HA	82:Bw:143:ARG:HB2	1.88	0.55
85:AA:40:A:C8	85:AA:41:G:C8	2.94	0.55
85:AA:65:A:C8	85:AA:66:U:C4	2.94	0.55
85:AA:72:C:H2'	85:AA:74:U:C5	2.41	0.55
85:AA:146:U:N3	85:AA:333:A:C8	2.75	0.55
85:AA:383:C:C4	85:AA:384:C:C5	2.94	0.55
85:AA:595:A:C2	85:AA:596:A:C4	2.94	0.55
85:AA:830:A:C4	85:AA:852:C:OP1	2.59	0.55
85:AA:923:A:C2	85:AA:924:A:C4	2.95	0.55
85:AA:1004:G:C6	85:AA:1005:C:C6	2.94	0.55
85:AA:1225:C:C4	85:AA:1272:G:C6	2.93	0.55
85:AA:1288:A:C6	85:AA:1289:U:C4	2.94	0.55
85:AA:1463:A:N7	85:AA:1464:G:H1'	2.21	0.55
85:AA:1519:A:H2'	85:AA:1520:A:C8	2.41	0.55
85:AA:1625:C:H2'	85:AA:1626:U:C6	2.41	0.55
85:AA:1654:G:C5	85:AA:1875:A:C2	2.94	0.55
85:AA:1916:A:H2	85:AA:1996:A:C2	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A6:139:ILE:CG1	7:A6:140:VAL:H	2.19	0.55
25:AR:30:THR:HB	25:AR:32:PHE:CE1	2.41	0.55
28:AU:72:SER:HB2	28:AU:79:VAL:HB	1.89	0.55
29:AV:100:TYR:CD1	29:AV:100:TYR:C	2.84	0.55
34:BA:161:U:H2'	34:BA:323:C:C5	2.41	0.55
34:BA:173:U:C2	34:BA:174:A:C8	2.93	0.55
34:BA:273:G:C5	34:BA:274:C:C5	2.94	0.55
34:BA:457:A:C4	34:BA:458:G:C8	2.94	0.55
34:BA:683:C:C2	34:BA:683:C:H5''	2.41	0.55
34:BA:739:A:C2	47:BN:12:HIS:C	2.84	0.55
34:BA:753:G:C6	34:BA:754:G:C6	2.93	0.55
34:BA:782:C:H2'	34:BA:783:U:C6	2.42	0.55
34:BA:1025:A:C5	34:BA:1026:C:C5	2.94	0.55
34:BA:1208:U:C6	34:BA:1210:A:C6	2.95	0.55
34:BA:1343:A:C6	34:BA:1344:G:C6	2.94	0.55
34:BA:1795:A:H3'	35:BB:789:G:N7	2.21	0.55
34:BA:1813:C:N3	34:BA:1834:A:C2	2.74	0.55
34:BA:1838:U:O5'	34:BA:1838:U:H6	1.89	0.55
35:BB:13:A:C6	35:BB:14:C:C5	2.94	0.55
35:BB:419:G:C6	35:BB:454:U:C2	2.95	0.55
35:BB:458:U:C4	35:BB:459:U:C4	2.95	0.55
35:BB:576:A:H1'	35:BB:1420:U:H5'	1.89	0.55
35:BB:806:U:C6	35:BB:807:U:C6	2.93	0.55
35:BB:1076:U:H3	35:BB:1096:G:H1	1.54	0.55
35:BB:1136:G:C8	35:BB:1149:A:C6	2.95	0.55
35:BB:1144:A:C2	35:BB:1145:G:C5	2.95	0.55
35:BB:1164:U:H3	35:BB:1187:G:H1	1.53	0.55
35:BB:1239:A:C6	35:BB:1240:A:C5	2.94	0.55
35:BB:1534:U:O5'	35:BB:1534:U:C6	2.59	0.55
38:BE:189:A:C4	74:Bo:51:ALA:HA	2.40	0.55
39:BF:21:C:C6	48:BO:133:THR:CG2	2.89	0.55
39:BF:72:A:H2	81:Bv:66:MET:HE1	1.70	0.55
40:BG:165:C:H2'	40:BG:166:C:H6	1.70	0.55
41:BH:47:G:C6	41:BH:106:G:C6	2.95	0.55
42:BI:72:ARG:CG	63:Bd:62:ARG:NH1	2.69	0.55
48:BO:91:HIS:CD2	48:BO:91:HIS:O	2.59	0.55
49:BP:92:VAL:HG13	49:BP:93:ARG:HG3	1.86	0.55
56:BW:40:SER:HB3	56:BW:61:MET:SD	2.46	0.55
85:AA:40:A:C6	85:AA:41:G:H1'	2.41	0.55
85:AA:104:C:H42	85:AA:373:G:H1	1.53	0.55
85:AA:236:G:N7	85:AA:237:G:C8	2.74	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:602:U:OP1	85:AA:603:C:C5	2.60	0.55
85:AA:860:C:H2'	85:AA:862:U:C4	2.41	0.55
85:AA:879:G:C6	85:AA:927:A:C6	2.94	0.55
85:AA:1109:G:C6	85:AA:1110:A:C5	2.95	0.55
85:AA:1112:G:C8	85:AA:1114:A:C8	2.95	0.55
85:AA:1128:G:H2'	85:AA:1129:A:H8	1.67	0.55
85:AA:1226:A:C5	85:AA:1274:A:C5	2.95	0.55
85:AA:1529:A:C4	85:AA:1530:U:C5	2.94	0.55
85:AA:1643:U:H2'	85:AA:1644:G:C8	2.42	0.55
85:AA:2181:G:HO2'	85:AA:2182:A:H8	1.48	0.55
2:A1:40:SER:HA	2:A1:81:ALA:H	1.72	0.55
6:A5:160:ARG:HB3	6:A5:164:TYR:CZ	2.42	0.55
8:A7:91:LEU:HD21	8:A7:126:SER:HB3	1.87	0.55
10:A9:144:GLY:HA3	85:AA:1610:G:H21	1.70	0.55
17:A1:106:GLY:HA3	85:AA:1892:G:H21	1.71	0.55
24:AQ:65:THR:HG23	85:AA:1657:C:O2'	2.06	0.55
34:BA:76:U:H2'	34:BA:77:C:C6	2.40	0.55
34:BA:328:A:H3'	34:BA:328:A:C8	2.41	0.55
34:BA:411:C:C2	36:BC:24:G:H4'	2.41	0.55
34:BA:519:G:C8	34:BA:684:G:OP1	2.59	0.55
34:BA:539:C:C1'	34:BA:571:G:H1	2.20	0.55
34:BA:946:A:C4	34:BA:947:A:C8	2.94	0.55
34:BA:1023:G:C2	35:BB:1267:C:C5	2.94	0.55
34:BA:1119:A:C2	34:BA:1140:A:C2	2.95	0.55
34:BA:1127:U:C5	34:BA:1128:C:C6	2.94	0.55
34:BA:1164:C:H2'	34:BA:1165:A:C8	2.41	0.55
34:BA:1168:C:C6	34:BA:1170:A:H1'	2.41	0.55
34:BA:1277:G:C2	34:BA:1464:C:C2	2.94	0.55
34:BA:1306:U:H1'	48:BO:66:ILE:HG21	1.89	0.55
34:BA:1412:G:N2	34:BA:1413:G:C4	2.74	0.55
34:BA:1447:C:C2	49:BP:47:TRP:CH2	2.94	0.55
34:BA:1502:G:C2	34:BA:1503:U:C1'	2.88	0.55
34:BA:1658:G:C6	34:BA:1659:G:C5	2.94	0.55
34:BA:1682:A:C5	34:BA:1683:C:C4	2.94	0.55
34:BA:1816:G:C3'	34:BA:1818:A:C8	2.89	0.55
35:BB:396:C:C4	35:BB:397:C:C4	2.94	0.55
35:BB:755:A:C5	35:BB:756:C:C5	2.94	0.55
35:BB:776:U:C6	35:BB:777:C:C4	2.94	0.55
35:BB:1133:C:C4	35:BB:1134:G:C5	2.93	0.55
35:BB:1374:U:C6	35:BB:1393:C:C5	2.94	0.55
35:BB:1424:G:C5	35:BB:1425:A:N6	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1426:G:C6	35:BB:1427:A:C5	2.95	0.55
35:BB:1454:G:H2'	35:BB:1455:A:H8	1.72	0.55
35:BB:1545:U:C4	35:BB:1546:C:C5	2.94	0.55
36:BC:75:G:C2	36:BC:76:C:C2	2.94	0.55
37:BD:48:G:H5''	80:Bu:235:PHE:CE1	2.41	0.55
37:BD:75:G:H1	37:BD:99:G:H3'	1.70	0.55
38:BE:100:U:C4	38:BE:119:U:O2	2.60	0.55
38:BE:117:A:H5'	38:BE:117:A:C4	2.41	0.55
39:BF:63:U:H5''	81:Bv:171:MET:SD	2.45	0.55
40:BG:30:C:C2	40:BG:31:G:C8	2.94	0.55
42:BI:37:GLY:HA2	42:BI:45:ASN:HB2	1.88	0.55
44:BK:95:HIS:CE1	44:BK:96:VAL:O	2.60	0.55
47:BN:74:ARG:H	47:BN:74:ARG:NE	2.04	0.55
47:BN:85:LEU:O	47:BN:90:VAL:HG12	2.06	0.55
52:BS:79:ASP:OD1	52:BS:93:VAL:HG22	2.06	0.55
66:Bg:45:LEU:HD11	66:Bg:53:VAL:HG21	1.88	0.55
71:Bl:75:TYR:OH	81:Bv:188:HIS:CE1	2.59	0.55
83:Bx:84:VAL:HG22	83:Bx:247:GLY:HA3	1.89	0.55
85:AA:342:C:C4	85:AA:343:U:C2	2.94	0.55
85:AA:367:A:C5	85:AA:368:C:C5	2.94	0.55
85:AA:424:A:C2	85:AA:425:G:C8	2.95	0.55
85:AA:577:U:C2	85:AA:578:U:C6	2.95	0.55
85:AA:961:U:C2	85:AA:993:G:C2	2.94	0.55
85:AA:1561:A:C2	85:AA:1894:G:O4'	2.59	0.55
85:AA:1562:U:C2	85:AA:1895:C:H5'	2.41	0.55
85:AA:1596:A:C6	85:AA:1597:C:C2	2.93	0.55
85:AA:1731:G:H1	85:AA:1797:U:H3	1.53	0.55
85:AA:1800:U:C4	85:AA:1801:U:C4	2.95	0.55
85:AA:2133:A:C2	85:AA:2134:U:C2	2.94	0.55
17:AI:45:HIS:CD2	17:AI:46:ALA:H	2.25	0.55
34:BA:225:A:O2'	62:Bc:137:HIS:CE1	2.60	0.55
34:BA:340:U:H2'	34:BA:341:U:C6	2.42	0.55
34:BA:470:C:OP1	34:BA:470:C:H3'	2.06	0.55
34:BA:833:U:C4	34:BA:834:C:C2	2.94	0.55
34:BA:849:G:O5'	34:BA:849:G:C8	2.60	0.55
34:BA:1064:A:C4	34:BA:1065:U:C6	2.95	0.55
34:BA:1205:A:H5''	34:BA:1205:A:C8	2.42	0.55
34:BA:1258:G:OP1	68:Bi:45:ARG:HD3	2.05	0.55
34:BA:1263:A:C6	34:BA:1264:U:C6	2.94	0.55
34:BA:1502:G:N2	34:BA:1503:U:H1'	2.21	0.55
34:BA:1524:G:C2	42:BI:18:HIS:CE1	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1643:U:H4'	67:Bh:136:TRP:O	2.05	0.55
34:BA:1830:A:H3'	34:BA:1831:A:H5''	1.87	0.55
35:BB:4:C:C6	38:BE:13:A:C4	2.94	0.55
35:BB:704:G:C2	35:BB:705:C:C2	2.94	0.55
35:BB:794:G:C6	35:BB:795:A:C6	2.94	0.55
35:BB:889:U:H1'	35:BB:894:A:C2	2.41	0.55
35:BB:1057:G:C6	35:BB:1058:U:C4	2.95	0.55
35:BB:1093:C:H5''	44:BK:119:TYR:CE2	2.41	0.55
35:BB:1155:U:C2	35:BB:1156:U:C5	2.94	0.55
35:BB:1384:A:C5	35:BB:1385:C:C5	2.95	0.55
36:BC:106:G:C6	36:BC:115:G:C6	2.94	0.55
36:BC:154:A:H2'	36:BC:155:C:O4'	2.06	0.55
37:BD:13:A:H1'	80:Bu:21:ARG:NH1	2.19	0.55
38:BE:147:G:H1	38:BE:165:U:H3	1.55	0.55
38:BE:193:A:H2'	38:BE:194:A:C8	2.41	0.55
38:BE:199:A:C6	38:BE:200:A:C5	2.94	0.55
39:BF:10:A:H4'	39:BF:13:U:C6	2.42	0.55
40:BG:33:G:N1	40:BG:169:A:H5'	2.22	0.55
40:BG:166:C:C2'	40:BG:167:C:H5''	2.37	0.55
41:BH:23:G:C2	41:BH:24:U:C4	2.95	0.55
41:BH:68:G:C6	41:BH:69:C:C4	2.94	0.55
42:BI:76:VAL:HA	63:Bd:66:HIS:CE1	2.41	0.55
44:BK:59:GLN:CD	44:BK:59:GLN:N	2.63	0.55
48:BO:214:GLU:HG2	48:BO:216:LEU:HD13	1.88	0.55
59:BZ:42:VAL:HG22	59:BZ:120:ASP:HA	1.87	0.55
61:Bb:107:SER:HG	61:Bb:125:TRP:CD1	2.24	0.55
66:Bg:88:LEU:HD12	66:Bg:98:ALA:CB	2.35	0.55
68:Bi:127:LEU:HD23	68:Bi:127:LEU:H	1.71	0.55
73:Bn:77:HIS:CD2	73:Bn:77:HIS:C	2.82	0.55
74:Bo:30:GLU:O	74:Bo:34:HIS:CD2	2.59	0.55
75:Bp:41:HIS:HB2	75:Bp:43:TYR:CZ	2.41	0.55
79:Bt:26:VAL:HG22	79:Bt:27:GLN:H	1.71	0.55
80:Bu:116:ALA:H	80:Bu:141:ASP:HB2	1.72	0.55
85:AA:144:A:H3'	85:AA:145:C:H5'	1.87	0.55
85:AA:159:G:C6	85:AA:164:G:C6	2.95	0.55
85:AA:172:A:C2	85:AA:173:A:C4	2.95	0.55
85:AA:756:G:H2'	85:AA:757:A:C8	2.42	0.55
85:AA:1462:A:C5	85:AA:1463:A:C5	2.94	0.55
85:AA:1464:G:C4	85:AA:1465:C:C5	2.95	0.55
85:AA:1481:U:H2'	85:AA:1482:C:C6	2.41	0.55
85:AA:1522:U:C6	85:AA:1522:U:O5'	2.59	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1729:C:C5	85:AA:1730:C:C5	2.94	0.55
85:AA:1923:A:O2'	85:AA:2074:G:H5'	2.07	0.55
85:AA:2003:C:H3'	85:AA:2035:C:H41	1.70	0.55
85:AA:2081:A:C4	85:AA:2082:C:C6	2.94	0.55
85:AA:2114:U:C2	85:AA:2205:A:C2	2.95	0.55
85:AA:2236:U:C6	85:AA:2236:U:H3'	2.41	0.55
9:A8:31:VAL:HA	9:A8:40:CYS:HA	1.88	0.55
13:AE:64:ALA:HB1	13:AE:77:THR:HG22	1.89	0.55
21:AM:38:GLY:HA2	85:AA:2033:C:C5'	2.36	0.55
34:BA:121:A:H4'	83:Bx:118:ARG:HH12	1.71	0.55
34:BA:165:C:O2	34:BA:166:G:C4	2.60	0.55
34:BA:237:A:C3'	34:BA:238:C:C6	2.89	0.55
34:BA:838:U:C5	34:BA:839:U:C6	2.95	0.55
34:BA:1190:A:C6	34:BA:1191:C:C4	2.93	0.55
34:BA:1190:A:C5	34:BA:1191:C:C5	2.95	0.55
34:BA:1517:U:O4	34:BA:1518:A:C5	2.59	0.55
34:BA:1610:A:C4	34:BA:1611:A:C8	2.95	0.55
34:BA:1723:U:H3	34:BA:1728:G:H1	1.53	0.55
34:BA:1741:G:C2	34:BA:1784:G:C2	2.94	0.55
34:BA:1783:C:H4'	38:BE:207:G:H22	1.70	0.55
35:BB:95:A:H3'	35:BB:96:A:N7	2.21	0.55
35:BB:361:A:C2	35:BB:362:A:H1'	2.41	0.55
35:BB:366:G:C5	35:BB:367:C:C4	2.94	0.55
35:BB:486:G:H2'	35:BB:487:A:C8	2.42	0.55
35:BB:617:C:C2	35:BB:618:U:C6	2.95	0.55
35:BB:672:C:C5	35:BB:673:C:C5	2.94	0.55
35:BB:802:G:H4'	83:Bx:260:ARG:HG3	1.89	0.55
35:BB:823:G:C2	35:BB:824:C:C1'	2.89	0.55
35:BB:847:U:H3'	35:BB:848:A:H5'	1.87	0.55
35:BB:1153:G:C4	35:BB:1154:C:C5	2.94	0.55
35:BB:1233:U:H2'	35:BB:1234:G:C8	2.41	0.55
35:BB:1296:A:C4	35:BB:1309:A:C4	2.95	0.55
35:BB:1312:U:H2'	35:BB:1313:C:C6	2.41	0.55
35:BB:1372:G:C4	35:BB:1373:U:C5	2.94	0.55
35:BB:1478:G:C6	35:BB:1487:G:C6	2.94	0.55
35:BB:1531:G:C6	35:BB:1538:G:C6	2.95	0.55
36:BC:44:A:C6	36:BC:45:C:C4	2.95	0.55
36:BC:149:A:C5	36:BC:150:U:C4	2.94	0.55
36:BC:166:G:C2	36:BC:167:U:C2	2.95	0.55
37:BD:48:G:N3	37:BD:49:A:C5	2.74	0.55
38:BE:24:G:C8	69:Bj:44:HIS:CD2	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:93:U:C4	38:BE:128:G:N1	2.74	0.55
38:BE:152:U:C4	38:BE:154:A:H2	2.24	0.55
39:BF:28:C:C6	39:BF:28:C:OP2	2.59	0.55
40:BG:34:A:H3'	40:BG:35:G:C8	2.42	0.55
40:BG:70:C:C2	40:BG:71:C:C6	2.93	0.55
40:BG:92:U:C4	40:BG:108:G:N1	2.75	0.55
41:BH:7:C:N4	41:BH:129:G:C5	2.75	0.55
43:BJ:20:ARG:HH12	43:BJ:27:GLU:CD	2.15	0.55
75:Bp:31:VAL:HA	75:Bp:48:ALA:HA	1.88	0.55
79:Bt:74:CYS:HB3	79:Bt:77:CYS:SG	2.46	0.55
85:AA:355:G:C2	85:AA:356:U:C6	2.95	0.55
85:AA:356:U:H3'	85:AA:357:C:C6	2.42	0.55
85:AA:453:G:C2	85:AA:454:G:C5	2.95	0.55
85:AA:730:G:C5	85:AA:731:U:C5	2.94	0.55
85:AA:847:G:C6	85:AA:848:C:C4	2.95	0.55
85:AA:1869:U:H6	85:AA:1869:U:OP2	1.89	0.55
85:AA:2086:C:C2	85:AA:2087:C:C5	2.94	0.55
1:A0:197:ASP:O	1:A0:200:ALA:HB3	2.06	0.55
5:A4:9:LYS:O	5:A4:47:HIS:CE1	2.60	0.55
21:AM:43:TYR:N	21:AM:43:TYR:CD1	2.75	0.55
21:AM:83:TRP:CE3	85:AA:1968:A:C6	2.94	0.55
23:AP:217:ARG:HD2	23:AP:217:ARG:H	1.72	0.55
26:AS:6:GLY:O	85:AA:707:U:H5''	2.06	0.55
34:BA:18:G:C6	36:BC:37:U:C6	2.95	0.55
34:BA:34:U:C2	34:BA:35:U:C6	2.94	0.55
34:BA:152:C:H1'	72:Bm:37:ARG:HG2	1.88	0.55
34:BA:212:A:C2	34:BA:221:G:C2	2.95	0.55
34:BA:543:A:N1	34:BA:564:C:C4	2.74	0.55
34:BA:583:G:C2	34:BA:584:A:C5	2.94	0.55
34:BA:603:U:H1'	34:BA:682:A:H62	1.71	0.55
34:BA:615:A:C2	34:BA:666:C:N3	2.74	0.55
34:BA:701:G:O5'	34:BA:701:G:C8	2.60	0.55
34:BA:727:G:H2'	35:BB:628:A:H4'	1.89	0.55
34:BA:843:G:C5	34:BA:844:U:C4	2.95	0.55
34:BA:858:C:C6	34:BA:880:G:N2	2.74	0.55
34:BA:1011:G:C6	34:BA:1013:A:N1	2.74	0.55
34:BA:1073:G:C5	34:BA:1221:A:C6	2.94	0.55
34:BA:1084:A:C5	34:BA:1085:G:C6	2.95	0.55
34:BA:1230:G:C5	34:BA:1231:C:C5	2.94	0.55
34:BA:1275:G:C6	34:BA:1276:G:C5	2.95	0.55
34:BA:1333:G:C4	34:BA:1409:A:C2	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1341:A:C4	34:BA:1342:C:C6	2.94	0.55
34:BA:1557:G:C2	34:BA:1558:C:C2	2.95	0.55
34:BA:1660:A:H62	76:Bq:5:LYS:HZ3	1.55	0.55
35:BB:44:C:H2'	35:BB:45:A:C8	2.41	0.55
35:BB:501:G:C5	35:BB:502:C:C5	2.94	0.55
35:BB:546:A:C4	35:BB:555:G:C6	2.94	0.55
35:BB:808:U:C5	35:BB:808:U:OP2	2.60	0.55
35:BB:817:C:C2	35:BB:823:G:N2	2.74	0.55
35:BB:1079:G:C4	35:BB:1080:U:C6	2.95	0.55
35:BB:1121:A:H3'	35:BB:1122:C:C6	2.42	0.55
35:BB:1283:C:C6	35:BB:1283:C:O5'	2.60	0.55
35:BB:1413:U:C2	35:BB:1414:A:C8	2.95	0.55
35:BB:1421:C:C2	35:BB:1422:G:C8	2.94	0.55
36:BC:1:A:C6	36:BC:2:A:C6	2.95	0.55
36:BC:77:A:C6	36:BC:78:G:C5	2.95	0.55
37:BD:1:G:C2	37:BD:2:G:C4	2.95	0.55
38:BE:30:C:C2	38:BE:31:A:C8	2.95	0.55
38:BE:96:G:C2	38:BE:124:G:N1	2.74	0.55
38:BE:145:A:H61	38:BE:167:U:H3	1.54	0.55
39:BF:23:G:C8	48:BO:132:ARG:HA	2.42	0.55
50:BQ:60:THR:H	50:BQ:148:GLU:CD	2.15	0.55
60:Ba:119:TYR:HB2	60:Ba:128:PHE:CE2	2.42	0.55
61:Bb:16:PHE:CD1	61:Bb:21:ARG:HA	2.41	0.55
65:Bf:366:MET:HB2	65:Bf:421:SER:HA	1.87	0.55
71:Bl:84:TYR:CE1	71:Bl:106:ARG:HB2	2.42	0.55
80:Bu:90:HIS:CG	80:Bu:234:LYS:HE3	2.42	0.55
82:Bw:235:HIS:CG	82:Bw:236:PHE:N	2.74	0.55
83:Bx:224:LEU:O	83:Bx:228:THR:HG23	2.05	0.55
85:AA:209:C:H2'	85:AA:210:G:H4'	1.87	0.55
85:AA:265:A:OP2	85:AA:868:A:C8	2.59	0.55
85:AA:535:G:C5	85:AA:536:C:C5	2.95	0.55
85:AA:575:G:C2	85:AA:577:U:C4	2.95	0.55
85:AA:636:G:C4	85:AA:637:U:C6	2.95	0.55
85:AA:686:U:C5	85:AA:687:G:C4	2.95	0.55
85:AA:1002:G:C2	85:AA:1003:G:C4	2.95	0.55
85:AA:1689:G:C6	85:AA:1690:A:C5	2.95	0.55
85:AA:1991:C:H2'	85:AA:1992:A:C8	2.42	0.55
85:AA:2214:A:C2'	85:AA:2215:C:H5''	2.35	0.55
2:A1:91:LYS:CE	27:AT:22:LEU:HA	2.37	0.55
17:AI:44:VAL:HG12	17:AI:45:HIS:H	1.71	0.55
17:AI:51:ARG:HH12	17:AI:55:HIS:CD2	2.25	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AL:104:GLN:HA	20:AL:107:ALA:HB3	1.89	0.55
23:AP:189:VAL:HG13	85:AA:2:A:C3'	2.34	0.55
27:AT:36:GLY:H	85:AA:604:C:C4'	2.19	0.55
30:AW:80:PHE:CD2	30:AW:80:PHE:C	2.83	0.55
31:AX:144:GLN:HE22	85:AA:653:A:C3'	2.19	0.55
34:BA:72:U:OP1	47:BN:63:VAL:HB	2.06	0.55
34:BA:135:G:C4	34:BA:136:A:C8	2.95	0.55
34:BA:162:G:N2	34:BA:320:G:C8	2.75	0.55
34:BA:237:A:C2	40:BG:14:G:C8	2.94	0.55
34:BA:316:G:C6	34:BA:318:U:C5	2.95	0.55
34:BA:359:G:C5	34:BA:362:G:H5''	2.41	0.55
34:BA:697:A:C2	34:BA:698:U:C4	2.95	0.55
34:BA:740:A:C8	47:BN:10:HIS:CD2	2.94	0.55
34:BA:795:G:H2'	34:BA:796:G:C8	2.41	0.55
34:BA:873:G:H3'	34:BA:874:G:H5''	1.89	0.55
34:BA:979:G:C6	34:BA:981:A:C4	2.94	0.55
34:BA:1048:C:C2	34:BA:1520:A:C2	2.95	0.55
34:BA:1118:C:C2'	34:BA:1119:A:H5''	2.37	0.55
34:BA:1200:U:H3'	34:BA:1202:G:OP2	2.07	0.55
34:BA:1327:G:C6	34:BA:1415:C:C2	2.94	0.55
34:BA:1425:G:HO2'	34:BA:1425:G:H8	1.55	0.55
34:BA:1468:U:H2'	34:BA:1469:G:C8	2.41	0.55
34:BA:1552:C:H2'	34:BA:1553:G:C8	2.42	0.55
34:BA:1616:A:H5'	34:BA:1634:A:C2	2.42	0.55
35:BB:81:A:C5	35:BB:82:G:C5	2.95	0.55
35:BB:369:A:C2	35:BB:370:A:C5	2.95	0.55
35:BB:558:U:C2	35:BB:559:U:C6	2.95	0.55
35:BB:651:G:C8	35:BB:651:G:OP2	2.60	0.55
35:BB:824:C:C2'	35:BB:825:U:H5'	2.37	0.55
35:BB:1286:G:H3'	35:BB:1287:U:C6	2.41	0.55
35:BB:1292:G:C4	35:BB:1293:C:C6	2.94	0.55
36:BC:130:U:C2	36:BC:131:C:H5'	2.42	0.55
38:BE:42:C:H4'	53:BT:63:TRP:CH2	2.41	0.55
38:BE:137:A:C5	38:BE:138:U:C5	2.95	0.55
38:BE:188:C:C4	64:Be:187:TYR:CZ	2.95	0.55
39:BF:39:C:H3'	39:BF:41:U:N3	2.22	0.55
39:BF:54:U:C5	39:BF:54:U:OP1	2.58	0.55
40:BG:58:G:H3'	40:BG:59:G:H8	1.72	0.55
40:BG:62:C:O2	84:By:117:LYS:HA	2.06	0.55
40:BG:80:G:C2	40:BG:119:A:C2	2.95	0.55
40:BG:95:U:C6	53:BT:62:ARG:NH2	2.74	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:163:G:H3'	40:BG:164:U:C6	2.41	0.55
41:BH:16:A:C6	41:BH:17:A:C5	2.95	0.55
41:BH:21:G:C6	41:BH:22:A:C4	2.95	0.55
41:BH:34:G:C4	41:BH:35:G:C8	2.95	0.55
41:BH:121:A:N1	41:BH:123:G:C5	2.74	0.55
47:BN:61:PRO:HD2	47:BN:77:GLY:O	2.07	0.55
47:BN:80:PHE:CE1	47:BN:121:LEU:HD21	2.41	0.55
52:BS:163:LYS:HD3	71:Bl:118:THR:HG23	1.88	0.55
54:BU:69:PRO:HD3	63:Bd:37:TRP:CD1	2.42	0.55
57:BX:58:HIS:CE1	57:BX:61:ARG:HH11	2.25	0.55
58:BY:82:ALA:HB2	85:AA:2159:C:C4	2.38	0.55
60:Ba:10:VAL:HA	60:Ba:81:PRO:HA	1.87	0.55
60:Ba:131:LEU:HD22	60:Ba:133:PHE:CE1	2.40	0.55
69:Bj:61:ARG:HG2	69:Bj:62:HIS:H	1.71	0.55
85:AA:243:A:H5''	85:AA:244:G:C8	2.40	0.55
85:AA:331:G:H5''	85:AA:332:A:H5'	1.89	0.55
85:AA:370:A:C6	85:AA:371:C:C4	2.95	0.55
85:AA:399:A:N1	85:AA:400:G:C6	2.75	0.55
85:AA:474:C:N3	85:AA:475:A:C5	2.75	0.55
85:AA:543:A:C6	85:AA:544:A:C5	2.94	0.55
85:AA:587:G:C2	85:AA:588:G:C4	2.93	0.55
85:AA:588:G:C8	85:AA:588:G:H5''	2.42	0.55
85:AA:604:C:H2'	85:AA:605:A:C5	2.42	0.55
85:AA:636:G:C5	85:AA:637:U:C5	2.95	0.55
85:AA:678:A:C6	85:AA:679:A:C4	2.94	0.55
85:AA:689:U:H2'	85:AA:695:A:C2	2.42	0.55
85:AA:790:A:H5'	85:AA:792:A:C1'	2.37	0.55
85:AA:1450:U:C4	85:AA:1451:U:C4	2.95	0.55
85:AA:1843:A:C2	85:AA:1844:A:C4	2.95	0.55
85:AA:1858:G:C6	85:AA:1859:C:C4	2.95	0.55
85:AA:2147:A:C6	85:AA:2172:A:C8	2.94	0.55
2:A1:85:ASP:O	2:A1:97:ARG:HA	2.07	0.55
4:A3:38:ASP:O	4:A3:41:ILE:HG22	2.07	0.55
5:A4:3:ALA:HB1	5:A4:10:LEU:CA	2.37	0.55
5:A4:143:ARG:CG	5:A4:145:TRP:HE1	2.20	0.55
13:AE:103:ARG:HG3	13:AE:120:HIS:CD2	2.42	0.55
15:AG:34:ILE:HA	15:AG:37:VAL:HG22	1.89	0.55
22:AO:89:TYR:CE2	85:AA:1963:G:H3'	2.41	0.55
24:AQ:42:ASN:H	24:AQ:43:GLU:HA	1.70	0.55
34:BA:71:G:N1	34:BA:72:U:C4	2.75	0.55
34:BA:124:G:N1	34:BA:125:G:C6	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:206:C:O2	34:BA:228:A:C2	2.60	0.55
34:BA:301:U:C5'	34:BA:302:A:H5'	2.37	0.55
34:BA:330:A:C2	50:BQ:29:LYS:HG2	2.42	0.55
34:BA:332:U:C2	34:BA:333:A:C8	2.94	0.55
34:BA:399:G:C6	36:BC:29:C:C4	2.95	0.55
34:BA:464:U:C6	51:BR:3:HIS:CG	2.95	0.55
34:BA:472:G:H1'	36:BC:15:G:N2	2.22	0.55
34:BA:505:U:C2	34:BA:506:U:C5	2.95	0.55
34:BA:587:U:C6	34:BA:587:U:C5'	2.90	0.55
34:BA:610:A:C4	34:BA:611:A:C8	2.94	0.55
34:BA:938:C:H5'	38:BE:113:C:OP2	2.07	0.55
34:BA:1107:A:C2	34:BA:1108:U:C1'	2.90	0.55
34:BA:1107:A:C6	34:BA:1108:U:C4	2.95	0.55
34:BA:1112:U:H2'	34:BA:1113:A:C8	2.41	0.55
34:BA:1126:U:O5'	34:BA:1126:U:H6	1.90	0.55
34:BA:1152:A:C5	44:BK:22:PHE:CD2	2.95	0.55
34:BA:1169:A:C5	63:Bd:29:MET:SD	3.00	0.55
34:BA:1287:G:C5	34:BA:1288:U:C4	2.95	0.55
34:BA:1301:G:H2'	34:BA:1302:C:C6	2.42	0.55
34:BA:1737:A:C2	34:BA:1738:G:C4	2.95	0.55
34:BA:1783:C:C2	34:BA:1784:G:C8	2.94	0.55
34:BA:1787:U:C2	34:BA:1788:U:C5	2.95	0.55
35:BB:71:A:N6	35:BB:615:A:H1'	2.20	0.55
35:BB:125:G:C5	35:BB:126:C:C4	2.95	0.55
35:BB:569:G:C2	35:BB:570:A:H1'	2.42	0.55
35:BB:628:A:C6	35:BB:629:C:C2	2.95	0.55
35:BB:672:C:O2	35:BB:1278:A:C2	2.60	0.55
35:BB:1147:G:C4	35:BB:1148:U:C4	2.95	0.55
35:BB:1254:G:O6	79:Bt:63:LYS:HD2	2.07	0.55
35:BB:1305:A:C5	35:BB:1306:G:C4	2.95	0.55
35:BB:1522:G:N2	35:BB:1545:U:H3	2.04	0.55
36:BC:72:A:C5	36:BC:73:U:C5	2.95	0.55
37:BD:91:U:C4	37:BD:92:G:C5	2.95	0.55
41:BH:33:G:O2'	41:BH:34:G:H8	1.88	0.55
41:BH:131:A:C5	41:BH:132:C:C4	2.95	0.55
51:BR:26:TYR:CD1	51:BR:144:CYS:HA	2.41	0.55
57:BX:124:LEU:HB3	57:BX:125:TYR:CZ	2.42	0.55
77:Br:344:GLN:HA	77:Br:347:LYS:HB2	1.89	0.55
85:AA:550:G:C6	85:AA:551:C:C4	2.95	0.55
85:AA:680:U:C2	85:AA:682:C:C4	2.95	0.55
85:AA:734:C:H2'	85:AA:735:G:C8	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1097:G:C2	85:AA:1098:C:H1'	2.42	0.55
85:AA:1120:G:C2	85:AA:1121:U:C4	2.94	0.55
85:AA:1165:C:C6	85:AA:1166:C:C5	2.94	0.55
85:AA:1292:A:H5''	85:AA:1292:A:C8	2.40	0.55
85:AA:1555:G:C6	85:AA:1556:G:C4	2.95	0.55
85:AA:1953:G:C5	85:AA:1954:C:C5	2.94	0.55
85:AA:1973:G:H2'	85:AA:1974:C:C5	2.41	0.55
85:AA:2119:C:C2	85:AA:2200:A:C2	2.95	0.55
85:AA:2147:A:C4	85:AA:2172:A:C5	2.95	0.55
86:AB:12:U:H1'	86:AB:24:G:N2	2.22	0.55
5:A4:6:HIS:HE1	53:BT:191:ASP:C	1.66	0.55
5:A4:6:HIS:HD1	53:BT:192:ASP:HA	1.69	0.55
7:A6:80:HIS:CE1	7:A6:87:GLU:HG3	2.42	0.55
11:AC:146:ASN:HD22	11:AC:149:GLN:CD	2.15	0.55
21:AM:27:VAL:HG12	21:AM:28:PRO:HD3	1.89	0.55
23:AP:149:VAL:HG12	23:AP:151:ARG:HG2	1.88	0.55
30:AW:29:PRO:CB	85:AA:1208:C:C4	2.89	0.55
34:BA:17:A:C6	36:BC:151:G:N1	2.75	0.55
34:BA:19:G:H4'	73:Bn:42:ALA:O	2.07	0.55
34:BA:25:C:C4	34:BA:26:C:C5	2.95	0.55
34:BA:162:G:C5	34:BA:322:U:H5	2.24	0.55
34:BA:449:G:H1'	34:BA:453:A:C2	2.42	0.55
34:BA:538:G:H2'	34:BA:539:C:C6	2.42	0.55
34:BA:567:U:C6	34:BA:567:U:O5'	2.60	0.55
34:BA:732:A:C6	34:BA:733:G:C5	2.95	0.55
34:BA:791:A:N6	34:BA:792:A:C2	2.75	0.55
34:BA:999:G:C6	34:BA:1000:G:C6	2.95	0.55
34:BA:1070:G:C4	34:BA:1071:G:C8	2.95	0.55
34:BA:1484:A:C2	34:BA:1485:U:N1	2.75	0.55
34:BA:1590:G:N1	34:BA:1591:G:C4	2.75	0.55
34:BA:1597:G:H1	51:BR:141:ARG:NH2	1.99	0.55
34:BA:1633:C:H5''	34:BA:1634:A:H3'	1.88	0.55
34:BA:1671:A:H2'	34:BA:1672:C:H5'	1.89	0.55
34:BA:1691:G:C5	34:BA:1825:U:C4	2.95	0.55
34:BA:1692:U:C4	35:BB:12:G:C6	2.95	0.55
35:BB:486:G:C2	35:BB:487:A:C4	2.95	0.55
35:BB:634:A:C2	35:BB:635:A:C4	2.95	0.55
35:BB:1001:G:C6	35:BB:1002:G:C5	2.95	0.55
35:BB:1075:A:C6	35:BB:1076:U:N1	2.75	0.55
35:BB:1234:G:C6	47:BN:203:ARG:CZ	2.90	0.55
35:BB:1459:U:O2	35:BB:1462:G:C8	2.59	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1470:G:C4	35:BB:1472:U:C6	2.95	0.55
36:BC:125:A:N1	36:BC:139:A:C5	2.74	0.55
37:BD:1:G:N3	80:Bu:275:PRO:HG3	2.22	0.55
37:BD:42:A:C4	37:BD:43:U:C6	2.95	0.55
37:BD:60:C:H2'	37:BD:61:C:H6	1.72	0.55
38:BE:18:U:C4	38:BE:20:C:C5	2.94	0.55
40:BG:45:G:C6	40:BG:46:G:C5	2.95	0.55
40:BG:104:A:C6	40:BG:105:A:C5	2.95	0.55
41:BH:32:U:H5'	67:Bh:91:HIS:CE1	2.42	0.55
41:BH:43:G:C5	41:BH:44:A:C6	2.94	0.55
41:BH:45:G:N1	41:BH:107:A:C2	2.73	0.55
47:BN:171:ARG:C	61:Bb:98:VAL:HG21	2.31	0.55
48:BO:179:ARG:HH21	48:BO:180:ILE:HG22	1.72	0.55
56:BW:88:ARG:HA	56:BW:93:THR:O	2.07	0.55
68:Bi:99:HIS:CG	68:Bi:100:THR:N	2.75	0.55
75:Bp:31:VAL:HG23	75:Bp:48:ALA:HA	1.88	0.55
77:Br:336:GLU:HB3	77:Br:341:LYS:HG2	1.89	0.55
85:AA:88:G:H3'	85:AA:89:C:H6	1.72	0.55
85:AA:290:G:C6	85:AA:291:G:C5	2.95	0.55
85:AA:420:C:N3	85:AA:421:G:C8	2.75	0.55
85:AA:589:A:N7	85:AA:605:A:C5	2.74	0.55
85:AA:1001:G:C2	85:AA:1002:G:C4	2.95	0.55
85:AA:1034:U:C2'	85:AA:1035:C:H2'	2.37	0.55
85:AA:1568:U:H2'	85:AA:1569:C:C6	2.42	0.55
85:AA:1696:U:C5	85:AA:1697:C:C5	2.95	0.55
85:AA:1704:C:C2	85:AA:1705:G:C8	2.95	0.55
85:AA:2042:G:C2	85:AA:2043:A:C5	2.95	0.55
86:AB:3:C:C5	86:AB:71:G:C5	2.95	0.55
5:A4:143:ARG:HG2	5:A4:145:TRP:HE1	1.72	0.55
9:A8:24:ILE:HB	9:A8:25:CYS:HG	1.72	0.55
34:BA:127:U:H3'	34:BA:128:C:C6	2.42	0.55
34:BA:164:C:H2'	34:BA:165:C:H3'	1.88	0.55
34:BA:362:G:C4	34:BA:363:G:C8	2.95	0.55
34:BA:367:G:C2	61:Bb:62:HIS:CD2	2.95	0.55
34:BA:449:G:N3	34:BA:453:A:C6	2.74	0.55
34:BA:480:G:C6	34:BA:481:A:C6	2.95	0.55
34:BA:502:U:H2'	34:BA:503:C:C6	2.42	0.55
34:BA:585:G:H3'	34:BA:586:G:C5'	2.37	0.55
34:BA:825:G:C2	34:BA:843:G:C4	2.95	0.55
34:BA:912:G:C5	34:BA:913:U:C5	2.95	0.55
34:BA:979:G:C5	34:BA:981:A:C5	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1190:A:C2	34:BA:1191:C:C2	2.95	0.55
34:BA:1240:G:H2'	34:BA:1242:A:OP2	2.08	0.55
34:BA:1370:A:H2'	34:BA:1371:U:C4	2.42	0.55
34:BA:1431:G:C2	34:BA:1432:C:C2	2.95	0.55
34:BA:1539:A:C2	34:BA:1568:A:N1	2.75	0.55
34:BA:1614:G:C2	34:BA:1634:A:N7	2.75	0.55
35:BB:84:G:H1	35:BB:601:U:H3'	1.72	0.55
35:BB:116:G:C2	35:BB:389:G:C5	2.95	0.55
35:BB:397:C:H2'	35:BB:398:A:C8	2.41	0.55
35:BB:466:A:C8	35:BB:537:A:H1'	2.43	0.55
35:BB:844:G:N1	35:BB:845:C:C2	2.75	0.55
35:BB:1103:A:C8	35:BB:1105:G:C8	2.96	0.55
35:BB:1109:A:C2	35:BB:1156:U:O2	2.60	0.55
35:BB:1128:U:H5''	45:BL:56:ARG:O	2.07	0.55
35:BB:1147:G:C6	35:BB:1148:U:C4	2.94	0.55
35:BB:1223:A:H4'	35:BB:1227:G:C5	2.41	0.55
35:BB:1305:A:C8	35:BB:1356:G:C5	2.95	0.55
35:BB:1450:G:H2'	35:BB:1451:C:C6	2.42	0.55
37:BD:71:G:C6	37:BD:105:G:C6	2.95	0.55
38:BE:114:G:C6	38:BE:115:U:C5	2.95	0.55
38:BE:123:A:C2	38:BE:124:G:C4	2.95	0.55
38:BE:129:G:C2	38:BE:130:G:C2	2.95	0.55
40:BG:4:A:C2	40:BG:5:G:C5	2.95	0.55
40:BG:5:G:C2	40:BG:6:A:C4	2.95	0.55
40:BG:152:G:C2	40:BG:153:C:C2	2.94	0.55
58:BY:79:THR:HG21	85:AA:2163:G:C4'	2.28	0.55
60:Ba:132:ARG:HE	60:Ba:133:PHE:C	2.15	0.55
73:Bn:69:VAL:CG1	73:Bn:73:ARG:HE	2.20	0.55
85:AA:109:G:C5	85:AA:110:U:C4	2.95	0.55
85:AA:125:A:C6	85:AA:126:U:C5	2.95	0.55
85:AA:451:G:H2'	85:AA:452:A:C8	2.41	0.55
85:AA:460:U:C4	85:AA:461:G:C6	2.95	0.55
85:AA:937:G:H5''	85:AA:938:A:C8	2.41	0.55
85:AA:1423:C:H2'	85:AA:1424:G:C8	2.42	0.55
85:AA:1545:U:H3'	85:AA:1546:G:H8	1.70	0.55
85:AA:1959:G:C2'	85:AA:1960:C:H5''	2.36	0.55
85:AA:2218:G:H4'	85:AA:2219:G:H5'	1.89	0.55
7:A6:94:TYR:CZ	7:A6:98:LEU:HA	2.42	0.54
15:AG:77:HIS:CD2	15:AG:77:HIS:C	2.83	0.54
22:AO:39:PHE:HB2	22:AO:71:TYR:CE1	2.42	0.54
30:AW:30:ASN:ND2	85:AA:1207:C:H5'	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:3:G:N2	34:BA:4:A:C4	2.75	0.54
34:BA:23:A:C4	34:BA:24:C:C6	2.95	0.54
34:BA:161:U:C2	34:BA:323:C:N1	2.76	0.54
34:BA:182:U:H2'	34:BA:183:G:C8	2.43	0.54
34:BA:195:G:N1	34:BA:289:A:C2	2.75	0.54
34:BA:437:G:H5'	34:BA:438:A:N7	2.22	0.54
34:BA:530:A:H2	34:BA:531:C:C6	2.25	0.54
34:BA:615:A:C6	34:BA:616:G:C5	2.95	0.54
34:BA:798:G:C1'	61:Bb:114:HIS:CE1	2.90	0.54
34:BA:846:U:OP1	42:BI:73:ARG:HG2	2.07	0.54
34:BA:1076:U:C2	34:BA:1077:G:C8	2.95	0.54
34:BA:1092:U:H2'	34:BA:1093:G:C8	2.42	0.54
34:BA:1447:C:OP2	49:BP:47:TRP:HB2	2.07	0.54
34:BA:1453:U:H4'	34:BA:1454:G:OP1	2.07	0.54
34:BA:1474:G:C6	34:BA:1509:U:O4	2.59	0.54
34:BA:1617:U:C4	34:BA:1617:U:OP2	2.60	0.54
34:BA:1745:G:C2	34:BA:1746:G:C4	2.95	0.54
34:BA:1792:U:C4	34:BA:1793:G:C6	2.95	0.54
35:BB:20:U:C6	35:BB:21:C:C5	2.95	0.54
35:BB:65:A:C6	35:BB:66:G:C5	2.95	0.54
35:BB:801:G:C6	35:BB:802:G:C4	2.94	0.54
35:BB:817:C:N4	35:BB:823:G:C6	2.75	0.54
35:BB:868:C:H2'	35:BB:869:G:O4'	2.07	0.54
35:BB:1070:G:C6	35:BB:1071:G:C5	2.95	0.54
35:BB:1166:A:C3'	35:BB:1167:C:H4'	2.37	0.54
35:BB:1239:A:N1	35:BB:1240:A:C5	2.75	0.54
35:BB:1292:G:C2	35:BB:1313:C:C2	2.95	0.54
35:BB:1311:G:C5	35:BB:1312:U:C4	2.95	0.54
35:BB:1405:G:H2'	35:BB:1406:C:C6	2.42	0.54
38:BE:26:G:C6	38:BE:27:A:C6	2.95	0.54
40:BG:40:G:C4	40:BG:41:U:C6	2.94	0.54
41:BH:10:U:N3	41:BH:20:A:C2	2.75	0.54
41:BH:23:G:H3'	41:BH:24:U:H5''	1.87	0.54
41:BH:41:A:N7	58:BY:55:TRP:CE2	2.74	0.54
49:BP:39:GLU:HG2	49:BP:74:LEU:HD22	1.88	0.54
54:BU:79:PRO:HA	54:BU:84:THR:HA	1.89	0.54
62:Bc:125:ALA:HA	62:Bc:128:LYS:HG2	1.89	0.54
63:Bd:28:TYR:CZ	63:Bd:29:MET:HB3	2.43	0.54
85:AA:4:C:C6	85:AA:4:C:O5'	2.60	0.54
85:AA:48:G:N2	85:AA:497:G:H1'	2.22	0.54
85:AA:93:G:C5	85:AA:94:C:C5	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:180:A:N3	85:AA:333:A:C5	2.75	0.54
85:AA:249:C:H2'	85:AA:250:C:C5	2.41	0.54
85:AA:424:A:C2	85:AA:425:G:N7	2.76	0.54
85:AA:470:C:C4	85:AA:471:U:C5	2.94	0.54
85:AA:589:A:H5'	85:AA:590:U:C5	2.42	0.54
85:AA:642:G:C6	85:AA:643:C:C4	2.95	0.54
85:AA:792:A:C5	85:AA:800:A:C4	2.95	0.54
85:AA:944:C:H3'	85:AA:945:A:H5''	1.89	0.54
85:AA:1303:U:C4	85:AA:1305:A:C2	2.94	0.54
85:AA:1356:U:C4	85:AA:1357:U:C2	2.95	0.54
85:AA:1618:G:C5	85:AA:1619:A:C6	2.95	0.54
85:AA:1707:G:H4'	85:AA:1853:U:H3	1.72	0.54
85:AA:1857:G:C4	85:AA:1858:G:C8	2.96	0.54
85:AA:1964:A:C6	85:AA:1973:G:C2	2.95	0.54
18:AJ:12:ARG:HH21	85:AA:1472:G:H3'	1.72	0.54
23:AP:97:GLN:HA	23:AP:105:ARG:O	2.07	0.54
32:AY:14:VAL:HG13	85:AA:658:C:H4'	1.88	0.54
34:BA:23:A:N1	34:BA:24:C:C2	2.75	0.54
34:BA:39:C:OP2	34:BA:39:C:C5	2.59	0.54
34:BA:189:G:O5'	34:BA:189:G:C8	2.60	0.54
34:BA:206:C:C2	34:BA:228:A:C2	2.95	0.54
34:BA:221:G:C6	34:BA:222:C:C4	2.95	0.54
34:BA:402:G:N1	34:BA:404:C:C4	2.75	0.54
34:BA:589:A:N3	34:BA:590:U:C5	2.75	0.54
34:BA:591:G:H4'	34:BA:592:G:H5'	1.90	0.54
34:BA:630:U:H3'	34:BA:631:G:C8	2.41	0.54
34:BA:670:U:C4	34:BA:671:C:C5	2.95	0.54
34:BA:804:G:H2'	34:BA:805:A:O4'	2.07	0.54
34:BA:1044:A:C4	34:BA:1525:G:C2	2.95	0.54
34:BA:1103:G:H2'	34:BA:1104:C:C6	2.41	0.54
34:BA:1262:A:H4'	34:BA:1313:U:C4	2.42	0.54
34:BA:1489:U:OP2	34:BA:1490:U:C4	2.60	0.54
34:BA:1496:G:C5'	34:BA:1497:A:C8	2.90	0.54
34:BA:1600:G:H2'	34:BA:1601:C:C6	2.43	0.54
34:BA:1648:G:C6	35:BB:42:A:N9	2.76	0.54
34:BA:1708:A:C5	34:BA:1709:A:H1'	2.42	0.54
35:BB:59:U:C3'	35:BB:60:A:H5''	2.32	0.54
35:BB:776:U:C2	35:BB:777:C:C2	2.94	0.54
35:BB:863:U:C4	35:BB:864:U:H1'	2.42	0.54
35:BB:1049:G:N1	35:BB:1050:A:C5	2.75	0.54
35:BB:1079:G:C2	35:BB:1080:U:C2	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1230:A:C2	47:BN:205:ARG:HD2	2.42	0.54
35:BB:1311:G:C5	35:BB:1312:U:C5	2.96	0.54
35:BB:1416:A:C2	35:BB:1417:C:C5	2.95	0.54
35:BB:1488:G:N1	35:BB:1489:A:C8	2.76	0.54
36:BC:44:A:C5	36:BC:45:C:C5	2.95	0.54
38:BE:123:A:N1	38:BE:124:G:C2	2.76	0.54
38:BE:194:A:H3'	38:BE:195:G:H8	1.72	0.54
40:BG:15:G:C6	40:BG:16:G:C5	2.95	0.54
40:BG:38:A:C2	40:BG:165:C:N3	2.76	0.54
40:BG:78:C:C6	40:BG:78:C:O5'	2.60	0.54
40:BG:80:G:C2	40:BG:81:G:C4	2.95	0.54
40:BG:139:U:O4	40:BG:148:C:H4'	2.06	0.54
40:BG:142:A:H3'	40:BG:143:C:H6	1.71	0.54
41:BH:98:U:OP2	55:BV:63:LYS:HB3	1.80	0.54
47:BN:51:ILE:HG22	47:BN:51:ILE:O	2.06	0.54
73:Bn:28:HIS:O	73:Bn:32:GLU:HA	2.07	0.54
75:Bp:33:LYS:HG2	75:Bp:46:VAL:HG13	1.89	0.54
83:Bx:106:LEU:CD2	83:Bx:224:LEU:HD11	2.38	0.54
85:AA:11:A:C4	85:AA:12:U:C6	2.95	0.54
85:AA:410:A:C5	85:AA:411:U:C5	2.95	0.54
85:AA:466:A:N3	85:AA:469:G:N7	2.54	0.54
85:AA:597:A:N6	85:AA:598:C:C4	2.75	0.54
85:AA:662:U:C4	85:AA:663:C:C5	2.95	0.54
85:AA:698:G:C2	85:AA:699:U:C6	2.94	0.54
85:AA:786:G:C8	85:AA:787:U:C5	2.95	0.54
85:AA:910:G:N2	85:AA:911:A:C6	2.75	0.54
85:AA:932:A:C5	85:AA:933:U:O4	2.60	0.54
85:AA:940:G:H5'	85:AA:941:C:C4	2.43	0.54
85:AA:1122:U:O5'	85:AA:1122:U:H6	1.90	0.54
85:AA:1130:G:C2	85:AA:1197:U:C2	2.95	0.54
85:AA:1168:C:H2'	85:AA:1169:A:C8	2.42	0.54
85:AA:1185:G:C5	85:AA:1186:C:C5	2.95	0.54
85:AA:1547:G:C6	85:AA:2041:G:C5	2.95	0.54
85:AA:1859:C:H3'	85:AA:1860:A:C8	2.42	0.54
85:AA:2042:G:H2'	85:AA:2043:A:C8	2.41	0.54
85:AA:2059:A:H1'	85:AA:2072:G:N2	2.23	0.54
5:A4:58:ARG:HE	5:A4:173:LEU:CD2	2.20	0.54
21:AM:29:PHE:HA	21:AM:32:ARG:HB2	1.88	0.54
21:AM:88:GLN:HA	21:AM:96:THR:HA	1.89	0.54
27:AT:111:ARG:NH1	85:AA:507:C:C5	2.76	0.54
32:AY:47:LYS:CG	85:AA:556:C:H1'	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:60:A:C2	34:BA:61:G:C4	2.95	0.54
34:BA:117:C:H2'	34:BA:118:C:C6	2.43	0.54
34:BA:191:G:C2	34:BA:192:G:C4	2.94	0.54
34:BA:192:G:N2	34:BA:292:C:C2	2.75	0.54
34:BA:262:A:H2	34:BA:279:U:H5	1.55	0.54
34:BA:262:A:N3	34:BA:279:U:C4	2.76	0.54
34:BA:365:A:C5	34:BA:377:G:C6	2.95	0.54
34:BA:373:G:C2	35:BB:1238:A:C4	2.96	0.54
34:BA:480:G:H2'	34:BA:481:A:C8	2.42	0.54
34:BA:765:U:C4	34:BA:768:G:O6	2.59	0.54
34:BA:785:G:H2'	34:BA:786:U:C6	2.42	0.54
34:BA:801:U:H2'	34:BA:802:G:O4'	2.07	0.54
34:BA:895:U:H2'	34:BA:896:U:H5'	1.89	0.54
34:BA:1003:A:C2	34:BA:1004:U:C5	2.96	0.54
34:BA:1082:U:H4'	34:BA:1083:A:H5'	1.88	0.54
34:BA:1213:A:C6	34:BA:1214:U:C4	2.96	0.54
34:BA:1261:G:C2	34:BA:1269:C:C2	2.95	0.54
34:BA:1275:G:H4'	68:Bi:58:TYR:CE2	2.42	0.54
34:BA:1293:A:C6	34:BA:1295:U:N3	2.75	0.54
34:BA:1447:C:C2	49:BP:47:TRP:CZ3	2.95	0.54
34:BA:1534:U:C5'	77:Br:181:ARG:HH12	2.20	0.54
34:BA:1642:A:H4'	67:Bh:133:THR:CG2	2.38	0.54
34:BA:1781:A:C6	34:BA:1782:C:C4	2.96	0.54
35:BB:552:C:H2'	35:BB:553:U:C5	2.42	0.54
35:BB:632:U:C2	35:BB:633:C:C6	2.95	0.54
35:BB:782:A:H2'	35:BB:783:U:O4'	2.07	0.54
35:BB:1008:U:C4	35:BB:1009:U:C2	2.95	0.54
35:BB:1110:G:C2	35:BB:1155:U:C2	2.96	0.54
35:BB:1197:G:C6	35:BB:1198:C:C4	2.94	0.54
35:BB:1215:U:H6	35:BB:1215:U:O5'	1.90	0.54
35:BB:1291:G:C5	35:BB:1314:G:C6	2.95	0.54
35:BB:1404:A:H2'	35:BB:1440:A:N6	2.22	0.54
35:BB:1524:G:C2	35:BB:1525:G:C4	2.95	0.54
37:BD:61:C:H2'	37:BD:62:A:C8	2.42	0.54
38:BE:97:G:N2	38:BE:98:C:C2	2.76	0.54
39:BF:17:U:N1	71:Bl:85:HIS:HE1	2.04	0.54
40:BG:171:A:H2'	40:BG:171:A:N3	2.22	0.54
41:BH:105:U:H2'	41:BH:106:G:C8	2.42	0.54
42:BI:32:LEU:HG	42:BI:33:TYR:N	2.22	0.54
53:BT:140:GLU:CD	53:BT:140:GLU:C	2.76	0.54
58:BY:49:ASN:HD21	58:BY:51:ARG:HB2	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:Bo:47:PHE:CZ	74:Bo:57:CYS:HB2	2.42	0.54
82:Bw:168:HIS:CE1	82:Bw:177:LYS:HG3	2.42	0.54
85:AA:51:A:C2'	85:AA:52:U:H5'	2.37	0.54
85:AA:65:A:H3'	85:AA:66:U:C5	2.42	0.54
85:AA:75:U:O5'	85:AA:75:U:H6	1.90	0.54
85:AA:167:A:H2'	85:AA:168:A:C8	2.42	0.54
85:AA:699:U:C2	85:AA:700:U:C5	2.95	0.54
85:AA:777:U:H5	85:AA:778:C:C4	2.25	0.54
85:AA:777:U:H6	85:AA:778:C:C6	2.25	0.54
85:AA:888:A:H3'	85:AA:889:G:C8	2.41	0.54
85:AA:963:U:H4'	85:AA:964:C:C6	2.42	0.54
85:AA:1021:G:H3'	85:AA:1022:G:C5'	2.37	0.54
85:AA:1111:A:C5	85:AA:1212:C:C4	2.94	0.54
85:AA:1196:C:N3	85:AA:1197:U:C5	2.75	0.54
85:AA:1206:A:C5	85:AA:1207:C:N4	2.75	0.54
85:AA:1269:A:C5	85:AA:1270:C:C6	2.96	0.54
85:AA:1542:A:H2'	85:AA:1543:C:C6	2.42	0.54
85:AA:1583:U:H2'	85:AA:1584:U:C5	2.41	0.54
85:AA:1670:U:C2	85:AA:1671:G:C8	2.96	0.54
85:AA:1732:G:H22	85:AA:1797:U:H1'	1.72	0.54
85:AA:2154:C:C4	85:AA:2155:U:C5	2.95	0.54
85:AA:2215:C:H3'	85:AA:2218:G:N7	2.22	0.54
15:AG:101:HIS:CE1	85:AA:1200:A:H1'	2.42	0.54
18:AJ:2:THR:HA	85:AA:1284:A:H4'	1.90	0.54
21:AM:12:HIS:CB	21:AM:13:ILE:HG22	2.37	0.54
22:AO:58:HIS:N	22:AO:58:HIS:CD2	2.74	0.54
27:AT:10:VAL:HG11	27:AT:37:TRP:CZ3	2.43	0.54
34:BA:113:G:C2	34:BA:329:G:N1	2.75	0.54
34:BA:451:A:C6	34:BA:452:A:C6	2.95	0.54
34:BA:706:C:H2'	34:BA:707:C:C6	2.42	0.54
34:BA:743:A:C6	34:BA:894:G:C2	2.96	0.54
34:BA:768:G:N3	34:BA:769:U:C5	2.75	0.54
34:BA:776:U:N3	34:BA:777:C:C4	2.75	0.54
34:BA:803:U:C5	34:BA:805:A:N1	2.75	0.54
34:BA:804:G:C8	34:BA:805:A:C5	2.95	0.54
34:BA:862:C:C4	34:BA:875:G:C6	2.94	0.54
34:BA:997:U:H2'	34:BA:998:U:C6	2.42	0.54
34:BA:1088:G:C5	63:Bd:17:HIS:CD2	2.96	0.54
34:BA:1140:A:C6	34:BA:1141:C:C2	2.95	0.54
34:BA:1176:C:H2'	34:BA:1177:C:C6	2.42	0.54
34:BA:1226:G:C6	34:BA:1227:U:C4	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1597:G:N3	35:BB:622:G:C6	2.76	0.54
34:BA:1699:A:N1	34:BA:1808:A:C2	2.75	0.54
35:BB:22:A:C4	35:BB:26:C:C5	2.95	0.54
35:BB:81:A:C2	35:BB:82:G:C4	2.95	0.54
35:BB:274:U:H2'	35:BB:275:A:C8	2.43	0.54
35:BB:503:G:H4'	86:AB:71:G:H5'	1.88	0.54
35:BB:783:U:O5'	35:BB:783:U:H6	1.90	0.54
35:BB:855:G:C6	35:BB:856:U:C4	2.95	0.54
35:BB:863:U:H2'	35:BB:864:U:H5'	1.90	0.54
35:BB:1234:G:C6	35:BB:1243:A:C6	2.96	0.54
35:BB:1291:G:C4	35:BB:1314:G:C2	2.96	0.54
35:BB:1296:A:C6	35:BB:1309:A:C8	2.95	0.54
35:BB:1300:U:C5	35:BB:1301:U:C5	2.96	0.54
35:BB:1301:U:C5	35:BB:1302:C:C6	2.94	0.54
35:BB:1377:A:C6	35:BB:1378:U:C4	2.95	0.54
35:BB:1391:G:C5	35:BB:1392:A:C6	2.95	0.54
36:BC:113:G:C4	36:BC:114:C:C5	2.96	0.54
38:BE:2:G:C4	38:BE:8:G:C4	2.95	0.54
38:BE:7:U:O5'	38:BE:7:U:H6	1.90	0.54
38:BE:25:U:C5	38:BE:25:U:OP2	2.61	0.54
39:BF:36:G:C4	39:BF:48:G:C2	2.95	0.54
39:BF:50:C:H2'	39:BF:51:C:C6	2.42	0.54
40:BG:26:G:C5	40:BG:27:C:C5	2.96	0.54
41:BH:50:A:C6	41:BH:51:C:N3	2.75	0.54
47:BN:54:ARG:HG3	70:Bk:123:TYR:CZ	2.43	0.54
47:BN:61:PRO:HD3	47:BN:79:GLY:O	2.08	0.54
47:BN:101:ARG:HG2	47:BN:102:VAL:H	1.72	0.54
49:BP:94:ARG:HA	49:BP:97:ARG:HE	1.72	0.54
52:BS:163:LYS:CD	71:Bl:118:THR:HG23	2.37	0.54
57:BX:107:ILE:HG23	57:BX:141:LEU:HB2	1.87	0.54
65:Bf:146:THR:C	65:Bf:148:VAL:H	2.15	0.54
72:Bm:94:ARG:HA	72:Bm:97:LYS:HE2	1.89	0.54
81:Bv:15:LYS:HB3	81:Bv:16:VAL:HG23	1.89	0.54
82:Bw:202:GLN:NE2	82:Bw:209:HIS:HB2	2.22	0.54
84:By:87:ARG:HA	84:By:145:GLU:HB2	1.89	0.54
85:AA:71:G:H2'	85:AA:72:C:H6	1.71	0.54
85:AA:179:G:H2'	85:AA:180:A:C6	2.42	0.54
85:AA:497:G:H2'	85:AA:498:C:C6	2.43	0.54
85:AA:549:A:C2	85:AA:550:G:C4	2.95	0.54
85:AA:572:G:C5	85:AA:573:U:C5	2.95	0.54
85:AA:616:A:C4	85:AA:617:C:H3'	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:813:G:C2	85:AA:865:G:C4	2.95	0.54
85:AA:831:C:C6	85:AA:831:C:H3'	2.43	0.54
85:AA:912:C:C5	85:AA:913:U:O4	2.61	0.54
85:AA:936:C:C2	85:AA:937:G:C6	2.95	0.54
85:AA:1159:C:C4	85:AA:1160:U:C4	2.95	0.54
85:AA:1275:A:C4	85:AA:1279:A:N1	2.75	0.54
85:AA:1281:G:C4	85:AA:1282:A:N7	2.75	0.54
85:AA:1464:G:C5	85:AA:1465:C:C5	2.95	0.54
85:AA:1595:G:C4	85:AA:1883:C:C4	2.95	0.54
8:A7:77:ASN:HB2	8:A7:121:ASN:HD21	1.72	0.54
18:AJ:102:VAL:H	18:AJ:113:HIS:CE1	2.25	0.54
34:BA:161:U:C1'	34:BA:165:C:C5	2.91	0.54
34:BA:191:G:C4	34:BA:293:A:C2	2.95	0.54
34:BA:214:A:N3	62:Bc:78:LYS:HD2	2.22	0.54
34:BA:383:G:H2'	34:BA:383:G:N3	2.23	0.54
34:BA:427:G:C2	34:BA:428:C:C2	2.95	0.54
34:BA:538:G:H1'	34:BA:572:G:N2	2.22	0.54
34:BA:540:G:N2	34:BA:568:G:C4	2.76	0.54
34:BA:711:C:N3	34:BA:721:A:C8	2.76	0.54
34:BA:738:C:C6	34:BA:738:C:O5'	2.60	0.54
34:BA:747:G:C4	34:BA:748:C:C6	2.96	0.54
34:BA:917:C:H2'	34:BA:917:C:O2	2.08	0.54
34:BA:994:G:C6	34:BA:996:U:C4	2.96	0.54
34:BA:1006:G:C2	34:BA:1025:A:C8	2.96	0.54
34:BA:1066:A:C6	34:BA:1067:G:C6	2.95	0.54
34:BA:1069:U:C6	34:BA:1225:A:N6	2.76	0.54
34:BA:1184:A:H5'	80:Bu:134:THR:CG2	2.38	0.54
34:BA:1208:U:O2	34:BA:1210:A:H5''	2.08	0.54
34:BA:1219:G:C6	34:BA:1220:C:C4	2.95	0.54
34:BA:1543:A:C2	34:BA:1544:G:H1'	2.43	0.54
34:BA:1551:G:C4	34:BA:1552:C:C5	2.96	0.54
34:BA:1640:G:C2	34:BA:1641:G:C4	2.96	0.54
34:BA:1804:A:C5	34:BA:1807:G:C6	2.95	0.54
34:BA:1813:C:C2	34:BA:1834:A:C2	2.95	0.54
34:BA:1816:G:N1	34:BA:1818:A:C2	2.76	0.54
35:BB:48:G:C6	35:BB:50:A:C4	2.96	0.54
35:BB:66:G:C6	35:BB:67:A:C6	2.96	0.54
35:BB:95:A:H2'	35:BB:96:A:C8	2.43	0.54
35:BB:436:G:O5'	35:BB:436:G:C8	2.61	0.54
35:BB:448:G:C5	35:BB:449:C:C5	2.95	0.54
35:BB:709:G:C2	35:BB:773:G:C5	2.94	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:735:A:C2	35:BB:755:A:C2	2.95	0.54
35:BB:856:U:C6	35:BB:856:U:H3'	2.42	0.54
35:BB:1019:C:H2'	35:BB:1020:U:C6	2.43	0.54
35:BB:1063:C:H3'	35:BB:1064:U:C2	2.43	0.54
35:BB:1312:U:C2	35:BB:1313:C:C5	2.95	0.54
35:BB:1377:A:H2'	35:BB:1378:U:C6	2.42	0.54
35:BB:1387:C:C2	35:BB:1388:A:C8	2.95	0.54
35:BB:1461:C:C4	40:BG:1:G:N1	2.71	0.54
35:BB:1470:G:C2	35:BB:1471:A:H4'	2.42	0.54
36:BC:44:A:C5	36:BC:45:C:C4	2.96	0.54
36:BC:60:U:C4	70:Bk:60:THR:HG22	2.42	0.54
36:BC:92:C:C2	36:BC:93:C:C6	2.96	0.54
37:BD:25:G:C6	37:BD:26:C:C4	2.95	0.54
37:BD:60:C:H2'	37:BD:61:C:C6	2.42	0.54
38:BE:104:G:C6	38:BE:105:A:C6	2.95	0.54
40:BG:41:U:C2	40:BG:69:G:N1	2.76	0.54
40:BG:60:A:C6	40:BG:61:A:C4	2.95	0.54
40:BG:116:G:C2	40:BG:117:C:H1'	2.43	0.54
41:BH:38:G:C6	41:BH:113:G:N1	2.75	0.54
41:BH:100:A:H3'	41:BH:101:A:H4'	1.90	0.54
42:BI:16:ARG:C	42:BI:17:HIS:CG	2.85	0.54
42:BI:193:LYS:HZ3	42:BI:193:LYS:C	2.14	0.54
47:BN:145:GLU:HB2	47:BN:148:VAL:HB	1.89	0.54
49:BP:152:LYS:HA	49:BP:156:SER:HB2	1.89	0.54
58:BY:46:ARG:HB3	58:BY:48:LYS:HE3	1.90	0.54
71:Bl:44:LEU:HD12	71:Bl:60:LEU:O	2.07	0.54
73:Bn:22:CYS:SG	73:Bn:34:CYS:SG	3.05	0.54
77:Br:66:TRP:CD2	77:Br:77:ARG:HD3	2.43	0.54
77:Br:108:ARG:HB2	77:Br:110:TRP:CE2	2.43	0.54
82:Bw:210:PHE:O	82:Bw:213:VAL:HG12	2.07	0.54
83:Bx:189:PRO:HB3	83:Bx:232:ASN:HD21	1.72	0.54
84:By:43:ASP:H	84:By:57:ARG:NH1	2.06	0.54
85:AA:298:C:H1'	85:AA:299:A:C6	2.43	0.54
85:AA:437:G:N2	85:AA:687:G:H1	2.05	0.54
85:AA:513:G:C5	85:AA:514:U:C5	2.95	0.54
85:AA:683:U:C4	85:AA:1485:G:C2	2.94	0.54
85:AA:732:G:H3'	85:AA:733:C:H6	1.72	0.54
85:AA:757:A:C5	85:AA:758:C:C5	2.95	0.54
85:AA:783:C:H2'	85:AA:784:C:C6	2.43	0.54
85:AA:868:A:H2'	85:AA:868:A:N3	2.23	0.54
85:AA:1296:G:C2	85:AA:1297:G:C4	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1462:A:C2	85:AA:1463:A:C4	2.96	0.54
85:AA:2028:G:C6	85:AA:2029:G:C5	2.95	0.54
85:AA:2067:A:C6	85:AA:2069:A:C4	2.95	0.54
85:AA:2091:C:C2	85:AA:2092:A:C8	2.95	0.54
4:A3:79:LYS:HA	4:A3:95:ARG:HB2	1.90	0.54
5:A4:178:TYR:CE2	5:A4:182:THR:HG21	2.43	0.54
12:AD:68:TRP:HE1	31:AX:22:GLU:CB	2.20	0.54
15:AG:136:PRO:HG2	15:AG:139:TRP:CD1	2.43	0.54
16:AH:8:LYS:HA	16:AH:10:TYR:CZ	2.43	0.54
22:AO:110:THR:HG22	22:AO:111:ARG:H	1.72	0.54
27:AT:114:VAL:HA	27:AT:116:GLU:HG2	1.89	0.54
34:BA:13:U:C2	36:BC:154:A:N1	2.76	0.54
34:BA:183:G:C6	34:BA:184:C:C5	2.96	0.54
34:BA:593:G:C2	34:BA:594:G:C5	2.95	0.54
34:BA:744:G:N1	34:BA:745:A:C5	2.76	0.54
34:BA:756:A:H5''	34:BA:757:G:C5	2.43	0.54
34:BA:756:A:C2	34:BA:757:G:C2	2.96	0.54
34:BA:771:A:H5''	34:BA:774:A:N6	2.22	0.54
34:BA:856:G:C5	34:BA:857:C:C6	2.95	0.54
34:BA:1124:U:C6	34:BA:1124:U:C5'	2.91	0.54
34:BA:1153:C:N3	34:BA:1154:U:C4	2.76	0.54
34:BA:1266:A:C5	34:BA:1267:A:C6	2.96	0.54
34:BA:1634:A:C4	34:BA:1634:A:O5'	2.61	0.54
35:BB:425:G:C6	64:Be:150:LEU:HD22	2.43	0.54
35:BB:679:G:C5	35:BB:1269:A:C6	2.95	0.54
35:BB:710:A:H2'	35:BB:711:C:C6	2.43	0.54
35:BB:782:A:C5	35:BB:783:U:C4	2.95	0.54
35:BB:804:U:C2	35:BB:805:G:H1'	2.41	0.54
35:BB:831:C:H2'	35:BB:832:C:C6	2.42	0.54
35:BB:836:U:C2'	35:BB:837:A:C8	2.89	0.54
35:BB:839:G:C2	35:BB:978:C:H1'	2.43	0.54
35:BB:851:U:O2'	69:Bj:122:ALA:CA	2.56	0.54
35:BB:1018:U:C6	35:BB:1018:U:H3'	2.43	0.54
35:BB:1099:U:C4	35:BB:1206:G:C2	2.95	0.54
35:BB:1314:G:C5	35:BB:1315:C:C5	2.96	0.54
36:BC:90:U:C4	36:BC:91:G:N7	2.75	0.54
38:BE:64:A:C2	38:BE:141:A:C5	2.96	0.54
39:BF:5:U:O2	39:BF:5:U:H2'	2.08	0.54
39:BF:38:C:O5'	39:BF:38:C:H6	1.91	0.54
40:BG:174:G:N2	40:BG:175:G:C8	2.76	0.54
41:BH:31:A:C5	41:BH:32:U:H5	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BN:12:HIS:CD2	47:BN:12:HIS:N	2.69	0.54
51:BR:112:MET:SD	51:BR:150:MET:HB2	2.48	0.54
57:BX:47:LYS:HB2	57:BX:49:TYR:CE1	2.42	0.54
61:Bb:111:GLY:HA3	61:Bb:129:LEU:HD23	1.88	0.54
77:Br:308:LYS:HG2	77:Br:309:ARG:H	1.72	0.54
78:Bs:14:ASN:HB2	78:Bs:15:TRP:CD2	2.43	0.54
85:AA:23:G:C6	85:AA:677:U:C4	2.95	0.54
85:AA:63:G:C1'	85:AA:174:U:C5	2.91	0.54
85:AA:74:U:H2'	85:AA:75:U:O4'	2.07	0.54
85:AA:129:U:H2'	85:AA:130:G:C8	2.42	0.54
85:AA:270:A:C8	85:AA:270:A:H3'	2.42	0.54
85:AA:342:C:C5	85:AA:343:U:N3	2.76	0.54
85:AA:362:G:C2	85:AA:363:A:C4	2.95	0.54
85:AA:413:G:C6	85:AA:414:C:C5	2.96	0.54
85:AA:456:A:H1'	85:AA:2182:A:H4'	1.88	0.54
85:AA:500:C:C4	85:AA:501:A:N1	2.75	0.54
85:AA:506:G:C2	85:AA:507:C:C6	2.96	0.54
85:AA:579:U:H2'	85:AA:580:C:C6	2.41	0.54
85:AA:582:A:C2	85:AA:583:U:C1'	2.90	0.54
85:AA:671:G:C6	85:AA:672:U:C4	2.95	0.54
85:AA:684:G:C5	85:AA:688:C:H1'	2.43	0.54
85:AA:757:A:C6	85:AA:758:C:C4	2.95	0.54
85:AA:813:G:C4	85:AA:865:G:C2	2.96	0.54
85:AA:820:G:C6	85:AA:862:U:O2	2.60	0.54
85:AA:956:C:H3'	85:AA:957:A:C5'	2.37	0.54
85:AA:1000:U:O4	85:AA:1001:G:C6	2.60	0.54
85:AA:1208:C:C6	85:AA:1208:C:O5'	2.61	0.54
85:AA:1288:A:N1	85:AA:1289:U:N3	2.55	0.54
85:AA:1445:C:H2'	85:AA:1446:U:C6	2.43	0.54
85:AA:1537:A:C5	85:AA:1538:C:C4	2.95	0.54
85:AA:1610:G:H1	85:AA:1629:C:H42	1.54	0.54
85:AA:1627:U:C4	85:AA:1628:U:C4	2.95	0.54
85:AA:1930:U:C2	85:AA:1931:C:C2	2.96	0.54
85:AA:1942:U:H3	85:AA:1947:A:H61	1.55	0.54
85:AA:2004:U:H3'	85:AA:2005:U:C4'	2.38	0.54
6:A5:31:ARG:CZ	85:AA:398:U:H5''	2.38	0.54
17:AI:62:VAL:HA	17:AI:65:LYS:HE2	1.90	0.54
19:AK:141:ARG:CG	85:AA:2053:A:H5''	2.38	0.54
32:AY:13:LYS:HB3	85:AA:641:A:H4'	1.90	0.54
34:BA:125:G:C4	34:BA:126:G:C8	2.96	0.54
34:BA:170:U:C2	34:BA:319:C:N3	2.75	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:472:G:H1'	36:BC:15:G:H22	1.72	0.54
34:BA:483:A:C5	40:BG:16:G:H4'	2.42	0.54
34:BA:541:C:H2'	34:BA:542:A:C8	2.42	0.54
34:BA:701:G:C2	34:BA:702:G:C8	2.96	0.54
34:BA:739:A:O2'	47:BN:12:HIS:CD2	2.61	0.54
34:BA:1049:G:O5'	34:BA:1049:G:C8	2.61	0.54
34:BA:1178:U:C2	34:BA:1179:U:C5	2.95	0.54
34:BA:1190:A:H2'	34:BA:1191:C:O4'	2.07	0.54
34:BA:1294:C:H3'	52:BS:159:LYS:HE3	1.89	0.54
34:BA:1341:A:C5	34:BA:1342:C:C5	2.96	0.54
34:BA:1531:G:H1	34:BA:1575:U:H3	1.54	0.54
34:BA:1549:U:H2'	34:BA:1550:G:C8	2.43	0.54
34:BA:1635:A:H2'	34:BA:1636:C:C6	2.43	0.54
34:BA:1637:G:C4	34:BA:1638:U:C6	2.96	0.54
34:BA:1739:G:N1	34:BA:1740:U:C6	2.76	0.54
35:BB:126:C:H2'	35:BB:127:U:C6	2.43	0.54
35:BB:370:A:H2'	35:BB:371:C:C5	2.42	0.54
35:BB:483:C:C4	35:BB:484:G:C8	2.96	0.54
35:BB:798:A:H2'	35:BB:799:A:C8	2.43	0.54
35:BB:812:G:C4	35:BB:828:G:C2	2.96	0.54
35:BB:843:G:N1	35:BB:844:G:C5	2.76	0.54
35:BB:863:U:C5	35:BB:864:U:C6	2.95	0.54
35:BB:1001:G:C2	35:BB:1018:U:C2	2.95	0.54
35:BB:1013:U:C2	35:BB:1014:U:C6	2.96	0.54
35:BB:1063:C:H3'	35:BB:1064:U:O2	2.08	0.54
35:BB:1110:G:H2'	35:BB:1111:C:C6	2.42	0.54
36:BC:44:A:C2	36:BC:100:U:C2	2.95	0.54
38:BE:23:G:C2	38:BE:197:A:C4	2.96	0.54
38:BE:25:U:H3	38:BE:195:G:H1	1.55	0.54
40:BG:23:C:C6	40:BG:23:C:OP2	2.61	0.54
40:BG:44:G:C6	40:BG:45:G:C5	2.96	0.54
40:BG:102:G:C6	40:BG:103:C:C5	2.96	0.54
45:BL:24:LEU:HD23	45:BL:24:LEU:C	2.32	0.54
47:BN:69:ARG:CB	61:Bb:66:ASN:HD21	2.21	0.54
50:BQ:215:MET:HB2	50:BQ:217:PHE:CZ	2.43	0.54
52:BS:16:THR:HG23	52:BS:57:HIS:CE1	2.42	0.54
54:BU:105:PHE:HA	54:BU:108:LYS:CE	2.36	0.54
55:BV:26:PHE:CE2	55:BV:117:TYR:CE2	2.96	0.54
65:Bf:425:HIS:CD2	65:Bf:426:GLY:N	2.76	0.54
70:Bk:74:TYR:O	70:Bk:82:ALA:HB2	2.07	0.54
77:Br:64:GLU:HB3	77:Br:79:HIS:CE1	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:Bv:33:GLY:HA2	81:Bv:90:LEU:HD11	1.88	0.54
82:Bw:202:GLN:O	82:Bw:206:CYS:HA	2.07	0.54
84:By:43:ASP:CG	84:By:57:ARG:HH11	2.16	0.54
85:AA:160:A:N6	85:AA:483:G:C6	2.76	0.54
85:AA:178:U:C6	85:AA:179:G:H4'	2.42	0.54
85:AA:198:U:H2'	85:AA:199:U:C5	2.42	0.54
85:AA:414:C:C6	85:AA:414:C:O5'	2.60	0.54
85:AA:491:G:H2'	85:AA:492:C:C6	2.43	0.54
85:AA:533:C:H5'	85:AA:533:C:H6	1.73	0.54
85:AA:634:U:H2'	85:AA:635:G:C8	2.42	0.54
85:AA:686:U:N3	85:AA:687:G:C6	2.76	0.54
85:AA:725:G:C8	85:AA:777:U:C4	2.96	0.54
85:AA:793:C:N3	85:AA:801:U:C5	2.76	0.54
85:AA:908:C:C2	85:AA:910:G:N2	2.76	0.54
85:AA:1188:A:C6	85:AA:1189:A:C6	2.95	0.54
85:AA:1259:U:C5	85:AA:1260:G:C5	2.96	0.54
85:AA:1539:A:H2'	85:AA:1540:A:C8	2.43	0.54
85:AA:2051:G:H1'	85:AA:2052:U:C5	2.42	0.54
85:AA:2236:U:H3'	85:AA:2236:U:H6	1.73	0.54
5:A4:183:HIS:CE1	85:AA:786:G:C4	2.96	0.54
11:AC:120:GLN:HA	11:AC:123:ILE:HG12	1.90	0.54
21:AM:45:VAL:HG22	21:AM:80:ILE:HG21	1.89	0.54
27:AT:62:ILE:N	27:AT:89:MET:HE1	2.22	0.54
27:AT:117:ARG:NE	27:AT:132:MET:HE3	2.23	0.54
34:BA:147:U:C6	34:BA:148:G:N7	2.76	0.54
34:BA:159:U:C5	34:BA:161:U:O4	2.60	0.54
34:BA:265:A:C2	34:BA:277:A:N1	2.75	0.54
34:BA:440:A:C2	34:BA:441:A:C6	2.96	0.54
34:BA:593:G:N3	34:BA:594:G:H2'	2.23	0.54
34:BA:610:A:C2	34:BA:611:A:C4	2.95	0.54
34:BA:694:G:H1'	34:BA:695:A:C5	2.43	0.54
34:BA:734:G:C6	34:BA:1582:C:C2	2.96	0.54
34:BA:945:A:C5	85:AA:702:G:H4'	2.42	0.54
34:BA:1015:G:C6	34:BA:1023:G:C4	2.95	0.54
34:BA:1087:A:C2	34:BA:1213:A:C2	2.96	0.54
34:BA:1355:G:H4'	46:BM:121:MET:HE1	1.89	0.54
34:BA:1597:G:C4	35:BB:622:G:C6	2.96	0.54
34:BA:1633:C:H5''	34:BA:1635:A:P	2.48	0.54
34:BA:1640:G:H5'	53:BT:24:LEU:O	2.08	0.54
34:BA:1677:C:C2	34:BA:1679:C:C2	2.96	0.54
34:BA:1699:A:C5	34:BA:1700:C:C5	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:125:G:OP1	53:BT:75:HIS:CE1	2.61	0.54
35:BB:136:A:N1	35:BB:137:A:C5	2.76	0.54
35:BB:380:G:C2	35:BB:381:C:C2	2.96	0.54
35:BB:384:A:C8	40:BG:110:U:O4'	2.60	0.54
35:BB:413:A:C2	35:BB:414:C:C6	2.96	0.54
35:BB:709:G:C6	35:BB:773:G:C6	2.96	0.54
35:BB:1004:A:O5'	35:BB:1004:A:C8	2.61	0.54
35:BB:1020:U:H2'	35:BB:1021:C:C6	2.42	0.54
35:BB:1085:C:H3'	35:BB:1086:G:H8	1.73	0.54
35:BB:1102:U:H2'	79:Bt:4:TYR:CD1	2.43	0.54
35:BB:1133:C:H2'	35:BB:1134:G:C8	2.43	0.54
35:BB:1300:U:OP1	35:BB:1302:C:C4	2.61	0.54
35:BB:1342:C:H2'	35:BB:1343:C:C5	2.43	0.54
35:BB:1489:A:C8	49:BP:158:PRO:HD3	2.43	0.54
36:BC:11:G:H5''	51:BR:3:HIS:HB3	1.88	0.54
36:BC:108:A:C4	36:BC:113:G:C6	2.96	0.54
37:BD:2:G:C4	37:BD:3:G:C8	2.96	0.54
37:BD:11:A:C2	37:BD:14:C:C2	2.96	0.54
37:BD:63:C:H3'	44:BK:206:ILE:H	1.72	0.54
37:BD:71:G:H2'	37:BD:72:U:H6	1.72	0.54
38:BE:206:G:H3'	60:Ba:63:ARG:CZ	2.37	0.54
39:BF:46:G:C6	39:BF:47:C:C4	2.96	0.54
40:BG:130:G:C2	40:BG:161:C:N3	2.76	0.54
42:BI:114:LYS:CG	42:BI:115:SER:H	2.21	0.54
44:BK:85:PHE:C	44:BK:85:PHE:CD2	2.86	0.54
51:BR:4:TYR:CZ	51:BR:18:LYS:HB2	2.43	0.54
61:Bb:71:PRO:HA	61:Bb:106:TYR:HA	1.89	0.54
62:Bc:90:VAL:CA	82:Bw:3:MET:HE1	2.38	0.54
71:Bl:74:TRP:CD1	81:Bv:188:HIS:HB3	2.43	0.54
82:Bw:162:MET:HB3	82:Bw:220:PHE:CE2	2.42	0.54
82:Bw:235:HIS:HB3	82:Bw:238:GLU:HG2	1.90	0.54
85:AA:202:U:C5	85:AA:203:C:H3'	2.43	0.54
85:AA:330:C:H5'	85:AA:331:G:C8	2.41	0.54
85:AA:395:G:N1	85:AA:406:U:C4	2.76	0.54
85:AA:520:A:H5''	85:AA:521:A:C2'	2.37	0.54
85:AA:689:U:H5'	85:AA:690:G:OP2	2.08	0.54
85:AA:887:A:C2	85:AA:889:G:C8	2.96	0.54
85:AA:936:C:H2'	85:AA:937:G:C5	2.43	0.54
85:AA:966:G:H2'	85:AA:967:C:C6	2.43	0.54
85:AA:985:G:C6	85:AA:986:U:N3	2.76	0.54
85:AA:1002:G:C6	85:AA:1003:G:C5	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1219:A:C6	85:AA:1220:A:H1'	2.43	0.54
85:AA:1227:A:C5	85:AA:1228:A:C4	2.95	0.54
85:AA:1527:G:C4	85:AA:2219:G:C5	2.96	0.54
85:AA:1621:U:C5	85:AA:1623:U:C6	2.95	0.54
85:AA:2049:U:H1'	85:AA:2081:A:C6	2.43	0.54
85:AA:2156:C:C2	85:AA:2163:G:C2	2.95	0.54
86:AB:69:G:C5	86:AB:70:G:C6	2.96	0.54
2:A1:128:THR:HG21	85:AA:317:A:H2	1.73	0.54
15:AG:25:TRP:CH2	15:AG:26:LEU:HB3	2.42	0.54
16:AH:7:VAL:HG22	16:AH:9:TYR:H	1.73	0.54
27:AT:67:PHE:CZ	27:AT:69:THR:HG22	2.43	0.54
34:BA:74:A:H2'	34:BA:75:U:O4'	2.08	0.54
34:BA:136:A:H2'	34:BA:137:C:C6	2.43	0.54
34:BA:217:C:H1'	34:BA:219:U:C4	2.42	0.54
34:BA:530:A:C6	34:BA:582:U:N3	2.76	0.54
34:BA:532:C:H2'	34:BA:533:U:H5'	1.90	0.54
34:BA:774:A:C6	34:BA:775:C:N3	2.76	0.54
34:BA:819:G:C2	34:BA:852:C:C2	2.96	0.54
34:BA:1221:A:H2'	34:BA:1222:C:C5	2.43	0.54
34:BA:1274:A:N1	34:BA:1275:G:C5	2.76	0.54
34:BA:1322:A:C6	34:BA:1323:G:H1'	2.43	0.54
34:BA:1433:U:O5'	34:BA:1433:U:H6	1.91	0.54
34:BA:1503:U:C6	34:BA:1503:U:H3'	2.43	0.54
34:BA:1595:G:C4	34:BA:1596:C:C4	2.96	0.54
35:BB:138:A:H2'	35:BB:362:A:H61	1.72	0.54
35:BB:392:G:C6	35:BB:393:A:C5	2.95	0.54
35:BB:426:A:C5	35:BB:428:G:C6	2.95	0.54
35:BB:441:G:C4	35:BB:442:U:C5	2.95	0.54
35:BB:646:U:C2	35:BB:647:U:C5	2.96	0.54
35:BB:815:G:N1	35:BB:816:U:C2	2.75	0.54
35:BB:837:A:C5'	35:BB:1026:G:C6	2.89	0.54
35:BB:1004:A:C2	35:BB:1005:A:C5	2.96	0.54
35:BB:1027:U:C4	35:BB:1028:C:C4	2.96	0.54
35:BB:1078:U:C4	35:BB:1095:G:C6	2.96	0.54
35:BB:1163:U:C5	35:BB:1164:U:C5	2.96	0.54
35:BB:1236:A:C5	35:BB:1237:C:C5	2.95	0.54
35:BB:1286:G:C6	35:BB:1287:U:C2	2.96	0.54
37:BD:13:A:C8	37:BD:110:G:H1'	2.42	0.54
38:BE:186:C:C6	38:BE:189:A:C5	2.95	0.54
39:BF:64:U:C2	49:BP:119:SER:OG	2.61	0.54
40:BG:28:A:C2	40:BG:29:U:C2	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:39:A:C2'	65:Bf:64:HIS:HE2	2.21	0.54
40:BG:116:G:C4	40:BG:117:C:C6	2.96	0.54
41:BH:123:G:C5	41:BH:124:C:C6	2.96	0.54
44:BK:171:TRP:HB3	44:BK:174:THR:HG23	1.89	0.54
53:BT:98:ARG:O	53:BT:102:LEU:HG	2.08	0.54
64:Be:75:LEU:HD13	64:Be:84:THR:CG2	2.37	0.54
76:Bq:39:GLU:HG3	76:Bq:40:LYS:H	1.73	0.54
85:AA:152:A:N7	85:AA:153:C:C5	2.76	0.54
85:AA:432:A:C2	85:AA:433:U:C2	2.96	0.54
85:AA:477:U:H2'	85:AA:478:U:C5	2.42	0.54
85:AA:493:A:C6	85:AA:494:G:C4	2.96	0.54
85:AA:546:U:C5	85:AA:546:U:OP2	2.60	0.54
85:AA:808:A:H2'	85:AA:809:A:H5''	1.89	0.54
85:AA:1106:A:C2'	85:AA:1107:A:O5'	2.55	0.54
85:AA:1190:G:O2'	85:AA:1226:A:H5'	2.08	0.54
85:AA:1242:A:C6	85:AA:1243:G:C4	2.96	0.54
85:AA:1551:G:H2'	85:AA:1552:U:C6	2.43	0.54
85:AA:1644:G:C6	85:AA:1645:G:C5	2.96	0.54
85:AA:1665:G:N1	85:AA:1705:G:C4	2.76	0.54
85:AA:1984:A:C2	85:AA:1985:C:C6	2.96	0.54
85:AA:2130:G:C6	85:AA:2131:C:C5	2.96	0.54
85:AA:2147:A:C5	85:AA:2148:C:C5	2.96	0.54
86:AB:10:G:C8	86:AB:26:A:C2	2.96	0.54
1:A0:195:LEU:O	1:A0:199:LEU:HD12	2.08	0.54
25:AR:7:TYR:HA	25:AR:12:VAL:C	2.33	0.54
28:AU:32:LYS:C	85:AA:2039:G:C8	2.86	0.54
34:BA:63:A:C2	47:BN:105:ARG:CZ	2.90	0.54
34:BA:111:U:O4	34:BA:382:G:C6	2.61	0.54
34:BA:196:A:C6	34:BA:197:A:C5	2.96	0.54
34:BA:260:A:N1	34:BA:263:G:C6	2.76	0.54
34:BA:403:A:C4	34:BA:1531:G:H1'	2.43	0.54
34:BA:417:A:C5	34:BA:419:U:C4	2.95	0.54
34:BA:483:A:N7	40:BG:16:G:H4'	2.23	0.54
34:BA:520:G:C4	34:BA:521:C:H1'	2.42	0.54
34:BA:530:A:N3	34:BA:582:U:C2	2.76	0.54
34:BA:532:C:OP2	34:BA:532:C:C6	2.61	0.54
34:BA:550:U:H3	34:BA:555:C:N4	2.05	0.54
34:BA:623:U:O2	34:BA:623:U:H2'	2.07	0.54
34:BA:688:G:C6	34:BA:689:C:C5	2.96	0.54
34:BA:759:A:C2	34:BA:760:G:C5	2.96	0.54
34:BA:780:U:C4	34:BA:781:U:O2'	2.60	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:819:G:C6	34:BA:820:C:C6	2.96	0.54
34:BA:823:G:N1	34:BA:824:C:C2	2.75	0.54
34:BA:919:A:C5	34:BA:920:U:C5	2.95	0.54
34:BA:941:G:N2	34:BA:942:G:H1'	2.23	0.54
34:BA:990:G:C6	34:BA:991:U:C4	2.96	0.54
34:BA:1040:G:C6	34:BA:1041:U:N3	2.76	0.54
34:BA:1122:G:N1	34:BA:1139:G:H1'	2.22	0.54
34:BA:1175:G:C2	34:BA:1176:C:C2	2.96	0.54
34:BA:1250:C:H2'	34:BA:1251:A:C8	2.43	0.54
34:BA:1473:A:C2	34:BA:1510:C:C2	2.96	0.54
34:BA:1484:A:C2	34:BA:1485:U:C6	2.96	0.54
34:BA:1566:G:H2'	34:BA:1567:G:C4	2.42	0.54
34:BA:1699:A:C6	34:BA:1700:C:C6	2.96	0.54
35:BB:388:C:C6	35:BB:388:C:H5''	2.43	0.54
35:BB:504:C:H2'	35:BB:505:G:C8	2.43	0.54
35:BB:660:G:O6	35:BB:1440:A:H2'	2.08	0.54
35:BB:681:G:C5	35:BB:682:U:C5	2.96	0.54
35:BB:999:G:C2	35:BB:1020:U:C2	2.96	0.54
35:BB:1042:U:H3'	35:BB:1043:C:H4'	1.88	0.54
35:BB:1177:U:O4	35:BB:1178:A:C4	2.61	0.54
35:BB:1480:G:H2'	35:BB:1480:G:N2	2.23	0.54
35:BB:1484:A:C8	35:BB:1485:G:C8	2.96	0.54
35:BB:1521:G:H2'	35:BB:1522:G:C8	2.42	0.54
36:BC:66:G:C4	36:BC:67:U:C6	2.96	0.54
36:BC:126:G:C6	36:BC:127:C:C4	2.96	0.54
38:BE:121:G:C4	38:BE:122:G:C8	2.96	0.54
39:BF:36:G:C6	39:BF:37:C:C4	2.96	0.54
39:BF:42:G:C6	39:BF:44:C:C4	2.96	0.54
40:BG:64:C:C4	40:BG:65:C:C4	2.96	0.54
41:BH:63:G:C8	41:BH:63:G:C5'	2.91	0.54
58:BY:79:THR:HG21	85:AA:2163:G:H5''	1.84	0.54
69:Bj:45:THR:H	69:Bj:52:LYS:C	2.16	0.54
72:Bm:77:ALA:HA	72:Bm:80:PHE:CD2	2.43	0.54
80:Bu:75:VAL:HG13	80:Bu:109:MET:SD	2.48	0.54
85:AA:10:G:C2	85:AA:11:A:C4	2.95	0.54
85:AA:28:A:C6	85:AA:29:U:C4	2.95	0.54
85:AA:648:G:C6	85:AA:649:C:C5	2.95	0.54
85:AA:705:G:C5	85:AA:706:U:C4	2.95	0.54
85:AA:965:G:C6	85:AA:989:U:H5''	2.43	0.54
85:AA:1114:A:C6	85:AA:1214:C:C4	2.96	0.54
85:AA:1700:C:C4	85:AA:1701:G:C5	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1725:G:C8	85:AA:1982:C:H2'	2.43	0.54
4:A3:54:ARG:O	4:A3:54:ARG:HD3	2.07	0.53
4:A3:79:LYS:HA	4:A3:95:ARG:HA	1.89	0.53
8:A7:192:LEU:HD13	8:A7:223:TRP:CD2	2.42	0.53
20:AL:31:ASN:O	20:AL:35:VAL:HG23	2.08	0.53
23:AP:180:ILE:O	23:AP:206:VAL:HG23	2.08	0.53
23:AP:253:HIS:HB3	23:AP:256:PHE:CD1	2.43	0.53
24:AQ:51:VAL:HG23	85:AA:1722:G:H21	1.72	0.53
24:AQ:69:ASN:HB2	85:AA:1566:A:H4'	1.90	0.53
34:BA:240:C:C4	34:BA:241:U:C4	2.96	0.53
34:BA:263:G:O6	34:BA:273:G:C6	2.61	0.53
34:BA:501:U:C3'	34:BA:502:U:H5'	2.38	0.53
34:BA:801:U:C4	34:BA:802:G:C5	2.96	0.53
34:BA:1011:G:C2	34:BA:1013:A:C2	2.96	0.53
34:BA:1128:C:C2	34:BA:1130:U:C5	2.96	0.53
34:BA:1130:U:C2	34:BA:1131:G:C8	2.96	0.53
34:BA:1214:U:H2'	34:BA:1215:U:O4'	2.08	0.53
34:BA:1272:U:H2'	34:BA:1273:U:C5	2.43	0.53
34:BA:1473:A:C6	34:BA:1510:C:C4	2.95	0.53
34:BA:1474:G:N1	34:BA:1475:G:C4	2.77	0.53
34:BA:1841:A:C2	35:BB:9:G:C2	2.97	0.53
35:BB:131:A:C6	35:BB:132:G:C4	2.96	0.53
35:BB:596:C:H2'	35:BB:597:C:C6	2.42	0.53
35:BB:669:A:C2	35:BB:1329:G:C5	2.96	0.53
35:BB:676:G:N1	35:BB:678:U:C4	2.77	0.53
35:BB:855:G:C2	35:BB:868:C:O2	2.61	0.53
35:BB:866:A:C6	35:BB:867:C:C4	2.96	0.53
35:BB:893:U:C4	35:BB:894:A:C8	2.95	0.53
35:BB:968:C:C4	35:BB:969:C:C5	2.96	0.53
35:BB:986:C:H4'	35:BB:987:U:H5'	1.90	0.53
35:BB:1144:A:C2	35:BB:1145:G:C4	2.96	0.53
35:BB:1536:G:C8	35:BB:1536:G:H5''	2.41	0.53
36:BC:53:A:C6	36:BC:54:G:C4	2.96	0.53
37:BD:49:A:H5''	37:BD:49:A:C8	2.43	0.53
38:BE:23:G:C2	38:BE:197:A:C2	2.96	0.53
38:BE:111:C:H5''	38:BE:112:G:OP2	2.09	0.53
38:BE:180:G:OP2	38:BE:180:G:C8	2.61	0.53
39:BF:61:A:H5''	39:BF:62:U:C5	2.43	0.53
40:BG:26:G:C6	40:BG:27:C:N3	2.76	0.53
40:BG:39:A:C8	65:Bf:64:HIS:CE1	2.96	0.53
41:BH:75:G:C2	41:BH:100:A:C6	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BH:109:G:C8	65:Bf:438:TYR:CE2	2.96	0.53
41:BH:129:G:O2'	67:Bh:54:HIS:CE1	2.61	0.53
44:BK:178:ARG:O	44:BK:181:TYR:HB3	2.08	0.53
47:BN:184:LYS:HG2	47:BN:186:MET:SD	2.48	0.53
48:BO:145:HIS:NE2	52:BS:177:VAL:HA	2.23	0.53
50:BQ:137:TRP:CD2	50:BQ:137:TRP:C	2.85	0.53
52:BS:163:LYS:CG	71:Bl:118:THR:HG23	2.38	0.53
58:BY:98:ARG:NH2	85:AA:2161:C:P	2.78	0.53
65:Bf:144:ARG:HG3	65:Bf:153:ILE:HG22	1.90	0.53
74:Bo:33:GLN:CD	74:Bo:34:HIS:CE1	2.85	0.53
77:Br:61:HIS:CD2	77:Br:61:HIS:N	2.76	0.53
80:Bu:213:TYR:CD2	80:Bu:232:PHE:CZ	2.96	0.53
85:AA:115:U:O2	85:AA:365:G:C2	2.62	0.53
85:AA:276:C:C4	85:AA:277:G:C5	2.96	0.53
85:AA:309:G:C2	85:AA:317:A:C4	2.96	0.53
85:AA:421:G:C4	85:AA:422:G:C8	2.95	0.53
85:AA:821:U:H2'	85:AA:822:U:H6	1.73	0.53
85:AA:858:G:N2	85:AA:859:G:H1'	2.23	0.53
85:AA:912:C:C6	85:AA:913:U:C5	2.96	0.53
85:AA:980:U:C2	85:AA:981:A:C8	2.96	0.53
85:AA:1068:A:H2'	85:AA:1069:U:C6	2.43	0.53
85:AA:1116:G:C5	85:AA:1117:G:C8	2.96	0.53
85:AA:1456:A:H2'	85:AA:1457:C:C5	2.43	0.53
85:AA:1496:U:N3	85:AA:1497:U:C5	2.76	0.53
85:AA:1521:U:O4'	85:AA:1677:A:C2	2.61	0.53
85:AA:2001:C:C5	85:AA:2001:C:OP1	2.61	0.53
85:AA:2015:U:H3	85:AA:2028:G:N2	2.07	0.53
85:AA:2124:G:H1'	85:AA:2195:A:C2	2.42	0.53
85:AA:2146:G:N2	85:AA:2171:A:C4	2.76	0.53
85:AA:2215:C:H3'	85:AA:2218:G:C8	2.44	0.53
7:A6:134:ALA:HA	7:A6:139:ILE:HA	1.91	0.53
23:AP:112:ASN:HD21	23:AP:135:ILE:HG23	1.72	0.53
27:AT:65:PHE:CZ	27:AT:79:PHE:CD2	2.96	0.53
34:BA:98:A:H2'	34:BA:99:G:C2	2.42	0.53
34:BA:113:G:N7	34:BA:151:A:C2	2.76	0.53
34:BA:162:G:C5	34:BA:322:U:C5	2.96	0.53
34:BA:328:A:C8	72:Bm:37:ARG:CZ	2.92	0.53
34:BA:362:G:C8	72:Bm:38:TYR:CE2	2.97	0.53
34:BA:480:G:H2'	34:BA:481:A:O4'	2.09	0.53
34:BA:492:G:C6	34:BA:710:A:C2	2.96	0.53
34:BA:613:A:H2'	34:BA:614:A:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:678:C:N3	34:BA:679:U:C2	2.76	0.53
34:BA:792:A:C2	35:BB:1232:A:H4'	2.43	0.53
34:BA:937:G:C4	34:BA:938:C:C5	2.96	0.53
34:BA:1126:U:C4	34:BA:1127:U:O4	2.61	0.53
34:BA:1162:U:H4'	35:BB:1085:C:N3	2.23	0.53
34:BA:1233:U:C2	34:BA:1252:G:C2	2.96	0.53
34:BA:1262:A:H4'	34:BA:1313:U:O4	2.09	0.53
34:BA:1263:A:C2	34:BA:1264:U:C6	2.97	0.53
34:BA:1341:A:C8	34:BA:1404:A:C6	2.96	0.53
34:BA:1412:G:C2	34:BA:1413:G:C4	2.97	0.53
34:BA:1417:C:C4	34:BA:1418:G:C5	2.96	0.53
34:BA:1441:C:O3'	52:BS:5:HIS:CE1	2.62	0.53
34:BA:1731:A:C5	34:BA:1793:G:O2'	2.61	0.53
34:BA:1845:G:N1	35:BB:6:A:C6	2.76	0.53
35:BB:486:G:C2	35:BB:487:A:C5	2.96	0.53
35:BB:841:U:C2	35:BB:975:G:C2	2.96	0.53
35:BB:846:A:C6	35:BB:967:G:C6	2.96	0.53
35:BB:1103:A:H4'	79:Bt:98:LYS:HD2	1.90	0.53
35:BB:1108:G:C2	35:BB:1157:G:C4	2.96	0.53
35:BB:1159:U:H2'	35:BB:1160:U:C6	2.42	0.53
35:BB:1220:A:N1	35:BB:1221:G:C6	2.77	0.53
35:BB:1221:G:H2'	35:BB:1222:A:C4	2.44	0.53
35:BB:1430:G:C4	35:BB:1431:G:C8	2.97	0.53
35:BB:1481:C:H3'	35:BB:1482:A:O4'	2.08	0.53
35:BB:1493:A:C2	35:BB:1514:G:C4	2.97	0.53
37:BD:32:A:N1	37:BD:46:G:C6	2.76	0.53
37:BD:93:G:H2'	37:BD:94:C:C5	2.44	0.53
38:BE:23:G:N3	38:BE:197:A:C2	2.76	0.53
39:BF:32:G:C2	39:BF:34:C:C4	2.95	0.53
40:BG:4:A:C4	40:BG:5:G:C8	2.96	0.53
40:BG:37:G:C6	40:BG:38:A:C5	2.95	0.53
40:BG:103:C:H5''	67:Bh:138:LYS:HD2	1.89	0.53
40:BG:137:G:C4	40:BG:138:C:C6	2.96	0.53
41:BH:31:A:C2	41:BH:125:U:O2	2.61	0.53
41:BH:115:A:C5'	41:BH:118:U:H5	2.22	0.53
47:BN:32:ASN:O	47:BN:35:ALA:HB3	2.08	0.53
49:BP:128:PHE:CD2	49:BP:129:ASP:HA	2.43	0.53
52:BS:82:TYR:N	52:BS:82:TYR:CD1	2.75	0.53
56:BW:77:ASN:HB2	56:BW:105:VAL:HG12	1.91	0.53
64:Be:71:ARG:HD2	64:Be:72:VAL:N	2.23	0.53
85:AA:55:A:C5	85:AA:491:G:C6	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:94:C:H1'	85:AA:491:G:H5'	1.90	0.53
85:AA:161:A:C2	85:AA:162:A:C5	2.95	0.53
85:AA:307:G:OP2	85:AA:307:G:C8	2.61	0.53
85:AA:737:G:C2	85:AA:737:G:OP2	2.61	0.53
85:AA:777:U:C6	85:AA:778:C:C5	2.96	0.53
85:AA:922:A:H2'	85:AA:923:A:H5'	1.91	0.53
85:AA:938:A:OP2	85:AA:939:A:C8	2.61	0.53
85:AA:1281:G:C4	85:AA:1282:A:C8	2.96	0.53
85:AA:1373:U:H5'	85:AA:1373:U:C6	2.43	0.53
85:AA:1526:G:H2'	85:AA:1528:A:C8	2.44	0.53
85:AA:1696:U:C6	85:AA:1697:C:C5	2.96	0.53
85:AA:2202:G:N2	85:AA:2203:C:H1'	2.23	0.53
2:A1:159:TYR:CZ	2:A1:164:LYS:HA	2.44	0.53
4:A3:28:LEU:HD22	4:A3:41:ILE:HG12	1.90	0.53
26:AS:131:TYR:HA	26:AS:134:TYR:CD2	2.44	0.53
27:AT:10:VAL:HG21	27:AT:37:TRP:CD1	2.43	0.53
27:AT:16:GLN:HE22	85:AA:905:C:H3'	1.74	0.53
34:BA:19:G:H3'	34:BA:1716:A:C2	2.44	0.53
34:BA:57:A:C4	34:BA:390:A:C2	2.96	0.53
34:BA:66:C:C5	34:BA:67:A:C8	2.96	0.53
34:BA:165:C:C2	34:BA:166:G:C5	2.96	0.53
34:BA:256:A:C5'	34:BA:257:G:H5'	2.38	0.53
34:BA:341:U:N3	34:BA:349:G:C6	2.76	0.53
34:BA:344:G:H3'	34:BA:344:G:C8	2.43	0.53
34:BA:478:G:C2	36:BC:11:G:C2	2.96	0.53
34:BA:564:C:C5	34:BA:565:U:N1	2.77	0.53
34:BA:603:U:C6	34:BA:1492:G:C5	2.96	0.53
34:BA:685:C:C6	68:Bi:5:PHE:CE2	2.97	0.53
34:BA:785:G:C5	34:BA:786:U:C4	2.96	0.53
34:BA:798:G:C4	34:BA:800:G:C1'	2.91	0.53
34:BA:846:U:H5'	42:BI:73:ARG:HH21	1.73	0.53
34:BA:900:A:C6	47:BN:14:ARG:HA	2.43	0.53
34:BA:1023:G:C5	35:BB:1267:C:C1'	2.92	0.53
34:BA:1050:A:C4	34:BA:1518:A:C2	2.96	0.53
34:BA:1127:U:O4	34:BA:1128:C:C4	2.61	0.53
34:BA:1208:U:C4	34:BA:1210:A:C2	2.96	0.53
34:BA:1252:G:C2	34:BA:1253:G:H1'	2.44	0.53
34:BA:1310:C:N3	34:BA:1311:G:C4	2.77	0.53
34:BA:1446:G:H3'	49:BP:49:HIS:CG	2.43	0.53
34:BA:1451:A:H3'	34:BA:1452:U:C4'	2.38	0.53
34:BA:1460:U:O2	34:BA:1461:A:C8	2.62	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1533:G:N1	34:BA:1534:U:C2	2.76	0.53
34:BA:1563:G:N1	34:BA:1565:U:C4	2.77	0.53
34:BA:1600:G:H1	35:BB:621:C:H42	1.56	0.53
34:BA:1627:U:C4	34:BA:1628:A:C5	2.96	0.53
34:BA:1656:A:C6	34:BA:1657:A:C6	2.97	0.53
34:BA:1707:C:C5	34:BA:1721:U:O4	2.62	0.53
34:BA:1736:A:H8	34:BA:1736:A:O5'	1.91	0.53
34:BA:1788:U:C5	34:BA:1789:A:C6	2.97	0.53
35:BB:120:C:C2	35:BB:121:A:C8	2.97	0.53
35:BB:416:U:C4	35:BB:455:G:C2	2.96	0.53
35:BB:567:G:C4	35:BB:568:A:C8	2.95	0.53
35:BB:576:A:H1'	35:BB:1420:U:H4'	1.90	0.53
35:BB:609:G:C2	35:BB:610:U:C2	2.95	0.53
35:BB:680:A:H2'	35:BB:681:G:C8	2.43	0.53
35:BB:798:A:O2'	35:BB:799:A:H5'	2.07	0.53
35:BB:828:G:C2	35:BB:829:C:C2	2.97	0.53
35:BB:1108:G:C2	35:BB:1109:A:C4	2.96	0.53
35:BB:1117:G:H1'	80:Bu:3:PHE:CG	2.43	0.53
35:BB:1168:G:N1	35:BB:1185:G:C6	2.77	0.53
36:BC:23:G:C6	36:BC:24:G:C5	2.96	0.53
36:BC:66:G:C6	36:BC:67:U:C4	2.96	0.53
37:BD:59:G:C6	37:BD:60:C:C4	2.96	0.53
37:BD:66:G:N2	37:BD:67:C:H1'	2.22	0.53
38:BE:69:C:C4	38:BE:137:A:N1	2.76	0.53
38:BE:93:U:C2	38:BE:94:U:C5	2.96	0.53
39:BF:23:G:C5	48:BO:132:ARG:HA	2.43	0.53
40:BG:8:U:C2	40:BG:17:A:N1	2.76	0.53
40:BG:31:G:C6	40:BG:174:G:N1	2.75	0.53
41:BH:35:G:C5	41:BH:36:C:C4	2.96	0.53
41:BH:119:U:C4	41:BH:120:C:C4	2.96	0.53
56:BW:13:PHE:CD2	65:Bf:117:LYS:HD2	2.43	0.53
61:Bb:40:HIS:CE1	61:Bb:41:HIS:NE2	2.77	0.53
64:Be:133:TYR:CD2	64:Be:133:TYR:C	2.86	0.53
67:Bh:176:PRO:HA	67:Bh:178:PHE:CD1	2.43	0.53
83:Bx:106:LEU:HD22	83:Bx:224:LEU:HD11	1.90	0.53
83:Bx:178:TRP:CZ2	83:Bx:179:MET:SD	3.01	0.53
83:Bx:261:LYS:HG3	83:Bx:262:LYS:H	1.73	0.53
85:AA:161:A:H3'	85:AA:162:A:C8	2.43	0.53
85:AA:287:G:H2'	85:AA:288:G:C8	2.42	0.53
85:AA:317:A:C6	85:AA:318:A:C4	2.97	0.53
85:AA:346:U:C5	85:AA:347:U:C5	2.95	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:567:G:C6	85:AA:568:C:C4	2.96	0.53
85:AA:654:A:C2	85:AA:657:C:C6	2.97	0.53
85:AA:685:U:H2'	85:AA:685:U:O2	2.07	0.53
85:AA:686:U:C4	85:AA:687:G:C5	2.96	0.53
85:AA:824:C:C2	85:AA:857:G:N2	2.76	0.53
85:AA:984:A:C2	85:AA:985:G:C8	2.96	0.53
85:AA:1132:A:C5	85:AA:1133:C:C6	2.96	0.53
85:AA:1237:A:C8	85:AA:1238:U:C5	2.97	0.53
85:AA:1263:G:C4	85:AA:1264:U:C5	2.96	0.53
85:AA:1544:G:N2	85:AA:1545:U:H1'	2.23	0.53
85:AA:1814:U:H1'	85:AA:1815:U:H5	1.72	0.53
85:AA:1937:G:C2	85:AA:1953:G:C2	2.96	0.53
85:AA:2057:G:C2	85:AA:2074:G:C6	2.97	0.53
85:AA:2173:A:C6	85:AA:2174:G:C4	2.97	0.53
85:AA:2217:A:C2	85:AA:2245:A:C5	2.97	0.53
86:AB:21:A:C5	86:AB:48:C:C5	2.96	0.53
1:A0:165:TRP:CZ3	1:A0:168:MET:SD	3.01	0.53
4:A3:109:ILE:HG21	4:A3:112:LEU:HG	1.89	0.53
5:A4:46:PHE:O	5:A4:47:HIS:CD2	2.62	0.53
15:AG:77:HIS:CD2	15:AG:77:HIS:O	2.61	0.53
16:AH:20:VAL:H	16:AH:84:ASN:HB3	1.72	0.53
16:AH:128:VAL:HG12	85:AA:1178:A:C2	2.43	0.53
21:AM:41:PHE:CD1	21:AM:43:TYR:HA	2.43	0.53
23:AP:97:GLN:NE2	85:AA:11:A:H4'	2.24	0.53
25:AR:75:HIS:CD2	30:AW:4:PHE:CE1	2.96	0.53
26:AS:18:ARG:NH2	85:AA:376:C:H5'	2.23	0.53
32:AY:63:GLY:HA3	85:AA:633:C:O3'	2.09	0.53
34:BA:15:G:C4	36:BC:153:C:O2	2.62	0.53
34:BA:109:A:C2	34:BA:110:C:H1'	2.43	0.53
34:BA:138:C:C2	34:BA:139:U:C6	2.95	0.53
34:BA:210:G:H2'	34:BA:211:C:C6	2.43	0.53
34:BA:399:G:N1	36:BC:28:C:C2	2.73	0.53
34:BA:526:C:C2	34:BA:587:U:C2	2.96	0.53
34:BA:532:C:C6	34:BA:532:C:H3'	2.42	0.53
34:BA:540:G:C2	34:BA:568:G:C2	2.96	0.53
34:BA:573:U:H4'	34:BA:1448:G:H5'	1.90	0.53
34:BA:598:G:H3'	34:BA:1494:G:H5'	1.90	0.53
34:BA:615:A:C2	34:BA:667:U:C2	2.97	0.53
34:BA:630:U:C4	34:BA:631:G:C6	2.97	0.53
34:BA:744:G:O5'	34:BA:744:G:H8	1.91	0.53
34:BA:764:G:C6	34:BA:765:U:C2	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1016:A:H3'	34:BA:1017:C:H6	1.73	0.53
34:BA:1287:G:C4	34:BA:1288:U:C5	2.97	0.53
34:BA:1841:A:C6	35:BB:9:G:C6	2.96	0.53
34:BA:1844:U:H2'	34:BA:1845:G:C8	2.43	0.53
35:BB:13:A:C6	35:BB:14:C:C4	2.96	0.53
35:BB:66:G:H2'	35:BB:67:A:C8	2.44	0.53
35:BB:630:A:C5	35:BB:631:G:C6	2.97	0.53
35:BB:730:G:H21	35:BB:760:C:N4	2.05	0.53
35:BB:784:C:H2'	35:BB:785:G:C8	2.44	0.53
35:BB:817:C:N3	35:BB:823:G:C2	2.77	0.53
35:BB:839:G:C6	35:BB:840:C:C2	2.97	0.53
35:BB:1003:G:C2	35:BB:1004:A:C8	2.96	0.53
35:BB:1225:A:H4'	35:BB:1226:G:OP1	2.07	0.53
35:BB:1379:U:H3	35:BB:1384:A:H61	1.56	0.53
37:BD:24:U:C6	37:BD:24:U:H3'	2.44	0.53
37:BD:73:U:H3'	37:BD:74:A:H2'	1.89	0.53
38:BE:10:G:C4	38:BE:11:A:N7	2.76	0.53
38:BE:180:G:C5'	38:BE:182:U:H5'	2.38	0.53
39:BF:6:C:H1'	39:BF:7:G:C4	2.43	0.53
39:BF:42:G:H3'	84:By:47:ASN:HD21	1.71	0.53
40:BG:28:A:C2	40:BG:178:G:C5	2.97	0.53
40:BG:74:G:C5	40:BG:124:A:C6	2.97	0.53
40:BG:111:C:H4'	58:BY:46:ARG:CZ	2.38	0.53
49:BP:162:LYS:HA	49:BP:165:GLU:HG3	1.89	0.53
51:BR:56:ARG:HH11	51:BR:57:CYS:N	2.07	0.53
52:BS:35:ASN:OD1	52:BS:38:VAL:HG23	2.09	0.53
66:Bg:29:MET:HE2	66:Bg:92:CYS:HA	1.88	0.53
80:Bu:99:TYR:CG	80:Bu:205:ILE:HG23	2.44	0.53
85:AA:48:G:C5	85:AA:497:G:C2	2.96	0.53
85:AA:66:U:O3'	85:AA:67:C:C6	2.61	0.53
85:AA:132:G:H2'	85:AA:133:G:O4'	2.08	0.53
85:AA:376:C:C2	85:AA:423:G:C4	2.95	0.53
85:AA:383:C:C2	85:AA:384:C:C6	2.97	0.53
85:AA:635:G:N2	85:AA:659:A:H1'	2.23	0.53
85:AA:706:U:C2	85:AA:707:U:C5	2.97	0.53
85:AA:717:G:C6	85:AA:718:C:C4	2.97	0.53
85:AA:811:A:C2	85:AA:812:C:C2	2.96	0.53
85:AA:871:U:H2'	85:AA:872:U:C6	2.44	0.53
85:AA:982:G:C4	85:AA:983:A:C4	2.96	0.53
85:AA:1215:A:C2	85:AA:1216:A:C8	2.97	0.53
85:AA:1595:G:N1	85:AA:1883:C:C2	2.76	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1654:G:C6	85:AA:1655:G:C4	2.97	0.53
85:AA:1657:C:H2'	85:AA:1658:G:H8	1.74	0.53
85:AA:1833:C:O5'	85:AA:1833:C:C6	2.62	0.53
85:AA:2129:U:H2'	85:AA:2130:G:C8	2.43	0.53
15:AG:124:ARG:NH1	85:AA:1215:A:H5''	2.22	0.53
26:AS:51:VAL:O	26:AS:97:ASN:HA	2.08	0.53
34:BA:23:A:H3'	34:BA:24:C:C5	2.44	0.53
34:BA:37:A:C6	34:BA:1036:G:C2	2.96	0.53
34:BA:143:A:H4'	34:BA:144:C:C5'	2.38	0.53
34:BA:212:A:C2	34:BA:221:G:N3	2.76	0.53
34:BA:278:U:O2	34:BA:279:U:C5	2.61	0.53
34:BA:355:U:C5	34:BA:356:C:C5	2.96	0.53
34:BA:540:G:C2	34:BA:568:G:C4	2.96	0.53
34:BA:614:A:H61	34:BA:667:U:H3	1.57	0.53
34:BA:668:G:C2	34:BA:669:U:C2	2.96	0.53
34:BA:719:G:C6	35:BB:639:A:C2	2.95	0.53
34:BA:754:G:N1	34:BA:755:G:C4	2.76	0.53
34:BA:966:G:C2	34:BA:967:C:C2	2.97	0.53
34:BA:986:G:C5	34:BA:987:C:C4	2.96	0.53
34:BA:1049:G:H3'	34:BA:1516:G:H1	1.74	0.53
34:BA:1052:G:C5	34:BA:1230:G:C8	2.97	0.53
34:BA:1225:A:C2	34:BA:1226:G:H1'	2.44	0.53
34:BA:1341:A:C5	34:BA:1342:C:C6	2.97	0.53
34:BA:1475:G:C2	34:BA:1476:G:C4	2.96	0.53
34:BA:1605:G:O4'	40:BG:106:G:C6	2.62	0.53
35:BB:67:A:C2	35:BB:617:C:C2	2.96	0.53
35:BB:94:A:C2	35:BB:95:A:C4	2.96	0.53
35:BB:428:G:C2	35:BB:429:C:C2	2.96	0.53
35:BB:556:U:C2	35:BB:557:C:C5	2.97	0.53
35:BB:574:G:C2	35:BB:577:U:C2	2.96	0.53
35:BB:642:G:C5	35:BB:645:C:C4	2.96	0.53
35:BB:790:A:C4	83:Bx:64:ARG:CZ	2.92	0.53
35:BB:809:U:C6	35:BB:809:U:C3'	2.90	0.53
35:BB:876:G:H2'	35:BB:901:U:C5	2.43	0.53
35:BB:1013:U:C4	35:BB:1014:U:C4	2.96	0.53
35:BB:1136:G:H2'	35:BB:1136:G:N3	2.24	0.53
35:BB:1146:C:H3'	35:BB:1147:G:H8	1.73	0.53
35:BB:1212:C:H2'	35:BB:1213:U:C6	2.44	0.53
35:BB:1446:C:H2'	35:BB:1447:U:C5	2.42	0.53
37:BD:51:G:C5	37:BD:52:U:C5	2.97	0.53
38:BE:160:C:C6	53:BT:43:LYS:HB3	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:188:C:C2	64:Be:187:TYR:CD1	2.97	0.53
38:BE:192:A:C2	38:BE:193:A:C4	2.97	0.53
39:BF:45:G:N1	39:BF:46:G:C5	2.77	0.53
40:BG:15:G:H2'	40:BG:16:G:O4'	2.08	0.53
41:BH:58:C:C4	41:BH:59:G:C6	2.97	0.53
41:BH:120:C:H5''	65:Bf:376:ARG:NH2	2.24	0.53
60:Ba:111:VAL:HG13	60:Ba:115:PHE:CZ	2.43	0.53
61:Bb:107:SER:HG	61:Bb:124:ARG:HB3	1.72	0.53
62:Bc:54:LYS:HB3	62:Bc:62:LEU:HD11	1.89	0.53
66:Bg:94:ARG:C	66:Bg:95:HIS:CD2	2.87	0.53
66:Bg:106:VAL:HG22	66:Bg:107:GLY:N	2.23	0.53
82:Bw:162:MET:HB3	82:Bw:220:PHE:CZ	2.43	0.53
85:AA:358:U:H2'	85:AA:359:A:C8	2.43	0.53
85:AA:419:A:N6	85:AA:420:C:C2	2.77	0.53
85:AA:454:G:C6	85:AA:455:G:C5	2.97	0.53
85:AA:561:C:C2	85:AA:567:G:C2	2.97	0.53
85:AA:592:C:N3	85:AA:601:A:C2	2.77	0.53
85:AA:639:C:C2	85:AA:651:G:C2	2.97	0.53
85:AA:739:C:C6	85:AA:739:C:C3'	2.89	0.53
85:AA:936:C:H2'	85:AA:937:G:C8	2.44	0.53
85:AA:1288:A:C2	85:AA:1454:U:O2	2.61	0.53
85:AA:1515:A:C5	85:AA:1516:A:N7	2.76	0.53
85:AA:1623:U:C5	85:AA:1624:U:C4	2.96	0.53
85:AA:1695:G:C6	85:AA:1696:U:C4	2.96	0.53
85:AA:2120:C:N4	85:AA:2121:G:C6	2.77	0.53
85:AA:2146:G:N2	85:AA:2171:A:C5	2.76	0.53
5:A4:170:ARG:O	5:A4:174:LEU:HD13	2.08	0.53
8:A7:211:CYS:HB3	8:A7:225:LEU:HD21	1.90	0.53
11:AC:60:HIS:CD2	11:AC:60:HIS:H	2.24	0.53
15:AG:87:ASP:CG	85:AA:1117:G:H1'	2.34	0.53
23:AP:217:ARG:O	23:AP:220:PHE:HB3	2.09	0.53
24:AQ:16:ARG:HH21	24:AQ:115:HIS:C	2.16	0.53
34:BA:22:C:C6	34:BA:22:C:O5'	2.62	0.53
34:BA:98:A:H3'	34:BA:99:G:N2	2.23	0.53
34:BA:128:C:H2'	34:BA:129:U:C5	2.44	0.53
34:BA:213:A:C5	34:BA:217:C:C4	2.97	0.53
34:BA:325:A:C4	34:BA:326:A:H1'	2.43	0.53
34:BA:463:A:C4	34:BA:465:A:C5	2.96	0.53
34:BA:697:A:H2'	34:BA:698:U:C6	2.43	0.53
34:BA:743:A:C4	47:BN:6:ASN:O	2.62	0.53
34:BA:1056:C:H5''	35:BB:1257:A:H62	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1126:U:C6	34:BA:1126:U:O5'	2.61	0.53
34:BA:1210:A:N9	54:BU:129:LYS:HD3	2.24	0.53
34:BA:1230:G:C4	34:BA:1231:C:C5	2.96	0.53
34:BA:1673:G:C2	34:BA:1677:C:N4	2.76	0.53
35:BB:86:A:C2	35:BB:604:C:H1'	2.44	0.53
35:BB:95:A:C2	35:BB:96:A:C8	2.97	0.53
35:BB:345:U:C5	35:BB:346:U:C5	2.97	0.53
35:BB:516:G:C8	35:BB:539:G:H2'	2.44	0.53
35:BB:536:U:O2	35:BB:538:A:C8	2.62	0.53
35:BB:569:G:N1	35:BB:570:A:C4	2.77	0.53
35:BB:888:U:H2'	35:BB:889:U:H5'	1.91	0.53
35:BB:921:U:H3	35:BB:939:G:H1	1.57	0.53
35:BB:1066:G:C8	44:BK:111:LEU:HD23	2.43	0.53
35:BB:1313:C:C2	35:BB:1314:G:C8	2.97	0.53
35:BB:1450:G:H3'	35:BB:1451:C:C6	2.44	0.53
35:BB:1517:G:O5'	35:BB:1517:G:C8	2.62	0.53
36:BC:24:G:H2'	36:BC:25:C:C6	2.44	0.53
36:BC:119:G:N1	36:BC:120:G:C4	2.76	0.53
36:BC:125:A:N6	36:BC:138:C:H42	2.07	0.53
36:BC:136:G:C2	36:BC:137:C:C2	2.97	0.53
39:BF:2:G:C8	81:Bv:75:ARG:CZ	2.92	0.53
40:BG:25:G:C4	40:BG:26:G:C8	2.97	0.53
40:BG:137:G:C6	40:BG:138:C:C5	2.97	0.53
41:BH:23:G:H3'	41:BH:24:U:C4'	2.37	0.53
41:BH:32:U:C6	41:BH:33:G:C5	2.96	0.53
66:Bg:58:ASN:HD21	66:Bg:84:ASN:HA	1.73	0.53
67:Bh:51:LYS:HB2	67:Bh:76:ARG:O	2.08	0.53
72:Bm:38:TYR:CD2	72:Bm:38:TYR:C	2.87	0.53
77:Br:189:ARG:H	77:Br:200:TYR:HA	1.73	0.53
85:AA:47:A:N1	85:AA:97:A:C4	2.77	0.53
85:AA:433:U:C2	85:AA:434:U:C5	2.96	0.53
85:AA:443:A:H3'	85:AA:444:U:C6	2.44	0.53
85:AA:513:G:C6	85:AA:514:U:C4	2.96	0.53
85:AA:821:U:H3	85:AA:859:G:H1	1.55	0.53
85:AA:985:G:C2	85:AA:986:U:C2	2.97	0.53
85:AA:989:U:O2	85:AA:991:G:H3'	2.09	0.53
85:AA:1175:A:H2'	85:AA:1176:C:C6	2.44	0.53
85:AA:1263:G:C5	85:AA:1264:U:C5	2.97	0.53
85:AA:1732:G:H1'	85:AA:1799:C:H4'	1.91	0.53
4:A3:15:GLN:HG2	85:AA:157:G:H5'	1.90	0.53
5:A4:145:TRP:O	18:AJ:51:GLU:HA	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:178:TYR:C	5:A4:178:TYR:CD1	2.87	0.53
15:AG:120:SER:HA	34:BA:945:A:N1	2.24	0.53
15:AG:136:PRO:HG2	15:AG:139:TRP:CG	2.43	0.53
21:AM:1:MET:HE3	85:AA:2000:C:H41	1.73	0.53
23:AP:242:GLU:CD	25:AR:21:LYS:HZ1	2.17	0.53
34:BA:19:G:C6	34:BA:1716:A:N1	2.77	0.53
34:BA:101:G:N1	34:BA:102:G:C5	2.77	0.53
34:BA:203:U:H2'	34:BA:204:U:H6	1.69	0.53
34:BA:289:A:C2	34:BA:289:A:C2'	2.92	0.53
34:BA:628:U:H1'	34:BA:629:G:C8	2.44	0.53
34:BA:670:U:C4	34:BA:671:C:C4	2.96	0.53
34:BA:679:U:C5	34:BA:680:C:N4	2.76	0.53
34:BA:680:C:H5'	34:BA:681:G:C8	2.44	0.53
34:BA:733:G:C6	34:BA:734:G:C5	2.97	0.53
34:BA:743:A:N1	47:BN:6:ASN:HB3	2.24	0.53
34:BA:798:G:H2'	34:BA:800:G:C1'	2.39	0.53
34:BA:1128:C:H3'	34:BA:1129:U:H5''	1.90	0.53
34:BA:1193:A:C2	34:BA:1194:G:C4	2.97	0.53
34:BA:1223:C:H2'	34:BA:1224:A:C8	2.43	0.53
34:BA:1260:G:C4	34:BA:1270:G:C2	2.97	0.53
34:BA:1333:G:C5	34:BA:1409:A:N1	2.77	0.53
34:BA:1335:A:H2'	34:BA:1336:U:C6	2.44	0.53
34:BA:1412:G:O2'	34:BA:1413:G:H5''	2.09	0.53
34:BA:1421:A:C6	35:BB:1345:A:C6	2.97	0.53
34:BA:1456:C:C2	34:BA:1457:C:C4	2.97	0.53
34:BA:1482:A:N1	34:BA:1483:U:C4	2.77	0.53
34:BA:1734:U:C4	34:BA:1735:G:N7	2.77	0.53
35:BB:4:C:C2	38:BE:13:A:C1'	2.91	0.53
35:BB:35:G:C2	35:BB:36:U:C2	2.96	0.53
35:BB:43:G:C2	35:BB:44:C:C2	2.96	0.53
35:BB:686:A:H2'	35:BB:687:C:C6	2.43	0.53
35:BB:825:U:H4'	83:Bx:238:ARG:HH21	1.72	0.53
35:BB:844:G:N1	35:BB:969:C:C2	2.77	0.53
35:BB:846:A:C4	35:BB:967:G:N2	2.76	0.53
35:BB:967:G:C2	35:BB:968:C:C2	2.97	0.53
35:BB:976:U:H1'	35:BB:977:G:N1	2.24	0.53
35:BB:983:C:OP2	69:Bj:105:LYS:HD3	2.08	0.53
35:BB:1070:G:O6	35:BB:1071:G:C6	2.61	0.53
35:BB:1207:C:H42	79:Bt:63:LYS:HB3	1.74	0.53
35:BB:1232:A:O5'	35:BB:1232:A:C8	2.61	0.53
35:BB:1334:C:H2'	35:BB:1335:G:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1494:G:C2	35:BB:1513:U:C2	2.97	0.53
36:BC:108:A:C6	36:BC:109:A:C5	2.97	0.53
36:BC:136:G:C6	36:BC:137:C:C4	2.97	0.53
36:BC:137:C:C4	36:BC:138:C:C5	2.97	0.53
39:BF:22:U:C3'	39:BF:23:G:H5'	2.39	0.53
40:BG:33:G:H1	40:BG:169:A:H5'	1.73	0.53
40:BG:77:U:H3'	40:BG:78:C:C6	2.43	0.53
40:BG:127:G:C6	40:BG:163:G:N1	2.76	0.53
40:BG:149:U:C2	40:BG:150:A:N7	2.77	0.53
40:BG:170:G:C8	40:BG:173:C:OP1	2.61	0.53
41:BH:11:C:O2	41:BH:12:U:C5	2.62	0.53
41:BH:16:A:C5	41:BH:17:A:C5	2.97	0.53
41:BH:35:G:C6	41:BH:36:C:C4	2.96	0.53
41:BH:38:G:N1	41:BH:114:G:C4	2.77	0.53
41:BH:97:C:OP2	55:BV:63:LYS:CG	2.50	0.53
47:BN:62:GLN:HA	47:BN:76:LEU:HD13	1.91	0.53
47:BN:207:ALA:O	47:BN:211:GLU:HG2	2.09	0.53
52:BS:57:HIS:CD2	52:BS:58:GLY:N	2.76	0.53
53:BT:177:GLU:CG	85:AA:999:A:C8	2.79	0.53
58:BY:80:VAL:HA	85:AA:2163:G:H5'	1.91	0.53
61:Bb:45:PHE:HA	61:Bb:49:HIS:CE1	2.43	0.53
64:Be:148:LEU:HD21	64:Be:158:VAL:HG22	1.88	0.53
69:Bj:10:ARG:CZ	69:Bj:11:ARG:H	2.22	0.53
70:Bk:59:MET:HE2	70:Bk:62:LEU:HD23	1.91	0.53
72:Bm:80:PHE:HB3	72:Bm:94:ARG:HH12	1.73	0.53
85:AA:255:A:H61	85:AA:324:U:H3	1.56	0.53
85:AA:321:C:C2	85:AA:322:A:C8	2.97	0.53
85:AA:345:U:O4	85:AA:346:U:C2	2.62	0.53
85:AA:362:G:N2	85:AA:363:A:H1'	2.23	0.53
85:AA:541:A:N1	85:AA:542:G:C8	2.77	0.53
85:AA:624:A:C2	85:AA:631:G:C5	2.97	0.53
85:AA:858:G:C5	85:AA:859:G:C8	2.96	0.53
85:AA:867:G:C8	85:AA:867:G:C3'	2.90	0.53
85:AA:887:A:O2'	85:AA:888:A:C4	2.62	0.53
85:AA:935:A:C2	85:AA:936:C:C2	2.97	0.53
85:AA:965:G:C2	85:AA:989:U:H5''	2.44	0.53
85:AA:1370:G:C6	85:AA:1371:C:C4	2.96	0.53
85:AA:1949:U:H2'	85:AA:1950:G:C8	2.43	0.53
85:AA:2174:G:H2'	85:AA:2175:U:C6	2.43	0.53
85:AA:2193:A:C5	85:AA:2194:U:C5	2.97	0.53
1:A0:201:LYS:HB3	85:AA:1373:U:H5''	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A1:96:PHE:CG	2:A1:108:LEU:HG	2.44	0.53
2:A1:130:THR:HG22	85:AA:318:A:H5''	1.90	0.53
12:AD:33:TRP:CD2	85:AA:1957:C:C6	2.97	0.53
29:AV:43:VAL:HA	29:AV:72:TYR:HA	1.91	0.53
34:BA:3:G:C4	36:BC:169:G:N2	2.77	0.53
34:BA:15:G:C5	36:BC:153:C:N3	2.77	0.53
34:BA:27:G:N2	34:BA:52:G:C4	2.77	0.53
34:BA:111:U:C4	34:BA:383:G:C4	2.96	0.53
34:BA:218:G:OP1	34:BA:219:U:H1'	2.08	0.53
34:BA:297:A:C4	36:BC:32:U:C4	2.97	0.53
34:BA:405:C:C6	77:Br:196:ARG:NH2	2.76	0.53
34:BA:417:A:C4	34:BA:419:U:C4	2.97	0.53
34:BA:503:C:N4	34:BA:699:G:H1	2.06	0.53
34:BA:573:U:H4'	34:BA:1448:G:O5'	2.07	0.53
34:BA:612:U:C4	34:BA:613:A:C1'	2.91	0.53
34:BA:664:C:C6	34:BA:664:C:O5'	2.62	0.53
34:BA:675:C:C5	34:BA:676:G:C6	2.97	0.53
34:BA:757:G:C5'	34:BA:758:G:C2	2.92	0.53
34:BA:762:A:H61	34:BA:775:C:H42	1.56	0.53
34:BA:767:U:N3	34:BA:768:G:C4	2.77	0.53
34:BA:1051:A:C2	34:BA:1052:G:C4	2.97	0.53
34:BA:1123:G:C6	34:BA:1124:U:C5	2.97	0.53
34:BA:1502:G:C5	34:BA:1503:U:C6	2.97	0.53
34:BA:1517:U:H4'	68:Bi:44:ARG:CZ	2.38	0.53
34:BA:1524:G:C8	62:Bc:13:ARG:NH1	2.77	0.53
34:BA:1537:G:O2'	68:Bi:101:VAL:HG21	2.08	0.53
34:BA:1613:G:H8	34:BA:1613:G:O5'	1.92	0.53
34:BA:1742:G:N2	34:BA:1743:U:H1'	2.24	0.53
34:BA:1745:G:N2	34:BA:1780:U:C2	2.77	0.53
34:BA:1787:U:H2'	34:BA:1788:U:C6	2.42	0.53
34:BA:1831:A:OP1	34:BA:1831:A:C5	2.62	0.53
35:BB:59:U:O4	35:BB:60:A:C8	2.62	0.53
35:BB:67:A:C2	35:BB:617:C:N3	2.76	0.53
35:BB:377:A:H2'	35:BB:377:A:N3	2.24	0.53
35:BB:391:G:C2	35:BB:598:C:C2	2.96	0.53
35:BB:449:C:H2'	35:BB:450:A:C8	2.43	0.53
35:BB:693:U:H2'	35:BB:694:C:H6	1.73	0.53
35:BB:1075:A:C6	35:BB:1076:U:C2	2.96	0.53
35:BB:1083:C:H5''	35:BB:1084:A:H5'	1.91	0.53
35:BB:1087:A:C5	35:BB:1088:C:C5	2.97	0.53
35:BB:1124:G:H2'	35:BB:1126:A:C2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1358:A:C2	35:BB:1359:G:C1'	2.92	0.53
36:BC:12:A:C6	36:BC:13:U:C2	2.96	0.53
36:BC:36:G:C8	70:Bk:93:HIS:ND1	2.76	0.53
36:BC:48:A:H2	36:BC:62:A:HO2'	1.57	0.53
36:BC:147:G:N1	36:BC:148:C:C2	2.76	0.53
36:BC:151:G:C5	36:BC:152:C:C4	2.96	0.53
37:BD:94:C:O2	37:BD:95:G:C4	2.62	0.53
38:BE:53:U:H5''	55:BV:96:LYS:HA	1.90	0.53
38:BE:143:A:C8	75:Bp:72:ARG:HA	2.43	0.53
39:BF:33:C:C5	39:BF:34:C:H1'	2.44	0.53
41:BH:38:G:C6	41:BH:114:G:C6	2.97	0.53
41:BH:44:A:C5	41:BH:45:G:C4	2.97	0.53
41:BH:57:A:C2	41:BH:65:G:C2	2.96	0.53
65:Bf:173:TRP:C	65:Bf:176:SER:HB3	2.33	0.53
65:Bf:190:THR:HG22	65:Bf:194:ARG:N	2.23	0.53
65:Bf:340:GLN:CB	65:Bf:381:MET:SD	2.97	0.53
67:Bh:134:PHE:CD2	67:Bh:134:PHE:C	2.86	0.53
77:Br:50:PRO:HB3	77:Br:110:TRP:CE2	2.43	0.53
79:Bt:57:ILE:HB	79:Bt:59:HIS:CE1	2.43	0.53
85:AA:33:U:C6	85:AA:538:A:C6	2.97	0.53
85:AA:214:C:C4	85:AA:215:U:C2	2.97	0.53
85:AA:269:G:C6	85:AA:980:U:H1'	2.44	0.53
85:AA:465:A:OP2	85:AA:465:A:C2	2.62	0.53
85:AA:531:G:C5	85:AA:532:G:C5	2.96	0.53
85:AA:786:G:C5	85:AA:787:U:C5	2.96	0.53
85:AA:790:A:H1'	85:AA:791:C:C6	2.44	0.53
85:AA:817:G:C8	85:AA:819:G:C8	2.97	0.53
85:AA:1228:A:H2'	85:AA:1229:G:H8	1.74	0.53
85:AA:1257:A:O2'	85:AA:1258:U:H5'	2.09	0.53
85:AA:1374:A:C2	85:AA:1375:U:C5	2.97	0.53
85:AA:1695:G:C5	85:AA:1696:U:C5	2.97	0.53
85:AA:1727:U:H1'	85:AA:1816:C:N3	2.23	0.53
85:AA:1953:G:C2	85:AA:1954:C:C2	2.97	0.53
86:AB:48:C:C5	86:AB:59:U:C6	2.97	0.53
4:A3:80:ARG:CZ	4:A3:92:GLN:HB2	2.38	0.53
5:A4:13:LEU:HA	5:A4:47:HIS:HB3	1.91	0.53
13:AE:125:VAL:HG21	13:AE:141:VAL:HB	1.91	0.53
15:AG:125:LEU:O	15:AG:129:TYR:CD2	2.62	0.53
28:AU:32:LYS:HE3	85:AA:2038:C:C4	2.44	0.53
28:AU:81:LEU:HB2	85:AA:2000:C:N1	2.24	0.53
34:BA:131:A:C6	34:BA:184:C:C5'	2.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:264:A:H3'	34:BA:265:A:H8	1.71	0.53
34:BA:513:U:C2	34:BA:691:A:C6	2.96	0.53
34:BA:668:G:H3'	34:BA:668:G:C8	2.44	0.53
34:BA:677:U:O3'	34:BA:678:C:C6	2.62	0.53
34:BA:726:G:C6	34:BA:727:G:C6	2.97	0.53
34:BA:772:G:C6	77:Br:111:HIS:CE1	2.97	0.53
34:BA:804:G:C6	34:BA:810:A:N1	2.77	0.53
34:BA:873:G:C3'	34:BA:874:G:H5''	2.39	0.53
34:BA:912:G:C4	34:BA:913:U:C5	2.97	0.53
34:BA:914:G:C5	34:BA:1005:C:C5	2.97	0.53
34:BA:1079:C:H4'	34:BA:1080:U:H5''	1.90	0.53
34:BA:1163:G:C5	34:BA:1164:C:C5	2.97	0.53
34:BA:1194:G:C2	34:BA:1195:G:C5	2.97	0.53
34:BA:1258:G:C6	34:BA:1259:C:C4	2.96	0.53
34:BA:1261:G:C2	34:BA:1262:A:C8	2.96	0.53
34:BA:1466:U:N3	34:BA:1467:U:C5	2.77	0.53
34:BA:1622:U:C5	34:BA:1623:U:C2	2.97	0.53
34:BA:1665:G:C2	34:BA:1686:G:C2	2.97	0.53
34:BA:1667:G:C3'	34:BA:1668:C:H6	2.21	0.53
34:BA:1707:C:N4	34:BA:1721:U:C4	2.77	0.53
34:BA:1719:G:N1	34:BA:1720:U:C4	2.77	0.53
35:BB:57:G:C6	35:BB:58:G:C5	2.97	0.53
35:BB:119:G:C5	35:BB:120:C:C5	2.97	0.53
35:BB:474:G:N3	35:BB:505:G:C2	2.77	0.53
35:BB:563:A:C2	35:BB:1377:A:O4'	2.62	0.53
35:BB:636:G:C2	35:BB:637:G:C4	2.97	0.53
35:BB:770:G:C6	35:BB:771:U:C4	2.97	0.53
35:BB:795:A:H4'	83:Bx:260:ARG:HH22	1.73	0.53
35:BB:839:G:C2	35:BB:840:C:H1'	2.43	0.53
35:BB:969:C:N3	35:BB:970:C:C5	2.77	0.53
35:BB:991:C:H2'	35:BB:992:C:C2	2.44	0.53
35:BB:1007:U:H2'	35:BB:1009:U:C5	2.44	0.53
35:BB:1081:U:N3	54:BU:3:HIS:CE1	2.77	0.53
35:BB:1147:G:C4	35:BB:1148:U:C5	2.96	0.53
35:BB:1287:U:O5'	35:BB:1287:U:H6	1.91	0.53
36:BC:37:U:H5''	36:BC:39:G:O4'	2.09	0.53
37:BD:74:A:N6	37:BD:102:C:H41	2.07	0.53
37:BD:101:A:C6	37:BD:102:C:C4	2.97	0.53
39:BF:46:G:C5	39:BF:47:C:C5	2.97	0.53
39:BF:63:U:C5'	81:Bv:171:MET:SD	2.97	0.53
40:BG:29:U:H2'	40:BG:30:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:32:U:O5'	40:BG:32:U:C6	2.62	0.53
41:BH:28:U:N3	41:BH:29:G:C5	2.77	0.53
41:BH:38:G:C6	41:BH:113:G:C6	2.96	0.53
47:BN:131:PHE:H	70:Bk:123:TYR:HA	1.73	0.53
49:BP:46:MET:HG2	49:BP:49:HIS:CE1	2.43	0.53
57:BX:151:SER:C	57:BX:152:TYR:CG	2.87	0.53
59:BZ:32:LEU:H	59:BZ:37:ARG:CZ	2.22	0.53
77:Br:109:ARG:C	77:Br:111:HIS:H	2.16	0.53
85:AA:17:C:H4'	85:AA:1486:G:O4'	2.09	0.53
85:AA:135:C:C6	85:AA:135:C:H3'	2.44	0.53
85:AA:569:A:C5	85:AA:570:U:C5	2.96	0.53
85:AA:817:G:C8	85:AA:817:G:H3'	2.44	0.53
85:AA:921:C:C4	85:AA:922:A:C4	2.97	0.53
85:AA:1002:G:C6	85:AA:1003:G:C6	2.97	0.53
85:AA:1021:G:H3'	85:AA:1022:G:H5''	1.91	0.53
85:AA:1034:U:H2'	85:AA:1035:C:C3'	2.37	0.53
85:AA:1297:G:C6	85:AA:1298:G:C5	2.96	0.53
85:AA:1492:U:O2	85:AA:1493:A:H1'	2.09	0.53
85:AA:1730:C:H1'	85:AA:1810:C:C2	2.44	0.53
85:AA:1852:U:C2	85:AA:1854:U:H4'	2.44	0.53
85:AA:1915:C:H2'	85:AA:1916:A:C8	2.43	0.53
85:AA:2137:A:H2'	85:AA:2138:G:O4'	2.08	0.53
85:AA:2154:C:H2'	85:AA:2155:U:O4'	2.08	0.53
85:AA:2163:G:C2	85:AA:2164:G:C8	2.97	0.53
85:AA:2186:U:C4	85:AA:2187:G:N7	2.77	0.53
85:AA:2217:A:C2	85:AA:2245:A:C6	2.96	0.53
7:A6:27:MET:SD	7:A6:27:MET:C	2.92	0.53
7:A6:106:ARG:O	7:A6:147:VAL:HG23	2.08	0.53
20:AL:55:THR:HG21	85:AA:1828:C:H4'	1.91	0.53
24:AQ:64:LYS:HE2	24:AQ:73:THR:C	2.33	0.53
24:AQ:65:THR:CG2	24:AQ:67:CYS:SG	2.97	0.53
32:AY:3:LYS:HA	85:AA:2205:A:H4'	1.90	0.53
34:BA:12:G:C6	34:BA:13:U:O4	2.62	0.53
34:BA:177:G:N2	34:BA:178:C:C2	2.76	0.53
34:BA:214:A:C6	62:Bc:78:LYS:HG3	2.43	0.53
34:BA:244:A:C6	34:BA:245:U:C5	2.97	0.53
34:BA:260:A:C2	34:BA:263:G:C2	2.96	0.53
34:BA:366:G:N2	35:BB:1236:A:C4	2.77	0.53
34:BA:398:G:N1	36:BC:30:U:N3	2.57	0.53
34:BA:714:G:C6	34:BA:715:U:N3	2.77	0.53
34:BA:732:A:C5	34:BA:733:G:N7	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:810:A:N1	34:BA:811:C:C4	2.77	0.53
34:BA:836:U:C6	34:BA:837:U:C5	2.97	0.53
34:BA:1102:A:N1	34:BA:1103:G:C6	2.77	0.53
34:BA:1120:U:H3'	34:BA:1120:U:C6	2.44	0.53
34:BA:1177:C:N3	34:BA:1178:U:C4	2.77	0.53
34:BA:1289:C:C5	34:BA:1290:A:C5	2.96	0.53
34:BA:1597:G:C6	51:BR:25:HIS:CE1	2.97	0.53
34:BA:1804:A:C5	34:BA:1807:G:C5	2.97	0.53
35:BB:124:G:C2	35:BB:380:G:C5	2.97	0.53
35:BB:386:G:C4	35:BB:387:G:C8	2.97	0.53
35:BB:521:U:H2'	35:BB:528:G:N2	2.24	0.53
35:BB:869:G:H3'	35:BB:870:C:C5'	2.39	0.53
35:BB:1218:G:N2	35:BB:1231:U:H5''	2.24	0.53
35:BB:1269:A:C4	35:BB:1270:C:C5	2.97	0.53
35:BB:1280:U:C4	35:BB:1281:G:C4	2.97	0.53
35:BB:1494:G:C6	35:BB:1495:U:C5	2.97	0.53
35:BB:1520:C:H42	35:BB:1547:U:H3	1.56	0.53
36:BC:4:G:C6	36:BC:5:U:C4	2.97	0.53
36:BC:11:G:C5	36:BC:12:A:C8	2.97	0.53
36:BC:60:U:C4	70:Bk:60:THR:HA	2.44	0.53
36:BC:88:A:H3'	36:BC:88:A:C8	2.44	0.53
36:BC:115:G:N2	36:BC:116:C:C2	2.77	0.53
38:BE:32:U:C3'	38:BE:32:U:C6	2.91	0.53
38:BE:41:C:C2	38:BE:42:C:C6	2.97	0.53
38:BE:188:C:C5	64:Be:187:TYR:CE2	2.97	0.53
38:BE:207:G:H3'	60:Ba:59:ARG:NH2	2.24	0.53
40:BG:17:A:C4	40:BG:18:U:C6	2.97	0.53
40:BG:31:G:N2	40:BG:32:U:C6	2.77	0.53
40:BG:40:G:C5	40:BG:41:U:C5	2.97	0.53
41:BH:17:A:C5	41:BH:18:C:C6	2.97	0.53
41:BH:29:G:C8	41:BH:29:G:C3'	2.88	0.53
42:BI:72:ARG:CG	63:Bd:62:ARG:CZ	2.87	0.53
42:BI:72:ARG:CG	63:Bd:62:ARG:NH2	2.72	0.53
48:BO:88:PRO:C	48:BO:90:HIS:CE1	2.87	0.53
49:BP:15:ILE:HB	49:BP:21:GLN:HA	1.91	0.53
54:BU:79:PRO:CA	54:BU:84:THR:HG22	2.38	0.53
58:BY:33:LEU:HD23	58:BY:34:THR:N	2.23	0.53
58:BY:37:ARG:HG2	58:BY:39:LYS:HB2	1.90	0.53
65:Bf:200:THR:HB	65:Bf:204:PHE:CE2	2.43	0.53
66:Bg:71:CYS:SG	66:Bg:76:THR:HB	2.49	0.53
66:Bg:79:HIS:CE1	66:Bg:80:HIS:O	2.62	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:Bl:47:TYR:CG	71:Bl:56:LYS:HA	2.44	0.53
74:Bo:49:ARG:HE	74:Bo:51:ALA:C	2.17	0.53
84:By:10:THR:HA	84:By:53:PHE:C	2.34	0.53
85:AA:87:C:N3	85:AA:88:G:C5	2.77	0.53
85:AA:186:U:C5	85:AA:187:C:C6	2.97	0.53
85:AA:341:C:C2	85:AA:342:C:C6	2.97	0.53
85:AA:376:C:C4	85:AA:423:G:C6	2.97	0.53
85:AA:446:C:C2	85:AA:447:C:C5	2.97	0.53
85:AA:506:G:N1	85:AA:534:A:C5	2.77	0.53
85:AA:520:A:H5'	85:AA:522:A:OP1	2.09	0.53
85:AA:557:G:H1	85:AA:570:U:H3	1.57	0.53
85:AA:605:A:C8	85:AA:607:U:OP1	2.62	0.53
85:AA:638:G:C5	85:AA:652:U:C2	2.97	0.53
85:AA:681:G:C5	85:AA:687:G:C5	2.97	0.53
85:AA:789:A:O5'	85:AA:790:A:H2'	2.09	0.53
85:AA:1003:G:C6	85:AA:1004:G:C5	2.97	0.53
85:AA:1715:C:C2	85:AA:1849:A:C2	2.96	0.53
85:AA:1754:G:H5''	85:AA:1788:U:C2	2.44	0.53
85:AA:2057:G:C2	85:AA:2074:G:C5	2.97	0.53
85:AA:2145:G:H1'	85:AA:2174:G:N1	2.24	0.53
85:AA:2175:U:N3	85:AA:2176:U:C4	2.77	0.53
2:A1:33:HIS:CE1	2:A1:140:ASP:HB2	2.44	0.52
7:A6:122:HIS:CE1	85:AA:548:G:H5'	2.44	0.52
11:AC:200:ASN:HD21	11:AC:202:ARG:HG2	1.72	0.52
18:AJ:26:LEU:HD11	18:AJ:60:LYS:CB	2.37	0.52
29:AV:17:ARG:NH1	85:AA:1185:G:C8	2.77	0.52
32:AY:34:ALA:HB3	85:AA:546:U:C6	2.44	0.52
34:BA:20:A:C5	34:BA:21:C:C6	2.98	0.52
34:BA:219:U:C4	34:BA:220:U:C5	2.97	0.52
34:BA:236:A:H1'	34:BA:239:C:C5	2.43	0.52
34:BA:438:A:C2	34:BA:439:A:C4	2.98	0.52
34:BA:567:U:O5'	34:BA:567:U:H6	1.92	0.52
34:BA:768:G:C2	34:BA:769:U:C4	2.96	0.52
34:BA:780:U:H2'	34:BA:781:U:H4'	1.90	0.52
34:BA:938:C:O4'	38:BE:112:G:H5'	2.09	0.52
34:BA:1009:G:C4	34:BA:1010:C:C6	2.97	0.52
34:BA:1122:G:N1	34:BA:1123:G:C4	2.76	0.52
34:BA:1177:C:N3	34:BA:1195:G:C2	2.77	0.52
34:BA:1574:C:H2'	34:BA:1575:U:C6	2.44	0.52
34:BA:1583:A:C6	34:BA:1584:G:C6	2.97	0.52
34:BA:1692:U:H5''	34:BA:1693:U:P	2.49	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:16:G:C6	35:BB:17:U:C4	2.97	0.52
35:BB:62:C:C2	35:BB:63:A:N1	2.77	0.52
35:BB:412:A:C2	35:BB:548:A:N7	2.77	0.52
35:BB:442:U:C2	35:BB:444:U:C2	2.97	0.52
35:BB:478:G:OP2	35:BB:478:G:C8	2.61	0.52
35:BB:543:G:C4	35:BB:544:C:C6	2.97	0.52
35:BB:557:C:H2'	35:BB:558:U:C6	2.44	0.52
35:BB:630:A:H2'	35:BB:631:G:C8	2.44	0.52
35:BB:680:A:C8	35:BB:680:A:O5'	2.62	0.52
35:BB:799:A:N6	35:BB:976:U:H5	2.08	0.52
35:BB:846:A:C2	35:BB:967:G:H1'	2.44	0.52
35:BB:1062:G:C5	35:BB:1063:C:C4	2.97	0.52
35:BB:1124:G:C6	45:BL:64:PHE:CE1	2.98	0.52
35:BB:1235:A:C5	61:Bb:60:HIS:CE1	2.98	0.52
35:BB:1447:U:H2'	35:BB:1448:U:C6	2.44	0.52
35:BB:1457:A:H2'	35:BB:1460:G:OP1	2.09	0.52
36:BC:35:C:H2'	36:BC:36:G:C8	2.45	0.52
36:BC:43:A:C2	36:BC:44:A:C8	2.97	0.52
36:BC:113:G:C6	36:BC:114:C:C4	2.97	0.52
37:BD:9:C:H3'	37:BD:10:C:C5	2.44	0.52
37:BD:66:G:C5	37:BD:67:C:C5	2.96	0.52
37:BD:106:G:C5	37:BD:107:G:N7	2.77	0.52
38:BE:130:G:C2	38:BE:131:C:C5	2.97	0.52
38:BE:197:A:H5'	69:Bj:65:ALA:HB1	1.90	0.52
39:BF:18:U:H5	71:Bl:141:ARG:NH2	2.05	0.52
39:BF:22:U:H6	39:BF:57:C:C2	2.27	0.52
39:BF:49:C:H2'	39:BF:50:C:H6	1.73	0.52
40:BG:23:C:C6	40:BG:23:C:H3'	2.44	0.52
40:BG:44:G:C6	40:BG:67:A:C5	2.97	0.52
40:BG:102:G:C6	40:BG:103:C:C4	2.98	0.52
40:BG:133:C:H2'	40:BG:134:U:O4'	2.08	0.52
41:BH:26:C:O2	41:BH:28:U:H1'	2.09	0.52
77:Br:175:ALA:O	77:Br:179:VAL:HB	2.09	0.52
80:Bu:61:ILE:HA	80:Bu:79:TYR:HB3	1.91	0.52
85:AA:255:A:N1	85:AA:325:C:N3	2.57	0.52
85:AA:404:A:C6	85:AA:405:C:C4	2.97	0.52
85:AA:717:G:C2	85:AA:784:C:C2	2.97	0.52
85:AA:801:U:H5	85:AA:802:A:C4	2.27	0.52
85:AA:806:G:C6	85:AA:807:A:C5	2.97	0.52
85:AA:817:G:O2'	85:AA:818:C:C5	2.58	0.52
85:AA:824:C:C2	85:AA:857:G:C2	2.96	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:865:G:C2	85:AA:866:U:H1'	2.44	0.52
85:AA:1130:G:N1	85:AA:1131:A:C4	2.77	0.52
85:AA:1155:A:C5	85:AA:1156:A:C5	2.97	0.52
85:AA:1278:C:H3'	85:AA:1278:C:C6	2.44	0.52
85:AA:1296:G:C6	85:AA:1297:G:C5	2.97	0.52
85:AA:1378:U:H3	85:AA:1425:G:H1	1.56	0.52
85:AA:1581:C:N4	85:AA:2021:A:H61	2.07	0.52
85:AA:1702:G:C2	85:AA:1703:A:C5	2.96	0.52
85:AA:1947:A:C2'	85:AA:1948:A:H5'	2.39	0.52
85:AA:2067:A:C5	85:AA:2069:A:C5	2.98	0.52
85:AA:2174:G:C4	85:AA:2175:U:C5	2.96	0.52
5:A4:6:HIS:NE2	53:BT:191:ASP:CA	2.71	0.52
12:AD:33:TRP:CE2	85:AA:1957:C:C6	2.97	0.52
18:AJ:26:LEU:CD1	18:AJ:60:LYS:HB3	2.38	0.52
19:AK:5:LYS:HB3	85:AA:1793:A:C8	2.44	0.52
21:AM:41:PHE:CG	21:AM:43:TYR:HA	2.43	0.52
32:AY:22:SER:H	85:AA:660:G:H5'	1.74	0.52
34:BA:53:G:H4'	50:BQ:175:HIS:CE1	2.44	0.52
34:BA:117:C:H4'	34:BA:148:G:N2	2.25	0.52
34:BA:416:A:C2	36:BC:53:A:H1'	2.43	0.52
34:BA:515:U:H1'	39:BF:3:A:N1	2.24	0.52
34:BA:531:C:C6	34:BA:531:C:H3'	2.44	0.52
34:BA:556:A:N7	34:BA:557:U:C5	2.76	0.52
34:BA:562:C:H2'	34:BA:563:A:H5'	1.91	0.52
34:BA:563:A:O2'	34:BA:564:C:H5'	2.10	0.52
34:BA:593:G:C4	34:BA:594:G:C4	2.96	0.52
34:BA:608:G:C2	34:BA:609:G:C4	2.97	0.52
34:BA:792:A:C6	34:BA:793:A:C6	2.96	0.52
34:BA:890:G:C5	34:BA:891:C:C4	2.97	0.52
34:BA:986:G:C5	34:BA:987:C:C5	2.98	0.52
34:BA:1033:G:C2	34:BA:1034:U:C6	2.97	0.52
34:BA:1152:A:C4	44:BK:22:PHE:CE2	2.97	0.52
34:BA:1194:G:C2	34:BA:1195:G:C4	2.97	0.52
34:BA:1223:C:H1'	47:BN:5:ASN:CG	2.34	0.52
34:BA:1412:G:C2	34:BA:1413:G:C8	2.97	0.52
34:BA:1413:G:C5	34:BA:1414:C:C4	2.97	0.52
34:BA:1695:G:H4'	69:Bj:10:ARG:CZ	2.39	0.52
34:BA:1815:G:C6	34:BA:1816:G:C5	2.97	0.52
34:BA:1832:A:C6	34:BA:1833:G:C5	2.97	0.52
34:BA:1839:G:C2	35:BB:11:A:C2	2.98	0.52
35:BB:62:C:C5	35:BB:63:A:C5	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:467:G:C5	35:BB:468:U:C4	2.98	0.52
35:BB:593:A:C5	35:BB:594:U:C5	2.97	0.52
35:BB:630:A:H3'	35:BB:631:G:C8	2.43	0.52
35:BB:803:U:OP2	35:BB:804:U:C5	2.63	0.52
35:BB:810:G:C6	35:BB:811:C:C4	2.96	0.52
35:BB:955:U:C5	35:BB:956:G:C5	2.97	0.52
35:BB:1362:G:C4	35:BB:1363:A:C8	2.97	0.52
35:BB:1449:G:C6	35:BB:1450:G:N7	2.77	0.52
35:BB:1464:G:C2	40:BG:24:A:H4'	2.45	0.52
35:BB:1544:A:C2	35:BB:1545:U:N1	2.78	0.52
36:BC:68:A:C4	36:BC:91:G:C2	2.98	0.52
37:BD:67:C:C5'	80:Bu:13:TYR:CZ	2.91	0.52
38:BE:49:A:C6	38:BE:50:G:C6	2.98	0.52
38:BE:102:U:O4	66:Bg:96:PHE:CE2	2.62	0.52
39:BF:19:A:H2'	39:BF:20:U:C6	2.44	0.52
39:BF:69:A:C2	39:BF:70:A:C2	2.96	0.52
40:BG:15:G:C6	40:BG:16:G:N7	2.78	0.52
40:BG:155:A:H2'	40:BG:156:G:C8	2.44	0.52
41:BH:15:A:H3'	41:BH:16:A:C8	2.44	0.52
41:BH:60:A:C2'	41:BH:61:C:H4'	2.38	0.52
42:BI:2:GLY:HA2	82:Bw:107:ILE:HG21	1.91	0.52
47:BN:12:HIS:H	47:BN:12:HIS:HD2	1.55	0.52
47:BN:101:ARG:HH11	47:BN:101:ARG:HG3	1.74	0.52
52:BS:16:THR:HA	52:BS:57:HIS:CE1	2.44	0.52
53:BT:117:ARG:HH21	53:BT:118:HIS:CE1	2.27	0.52
58:BY:16:GLY:C	58:BY:17:HIS:CG	2.87	0.52
62:Bc:78:LYS:HD3	62:Bc:79:LYS:HZ2	1.73	0.52
69:Bj:47:TRP:CG	69:Bj:48:VAL:HG12	2.44	0.52
74:Bo:39:CYS:SG	74:Bo:42:CYS:SG	3.07	0.52
77:Br:63:ALA:HA	77:Br:79:HIS:CD2	2.44	0.52
82:Bw:2:PHE:CE2	82:Bw:21:VAL:HA	2.44	0.52
82:Bw:202:GLN:HE22	82:Bw:209:HIS:HB2	1.74	0.52
85:AA:35:U:O4	85:AA:544:A:C2	2.62	0.52
85:AA:146:U:C6	85:AA:146:U:H3'	2.43	0.52
85:AA:254:G:C4	85:AA:255:A:C8	2.97	0.52
85:AA:419:A:C6	85:AA:420:C:C6	2.97	0.52
85:AA:547:A:C2	85:AA:582:A:H1'	2.43	0.52
85:AA:770:C:C4	85:AA:771:A:C8	2.97	0.52
85:AA:1129:A:C3'	85:AA:1130:G:H5''	2.39	0.52
85:AA:1526:G:H2'	85:AA:1528:A:H8	1.74	0.52
85:AA:1890:C:H2'	85:AA:1891:U:C6	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1917:G:N2	85:AA:1995:U:H3	1.98	0.52
85:AA:1990:U:H2'	85:AA:1991:C:H5	1.74	0.52
85:AA:2127:G:C2	85:AA:2192:A:C4	2.97	0.52
85:AA:2195:A:H2'	85:AA:2196:G:N9	2.25	0.52
86:AB:66:U:H2'	86:AB:67:C:C6	2.45	0.52
4:A3:173:ARG:HD3	4:A3:174:PHE:H	1.75	0.52
7:A6:27:MET:SD	32:AY:44:TYR:CE1	3.02	0.52
7:A6:80:HIS:CE1	7:A6:86:ASP:HA	2.44	0.52
7:A6:132:HIS:HE1	7:A6:157:PHE:CE1	2.24	0.52
8:A7:195:HIS:CE1	8:A7:221:ARG:HH11	2.27	0.52
21:AM:41:PHE:CE2	21:AM:43:TYR:CD2	2.98	0.52
24:AQ:72:ASN:HB3	24:AQ:74:TRP:CH2	2.44	0.52
34:BA:40:A:C2	35:BB:1260:A:C2	2.98	0.52
34:BA:78:U:C2	34:BA:79:C:C6	2.97	0.52
34:BA:259:C:C2	34:BA:260:A:C5	2.97	0.52
34:BA:415:C:C4	34:BA:432:A:C6	2.97	0.52
34:BA:450:G:H3'	34:BA:451:A:H8	1.73	0.52
34:BA:529:A:C2	34:BA:530:A:C4	2.96	0.52
34:BA:655:U:H3'	34:BA:656:U:H4'	1.92	0.52
34:BA:699:G:C2	34:BA:700:G:C8	2.98	0.52
34:BA:721:A:C6	34:BA:722:A:C5	2.97	0.52
34:BA:736:G:C6	34:BA:901:C:C6	2.97	0.52
34:BA:749:G:C6	34:BA:888:G:C5	2.97	0.52
34:BA:753:G:C4	34:BA:754:G:C8	2.97	0.52
34:BA:972:C:H2'	34:BA:974:G:O4'	2.09	0.52
34:BA:1025:A:C6	34:BA:1026:C:C4	2.98	0.52
34:BA:1095:G:C6	34:BA:1163:G:C5	2.97	0.52
34:BA:1097:G:H4'	54:BU:14:LEU:CD1	2.39	0.52
34:BA:1118:C:H2'	34:BA:1119:A:C5'	2.38	0.52
34:BA:1213:A:H2'	34:BA:1214:U:C6	2.44	0.52
34:BA:1263:A:H3'	34:BA:1264:U:C5	2.44	0.52
34:BA:1300:G:C2	34:BA:1301:G:C5	2.97	0.52
34:BA:1555:G:C5	34:BA:1556:A:C6	2.97	0.52
34:BA:1566:G:C4	34:BA:1567:G:C5	2.97	0.52
34:BA:1673:G:C2	34:BA:1680:G:C2	2.98	0.52
34:BA:1815:G:C2	34:BA:1832:A:C4	2.96	0.52
35:BB:136:A:C6	35:BB:137:A:C5	2.97	0.52
35:BB:138:A:C3'	35:BB:139:G:C5'	2.81	0.52
35:BB:411:A:C4	35:BB:413:A:C8	2.97	0.52
35:BB:413:A:N3	35:BB:414:C:C6	2.77	0.52
35:BB:545:C:C5	35:BB:572:G:C6	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:545:C:N3	35:BB:572:G:H2'	2.24	0.52
35:BB:773:G:C5	35:BB:774:C:C4	2.97	0.52
35:BB:800:U:C4	35:BB:837:A:N1	2.77	0.52
35:BB:802:G:H5''	35:BB:804:U:OP1	2.09	0.52
35:BB:840:C:C2	35:BB:841:U:C5	2.98	0.52
35:BB:846:A:H2	35:BB:967:G:H1'	1.74	0.52
35:BB:872:A:C2	35:BB:873:C:C6	2.98	0.52
35:BB:1015:U:C2	35:BB:1016:C:C6	2.97	0.52
35:BB:1225:A:H1'	47:BN:192:LYS:HE3	1.91	0.52
35:BB:1332:G:C4	35:BB:1403:G:C6	2.97	0.52
36:BC:22:U:C4	59:BZ:17:PHE:CD2	2.97	0.52
36:BC:50:C:HO2'	76:Bq:26:TRP:CD1	2.28	0.52
36:BC:125:A:C6	36:BC:139:A:N6	2.78	0.52
36:BC:125:A:C5	36:BC:126:G:C8	2.98	0.52
37:BD:93:G:C2'	37:BD:94:C:C6	2.92	0.52
38:BE:25:U:C6	38:BE:25:U:P	3.02	0.52
39:BF:45:G:C2	39:BF:46:G:C4	2.98	0.52
40:BG:41:U:N3	40:BG:69:G:C6	2.77	0.52
40:BG:78:C:H4'	65:Bf:106:HIS:CE1	2.43	0.52
49:BP:128:PHE:CZ	49:BP:140:HIS:HE1	2.26	0.52
50:BQ:70:TYR:HE1	50:BQ:76:TYR:CD2	2.26	0.52
51:BR:137:THR:HB	51:BR:138:PRO:HD2	1.92	0.52
52:BS:121:HIS:CD2	52:BS:121:HIS:N	2.75	0.52
59:BZ:24:ARG:NH1	59:BZ:75:TRP:CE2	2.77	0.52
61:Bb:111:GLY:CA	61:Bb:129:LEU:HD23	2.39	0.52
64:Be:205:ASN:ND2	64:Be:208:GLU:H	2.07	0.52
65:Bf:139:GLY:HA2	65:Bf:156:VAL:O	2.09	0.52
65:Bf:267:GLN:CD	65:Bf:267:GLN:C	2.77	0.52
65:Bf:374:THR:HG22	65:Bf:376:ARG:H	1.74	0.52
67:Bh:164:LYS:HE2	67:Bh:167:TYR:CZ	2.44	0.52
68:Bi:22:ARG:C	68:Bi:25:LEU:H	2.17	0.52
77:Br:55:ARG:O	77:Br:56:LEU:HD12	2.10	0.52
79:Bt:33:ALA:C	79:Bt:34:ARG:HG2	2.34	0.52
80:Bu:82:GLU:CD	80:Bu:108:ARG:HH22	2.17	0.52
84:By:18:SER:HB2	84:By:25:THR:H	1.75	0.52
85:AA:210:G:C8	85:AA:242:G:H5''	2.44	0.52
85:AA:368:C:C5	85:AA:368:C:OP2	2.63	0.52
85:AA:412:G:C2	85:AA:413:G:C4	2.97	0.52
85:AA:457:G:C2	85:AA:458:C:C6	2.98	0.52
85:AA:464:A:N9	85:AA:466:A:H1'	2.24	0.52
85:AA:547:A:C6	85:AA:582:A:C2	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:576:U:C3'	85:AA:577:U:H5'	2.40	0.52
85:AA:576:U:H2'	85:AA:577:U:C5'	2.39	0.52
85:AA:636:G:C2	85:AA:658:C:C2	2.97	0.52
85:AA:763:U:OP1	85:AA:764:U:C5	2.62	0.52
85:AA:939:A:C8	85:AA:939:A:H3'	2.44	0.52
85:AA:1111:A:C4	85:AA:1212:C:C4	2.97	0.52
85:AA:1165:C:C5	85:AA:1166:C:C5	2.98	0.52
85:AA:1199:C:H2'	85:AA:1200:A:N9	2.24	0.52
85:AA:1261:U:C6	85:AA:1261:U:O5'	2.63	0.52
85:AA:1484:G:C6	85:AA:1485:G:C6	2.96	0.52
85:AA:1501:A:C5	85:AA:1502:A:C2	2.97	0.52
85:AA:1599:G:C6	85:AA:1600:G:C6	2.97	0.52
85:AA:1599:G:C2	85:AA:1600:G:C4	2.96	0.52
85:AA:1821:C:C4	85:AA:1822:G:C5	2.98	0.52
85:AA:2071:U:C2	85:AA:2072:G:C8	2.97	0.52
85:AA:2167:A:C2	85:AA:2168:C:C6	2.97	0.52
85:AA:2187:G:C2	85:AA:2188:C:N1	2.78	0.52
7:A6:158:ALA:HB3	7:A6:161:SER:CB	2.39	0.52
16:AH:59:ARG:NH1	85:AA:1152:U:H2'	2.25	0.52
23:AP:240:TRP:CD2	23:AP:241:ALA:N	2.75	0.52
34:BA:24:C:H4'	34:BA:392:A:C8	2.44	0.52
34:BA:165:C:C5	34:BA:322:U:C2	2.98	0.52
34:BA:221:G:N1	34:BA:222:C:C2	2.78	0.52
34:BA:470:C:H2'	34:BA:471:U:O4'	2.10	0.52
34:BA:526:C:C2	34:BA:527:C:C6	2.97	0.52
34:BA:531:C:OP2	34:BA:532:C:H4'	2.09	0.52
34:BA:541:C:H2'	34:BA:542:A:O4'	2.09	0.52
34:BA:591:G:OP2	34:BA:591:G:C8	2.63	0.52
34:BA:662:U:C2	34:BA:663:U:C5	2.97	0.52
34:BA:744:G:N3	47:BN:6:ASN:HA	2.24	0.52
34:BA:774:A:H3'	34:BA:774:A:C8	2.45	0.52
34:BA:893:U:C4	47:BN:6:ASN:ND2	2.78	0.52
34:BA:906:A:H4'	35:BB:1270:C:H4'	1.91	0.52
34:BA:1151:A:C6	34:BA:1152:A:C6	2.98	0.52
34:BA:1234:U:C4	34:BA:1235:C:C4	2.98	0.52
34:BA:1297:G:N2	49:BP:20:ARG:HH22	2.07	0.52
34:BA:1614:G:C6	34:BA:1634:A:C6	2.97	0.52
34:BA:1816:G:H2'	34:BA:1818:A:N9	2.25	0.52
34:BA:1841:A:C2	34:BA:1842:U:C2	2.98	0.52
35:BB:3:C:H1'	35:BB:4:C:OP2	2.10	0.52
35:BB:99:G:C6	35:BB:100:A:C5	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:140:U:H2'	35:BB:141:G:C8	2.45	0.52
35:BB:404:A:C2	35:BB:410:A:C5	2.98	0.52
35:BB:519:A:C2	35:BB:520:G:C4	2.98	0.52
35:BB:546:A:H5'	35:BB:571:C:N4	2.25	0.52
35:BB:634:A:C2	35:BB:635:A:C5	2.97	0.52
35:BB:637:G:H3'	35:BB:638:G:H8	1.73	0.52
35:BB:658:G:H2'	35:BB:659:C:C6	2.43	0.52
35:BB:992:C:C6	35:BB:992:C:O5'	2.63	0.52
35:BB:996:G:H5'	83:Bx:40:PHE:CB	2.39	0.52
35:BB:1336:G:C6	35:BB:1337:C:C4	2.98	0.52
35:BB:1427:A:H2'	35:BB:1428:C:C6	2.45	0.52
36:BC:64:U:H3	36:BC:95:A:H61	1.57	0.52
36:BC:112:G:C4	57:BX:111:ARG:CZ	2.93	0.52
36:BC:145:G:C4	36:BC:146:U:C6	2.98	0.52
37:BD:77:A:N3	37:BD:100:A:C5	2.78	0.52
39:BF:32:G:C4	39:BF:52:A:C8	2.98	0.52
40:BG:31:G:C2	40:BG:174:G:N2	2.78	0.52
40:BG:54:G:C2	40:BG:58:G:C6	2.97	0.52
40:BG:116:G:N2	40:BG:117:C:H1'	2.24	0.52
40:BG:152:G:C6	40:BG:153:C:C4	2.97	0.52
41:BH:26:C:H2'	67:Bh:60:ALA:HB2	1.92	0.52
41:BH:35:G:H1	41:BH:119:U:H3	1.57	0.52
41:BH:120:C:H5''	65:Bf:376:ARG:HH21	1.73	0.52
49:BP:121:ALA:HB3	49:BP:122:TYR:CE2	2.45	0.52
66:Bg:34:TYR:CD2	66:Bg:34:TYR:C	2.86	0.52
85:AA:22:A:N1	85:AA:678:A:C4	2.77	0.52
85:AA:179:G:H2'	85:AA:180:A:C4	2.45	0.52
85:AA:342:C:C5	85:AA:343:U:C2	2.98	0.52
85:AA:635:G:N3	85:AA:659:A:C2	2.77	0.52
85:AA:701:C:C2	85:AA:1222:A:C2	2.98	0.52
85:AA:703:U:H2'	85:AA:704:A:H5'	1.91	0.52
85:AA:722:G:C6	85:AA:779:G:N2	2.78	0.52
85:AA:865:G:C6	85:AA:866:U:C2	2.97	0.52
85:AA:877:G:C5	85:AA:878:U:C5	2.97	0.52
85:AA:916:A:C8	85:AA:917:A:C8	2.98	0.52
85:AA:959:C:N3	85:AA:960:G:H1'	2.25	0.52
85:AA:1758:C:C5	85:AA:1784:G:N7	2.77	0.52
85:AA:2006:G:C2	85:AA:2007:G:H1'	2.45	0.52
1:A0:199:LEU:HD22	1:A0:212:LEU:HD21	1.92	0.52
4:A3:39:GLY:HA3	4:A3:51:PHE:CE1	2.44	0.52
12:AD:10:ARG:HA	12:AD:52:LEU:HD21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AI:130:TYR:CG	21:AM:121:HIS:HB2	2.43	0.52
25:AR:51:ASP:C	25:AR:53:THR:H	2.17	0.52
26:AS:67:ARG:NE	85:AA:643:C:C5	2.78	0.52
29:AV:44:ARG:H	29:AV:71:LEU:C	2.17	0.52
29:AV:100:TYR:CD1	85:AA:2249:U:H5'	2.44	0.52
33:AZ:78:ARG:NH1	33:AZ:99:ALA:HB2	2.22	0.52
34:BA:38:G:C4	35:BB:1259:A:C6	2.98	0.52
34:BA:74:A:C2	34:BA:75:U:H1'	2.45	0.52
34:BA:126:G:C2	34:BA:127:U:C2	2.98	0.52
34:BA:172:A:C2	34:BA:316:G:C4	2.98	0.52
34:BA:196:A:H2'	34:BA:197:A:C8	2.44	0.52
34:BA:209:A:N6	34:BA:224:G:C4	2.78	0.52
34:BA:418:G:H1'	34:BA:429:G:H1	1.74	0.52
34:BA:499:C:H5'	71:BI:88:LYS:HB3	1.92	0.52
34:BA:651:U:H2'	34:BA:652:C:H6	1.74	0.52
34:BA:918:U:O5'	34:BA:918:U:H6	1.92	0.52
34:BA:949:C:C2	34:BA:950:C:C6	2.98	0.52
34:BA:1139:G:C2	34:BA:1140:A:C8	2.97	0.52
34:BA:1334:G:N7	34:BA:1335:A:C8	2.77	0.52
34:BA:1409:A:C5	34:BA:1410:C:C5	2.97	0.52
34:BA:1418:G:H3'	34:BA:1419:A:C8	2.45	0.52
34:BA:1531:G:N1	34:BA:1532:G:C5	2.77	0.52
34:BA:1646:U:C4	34:BA:1647:G:C2	2.98	0.52
34:BA:1673:G:C2	34:BA:1680:G:N3	2.78	0.52
34:BA:1736:A:C5	34:BA:1737:A:C8	2.98	0.52
34:BA:1790:U:C6	34:BA:1790:U:OP2	2.62	0.52
34:BA:1804:A:C6	34:BA:1807:G:C4	2.97	0.52
35:BB:396:C:C2	35:BB:397:C:C6	2.97	0.52
35:BB:489:A:H2'	35:BB:490:G:C8	2.45	0.52
35:BB:556:U:N3	35:BB:557:C:C4	2.77	0.52
35:BB:643:G:C4	35:BB:644:A:C5	2.98	0.52
35:BB:823:G:H1'	83:Bx:229:ARG:NE	2.24	0.52
35:BB:866:A:N1	35:BB:867:C:C2	2.77	0.52
35:BB:1023:G:C2'	35:BB:1024:G:C8	2.92	0.52
35:BB:1066:G:C6	35:BB:1067:G:C5	2.98	0.52
35:BB:1102:U:H6	79:Bt:4:TYR:CE1	2.28	0.52
35:BB:1194:A:C6	35:BB:1195:A:C2	2.98	0.52
35:BB:1244:U:H5''	79:Bt:38:ARG:HB2	1.91	0.52
35:BB:1341:U:H2'	35:BB:1342:C:C6	2.45	0.52
35:BB:1359:G:C4	35:BB:1360:A:C8	2.98	0.52
35:BB:1459:U:OP2	71:BI:85:HIS:HB3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:48:A:C2	36:BC:51:A:C6	2.97	0.52
36:BC:163:A:H2'	36:BC:164:G:C8	2.44	0.52
37:BD:49:A:H5''	37:BD:49:A:H8	1.74	0.52
38:BE:123:A:N1	38:BE:124:G:C4	2.77	0.52
38:BE:151:C:C4	38:BE:152:U:C4	2.98	0.52
38:BE:153:C:C4	38:BE:154:A:H1'	2.45	0.52
38:BE:154:A:H3'	38:BE:154:A:C8	2.45	0.52
40:BG:92:U:N3	40:BG:93:U:C4	2.77	0.52
41:BH:31:A:C6	41:BH:32:U:C5	2.97	0.52
41:BH:35:G:H3'	41:BH:36:C:H6	1.73	0.52
47:BN:127:LYS:HA	70:Bk:127:VAL:C	2.34	0.52
54:BU:88:ARG:HH21	63:Bd:34:ARG:HD3	1.74	0.52
56:BW:98:GLU:CD	58:BY:21:TYR:CZ	2.88	0.52
61:Bb:60:HIS:CD2	61:Bb:63:LYS:HG3	2.45	0.52
63:Bd:37:TRP:CZ3	80:Bu:42:THR:CG2	2.76	0.52
67:Bh:148:ARG:H	67:Bh:172:HIS:HE1	1.57	0.52
69:Bj:70:ARG:HA	69:Bj:73:LYS:HB3	1.90	0.52
73:Bn:33:ARG:HD3	73:Bn:35:ALA:HA	1.92	0.52
84:By:81:GLY:CA	84:By:86:PHE:CE2	2.92	0.52
85:AA:27:U:C6	85:AA:27:U:O5'	2.63	0.52
85:AA:37:U:C2	85:AA:542:G:C2	2.97	0.52
85:AA:88:G:C6	85:AA:89:C:C4	2.98	0.52
85:AA:130:G:C2	85:AA:141:A:C2	2.98	0.52
85:AA:186:U:C6	85:AA:187:C:C6	2.97	0.52
85:AA:341:C:N3	85:AA:342:C:C5	2.77	0.52
85:AA:431:G:H2'	85:AA:432:A:C8	2.44	0.52
85:AA:517:A:C6	85:AA:518:A:H1'	2.44	0.52
85:AA:582:A:C2	85:AA:583:U:H1'	2.44	0.52
85:AA:698:G:C2	85:AA:1225:C:H1'	2.44	0.52
85:AA:794:A:H2	85:AA:800:A:HO2'	1.58	0.52
85:AA:801:U:H5'	85:AA:802:A:OP2	2.09	0.52
85:AA:959:C:C4	85:AA:960:G:C4	2.98	0.52
85:AA:985:G:C6	85:AA:986:U:C4	2.97	0.52
85:AA:1001:G:C4	85:AA:1002:G:C8	2.96	0.52
85:AA:1009:G:H2'	85:AA:1010:U:C5	2.45	0.52
85:AA:1296:G:C4	85:AA:1297:G:C8	2.97	0.52
85:AA:1540:A:C4	85:AA:1541:G:H1'	2.44	0.52
85:AA:1792:C:H3'	85:AA:1793:A:H5'	1.91	0.52
85:AA:1955:U:C4	85:AA:1956:C:C6	2.98	0.52
85:AA:1959:G:H22	85:AA:1978:G:H1	1.54	0.52
85:AA:2102:A:H5'	85:AA:2105:G:H4'	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A5:121:LEU:O	41:BH:91:G:N3	2.32	0.52
16:AH:35:VAL:O	16:AH:48:LYS:HA	2.10	0.52
22:AO:58:HIS:CD2	22:AO:58:HIS:H	2.27	0.52
23:AP:167:LYS:HA	23:AP:179:LEU:O	2.09	0.52
27:AT:67:PHE:HD1	85:AA:593:U:H4'	1.73	0.52
34:BA:10:G:H2'	34:BA:11:U:H5''	1.92	0.52
34:BA:33:C:C5	34:BA:34:U:C6	2.98	0.52
34:BA:110:C:H42	34:BA:111:U:H6	1.54	0.52
34:BA:144:C:H3'	34:BA:145:U:C5'	2.40	0.52
34:BA:154:A:C6	34:BA:155:U:N1	2.78	0.52
34:BA:183:G:C6	34:BA:306:G:C6	2.97	0.52
34:BA:230:A:C2	34:BA:246:G:C2	2.98	0.52
34:BA:248:G:C5	34:BA:437:G:H2'	2.45	0.52
34:BA:320:G:C6	34:BA:321:G:C6	2.97	0.52
34:BA:367:G:C6	50:BQ:196:HIS:CG	2.97	0.52
34:BA:503:C:C2	34:BA:700:G:C2	2.97	0.52
34:BA:519:G:C5'	34:BA:520:G:C5	2.92	0.52
34:BA:522:C:H5''	77:Br:313:TYR:O	2.09	0.52
34:BA:564:C:H5	34:BA:565:U:C2	2.28	0.52
34:BA:680:C:H4'	34:BA:681:G:H8	1.70	0.52
34:BA:690:G:C1'	34:BA:691:A:C2	2.93	0.52
34:BA:791:A:C8	34:BA:792:A:C8	2.97	0.52
34:BA:799:A:OP1	34:BA:800:G:H4'	2.09	0.52
34:BA:827:A:C4	34:BA:841:G:C2	2.97	0.52
34:BA:945:A:N7	85:AA:702:G:H4'	2.25	0.52
34:BA:1122:G:C8	34:BA:1139:G:N2	2.77	0.52
34:BA:1186:U:C6	34:BA:1187:U:O4'	2.63	0.52
34:BA:1293:A:C8	34:BA:1295:U:C5	2.98	0.52
34:BA:1343:A:H1'	40:BG:144:G:C2	2.45	0.52
34:BA:1461:A:C4	34:BA:1462:U:C5	2.98	0.52
34:BA:1572:G:C5	34:BA:1573:C:C5	2.98	0.52
34:BA:1599:A:OP2	34:BA:1600:G:C8	2.62	0.52
34:BA:1603:A:N3	35:BB:33:A:C2	2.77	0.52
34:BA:1642:A:C6	34:BA:1643:U:C4	2.98	0.52
35:BB:130:G:C6	35:BB:374:A:C5	2.98	0.52
35:BB:405:U:C4	35:BB:409:U:C4	2.98	0.52
35:BB:486:G:C2	35:BB:495:A:C2	2.98	0.52
35:BB:620:G:C2	35:BB:621:C:H1'	2.45	0.52
35:BB:812:G:N2	35:BB:813:C:H1'	2.25	0.52
35:BB:839:G:C2	35:BB:840:C:C1'	2.93	0.52
35:BB:1292:G:C4	35:BB:1293:C:C5	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1452:U:C2	40:BG:171:A:N1	2.77	0.52
37:BD:3:G:C5	37:BD:4:U:C5	2.98	0.52
37:BD:51:G:C6	37:BD:52:U:C4	2.98	0.52
38:BE:85:G:C6	38:BE:86:C:H1'	2.45	0.52
39:BF:33:C:C6	39:BF:34:C:O2'	2.62	0.52
40:BG:22:G:H4'	40:BG:23:C:H5'	1.90	0.52
40:BG:80:G:H5''	58:BY:19:ARG:HH11	1.74	0.52
44:BK:89:ILE:HA	44:BK:136:LEU:HG	1.91	0.52
44:BK:95:HIS:CD2	44:BK:95:HIS:C	2.86	0.52
54:BU:68:THR:HG22	54:BU:71:GLY:C	2.34	0.52
67:Bh:129:ALA:HA	67:Bh:132:ASN:CG	2.35	0.52
69:Bj:102:ARG:HA	69:Bj:105:LYS:HE2	1.90	0.52
75:Bp:40:ARG:HG2	75:Bp:41:HIS:CE1	2.45	0.52
79:Bt:58:PHE:O	79:Bt:59:HIS:CD2	2.62	0.52
81:Bv:14:LYS:HG3	81:Bv:16:VAL:HB	1.92	0.52
85:AA:242:G:H2'	85:AA:243:A:C2	2.45	0.52
85:AA:309:G:C6	85:AA:317:A:C5	2.98	0.52
85:AA:386:G:H3'	85:AA:387:U:C5'	2.37	0.52
85:AA:512:U:H2'	85:AA:513:G:O4'	2.09	0.52
85:AA:593:U:C5	85:AA:594:C:C4	2.97	0.52
85:AA:933:U:H2'	85:AA:934:A:C6	2.44	0.52
85:AA:1124:G:H1'	85:AA:1186:C:H4'	1.92	0.52
85:AA:1173:A:C2	85:AA:1174:G:C2	2.97	0.52
85:AA:1197:U:C4	85:AA:1198:U:C4	2.97	0.52
85:AA:1226:A:C4	85:AA:1227:A:C8	2.97	0.52
85:AA:1247:A:H2'	85:AA:1248:U:C5'	2.40	0.52
85:AA:1289:U:C2	85:AA:1290:G:H1'	2.44	0.52
85:AA:1450:U:H3'	85:AA:1451:U:C5	2.45	0.52
85:AA:1497:U:C2	85:AA:1505:G:C2	2.98	0.52
85:AA:1912:U:H2'	85:AA:1913:G:H5'	1.91	0.52
85:AA:1916:A:C4	85:AA:1917:G:C8	2.98	0.52
85:AA:1928:A:H62	85:AA:1978:G:H2'	1.74	0.52
85:AA:2146:G:C2	85:AA:2171:A:C5	2.97	0.52
85:AA:2153:G:N1	85:AA:2166:G:C6	2.77	0.52
85:AA:2162:G:C6	85:AA:2163:G:C5	2.97	0.52
85:AA:2227:A:C6	85:AA:2237:G:C6	2.98	0.52
86:AB:1:G:C6	86:AB:73:A:C6	2.97	0.52
2:A1:121:MET:HE3	2:A1:142:HIS:CE1	2.45	0.52
3:A2:44:LYS:CA	85:AA:2082:C:C5	2.92	0.52
3:A2:44:LYS:C	85:AA:2082:C:C5	2.88	0.52
4:A3:28:LEU:HD13	4:A3:41:ILE:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AP:139:MET:HG2	23:AP:140:ILE:N	2.24	0.52
27:AT:126:GLY:H	85:AA:83:U:H5'	1.75	0.52
31:AX:101:ALA:HB2	31:AX:170:ALA:HB3	1.90	0.52
34:BA:23:A:C6	34:BA:24:C:C2	2.97	0.52
34:BA:183:G:C2	34:BA:306:G:C5	2.97	0.52
34:BA:183:G:C2	34:BA:306:G:C4	2.97	0.52
34:BA:194:G:C5	34:BA:195:G:C5	2.98	0.52
34:BA:211:C:C2	34:BA:212:A:C8	2.97	0.52
34:BA:290:G:C2	34:BA:291:C:C6	2.98	0.52
34:BA:327:G:C4'	72:Bm:42:HIS:CE1	2.92	0.52
34:BA:334:G:C6	34:BA:335:C:C4	2.98	0.52
34:BA:464:U:C6	51:BR:3:HIS:CE1	2.97	0.52
34:BA:480:G:C4	34:BA:481:A:C4	2.97	0.52
34:BA:731:A:C6	34:BA:732:A:C6	2.97	0.52
34:BA:846:U:H5'	42:BI:73:ARG:NH2	2.25	0.52
34:BA:859:G:C5	34:BA:860:G:C8	2.98	0.52
34:BA:939:C:C2	34:BA:940:C:C5	2.98	0.52
34:BA:974:G:C6	34:BA:975:A:C8	2.97	0.52
34:BA:1243:A:H3'	34:BA:1245:C:H6	1.75	0.52
34:BA:1285:G:N2	34:BA:1286:C:H1'	2.25	0.52
34:BA:1378:A:C2	34:BA:1379:G:C8	2.98	0.52
34:BA:1412:G:N3	52:BS:116:HIS:CE1	2.78	0.52
35:BB:362:A:H3'	35:BB:363:A:H4'	1.90	0.52
35:BB:426:A:H2'	35:BB:445:G:H22	1.73	0.52
35:BB:479:U:H2'	35:BB:480:C:C6	2.44	0.52
35:BB:736:G:C5	35:BB:737:C:C4	2.97	0.52
35:BB:818:U:H1'	35:BB:822:G:H1	1.75	0.52
35:BB:823:G:C6	35:BB:824:C:C5	2.98	0.52
35:BB:998:G:C2	35:BB:1021:C:C2	2.97	0.52
35:BB:1000:U:C4	35:BB:1001:G:C8	2.98	0.52
35:BB:1002:G:N2	35:BB:1017:U:H1'	2.25	0.52
35:BB:1092:G:C6	35:BB:1093:C:C4	2.98	0.52
35:BB:1121:A:O4'	45:BL:112:GLY:HA3	2.09	0.52
35:BB:1145:G:C4	35:BB:1146:C:C5	2.98	0.52
35:BB:1219:A:H2'	35:BB:1220:A:H8	1.74	0.52
35:BB:1357:C:C2	84:By:171:ARG:NH2	2.78	0.52
35:BB:1463:A:H4'	40:BG:23:C:H5	1.72	0.52
35:BB:1482:A:C4	35:BB:1483:A:C8	2.98	0.52
35:BB:1490:G:C6	35:BB:1491:G:C4	2.98	0.52
35:BB:1493:A:N1	35:BB:1494:G:C5	2.77	0.52
36:BC:24:G:C4	36:BC:25:C:C4	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:125:A:N3	36:BC:139:A:C2	2.78	0.52
36:BC:160:C:N3	36:BC:161:U:C5	2.77	0.52
38:BE:23:G:N1	38:BE:197:A:C6	2.78	0.52
38:BE:48:G:H5''	55:BV:111:ALA:HB3	1.92	0.52
38:BE:152:U:C6	38:BE:152:U:H5''	2.45	0.52
38:BE:160:C:C4	53:BT:43:LYS:HA	2.45	0.52
38:BE:209:U:C5	38:BE:210:G:C4	2.97	0.52
39:BF:33:C:C5	39:BF:52:A:N1	2.78	0.52
39:BF:64:U:H4'	48:BO:208:MET:SD	2.50	0.52
40:BG:9:G:N2	40:BG:10:U:C2	2.78	0.52
40:BG:19:C:C2	40:BG:20:U:C6	2.98	0.52
40:BG:46:G:C5	40:BG:47:G:C8	2.97	0.52
40:BG:165:C:C2	40:BG:166:C:C5	2.97	0.52
40:BG:175:G:N1	40:BG:176:G:C5	2.78	0.52
41:BH:58:C:H2'	41:BH:59:G:C8	2.45	0.52
41:BH:120:C:C5'	65:Bf:376:ARG:HH21	2.23	0.52
42:BI:2:GLY:O	82:Bw:124:ARG:HD3	2.10	0.52
42:BI:79:LYS:CD	63:Bd:69:ALA:O	2.38	0.52
44:BK:21:ARG:CZ	44:BK:22:PHE:CE2	2.93	0.52
44:BK:139:ARG:HD3	44:BK:173:PHE:CD2	2.44	0.52
49:BP:94:ARG:HA	49:BP:97:ARG:NE	2.24	0.52
52:BS:16:THR:HA	52:BS:57:HIS:HE1	1.75	0.52
56:BW:93:THR:HA	58:BY:20:ARG:CZ	2.39	0.52
61:Bb:74:ASN:HD21	61:Bb:110:LEU:HB2	1.74	0.52
62:Bc:71:ASN:OD1	77:Br:149:VAL:HG23	2.09	0.52
80:Bu:209:HIS:CG	80:Bu:210:VAL:N	2.78	0.52
83:Bx:266:THR:HG23	83:Bx:270:ASP:O	2.10	0.52
85:AA:78:A:C2	85:AA:79:G:H1'	2.44	0.52
85:AA:119:G:H2'	85:AA:120:C:O4'	2.10	0.52
85:AA:138:C:C2	85:AA:139:G:C8	2.97	0.52
85:AA:264:A:H61	85:AA:865:G:N2	2.08	0.52
85:AA:272:C:C4	85:AA:273:C:C4	2.97	0.52
85:AA:307:G:C8	85:AA:307:G:H3'	2.45	0.52
85:AA:313:A:C2	85:AA:313:A:H2'	2.44	0.52
85:AA:332:A:C5	85:AA:334:A:N6	2.78	0.52
85:AA:395:G:C5	85:AA:396:U:C5	2.97	0.52
85:AA:708:G:C6	85:AA:1215:A:C6	2.98	0.52
85:AA:864:C:C6	85:AA:864:C:H3'	2.45	0.52
85:AA:877:G:C2	85:AA:878:U:H1'	2.45	0.52
85:AA:985:G:C5	85:AA:986:U:C5	2.97	0.52
85:AA:1120:G:C4	85:AA:1206:A:C2	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1457:C:C5	85:AA:1458:G:C4	2.97	0.52
85:AA:1556:G:H2'	85:AA:1557:U:C6	2.45	0.52
85:AA:1678:U:N3	85:AA:1679:U:C5	2.78	0.52
85:AA:1809:G:H3'	85:AA:1809:G:C8	2.44	0.52
85:AA:2013:A:C4	85:AA:2014:G:C8	2.98	0.52
85:AA:2020:C:C4	85:AA:2021:A:C6	2.98	0.52
85:AA:2178:A:C6	85:AA:2179:C:C5	2.98	0.52
1:A0:116:LEU:HD21	1:A0:118:LYS:HG3	1.92	0.52
2:A1:139:HIS:CD2	2:A1:139:HIS:C	2.88	0.52
6:A5:159:LYS:HA	6:A5:162:TRP:HE1	1.75	0.52
7:A6:159:ASP:HA	7:A6:164:GLY:HA3	1.91	0.52
11:AC:126:PHE:CZ	11:AC:215:ALA:HA	2.45	0.52
19:AK:70:ARG:N	85:AA:1792:C:H2'	2.25	0.52
19:AK:146:LYS:HG2	19:AK:148:TYR:H	1.74	0.52
21:AM:38:GLY:HA2	85:AA:2033:C:H5'	1.92	0.52
22:AO:132:LYS:HD2	22:AO:138:HIS:CE1	2.45	0.52
23:AP:67:PHE:CD2	23:AP:249:PRO:HD3	2.44	0.52
27:AT:83:TYR:CD1	27:AT:83:TYR:N	2.76	0.52
29:AV:17:ARG:HA	85:AA:1186:C:N4	2.25	0.52
34:BA:86:A:C5	34:BA:97:A:C5	2.98	0.52
34:BA:131:A:N1	34:BA:184:C:H5''	2.25	0.52
34:BA:242:U:H2'	34:BA:243:C:C6	2.45	0.52
34:BA:262:A:OP1	77:Br:217:ARG:HD2	2.10	0.52
34:BA:477:C:H2'	34:BA:478:G:C8	2.44	0.52
34:BA:585:G:N2	34:BA:587:U:C5	2.78	0.52
34:BA:587:U:H2'	34:BA:588:C:C6	2.44	0.52
34:BA:608:G:OP2	34:BA:608:G:C8	2.62	0.52
34:BA:682:A:C5'	34:BA:682:A:C8	2.93	0.52
34:BA:743:A:C6	34:BA:894:G:N1	2.78	0.52
34:BA:774:A:N7	34:BA:775:C:C5	2.78	0.52
34:BA:775:C:N4	34:BA:776:U:C4	2.78	0.52
34:BA:802:G:C2	34:BA:803:U:C2	2.98	0.52
34:BA:804:G:C6	34:BA:805:A:C2	2.98	0.52
34:BA:982:A:C8	51:BR:133:HIS:C	2.87	0.52
34:BA:1057:C:N4	34:BA:1063:G:C6	2.78	0.52
34:BA:1162:U:O5'	34:BA:1162:U:C6	2.63	0.52
34:BA:1219:G:N7	34:BA:1220:C:C5	2.78	0.52
34:BA:1341:A:C4	34:BA:1404:A:C2	2.97	0.52
34:BA:1513:G:C2	34:BA:1514:A:C4	2.98	0.52
34:BA:1527:G:C6	34:BA:1528:U:C5	2.98	0.52
34:BA:1547:G:C6	34:BA:1549:U:O4	2.62	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1555:G:C4	34:BA:1556:A:C5	2.98	0.52
34:BA:1603:A:C5	35:BB:33:A:C6	2.97	0.52
34:BA:1707:C:C2	34:BA:1708:A:C8	2.97	0.52
34:BA:1831:A:H4'	34:BA:1833:G:H5'	1.90	0.52
35:BB:68:G:C2	35:BB:69:A:N1	2.78	0.52
35:BB:110:U:C5	35:BB:587:A:H1'	2.45	0.52
35:BB:124:G:C4	35:BB:380:G:C6	2.97	0.52
35:BB:134:G:N1	35:BB:135:C:C2	2.77	0.52
35:BB:482:A:H2'	35:BB:483:C:H5'	1.92	0.52
35:BB:554:C:C5	35:BB:565:U:C5	2.97	0.52
35:BB:839:G:H4'	35:BB:1025:A:C2	2.44	0.52
35:BB:846:A:H3'	35:BB:847:U:C6	2.45	0.52
35:BB:1048:A:C6	35:BB:1049:G:C5	2.97	0.52
35:BB:1138:A:H2'	35:BB:1139:A:O4'	2.10	0.52
35:BB:1161:G:C8	35:BB:1163:U:N3	2.78	0.52
35:BB:1174:C:C2	35:BB:1176:G:C2	2.97	0.52
35:BB:1311:G:C6	35:BB:1312:U:C4	2.98	0.52
36:BC:147:G:C6	36:BC:148:C:C4	2.98	0.52
38:BE:13:A:C6	38:BE:14:C:C4	2.97	0.52
38:BE:93:U:C2	38:BE:128:G:C2	2.98	0.52
40:BG:24:A:C2'	40:BG:182:G:H21	2.23	0.52
41:BH:116:A:C3'	41:BH:117:U:H2'	2.39	0.52
44:BK:35:ASP:OD1	44:BK:86:HIS:CE1	2.62	0.52
44:BK:49:CYS:H	44:BK:178:ARG:NH1	2.08	0.52
48:BO:113:GLY:O	48:BO:116:ALA:HB3	2.10	0.52
49:BP:39:GLU:C	49:BP:46:MET:HE1	2.34	0.52
62:Bc:17:LYS:C	62:Bc:18:PHE:CD1	2.88	0.52
67:Bh:35:ASP:HB2	67:Bh:38:TRP:CH2	2.45	0.52
80:Bu:9:ASN:ND2	80:Bu:10:LYS:H	2.06	0.52
85:AA:177:A:C2	85:AA:178:U:O2	2.63	0.52
85:AA:245:A:C2	85:AA:246:C:C2	2.97	0.52
85:AA:372:U:O4	85:AA:373:G:C5	2.63	0.52
85:AA:474:C:C4	85:AA:475:A:C5	2.98	0.52
85:AA:522:A:H5''	85:AA:523:U:H3'	1.92	0.52
85:AA:552:C:H2'	85:AA:553:G:H8	1.74	0.52
85:AA:562:C:O2	85:AA:564:A:H3'	2.09	0.52
85:AA:576:U:H3'	85:AA:577:U:H5'	1.92	0.52
85:AA:581:A:C6	85:AA:613:G:C6	2.98	0.52
85:AA:702:G:H3'	85:AA:1218:C:H42	1.75	0.52
85:AA:713:G:H3'	85:AA:714:U:H5'	1.90	0.52
85:AA:818:C:C5	85:AA:863:C:O2	2.62	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:822:U:C2	85:AA:859:G:C2	2.97	0.52
85:AA:1001:G:H2'	85:AA:1002:G:O4'	2.10	0.52
85:AA:1094:G:C6	85:AA:1095:C:C4	2.98	0.52
85:AA:1293:U:C2	85:AA:1294:U:H1'	2.45	0.52
85:AA:1519:A:C2	85:AA:1520:A:C4	2.98	0.52
85:AA:1578:G:N7	85:AA:2062:U:C2	2.77	0.52
86:AB:52:G:C2	86:AB:63:G:C4	2.98	0.52
1:A0:135:TYR:HB3	1:A0:137:LEU:HD21	1.90	0.52
16:AH:21:TYR:CE1	16:AH:87:HIS:HE1	2.28	0.52
23:AP:118:ASN:O	23:AP:120:HIS:CE1	2.62	0.52
34:BA:2:A:C2	36:BC:169:G:C4	2.98	0.52
34:BA:69:C:C2	34:BA:71:G:C5	2.97	0.52
34:BA:210:G:H2'	34:BA:211:C:H6	1.75	0.52
34:BA:419:U:OP2	34:BA:429:G:C2	2.62	0.52
34:BA:573:U:O3'	34:BA:1448:G:H4'	2.10	0.52
34:BA:584:A:H2'	34:BA:585:G:C8	2.45	0.52
34:BA:605:G:O6	34:BA:606:G:C6	2.63	0.52
34:BA:772:G:C8	47:BN:34:PRO:CD	2.92	0.52
34:BA:917:C:H3'	34:BA:918:U:C6	2.45	0.52
34:BA:921:G:C6	34:BA:1003:A:C5	2.97	0.52
34:BA:999:G:C4	34:BA:1000:G:C8	2.98	0.52
34:BA:1038:U:C4	34:BA:1039:G:C8	2.97	0.52
34:BA:1049:G:C5	34:BA:1516:G:C6	2.98	0.52
34:BA:1063:G:H5''	34:BA:1228:G:H22	1.74	0.52
34:BA:1080:U:H2'	34:BA:1081:U:H5''	1.90	0.52
34:BA:1150:A:C6	34:BA:1153:C:C2	2.98	0.52
34:BA:1158:A:C6	34:BA:1159:A:C5	2.97	0.52
34:BA:1170:A:C2	34:BA:1171:C:C4	2.98	0.52
34:BA:1343:A:C2	40:BG:144:G:C6	2.98	0.52
34:BA:1415:C:H2'	34:BA:1416:C:C6	2.45	0.52
34:BA:1456:C:H2'	34:BA:1457:C:C6	2.45	0.52
34:BA:1484:A:C6	34:BA:1502:G:C6	2.97	0.52
34:BA:1547:G:C2	34:BA:1549:U:C5	2.98	0.52
34:BA:1547:G:C4	34:BA:1562:G:C6	2.98	0.52
34:BA:1640:G:H4'	53:BT:23:TRP:NE1	2.25	0.52
34:BA:1648:G:C2	35:BB:42:A:C8	2.98	0.52
34:BA:1729:G:C6	34:BA:1794:A:N7	2.76	0.52
34:BA:1735:G:C2	34:BA:1790:U:C2	2.98	0.52
35:BB:102:G:C2	35:BB:121:A:C2	2.97	0.52
35:BB:163:G:H1	35:BB:259:U:H3	1.57	0.52
35:BB:456:A:H3'	35:BB:456:A:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:630:A:C4	35:BB:643:G:C6	2.97	0.52
35:BB:658:G:C6	35:BB:659:C:N3	2.77	0.52
35:BB:695:U:H2'	35:BB:696:G:C8	2.45	0.52
35:BB:709:G:H1'	35:BB:773:G:N2	2.25	0.52
35:BB:773:G:H2'	35:BB:774:C:C6	2.45	0.52
35:BB:839:G:C5	35:BB:840:C:C6	2.98	0.52
35:BB:898:U:H2'	35:BB:899:C:C6	2.45	0.52
35:BB:987:U:C2	74:Bo:41:PHE:CD1	2.98	0.52
35:BB:1056:A:H2'	35:BB:1057:G:C8	2.45	0.52
35:BB:1187:G:C5	35:BB:1188:A:C8	2.97	0.52
35:BB:1353:G:C2	35:BB:1354:C:C5	2.97	0.52
35:BB:1481:C:C4	35:BB:1482:A:C6	2.98	0.52
35:BB:1493:A:C4	35:BB:1494:G:C8	2.97	0.52
35:BB:1522:G:C2	35:BB:1523:U:C6	2.98	0.52
35:BB:1544:A:C2	35:BB:1545:U:C2	2.97	0.52
36:BC:117:A:C5	36:BC:147:G:N1	2.77	0.52
37:BD:79:G:H1	37:BD:97:U:H3	1.58	0.52
38:BE:21:C:C2'	38:BE:23:G:C8	2.92	0.52
38:BE:58:U:H2'	38:BE:59:U:C6	2.45	0.52
38:BE:119:U:H2'	66:Bg:39:GLN:NE2	2.24	0.52
38:BE:119:U:H6	38:BE:119:U:O5'	1.92	0.52
39:BF:36:G:N2	39:BF:48:G:C4	2.78	0.52
40:BG:129:G:C4	40:BG:162:A:N1	2.78	0.52
41:BH:39:G:C2	41:BH:113:G:N1	2.78	0.52
44:BK:43:VAL:HG11	44:BK:197:VAL:CG1	2.40	0.52
44:BK:210:ASN:C	80:Bu:299:VAL:HG21	2.35	0.52
51:BR:45:GLN:CD	51:BR:114:ILE:H	2.18	0.52
52:BS:8:HIS:CD2	52:BS:32:PHE:CD2	2.97	0.52
52:BS:8:HIS:CE1	52:BS:30:GLU:HB3	2.45	0.52
58:BY:79:THR:HG22	85:AA:2163:G:O3'	2.10	0.52
64:Be:181:LYS:H	64:Be:184:ASN:ND2	2.08	0.52
69:Bj:48:VAL:O	69:Bj:48:VAL:HG13	2.09	0.52
71:Bl:95:TRP:HB2	71:Bl:100:ALA:H	1.74	0.52
80:Bu:31:HIS:CD2	80:Bu:31:HIS:C	2.88	0.52
85:AA:28:A:N1	85:AA:29:U:C2	2.78	0.52
85:AA:63:G:C6	85:AA:64:A:N7	2.77	0.52
85:AA:192:G:C2	85:AA:247:G:C2	2.97	0.52
85:AA:309:G:C5	85:AA:317:A:C6	2.98	0.52
85:AA:371:C:N4	85:AA:372:U:C4	2.78	0.52
85:AA:610:C:C4	85:AA:611:G:N7	2.78	0.52
85:AA:620:U:C2	85:AA:667:A:C2	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:744:C:C2	85:AA:766:G:C4	2.98	0.52
85:AA:814:G:N2	85:AA:818:C:C6	2.78	0.52
85:AA:1132:A:C2	85:AA:1133:C:H1'	2.45	0.52
85:AA:1204:A:C6	85:AA:1205:U:C4	2.98	0.52
85:AA:1224:C:C4	85:AA:1225:C:C5	2.98	0.52
85:AA:1261:U:O5'	85:AA:1261:U:H6	1.93	0.52
85:AA:1484:G:C6	85:AA:1485:G:O6	2.63	0.52
85:AA:1563:U:C5	85:AA:1564:U:C5	2.98	0.52
85:AA:1583:U:H2'	85:AA:1584:U:C4	2.45	0.52
85:AA:1705:G:N3	85:AA:1705:G:H2'	2.25	0.52
85:AA:2013:A:N3	85:AA:2013:A:H2'	2.24	0.52
85:AA:2130:G:N1	85:AA:2131:C:C2	2.78	0.52
85:AA:2152:C:H2'	85:AA:2153:G:C8	2.44	0.52
1:A0:70:LEU:HD13	1:A0:105:MET:HE2	1.92	0.52
3:A2:27:TYR:HB3	3:A2:130:MET:SD	2.50	0.52
4:A3:60:GLU:CD	85:AA:483:G:C8	2.88	0.52
5:A4:63:ALA:HA	5:A4:95:ILE:O	2.09	0.52
5:A4:188:PHE:N	5:A4:188:PHE:CD2	2.78	0.52
10:A9:93:HIS:CG	85:AA:1622:G:N2	2.78	0.52
28:AU:65:VAL:HA	28:AU:108:THR:HA	1.91	0.52
34:BA:6:C:H1'	36:BC:166:G:N2	2.25	0.52
34:BA:12:G:C4	34:BA:13:U:C6	2.97	0.52
34:BA:114:U:H3'	34:BA:327:G:H21	1.75	0.52
34:BA:133:A:H3'	34:BA:134:U:C6	2.44	0.52
34:BA:161:U:H6	34:BA:161:U:C5'	2.23	0.52
34:BA:196:A:C6	34:BA:197:A:C6	2.97	0.52
34:BA:230:A:C2	34:BA:231:U:C4	2.98	0.52
34:BA:333:A:H3'	34:BA:334:G:H8	1.74	0.52
34:BA:610:A:C2	34:BA:670:U:O2	2.63	0.52
34:BA:634:U:H2'	34:BA:635:G:C8	2.45	0.52
34:BA:817:U:C2	34:BA:854:A:C2	2.98	0.52
34:BA:825:G:C2	34:BA:826:C:C6	2.98	0.52
34:BA:841:G:C5	34:BA:842:U:C6	2.98	0.52
34:BA:883:C:H4'	42:BI:98:ARG:CZ	2.40	0.52
34:BA:953:G:N1	34:BA:954:U:C2	2.78	0.52
34:BA:994:G:O2'	34:BA:996:U:H5'	2.10	0.52
34:BA:1108:U:O5'	34:BA:1108:U:H6	1.93	0.52
34:BA:1134:A:C6	34:BA:1135:U:N3	2.78	0.52
34:BA:1399:A:C6	34:BA:1400:A:C5	2.98	0.52
34:BA:1457:C:C6	34:BA:1457:C:O5'	2.63	0.52
34:BA:1482:A:C6	34:BA:1483:U:C4	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1529:G:O6	34:BA:1530:G:C6	2.63	0.52
34:BA:1551:G:C5	34:BA:1552:C:C5	2.98	0.52
34:BA:1599:A:OP2	34:BA:1599:A:C8	2.63	0.52
34:BA:1659:G:C8	34:BA:1660:A:C2	2.98	0.52
34:BA:1734:U:C3'	34:BA:1735:G:H5'	2.40	0.52
35:BB:69:A:H62	67:Bh:99:ARG:NH1	2.08	0.52
35:BB:490:G:H2'	35:BB:491:A:C8	2.45	0.52
35:BB:516:G:C6	35:BB:517:G:C5	2.98	0.52
35:BB:543:G:C5	35:BB:544:C:C5	2.98	0.52
35:BB:584:A:C5	35:BB:585:U:C5	2.97	0.52
35:BB:722:U:C4	35:BB:723:A:C5	2.98	0.52
35:BB:1003:G:C4	35:BB:1004:A:C8	2.98	0.52
35:BB:1105:G:H5'	35:BB:1201:G:H21	1.74	0.52
35:BB:1311:G:C6	35:BB:1312:U:C2	2.98	0.52
35:BB:1374:U:C4	35:BB:1393:C:C2	2.98	0.52
35:BB:1450:G:C5	35:BB:1451:C:C4	2.98	0.52
35:BB:1474:A:H2'	35:BB:1475:U:H5'	1.92	0.52
35:BB:1541:G:C6	35:BB:1542:C:C4	2.98	0.52
36:BC:125:A:C2	36:BC:126:G:N9	2.78	0.52
37:BD:94:C:O2	37:BD:95:G:C5	2.63	0.52
38:BE:32:U:C6	38:BE:32:U:O5'	2.63	0.52
38:BE:153:C:H5''	38:BE:154:A:C8	2.44	0.52
38:BE:161:G:C5	38:BE:162:U:C4	2.98	0.52
38:BE:203:C:C6	38:BE:203:C:C3'	2.93	0.52
39:BF:23:G:C2	48:BO:131:VAL:HG22	2.45	0.52
40:BG:17:A:C2	40:BG:18:U:C2	2.98	0.52
40:BG:163:G:H3'	40:BG:164:U:C5	2.45	0.52
40:BG:176:G:C2	40:BG:177:U:C2	2.98	0.52
41:BH:39:G:C5	41:BH:40:C:C5	2.98	0.52
45:BL:91:LEU:HB3	45:BL:96:PHE:CD1	2.45	0.52
47:BN:151:ALA:CB	70:Bk:124:ALA:HB2	2.40	0.52
51:BR:121:GLN:O	51:BR:145:HIS:CE1	2.63	0.52
53:BT:63:TRP:CE3	53:BT:67:LYS:CE	2.93	0.52
53:BT:102:LEU:O	53:BT:105:LEU:HB3	2.09	0.52
62:Bc:111:ARG:HG3	82:Bw:15:VAL:HG22	1.92	0.52
72:Bm:100:GLU:HA	72:Bm:103:ARG:NH1	2.25	0.52
74:Bo:5:THR:HG21	74:Bo:8:MET:HE3	1.91	0.52
77:Br:53:VAL:HG22	77:Br:54:ASN:H	1.74	0.52
77:Br:94:MET:SD	77:Br:94:MET:N	2.83	0.52
77:Br:108:ARG:HB2	77:Br:110:TRP:CZ2	2.44	0.52
82:Bw:3:MET:SD	82:Bw:3:MET:C	2.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:91:U:OP1	85:AA:91:U:H4'	2.09	0.52
85:AA:338:G:C2	85:AA:339:A:C4	2.98	0.52
85:AA:354:C:H2'	85:AA:355:G:H5'	1.92	0.52
85:AA:444:U:OP2	85:AA:444:U:H6	1.92	0.52
85:AA:452:A:H3'	85:AA:467:U:C4	2.45	0.52
85:AA:493:A:H4'	85:AA:504:U:C5	2.44	0.52
85:AA:517:A:H2'	85:AA:518:A:O4'	2.09	0.52
85:AA:589:A:C6	85:AA:608:A:H1'	2.45	0.52
85:AA:770:C:H3'	85:AA:771:A:H5''	1.92	0.52
85:AA:983:A:O5'	85:AA:983:A:C8	2.63	0.52
85:AA:1003:G:C2	85:AA:1004:G:C4	2.97	0.52
85:AA:1128:G:C2	85:AA:1129:A:C4	2.97	0.52
85:AA:1184:A:C2	85:AA:1185:G:C8	2.98	0.52
85:AA:1252:A:H2'	85:AA:1253:G:OP2	2.10	0.52
85:AA:1466:U:C2'	85:AA:1467:U:H5''	2.40	0.52
85:AA:1830:U:H2'	85:AA:1831:U:C6	2.45	0.52
86:AB:1:G:C5	86:AB:73:A:C6	2.98	0.52
2:A1:127:TYR:CD2	2:A1:128:THR:N	2.78	0.51
2:A1:205:ALA:HB2	2:A1:219:ALA:HA	1.92	0.51
17:AI:25:ARG:HD2	21:AM:89:ARG:O	2.09	0.51
20:AL:106:LEU:HD21	20:AL:118:ARG:HB2	1.91	0.51
32:AY:62:PRO:HG2	85:AA:633:C:H1'	1.91	0.51
34:BA:166:G:H1	34:BA:324:C:N4	2.08	0.51
34:BA:174:A:C2	34:BA:313:C:C2	2.98	0.51
34:BA:384:U:C6	34:BA:384:U:O5'	2.62	0.51
34:BA:481:A:H2'	34:BA:482:C:C6	2.45	0.51
34:BA:493:G:C2	34:BA:494:A:C4	2.98	0.51
34:BA:502:U:H2'	34:BA:503:C:H6	1.75	0.51
34:BA:559:C:OP2	34:BA:559:C:H6	1.92	0.51
34:BA:609:G:C2	34:BA:610:A:C4	2.98	0.51
34:BA:633:G:C6	34:BA:649:A:C6	2.98	0.51
34:BA:798:G:H3'	34:BA:800:G:H5'	1.92	0.51
34:BA:979:G:N7	34:BA:981:A:C8	2.78	0.51
34:BA:1048:C:C4	34:BA:1049:G:C5	2.98	0.51
34:BA:1115:A:C2	34:BA:1144:A:N1	2.78	0.51
34:BA:1231:C:N3	34:BA:1232:C:C5	2.79	0.51
34:BA:1283:U:P	82:Bw:230:ARG:HH21	2.33	0.51
34:BA:1329:U:C2	34:BA:1330:G:C8	2.98	0.51
34:BA:1435:A:N7	34:BA:1437:G:C8	2.78	0.51
34:BA:1604:A:C6	35:BB:63:A:C5	2.99	0.51
34:BA:1659:G:H1	35:BB:19:C:H42	1.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1677:C:N3	34:BA:1679:C:C2	2.78	0.51
34:BA:1746:G:N2	34:BA:1779:U:C2	2.78	0.51
34:BA:1817:G:H2'	34:BA:1817:G:N3	2.23	0.51
34:BA:1830:A:O2'	34:BA:1831:A:C2	2.63	0.51
35:BB:28:G:C6	35:BB:32:C:C5	2.98	0.51
35:BB:85:A:C4	35:BB:91:G:N7	2.78	0.51
35:BB:314:A:C6	35:BB:315:C:H1'	2.45	0.51
35:BB:356:C:H2'	35:BB:358:U:C5	2.45	0.51
35:BB:423:G:N1	35:BB:424:U:C2	2.78	0.51
35:BB:976:U:O2	35:BB:977:G:C6	2.63	0.51
35:BB:1186:A:N6	35:BB:1200:A:H61	2.08	0.51
35:BB:1355:C:C4	35:BB:1357:C:C2	2.98	0.51
36:BC:38:U:C2	70:Bk:90:LYS:HG3	2.45	0.51
36:BC:41:A:C6	36:BC:42:G:C4	2.98	0.51
36:BC:47:C:H1'	36:BC:61:A:C4	2.46	0.51
37:BD:1:G:C2	37:BD:2:G:C5	2.98	0.51
37:BD:25:G:C5	37:BD:26:C:C5	2.98	0.51
37:BD:48:G:C2	37:BD:49:A:N6	2.78	0.51
37:BD:56:G:C2	37:BD:57:C:H1'	2.45	0.51
37:BD:113:G:C4	37:BD:114:U:C5	2.98	0.51
37:BD:115:A:C6	37:BD:116:C:C5	2.97	0.51
38:BE:13:A:H3'	38:BE:14:C:C5	2.45	0.51
38:BE:32:U:O2	38:BE:183:C:C6	2.63	0.51
38:BE:63:C:H41	38:BE:167:U:H2'	1.74	0.51
39:BF:45:G:C6	39:BF:46:G:C5	2.99	0.51
40:BG:25:G:C6	40:BG:181:C:C5	2.98	0.51
40:BG:29:U:C2	40:BG:30:C:C5	2.98	0.51
40:BG:88:G:C2	40:BG:112:C:O2	2.63	0.51
40:BG:181:C:C3'	40:BG:182:G:C8	2.93	0.51
41:BH:30:C:C2	41:BH:31:A:C4	2.99	0.51
41:BH:104:U:C4	41:BH:105:U:C4	2.98	0.51
41:BH:131:A:C5	41:BH:132:C:C5	2.99	0.51
42:BI:175:SER:HA	42:BI:180:ARG:HB3	1.91	0.51
44:BK:47:PRO:O	44:BK:178:ARG:HD3	2.10	0.51
45:BL:92:LYS:HA	45:BL:96:PHE:CE2	2.45	0.51
47:BN:149:LYS:HA	47:BN:150:ALA:HB3	1.90	0.51
49:BP:128:PHE:CG	49:BP:129:ASP:HA	2.45	0.51
50:BQ:23:TYR:CD2	72:Bm:48:VAL:HG13	2.45	0.51
61:Bb:126:VAL:HG22	61:Bb:127:SER:N	2.24	0.51
64:Be:209:HIS:CD2	64:Be:210:PRO:HD2	2.44	0.51
65:Bf:352:ALA:HB2	65:Bf:363:ILE:CG2	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:Bj:10:ARG:HH22	69:Bj:11:ARG:HB2	1.74	0.51
75:Bp:26:LYS:HD2	75:Bp:69:VAL:HG21	1.92	0.51
77:Br:206:PRO:C	77:Br:246:ARG:HH21	2.18	0.51
85:AA:276:C:H2'	85:AA:277:G:C8	2.45	0.51
85:AA:395:G:H2'	85:AA:396:U:C6	2.45	0.51
85:AA:705:G:C6	85:AA:706:U:C4	2.98	0.51
85:AA:707:U:C2	85:AA:708:G:C8	2.98	0.51
85:AA:722:G:N1	85:AA:779:G:C2	2.78	0.51
85:AA:779:G:H2'	85:AA:780:U:C6	2.45	0.51
85:AA:1125:G:C2	85:AA:1193:A:N7	2.78	0.51
85:AA:1203:G:C2	85:AA:1204:A:C4	2.97	0.51
85:AA:1471:G:N3	85:AA:1471:G:H2'	2.26	0.51
85:AA:1654:G:H3'	85:AA:1655:G:H8	1.75	0.51
85:AA:1665:G:C6	85:AA:1705:G:C4	2.98	0.51
85:AA:1759:U:C6	85:AA:1761:C:C5	2.98	0.51
85:AA:2125:A:N1	85:AA:2193:A:N1	2.58	0.51
85:AA:2140:U:C6	85:AA:2141:G:N7	2.78	0.51
5:A4:146:ARG:HA	18:AJ:51:GLU:HB2	1.92	0.51
8:A7:252:MET:HE1	8:A7:263:PHE:CE1	2.45	0.51
13:AE:91:VAL:HA	13:AE:102:ILE:HG22	1.92	0.51
16:AH:24:VAL:HB	16:AH:86:LEU:HD21	1.92	0.51
18:AJ:12:ARG:NH1	85:AA:1472:G:C5	2.77	0.51
23:AP:217:ARG:HH21	85:AA:5:U:P	2.32	0.51
23:AP:248:ASP:HB3	23:AP:251:ASP:H	1.75	0.51
34:BA:94:G:C6	34:BA:95:C:C4	2.98	0.51
34:BA:146:G:H2'	34:BA:147:U:O5'	2.10	0.51
34:BA:161:U:O4'	34:BA:165:C:C6	2.63	0.51
34:BA:183:G:N3	34:BA:306:G:C2	2.79	0.51
34:BA:224:G:C2	34:BA:225:A:C2	2.98	0.51
34:BA:320:G:C5	34:BA:321:G:N7	2.78	0.51
34:BA:397:A:O3'	73:Bn:71:HIS:CE1	2.63	0.51
34:BA:413:A:H1'	34:BA:417:A:C2	2.45	0.51
34:BA:451:A:C6	34:BA:452:A:C5	2.98	0.51
34:BA:505:U:H2'	34:BA:506:U:C6	2.45	0.51
34:BA:520:G:C8	34:BA:520:G:O5'	2.64	0.51
34:BA:610:A:C5	34:BA:611:A:N7	2.78	0.51
34:BA:613:A:C2	34:BA:668:G:H1'	2.45	0.51
34:BA:630:U:C2	34:BA:631:G:C5	2.98	0.51
34:BA:737:U:H2'	34:BA:738:C:C2	2.46	0.51
34:BA:798:G:C4	61:Bb:114:HIS:CE1	2.98	0.51
34:BA:820:C:H5'	34:BA:1169:A:N1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:861:C:C4	34:BA:862:C:C5	2.98	0.51
34:BA:957:A:C5	34:BA:958:G:C6	2.98	0.51
34:BA:968:G:C5	34:BA:969:A:C6	2.97	0.51
34:BA:1186:U:C4	34:BA:1187:U:H1'	2.45	0.51
34:BA:1189:A:H1'	80:Bu:144:SER:O	2.10	0.51
34:BA:1189:A:H2'	34:BA:1190:A:C8	2.45	0.51
34:BA:1296:U:H5''	49:BP:54:LYS:HZ3	1.76	0.51
34:BA:1312:A:C5	34:BA:1427:U:C2	2.98	0.51
34:BA:1325:G:H1	34:BA:1415:C:H42	1.58	0.51
34:BA:1707:C:N3	34:BA:1708:A:C8	2.78	0.51
35:BB:43:G:N1	35:BB:54:U:C2	2.78	0.51
35:BB:371:C:HO2'	35:BB:372:U:H6	1.54	0.51
35:BB:420:U:O4'	35:BB:510:A:C2	2.63	0.51
35:BB:476:A:OP2	85:AA:1162:A:C2'	2.55	0.51
35:BB:634:A:C2	35:BB:648:G:C4	2.98	0.51
35:BB:652:G:O2'	40:BG:172:C:C5	2.60	0.51
35:BB:684:U:O5'	35:BB:684:U:H6	1.94	0.51
35:BB:736:G:N2	35:BB:755:A:H2'	2.25	0.51
35:BB:790:A:C2	35:BB:1033:U:C4	2.99	0.51
35:BB:849:A:H3'	35:BB:850:U:C4'	2.41	0.51
35:BB:999:G:H3'	35:BB:999:G:C8	2.45	0.51
35:BB:1077:C:N3	35:BB:1078:U:C5	2.78	0.51
35:BB:1185:G:C4	35:BB:1186:A:C8	2.98	0.51
35:BB:1249:G:C6	35:BB:1250:A:C5	2.98	0.51
35:BB:1291:G:C2	35:BB:1292:G:H1'	2.45	0.51
35:BB:1296:A:H5'	44:BK:71:GLN:HE22	1.76	0.51
35:BB:1481:C:C4	35:BB:1482:A:C5	2.98	0.51
37:BD:30:A:N6	37:BD:48:G:C6	2.78	0.51
38:BE:26:G:H1'	38:BE:194:A:N6	2.24	0.51
40:BG:65:C:H2'	40:BG:66:C:H6	1.71	0.51
40:BG:141:A:H2'	40:BG:142:A:C8	2.45	0.51
41:BH:31:A:C4	41:BH:32:U:H5	2.28	0.51
41:BH:54:U:C2	41:BH:68:G:C2	2.98	0.51
50:BQ:70:TYR:CZ	50:BQ:72:THR:HA	2.45	0.51
65:Bf:195:LEU:O	65:Bf:198:ALA:HB3	2.10	0.51
67:Bh:120:MET:O	67:Bh:122:THR:HB	2.10	0.51
69:Bj:49:LEU:HD12	74:Bo:56:ARG:NH1	2.24	0.51
79:Bt:15:GLU:CD	79:Bt:15:GLU:C	2.78	0.51
80:Bu:13:TYR:C	80:Bu:13:TYR:CD1	2.88	0.51
84:By:94:TYR:CE1	84:By:98:PRO:HA	2.45	0.51
84:By:130:VAL:CG1	84:By:142:LEU:HD11	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:6:G:C2	85:AA:19:A:C5	2.98	0.51
85:AA:31:C:C4	85:AA:32:U:C5	2.98	0.51
85:AA:65:A:C4	85:AA:66:U:C2	2.98	0.51
85:AA:66:U:C3'	85:AA:67:C:H5'	2.40	0.51
85:AA:297:A:H2'	85:AA:298:C:C5	2.45	0.51
85:AA:309:G:C6	85:AA:310:U:N3	2.78	0.51
85:AA:334:A:C2	85:AA:355:G:N1	2.79	0.51
85:AA:360:C:C2	85:AA:361:U:C6	2.98	0.51
85:AA:365:G:C2	85:AA:366:A:C4	2.98	0.51
85:AA:370:A:H2'	85:AA:371:C:C6	2.46	0.51
85:AA:397:G:C4	85:AA:398:U:C5	2.98	0.51
85:AA:421:G:N1	85:AA:422:G:C4	2.79	0.51
85:AA:679:A:H5'	85:AA:680:U:H3'	1.91	0.51
85:AA:811:A:C2	85:AA:812:C:C4	2.98	0.51
85:AA:1137:C:H3'	85:AA:1138:U:H5''	1.91	0.51
85:AA:1244:A:C2	85:AA:1245:U:C2	2.98	0.51
85:AA:1254:A:C2	85:AA:1255:C:C6	2.98	0.51
85:AA:1287:C:OP1	85:AA:1287:C:H4'	2.10	0.51
85:AA:1464:G:C6	85:AA:1465:C:C4	2.98	0.51
85:AA:1652:A:C6	85:AA:1877:G:C5	2.98	0.51
85:AA:1932:C:C2	85:AA:1952:C:OP1	2.64	0.51
85:AA:2018:U:H3	85:AA:2022:A:N6	2.08	0.51
85:AA:2026:U:C5	85:AA:2027:U:C5	2.98	0.51
85:AA:2081:A:N7	85:AA:2082:C:C5	2.78	0.51
85:AA:2103:C:C2	85:AA:2105:G:C6	2.98	0.51
85:AA:2112:G:C6	85:AA:2113:U:C4	2.99	0.51
1:A0:165:TRP:CE3	1:A0:168:MET:SD	3.04	0.51
1:A0:187:VAL:HA	1:A0:190:LEU:HD12	1.91	0.51
6:A5:64:ASN:N	6:A5:75:ARG:HH21	2.06	0.51
13:AE:56:LEU:HD11	85:AA:313:A:N3	2.25	0.51
18:AJ:7:LEU:HD13	18:AJ:34:VAL:HG12	1.91	0.51
18:AJ:128:PHE:CE2	18:AJ:130:TYR:CD2	2.99	0.51
23:AP:96:VAL:O	23:AP:106:THR:HA	2.10	0.51
24:AQ:39:HIS:CD2	24:AQ:101:PHE:CE1	2.99	0.51
26:AS:27:TRP:CD1	26:AS:31:HIS:CE1	2.98	0.51
32:AY:62:PRO:HB3	85:AA:631:G:H21	1.75	0.51
34:BA:21:C:H3'	34:BA:22:C:H6	1.72	0.51
34:BA:104:A:C4	34:BA:105:U:C6	2.99	0.51
34:BA:123:C:N3	34:BA:142:A:C2	2.79	0.51
34:BA:125:G:N1	34:BA:139:U:C2	2.79	0.51
34:BA:240:C:C5	34:BA:241:U:C4	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:416:A:C2	36:BC:52:A:C2	2.98	0.51
34:BA:442:G:C8	34:BA:467:A:N1	2.79	0.51
34:BA:613:A:H4'	77:Br:353:HIS:CD2	2.45	0.51
34:BA:686:U:C4	34:BA:687:G:C5	2.98	0.51
34:BA:795:G:C6	34:BA:796:G:C5	2.98	0.51
34:BA:801:U:N3	34:BA:802:G:C5	2.78	0.51
34:BA:824:C:H5''	42:BI:142:ASN:H	1.75	0.51
34:BA:878:G:C2	34:BA:880:G:C8	2.98	0.51
34:BA:966:G:H2'	34:BA:967:C:C6	2.45	0.51
34:BA:1153:C:H2'	34:BA:1154:U:C6	2.45	0.51
34:BA:1213:A:N1	34:BA:1214:U:C2	2.78	0.51
34:BA:1236:U:N3	34:BA:1237:U:C4	2.79	0.51
34:BA:1293:A:C2'	34:BA:1295:U:C6	2.94	0.51
34:BA:1362:A:C8	34:BA:1389:A:H5'	2.46	0.51
34:BA:1507:C:C4	34:BA:1508:C:C4	2.99	0.51
34:BA:1517:U:C4	34:BA:1518:A:C8	2.97	0.51
34:BA:1551:G:N1	34:BA:1559:C:C2	2.78	0.51
34:BA:1742:G:C2	34:BA:1743:U:C2	2.98	0.51
34:BA:1815:G:C4	34:BA:1832:A:C2	2.98	0.51
35:BB:62:C:H2'	35:BB:63:A:H5'	1.92	0.51
35:BB:423:G:C5	35:BB:424:U:C5	2.98	0.51
35:BB:469:G:H2'	35:BB:470:C:C6	2.46	0.51
35:BB:471:U:H5'	64:Be:239:ALA:C	2.35	0.51
35:BB:488:G:H4'	43:BJ:42:LYS:HE3	1.93	0.51
35:BB:534:C:C2	35:BB:535:U:C6	2.98	0.51
35:BB:770:G:C5	35:BB:771:U:C4	2.98	0.51
35:BB:958:C:H2'	35:BB:959:C:C6	2.45	0.51
35:BB:1079:G:C2	35:BB:1094:A:C2	2.98	0.51
35:BB:1081:U:N3	35:BB:1082:A:C5	2.79	0.51
35:BB:1283:C:C2	35:BB:1284:U:C6	2.99	0.51
35:BB:1453:G:C2	40:BG:172:C:C6	2.99	0.51
36:BC:54:G:C2	36:BC:55:U:C1'	2.93	0.51
38:BE:65:U:C5	38:BE:140:G:O6	2.63	0.51
38:BE:137:A:C6	38:BE:138:U:C4	2.99	0.51
40:BG:23:C:C6	40:BG:23:C:C3'	2.93	0.51
40:BG:36:G:C6	40:BG:37:G:C5	2.99	0.51
40:BG:110:U:H2'	40:BG:111:C:C6	2.46	0.51
40:BG:142:A:H2'	40:BG:143:C:C5	2.45	0.51
41:BH:5:G:C2	41:BH:131:A:N1	2.78	0.51
41:BH:101:A:C4	41:BH:102:C:C5	2.98	0.51
44:BK:8:CYS:SG	44:BK:9:TYR:CE2	3.03	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BT:181:ARG:HD3	85:AA:999:A:C2'	2.33	0.51
60:Ba:35:ARG:HB2	60:Ba:39:HIS:CE1	2.45	0.51
65:Bf:258:GLU:C	65:Bf:258:GLU:CD	2.78	0.51
77:Br:139:ARG:HG3	77:Br:245:GLY:HA3	1.91	0.51
80:Bu:242:PRO:HA	80:Bu:245:MET:HE2	1.91	0.51
85:AA:47:A:C6	85:AA:97:A:C8	2.98	0.51
85:AA:93:G:C2	85:AA:94:C:C2	2.99	0.51
85:AA:710:A:C5	85:AA:711:C:N3	2.77	0.51
85:AA:787:U:C4	85:AA:788:G:N1	2.78	0.51
85:AA:789:A:H2'	85:AA:802:A:N1	2.25	0.51
85:AA:797:C:H41	85:AA:799:G:N2	2.09	0.51
85:AA:961:U:H3	85:AA:992:G:H1	1.59	0.51
85:AA:1281:G:C2	85:AA:1282:A:C4	2.98	0.51
85:AA:1451:U:C6	85:AA:1452:C:C5	2.99	0.51
85:AA:1648:G:C5	85:AA:1649:U:C4	2.98	0.51
85:AA:1650:G:N7	85:AA:1870:C:C6	2.78	0.51
85:AA:1954:C:C4	85:AA:1955:U:C4	2.99	0.51
85:AA:1954:C:C4	85:AA:1955:U:O4	2.64	0.51
85:AA:2121:G:C6	85:AA:2122:A:N6	2.79	0.51
86:AB:7:A:C2	86:AB:67:C:H1'	2.45	0.51
8:A7:63:LEU:HB3	8:A7:94:TRP:CH2	2.46	0.51
8:A7:192:LEU:HD13	8:A7:223:TRP:CG	2.46	0.51
21:AM:121:HIS:CE1	85:AA:2024:U:H4'	2.45	0.51
28:AU:27:LYS:HD2	85:AA:2039:G:O6	2.11	0.51
34:BA:3:G:C6	36:BC:169:G:N1	2.78	0.51
34:BA:134:U:C2	34:BA:135:G:C8	2.99	0.51
34:BA:254:U:O4	34:BA:255:G:C6	2.63	0.51
34:BA:300:C:C2'	34:BA:301:U:H5'	2.40	0.51
34:BA:513:U:O2	34:BA:691:A:N6	2.42	0.51
34:BA:514:U:C5	34:BA:515:U:C4	2.98	0.51
34:BA:543:A:H2'	34:BA:544:U:C6	2.42	0.51
34:BA:574:U:H3'	34:BA:575:U:H5''	1.91	0.51
34:BA:594:G:C5	34:BA:684:G:C8	2.99	0.51
34:BA:675:C:C5	34:BA:676:G:N7	2.79	0.51
34:BA:777:C:C4	34:BA:778:U:C5	2.99	0.51
34:BA:817:U:C2	34:BA:854:A:N1	2.79	0.51
34:BA:899:G:C4	34:BA:1032:A:C6	2.98	0.51
34:BA:1168:C:N4	34:BA:1205:A:C8	2.78	0.51
34:BA:1174:A:C2	34:BA:1175:G:C4	2.99	0.51
34:BA:1358:A:C4	34:BA:1367:G:C2	2.98	0.51
34:BA:1667:G:C5	34:BA:1668:C:C5	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1704:G:C4	34:BA:1803:A:C2	2.98	0.51
34:BA:1781:A:C5	34:BA:1782:C:C5	2.98	0.51
35:BB:28:G:C2	35:BB:34:G:C6	2.98	0.51
35:BB:116:G:C6	35:BB:389:G:C4	2.97	0.51
35:BB:378:C:C4	35:BB:379:U:C5	2.98	0.51
35:BB:804:U:C6	35:BB:805:G:C1'	2.93	0.51
35:BB:823:G:C5	35:BB:824:C:C6	2.99	0.51
35:BB:864:U:O5'	35:BB:864:U:H6	1.94	0.51
35:BB:991:C:C2	35:BB:992:C:N3	2.79	0.51
35:BB:1003:G:N3	35:BB:1004:A:C8	2.78	0.51
35:BB:1138:A:N7	35:BB:1139:A:C5	2.78	0.51
35:BB:1227:G:H4'	35:BB:1228:A:C5'	2.41	0.51
35:BB:1359:G:H3'	35:BB:1360:A:H8	1.75	0.51
35:BB:1426:G:N1	35:BB:1427:A:C5	2.78	0.51
36:BC:7:U:H3'	36:BC:8:C:C5	2.45	0.51
36:BC:67:U:H3	36:BC:91:G:H1	1.59	0.51
36:BC:72:A:C5	36:BC:73:U:C4	2.98	0.51
36:BC:115:G:N3	36:BC:116:C:C6	2.78	0.51
36:BC:117:A:C4	36:BC:147:G:C2	2.98	0.51
36:BC:134:G:C4	36:BC:135:A:C8	2.99	0.51
36:BC:146:U:C1'	57:BX:70:SER:HA	2.39	0.51
36:BC:166:G:H3'	36:BC:167:U:C5	2.45	0.51
37:BD:67:C:C2	37:BD:68:C:C6	2.99	0.51
37:BD:94:C:H2'	37:BD:95:G:C8	2.45	0.51
38:BE:101:C:C4	38:BE:120:C:C6	2.98	0.51
38:BE:188:C:C2	64:Be:187:TYR:CE1	2.98	0.51
40:BG:93:U:H2'	40:BG:94:G:C8	2.46	0.51
41:BH:103:C:C2	41:BH:104:U:N1	2.79	0.51
41:BH:123:G:C5	41:BH:124:C:C5	2.98	0.51
47:BN:84:GLU:CG	47:BN:114:MET:HA	2.40	0.51
47:BN:201:ARG:HG2	47:BN:204:ASN:HB2	1.92	0.51
53:BT:175:LYS:HA	53:BT:178:LEU:HD12	1.92	0.51
57:BX:151:SER:O	57:BX:152:TYR:CD1	2.63	0.51
80:Bu:214:LEU:HD23	80:Bu:242:PRO:HG3	1.92	0.51
80:Bu:216:GLN:HA	80:Bu:220:GLU:HG3	1.92	0.51
81:Bv:78:SER:C	81:Bv:80:TYR:H	2.19	0.51
82:Bw:29:LYS:CG	82:Bw:33:PHE:CE2	2.93	0.51
82:Bw:191:ASP:OD2	82:Bw:209:HIS:CD2	2.62	0.51
84:By:52:THR:C	84:By:53:PHE:CD1	2.88	0.51
85:AA:157:G:C6	85:AA:158:C:C5	2.98	0.51
85:AA:174:U:C6	85:AA:174:U:H3'	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:309:G:C2	85:AA:310:U:C2	2.99	0.51
85:AA:456:A:C2	85:AA:457:G:C4	2.99	0.51
85:AA:690:G:C2	85:AA:1483:A:C4	2.98	0.51
85:AA:722:G:N1	85:AA:723:U:C2	2.79	0.51
85:AA:792:A:N1	85:AA:801:U:H5'	2.25	0.51
85:AA:850:U:C4	85:AA:851:G:N7	2.78	0.51
85:AA:983:A:O5'	85:AA:983:A:H8	1.94	0.51
85:AA:1120:G:C2	85:AA:1121:U:C5	2.99	0.51
85:AA:1134:G:N1	85:AA:1177:G:C6	2.78	0.51
85:AA:1147:A:H62	85:AA:1163:G:H21	1.59	0.51
85:AA:1947:A:H2'	85:AA:1948:A:H5'	1.91	0.51
85:AA:2074:G:H2'	85:AA:2075:C:C5	2.45	0.51
1:A0:32:VAL:HG12	1:A0:44:ALA:C	2.36	0.51
3:A2:19:THR:HA	3:A2:99:ILE:CG2	2.39	0.51
3:A2:190:ARG:HG2	16:AH:65:TYR:CE2	2.45	0.51
18:AJ:104:LEU:HB2	18:AJ:124:LYS:O	2.11	0.51
25:AR:41:ILE:O	25:AR:54:THR:HA	2.11	0.51
34:BA:8:G:H21	34:BA:1727:A:N6	2.08	0.51
34:BA:23:A:C4	34:BA:395:G:C4	2.99	0.51
34:BA:62:A:C2	34:BA:109:A:C8	2.97	0.51
34:BA:93:A:H8	34:BA:93:A:O5'	1.93	0.51
34:BA:144:C:H3'	34:BA:145:U:H5'	1.92	0.51
34:BA:155:U:C6	34:BA:156:U:H3'	2.45	0.51
34:BA:221:G:C6	34:BA:222:C:C5	2.98	0.51
34:BA:306:G:C6	34:BA:307:C:C4	2.99	0.51
34:BA:378:C:C2	34:BA:379:C:C5	2.99	0.51
34:BA:382:G:H1'	50:BQ:68:VAL:HA	1.93	0.51
34:BA:459:U:C4	34:BA:460:G:C5	2.98	0.51
34:BA:472:G:C2	36:BC:15:G:C6	2.99	0.51
34:BA:492:G:C5	34:BA:710:A:C2	2.99	0.51
34:BA:522:C:C3'	34:BA:522:C:C6	2.94	0.51
34:BA:542:A:H1'	34:BA:566:G:N2	2.25	0.51
34:BA:666:C:N3	34:BA:667:U:C4	2.78	0.51
34:BA:775:C:C4	34:BA:776:U:C6	2.99	0.51
34:BA:804:G:N7	34:BA:805:A:C5	2.79	0.51
34:BA:884:G:H3'	42:BI:66:ARG:HH22	1.74	0.51
34:BA:966:G:N1	34:BA:967:C:C2	2.78	0.51
34:BA:970:U:C6	35:BB:591:A:C2	2.99	0.51
34:BA:982:A:C8	51:BR:133:HIS:O	2.64	0.51
34:BA:1068:C:O5'	34:BA:1068:C:H6	1.94	0.51
34:BA:1076:U:H2'	34:BA:1077:G:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1122:G:C5	34:BA:1123:G:C8	2.98	0.51
34:BA:1218:G:C6	34:BA:1219:G:C6	2.99	0.51
34:BA:1474:G:C6	34:BA:1475:G:C4	2.98	0.51
34:BA:1495:A:C4	34:BA:1498:A:C8	2.98	0.51
34:BA:1845:G:N2	35:BB:6:A:C4	2.79	0.51
35:BB:3:C:N3	35:BB:5:A:N6	2.58	0.51
35:BB:93:A:H3'	35:BB:94:A:H8	1.75	0.51
35:BB:474:G:C5	35:BB:475:A:C6	2.99	0.51
35:BB:481:A:C6	35:BB:482:A:C6	2.99	0.51
35:BB:561:C:N4	35:BB:563:A:H2'	2.25	0.51
35:BB:599:U:C4	35:BB:600:C:C6	2.98	0.51
35:BB:614:U:H3'	35:BB:615:A:H8	1.76	0.51
35:BB:700:C:O5'	35:BB:700:C:H6	1.93	0.51
35:BB:785:G:C6	35:BB:1036:G:C2	2.98	0.51
35:BB:810:G:C4	35:BB:811:C:C6	2.99	0.51
35:BB:812:G:C5	35:BB:813:C:C5	2.99	0.51
35:BB:1004:A:C2	35:BB:1015:U:H1'	2.45	0.51
35:BB:1069:C:C4	35:BB:1070:G:C5	2.99	0.51
35:BB:1071:G:C6	35:BB:1072:C:C5	2.98	0.51
35:BB:1102:U:H6	79:Bt:4:TYR:CZ	2.28	0.51
35:BB:1104:A:C2	35:BB:1141:A:C8	2.98	0.51
35:BB:1108:G:C6	35:BB:1157:G:C5	2.97	0.51
35:BB:1175:A:C2	35:BB:1177:U:N1	2.78	0.51
35:BB:1353:G:H2'	35:BB:1354:C:H5''	1.92	0.51
35:BB:1358:A:C6	35:BB:1359:G:C5	2.99	0.51
35:BB:1401:G:C8	35:BB:1402:U:C4	2.98	0.51
35:BB:1467:A:N7	35:BB:1468:A:C4	2.78	0.51
35:BB:1495:U:C5'	35:BB:1495:U:C6	2.94	0.51
35:BB:1513:U:C6	35:BB:1513:U:O5'	2.63	0.51
36:BC:24:G:C6	36:BC:25:C:N3	2.79	0.51
37:BD:4:U:H4'	37:BD:25:G:O2'	2.10	0.51
37:BD:22:A:C2	37:BD:23:A:C4	2.98	0.51
37:BD:28:C:H1'	37:BD:54:A:H61	1.76	0.51
37:BD:47:U:C5	37:BD:48:G:N7	2.78	0.51
37:BD:66:G:C4	37:BD:67:C:C6	2.98	0.51
37:BD:92:G:N1	37:BD:93:G:C4	2.79	0.51
38:BE:2:G:C5	38:BE:8:G:C5	2.99	0.51
38:BE:74:U:C6	38:BE:75:C:C6	2.99	0.51
38:BE:106:C:OP1	53:BT:118:HIS:HA	2.09	0.51
38:BE:157:C:C6	38:BE:158:U:C6	2.99	0.51
38:BE:179:A:H5''	38:BE:182:U:C2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:139:U:H2'	40:BG:140:G:H5'	1.92	0.51
47:BN:200:PHE:CD2	47:BN:207:ALA:HB2	2.46	0.51
50:BQ:191:LEU:C	50:BQ:192:ARG:HE	2.18	0.51
60:Ba:10:VAL:CB	60:Ba:81:PRO:HA	2.40	0.51
61:Bb:92:LYS:HG3	61:Bb:93:GLY:H	1.74	0.51
65:Bf:103:GLY:HA3	65:Bf:369:PHE:CE1	2.46	0.51
66:Bg:52:LEU:HD22	66:Bg:112:THR:HG22	1.91	0.51
80:Bu:107:ARG:CZ	80:Bu:107:ARG:HA	2.40	0.51
83:Bx:262:LYS:HA	83:Bx:266:THR:HG22	1.92	0.51
85:AA:23:G:H2'	85:AA:24:U:C6	2.45	0.51
85:AA:247:G:N1	85:AA:248:U:C4	2.78	0.51
85:AA:309:G:N1	85:AA:310:U:C2	2.79	0.51
85:AA:493:A:C5	85:AA:494:G:C8	2.98	0.51
85:AA:499:G:H2'	85:AA:501:A:OP2	2.11	0.51
85:AA:556:C:H2'	85:AA:557:G:H8	1.75	0.51
85:AA:572:G:C2	85:AA:573:U:C2	2.99	0.51
85:AA:701:C:C4	85:AA:702:G:C4	2.98	0.51
85:AA:867:G:C2	85:AA:869:A:C5	2.98	0.51
85:AA:972:G:C2	85:AA:973:U:C5	2.99	0.51
85:AA:1004:G:H2'	85:AA:1005:C:H5'	1.93	0.51
85:AA:1147:A:C8	85:AA:1161:U:C4	2.97	0.51
85:AA:1922:A:C8	85:AA:1922:A:C3'	2.94	0.51
1:A0:111:ARG:HD2	29:AV:66:PHE:CE1	2.45	0.51
4:A3:58:ASP:HA	4:A3:110:ALA:H	1.74	0.51
4:A3:125:GLU:HA	4:A3:129:ASP:HB3	1.93	0.51
18:AJ:28:ARG:HD3	85:AA:1113:G:C5	2.46	0.51
21:AM:83:TRP:CD1	85:AA:1968:A:C8	2.99	0.51
22:AO:28:PRO:HA	22:AO:32:VAL:H	1.75	0.51
22:AO:124:LEU:HB2	22:AO:130:LEU:HD22	1.93	0.51
23:AP:164:ILE:HG12	23:AP:166:ILE:H	1.76	0.51
34:BA:6:C:C2	34:BA:7:U:C5	2.99	0.51
34:BA:165:C:H5	34:BA:322:U:C4	2.27	0.51
34:BA:203:U:H2'	34:BA:204:U:C5	2.45	0.51
34:BA:235:C:H6	34:BA:235:C:O5'	1.92	0.51
34:BA:331:G:C5	34:BA:356:C:C5	2.98	0.51
34:BA:395:G:C2	36:BC:34:U:O4	2.64	0.51
34:BA:417:A:O4'	34:BA:419:U:C6	2.63	0.51
34:BA:540:G:N3	34:BA:568:G:C2	2.78	0.51
34:BA:562:C:C2'	34:BA:563:A:H5'	2.40	0.51
34:BA:662:U:H2'	34:BA:663:U:C6	2.45	0.51
34:BA:709:C:H2'	34:BA:710:A:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:774:A:C5	34:BA:775:C:C4	2.99	0.51
34:BA:794:G:C6	34:BA:795:G:C5	2.99	0.51
34:BA:874:G:C2'	34:BA:875:G:C8	2.89	0.51
34:BA:1016:A:H3'	34:BA:1017:C:C6	2.44	0.51
34:BA:1147:C:C2	34:BA:1148:U:C5	2.98	0.51
34:BA:1201:G:C6	34:BA:1202:G:C5	2.98	0.51
34:BA:1280:A:C2	34:BA:1281:U:H1'	2.45	0.51
34:BA:1289:C:H2'	34:BA:1290:A:H2	1.76	0.51
34:BA:1297:G:C8	49:BP:17:ARG:O	2.64	0.51
34:BA:1437:G:C4	34:BA:1438:C:C6	2.99	0.51
34:BA:1550:G:N1	34:BA:1551:G:C5	2.79	0.51
34:BA:1630:A:C6	34:BA:1631:U:C5	2.99	0.51
34:BA:1664:C:H2'	34:BA:1665:G:C8	2.46	0.51
34:BA:1687:A:C5	34:BA:1688:G:C6	2.98	0.51
34:BA:1724:G:H3'	34:BA:1724:G:C8	2.46	0.51
35:BB:18:A:H2'	35:BB:19:C:O4'	2.10	0.51
35:BB:65:A:C2	35:BB:66:G:C4	2.98	0.51
35:BB:72:G:C5	35:BB:73:G:C5	2.99	0.51
35:BB:411:A:C6	35:BB:413:A:C5	2.98	0.51
35:BB:445:G:H2'	64:Be:128:ARG:HB3	1.91	0.51
35:BB:567:G:C5	35:BB:568:A:C8	2.98	0.51
35:BB:667:G:C8	35:BB:667:G:H3'	2.46	0.51
35:BB:805:G:C8	35:BB:806:U:C4	2.98	0.51
35:BB:899:C:C5	35:BB:900:C:C5	2.98	0.51
35:BB:1086:G:O6	35:BB:1087:A:C6	2.64	0.51
35:BB:1121:A:H4'	45:BL:112:GLY:HA3	1.93	0.51
35:BB:1215:U:H3	35:BB:1248:A:N6	2.06	0.51
35:BB:1252:G:C4	35:BB:1253:U:C4	2.97	0.51
35:BB:1325:C:H5'	35:BB:1325:C:C6	2.46	0.51
36:BC:10:C:O2'	36:BC:11:G:H5'	2.09	0.51
36:BC:24:G:H3'	36:BC:25:C:C5	2.45	0.51
36:BC:78:G:C2	36:BC:79:A:C2	2.98	0.51
36:BC:154:A:C4	36:BC:155:C:C6	2.99	0.51
37:BD:3:G:N2	37:BD:117:U:H1'	2.26	0.51
38:BE:65:U:C6	38:BE:65:U:H3'	2.45	0.51
38:BE:116:U:H5''	38:BE:119:U:H5'	1.92	0.51
39:BF:9:C:C4	39:BF:18:U:C6	2.99	0.51
39:BF:35:C:O5'	39:BF:35:C:H6	1.93	0.51
40:BG:15:G:C2	40:BG:16:G:N9	2.79	0.51
40:BG:173:C:C4	40:BG:174:G:C5	2.99	0.51
41:BH:97:C:OP2	55:BV:63:LYS:CD	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BL:103:PHE:CE2	45:BL:109:PHE:CD1	2.98	0.51
47:BN:29:VAL:HA	50:BQ:217:PHE:HB3	1.92	0.51
53:BT:6:LEU:HD13	53:BT:10:LEU:HB2	1.92	0.51
58:BY:83:GLU:CA	85:AA:2161:C:C4'	2.88	0.51
62:Bc:9:TRP:CH2	62:Bc:12:VAL:HG13	2.46	0.51
64:Be:75:LEU:HD13	64:Be:84:THR:HG23	1.93	0.51
65:Bf:357:ASP:O	65:Bf:359:THR:HG23	2.11	0.51
66:Bg:54:VAL:CG2	66:Bg:81:TYR:HB3	2.40	0.51
67:Bh:128:ASP:HB3	67:Bh:171:SER:HA	1.91	0.51
74:Bo:38:PHE:HA	74:Bo:45:PHE:HA	1.92	0.51
75:Bp:17:ARG:NH2	75:Bp:39:SER:H	2.08	0.51
81:Bv:39:LEU:HG	81:Bv:81:ILE:HA	1.93	0.51
85:AA:98:U:H2'	85:AA:99:U:H5'	1.92	0.51
85:AA:109:G:H2'	85:AA:110:U:C6	2.45	0.51
85:AA:139:G:C5	85:AA:140:C:C5	2.98	0.51
85:AA:500:C:C4	85:AA:501:A:C2	2.99	0.51
85:AA:520:A:H5''	85:AA:521:A:H3'	1.92	0.51
85:AA:547:A:N3	85:AA:547:A:H2'	2.25	0.51
85:AA:597:A:C5	85:AA:598:C:C5	2.99	0.51
85:AA:602:U:OP1	85:AA:603:C:C6	2.63	0.51
85:AA:689:U:H5''	85:AA:689:U:C6	2.45	0.51
85:AA:792:A:C8	85:AA:800:A:C2	2.98	0.51
85:AA:814:G:C6	85:AA:864:C:C2	2.99	0.51
85:AA:843:U:H2'	85:AA:844:C:H6	1.76	0.51
85:AA:981:A:C2	85:AA:982:G:H1'	2.46	0.51
85:AA:987:C:C2	85:AA:989:U:OP2	2.63	0.51
85:AA:1127:G:C2	85:AA:1200:A:C2	2.98	0.51
85:AA:1374:A:H5'	85:AA:1421:U:C2	2.45	0.51
85:AA:1510:A:H3'	85:AA:1511:C:C6	2.45	0.51
85:AA:1929:G:H2'	85:AA:1930:U:C6	2.46	0.51
85:AA:1942:U:C2	85:AA:1948:A:C2	2.99	0.51
85:AA:2084:U:H2'	85:AA:2085:C:C6	2.45	0.51
85:AA:2106:C:C5	85:AA:2107:C:C2	2.99	0.51
85:AA:2138:G:C2	85:AA:2139:G:C4	2.99	0.51
85:AA:2195:A:C5	85:AA:2196:G:C6	2.98	0.51
6:A5:113:TYR:CE1	6:A5:117:TYR:CD2	2.98	0.51
7:A6:61:LEU:HB3	7:A6:65:HIS:CE1	2.45	0.51
20:AL:19:LYS:NZ	31:AX:208:GLU:N	2.59	0.51
21:AM:83:TRP:CD2	85:AA:1968:A:C4	2.98	0.51
25:AR:6:THR:O	25:AR:13:ASN:HA	2.10	0.51
34:BA:226:A:C3'	34:BA:227:C:H5''	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:373:G:C5	34:BA:374:U:C5	2.99	0.51
34:BA:414:A:C4	36:BC:23:G:H1'	2.46	0.51
34:BA:499:C:H5''	71:Bl:89:ILE:CG1	2.39	0.51
34:BA:603:U:C4	34:BA:680:C:C5	2.99	0.51
34:BA:609:G:C6	34:BA:610:A:C5	2.99	0.51
34:BA:613:A:N1	34:BA:614:A:C5	2.78	0.51
34:BA:767:U:O4	34:BA:768:G:C2	2.64	0.51
34:BA:817:U:C5'	63:Bd:55:ALA:CB	2.84	0.51
34:BA:858:C:C2	34:BA:880:G:C2	2.99	0.51
34:BA:955:G:N1	34:BA:956:G:C2	2.78	0.51
34:BA:958:G:C6	34:BA:960:C:N4	2.79	0.51
34:BA:1107:A:C5	34:BA:1108:U:C6	2.98	0.51
34:BA:1299:G:N2	34:BA:1300:G:C8	2.79	0.51
34:BA:1310:C:C5	34:BA:1311:G:C5	2.99	0.51
34:BA:1327:G:N1	34:BA:1328:U:C2	2.79	0.51
34:BA:1334:G:C2	34:BA:1408:C:C2	2.99	0.51
34:BA:1395:C:O2	34:BA:1396:A:C8	2.63	0.51
34:BA:1547:G:N1	34:BA:1562:G:C5	2.78	0.51
34:BA:1618:A:C5	34:BA:1632:G:C5	2.99	0.51
34:BA:1628:A:C2	67:Bh:79:ARG:NH1	2.79	0.51
35:BB:28:G:O6	35:BB:32:C:C6	2.63	0.51
35:BB:408:U:C5	35:BB:1414:A:C2	2.99	0.51
35:BB:425:G:C4	35:BB:446:U:O4	2.64	0.51
35:BB:460:C:C5	35:BB:461:U:C4	2.99	0.51
35:BB:547:A:C4	35:BB:549:U:C4	2.99	0.51
35:BB:672:C:C4	35:BB:673:C:C4	2.98	0.51
35:BB:687:C:C5	35:BB:688:U:C5	2.98	0.51
35:BB:857:G:C2	35:BB:866:A:C4	2.99	0.51
35:BB:857:G:N3	35:BB:866:A:C2	2.78	0.51
35:BB:1005:A:N1	35:BB:1014:U:C2	2.79	0.51
35:BB:1079:G:N1	35:BB:1094:A:C6	2.79	0.51
35:BB:1116:U:C6	35:BB:1116:U:O5'	2.64	0.51
35:BB:1332:G:C6	35:BB:1403:G:C8	2.99	0.51
35:BB:1494:G:H1	35:BB:1512:C:H42	1.57	0.51
36:BC:128:U:H2'	36:BC:129:C:C6	2.46	0.51
37:BD:45:U:C2	37:BD:46:G:C8	2.98	0.51
38:BE:16:C:C4	38:BE:17:U:C6	2.98	0.51
38:BE:23:G:N1	38:BE:197:A:C5	2.79	0.51
38:BE:61:A:H2'	38:BE:62:C:C6	2.46	0.51
41:BH:2:U:H2'	41:BH:3:U:O5'	2.11	0.51
41:BH:36:C:C2	41:BH:37:U:C5	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BH:109:G:C8	65:Bf:438:TYR:CD2	2.99	0.51
41:BH:115:A:H1'	41:BH:116:A:C2	2.46	0.51
42:BI:156:VAL:HA	42:BI:159:PHE:CE1	2.46	0.51
45:BL:54:LEU:HD21	45:BL:71:LYS:HG2	1.91	0.51
47:BN:28:LYS:N	50:BQ:217:PHE:CZ	2.79	0.51
51:BR:59:PRO:CG	51:BR:76:TRP:CD1	2.93	0.51
59:BZ:47:VAL:HG12	59:BZ:48:ARG:H	1.75	0.51
64:Be:131:GLY:HA2	64:Be:172:GLY:HA2	1.93	0.51
66:Bg:36:LEU:O	66:Bg:36:LEU:HD12	2.11	0.51
77:Br:208:LEU:HA	77:Br:249:ILE:HB	1.93	0.51
80:Bu:117:GLU:C	80:Bu:139:GLN:HB3	2.36	0.51
83:Bx:191:ALA:HA	83:Bx:235:PHE:CD2	2.46	0.51
85:AA:80:G:N2	85:AA:81:A:H62	2.08	0.51
85:AA:175:A:C2	85:AA:176:C:C6	2.99	0.51
85:AA:264:A:OP1	85:AA:308:U:C6	2.64	0.51
85:AA:297:A:H2'	85:AA:298:C:C6	2.46	0.51
85:AA:314:C:C6	85:AA:316:C:C6	2.99	0.51
85:AA:314:C:H2'	85:AA:316:C:H6	1.76	0.51
85:AA:533:C:H5'	85:AA:533:C:C6	2.46	0.51
85:AA:611:G:H2'	85:AA:611:G:N3	2.25	0.51
85:AA:831:C:H2'	85:AA:832:U:H5''	1.92	0.51
85:AA:892:C:C5	85:AA:900:G:N1	2.79	0.51
85:AA:899:A:C6	85:AA:900:G:C8	2.99	0.51
85:AA:942:A:C5'	85:AA:943:U:H6	2.22	0.51
85:AA:1476:C:C6	85:AA:1476:C:O5'	2.64	0.51
85:AA:1643:U:C4	85:AA:1882:U:C2	2.99	0.51
85:AA:1862:C:C4	85:AA:1863:A:C5	2.99	0.51
85:AA:2055:G:C2	85:AA:2056:C:H1'	2.46	0.51
85:AA:2108:C:H42	85:AA:2211:G:H1	1.58	0.51
85:AA:2140:U:O5'	85:AA:2140:U:H6	1.94	0.51
85:AA:2154:C:C4	85:AA:2155:U:C4	2.99	0.51
85:AA:2199:G:C2	85:AA:2200:A:C8	2.98	0.51
85:AA:2244:G:O3'	85:AA:2245:A:H3'	2.11	0.51
86:AB:13:C:H2'	86:AB:22:G:C2	2.46	0.51
9:A8:19:SER:O	9:A8:21:HIS:CE1	2.63	0.51
11:AC:156:ARG:HH21	23:AP:248:ASP:CG	2.18	0.51
16:AH:36:HIS:CE1	16:AH:45:THR:HG22	2.45	0.51
20:AL:21:PHE:CZ	20:AL:72:LYS:HE2	2.46	0.51
23:AP:215:ARG:HA	23:AP:217:ARG:CZ	2.41	0.51
26:AS:65:ALA:HB2	85:AA:650:G:N2	2.26	0.51
34:BA:409:A:C2	34:BA:410:G:H1'	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:444:A:C6	34:BA:445:C:H1'	2.46	0.51
34:BA:468:A:H4'	34:BA:469:C:O5'	2.11	0.51
34:BA:484:A:C2	36:BC:6:G:C2	2.98	0.51
34:BA:529:A:N1	34:BA:583:G:C6	2.78	0.51
34:BA:655:U:O2'	34:BA:657:C:H5'	2.11	0.51
34:BA:663:U:C6	34:BA:664:C:C5	2.98	0.51
34:BA:725:C:H5''	35:BB:1330:A:OP1	2.10	0.51
34:BA:816:G:H2'	34:BA:817:U:C5	2.46	0.51
34:BA:1099:U:C6	34:BA:1099:U:H5''	2.46	0.51
34:BA:1136:A:C2	34:BA:1137:U:C1'	2.94	0.51
34:BA:1318:G:H22	35:BB:1315:C:H5''	1.76	0.51
34:BA:1334:G:C6	34:BA:1335:A:C4	2.98	0.51
34:BA:1384:G:C6	34:BA:1385:U:C4	2.99	0.51
34:BA:1431:G:C4	34:BA:1432:C:C6	2.98	0.51
34:BA:1467:U:C2	34:BA:1468:U:C5	2.99	0.51
34:BA:1468:U:H4'	68:Bi:56:LYS:HD3	1.93	0.51
34:BA:1489:U:C5	34:BA:1490:U:C2	2.99	0.51
34:BA:1494:G:H1'	34:BA:1495:A:C5'	2.39	0.51
34:BA:1527:G:C2	34:BA:1581:G:C5	2.98	0.51
34:BA:1599:A:H5''	34:BA:1600:G:OP2	2.11	0.51
34:BA:1604:A:C6	35:BB:63:A:C4	2.99	0.51
34:BA:1662:U:H5	35:BB:18:A:C2	2.29	0.51
34:BA:1687:A:C5	34:BA:1688:G:C5	2.98	0.51
34:BA:1711:G:H1'	34:BA:1719:G:N2	2.26	0.51
34:BA:1738:G:C5	34:BA:1739:G:C8	2.98	0.51
34:BA:1742:G:C5	34:BA:1743:U:C5	2.99	0.51
34:BA:1743:U:H2'	34:BA:1744:C:O4'	2.11	0.51
34:BA:1778:U:C6	34:BA:1778:U:O5'	2.64	0.51
35:BB:422:U:C2	35:BB:423:G:C8	2.98	0.51
35:BB:537:A:C2	35:BB:538:A:C2	2.99	0.51
35:BB:661:G:C6	35:BB:1445:A:C2	2.99	0.51
35:BB:662:G:C2	35:BB:663:G:C4	2.98	0.51
35:BB:710:A:C6	35:BB:711:C:C4	2.99	0.51
35:BB:822:G:C5	35:BB:823:G:C8	2.99	0.51
35:BB:1045:G:C6	35:BB:1046:C:C4	2.99	0.51
35:BB:1144:A:C6	35:BB:1145:G:C5	2.98	0.51
35:BB:1179:C:H2'	35:BB:1180:G:O4'	2.10	0.51
35:BB:1291:G:C2	35:BB:1292:G:N9	2.79	0.51
35:BB:1445:A:H2'	35:BB:1446:C:C6	2.46	0.51
35:BB:1536:G:C2'	41:BH:27:A:H62	2.24	0.51
36:BC:97:U:C2	36:BC:98:C:O2	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:106:G:C2	36:BC:107:C:C6	2.99	0.51
36:BC:157:U:H4'	36:BC:158:U:H6	1.76	0.51
37:BD:95:G:C4	37:BD:96:C:C5	2.98	0.51
38:BE:5:A:H2'	38:BE:6:A:C8	2.46	0.51
38:BE:35:A:C2	38:BE:36:U:C2	2.99	0.51
38:BE:72:C:C6	38:BE:72:C:H3'	2.45	0.51
38:BE:104:G:C4	38:BE:105:A:C5	2.99	0.51
38:BE:122:G:C2	38:BE:123:A:C4	2.98	0.51
38:BE:126:G:N1	38:BE:127:G:C4	2.79	0.51
39:BF:10:A:H4'	39:BF:13:U:N1	2.26	0.51
39:BF:59:U:P	49:BP:118:ARG:HH21	2.33	0.51
40:BG:15:G:C2	40:BG:16:G:C4	2.99	0.51
40:BG:15:G:C4	40:BG:16:G:C8	2.99	0.51
41:BH:6:U:O2	41:BH:131:A:C2	2.64	0.51
41:BH:107:A:C5	41:BH:108:U:C5	2.98	0.51
44:BK:171:TRP:HA	44:BK:178:ARG:HD3	1.93	0.51
47:BN:64:ASN:HA	47:BN:74:ARG:HA	1.92	0.51
59:BZ:55:VAL:HG21	59:BZ:63:ARG:HD3	1.93	0.51
67:Bh:60:ALA:CB	67:Bh:64:ARG:HB2	2.40	0.51
69:Bj:61:ARG:CG	69:Bj:62:HIS:H	2.24	0.51
85:AA:23:G:C5	85:AA:24:U:C4	2.99	0.51
85:AA:37:U:C2	85:AA:38:C:C6	2.98	0.51
85:AA:46:U:HO2'	85:AA:48:G:H8	1.59	0.51
85:AA:181:A:H3'	85:AA:182:C:C4'	2.41	0.51
85:AA:309:G:C5	85:AA:310:U:C5	2.99	0.51
85:AA:338:G:C4	85:AA:352:G:C2	2.98	0.51
85:AA:488:G:H4'	85:AA:489:C:OP1	2.11	0.51
85:AA:684:G:C4	85:AA:688:C:C6	2.99	0.51
85:AA:786:G:C6	85:AA:787:U:C4	2.98	0.51
85:AA:787:U:C6	85:AA:788:G:C2	2.99	0.51
85:AA:1022:G:C8	85:AA:1022:G:H5'	2.46	0.51
85:AA:1081:U:C5	85:AA:1082:U:C2	2.98	0.51
85:AA:1105:G:C4	85:AA:1106:A:C6	2.98	0.51
85:AA:1144:G:C5	85:AA:1145:U:C6	2.98	0.51
85:AA:1194:U:C4	85:AA:1195:U:C4	2.99	0.51
85:AA:1240:A:C2	85:AA:1263:G:O6	2.64	0.51
85:AA:1259:U:C4	85:AA:1260:G:C4	2.98	0.51
85:AA:1271:U:H4'	85:AA:1501:A:N6	2.26	0.51
85:AA:1287:C:H42	85:AA:1469:G:N2	2.08	0.51
85:AA:1290:G:N3	85:AA:1453:U:C2	2.79	0.51
85:AA:1457:C:H3'	85:AA:1457:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1603:G:N3	85:AA:1633:A:C2	2.79	0.51
85:AA:1938:G:C5	85:AA:1939:C:C5	2.99	0.51
85:AA:1984:A:H8	85:AA:1984:A:H5'	1.76	0.51
85:AA:2008:G:H1	85:AA:2034:G:H2'	1.76	0.51
85:AA:2064:A:C6	85:AA:2065:U:C2	2.99	0.51
85:AA:2142:A:C5	85:AA:2177:C:C4	2.99	0.51
85:AA:2222:G:N7	85:AA:2223:C:C5	2.78	0.51
5:A4:13:LEU:CD1	5:A4:47:HIS:CD2	2.86	0.51
7:A6:119:LYS:HB3	7:A6:123:HIS:CD2	2.46	0.51
8:A7:192:LEU:HD13	8:A7:223:TRP:CE3	2.45	0.51
13:AE:79:ASN:O	13:AE:80:VAL:HG22	2.11	0.51
13:AE:120:HIS:CD2	13:AE:121:ARG:N	2.79	0.51
16:AH:87:HIS:CE1	16:AH:121:ARG:HB3	2.46	0.51
22:AO:31:TRP:CE2	22:AO:35:CYS:SG	2.94	0.51
33:AZ:62:ARG:CZ	33:AZ:73:ASN:HA	2.41	0.51
34:BA:9:A:H5''	34:BA:9:A:H8	1.74	0.51
34:BA:37:A:C5	34:BA:1036:G:C5	2.99	0.51
34:BA:124:G:N2	34:BA:125:G:C4	2.79	0.51
34:BA:125:G:H5'	50:BQ:158:ALA:HB2	1.92	0.51
34:BA:162:G:H1	34:BA:320:G:H3'	1.76	0.51
34:BA:214:A:C2	62:Bc:78:LYS:NZ	2.79	0.51
34:BA:258:C:H2'	34:BA:259:C:C6	2.46	0.51
34:BA:328:A:C4	72:Bm:37:ARG:NH1	2.79	0.51
34:BA:522:C:C6	34:BA:522:C:H3'	2.46	0.51
34:BA:587:U:H3'	34:BA:588:C:C5	2.46	0.51
34:BA:602:G:C4	34:BA:1492:G:N2	2.78	0.51
34:BA:702:G:H2'	34:BA:703:U:C5	2.45	0.51
34:BA:744:G:C6	47:BN:6:ASN:ND2	2.79	0.51
34:BA:849:G:N2	34:BA:850:C:C4	2.79	0.51
34:BA:1139:G:N2	34:BA:1140:A:C4	2.78	0.51
34:BA:1161:G:C4	34:BA:1162:U:C6	2.99	0.51
34:BA:1172:C:C2	34:BA:1203:G:C2	2.99	0.51
34:BA:1174:A:C6	34:BA:1201:G:C6	2.99	0.51
34:BA:1203:G:C8	34:BA:1203:G:H3'	2.46	0.51
34:BA:1225:A:H2'	34:BA:1226:G:C8	2.46	0.51
34:BA:1244:G:C4	35:BB:640:A:N1	2.79	0.51
34:BA:1260:G:C2	34:BA:1261:G:C8	2.99	0.51
34:BA:1292:A:H1'	34:BA:1456:C:H1'	1.92	0.51
34:BA:1442:A:H2'	34:BA:1443:U:C6	2.46	0.51
34:BA:1535:G:C6	34:BA:1537:G:N7	2.79	0.51
34:BA:1671:A:C2'	34:BA:1672:C:H5'	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1716:A:H4'	73:Bn:43:GLN:HG2	1.93	0.51
34:BA:1735:G:N1	34:BA:1736:A:C5	2.79	0.51
34:BA:1739:G:C8	34:BA:1739:G:O5'	2.64	0.51
35:BB:73:G:H2'	35:BB:74:U:C6	2.46	0.51
35:BB:382:U:H2'	35:BB:384:A:C2	2.46	0.51
35:BB:423:G:C2	35:BB:424:U:C2	2.98	0.51
35:BB:630:A:H3'	35:BB:631:G:H8	1.75	0.51
35:BB:790:A:C4	35:BB:1033:U:C2	2.99	0.51
35:BB:891:U:N3	35:BB:893:U:N3	2.59	0.51
35:BB:967:G:C2	35:BB:968:C:N1	2.79	0.51
35:BB:989:C:H2'	35:BB:989:C:O2	2.10	0.51
35:BB:1001:G:C8	35:BB:1001:G:H3'	2.46	0.51
35:BB:1109:A:N1	35:BB:1156:U:C2	2.79	0.51
35:BB:1252:G:H1'	35:BB:1253:U:C6	2.46	0.51
35:BB:1340:U:OP1	65:Bf:62:HIS:CD2	2.64	0.51
35:BB:1419:G:C5	35:BB:1420:U:C5	2.99	0.51
36:BC:35:C:N3	36:BC:36:G:C5	2.79	0.51
36:BC:129:C:O2	36:BC:135:A:C2	2.64	0.51
36:BC:157:U:C4'	36:BC:158:U:H6	2.24	0.51
37:BD:66:G:N1	37:BD:67:C:C2	2.79	0.51
37:BD:113:G:C5	37:BD:114:U:C4	2.99	0.51
38:BE:24:G:O6	38:BE:179:A:C8	2.64	0.51
38:BE:48:G:C2	38:BE:49:A:C5	2.99	0.51
38:BE:141:A:C5	38:BE:144:A:H1'	2.46	0.51
40:BG:28:A:C6	40:BG:178:G:O6	2.64	0.51
40:BG:55:A:H2'	40:BG:56:G:C8	2.46	0.51
40:BG:67:A:C6	40:BG:68:U:C4	2.99	0.51
40:BG:74:G:N2	40:BG:75:C:H1'	2.25	0.51
40:BG:88:G:C6	40:BG:112:C:N3	2.79	0.51
40:BG:105:A:N1	40:BG:108:G:C4	2.79	0.51
41:BH:26:C:C5	67:Bh:64:ARG:NE	2.79	0.51
41:BH:39:G:H2'	41:BH:40:C:C6	2.46	0.51
41:BH:125:U:N3	41:BH:126:C:C5	2.79	0.51
44:BK:98:ARG:HA	44:BK:121:LYS:O	2.11	0.51
47:BN:49:LYS:HA	47:BN:52:PHE:CZ	2.46	0.51
49:BP:139:TRP:CD2	49:BP:139:TRP:C	2.88	0.51
52:BS:77:SER:O	52:BS:128:VAL:HA	2.11	0.51
53:BT:23:TRP:O	53:BT:50:VAL:HA	2.10	0.51
54:BU:105:PHE:HA	54:BU:108:LYS:HE2	1.93	0.51
59:BZ:49:LYS:HA	59:BZ:67:VAL:HG11	1.93	0.51
62:Bc:71:ASN:ND2	77:Br:149:VAL:H	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:Bh:20:LEU:HD22	67:Bh:23:ARG:HH21	1.75	0.51
67:Bh:47:PRO:HA	67:Bh:50:ARG:HB3	1.93	0.51
80:Bu:8:LYS:HA	80:Bu:12:TYR:CG	2.45	0.51
85:AA:44:C:H5	85:AA:45:U:C5	2.29	0.51
85:AA:159:G:C2	85:AA:164:G:C4	2.99	0.51
85:AA:376:C:H2'	85:AA:376:C:O2	2.10	0.51
85:AA:863:C:C2	85:AA:864:C:C6	2.98	0.51
85:AA:995:G:N1	85:AA:996:A:C4	2.79	0.51
85:AA:1013:C:C6	85:AA:1053:A:N1	2.79	0.51
85:AA:1072:U:C2	85:AA:1079:C:C5	2.99	0.51
85:AA:1287:C:C5	85:AA:1468:G:H4'	2.45	0.51
85:AA:1458:G:O2'	85:AA:1459:C:H5'	2.11	0.51
85:AA:1460:G:H2'	85:AA:1462:A:OP2	2.11	0.51
85:AA:1503:G:H2'	85:AA:1504:A:C8	2.44	0.51
85:AA:1841:G:C6	85:AA:1842:C:C4	2.99	0.51
85:AA:1880:C:H3'	85:AA:1881:C:C5	2.45	0.51
85:AA:1954:C:C2	85:AA:1955:U:C6	2.98	0.51
85:AA:1987:G:H5'	85:AA:1988:A:C4	2.46	0.51
85:AA:2135:A:C2	85:AA:2184:A:C4	2.99	0.51
7:A6:27:MET:HE1	32:AY:40:TYR:CD1	2.46	0.51
20:AL:28:PHE:CG	85:AA:1826:U:C6	2.95	0.51
20:AL:109:LEU:HD23	20:AL:118:ARG:HH12	1.75	0.51
22:AO:162:ALA:HB2	28:AU:100:CYS:SG	2.51	0.51
24:AQ:69:ASN:HB2	85:AA:1566:A:C4'	2.41	0.51
27:AT:10:VAL:HG11	27:AT:37:TRP:CZ2	2.45	0.51
30:AW:64:LEU:O	30:AW:75:VAL:HG12	2.11	0.51
32:AY:13:LYS:HE3	85:AA:638:G:H5'	1.93	0.51
34:BA:19:G:C5	34:BA:1716:A:N1	2.79	0.51
34:BA:194:G:C2'	34:BA:195:G:H5'	2.41	0.51
34:BA:295:G:N2	73:Bn:77:HIS:HE1	2.09	0.51
34:BA:367:G:N1	61:Bb:62:HIS:CE1	2.79	0.51
34:BA:402:G:C2	34:BA:404:C:C6	2.99	0.51
34:BA:450:G:C5	34:BA:1615:A:C2	2.99	0.51
34:BA:453:A:N1	34:BA:454:G:C5	2.79	0.51
34:BA:480:G:C6	36:BC:8:C:N3	2.79	0.51
34:BA:484:A:C2	36:BC:5:U:O2	2.64	0.51
34:BA:588:C:C2	34:BA:589:A:N7	2.79	0.51
34:BA:753:G:C4	34:BA:785:G:C6	2.99	0.51
34:BA:757:G:H4'	34:BA:758:G:N3	2.27	0.51
34:BA:765:U:C5	34:BA:768:G:O6	2.64	0.51
34:BA:765:U:OP1	77:Br:212:ASP:HA	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:787:A:H1'	34:BA:797:A:H62	1.76	0.51
34:BA:862:C:N3	34:BA:875:G:C5	2.78	0.51
34:BA:937:G:C6	34:BA:938:C:C4	2.98	0.51
34:BA:1102:A:C2	34:BA:1103:G:C5	2.99	0.51
34:BA:1123:G:C6	34:BA:1124:U:C4	2.99	0.51
34:BA:1275:G:H4'	68:Bi:58:TYR:CZ	2.46	0.51
34:BA:1334:G:C2	34:BA:1335:A:H1'	2.45	0.51
34:BA:1413:G:C2	34:BA:1414:C:C2	2.99	0.51
34:BA:1475:G:C6	34:BA:1476:G:C5	2.99	0.51
34:BA:1496:G:N1	82:Bw:21:VAL:HG21	2.26	0.51
34:BA:1502:G:N1	34:BA:1503:U:C2	2.79	0.51
34:BA:1648:G:C6	35:BB:42:A:C8	2.99	0.51
34:BA:1682:A:C2	34:BA:1683:C:C2	3.00	0.51
34:BA:1723:U:C2	34:BA:1724:G:C2	2.99	0.51
34:BA:1742:G:N2	34:BA:1783:C:C2	2.79	0.51
34:BA:1743:U:C2	34:BA:1744:C:C6	2.99	0.51
35:BB:71:A:C6	35:BB:72:G:C5	2.99	0.51
35:BB:404:A:C4	35:BB:410:A:C2	2.99	0.51
35:BB:780:U:C5	35:BB:1038:G:C6	2.99	0.51
35:BB:839:G:C5	35:BB:840:C:C5	2.99	0.51
35:BB:1005:A:C2	35:BB:1014:U:H1'	2.46	0.51
35:BB:1005:A:C2	35:BB:1014:U:O2	2.64	0.51
35:BB:1145:G:C6	35:BB:1146:C:C4	2.99	0.51
35:BB:1296:A:C6	35:BB:1297:G:C4	2.99	0.51
35:BB:1528:U:O5'	35:BB:1528:U:H6	1.94	0.51
36:BC:7:U:C2'	36:BC:8:C:C6	2.92	0.51
36:BC:106:G:C4	36:BC:107:C:C6	2.99	0.51
36:BC:139:A:C2	36:BC:140:U:C5	2.98	0.51
37:BD:44:U:C2	37:BD:45:U:C5	2.98	0.51
37:BD:61:C:H5'	80:Bu:283:LEU:HD23	1.93	0.51
37:BD:66:G:H2'	37:BD:67:C:O4'	2.10	0.51
37:BD:73:U:H2'	37:BD:74:A:C4	2.46	0.51
38:BE:109:C:H2'	38:BE:111:C:OP2	2.10	0.51
38:BE:117:A:H5''	38:BE:119:U:C6	2.45	0.51
39:BF:32:G:H8	39:BF:53:G:H3'	1.76	0.51
39:BF:58:U:H6	39:BF:58:U:O5'	1.94	0.51
40:BG:16:G:N2	40:BG:17:A:C4	2.79	0.51
40:BG:72:G:C4	40:BG:73:U:C5	2.99	0.51
41:BH:26:C:C5	67:Bh:64:ARG:CZ	2.93	0.51
41:BH:35:G:H3'	41:BH:36:C:C6	2.46	0.51
41:BH:109:G:H2'	65:Bf:441:LEU:CD2	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BK:85:PHE:HA	44:BK:139:ARG:O	2.10	0.51
47:BN:57:LYS:HB2	47:BN:158:TYR:H	1.75	0.51
47:BN:149:LYS:HZ1	47:BN:154:ASP:CG	2.19	0.51
52:BS:100:CYS:SG	52:BS:102:ALA:HB3	2.51	0.51
65:Bf:438:TYR:N	65:Bf:438:TYR:CD1	2.76	0.51
82:Bw:190:ASN:ND2	82:Bw:190:ASN:H	2.09	0.51
85:AA:51:A:C6	85:AA:52:U:H1'	2.46	0.51
85:AA:71:G:C2	85:AA:78:A:C5	2.99	0.51
85:AA:122:A:C6	85:AA:330:C:N4	2.79	0.51
85:AA:160:A:C6	85:AA:161:A:C5	2.98	0.51
85:AA:270:A:C2	85:AA:979:U:C2	2.99	0.51
85:AA:338:G:C5	85:AA:352:G:N1	2.79	0.51
85:AA:441:C:H3'	85:AA:442:G:H8	1.74	0.51
85:AA:701:C:N3	85:AA:702:G:C4	2.79	0.51
85:AA:766:G:C5	85:AA:767:A:H1'	2.46	0.51
85:AA:789:A:C5	85:AA:802:A:C5	2.98	0.51
85:AA:962:U:C4	85:AA:963:U:C6	2.99	0.51
85:AA:1526:G:O4'	85:AA:2216:A:C5	2.64	0.51
85:AA:1913:G:C6	85:AA:1914:U:C4	2.99	0.51
85:AA:2079:U:C2	85:AA:2080:U:C2	2.99	0.51
85:AA:2086:C:H3'	85:AA:2087:C:C6	2.46	0.51
85:AA:2115:G:C2	85:AA:2204:A:C2	2.98	0.51
85:AA:2215:C:C6	85:AA:2218:G:C8	2.99	0.51
85:AA:2222:G:C6	85:AA:2223:C:C4	2.98	0.51
11:AC:144:PHE:CE1	11:AC:153:MET:SD	3.04	0.50
11:AC:192:PHE:CE2	25:AR:65:CYS:HA	2.46	0.50
13:AE:56:LEU:H	85:AA:313:A:C1'	2.22	0.50
13:AE:69:TYR:CD1	13:AE:69:TYR:C	2.89	0.50
17:AI:133:VAL:HG22	85:AA:1558:U:O2	2.11	0.50
21:AM:90:ASP:HB3	21:AM:94:GLY:H	1.77	0.50
25:AR:64:ARG:HA	25:AR:69:SER:HB3	1.93	0.50
34:BA:11:U:H2'	34:BA:12:G:C8	2.47	0.50
34:BA:125:G:C5	34:BA:126:G:C5	2.99	0.50
34:BA:132:U:O2	34:BA:133:A:C4	2.64	0.50
34:BA:165:C:C2	34:BA:166:G:C4	2.99	0.50
34:BA:382:G:C4	34:BA:383:G:C8	2.99	0.50
34:BA:397:A:C6	36:BC:31:A:C5	2.99	0.50
34:BA:442:G:C2	34:BA:467:A:C5	2.98	0.50
34:BA:475:A:C2	34:BA:1592:U:C4'	2.93	0.50
34:BA:676:G:C6	34:BA:677:U:O2	2.63	0.50
34:BA:887:U:O5'	34:BA:887:U:H6	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:888:G:C6	34:BA:889:U:C5	2.99	0.50
34:BA:893:U:C2	47:BN:6:ASN:CB	2.94	0.50
34:BA:898:G:H3'	34:BA:898:G:C8	2.45	0.50
34:BA:1000:G:C4	34:BA:1001:G:C8	2.99	0.50
34:BA:1333:G:C6	34:BA:1409:A:C6	3.00	0.50
34:BA:1377:A:C2	34:BA:1398:C:O2	2.64	0.50
34:BA:1653:G:C6	34:BA:1654:G:C5	2.99	0.50
34:BA:1832:A:C6	34:BA:1833:G:C6	2.99	0.50
34:BA:1832:A:N6	34:BA:1833:G:C6	2.79	0.50
35:BB:48:G:C5	35:BB:50:A:C5	2.99	0.50
35:BB:284:C:H2'	35:BB:285:C:C6	2.46	0.50
35:BB:404:A:C6	35:BB:410:A:N3	2.80	0.50
35:BB:459:U:C4	35:BB:460:C:C5	2.99	0.50
35:BB:536:U:O5'	35:BB:536:U:H6	1.94	0.50
35:BB:624:A:N1	35:BB:625:A:C5	2.78	0.50
35:BB:793:A:N6	35:BB:794:G:C6	2.80	0.50
35:BB:810:G:C2	35:BB:830:G:N3	2.79	0.50
35:BB:854:G:C2	35:BB:869:G:N3	2.79	0.50
35:BB:1003:G:C2	35:BB:1004:A:C4	2.99	0.50
35:BB:1310:C:O5'	35:BB:1310:C:H6	1.94	0.50
35:BB:1499:U:C5	35:BB:1500:U:C4	2.98	0.50
35:BB:1533:U:C5	35:BB:1536:G:C5	3.00	0.50
35:BB:1533:U:H5	35:BB:1535:G:C5'	2.24	0.50
36:BC:19:A:N7	36:BC:20:C:C5	2.79	0.50
36:BC:59:A:C4	36:BC:61:A:C6	2.99	0.50
36:BC:106:G:H1'	36:BC:115:G:N2	2.26	0.50
37:BD:55:A:C2	37:BD:56:G:H1'	2.46	0.50
38:BE:32:U:H2'	38:BE:33:C:C6	2.46	0.50
38:BE:33:C:C4	38:BE:183:C:N4	2.79	0.50
38:BE:98:C:C4	38:BE:99:C:C4	2.99	0.50
38:BE:124:G:C5	38:BE:125:C:C6	2.99	0.50
38:BE:198:A:N1	38:BE:199:A:C4	2.79	0.50
40:BG:9:G:C4	40:BG:16:G:C2	2.99	0.50
40:BG:80:G:H5''	58:BY:19:ARG:NH1	2.26	0.50
40:BG:108:G:C5	40:BG:109:C:C6	2.99	0.50
40:BG:152:G:C4	40:BG:153:C:C6	2.98	0.50
41:BH:7:C:H3'	41:BH:8:C:H6	1.76	0.50
41:BH:39:G:C4	41:BH:40:C:C6	2.99	0.50
41:BH:110:C:C2	41:BH:111:U:C6	2.99	0.50
42:BI:32:LEU:HG	42:BI:33:TYR:CG	2.46	0.50
47:BN:48:ALA:O	47:BN:52:PHE:CD1	2.64	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BN:111:GLU:CD	72:Bm:26:THR:HB	2.36	0.50
65:Bf:222:LEU:HD23	65:Bf:377:ASN:OD1	2.11	0.50
67:Bh:10:VAL:HG23	67:Bh:11:LEU:H	1.76	0.50
67:Bh:154:LYS:HE3	67:Bh:167:TYR:HB2	1.93	0.50
67:Bh:175:VAL:HG22	67:Bh:176:PRO:HD2	1.93	0.50
80:Bu:118:LYS:HG2	80:Bu:119:PHE:CD2	2.47	0.50
83:Bx:178:TRP:CD2	83:Bx:179:MET:SD	3.05	0.50
85:AA:30:G:C2	85:AA:671:G:C4	2.99	0.50
85:AA:68:A:H2'	85:AA:69:C:H5'	1.93	0.50
85:AA:88:G:H3'	85:AA:89:C:C6	2.46	0.50
85:AA:480:U:N3	85:AA:482:C:C2	2.79	0.50
85:AA:610:C:C5	85:AA:611:G:N7	2.79	0.50
85:AA:614:U:C4	85:AA:616:A:C5	2.99	0.50
85:AA:646:C:C2	85:AA:647:C:C6	2.98	0.50
85:AA:809:A:N1	85:AA:869:A:H2	2.09	0.50
85:AA:902:A:C2	85:AA:914:U:O2	2.64	0.50
85:AA:1370:G:C5	85:AA:1371:C:C5	2.98	0.50
85:AA:1665:G:C6	85:AA:1666:U:C5	2.99	0.50
85:AA:1685:G:C6	85:AA:1695:G:C2	2.99	0.50
85:AA:1863:A:C5	85:AA:1864:G:C8	2.99	0.50
3:A2:42:TRP:HE1	3:A2:51:ARG:HB3	1.76	0.50
3:A2:145:ARG:O	3:A2:149:PHE:CG	2.64	0.50
4:A3:40:ALA:HA	4:A3:47:ARG:HG2	1.92	0.50
11:AC:141:PRO:HG3	85:AA:1698:A:C4	2.46	0.50
23:AP:163:THR:HG22	23:AP:164:ILE:HG22	1.93	0.50
34:BA:161:U:C5	34:BA:165:C:O2	2.64	0.50
34:BA:233:U:C4	34:BA:234:A:N7	2.79	0.50
34:BA:499:C:C4	34:BA:500:C:C5	2.98	0.50
34:BA:521:C:H3'	34:BA:522:C:H6	1.75	0.50
34:BA:539:C:H1'	34:BA:571:G:N1	2.26	0.50
34:BA:596:G:C6	34:BA:1487:U:H2'	2.46	0.50
34:BA:603:U:C5	34:BA:1492:G:N7	2.79	0.50
34:BA:608:G:H21	77:Br:339:MET:HE1	1.76	0.50
34:BA:609:G:C5	34:BA:610:A:C8	2.99	0.50
34:BA:651:U:H2'	34:BA:652:C:C6	2.46	0.50
34:BA:771:A:C8	34:BA:774:A:C4	3.00	0.50
34:BA:787:A:C2	34:BA:797:A:C6	2.99	0.50
34:BA:804:G:C6	34:BA:810:A:C6	3.00	0.50
34:BA:897:U:C2	47:BN:14:ARG:NE	2.78	0.50
34:BA:917:C:C5	34:BA:1019:C:C6	2.99	0.50
34:BA:925:G:C4	34:BA:926:A:C8	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:943:G:H2'	34:BA:944:G:C8	2.46	0.50
34:BA:1010:C:H2'	34:BA:1011:G:C8	2.46	0.50
34:BA:1049:G:N2	34:BA:1519:G:C6	2.79	0.50
34:BA:1076:U:H2'	34:BA:1077:G:O4'	2.11	0.50
34:BA:1219:G:C5	34:BA:1220:C:C5	3.00	0.50
34:BA:1297:G:C4	49:BP:19:PRO:HD2	2.45	0.50
34:BA:1425:G:C2	34:BA:1426:A:C2	2.99	0.50
34:BA:1533:G:C4	34:BA:1534:U:C5	2.99	0.50
34:BA:1585:A:C5	34:BA:1587:C:H1'	2.47	0.50
34:BA:1695:G:H3'	34:BA:1696:G:C8	2.47	0.50
34:BA:1704:G:H1	34:BA:1802:C:H42	1.59	0.50
34:BA:1706:A:C2	34:BA:1707:C:H1'	2.47	0.50
35:BB:66:G:C2	35:BB:618:U:C2	3.00	0.50
35:BB:144:G:H1	35:BB:316:U:H3	1.57	0.50
35:BB:402:G:C4	35:BB:403:U:C5	2.99	0.50
35:BB:465:C:C6	35:BB:509:A:C6	2.99	0.50
35:BB:480:C:C2	35:BB:501:G:C6	2.99	0.50
35:BB:530:C:O2'	85:AA:2210:C:H4'	2.11	0.50
35:BB:738:G:H5'	43:BJ:207:MET:HG3	1.92	0.50
35:BB:851:U:C4	35:BB:854:G:H4'	2.46	0.50
35:BB:1211:C:O5'	35:BB:1211:C:H6	1.94	0.50
35:BB:1291:G:N1	35:BB:1314:G:C4	2.79	0.50
35:BB:1335:G:H2'	35:BB:1336:G:C8	2.46	0.50
35:BB:1459:U:OP1	40:BG:1:G:H1'	2.11	0.50
35:BB:1475:U:C6	35:BB:1475:U:H3'	2.46	0.50
35:BB:1483:A:N7	35:BB:1484:A:C5	2.79	0.50
35:BB:1521:G:N2	35:BB:1522:G:H1'	2.26	0.50
35:BB:1527:A:C6	35:BB:1528:U:C2	3.00	0.50
36:BC:18:G:H2'	36:BC:19:A:O4'	2.11	0.50
36:BC:146:U:H1'	57:BX:70:SER:HA	1.93	0.50
37:BD:75:G:C2	37:BD:99:G:C4	3.00	0.50
38:BE:4:A:C2	60:Ba:37:TYR:CG	2.98	0.50
38:BE:84:U:C5	38:BE:85:G:C4	3.00	0.50
39:BF:28:C:C5	52:BS:177:VAL:HB	2.46	0.50
40:BG:4:A:C6	40:BG:5:G:C6	2.98	0.50
41:BH:33:G:OP2	67:Bh:91:HIS:CE1	2.64	0.50
45:BL:69:ASN:HD22	79:Bt:104:PRO:HD2	1.76	0.50
50:BQ:37:ARG:HA	50:BQ:40:GLN:HB3	1.93	0.50
53:BT:174:ARG:O	53:BT:178:LEU:HG	2.12	0.50
60:Ba:70:PHE:C	60:Ba:70:PHE:CD2	2.90	0.50
65:Bf:227:VAL:HG22	65:Bf:228:GLY:H	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:Bp:45:LEU:HD12	75:Bp:46:VAL:H	1.75	0.50
77:Br:305:LEU:CD1	82:Bw:41:PHE:CD1	2.95	0.50
80:Bu:190:ASN:HB3	80:Bu:192:GLU:O	2.11	0.50
82:Bw:2:PHE:CG	82:Bw:22:PRO:HD3	2.46	0.50
85:AA:130:G:C6	85:AA:131:C:C4	2.99	0.50
85:AA:242:G:H2'	85:AA:243:A:C4	2.45	0.50
85:AA:339:A:C2	85:AA:351:C:C2	2.98	0.50
85:AA:345:U:C5	85:AA:346:U:C6	2.99	0.50
85:AA:407:G:C6	85:AA:408:C:C4	2.99	0.50
85:AA:477:U:C2	85:AA:487:G:N1	2.79	0.50
85:AA:479:C:C2	85:AA:480:U:C5	2.99	0.50
85:AA:543:A:C6	85:AA:544:A:C4	2.99	0.50
85:AA:598:C:H2'	85:AA:599:C:C6	2.46	0.50
85:AA:889:G:C4	85:AA:890:U:C5	2.99	0.50
85:AA:965:G:N2	85:AA:966:G:C4	2.79	0.50
85:AA:1196:C:N3	85:AA:1197:U:C4	2.79	0.50
85:AA:1244:A:H2'	85:AA:1245:U:H6	1.76	0.50
85:AA:1260:G:C2	85:AA:1261:U:O4	2.64	0.50
85:AA:1496:U:N3	85:AA:1497:U:C4	2.79	0.50
85:AA:1540:A:N1	85:AA:1541:G:C2	2.79	0.50
85:AA:1696:U:C5	85:AA:1697:C:C4	2.99	0.50
85:AA:1863:A:C2	85:AA:1864:G:H1'	2.46	0.50
85:AA:1911:A:H1'	85:AA:1913:G:N9	2.25	0.50
85:AA:1937:G:C2	85:AA:1938:G:C5	2.98	0.50
85:AA:2089:G:H2'	85:AA:2090:C:C6	2.47	0.50
85:AA:2132:A:C2	85:AA:2187:G:N3	2.79	0.50
85:AA:2166:G:C2	85:AA:2167:A:H1'	2.45	0.50
85:AA:2173:A:C4	85:AA:2174:G:C8	3.00	0.50
85:AA:2208:G:C5	85:AA:2209:U:C5	2.99	0.50
1:A0:89:THR:HG23	1:A0:103:HIS:CG	2.47	0.50
2:A1:174:ASN:HA	2:A1:192:ILE:HG21	1.94	0.50
14:AF:117:LYS:HE3	85:AA:1602:U:C5	2.46	0.50
16:AH:64:PRO:CA	16:AH:104:GLY:HA2	2.42	0.50
22:AO:39:PHE:CE2	22:AO:74:CYS:SG	3.04	0.50
32:AY:60:GLN:HG2	85:AA:632:U:C6	2.47	0.50
34:BA:15:G:C6	34:BA:16:C:C5	3.00	0.50
34:BA:214:A:C6	34:BA:214:A:C2	2.97	0.50
34:BA:359:G:O6	34:BA:362:G:H5''	2.11	0.50
34:BA:370:U:H2'	34:BA:371:U:C6	2.46	0.50
34:BA:395:G:H2'	34:BA:396:U:C5	2.46	0.50
34:BA:444:A:N1	34:BA:445:C:H1'	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:478:G:C6	36:BC:11:G:N1	2.78	0.50
34:BA:603:U:C6	34:BA:680:C:C4	2.99	0.50
34:BA:704:G:C4	34:BA:705:C:C5	2.99	0.50
34:BA:737:U:H3'	34:BA:738:C:C4	2.47	0.50
34:BA:1017:C:H2'	34:BA:1018:U:C6	2.46	0.50
34:BA:1082:U:H5''	34:BA:1083:A:H5'	1.93	0.50
34:BA:1151:A:C2	34:BA:1152:A:C4	2.99	0.50
34:BA:1163:G:N2	34:BA:1164:C:H1'	2.26	0.50
34:BA:1380:G:C2	34:BA:1396:A:C5	2.99	0.50
34:BA:1469:G:C2	34:BA:1513:G:C2	2.99	0.50
34:BA:1478:G:O6	34:BA:1482:A:C2	2.64	0.50
34:BA:1527:G:C6	34:BA:1528:U:C4	2.99	0.50
34:BA:1529:G:C6	34:BA:1530:G:C6	3.00	0.50
34:BA:1583:A:C4	34:BA:1584:G:C5	2.99	0.50
34:BA:1593:U:H3	35:BB:627:G:N2	2.09	0.50
34:BA:1719:G:C2	34:BA:1720:U:N1	2.80	0.50
34:BA:1795:A:H3'	35:BB:789:G:C5	2.46	0.50
35:BB:100:A:C5	35:BB:101:U:C5	2.99	0.50
35:BB:375:G:C2'	35:BB:376:A:H5'	2.42	0.50
35:BB:396:C:C4	35:BB:397:C:C5	3.00	0.50
35:BB:436:G:N7	35:BB:438:G:C8	2.79	0.50
35:BB:584:A:C6	35:BB:585:U:C5	2.99	0.50
35:BB:611:U:O5'	35:BB:611:U:C6	2.64	0.50
35:BB:665:A:C2	35:BB:1404:A:C6	3.00	0.50
35:BB:773:G:N2	35:BB:774:C:C2	2.78	0.50
35:BB:991:C:C6	35:BB:991:C:OP1	2.64	0.50
35:BB:1076:U:H2'	35:BB:1077:C:C5	2.45	0.50
35:BB:1224:C:O2	35:BB:1225:A:C5	2.64	0.50
35:BB:1335:G:C2	35:BB:1336:G:C4	2.99	0.50
35:BB:1494:G:C5	35:BB:1495:U:C5	2.99	0.50
35:BB:1531:G:H1	35:BB:1537:C:H42	1.59	0.50
36:BC:53:A:C4	36:BC:54:G:C8	2.99	0.50
37:BD:30:A:N6	37:BD:31:U:C4	2.79	0.50
37:BD:32:A:C4	37:BD:46:G:N1	2.79	0.50
37:BD:77:A:C8	37:BD:78:C:C6	2.99	0.50
37:BD:105:G:C6	37:BD:106:G:C5	3.00	0.50
38:BE:25:U:OP1	38:BE:25:U:H3'	2.12	0.50
38:BE:45:G:C6	38:BE:46:G:C6	3.00	0.50
38:BE:104:G:C2	38:BE:105:A:C2	2.98	0.50
38:BE:175:U:C6	38:BE:175:U:OP2	2.64	0.50
39:BF:44:C:H2'	39:BF:45:G:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BF:49:C:C6	39:BF:49:C:O5'	2.64	0.50
39:BF:63:U:P	39:BF:66:C:H41	2.35	0.50
40:BG:33:G:C6	40:BG:168:A:C6	2.99	0.50
40:BG:57:A:H3'	40:BG:58:G:O4'	2.11	0.50
41:BH:7:C:N4	41:BH:129:G:C6	2.80	0.50
41:BH:61:C:H3'	41:BH:62:C:C5'	2.42	0.50
41:BH:121:A:C2	41:BH:123:G:N9	2.80	0.50
44:BK:14:ASN:H	44:BK:14:ASN:ND2	2.03	0.50
45:BL:69:ASN:HB3	79:Bt:103:ASP:HA	1.93	0.50
56:BW:41:VAL:HG22	56:BW:60:VAL:HG12	1.92	0.50
60:Ba:6:PRO:HA	60:Ba:24:ILE:HB	1.94	0.50
61:Bb:90:ALA:HB3	61:Bb:117:ALA:HB1	1.94	0.50
65:Bf:365:PRO:HD2	65:Bf:368:GLY:HA2	1.93	0.50
67:Bh:172:HIS:CG	67:Bh:173:ILE:N	2.78	0.50
68:Bi:68:THR:HG23	68:Bi:72:PHE:O	2.12	0.50
77:Br:318:ASN:OD1	77:Br:323:ARG:HA	2.11	0.50
85:AA:6:G:C2	85:AA:19:A:C4	2.99	0.50
85:AA:20:G:C4	85:AA:21:U:C6	3.00	0.50
85:AA:192:G:H1'	85:AA:193:C:C4	2.47	0.50
85:AA:295:U:H5'	85:AA:296:A:C8	2.47	0.50
85:AA:362:G:H2'	85:AA:363:A:O4'	2.11	0.50
85:AA:382:G:O6	85:AA:415:G:C6	2.64	0.50
85:AA:397:G:H2'	85:AA:398:U:C6	2.46	0.50
85:AA:654:A:H2'	85:AA:656:U:OP2	2.12	0.50
85:AA:708:G:N3	85:AA:1215:A:C2	2.80	0.50
85:AA:725:G:H1'	85:AA:777:U:C1'	2.41	0.50
85:AA:799:G:H3'	85:AA:800:A:H8	1.75	0.50
85:AA:894:A:H2'	85:AA:896:C:H5	1.76	0.50
85:AA:961:U:H1'	85:AA:993:G:N2	2.26	0.50
85:AA:1034:U:C2	85:AA:1035:C:C6	2.99	0.50
85:AA:1294:U:O4	85:AA:1450:U:C5	2.65	0.50
85:AA:1510:A:H3'	85:AA:1511:C:H6	1.76	0.50
85:AA:1644:G:C8	85:AA:1644:G:O5'	2.64	0.50
85:AA:1790:G:O5'	85:AA:1790:G:C8	2.64	0.50
85:AA:1930:U:C4	85:AA:1931:C:N3	2.80	0.50
85:AA:2012:G:H2'	85:AA:2013:A:C8	2.46	0.50
85:AA:2214:A:C3'	85:AA:2215:C:H5''	2.41	0.50
86:AB:69:G:C6	86:AB:70:G:C6	3.00	0.50
2:A1:105:ARG:HA	2:A1:105:ARG:HE	1.74	0.50
2:A1:156:THR:HG21	2:A1:224:VAL:O	2.10	0.50
2:A1:207:LEU:HD12	2:A1:215:PHE:CD2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A2:12:TRP:HE1	3:A2:87:HIS:CD2	2.29	0.50
7:A6:147:VAL:C	7:A6:148:ARG:HE	2.19	0.50
8:A7:91:LEU:HD22	8:A7:105:PHE:CD2	2.47	0.50
13:AE:172:SER:HA	85:AA:941:C:C4	2.46	0.50
17:AI:45:HIS:CE1	85:AA:2014:G:H3'	2.47	0.50
27:AT:27:GLN:HA	27:AT:81:LEU:HD23	1.93	0.50
34:BA:160:G:O2'	34:BA:165:C:H4'	2.10	0.50
34:BA:172:A:C2	34:BA:316:G:N3	2.79	0.50
34:BA:195:G:C8	34:BA:290:G:N3	2.79	0.50
34:BA:304:G:H3'	34:BA:304:G:C8	2.47	0.50
34:BA:406:G:C6	77:Br:195:MET:SD	3.04	0.50
34:BA:409:A:C4	34:BA:410:G:C8	3.00	0.50
34:BA:526:C:N3	34:BA:527:C:C6	2.80	0.50
34:BA:578:C:O2'	34:BA:579:U:C5'	2.59	0.50
34:BA:744:G:C2	34:BA:745:A:N9	2.79	0.50
34:BA:810:A:C6	34:BA:811:C:C5	3.00	0.50
34:BA:966:G:C6	34:BA:967:C:C4	2.99	0.50
34:BA:1135:U:O5'	34:BA:1135:U:H6	1.95	0.50
34:BA:1193:A:C6	34:BA:1194:G:C6	2.99	0.50
34:BA:1263:A:C4	34:BA:1264:U:C5	2.99	0.50
34:BA:1311:G:C6	34:BA:1312:A:C6	3.00	0.50
34:BA:1322:A:C8	34:BA:1323:G:C8	2.99	0.50
34:BA:1328:U:C2	34:BA:1329:U:C6	3.00	0.50
34:BA:1485:U:C5	34:BA:1486:U:H5	2.29	0.50
34:BA:1643:U:O5'	34:BA:1643:U:H6	1.94	0.50
34:BA:1845:G:N1	35:BB:5:A:C6	2.79	0.50
35:BB:82:G:C6	35:BB:83:G:C5	2.99	0.50
35:BB:89:C:N4	35:BB:90:G:C5	2.79	0.50
35:BB:133:G:C6	35:BB:134:G:C5	2.99	0.50
35:BB:390:G:C2	35:BB:599:U:H1'	2.45	0.50
35:BB:415:A:C4	35:BB:416:U:C6	3.00	0.50
35:BB:545:C:C6	35:BB:572:G:C6	2.99	0.50
35:BB:679:G:N1	35:BB:680:A:C4	2.80	0.50
35:BB:976:U:H1'	35:BB:977:G:C6	2.46	0.50
35:BB:1069:C:H2'	35:BB:1070:G:O4'	2.11	0.50
35:BB:1118:G:C2	35:BB:1119:G:C4	2.99	0.50
35:BB:1164:U:O4	35:BB:1200:A:C2	2.65	0.50
35:BB:1230:A:C6	47:BN:206:ARG:NH2	2.80	0.50
35:BB:1288:G:C5	35:BB:1289:G:C8	2.99	0.50
35:BB:1322:A:C4	35:BB:1323:U:C6	2.99	0.50
35:BB:1372:G:C5	35:BB:1373:U:C4	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1468:A:H2'	35:BB:1469:A:C8	2.47	0.50
35:BB:1495:U:C6	35:BB:1495:U:H5''	2.47	0.50
36:BC:40:A:C5	36:BC:41:A:C5	2.99	0.50
36:BC:75:G:H5'	76:Bq:30:ARG:HA	1.93	0.50
36:BC:101:U:C4	36:BC:102:G:C5	2.99	0.50
36:BC:107:C:H2'	36:BC:108:A:C5'	2.42	0.50
36:BC:125:A:N6	36:BC:126:G:C6	2.80	0.50
36:BC:125:A:H61	36:BC:138:C:H42	1.60	0.50
37:BD:23:A:C2	37:BD:24:U:C2	2.99	0.50
37:BD:37:G:C6	37:BD:38:U:C4	2.99	0.50
37:BD:95:G:H8	37:BD:95:G:O5'	1.95	0.50
38:BE:23:G:OP1	69:Bj:46:PRO:HA	2.11	0.50
38:BE:93:U:N3	38:BE:94:U:C4	2.80	0.50
38:BE:126:G:C6	38:BE:127:G:C5	2.99	0.50
38:BE:154:A:H4'	38:BE:157:C:C4	2.46	0.50
38:BE:166:G:C5	38:BE:167:U:C5	3.00	0.50
39:BF:8:C:H2'	39:BF:10:A:C5	2.45	0.50
40:BG:46:G:C6	40:BG:47:G:C4	3.00	0.50
45:BL:28:ILE:O	45:BL:73:ALA:HA	2.12	0.50
47:BN:68:VAL:HA	47:BN:71:ASN:HB3	1.94	0.50
52:BS:75:ASN:OD1	52:BS:145:HIS:HE1	1.95	0.50
62:Bc:75:LEU:HD23	62:Bc:81:VAL:H	1.76	0.50
65:Bf:347:MET:SD	65:Bf:350:ASN:HB3	2.52	0.50
72:Bm:42:HIS:CD2	72:Bm:44:LYS:CB	2.94	0.50
77:Br:246:ARG:HD3	77:Br:247:PHE:H	1.75	0.50
77:Br:265:PHE:C	77:Br:265:PHE:CD1	2.87	0.50
82:Bw:103:ARG:HB2	82:Bw:123:LEU:HB3	1.93	0.50
85:AA:78:A:C6	85:AA:79:G:C4	2.99	0.50
85:AA:90:A:C8	85:AA:464:A:N3	2.80	0.50
85:AA:146:U:C4	85:AA:333:A:C8	2.99	0.50
85:AA:314:C:C5	85:AA:316:C:C5	2.99	0.50
85:AA:548:G:C6	85:AA:549:A:C4	3.00	0.50
85:AA:691:U:C5	85:AA:1470:A:C4	3.00	0.50
85:AA:820:G:H2'	85:AA:821:U:H6	1.74	0.50
85:AA:914:U:C4	85:AA:915:G:C5	2.99	0.50
85:AA:968:U:H2'	85:AA:969:U:C6	2.47	0.50
85:AA:1226:A:C8	85:AA:1226:A:H3'	2.47	0.50
85:AA:1362:A:H2'	85:AA:1363:U:H6	1.75	0.50
85:AA:1508:A:C5	85:AA:1509:A:C6	2.99	0.50
85:AA:1611:A:H3'	85:AA:1622:G:N7	2.26	0.50
85:AA:1612:C:H3'	85:AA:1613:A:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1671:G:C4	85:AA:1672:G:C8	3.00	0.50
85:AA:1680:U:C4	85:AA:1681:G:C2	2.99	0.50
85:AA:1731:G:N1	85:AA:1732:G:C6	2.79	0.50
85:AA:1755:U:H1'	85:AA:1791:U:C4	2.46	0.50
85:AA:1875:A:C2	85:AA:1876:U:C2	3.00	0.50
85:AA:2030:U:H2'	85:AA:2031:C:C6	2.47	0.50
85:AA:2073:U:H2'	85:AA:2074:G:C8	2.47	0.50
1:A0:24:MET:HE1	1:A0:29:TRP:CZ2	2.47	0.50
1:A0:99:LEU:HD23	1:A0:234:HIS:CG	2.45	0.50
2:A1:182:GLY:HA2	2:A1:186:ARG:CZ	2.41	0.50
7:A6:81:GLY:O	7:A6:149:VAL:HB	2.12	0.50
10:A9:140:ARG:HE	10:A9:149:THR:HG23	1.75	0.50
21:AM:121:HIS:CD2	21:AM:121:HIS:C	2.89	0.50
25:AR:23:HIS:CG	25:AR:58:CYS:H	2.30	0.50
34:BA:27:G:C5	34:BA:28:C:C5	3.00	0.50
34:BA:50:G:C6	34:BA:51:C:C4	2.99	0.50
34:BA:205:G:C2	34:BA:252:A:C2	2.98	0.50
34:BA:248:G:C1'	34:BA:437:G:C6	2.95	0.50
34:BA:324:C:H2'	34:BA:325:A:O4'	2.11	0.50
34:BA:331:G:C5'	50:BQ:137:TRP:CZ3	2.94	0.50
34:BA:365:A:N1	34:BA:377:G:C5	2.79	0.50
34:BA:423:G:C2	34:BA:427:G:C2	3.00	0.50
34:BA:478:G:N1	36:BC:11:G:C2	2.80	0.50
34:BA:566:G:C6	34:BA:567:U:C5	2.99	0.50
34:BA:689:C:H2'	39:BF:4:A:N6	2.26	0.50
34:BA:736:G:C2	34:BA:901:C:C2	2.99	0.50
34:BA:785:G:C4	34:BA:786:U:C6	3.00	0.50
34:BA:792:A:C4	34:BA:793:A:C5	2.99	0.50
34:BA:799:A:C4	34:BA:857:C:O3'	2.64	0.50
34:BA:848:U:O2'	34:BA:849:G:H5''	2.12	0.50
34:BA:934:G:C6	34:BA:956:G:C6	2.99	0.50
34:BA:960:C:C2	34:BA:961:C:C5	2.99	0.50
34:BA:982:A:C2	34:BA:1020:A:C4	2.99	0.50
34:BA:986:G:C4	34:BA:987:C:C5	3.00	0.50
34:BA:995:A:H5'	64:Be:183:GLY:CA	2.40	0.50
34:BA:1115:A:C2	34:BA:1116:G:C5	3.00	0.50
34:BA:1201:G:C4	34:BA:1202:G:C8	2.99	0.50
34:BA:1321:A:C5	34:BA:1322:A:C8	3.00	0.50
34:BA:1329:U:C2	34:BA:1413:G:N1	2.80	0.50
34:BA:1341:A:C2	34:BA:1405:A:N3	2.80	0.50
34:BA:1409:A:H2'	34:BA:1410:C:O4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1425:G:C6	34:BA:1426:A:N1	2.79	0.50
34:BA:1471:U:H4'	42:BI:17:HIS:CE1	2.46	0.50
34:BA:1519:G:H5'	61:Bb:20:GLY:HA2	1.92	0.50
34:BA:1553:G:H5''	68:Bi:66:TYR:H	1.77	0.50
34:BA:1560:U:C4	34:BA:1561:C:N4	2.80	0.50
34:BA:1696:G:C5	34:BA:1697:U:O2	2.64	0.50
34:BA:1706:A:C2	34:BA:1800:G:C1'	2.94	0.50
34:BA:1745:G:C6	34:BA:1746:G:C6	2.99	0.50
35:BB:102:G:C6	35:BB:121:A:C6	2.99	0.50
35:BB:386:G:C3'	35:BB:387:G:H8	2.25	0.50
35:BB:387:G:C6	35:BB:388:C:C6	3.00	0.50
35:BB:452:A:H2'	35:BB:453:C:C6	2.46	0.50
35:BB:556:U:H2'	35:BB:557:C:C6	2.46	0.50
35:BB:666:A:N7	35:BB:667:G:C5	2.80	0.50
35:BB:681:G:C6	35:BB:682:U:C4	2.99	0.50
35:BB:743:C:H2'	35:BB:744:U:H4'	1.94	0.50
35:BB:793:A:C2	35:BB:794:G:C4	3.00	0.50
35:BB:812:G:C6	35:BB:828:G:C6	2.99	0.50
35:BB:814:A:C2	35:BB:826:G:C6	2.99	0.50
35:BB:904:C:H2'	35:BB:905:C:C6	2.46	0.50
35:BB:1017:U:C6	35:BB:1017:U:H3'	2.46	0.50
35:BB:1036:G:N2	35:BB:1037:A:H1'	2.26	0.50
35:BB:1213:U:C2	35:BB:1214:U:C4	3.00	0.50
35:BB:1343:C:C2	35:BB:1344:U:C5	3.00	0.50
35:BB:1353:G:H1	35:BB:1364:C:N4	2.10	0.50
35:BB:1447:U:C2	35:BB:1448:U:C4	3.00	0.50
35:BB:1496:C:C6	35:BB:1496:C:O5'	2.64	0.50
35:BB:1521:G:N2	35:BB:1547:U:C2	2.80	0.50
35:BB:1529:G:N2	35:BB:1540:U:H1'	2.27	0.50
36:BC:48:A:H4'	70:Bk:52:ARG:NH2	2.25	0.50
36:BC:129:C:H3'	36:BC:130:U:H5''	1.93	0.50
36:BC:146:U:C2'	36:BC:147:G:H5''	2.39	0.50
37:BD:29:C:H5'	45:BL:142:GLY:HA2	1.93	0.50
37:BD:76:U:C4	37:BD:77:A:C8	3.00	0.50
38:BE:88:G:C8	38:BE:88:G:O5'	2.65	0.50
38:BE:107:U:C6	53:BT:121:ARG:NH2	2.80	0.50
38:BE:180:G:H2'	38:BE:180:G:N3	2.27	0.50
40:BG:67:A:C2	40:BG:68:U:C2	2.99	0.50
40:BG:74:G:C6	40:BG:75:C:C4	3.00	0.50
40:BG:119:A:C5	40:BG:122:G:C5	3.00	0.50
40:BG:141:A:H4'	84:By:69:ASN:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:175:G:C6	40:BG:176:G:C5	2.99	0.50
48:BO:50:LYS:HG3	48:BO:121:VAL:HG12	1.93	0.50
49:BP:93:ARG:O	49:BP:96:HIS:CD2	2.65	0.50
62:Bc:16:SER:C	62:Bc:18:PHE:H	2.19	0.50
66:Bg:106:VAL:HG22	66:Bg:107:GLY:H	1.75	0.50
69:Bj:44:HIS:CD2	69:Bj:52:LYS:O	2.65	0.50
80:Bu:246:GLU:HA	80:Bu:249:TYR:CE2	2.47	0.50
85:AA:152:A:H8	85:AA:152:A:O5'	1.94	0.50
85:AA:159:G:C4	85:AA:164:G:N1	2.79	0.50
85:AA:402:G:C6	85:AA:404:A:N9	2.79	0.50
85:AA:449:G:C5	85:AA:450:A:C8	3.00	0.50
85:AA:639:C:H5	85:AA:650:G:H3'	1.77	0.50
85:AA:725:G:H2'	85:AA:726:U:C5'	2.42	0.50
85:AA:832:U:O2	85:AA:834:U:C5	2.65	0.50
85:AA:868:A:H3'	85:AA:869:A:H8	1.76	0.50
85:AA:906:U:H1'	85:AA:908:C:C5'	2.41	0.50
85:AA:959:C:C5	85:AA:995:G:C2	3.00	0.50
85:AA:971:U:N3	85:AA:972:G:C5	2.80	0.50
85:AA:1281:G:C4	85:AA:1282:A:C5	2.99	0.50
85:AA:1297:G:N1	85:AA:1298:G:C5	2.79	0.50
85:AA:1303:U:C5	85:AA:1305:A:C2	2.99	0.50
85:AA:1459:C:C4	85:AA:1460:G:C5	2.98	0.50
85:AA:1563:U:C6	85:AA:1585:A:C5	3.00	0.50
85:AA:1604:A:C6	85:AA:1633:A:H3'	2.46	0.50
85:AA:1927:G:H1	85:AA:1984:A:N6	2.08	0.50
85:AA:1959:G:N2	85:AA:1978:G:H1	2.10	0.50
85:AA:2223:C:H2'	85:AA:2224:U:C6	2.46	0.50
86:AB:52:G:C2	86:AB:53:G:C8	3.00	0.50
11:AC:147:GLN:HA	11:AC:152:PHE:CG	2.47	0.50
21:AM:143:ARG:NH1	85:AA:1548:A:H4'	2.26	0.50
34:BA:23:A:H5''	34:BA:394:A:C4	2.46	0.50
34:BA:63:A:O2'	34:BA:379:C:H5'	2.11	0.50
34:BA:156:U:H5'	34:BA:167:U:H5''	1.92	0.50
34:BA:238:C:O5'	34:BA:238:C:H6	1.94	0.50
34:BA:239:C:O2	40:BG:13:A:C5	2.65	0.50
34:BA:251:U:O4	34:BA:252:A:C5	2.65	0.50
34:BA:392:A:H4'	34:BA:393:G:C5	2.47	0.50
34:BA:430:A:C6	34:BA:431:A:C5	2.99	0.50
34:BA:455:A:C6	34:BA:456:G:C5	2.99	0.50
34:BA:524:G:C6	34:BA:525:A:N7	2.79	0.50
34:BA:596:G:H4'	77:Br:309:ARG:HD3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:729:C:H2'	34:BA:730:C:H6	1.76	0.50
34:BA:947:A:C6	34:BA:948:C:H1'	2.46	0.50
34:BA:1085:G:H21	34:BA:1218:G:H5'	1.76	0.50
34:BA:1255:G:H3'	34:BA:1256:A:H2'	1.93	0.50
34:BA:1409:A:C4	34:BA:1410:C:C6	2.99	0.50
34:BA:1418:G:C4	34:BA:1419:A:N7	2.80	0.50
34:BA:1559:C:N3	34:BA:1560:U:C5	2.80	0.50
35:BB:125:G:H2'	35:BB:126:C:H6	1.76	0.50
35:BB:375:G:N1	35:BB:376:A:C4	2.80	0.50
35:BB:412:A:C2	35:BB:548:A:C8	2.99	0.50
35:BB:419:G:C2	35:BB:454:U:H1'	2.46	0.50
35:BB:608:A:N1	35:BB:609:G:C6	2.79	0.50
35:BB:741:A:H2'	35:BB:742:G:C8	2.46	0.50
35:BB:797:C:N3	35:BB:798:A:C6	2.80	0.50
35:BB:816:U:C2	35:BB:817:C:C5	2.99	0.50
35:BB:877:A:H1'	60:Ba:89:SER:O	2.10	0.50
35:BB:1123:A:C5	35:BB:1127:A:C5	3.00	0.50
35:BB:1286:G:C6	35:BB:1321:G:C2	3.00	0.50
35:BB:1410:G:C4	35:BB:1411:U:C6	3.00	0.50
35:BB:1531:G:C2	35:BB:1532:C:C2	2.99	0.50
35:BB:1534:U:C6	41:BH:27:A:N3	2.80	0.50
36:BC:72:A:C4	36:BC:73:U:C6	3.00	0.50
36:BC:125:A:C5	36:BC:126:G:N7	2.79	0.50
37:BD:57:C:H5''	45:BL:151:ARG:CZ	2.42	0.50
37:BD:59:G:C2	37:BD:60:C:C2	3.00	0.50
37:BD:98:G:H3'	37:BD:99:G:C8	2.47	0.50
38:BE:9:C:H3'	69:Bj:71:HIS:NE2	2.26	0.50
39:BF:53:G:O3'	39:BF:54:U:C6	2.65	0.50
39:BF:57:C:O5'	39:BF:57:C:C6	2.64	0.50
40:BG:56:G:C6	40:BG:57:A:C6	3.00	0.50
40:BG:90:G:C6	40:BG:91:U:C4	2.99	0.50
41:BH:32:U:C4	41:BH:33:G:C4	3.00	0.50
41:BH:97:C:C6	55:BV:63:LYS:HD3	2.47	0.50
41:BH:101:A:C5	41:BH:102:C:C4	2.99	0.50
58:BY:33:LEU:HD13	58:BY:35:PHE:CZ	2.46	0.50
73:Bn:28:HIS:HD1	73:Bn:31:TRP:CD1	2.30	0.50
74:Bo:84:ARG:O	74:Bo:88:GLU:HB2	2.12	0.50
77:Br:294:GLU:HA	77:Br:297:ARG:CB	2.42	0.50
84:By:96:HIS:HE1	84:By:97:PHE:CE1	2.30	0.50
85:AA:71:G:C4	85:AA:76:G:C6	3.00	0.50
85:AA:99:U:O4	85:AA:426:C:H4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:123:A:N1	85:AA:330:C:C4	2.79	0.50
85:AA:157:G:H2'	85:AA:158:C:C6	2.46	0.50
85:AA:267:U:O2	85:AA:268:A:C2	2.65	0.50
85:AA:547:A:C8	85:AA:612:A:C2	3.00	0.50
85:AA:553:G:C4	85:AA:575:G:C2	3.00	0.50
85:AA:589:A:C8	85:AA:605:A:C2	3.00	0.50
85:AA:721:C:N3	85:AA:722:G:C5	2.79	0.50
85:AA:741:G:N1	85:AA:767:A:C2	2.80	0.50
85:AA:750:A:H2'	85:AA:751:C:O4'	2.12	0.50
85:AA:890:U:O2	85:AA:918:U:C4	2.65	0.50
85:AA:944:C:C5	85:AA:945:A:H2'	2.46	0.50
85:AA:981:A:C2'	85:AA:982:G:H5'	2.41	0.50
85:AA:1140:G:N1	85:AA:1141:U:C2	2.80	0.50
85:AA:1142:G:C6	85:AA:1169:A:C6	3.00	0.50
85:AA:1164:A:C2	85:AA:1165:C:H1'	2.46	0.50
85:AA:1375:U:H5''	85:AA:1418:U:C6	2.47	0.50
85:AA:1495:G:C4	85:AA:1496:U:C6	3.00	0.50
85:AA:1610:G:H1	85:AA:1629:C:N4	2.10	0.50
85:AA:1673:A:C2	85:AA:1674:G:C4	2.99	0.50
85:AA:1681:G:H2'	85:AA:1682:U:C5	2.46	0.50
85:AA:1694:C:C4	85:AA:1695:G:C5	2.99	0.50
85:AA:1725:G:C8	85:AA:1982:C:C2'	2.94	0.50
85:AA:2013:A:C5	85:AA:2014:G:C5	2.99	0.50
85:AA:2081:A:N7	85:AA:2082:C:H5	2.09	0.50
85:AA:2187:G:C6	85:AA:2188:C:C5	3.00	0.50
3:A2:12:TRP:HE1	3:A2:87:HIS:CG	2.30	0.50
4:A3:152:ARG:HG2	85:AA:145:C:H5''	1.93	0.50
6:A5:130:THR:HB	6:A5:158:LEU:HD22	1.92	0.50
22:AO:27:HIS:HB3	22:AO:29:TRP:CE3	2.47	0.50
24:AQ:15:GLN:NE2	24:AQ:115:HIS:CE1	2.77	0.50
34:BA:19:G:N1	36:BC:36:G:N1	2.60	0.50
34:BA:31:A:C2	34:BA:32:A:C4	3.00	0.50
34:BA:38:G:H3'	34:BA:39:C:C6	2.47	0.50
34:BA:41:U:C5	34:BA:42:A:C8	3.00	0.50
34:BA:42:A:C5	34:BA:43:U:C5	3.00	0.50
34:BA:107:C:H2'	47:BN:96:ARG:CZ	2.42	0.50
34:BA:301:U:C3'	34:BA:303:C:H1'	2.41	0.50
34:BA:396:U:C5	36:BC:34:U:O4	2.64	0.50
34:BA:407:A:C6	34:BA:414:A:C5	3.00	0.50
34:BA:449:G:N3	34:BA:453:A:C5	2.79	0.50
34:BA:526:C:H42	34:BA:585:G:H1	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:527:C:C6	34:BA:527:C:O5'	2.65	0.50
34:BA:596:G:H1	34:BA:1487:U:HO2'	1.59	0.50
34:BA:740:A:C2	34:BA:741:A:C4	3.00	0.50
34:BA:751:A:C2	34:BA:886:G:C6	2.99	0.50
34:BA:808:U:OP1	34:BA:809:U:C2	2.65	0.50
34:BA:915:A:C2	34:BA:919:A:C6	3.00	0.50
34:BA:925:G:C2	34:BA:999:G:C4	2.99	0.50
34:BA:936:A:C8	74:Bo:4:ARG:NH2	2.79	0.50
34:BA:999:G:O6	34:BA:1000:G:C6	2.65	0.50
34:BA:1009:G:C4	34:BA:1010:C:C5	2.99	0.50
34:BA:1009:G:H3'	34:BA:1010:C:C6	2.46	0.50
34:BA:1073:G:C4	34:BA:1221:A:N1	2.80	0.50
34:BA:1190:A:H1'	80:Bu:145:ARG:CZ	2.42	0.50
34:BA:1194:G:N2	34:BA:1195:G:C4	2.79	0.50
34:BA:1242:A:C6	34:BA:1243:A:C6	3.00	0.50
34:BA:1440:C:C4	34:BA:1441:C:C5	3.00	0.50
34:BA:1451:A:C2'	34:BA:1452:U:H4'	2.42	0.50
34:BA:1522:G:H2'	34:BA:1523:U:C6	2.47	0.50
34:BA:1578:A:C4	34:BA:1580:U:C5	3.00	0.50
34:BA:1586:U:C5	77:Br:72:VAL:O	2.65	0.50
34:BA:1845:G:N1	35:BB:6:A:C5	2.79	0.50
35:BB:467:G:C5	35:BB:468:U:C5	3.00	0.50
35:BB:558:U:C2	35:BB:569:G:C2	3.00	0.50
35:BB:623:A:N3	35:BB:623:A:H2'	2.26	0.50
35:BB:641:C:C4	35:BB:1399:A:C5	3.00	0.50
35:BB:650:A:C6	35:BB:651:G:C5	2.99	0.50
35:BB:666:A:N7	35:BB:667:G:C6	2.80	0.50
35:BB:779:C:H2'	35:BB:780:U:C6	2.47	0.50
35:BB:850:U:H1'	35:BB:852:G:P	2.51	0.50
35:BB:878:G:C2	35:BB:900:C:H1'	2.46	0.50
35:BB:1246:C:H2'	35:BB:1247:C:H5'	1.93	0.50
35:BB:1289:G:C6	35:BB:1290:C:C5	2.99	0.50
35:BB:1487:G:C6	35:BB:1488:G:C5	3.00	0.50
35:BB:1487:G:H2'	35:BB:1488:G:C8	2.46	0.50
36:BC:139:A:O5'	36:BC:139:A:C8	2.65	0.50
37:BD:7:G:H2'	37:BD:8:A:C8	2.46	0.50
37:BD:93:G:C2'	37:BD:94:C:H6	2.25	0.50
38:BE:159:A:N7	38:BE:160:C:H1'	2.27	0.50
39:BF:8:C:C6	39:BF:10:A:N1	2.80	0.50
39:BF:22:U:H2'	48:BO:136:ARG:NH2	2.27	0.50
39:BF:61:A:C5'	39:BF:62:U:C5	2.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:8:U:H1'	40:BG:17:A:C2	2.47	0.50
40:BG:35:G:N1	40:BG:36:G:C5	2.80	0.50
40:BG:133:C:C6	40:BG:157:A:C5	3.00	0.50
41:BH:8:C:H3'	41:BH:9:C:C5	2.47	0.50
41:BH:57:A:H2'	41:BH:58:C:C6	2.47	0.50
52:BS:83:TYR:HA	52:BS:88:GLY:C	2.37	0.50
58:BY:45:MET:SD	58:BY:45:MET:N	2.85	0.50
59:BZ:97:HIS:CE1	59:BZ:100:ASN:N	2.80	0.50
60:Ba:24:ILE:HA	60:Ba:42:LEU:CD2	2.40	0.50
64:Be:158:VAL:HG23	64:Be:159:PRO:O	2.12	0.50
65:Bf:244:ILE:HA	65:Bf:247:LYS:HD2	1.92	0.50
76:Bq:30:ARG:CZ	76:Bq:30:ARG:HB2	2.41	0.50
79:Bt:62:ALA:C	79:Bt:63:LYS:HD3	2.37	0.50
83:Bx:121:ARG:HB3	83:Bx:121:ARG:CZ	2.42	0.50
84:By:131:TYR:CD1	84:By:131:TYR:N	2.79	0.50
85:AA:28:A:C2	85:AA:29:U:C2	3.00	0.50
85:AA:85:U:C6	85:AA:85:U:C3'	2.94	0.50
85:AA:113:U:N3	85:AA:114:C:C5	2.79	0.50
85:AA:331:G:H3'	85:AA:332:A:H5''	1.94	0.50
85:AA:382:G:C5	85:AA:383:C:C5	3.00	0.50
85:AA:540:A:C2	85:AA:541:A:C8	3.00	0.50
85:AA:654:A:C2	85:AA:657:C:C5	3.00	0.50
85:AA:680:U:N3	85:AA:682:C:C4	2.79	0.50
85:AA:698:G:O5'	85:AA:698:G:C8	2.64	0.50
85:AA:746:G:C2	85:AA:759:G:C5	3.00	0.50
85:AA:900:G:C2	85:AA:901:C:C6	3.00	0.50
85:AA:942:A:O3'	85:AA:943:U:C6	2.65	0.50
85:AA:1234:G:C2	85:AA:1266:C:C2	2.98	0.50
85:AA:1274:A:C5	85:AA:1276:A:C4	3.00	0.50
85:AA:1505:G:C2	85:AA:1506:U:C2	3.00	0.50
85:AA:1532:G:H2'	85:AA:1533:C:C6	2.47	0.50
85:AA:1561:A:H4'	85:AA:1586:C:H2'	1.94	0.50
85:AA:2216:A:C5	85:AA:2218:G:C2	2.99	0.50
5:A4:9:LYS:HZ1	53:BT:188:ALA:HB1	1.75	0.50
8:A7:249:ARG:C	8:A7:251:TRP:H	2.20	0.50
11:AC:57:MET:HB3	11:AC:209:MET:HG3	1.93	0.50
13:AE:55:GLY:HA2	85:AA:313:A:H1'	1.92	0.50
15:AG:128:TYR:CE2	85:AA:1214:C:H4'	2.47	0.50
16:AH:49:VAL:HG21	16:AH:74:VAL:HG22	1.93	0.50
27:AT:128:ALA:HB1	27:AT:132:MET:SD	2.51	0.50
29:AV:91:ARG:CB	29:AV:92:PRO:HD2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:127:U:O5'	34:BA:127:U:H6	1.95	0.50
34:BA:201:A:H62	59:BZ:100:ASN:HA	1.76	0.50
34:BA:216:C:OP2	34:BA:216:C:C5	2.64	0.50
34:BA:253:U:C4	34:BA:254:U:C6	2.99	0.50
34:BA:343:G:C6	34:BA:344:G:C6	2.99	0.50
34:BA:440:A:N3	34:BA:441:A:C5	2.80	0.50
34:BA:444:A:C8	34:BA:445:C:C5	3.00	0.50
34:BA:480:G:N1	36:BC:9:G:C6	2.79	0.50
34:BA:523:A:C4	34:BA:524:G:C8	3.00	0.50
34:BA:529:A:C4	34:BA:530:A:C8	3.00	0.50
34:BA:543:A:C8	34:BA:543:A:H3'	2.47	0.50
34:BA:561:U:O2'	34:BA:562:C:C5'	2.59	0.50
34:BA:633:G:N1	34:BA:649:A:C6	2.80	0.50
34:BA:686:U:H3'	34:BA:686:U:C6	2.46	0.50
34:BA:736:G:C5	34:BA:901:C:C6	2.99	0.50
34:BA:739:A:C6	47:BN:14:ARG:HB2	2.47	0.50
34:BA:853:A:N1	34:BA:854:A:C5	2.79	0.50
34:BA:1001:G:N2	34:BA:1002:U:H1'	2.27	0.50
34:BA:1011:G:C2	34:BA:1013:A:N3	2.80	0.50
34:BA:1072:U:C6	34:BA:1072:U:H3'	2.47	0.50
34:BA:1145:U:O2	44:BK:196:HIS:CE1	2.64	0.50
34:BA:1161:G:N3	34:BA:1162:U:C6	2.80	0.50
34:BA:1228:G:O5'	34:BA:1228:G:C8	2.65	0.50
34:BA:1252:G:C6	34:BA:1253:G:C5	3.00	0.50
34:BA:1346:U:H3	34:BA:1399:A:N6	2.07	0.50
34:BA:1424:G:C4	48:BO:79:ARG:O	2.65	0.50
34:BA:1588:U:H2'	34:BA:1589:U:C5	2.47	0.50
34:BA:1613:G:C6	34:BA:1614:G:C5	2.99	0.50
34:BA:1700:C:C5	34:BA:1701:U:C5	3.00	0.50
34:BA:1736:A:C2'	34:BA:1737:A:H5'	2.41	0.50
34:BA:1815:G:N1	34:BA:1816:G:C5	2.80	0.50
34:BA:1845:G:C6	35:BB:6:A:C6	2.99	0.50
35:BB:108:G:C4	35:BB:109:U:C4	3.00	0.50
35:BB:126:C:C6	35:BB:126:C:O5'	2.64	0.50
35:BB:446:U:C2	35:BB:448:G:C6	2.99	0.50
35:BB:474:G:H1'	35:BB:505:G:N2	2.26	0.50
35:BB:490:G:H1	35:BB:1241:U:H1'	1.77	0.50
35:BB:542:A:C2	35:BB:579:A:C2	3.00	0.50
35:BB:657:A:C4	35:BB:658:G:C8	3.00	0.50
35:BB:696:G:C4	35:BB:697:G:N7	2.79	0.50
35:BB:795:A:C2	35:BB:1028:C:N3	2.80	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:830:G:H3'	35:BB:830:G:C8	2.45	0.50
35:BB:1175:A:C2	35:BB:1177:U:C1'	2.95	0.50
35:BB:1218:G:H1	35:BB:1231:U:P	2.35	0.50
35:BB:1430:G:C5	35:BB:1431:G:N7	2.80	0.50
35:BB:1482:A:C2	35:BB:1483:A:C5	2.99	0.50
36:BC:104:A:H4'	36:BC:105:C:C6	2.45	0.50
37:BD:86:A:C6	37:BD:87:G:C5	2.99	0.50
38:BE:75:C:C4	38:BE:76:U:C5	2.99	0.50
38:BE:114:G:O6	38:BE:115:U:C4	2.65	0.50
38:BE:179:A:H4'	38:BE:180:G:H4'	1.94	0.50
40:BG:80:G:N3	40:BG:119:A:C2	2.80	0.50
40:BG:86:U:C2	67:Bh:101:PHE:CZ	3.00	0.50
40:BG:111:C:C4	40:BG:112:C:C5	2.99	0.50
41:BH:29:G:C2'	41:BH:30:C:H5'	2.38	0.50
50:BQ:47:PHE:CD2	50:BQ:146:TRP:CE2	3.00	0.50
65:Bf:425:HIS:CD2	65:Bf:426:GLY:H	2.30	0.50
69:Bj:87:GLN:CD	69:Bj:87:GLN:N	2.67	0.50
80:Bu:190:ASN:O	80:Bu:194:ASP:HA	2.11	0.50
85:AA:16:G:H2'	85:AA:16:G:N3	2.26	0.50
85:AA:24:U:H3'	85:AA:25:C:H5''	1.94	0.50
85:AA:190:A:C2	85:AA:249:C:C2	3.00	0.50
85:AA:276:C:C2	85:AA:277:G:C8	2.99	0.50
85:AA:577:U:H3'	85:AA:578:U:C5'	2.42	0.50
85:AA:782:G:C6	85:AA:783:C:C4	3.00	0.50
85:AA:860:C:H1'	85:AA:861:G:C6	2.47	0.50
85:AA:925:G:C4	85:AA:926:C:C6	2.99	0.50
85:AA:1153:G:C8	85:AA:1154:A:O5'	2.64	0.50
85:AA:1290:G:C2	85:AA:1291:A:N7	2.79	0.50
85:AA:1707:G:O5'	85:AA:1707:G:C8	2.64	0.50
85:AA:1991:C:H42	85:AA:2075:C:C4'	2.25	0.50
85:AA:2056:C:C4	85:AA:2057:G:N7	2.80	0.50
85:AA:2147:A:C8	85:AA:2148:C:C5	2.99	0.50
2:A1:178:VAL:HG22	2:A1:224:VAL:HA	1.93	0.50
15:AG:25:TRP:CZ3	15:AG:26:LEU:HB3	2.47	0.50
16:AH:53:MET:HA	85:AA:1148:G:H5'	1.94	0.50
17:AI:64:LEU:HA	17:AI:67:LEU:HD12	1.94	0.50
23:AP:224:THR:O	23:AP:227:ALA:HB3	2.12	0.50
23:AP:236:THR:O	23:AP:240:TRP:CG	2.65	0.50
24:AQ:16:ARG:HE	24:AQ:115:HIS:C	2.19	0.50
29:AV:17:ARG:HH22	85:AA:1184:A:H3'	1.77	0.50
34:BA:38:G:H1'	35:BB:1259:A:H61	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:52:G:N1	34:BA:53:G:C4	2.79	0.50
34:BA:59:A:N6	34:BA:60:A:C6	2.80	0.50
34:BA:327:G:C4'	72:Bm:42:HIS:HE1	2.24	0.50
34:BA:351:A:H5''	50:BQ:114:ASN:CB	2.42	0.50
34:BA:541:C:C2	34:BA:542:A:C8	3.00	0.50
34:BA:692:U:H6	34:BA:692:U:C5'	2.25	0.50
34:BA:790:G:C5	34:BA:794:G:C6	3.00	0.50
34:BA:890:G:C2	34:BA:891:C:C2	3.00	0.50
34:BA:908:G:O6	34:BA:909:G:C6	2.65	0.50
34:BA:917:C:C4	34:BA:918:U:C4	3.00	0.50
34:BA:979:G:C5	34:BA:981:A:C4	3.00	0.50
34:BA:1195:G:H2'	34:BA:1196:C:O4'	2.12	0.50
34:BA:1200:U:C4	34:BA:1202:G:O6	2.64	0.50
34:BA:1241:U:C6	34:BA:1242:A:C8	2.99	0.50
34:BA:1330:G:C2	34:BA:1412:G:C2	3.00	0.50
34:BA:1337:A:C2	34:BA:1405:A:C6	3.00	0.50
34:BA:1547:G:C6	34:BA:1562:G:C5	2.99	0.50
34:BA:1621:U:H2'	34:BA:1623:U:C5	2.47	0.50
34:BA:1661:U:O2	34:BA:1663:U:C4	2.65	0.50
34:BA:1667:G:H2'	34:BA:1668:C:O4'	2.12	0.50
35:BB:106:A:C5	35:BB:117:A:C2	3.00	0.50
35:BB:516:G:C4	35:BB:539:G:C6	3.00	0.50
35:BB:552:C:C4	35:BB:553:U:N3	2.79	0.50
35:BB:817:C:C4	35:BB:823:G:C6	3.00	0.50
35:BB:856:U:C4	35:BB:857:G:N7	2.80	0.50
35:BB:992:C:H2'	64:Be:70:ARG:HE	1.75	0.50
35:BB:1236:A:C6	35:BB:1237:C:C4	2.99	0.50
35:BB:1288:G:C2	35:BB:1319:U:C5	2.99	0.50
35:BB:1299:G:C8	35:BB:1302:C:N3	2.80	0.50
35:BB:1347:C:H2'	35:BB:1348:C:H6	1.76	0.50
35:BB:1358:A:C5	35:BB:1359:G:C8	2.99	0.50
35:BB:1529:G:C2	35:BB:1540:U:C2	3.00	0.50
37:BD:52:U:C2	37:BD:53:U:C5	3.00	0.50
37:BD:90:A:OP2	37:BD:90:A:C8	2.64	0.50
37:BD:119:U:C6	80:Bu:269:ARG:O	2.65	0.50
38:BE:26:G:C6	38:BE:27:A:C5	3.00	0.50
38:BE:48:G:N1	38:BE:49:A:C5	2.80	0.50
38:BE:186:C:C5	38:BE:189:A:C4	2.99	0.50
39:BF:22:U:C2	48:BO:136:ARG:CZ	2.95	0.50
40:BG:44:G:C6	40:BG:45:G:N7	2.80	0.50
41:BH:39:G:C5	41:BH:40:C:C4	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BH:121:A:C2	41:BH:123:G:C4	3.00	0.50
42:BI:29:LEU:HA	42:BI:32:LEU:HD23	1.93	0.50
57:BX:88:PRO:HA	57:BX:106:PHE:CD2	2.47	0.50
62:Bc:96:ALA:C	62:Bc:97:ASP:CG	2.78	0.50
62:Bc:136:PHE:HA	62:Bc:139:LYS:HB2	1.93	0.50
78:Bs:20:CYS:SG	78:Bs:23:CYS:SG	3.09	0.50
80:Bu:99:TYR:HA	80:Bu:168:VAL:HA	1.93	0.50
85:AA:2:A:C4	85:AA:435:A:C4	2.99	0.50
85:AA:89:C:OP2	85:AA:90:A:C2	2.65	0.50
85:AA:114:C:C4	85:AA:115:U:C6	3.00	0.50
85:AA:367:A:C8	85:AA:368:C:H5	2.30	0.50
85:AA:376:C:C5	85:AA:423:G:N1	2.80	0.50
85:AA:549:A:C2	85:AA:550:G:C5	3.00	0.50
85:AA:567:G:C5	85:AA:568:C:C4	3.00	0.50
85:AA:794:A:C8	85:AA:794:A:O5'	2.65	0.50
85:AA:932:A:H2'	85:AA:933:U:C6	2.47	0.50
85:AA:938:A:C5	85:AA:939:A:N9	2.80	0.50
85:AA:958:C:O2	85:AA:959:C:C6	2.64	0.50
85:AA:987:C:C4	85:AA:989:U:OP1	2.65	0.50
85:AA:1282:A:C2	85:AA:1283:C:C2	3.00	0.50
85:AA:1373:U:C6	85:AA:1373:U:C5'	2.95	0.50
85:AA:1544:G:C4	85:AA:2046:G:N1	2.80	0.50
85:AA:1584:U:H1'	85:AA:1585:A:C6	2.47	0.50
85:AA:1880:C:H2'	85:AA:1881:C:C6	2.47	0.50
85:AA:1904:C:N3	85:AA:1905:A:C8	2.80	0.50
85:AA:1930:U:H2'	85:AA:1931:C:C6	2.47	0.50
85:AA:1938:G:C6	85:AA:1939:C:C4	2.99	0.50
85:AA:1960:C:C2	85:AA:1978:G:C2	2.99	0.50
85:AA:2135:A:C2	85:AA:2184:A:C2	2.99	0.50
85:AA:2147:A:H3'	85:AA:2148:C:C6	2.47	0.50
85:AA:2218:G:H5''	85:AA:2219:G:H5'	1.94	0.50
85:AA:2236:U:C2	85:AA:2237:G:C8	3.00	0.50
5:A4:68:TYR:H	5:A4:100:ALA:HA	1.77	0.49
11:AC:55:LEU:HD23	11:AC:60:HIS:CG	2.46	0.49
22:AO:63:ALA:HB1	22:AO:64:PRO:HD2	1.93	0.49
29:AV:96:ARG:O	85:AA:2247:C:C6	2.65	0.49
34:BA:6:C:N3	36:BC:166:G:C6	2.80	0.49
34:BA:60:A:C4	34:BA:61:G:C8	3.00	0.49
34:BA:234:A:C6	34:BA:235:C:C2	3.00	0.49
34:BA:239:C:C5	34:BA:240:C:C6	3.00	0.49
34:BA:257:G:H2'	34:BA:258:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:262:A:C2	34:BA:279:U:C4	3.00	0.49
34:BA:279:U:C3'	34:BA:280:A:C8	2.95	0.49
34:BA:373:G:C6	35:BB:1238:A:C6	3.00	0.49
34:BA:463:A:HO2'	34:BA:466:G:H8	1.59	0.49
34:BA:499:C:H2'	34:BA:500:C:C6	2.46	0.49
34:BA:677:U:H1'	34:BA:678:C:C5	2.46	0.49
34:BA:681:G:C5	81:Bv:16:VAL:HG11	2.47	0.49
34:BA:771:A:C5'	34:BA:774:A:N6	2.75	0.49
34:BA:1091:U:H2'	34:BA:1092:U:C6	2.47	0.49
34:BA:1115:A:N1	34:BA:1116:G:C5	2.79	0.49
34:BA:1192:A:C6	34:BA:1193:A:C4	3.00	0.49
34:BA:1203:G:C6	34:BA:1204:U:C5	3.00	0.49
34:BA:1203:G:N1	34:BA:1204:U:C2	2.80	0.49
34:BA:1333:G:C6	34:BA:1409:A:N1	2.80	0.49
34:BA:1587:C:C4	34:BA:1588:U:C5	2.99	0.49
34:BA:1650:G:O2'	34:BA:1652:G:C8	2.61	0.49
34:BA:1687:A:H2'	34:BA:1688:G:C8	2.47	0.49
34:BA:1719:G:C2	34:BA:1720:U:C2	3.00	0.49
34:BA:1732:A:N6	34:BA:1792:U:H3	2.03	0.49
34:BA:1738:G:H8	34:BA:1738:G:O5'	1.95	0.49
35:BB:68:G:C6	35:BB:69:A:N6	2.80	0.49
35:BB:83:G:H2'	35:BB:84:G:C8	2.47	0.49
35:BB:94:A:C6	35:BB:95:A:C5	2.99	0.49
35:BB:112:G:N2	35:BB:113:C:C6	2.80	0.49
35:BB:128:C:N3	35:BB:376:A:C2	2.80	0.49
35:BB:374:A:C2	35:BB:375:G:N9	2.80	0.49
35:BB:449:C:C2	35:BB:450:A:C8	2.99	0.49
35:BB:537:A:C5	35:BB:538:A:C6	3.00	0.49
35:BB:656:A:C5	35:BB:1449:G:C2	3.00	0.49
35:BB:665:A:C4	35:BB:1404:A:N6	2.80	0.49
35:BB:837:A:H5''	35:BB:1026:G:C2	2.47	0.49
35:BB:867:C:C2	35:BB:868:C:C6	3.00	0.49
35:BB:961:G:C6	35:BB:962:U:C5	3.00	0.49
35:BB:1040:C:C4	35:BB:1041:A:C6	3.00	0.49
35:BB:1102:U:H2'	79:Bt:4:TYR:HA	1.94	0.49
35:BB:1141:A:C4	35:BB:1142:C:C5	3.00	0.49
35:BB:1179:C:H2'	35:BB:1180:G:C8	2.47	0.49
35:BB:1193:G:H2'	35:BB:1195:A:OP2	2.11	0.49
35:BB:1306:G:H2'	35:BB:1307:C:O4'	2.12	0.49
35:BB:1426:G:C8	64:Be:215:ASN:OD1	2.65	0.49
35:BB:1496:C:C6	35:BB:1510:G:N2	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1534:U:C6	41:BH:27:A:C2	3.00	0.49
36:BC:132:U:H2'	36:BC:133:C:C5'	2.42	0.49
37:BD:4:U:H2'	37:BD:5:A:C8	2.47	0.49
37:BD:94:C:C3'	37:BD:95:G:C8	2.95	0.49
38:BE:29:C:C5	38:BE:190:U:C6	3.00	0.49
39:BF:5:U:O2	39:BF:6:C:H5'	2.12	0.49
40:BG:30:C:H5''	65:Bf:77:ARG:NH1	2.27	0.49
40:BG:34:A:H1'	40:BG:169:A:C5	2.46	0.49
41:BH:25:A:C8	41:BH:128:G:C6	3.00	0.49
41:BH:33:G:O2'	41:BH:34:G:C8	2.62	0.49
41:BH:43:G:C4	41:BH:111:U:H4'	2.47	0.49
48:BO:89:PHE:O	48:BO:91:HIS:CE1	2.64	0.49
58:BY:59:TYR:CE2	58:BY:65:LYS:HE3	2.47	0.49
77:Br:64:GLU:N	77:Br:79:HIS:CE1	2.80	0.49
80:Bu:22:ARG:HA	80:Bu:25:GLU:HB2	1.92	0.49
80:Bu:204:ARG:HH11	80:Bu:209:HIS:CD2	2.28	0.49
83:Bx:110:TYR:CZ	83:Bx:216:VAL:HA	2.47	0.49
83:Bx:143:LEU:HD21	83:Bx:216:VAL:O	2.12	0.49
84:By:99:ILE:HA	84:By:112:ASN:HB2	1.94	0.49
85:AA:23:G:C6	85:AA:677:U:O4	2.65	0.49
85:AA:99:U:H2'	85:AA:100:A:C8	2.47	0.49
85:AA:319:U:C2	85:AA:320:U:C5	3.00	0.49
85:AA:339:A:O5'	85:AA:339:A:C8	2.65	0.49
85:AA:352:G:C2	85:AA:353:G:C4	3.00	0.49
85:AA:395:G:N1	85:AA:396:U:C4	2.80	0.49
85:AA:395:G:C4	85:AA:396:U:C5	3.00	0.49
85:AA:510:A:C2	85:AA:511:A:C4	2.99	0.49
85:AA:635:G:C6	85:AA:659:A:N1	2.80	0.49
85:AA:708:G:C2	85:AA:1215:A:C4	3.00	0.49
85:AA:811:A:N1	85:AA:812:C:C4	2.81	0.49
85:AA:823:C:C2	85:AA:824:C:C6	3.00	0.49
85:AA:865:G:C5	85:AA:866:U:C6	2.99	0.49
85:AA:865:G:N1	85:AA:866:U:C2	2.80	0.49
85:AA:1065:G:C5	85:AA:1066:U:C4	3.00	0.49
85:AA:1287:C:H42	85:AA:1469:G:H21	1.60	0.49
85:AA:1583:U:O5'	85:AA:1583:U:H6	1.95	0.49
85:AA:1903:G:C5	85:AA:1904:C:C6	2.99	0.49
85:AA:2137:A:C5	85:AA:2138:G:C5	3.00	0.49
85:AA:2185:U:H2'	85:AA:2186:U:O4'	2.12	0.49
6:A5:36:THR:HG22	6:A5:57:GLY:C	2.37	0.49
18:AJ:113:HIS:HA	18:AJ:116:ALA:HB3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AP:189:VAL:HG21	85:AA:2:A:C4	2.47	0.49
25:AR:75:HIS:HB3	30:AW:4:PHE:CZ	2.47	0.49
28:AU:96:ARG:O	28:AU:107:TYR:HA	2.12	0.49
30:AW:75:VAL:HG22	30:AW:76:THR:N	2.27	0.49
34:BA:23:A:C6	34:BA:395:G:C6	2.99	0.49
34:BA:62:A:C4	34:BA:74:A:H1'	2.47	0.49
34:BA:87:G:H2'	34:BA:88:C:C6	2.47	0.49
34:BA:121:A:N1	34:BA:146:G:H1'	2.26	0.49
34:BA:161:U:C6	34:BA:165:C:N1	2.80	0.49
34:BA:165:C:C2	34:BA:166:G:C8	3.00	0.49
34:BA:254:U:C4	34:BA:255:G:C5	3.00	0.49
34:BA:261:A:N1	34:BA:282:A:C6	2.80	0.49
34:BA:301:U:H5''	34:BA:302:A:O5'	2.11	0.49
34:BA:333:A:C5	34:BA:334:G:C8	3.00	0.49
34:BA:365:A:C2	34:BA:377:G:C4	3.00	0.49
34:BA:480:G:N1	36:BC:9:G:C5	2.80	0.49
34:BA:513:U:O2	34:BA:514:U:C5	2.65	0.49
34:BA:561:U:O2	34:BA:562:C:C6	2.65	0.49
34:BA:597:C:C4	34:BA:598:G:C5	3.00	0.49
34:BA:614:A:N6	34:BA:667:U:H3	2.09	0.49
34:BA:629:G:H22	34:BA:655:U:C4'	2.25	0.49
34:BA:698:U:C2	34:BA:699:G:C8	3.00	0.49
34:BA:702:G:C2	34:BA:703:U:C2	3.00	0.49
34:BA:756:A:C8	34:BA:757:G:H1'	2.47	0.49
34:BA:777:C:O2'	34:BA:778:U:H5'	2.11	0.49
34:BA:798:G:N9	61:Bb:114:HIS:CE1	2.81	0.49
34:BA:923:C:N3	34:BA:924:U:C4	2.80	0.49
34:BA:1125:G:N3	34:BA:1136:A:C2	2.80	0.49
34:BA:1202:G:C5	34:BA:1203:G:C8	2.99	0.49
34:BA:1221:A:C2	34:BA:1222:C:C4	3.00	0.49
34:BA:1261:G:H2'	34:BA:1262:A:H5'	1.94	0.49
34:BA:1329:U:C2	34:BA:1413:G:C6	2.99	0.49
34:BA:1417:C:C2	34:BA:1418:G:C8	3.00	0.49
34:BA:1424:G:C6	48:BO:80:LYS:HA	2.47	0.49
34:BA:1456:C:H3'	34:BA:1457:C:C5	2.47	0.49
34:BA:1477:C:C5	34:BA:1505:G:O4'	2.66	0.49
34:BA:1503:U:C6	34:BA:1503:U:C3'	2.95	0.49
34:BA:1796:A:OP2	34:BA:1796:A:C8	2.65	0.49
35:BB:28:G:C6	35:BB:34:G:O6	2.65	0.49
35:BB:483:C:N4	35:BB:484:G:C5	2.80	0.49
35:BB:490:G:C6	35:BB:491:A:C6	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:584:A:C4	35:BB:585:U:C6	3.01	0.49
35:BB:687:C:C4	35:BB:688:U:C4	3.00	0.49
35:BB:729:G:C8	35:BB:761:A:C2	3.00	0.49
35:BB:1016:C:N3	35:BB:1017:U:C5	2.80	0.49
35:BB:1027:U:C4	35:BB:1028:C:C5	3.00	0.49
35:BB:1490:G:C6	35:BB:1517:G:C2	3.00	0.49
37:BD:36:C:H5'	80:Bu:161:THR:HG23	1.94	0.49
37:BD:59:G:H2'	37:BD:60:C:C6	2.47	0.49
38:BE:35:A:C2	38:BE:178:G:C2	3.00	0.49
38:BE:108:U:H2'	38:BE:109:C:C1'	2.42	0.49
38:BE:144:A:C6	38:BE:145:A:C5	3.00	0.49
40:BG:50:G:C2	40:BG:59:G:C5	2.99	0.49
40:BG:90:G:C6	40:BG:91:U:C5	3.00	0.49
40:BG:152:G:C5'	84:By:38:ARG:NH1	2.71	0.49
40:BG:166:C:C2	40:BG:167:C:C5	3.00	0.49
41:BH:43:G:C4	41:BH:44:A:C8	2.99	0.49
51:BR:25:HIS:HB2	51:BR:28:ASN:CG	2.36	0.49
53:BT:102:LEU:O	53:BT:106:LEU:HG	2.12	0.49
57:BX:156:ASP:HA	57:BX:159:ASN:HD21	1.77	0.49
66:Bg:44:THR:HG23	66:Bg:49:ARG:HG3	1.93	0.49
69:Bj:102:ARG:HA	69:Bj:105:LYS:CE	2.43	0.49
74:Bo:33:GLN:CG	74:Bo:34:HIS:CE1	2.95	0.49
77:Br:120:ARG:CB	77:Br:275:PHE:CZ	2.95	0.49
82:Bw:189:HIS:CG	82:Bw:190:ASN:N	2.80	0.49
85:AA:63:G:C8	85:AA:174:U:O4	2.65	0.49
85:AA:106:G:H3'	85:AA:107:A:H8	1.76	0.49
85:AA:124:A:C6	85:AA:184:A:C2	2.99	0.49
85:AA:144:A:H3'	85:AA:145:C:C5'	2.41	0.49
85:AA:234:G:C5	85:AA:237:G:C6	3.00	0.49
85:AA:269:G:OP2	85:AA:270:A:C5	2.65	0.49
85:AA:269:G:C4	85:AA:980:U:O2	2.65	0.49
85:AA:551:C:H2'	85:AA:552:C:H6	1.76	0.49
85:AA:590:U:H1'	85:AA:601:A:C2	2.47	0.49
85:AA:771:A:C5	85:AA:773:G:C5	3.01	0.49
85:AA:965:G:C2	85:AA:966:G:C5	3.00	0.49
85:AA:1007:G:C5	85:AA:1008:C:C5	3.01	0.49
85:AA:1197:U:H2'	85:AA:1198:U:O4'	2.12	0.49
85:AA:1257:A:C5	85:AA:1258:U:C5	3.01	0.49
85:AA:1285:C:C2	85:AA:1286:C:C6	3.00	0.49
85:AA:1291:A:N6	85:AA:1292:A:C2	2.80	0.49
85:AA:1698:A:H4'	85:AA:1699:A:O5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1868:G:C5	85:AA:1869:U:C6	3.00	0.49
85:AA:1916:A:H2'	85:AA:1917:G:O4'	2.12	0.49
85:AA:2132:A:C4	85:AA:2187:G:C2	3.00	0.49
85:AA:2175:U:C2	85:AA:2176:U:C5	3.00	0.49
85:AA:2213:A:H3'	85:AA:2213:A:C8	2.47	0.49
85:AA:2236:U:C6	85:AA:2236:U:C3'	2.95	0.49
3:A2:143:GLY:HA2	3:A2:174:TYR:CG	2.46	0.49
6:A5:31:ARG:HH22	85:AA:399:A:P	2.35	0.49
6:A5:36:THR:O	6:A5:95:THR:HG23	2.10	0.49
23:AP:163:THR:HG22	23:AP:164:ILE:N	2.27	0.49
34:BA:21:C:H3'	34:BA:22:C:C5	2.48	0.49
34:BA:78:U:H2'	34:BA:79:C:C6	2.47	0.49
34:BA:111:U:O4	34:BA:383:G:C5	2.66	0.49
34:BA:133:A:C8	34:BA:134:U:N1	2.80	0.49
34:BA:170:U:O2	34:BA:319:C:C2	2.65	0.49
34:BA:193:C:C2	34:BA:194:G:O2'	2.66	0.49
34:BA:355:U:H2'	34:BA:356:C:O4'	2.11	0.49
34:BA:374:U:C4	34:BA:375:C:C4	3.00	0.49
34:BA:480:G:C6	36:BC:9:G:O6	2.66	0.49
34:BA:610:A:N1	34:BA:611:A:C4	2.81	0.49
34:BA:883:C:C2	34:BA:883:C:OP2	2.66	0.49
34:BA:902:C:H2'	34:BA:903:C:C6	2.46	0.49
34:BA:1001:G:C5	34:BA:1002:U:C4	3.00	0.49
34:BA:1274:A:C2	34:BA:1275:G:C8	2.99	0.49
34:BA:1297:G:C6	34:BA:1451:A:H1'	2.48	0.49
34:BA:1641:G:N1	34:BA:1642:A:C5	2.80	0.49
34:BA:1696:G:H2'	34:BA:1697:U:H5'	1.94	0.49
34:BA:1699:A:C8	34:BA:1700:C:OP2	2.64	0.49
34:BA:1711:G:C4	34:BA:1719:G:N1	2.80	0.49
34:BA:1816:G:C5	34:BA:1818:A:C5	3.00	0.49
35:BB:43:G:C5	35:BB:44:C:C4	3.00	0.49
35:BB:87:G:C2	35:BB:88:U:H1'	2.46	0.49
35:BB:102:G:N1	35:BB:121:A:C6	2.81	0.49
35:BB:363:A:O2'	35:BB:364:U:C6	2.65	0.49
35:BB:390:G:C5	35:BB:391:G:C8	3.01	0.49
35:BB:425:G:C4	35:BB:446:U:C4	2.99	0.49
35:BB:430:A:P	64:Be:227:ARG:HH21	2.34	0.49
35:BB:432:C:C4	35:BB:439:G:C6	3.00	0.49
35:BB:457:U:C4	35:BB:458:U:C6	3.01	0.49
35:BB:510:A:C2	35:BB:580:A:C5	3.00	0.49
35:BB:616:U:H5'	35:BB:658:G:OP1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:620:G:N1	35:BB:621:C:C2	2.80	0.49
35:BB:634:A:H2'	35:BB:635:A:C8	2.47	0.49
35:BB:706:G:C2	35:BB:707:G:C8	3.00	0.49
35:BB:1041:A:C5	35:BB:1042:U:C6	3.00	0.49
35:BB:1109:A:N1	35:BB:1110:G:C4	2.80	0.49
35:BB:1218:G:H3'	35:BB:1218:G:N3	2.28	0.49
35:BB:1288:G:C4	35:BB:1289:G:C8	3.00	0.49
35:BB:1299:G:H3'	35:BB:1302:C:N4	2.27	0.49
35:BB:1495:U:H5''	35:BB:1495:U:H6	1.76	0.49
36:BC:106:G:C6	36:BC:107:C:C4	3.00	0.49
36:BC:157:U:H1'	36:BC:158:U:C6	2.46	0.49
37:BD:20:C:H2'	37:BD:21:G:C8	2.47	0.49
37:BD:93:G:H2'	37:BD:94:C:H6	1.72	0.49
37:BD:95:G:C4	37:BD:96:C:H5	2.29	0.49
37:BD:98:G:C5	37:BD:99:G:C4	3.01	0.49
38:BE:29:C:C4	38:BE:30:C:N4	2.81	0.49
38:BE:102:U:O4	38:BE:117:A:C2	2.65	0.49
40:BG:25:G:C5	40:BG:26:G:C8	3.00	0.49
40:BG:101:G:C4	40:BG:102:G:C8	2.99	0.49
40:BG:104:A:C4	40:BG:105:A:C8	3.01	0.49
41:BH:34:G:C4	41:BH:121:A:C2	3.00	0.49
48:BO:89:PHE:C	48:BO:90:HIS:CG	2.90	0.49
49:BP:137:VAL:HG23	49:BP:140:HIS:HB2	1.95	0.49
56:BW:29:ASP:HA	56:BW:115:GLY:C	2.38	0.49
61:Bb:75:LEU:HD13	61:Bb:115:LEU:HD21	1.95	0.49
64:Be:241:ARG:HD2	64:Be:241:ARG:H	1.77	0.49
65:Bf:146:THR:HB	65:Bf:148:VAL:HG12	1.94	0.49
65:Bf:352:ALA:HB3	65:Bf:361:LYS:C	2.38	0.49
69:Bj:10:ARG:NH2	69:Bj:11:ARG:H	2.10	0.49
69:Bj:87:GLN:OE1	69:Bj:88:VAL:HG23	2.13	0.49
78:Bs:40:GLY:C	78:Bs:41:HIS:CD2	2.90	0.49
80:Bu:161:THR:HA	80:Bu:185:ARG:O	2.13	0.49
81:Bv:68:TYR:CE2	81:Bv:169:LYS:HB2	2.47	0.49
85:AA:60:U:C3'	85:AA:61:C:H5''	2.41	0.49
85:AA:270:A:C2	85:AA:271:A:C8	3.00	0.49
85:AA:356:U:H3'	85:AA:357:C:C5	2.46	0.49
85:AA:373:G:C2'	85:AA:374:C:O5'	2.59	0.49
85:AA:604:C:H5'	85:AA:608:A:H5'	1.95	0.49
85:AA:636:G:N2	85:AA:637:U:H1'	2.27	0.49
85:AA:639:C:C5	85:AA:650:G:H3'	2.47	0.49
85:AA:887:A:O2'	85:AA:888:A:C5	2.64	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:906:U:H5'	85:AA:907:G:C8	2.48	0.49
85:AA:1123:C:H6	85:AA:1123:C:O5'	1.96	0.49
85:AA:1136:A:C2	85:AA:1137:C:C2	3.00	0.49
85:AA:1158:U:C5'	85:AA:1158:U:C6	2.95	0.49
85:AA:1240:A:C2	85:AA:1261:U:O4	2.66	0.49
85:AA:1280:U:O4	85:AA:1470:A:C8	2.65	0.49
85:AA:1288:A:C6	85:AA:1289:U:N3	2.80	0.49
85:AA:1362:A:C6	85:AA:1363:U:C4	3.01	0.49
85:AA:1496:U:O5'	85:AA:1496:U:H6	1.94	0.49
85:AA:1525:C:H5'	85:AA:2103:C:OP2	2.12	0.49
85:AA:1538:C:H4'	85:AA:2087:C:C2	2.46	0.49
85:AA:1754:G:H1'	85:AA:1790:G:C5	2.46	0.49
85:AA:1835:U:C6	85:AA:1839:G:O6	2.64	0.49
85:AA:2145:G:C5	85:AA:2146:G:C6	3.00	0.49
3:A2:12:TRP:HE1	3:A2:87:HIS:CE1	2.31	0.49
4:A3:2:LYS:O	4:A3:111:VAL:HA	2.12	0.49
4:A3:3:LEU:HD11	4:A3:18:VAL:HG12	1.94	0.49
12:AD:18:PHE:CZ	12:AD:93:ALA:HB1	2.47	0.49
18:AJ:128:PHE:CD2	18:AJ:128:PHE:C	2.91	0.49
19:AK:2:SER:HA	85:AA:1730:C:H5''	1.93	0.49
23:AP:240:TRP:CG	23:AP:241:ALA:H	2.30	0.49
34:BA:6:C:N3	36:BC:166:G:N1	2.59	0.49
34:BA:105:U:C6	34:BA:105:U:O5'	2.65	0.49
34:BA:172:A:C5	34:BA:316:G:N1	2.81	0.49
34:BA:187:G:N1	34:BA:300:C:C2	2.80	0.49
34:BA:208:A:H1'	34:BA:224:G:C2	2.47	0.49
34:BA:227:C:H1'	62:Bc:134:MET:HE1	1.93	0.49
34:BA:358:A:C4	34:BA:360:C:N4	2.80	0.49
34:BA:387:A:C2	34:BA:388:A:N1	2.81	0.49
34:BA:512:U:H3	34:BA:690:G:H22	1.59	0.49
34:BA:531:C:O2	34:BA:579:U:H3'	2.12	0.49
34:BA:542:A:C4	34:BA:543:A:C8	3.00	0.49
34:BA:545:U:H2'	34:BA:546:U:H5'	1.93	0.49
34:BA:678:C:C2'	34:BA:679:U:H5'	2.42	0.49
34:BA:723:C:O4'	35:BB:664:A:C4	2.65	0.49
34:BA:733:G:C6	34:BA:734:G:C6	3.01	0.49
34:BA:757:G:H4'	34:BA:758:G:C2	2.46	0.49
34:BA:816:G:O6	34:BA:855:C:C4	2.65	0.49
34:BA:837:U:O5'	34:BA:837:U:H6	1.95	0.49
34:BA:988:U:C4	34:BA:989:C:C5	3.00	0.49
34:BA:1070:G:N1	34:BA:1071:G:C4	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1087:A:C6	34:BA:1213:A:N1	2.81	0.49
34:BA:1239:G:C6	34:BA:1246:G:C6	3.00	0.49
34:BA:1239:G:C4	34:BA:1240:G:C5	3.00	0.49
34:BA:1277:G:C2	34:BA:1278:A:C4	3.01	0.49
34:BA:1374:G:C2	34:BA:1375:C:C2	3.00	0.49
34:BA:1433:U:H4'	34:BA:1435:A:C5'	2.41	0.49
34:BA:1723:U:O2	34:BA:1724:G:C4	2.66	0.49
35:BB:9:G:C6	35:BB:10:C:C4	3.01	0.49
35:BB:475:A:OP1	35:BB:475:A:H4'	2.13	0.49
35:BB:605:C:H2'	35:BB:606:C:C2	2.47	0.49
35:BB:636:G:C6	35:BB:637:G:C5	3.01	0.49
35:BB:726:A:H2'	35:BB:727:U:H5''	1.95	0.49
35:BB:735:A:C6	35:BB:755:A:C5	3.01	0.49
35:BB:831:C:N3	35:BB:832:C:C5	2.81	0.49
35:BB:854:G:N2	35:BB:869:G:H1'	2.27	0.49
35:BB:942:G:N1	35:BB:943:U:N3	2.61	0.49
35:BB:955:U:H3'	35:BB:956:G:H8	1.76	0.49
35:BB:1001:G:N1	35:BB:1018:U:C2	2.80	0.49
35:BB:1099:U:N3	35:BB:1100:C:C6	2.80	0.49
35:BB:1211:C:C2	35:BB:1212:C:C5	3.00	0.49
35:BB:1339:C:H2'	35:BB:1340:U:C6	2.47	0.49
36:BC:18:G:C5	36:BC:19:A:N7	2.80	0.49
36:BC:91:G:C5	36:BC:92:C:C5	2.99	0.49
37:BD:101:A:C4	37:BD:102:C:C6	3.01	0.49
37:BD:115:A:C5	37:BD:116:C:C5	3.01	0.49
38:BE:101:C:C6	38:BE:117:A:C6	3.01	0.49
38:BE:135:A:H3'	38:BE:136:G:H4'	1.95	0.49
41:BH:100:A:C3'	41:BH:101:A:H4'	2.43	0.49
44:BK:32:ARG:H	44:BK:69:ARG:NH1	2.06	0.49
48:BO:218:LYS:C	49:BP:94:ARG:HH21	2.20	0.49
50:BQ:55:ARG:HA	50:BQ:79:PHE:CD1	2.47	0.49
54:BU:70:ARG:HA	80:Bu:41:LYS:HZ3	1.77	0.49
58:BY:37:ARG:HG3	58:BY:39:LYS:H	1.77	0.49
59:BZ:31:PRO:HA	59:BZ:37:ARG:HH22	1.76	0.49
67:Bh:89:SER:O	67:Bh:91:HIS:HE1	1.95	0.49
82:Bw:4:THR:HB	82:Bw:18:ALA:O	2.13	0.49
82:Bw:66:TYR:O	82:Bw:70:TYR:CD2	2.65	0.49
84:By:10:THR:HG22	84:By:11:PHE:N	2.27	0.49
85:AA:202:U:H6	85:AA:203:C:H3'	1.75	0.49
85:AA:242:G:C8	85:AA:243:A:C2	3.00	0.49
85:AA:557:G:C4	85:AA:571:G:N2	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:596:A:C6	85:AA:597:A:C6	3.00	0.49
85:AA:658:C:O5'	85:AA:658:C:C6	2.65	0.49
85:AA:729:U:C4	85:AA:730:G:C5	3.00	0.49
85:AA:877:G:H3'	85:AA:877:G:C8	2.47	0.49
85:AA:879:G:C6	85:AA:880:A:C5	3.00	0.49
85:AA:887:A:C6	85:AA:889:G:C2	3.00	0.49
85:AA:911:A:C6	85:AA:912:C:N4	2.80	0.49
85:AA:944:C:H5	85:AA:945:A:H2'	1.77	0.49
85:AA:1153:G:C5	85:AA:1154:A:C8	3.01	0.49
85:AA:1451:U:C6	85:AA:1452:C:C6	3.01	0.49
85:AA:1471:G:C6	85:AA:1472:G:N7	2.80	0.49
85:AA:1497:U:O2	85:AA:1505:G:C2	2.66	0.49
85:AA:1534:A:C2	85:AA:1537:A:O4'	2.65	0.49
85:AA:1540:A:C8	85:AA:1540:A:O5'	2.65	0.49
85:AA:1565:G:C6	85:AA:1575:G:C2	3.00	0.49
85:AA:1685:G:C6	85:AA:1686:G:C5	3.00	0.49
85:AA:2120:C:N3	85:AA:2199:G:N2	2.61	0.49
85:AA:2121:G:O5'	85:AA:2121:G:C8	2.65	0.49
85:AA:2141:G:N1	85:AA:2178:A:C6	2.81	0.49
85:AA:2147:A:C8	85:AA:2147:A:OP2	2.66	0.49
4:A3:8:PRO:C	4:A3:11:GLY:H	2.21	0.49
7:A6:27:MET:HA	7:A6:30:CYS:SG	2.52	0.49
16:AH:42:GLY:O	16:AH:45:THR:HG23	2.11	0.49
18:AJ:105:THR:HB	18:AJ:126:LEU:HD21	1.94	0.49
21:AM:13:ILE:O	45:BL:123:TYR:CD2	2.65	0.49
25:AR:63:LEU:HD12	25:AR:63:LEU:H	1.78	0.49
27:AT:38:CYS:N	85:AA:605:A:OP1	2.46	0.49
29:AV:14:PRO:HB2	85:AA:1450:U:P	2.52	0.49
30:AW:18:MET:HE2	30:AW:19:LYS:HG2	1.94	0.49
34:BA:27:G:C5	34:BA:28:C:C6	3.00	0.49
34:BA:176:G:N1	34:BA:177:G:C4	2.81	0.49
34:BA:183:G:N2	34:BA:306:G:C4	2.81	0.49
34:BA:241:U:C2	34:BA:242:U:C6	3.00	0.49
34:BA:289:A:C2	34:BA:289:A:H2'	2.47	0.49
34:BA:367:G:C5	61:Bb:62:HIS:ND1	2.81	0.49
34:BA:438:A:H2'	34:BA:439:A:C8	2.46	0.49
34:BA:444:A:C5	34:BA:445:C:C6	3.00	0.49
34:BA:490:A:C5	34:BA:491:U:C4	3.00	0.49
34:BA:500:C:N3	34:BA:702:G:C6	2.81	0.49
34:BA:524:G:N2	34:BA:589:A:C2	2.81	0.49
34:BA:530:A:C2	34:BA:531:C:C5	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:580:U:H2'	34:BA:582:U:H5'	1.93	0.49
34:BA:603:U:C5	34:BA:1492:G:C6	3.00	0.49
34:BA:749:G:H2'	34:BA:750:C:C6	2.47	0.49
34:BA:771:A:H5''	34:BA:774:A:H62	1.77	0.49
34:BA:786:U:O5'	34:BA:786:U:H6	1.95	0.49
34:BA:1150:A:C5	34:BA:1153:C:C4	3.00	0.49
34:BA:1285:G:C2	34:BA:1286:C:C6	3.00	0.49
34:BA:1325:G:C2	34:BA:1416:C:C2	3.01	0.49
34:BA:1334:G:C6	34:BA:1408:C:C4	3.00	0.49
34:BA:1496:G:O3'	82:Bw:20:ALA:HB1	2.12	0.49
34:BA:1505:G:H4'	34:BA:1506:C:N1	2.26	0.49
34:BA:1517:U:O4	34:BA:1518:A:C4	2.65	0.49
34:BA:1628:A:C6	34:BA:1629:A:C6	3.00	0.49
34:BA:1667:G:C4	34:BA:1668:C:C6	3.01	0.49
34:BA:1796:A:C4	34:BA:1799:G:OP1	2.66	0.49
35:BB:4:C:N3	38:BE:13:A:C8	2.80	0.49
35:BB:62:C:C2'	35:BB:63:A:H5'	2.42	0.49
35:BB:135:C:C6	35:BB:135:C:O5'	2.65	0.49
35:BB:434:A:C4	35:BB:435:A:C5	3.01	0.49
35:BB:441:G:C6	35:BB:442:U:C4	3.00	0.49
35:BB:474:G:C6	35:BB:475:A:C6	3.00	0.49
35:BB:474:G:C6	35:BB:475:A:N6	2.80	0.49
35:BB:516:G:OP1	35:BB:540:G:C8	2.65	0.49
35:BB:563:A:C8	35:BB:563:A:O5'	2.66	0.49
35:BB:769:C:C6	35:BB:770:G:C6	3.00	0.49
35:BB:1051:U:O5'	35:BB:1051:U:C6	2.65	0.49
35:BB:1223:A:H2	35:BB:1227:G:OP2	1.96	0.49
35:BB:1544:A:C2	35:BB:1545:U:C6	3.01	0.49
36:BC:23:G:O5'	36:BC:23:G:C8	2.66	0.49
36:BC:71:A:OP1	59:BZ:25:ARG:HD2	2.13	0.49
36:BC:106:G:C4	36:BC:115:G:N1	2.81	0.49
36:BC:134:G:C6	36:BC:135:A:C5	3.00	0.49
37:BD:111:U:C4	37:BD:112:U:C4	3.00	0.49
38:BE:33:C:H2'	38:BE:34:C:C6	2.47	0.49
38:BE:59:U:H4'	53:BT:57:VAL:HB	1.93	0.49
38:BE:91:G:C2	38:BE:130:G:O6	2.66	0.49
40:BG:37:G:C6	40:BG:38:A:C6	3.00	0.49
40:BG:55:A:H2'	40:BG:56:G:O4'	2.12	0.49
40:BG:128:U:C2	40:BG:129:G:C8	3.01	0.49
44:BK:26:VAL:HG12	44:BK:27:PRO:O	2.13	0.49
54:BU:135:GLY:CA	82:Bw:93:GLU:HA	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:Ba:25:VAL:HG23	60:Ba:26:GLN:HB2	1.93	0.49
80:Bu:199:LYS:HA	80:Bu:202:ARG:CZ	2.43	0.49
82:Bw:235:HIS:CD2	82:Bw:236:PHE:HB3	2.48	0.49
85:AA:192:G:C5	85:AA:247:G:N1	2.81	0.49
85:AA:335:G:C5	85:AA:355:G:N3	2.80	0.49
85:AA:410:A:C5	85:AA:411:U:C4	3.01	0.49
85:AA:422:G:N3	85:AA:422:G:H2'	2.28	0.49
85:AA:443:A:H3'	85:AA:444:U:C5	2.47	0.49
85:AA:538:A:N6	85:AA:669:G:C5	2.80	0.49
85:AA:684:G:C6	85:AA:688:C:H1'	2.47	0.49
85:AA:705:G:C6	85:AA:1218:C:O2	2.65	0.49
85:AA:757:A:C2	85:AA:758:C:N1	2.81	0.49
85:AA:1011:G:H4'	85:AA:1012:C:H5'	1.95	0.49
85:AA:1012:C:C2	85:AA:1013:C:C5	3.01	0.49
85:AA:1237:A:O2'	85:AA:1238:U:H5'	2.12	0.49
85:AA:1367:C:H2'	85:AA:1368:G:C8	2.47	0.49
85:AA:1453:U:C6	85:AA:1454:U:C6	3.00	0.49
85:AA:1547:G:C2	85:AA:2041:G:N3	2.80	0.49
85:AA:1660:U:H2'	85:AA:1661:U:C4	2.47	0.49
85:AA:2092:A:H2'	85:AA:2093:U:C6	2.47	0.49
85:AA:2115:G:H1	85:AA:2203:C:H42	1.61	0.49
85:AA:2180:C:C4	85:AA:2181:G:C4	3.00	0.49
2:A1:104:GLY:HA2	2:A1:187:GLY:HA3	1.94	0.49
2:A1:207:LEU:HB2	2:A1:215:PHE:CD1	2.47	0.49
4:A3:64:MET:HE1	4:A3:109:ILE:HG23	1.92	0.49
11:AC:212:TRP:HE1	11:AC:233:VAL:HG23	1.76	0.49
16:AH:24:VAL:HG21	16:AH:35:VAL:HG13	1.94	0.49
16:AH:27:TYR:CE1	16:AH:93:THR:HA	2.47	0.49
18:AJ:12:ARG:HE	85:AA:1472:G:H2'	1.77	0.49
20:AL:103:LYS:H	20:AL:122:PRO:HA	1.78	0.49
21:AM:29:PHE:CE2	85:AA:2005:U:C6	3.00	0.49
27:AT:73:GLY:C	27:AT:75:LYS:H	2.19	0.49
34:BA:54:A:C2	34:BA:55:G:C4	3.00	0.49
34:BA:185:A:C2	34:BA:304:G:C4	2.99	0.49
34:BA:358:A:C2'	34:BA:360:C:C5	2.95	0.49
34:BA:427:G:N2	34:BA:428:C:H1'	2.28	0.49
34:BA:457:A:C6	34:BA:458:G:C5	3.00	0.49
34:BA:545:U:O5'	34:BA:545:U:H6	1.96	0.49
34:BA:736:G:C6	34:BA:901:C:C5	3.01	0.49
34:BA:753:G:C5	34:BA:754:G:N7	2.81	0.49
34:BA:792:A:C2	34:BA:793:A:C2	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:792:A:C5	34:BA:793:A:C5	3.01	0.49
34:BA:841:G:N1	34:BA:842:U:C2	2.80	0.49
34:BA:880:G:C2	34:BA:881:C:C6	3.01	0.49
34:BA:963:G:O6	34:BA:992:A:C8	2.65	0.49
34:BA:979:G:C2	34:BA:981:A:C6	3.00	0.49
34:BA:1040:G:C5	34:BA:1041:U:C2	3.00	0.49
34:BA:1070:G:H2'	34:BA:1071:G:C8	2.47	0.49
34:BA:1073:G:C4	34:BA:1074:C:C6	3.01	0.49
34:BA:1099:U:C2	34:BA:1100:A:C8	3.00	0.49
34:BA:1102:A:N1	34:BA:1103:G:C5	2.80	0.49
34:BA:1113:A:H4'	44:BK:39:ARG:NE	2.28	0.49
34:BA:1125:G:C2	34:BA:1126:U:N3	2.80	0.49
34:BA:1210:A:H3'	34:BA:1211:G:C5'	2.42	0.49
34:BA:1244:G:C4	35:BB:640:A:C6	3.01	0.49
34:BA:1322:A:C2'	34:BA:1323:G:H5'	2.42	0.49
34:BA:1327:G:C6	34:BA:1328:U:N3	2.81	0.49
34:BA:1357:C:H1'	34:BA:1368:G:N2	2.27	0.49
34:BA:1469:G:N1	34:BA:1513:G:C6	2.81	0.49
34:BA:1659:G:H3'	34:BA:1660:A:N3	2.28	0.49
34:BA:1673:G:C6	34:BA:1680:G:C6	3.01	0.49
34:BA:1708:A:C2	34:BA:1724:G:N7	2.81	0.49
34:BA:1739:G:C2	34:BA:1739:G:H2'	2.48	0.49
35:BB:374:A:C2	35:BB:375:G:C1'	2.96	0.49
35:BB:378:C:C5	35:BB:379:U:C5	3.01	0.49
35:BB:574:G:C4	35:BB:577:U:C5	3.00	0.49
35:BB:661:G:O6	35:BB:662:G:C6	2.66	0.49
35:BB:689:C:C2	35:BB:690:C:C6	3.00	0.49
35:BB:812:G:C2	35:BB:828:G:C4	3.01	0.49
35:BB:841:U:H1'	35:BB:975:G:N2	2.27	0.49
35:BB:981:A:H61	64:Be:93:LYS:HG3	1.78	0.49
35:BB:1031:G:C2	83:Bx:250:GLN:OE1	2.66	0.49
35:BB:1079:G:C6	35:BB:1094:A:N1	2.81	0.49
35:BB:1166:A:H3'	35:BB:1167:C:C4'	2.42	0.49
35:BB:1340:U:C2	35:BB:1341:U:C4	3.01	0.49
35:BB:1480:G:N2	35:BB:1483:A:OP2	2.46	0.49
35:BB:1483:A:C5	35:BB:1484:A:C5	3.00	0.49
35:BB:1491:G:H2'	35:BB:1492:C:C6	2.48	0.49
35:BB:1534:U:H2'	41:BH:27:A:H1'	1.94	0.49
36:BC:4:G:C6	36:BC:5:U:N3	2.81	0.49
36:BC:36:G:H1'	36:BC:40:A:H1'	1.94	0.49
36:BC:48:A:N1	36:BC:51:A:C5	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:56:G:C5	36:BC:57:C:C5	3.01	0.49
36:BC:156:A:C8	36:BC:159:U:O4	2.66	0.49
37:BD:1:G:C5	37:BD:2:G:N7	2.81	0.49
37:BD:37:G:C2	37:BD:38:U:C2	3.00	0.49
37:BD:95:G:H8	37:BD:95:G:P	2.34	0.49
38:BE:27:A:H4'	38:BE:28:C:O5'	2.12	0.49
38:BE:60:C:C4	38:BE:61:A:C5	2.99	0.49
39:BF:38:C:H2'	39:BF:39:C:C6	2.47	0.49
40:BG:44:G:C6	40:BG:67:A:C6	3.00	0.49
40:BG:80:G:C4	40:BG:81:G:C8	3.00	0.49
40:BG:98:A:C8	40:BG:98:A:O5'	2.66	0.49
40:BG:102:G:C5	40:BG:103:C:C5	3.01	0.49
40:BG:108:G:C6	40:BG:109:C:C4	3.00	0.49
41:BH:131:A:H2'	41:BH:132:C:O4'	2.12	0.49
45:BL:61:VAL:HG11	45:BL:64:PHE:CD2	2.48	0.49
50:BQ:63:GLU:CD	50:BQ:63:GLU:H	2.20	0.49
51:BR:35:VAL:O	51:BR:44:ALA:HA	2.13	0.49
62:Bc:76:MET:CE	62:Bc:81:VAL:HG12	2.43	0.49
63:Bd:10:HIS:C	63:Bd:12:GLN:H	2.19	0.49
65:Bf:243:THR:HB	65:Bf:246:GLN:HB3	1.95	0.49
77:Br:131:SER:OG	77:Br:149:VAL:HG12	2.13	0.49
77:Br:349:ARG:O	77:Br:353:HIS:HE1	1.95	0.49
80:Bu:95:TYR:CE2	80:Bu:164:ARG:HA	2.47	0.49
82:Bw:235:HIS:CE1	82:Bw:237:VAL:H	2.31	0.49
83:Bx:269:ASN:OD1	83:Bx:272:ALA:HB3	2.12	0.49
84:By:6:HIS:O	84:By:6:HIS:CG	2.65	0.49
85:AA:3:U:H2'	85:AA:4:C:C4'	2.43	0.49
85:AA:30:G:C5	85:AA:671:G:C6	3.00	0.49
85:AA:59:C:H42	85:AA:85:U:H3	1.61	0.49
85:AA:97:A:C8	85:AA:97:A:C3'	2.93	0.49
85:AA:130:G:C2	85:AA:131:C:C2	3.01	0.49
85:AA:151:A:C2	85:AA:172:A:C6	3.00	0.49
85:AA:169:G:C4	85:AA:170:C:C5	3.00	0.49
85:AA:280:U:C4	85:AA:290:G:C6	3.01	0.49
85:AA:290:G:N1	85:AA:291:G:C4	2.81	0.49
85:AA:355:G:C4	85:AA:356:U:C5	3.00	0.49
85:AA:440:U:C6	85:AA:440:U:H3'	2.48	0.49
85:AA:456:A:N1	85:AA:457:G:C4	2.80	0.49
85:AA:759:G:N2	85:AA:763:U:C2	2.81	0.49
85:AA:781:G:N1	85:AA:782:G:C5	2.81	0.49
85:AA:819:G:C6	85:AA:820:G:N7	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1094:G:C2	85:AA:1095:C:C2	3.00	0.49
85:AA:1111:A:C2	85:AA:1212:C:C6	3.01	0.49
85:AA:1471:G:N2	85:AA:1472:G:C4	2.80	0.49
85:AA:1508:A:C5	85:AA:1509:A:C5	3.01	0.49
85:AA:1529:A:H3'	85:AA:1530:U:C6	2.48	0.49
85:AA:1535:C:C5	85:AA:2049:U:OP2	2.66	0.49
85:AA:1555:G:C6	85:AA:1556:G:C5	2.99	0.49
85:AA:1557:U:H6	85:AA:1557:U:O5'	1.96	0.49
85:AA:1923:A:H62	85:AA:1991:C:N4	2.09	0.49
85:AA:1988:A:C2	85:AA:1989:A:N1	2.80	0.49
85:AA:2092:A:H2'	85:AA:2093:U:C5	2.46	0.49
85:AA:2115:G:N2	85:AA:2204:A:C4	2.81	0.49
85:AA:2142:A:C4	85:AA:2177:C:N3	2.81	0.49
86:AB:5:G:C6	86:AB:69:G:N1	2.81	0.49
2:A1:55:ALA:C	2:A1:59:GLN:HE21	2.20	0.49
4:A3:53:LEU:HD12	4:A3:54:ARG:H	1.78	0.49
7:A6:132:HIS:CD2	7:A6:163:PHE:CD2	3.00	0.49
11:AC:139:PHE:CE1	11:AC:143:THR:HG21	2.47	0.49
15:AG:52:MET:HE1	85:AA:1209:U:C5	2.48	0.49
15:AG:55:ARG:HD2	30:AW:48:TYR:CD2	2.48	0.49
15:AG:77:HIS:NE2	85:AA:944:C:N4	2.60	0.49
16:AH:27:TYR:HB3	16:AH:34:PHE:HB2	1.94	0.49
21:AM:83:TRP:CD2	85:AA:1968:A:C5	3.00	0.49
23:AP:154:TRP:CD1	23:AP:181:PRO:HB2	2.47	0.49
27:AT:9:GLU:HB3	27:AT:35:PRO:HD2	1.94	0.49
34:BA:65:A:C2	34:BA:66:C:C1'	2.96	0.49
34:BA:141:G:N3	34:BA:142:A:C8	2.81	0.49
34:BA:167:U:H2'	34:BA:168:U:O4'	2.12	0.49
34:BA:210:G:N1	34:BA:223:U:C4	2.80	0.49
34:BA:213:A:C2	34:BA:217:C:O2	2.66	0.49
34:BA:226:A:C5'	34:BA:227:C:H5''	2.42	0.49
34:BA:237:A:C8	34:BA:238:C:N3	2.81	0.49
34:BA:253:U:H2'	34:BA:254:U:O4'	2.13	0.49
34:BA:400:A:C2	34:BA:401:A:C1'	2.94	0.49
34:BA:411:C:H41	34:BA:413:A:H3'	1.78	0.49
34:BA:433:G:H1	36:BC:20:C:H42	1.59	0.49
34:BA:593:G:N1	34:BA:594:G:C5	2.80	0.49
34:BA:621:G:N2	34:BA:662:U:H1'	2.28	0.49
34:BA:714:G:H2'	34:BA:715:U:O4'	2.13	0.49
34:BA:738:C:C6	34:BA:739:A:H8	2.30	0.49
34:BA:792:A:H2	35:BB:1232:A:H4'	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:827:A:H2'	34:BA:828:A:C8	2.46	0.49
34:BA:921:G:C6	34:BA:922:C:C4	3.00	0.49
34:BA:968:G:C6	34:BA:969:A:C6	3.01	0.49
34:BA:1122:G:C6	34:BA:1139:G:C4	3.00	0.49
34:BA:1160:U:O5'	34:BA:1160:U:H6	1.95	0.49
34:BA:1210:A:C1'	54:BU:129:LYS:HD3	2.42	0.49
34:BA:1295:U:C4'	34:BA:1296:U:C2	2.96	0.49
34:BA:1413:G:C5	34:BA:1414:C:C5	3.01	0.49
34:BA:1463:U:C2	34:BA:1464:C:C5	3.01	0.49
34:BA:1470:G:H4'	34:BA:1471:U:OP2	2.12	0.49
34:BA:1484:A:C2	34:BA:1485:U:C2	3.01	0.49
34:BA:1488:C:C6	34:BA:1488:C:C3'	2.96	0.49
34:BA:1551:G:C6	34:BA:1559:C:N3	2.81	0.49
34:BA:1725:U:O2'	34:BA:1726:U:H5''	2.11	0.49
35:BB:89:C:C4	35:BB:90:G:C4	3.00	0.49
35:BB:155:G:H1'	35:BB:307:A:H4'	1.94	0.49
35:BB:396:C:H42	35:BB:592:G:H1	1.60	0.49
35:BB:545:C:C2'	35:BB:546:A:H5''	2.42	0.49
35:BB:573:C:H5'	35:BB:574:G:C8	2.48	0.49
35:BB:630:A:C5	35:BB:631:G:C5	3.01	0.49
35:BB:657:A:H61	35:BB:1447:U:H3	1.60	0.49
35:BB:661:G:C5	35:BB:662:G:C8	3.01	0.49
35:BB:697:G:C5	35:BB:698:C:C4	3.00	0.49
35:BB:811:C:C2	35:BB:812:G:C8	3.00	0.49
35:BB:826:G:H2'	35:BB:827:U:C6	2.48	0.49
35:BB:846:A:C2	35:BB:967:G:N3	2.81	0.49
35:BB:971:A:OP2	35:BB:972:C:C4	2.65	0.49
35:BB:1002:G:N2	35:BB:1003:G:H1'	2.27	0.49
35:BB:1039:A:H4'	35:BB:1040:C:C6	2.48	0.49
35:BB:1108:G:H2'	35:BB:1109:A:C8	2.48	0.49
35:BB:1138:A:C5	35:BB:1139:A:C4	3.01	0.49
35:BB:1211:C:N3	35:BB:1212:C:C5	2.81	0.49
35:BB:1230:A:C4	47:BN:206:ARG:NH2	2.80	0.49
35:BB:1493:A:C2	35:BB:1514:G:C2	3.01	0.49
35:BB:1521:G:C6	35:BB:1522:G:C5	3.01	0.49
36:BC:66:G:C2	36:BC:67:U:C2	3.00	0.49
36:BC:93:C:H3'	73:Bn:72:ARG:HH11	1.78	0.49
36:BC:129:C:C2'	36:BC:131:C:C5	2.95	0.49
37:BD:1:G:H21	80:Bu:275:PRO:HG3	1.76	0.49
37:BD:38:U:H3'	37:BD:40:C:OP2	2.13	0.49
37:BD:75:G:N2	37:BD:99:G:H2'	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BD:79:G:N1	37:BD:80:G:C5	2.81	0.49
38:BE:9:C:N3	38:BE:12:A:C2	2.81	0.49
38:BE:13:A:C2	38:BE:14:C:C5	3.00	0.49
38:BE:151:C:H3'	38:BE:152:U:H6	1.78	0.49
38:BE:161:G:C2	38:BE:162:U:C2	3.01	0.49
40:BG:71:C:C6	40:BG:71:C:C3'	2.95	0.49
40:BG:98:A:H2'	40:BG:99:A:C8	2.48	0.49
41:BH:16:A:C8	41:BH:16:A:O5'	2.66	0.49
41:BH:45:G:H2'	41:BH:46:C:C6	2.48	0.49
41:BH:52:G:C4	41:BH:53:C:C6	3.00	0.49
41:BH:66:G:C6	41:BH:67:G:N7	2.81	0.49
47:BN:80:PHE:CB	47:BN:85:LEU:HD11	2.41	0.49
53:BT:166:ASP:O	53:BT:170:ARG:HG3	2.13	0.49
54:BU:22:HIS:CD2	80:Bu:17:GLN:NE2	2.80	0.49
54:BU:130:VAL:HG22	54:BU:131:SER:N	2.28	0.49
56:BW:88:ARG:HA	56:BW:94:VAL:HA	1.94	0.49
58:BY:53:ILE:O	58:BY:59:TYR:HB2	2.13	0.49
62:Bc:99:ARG:HG3	62:Bc:101:ASP:OD1	2.13	0.49
64:Be:112:ILE:HG23	64:Be:133:TYR:CG	2.47	0.49
65:Bf:295:PRO:HB2	65:Bf:297:LYS:H	1.77	0.49
69:Bj:64:LYS:HA	69:Bj:67:LEU:HD12	1.93	0.49
77:Br:46:ASN:CG	77:Br:111:HIS:HA	2.37	0.49
77:Br:155:ASP:HB3	77:Br:253:SER:H	1.77	0.49
80:Bu:55:ILE:HG22	80:Bu:56:THR:O	2.12	0.49
83:Bx:178:TRP:CD1	83:Bx:178:TRP:N	2.77	0.49
85:AA:7:G:H1	85:AA:17:C:H42	1.58	0.49
85:AA:162:A:OP2	85:AA:164:G:C8	2.66	0.49
85:AA:340:G:C2	85:AA:350:U:C2	3.00	0.49
85:AA:602:U:O2	85:AA:602:U:H2'	2.12	0.49
85:AA:629:A:C6	85:AA:630:A:N1	2.81	0.49
85:AA:690:G:C2	85:AA:696:G:C5	3.01	0.49
85:AA:801:U:C6	85:AA:802:A:C5	3.01	0.49
85:AA:863:C:C4	85:AA:864:C:C5	3.01	0.49
85:AA:923:A:H2'	85:AA:924:A:C8	2.48	0.49
85:AA:1012:C:H2'	85:AA:1013:C:C6	2.48	0.49
85:AA:1014:U:H4'	85:AA:1015:U:C6	2.48	0.49
85:AA:1129:A:C2	85:AA:1198:U:C2	3.01	0.49
85:AA:1140:G:C6	85:AA:1141:U:C4	3.00	0.49
85:AA:1152:U:C6	85:AA:1155:A:C8	3.01	0.49
85:AA:1226:A:N9	85:AA:1274:A:C6	2.80	0.49
85:AA:1291:A:C4	85:AA:1453:U:H1'	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1617:G:N2	85:AA:1621:U:C6	2.81	0.49
85:AA:1636:C:H2'	85:AA:1637:C:O4'	2.13	0.49
85:AA:2161:C:H5''	85:AA:2161:C:H6	1.77	0.49
86:AB:26:A:H2'	86:AB:27:G:H5'	1.95	0.49
4:A3:4:ASN:HA	4:A3:15:GLN:HA	1.94	0.49
4:A3:144:ILE:HB	4:A3:156:VAL:HG11	1.94	0.49
17:AI:133:VAL:HG13	85:AA:1558:U:C1'	2.41	0.49
20:AL:65:PRO:HB3	20:AL:74:GLN:HE22	1.78	0.49
34:BA:60:A:H2'	34:BA:61:G:C8	2.48	0.49
34:BA:70:C:H4'	34:BA:71:G:OP2	2.13	0.49
34:BA:74:A:H3'	34:BA:74:A:C8	2.47	0.49
34:BA:199:U:H1'	34:BA:259:C:H1'	1.95	0.49
34:BA:214:A:OP2	34:BA:215:C:C5	2.65	0.49
34:BA:234:A:C2	34:BA:242:U:C2	3.01	0.49
34:BA:261:A:C5'	77:Br:217:ARG:HA	2.42	0.49
34:BA:266:G:N2	34:BA:277:A:H1'	2.28	0.49
34:BA:272:A:C2	34:BA:275:C:C6	3.00	0.49
34:BA:315:U:H5''	34:BA:316:G:OP2	2.12	0.49
34:BA:320:G:C2	34:BA:321:G:C4	3.00	0.49
34:BA:478:G:N1	36:BC:11:G:N1	2.61	0.49
34:BA:504:A:O2'	34:BA:505:U:H5'	2.13	0.49
34:BA:691:A:H4'	71:Bl:95:TRP:O	2.13	0.49
34:BA:721:A:C6	34:BA:722:A:C6	3.01	0.49
34:BA:767:U:C4	34:BA:768:G:C2	3.00	0.49
34:BA:820:C:H4'	34:BA:1169:A:H61	1.78	0.49
34:BA:848:U:C6	42:BI:66:ARG:HD3	2.47	0.49
34:BA:895:U:H3'	47:BN:9:PRO:CG	2.43	0.49
34:BA:946:A:OP2	34:BA:946:A:H8	1.94	0.49
34:BA:1122:G:C6	34:BA:1139:G:N3	2.81	0.49
34:BA:1122:G:C8	34:BA:1122:G:H3'	2.47	0.49
34:BA:1236:U:C4	34:BA:1237:U:C4	3.01	0.49
34:BA:1289:C:C5	34:BA:1290:A:C4	3.01	0.49
34:BA:1321:A:H2'	34:BA:1322:A:O4'	2.13	0.49
34:BA:1474:G:O6	34:BA:1475:G:C6	2.66	0.49
34:BA:1477:C:H5''	34:BA:1478:G:N1	2.28	0.49
34:BA:1533:G:C4	34:BA:1534:U:C6	3.00	0.49
34:BA:1553:G:C6	34:BA:1557:G:C6	3.01	0.49
34:BA:1557:G:H5''	34:BA:1557:G:H8	1.78	0.49
34:BA:1573:C:H2'	34:BA:1574:C:C6	2.48	0.49
34:BA:1586:U:H2'	77:Br:72:VAL:HA	1.94	0.49
34:BA:1633:C:H3'	34:BA:1634:A:H3'	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1676:A:C2	34:BA:1677:C:C2	3.01	0.49
34:BA:1702:G:C5	34:BA:1703:A:N6	2.81	0.49
34:BA:1744:C:N3	34:BA:1745:G:C5	2.81	0.49
34:BA:1796:A:C5	34:BA:1799:G:OP1	2.66	0.49
34:BA:1797:A:C2	34:BA:1798:G:O6	2.66	0.49
34:BA:1816:G:C2	34:BA:1818:A:N3	2.80	0.49
35:BB:62:C:O2	35:BB:63:A:C2	2.66	0.49
35:BB:107:A:C6	35:BB:108:G:C4	3.00	0.49
35:BB:111:C:H4'	35:BB:112:G:O4'	2.13	0.49
35:BB:133:G:C6	35:BB:369:A:C6	3.00	0.49
35:BB:136:A:C6	35:BB:137:A:N7	2.81	0.49
35:BB:430:A:C2	35:BB:441:G:N3	2.81	0.49
35:BB:471:U:H5''	64:Be:239:ALA:HB1	1.95	0.49
35:BB:484:G:C4	35:BB:485:U:C5	3.00	0.49
35:BB:527:U:C6	35:BB:527:U:O5'	2.66	0.49
35:BB:602:G:C4	35:BB:607:G:O6	2.66	0.49
35:BB:661:G:H4'	65:Bf:309:GLY:C	2.38	0.49
35:BB:814:A:C2	35:BB:815:G:N9	2.80	0.49
35:BB:1108:G:N1	35:BB:1157:G:C5	2.81	0.49
35:BB:1145:G:C6	35:BB:1146:C:N4	2.80	0.49
35:BB:1354:C:N3	35:BB:1363:A:N1	2.60	0.49
35:BB:1521:G:C4	35:BB:1522:G:C8	3.01	0.49
36:BC:2:A:HO2'	36:BC:3:C:C1'	2.25	0.49
36:BC:113:G:N3	36:BC:114:C:C6	2.80	0.49
37:BD:95:G:C5	37:BD:96:C:C5	3.00	0.49
37:BD:100:A:C6	37:BD:101:A:C5	3.00	0.49
38:BE:150:G:H2'	38:BE:151:C:O4'	2.13	0.49
38:BE:157:C:C5	38:BE:158:U:N3	2.81	0.49
38:BE:159:A:H3'	38:BE:160:C:H4'	1.95	0.49
39:BF:32:G:C8	39:BF:54:U:OP2	2.66	0.49
39:BF:42:G:C2	39:BF:44:C:C2	3.01	0.49
39:BF:45:G:C6	39:BF:46:G:C6	3.01	0.49
39:BF:55:A:C4	52:BS:173:SER:HB2	2.48	0.49
40:BG:16:G:C2	40:BG:17:A:C4	3.00	0.49
40:BG:33:G:H1	40:BG:169:A:H5''	1.77	0.49
40:BG:39:A:C8	65:Bf:64:HIS:NE2	2.81	0.49
40:BG:46:G:C2	40:BG:65:C:C2	3.01	0.49
40:BG:173:C:C6	40:BG:174:G:N7	2.80	0.49
41:BH:130:G:C2	41:BH:131:A:C8	3.01	0.49
51:BR:116:HIS:HB3	51:BR:149:PHE:CE2	2.47	0.49
53:BT:60:ARG:HA	53:BT:63:TRP:CD1	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:Bc:78:LYS:HD3	62:Bc:79:LYS:NZ	2.28	0.49
68:Bi:104:LYS:O	68:Bi:107:LYS:HB2	2.13	0.49
77:Br:11:SER:HA	77:Br:17:VAL:HG13	1.95	0.49
84:By:7:ASP:HA	84:By:42:LEU:O	2.12	0.49
85:AA:231:G:C6	85:AA:232:U:C4	3.01	0.49
85:AA:242:G:OP2	85:AA:243:A:N6	2.45	0.49
85:AA:260:A:N1	85:AA:261:U:C2	2.81	0.49
85:AA:362:G:N1	85:AA:363:A:C2	2.81	0.49
85:AA:456:A:C1'	85:AA:2182:A:H4'	2.42	0.49
85:AA:849:A:C5	85:AA:850:U:C5	3.00	0.49
85:AA:1448:A:H2'	85:AA:1449:C:O4'	2.13	0.49
85:AA:1449:C:C6	85:AA:1449:C:H3'	2.47	0.49
85:AA:1456:A:H3'	85:AA:1456:A:C8	2.47	0.49
85:AA:1527:G:C8	85:AA:2219:G:C6	3.01	0.49
85:AA:1661:U:C6	85:AA:1661:U:OP1	2.65	0.49
85:AA:1705:G:C4	85:AA:1706:A:C8	3.01	0.49
85:AA:1793:A:C2	85:AA:1794:U:C4	3.01	0.49
85:AA:1916:A:N1	85:AA:1997:G:C6	2.81	0.49
85:AA:1953:G:C6	85:AA:1954:C:N4	2.81	0.49
85:AA:2042:G:C2	85:AA:2043:A:C4	3.01	0.49
85:AA:2208:G:H5''	85:AA:2208:G:H8	1.78	0.49
3:A2:17:LEU:HD21	3:A2:93:ASN:ND2	2.26	0.49
16:AH:83:ILE:HG22	16:AH:85:ALA:O	2.13	0.49
18:AJ:40:VAL:CG1	18:AJ:44:HIS:CE1	2.96	0.49
19:AK:65:TYR:HA	19:AK:68:ARG:CZ	2.42	0.49
23:AP:163:THR:CG2	23:AP:182:ALA:H	2.26	0.49
23:AP:163:THR:HG23	23:AP:182:ALA:H	1.78	0.49
25:AR:36:ALA:HB2	25:AR:60:ALA:HA	1.95	0.49
27:AT:91:ARG:HA	85:AA:521:A:C2	2.48	0.49
31:AX:70:ALA:O	31:AX:74:GLN:HG2	2.13	0.49
32:AY:47:LYS:HG3	85:AA:572:G:N2	2.28	0.49
34:BA:1:C:C2	34:BA:2:A:C2	3.01	0.49
34:BA:10:G:H5''	57:BX:56:ARG:CZ	2.43	0.49
34:BA:71:G:C2	34:BA:72:U:C6	3.01	0.49
34:BA:104:A:H3'	34:BA:105:U:C5	2.48	0.49
34:BA:117:C:N3	34:BA:118:C:C4	2.81	0.49
34:BA:125:G:H5''	50:BQ:158:ALA:HB2	1.94	0.49
34:BA:135:G:C5	34:BA:136:A:N7	2.81	0.49
34:BA:166:G:C6	34:BA:167:U:H1'	2.48	0.49
34:BA:272:A:C4	34:BA:275:C:N4	2.81	0.49
34:BA:315:U:C5	34:BA:316:G:C8	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:333:A:N1	34:BA:357:A:C8	2.80	0.49
34:BA:337:C:H2'	34:BA:338:U:C6	2.47	0.49
34:BA:396:U:C4	36:BC:34:U:O4	2.66	0.49
34:BA:409:A:C5	34:BA:410:G:C5	3.01	0.49
34:BA:513:U:H2'	34:BA:514:U:C5	2.48	0.49
34:BA:529:A:C2	34:BA:530:A:C5	3.01	0.49
34:BA:613:A:C2	34:BA:614:A:C5	3.01	0.49
34:BA:624:G:OP2	34:BA:624:G:C8	2.66	0.49
34:BA:712:C:H2'	34:BA:713:C:H6	1.77	0.49
34:BA:823:G:C2	34:BA:824:C:C2	3.01	0.49
34:BA:893:U:C2	34:BA:894:G:C8	3.01	0.49
34:BA:905:A:C8	34:BA:1035:A:N6	2.80	0.49
34:BA:1009:G:H3'	34:BA:1010:C:H6	1.78	0.49
34:BA:1255:G:C6	34:BA:1256:A:C5	3.01	0.49
34:BA:1282:G:C4	34:BA:1458:A:C5	3.00	0.49
34:BA:1287:G:C2	34:BA:1436:A:C6	3.00	0.49
34:BA:1480:C:N3	82:Bw:25:GLU:HG2	2.27	0.49
34:BA:1575:U:N3	34:BA:1576:C:C5	2.81	0.49
34:BA:1590:G:C6	34:BA:1591:G:C5	3.01	0.49
34:BA:1634:A:C2	34:BA:1634:A:OP1	2.66	0.49
34:BA:1726:U:C2	34:BA:1728:G:C8	3.00	0.49
35:BB:484:G:C4	35:BB:485:U:C6	3.01	0.49
35:BB:526:A:N7	35:BB:527:U:C4	2.81	0.49
35:BB:620:G:C6	35:BB:621:C:C4	3.01	0.49
35:BB:634:A:C4	35:BB:648:G:C2	3.01	0.49
35:BB:981:A:C6	83:Bx:51:ARG:HD2	2.48	0.49
35:BB:1003:G:N1	35:BB:1004:A:C5	2.81	0.49
35:BB:1057:G:C5	35:BB:1058:U:C4	3.01	0.49
35:BB:1151:A:C4	35:BB:1153:G:C8	3.00	0.49
35:BB:1343:C:C4	35:BB:1396:G:N1	2.81	0.49
35:BB:1353:G:C5	35:BB:1365:G:N1	2.81	0.49
35:BB:1404:A:H2'	35:BB:1440:A:H62	1.77	0.49
35:BB:1458:U:C4	35:BB:1462:G:N1	2.81	0.49
35:BB:1468:A:OP2	35:BB:1468:A:H3'	2.13	0.49
36:BC:83:A:C2	59:BZ:110:THR:HG23	2.47	0.49
37:BD:79:G:C4	37:BD:98:G:C2	3.01	0.49
38:BE:18:U:N3	38:BE:20:C:C5	2.81	0.49
38:BE:26:G:C8	38:BE:26:G:H5'	2.47	0.49
38:BE:111:C:C5	38:BE:112:G:O6	2.66	0.49
39:BF:55:A:C5	52:BS:172:ASN:O	2.66	0.49
40:BG:15:G:O2'	40:BG:16:G:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:52:A:H4'	84:By:97:PHE:CE2	2.48	0.49
40:BG:75:C:H2'	40:BG:76:C:C2	2.48	0.49
40:BG:116:G:C6	40:BG:117:C:C4	3.00	0.49
41:BH:2:U:C5	41:BH:3:U:C6	3.01	0.49
41:BH:129:G:H1'	41:BH:130:G:C8	2.48	0.49
57:BX:110:SER:HA	57:BX:142:LYS:HB2	1.94	0.49
60:Ba:76:HIS:HA	60:Ba:79:PHE:CE2	2.48	0.49
67:Bh:72:SER:CA	67:Bh:76:ARG:H	2.23	0.49
82:Bw:202:GLN:HA	82:Bw:206:CYS:O	2.13	0.49
84:By:92:PHE:CD1	84:By:92:PHE:N	2.81	0.49
85:AA:145:C:C2'	85:AA:146:U:H5'	2.43	0.49
85:AA:253:C:C5	85:AA:253:C:OP2	2.65	0.49
85:AA:253:C:H2'	85:AA:329:G:C2	2.48	0.49
85:AA:255:A:C2	85:AA:325:C:N3	2.81	0.49
85:AA:268:A:C5'	85:AA:269:G:H5'	2.43	0.49
85:AA:324:U:H2'	85:AA:325:C:C6	2.48	0.49
85:AA:413:G:O5'	85:AA:413:G:C8	2.66	0.49
85:AA:431:G:N2	85:AA:441:C:H1'	2.28	0.49
85:AA:484:G:H2'	85:AA:485:A:O4'	2.12	0.49
85:AA:591:A:OP2	85:AA:591:A:C8	2.66	0.49
85:AA:602:U:H3'	85:AA:603:C:H5'	1.95	0.49
85:AA:690:G:C6	85:AA:1483:A:C6	3.00	0.49
85:AA:698:G:C6	85:AA:699:U:C5	3.01	0.49
85:AA:795:C:N3	85:AA:796:U:C4	2.81	0.49
85:AA:826:C:C5'	85:AA:856:G:C2	2.94	0.49
85:AA:879:G:H2'	85:AA:880:A:O4'	2.13	0.49
85:AA:932:A:C2	85:AA:933:U:N3	2.81	0.49
85:AA:969:U:N3	85:AA:984:A:C2	2.81	0.49
85:AA:1105:G:C2'	85:AA:1106:A:C2	2.96	0.49
85:AA:1115:G:H2'	85:AA:1116:G:C5'	2.42	0.49
85:AA:1126:G:C2	85:AA:1127:G:C4	3.00	0.49
85:AA:1150:G:C5	85:AA:1151:G:C6	3.00	0.49
85:AA:1227:A:C5	85:AA:1228:A:C5	3.01	0.49
85:AA:1297:G:H2'	85:AA:1298:G:C8	2.48	0.49
85:AA:1624:U:C5	85:AA:1625:C:H5	2.31	0.49
85:AA:1636:C:C2	85:AA:1637:C:C6	3.01	0.49
85:AA:1714:G:H2'	85:AA:1715:C:C6	2.48	0.49
85:AA:1799:C:C2	85:AA:1808:G:H1'	2.47	0.49
85:AA:1891:U:H2'	85:AA:1892:G:C8	2.47	0.49
85:AA:2120:C:H2'	85:AA:2121:G:O4'	2.13	0.49
85:AA:2229:G:H3'	85:AA:2230:U:H5	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A2:16:ASN:C	3:A2:17:LEU:HD22	2.38	0.49
7:A6:84:PHE:HA	7:A6:106:ARG:CD	2.43	0.49
8:A7:195:HIS:CE1	8:A7:214:SER:HA	2.47	0.49
8:A7:301:TYR:N	8:A7:301:TYR:CD1	2.81	0.49
9:A8:24:ILE:HG21	9:A8:43:CYS:SG	2.53	0.49
27:AT:126:GLY:HA3	85:AA:152:A:C4'	2.39	0.49
34:BA:17:A:C6	34:BA:18:G:C6	3.00	0.49
34:BA:57:A:C5	34:BA:58:A:N7	2.80	0.49
34:BA:191:G:C5	34:BA:293:A:N1	2.81	0.49
34:BA:198:U:C2	34:BA:262:A:C8	3.01	0.49
34:BA:256:A:H5''	34:BA:257:G:H5'	1.95	0.49
34:BA:315:U:C6	34:BA:316:G:C8	3.01	0.49
34:BA:342:U:C4	34:BA:348:U:O4	2.66	0.49
34:BA:532:C:H2'	34:BA:533:U:C5'	2.43	0.49
34:BA:673:U:C5	81:Bv:12:LYS:HB2	2.48	0.49
34:BA:754:G:C6	34:BA:755:G:C4	3.01	0.49
34:BA:754:G:H2'	34:BA:755:G:O4'	2.13	0.49
34:BA:862:C:C2	34:BA:875:G:C2	3.00	0.49
34:BA:907:A:N1	34:BA:1033:G:C2	2.81	0.49
34:BA:934:G:C2	34:BA:956:G:C2	3.00	0.49
34:BA:1040:G:N1	34:BA:1041:U:C2	2.81	0.49
34:BA:1202:G:C6	34:BA:1203:G:N7	2.81	0.49
34:BA:1275:G:N2	34:BA:1466:U:C2	2.81	0.49
34:BA:1618:A:O5'	34:BA:1618:A:C8	2.66	0.49
34:BA:1673:G:C6	34:BA:1680:G:N1	2.81	0.49
34:BA:1673:G:N1	34:BA:1680:G:C5	2.81	0.49
34:BA:1702:G:C8	34:BA:1703:A:C5	3.01	0.49
34:BA:1723:U:O2	34:BA:1724:G:C5	2.66	0.49
34:BA:1795:A:H3'	35:BB:789:G:C6	2.48	0.49
34:BA:1827:C:H5''	34:BA:1828:A:P	2.53	0.49
34:BA:1845:G:C2	35:BB:6:A:C4	3.01	0.49
35:BB:27:C:H3'	35:BB:27:C:C6	2.46	0.49
35:BB:85:A:H61	35:BB:93:A:H61	1.60	0.49
35:BB:114:A:C6	35:BB:115:A:C5	3.01	0.49
35:BB:125:G:C2	35:BB:126:C:C2	3.00	0.49
35:BB:366:G:H2'	35:BB:367:C:C6	2.47	0.49
35:BB:385:C:C6	35:BB:386:G:C8	3.01	0.49
35:BB:515:C:O4'	35:BB:538:A:C2	2.65	0.49
35:BB:570:A:C6	35:BB:571:C:C2	3.01	0.49
35:BB:576:A:H1'	35:BB:1420:U:C4'	2.43	0.49
35:BB:665:A:C5	35:BB:666:A:C8	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:701:U:C4	35:BB:1040:C:OP2	2.66	0.49
35:BB:772:U:H2'	35:BB:773:G:C8	2.48	0.49
35:BB:773:G:C2	35:BB:774:C:C2	3.01	0.49
35:BB:828:G:C5	35:BB:829:C:C5	3.01	0.49
35:BB:867:C:H2'	35:BB:868:C:C6	2.48	0.49
35:BB:877:A:C6	35:BB:901:U:H5''	2.47	0.49
35:BB:1081:U:C4	35:BB:1082:A:C4	3.01	0.49
35:BB:1133:C:H6	35:BB:1133:C:O5'	1.96	0.49
35:BB:1284:U:C4	35:BB:1285:U:C5	3.01	0.49
35:BB:1359:G:C8	35:BB:1360:A:N7	2.81	0.49
35:BB:1377:A:C5	35:BB:1378:U:C5	3.01	0.49
35:BB:1500:U:O2	35:BB:1506:C:C4	2.66	0.49
35:BB:1522:G:C2	35:BB:1546:C:C2	3.00	0.49
36:BC:54:G:H5'	76:Bq:40:LYS:HZ3	1.77	0.49
36:BC:71:A:C2	36:BC:82:C:C4	3.01	0.49
36:BC:124:A:C6	36:BC:139:A:N1	2.80	0.49
37:BD:32:A:C6	37:BD:46:G:C6	3.00	0.49
37:BD:34:C:C5	37:BD:35:C:C4	3.01	0.49
37:BD:34:C:C6	37:BD:35:C:C5	3.00	0.49
38:BE:4:A:N7	38:BE:5:A:C5	2.81	0.49
38:BE:8:G:C6	38:BE:9:C:C4	3.01	0.49
38:BE:32:U:O2	38:BE:183:C:C5	2.65	0.49
38:BE:127:G:C6	38:BE:128:G:C5	3.01	0.49
40:BG:77:U:C2	65:Bf:126:PRO:HB3	2.48	0.49
40:BG:94:G:C6	40:BG:95:U:C4	3.00	0.49
40:BG:173:C:C5	40:BG:174:G:N7	2.81	0.49
41:BH:34:G:C2	41:BH:121:A:N3	2.80	0.49
45:BL:67:ARG:HB3	79:Bt:106:TRP:CD2	2.48	0.49
62:Bc:55:THR:HA	62:Bc:59:ARG:HA	1.95	0.49
65:Bf:159:HIS:C	65:Bf:160:HIS:CD2	2.91	0.49
74:Bo:8:MET:SD	74:Bo:8:MET:C	2.96	0.49
77:Br:108:ARG:O	77:Br:110:TRP:CD1	2.66	0.49
79:Bt:58:PHE:C	79:Bt:59:HIS:CG	2.91	0.49
82:Bw:158:THR:O	82:Bw:162:MET:SD	2.71	0.49
83:Bx:269:ASN:ND2	83:Bx:272:ALA:HB3	2.27	0.49
85:AA:118:C:N3	85:AA:119:G:C5	2.81	0.49
85:AA:211:C:N4	85:AA:241:U:C4	2.81	0.49
85:AA:258:G:C2	85:AA:322:A:C2	3.01	0.49
85:AA:426:C:C2	85:AA:427:G:C8	3.01	0.49
85:AA:564:A:H2'	85:AA:565:G:C5'	2.43	0.49
85:AA:736:U:C4	85:AA:740:A:C5	2.99	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:756:G:OP1	85:AA:756:G:H4'	2.12	0.49
85:AA:817:G:C6	85:AA:820:G:N7	2.80	0.49
85:AA:821:U:H3	85:AA:859:G:H22	1.60	0.49
85:AA:935:A:H2'	85:AA:936:C:C4	2.47	0.49
85:AA:1226:A:H62	85:AA:1273:C:N4	2.11	0.49
85:AA:1372:C:H3'	85:AA:1372:C:C6	2.48	0.49
85:AA:1675:U:C5	85:AA:1676:G:C6	3.00	0.49
85:AA:1711:C:C2	85:AA:1857:G:N2	2.81	0.49
85:AA:1830:U:H2'	85:AA:1831:U:O4'	2.13	0.49
85:AA:2018:U:O2	85:AA:2064:A:C2	2.66	0.49
85:AA:2060:G:C6	85:AA:2061:C:C4	3.00	0.49
85:AA:2122:A:C8	85:AA:2122:A:P	3.06	0.49
2:A1:105:ARG:HA	2:A1:105:ARG:NE	2.27	0.48
3:A2:184:ARG:NH1	86:AB:41:C:C4'	2.70	0.48
4:A3:97:ARG:CZ	85:AA:472:A:H5'	2.42	0.48
5:A4:13:LEU:HD11	5:A4:29:LEU:CD2	2.43	0.48
5:A4:190:PHE:HB3	85:AA:1357:U:OP2	2.12	0.48
11:AC:88:HIS:CE1	11:AC:92:GLU:OE2	2.66	0.48
12:AD:33:TRP:CD2	12:AD:33:TRP:N	2.79	0.48
17:AI:45:HIS:CE1	85:AA:2014:G:C8	3.00	0.48
17:AI:88:ARG:HB3	85:AA:2023:U:C5	2.48	0.48
18:AJ:68:ARG:HA	23:AP:235:LEU:HD22	1.95	0.48
22:AO:132:LYS:CD	22:AO:138:HIS:CE1	2.96	0.48
34:BA:1:C:O2	34:BA:2:A:C2	2.66	0.48
34:BA:2:A:N3	36:BC:169:G:C2	2.81	0.48
34:BA:52:G:C4	34:BA:53:G:C8	3.01	0.48
34:BA:129:U:C4	34:BA:135:G:N1	2.81	0.48
34:BA:132:U:O2	34:BA:182:U:H1'	2.13	0.48
34:BA:182:U:C4	34:BA:183:G:N7	2.81	0.48
34:BA:184:C:C4	34:BA:185:A:C8	3.01	0.48
34:BA:354:G:N1	34:BA:355:U:C2	2.81	0.48
34:BA:355:U:C4	34:BA:356:C:C5	3.01	0.48
34:BA:373:G:C2	34:BA:374:U:C2	3.01	0.48
34:BA:497:U:C2	34:BA:498:A:C8	3.01	0.48
34:BA:594:G:C2	34:BA:684:G:C2	3.01	0.48
34:BA:655:U:H2'	34:BA:657:C:H5'	1.95	0.48
34:BA:726:G:C2	34:BA:727:G:C4	3.01	0.48
34:BA:932:G:C2	34:BA:933:U:H1'	2.48	0.48
34:BA:989:C:H2'	34:BA:990:G:H8	1.78	0.48
34:BA:1108:U:C4	34:BA:1109:G:N7	2.80	0.48
34:BA:1347:G:C6	34:BA:1399:A:C6	3.00	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1431:G:H2'	34:BA:1432:C:C6	2.47	0.48
34:BA:1519:G:C2	34:BA:1520:A:C4	3.00	0.48
34:BA:1652:G:C2	35:BB:41:A:C2	3.01	0.48
34:BA:1691:G:C6	34:BA:1825:U:C4	3.01	0.48
34:BA:1782:C:N3	34:BA:1783:C:C5	2.81	0.48
35:BB:22:A:C5	35:BB:26:C:C4	3.01	0.48
35:BB:39:C:C2	35:BB:40:C:C5	3.01	0.48
35:BB:40:C:C2	35:BB:41:A:C5	3.01	0.48
35:BB:62:C:C3'	35:BB:62:C:C6	2.96	0.48
35:BB:446:U:O2	35:BB:448:G:C6	2.65	0.48
35:BB:487:A:C2	35:BB:494:C:C2	3.01	0.48
35:BB:533:U:H2'	35:BB:534:C:C6	2.48	0.48
35:BB:690:C:C2	35:BB:1055:G:C2	3.01	0.48
35:BB:710:A:C5	35:BB:711:C:C4	3.01	0.48
35:BB:801:G:H21	83:Bx:260:ARG:HH22	1.61	0.48
35:BB:843:G:C2	35:BB:844:G:C4	3.00	0.48
35:BB:855:G:C2	35:BB:856:U:C6	3.01	0.48
35:BB:967:G:N2	35:BB:968:C:C2	2.81	0.48
35:BB:971:A:C5'	35:BB:972:C:H2'	2.43	0.48
35:BB:1053:G:H4'	64:Be:233:GLN:NE2	2.28	0.48
35:BB:1078:U:C2	35:BB:1095:G:C2	3.01	0.48
35:BB:1093:C:H5''	44:BK:119:TYR:CD2	2.48	0.48
35:BB:1132:A:N3	80:Bu:3:PHE:CD2	2.81	0.48
35:BB:1356:G:N7	78:Bs:49:LYS:HD3	2.27	0.48
35:BB:1401:G:H3'	35:BB:1402:U:C5	2.48	0.48
35:BB:1456:G:C2	35:BB:1457:A:C5	3.01	0.48
35:BB:1457:A:H5''	71:Bl:87:TYR:OH	2.13	0.48
36:BC:98:C:OP2	36:BC:98:C:C5	2.66	0.48
36:BC:113:G:C2	36:BC:114:C:C2	3.00	0.48
36:BC:166:G:H3'	36:BC:167:U:C6	2.49	0.48
36:BC:166:G:C8	36:BC:167:U:C4	3.01	0.48
37:BD:56:G:C6	37:BD:57:C:C2	3.01	0.48
38:BE:23:G:C4	38:BE:25:U:C5	3.00	0.48
38:BE:105:A:H2'	38:BE:106:C:H6	1.77	0.48
39:BF:24:G:C4	48:BO:187:HIS:HB2	2.48	0.48
40:BG:118:U:H2'	40:BG:119:A:C8	2.48	0.48
40:BG:158:A:H3'	40:BG:158:A:N3	2.27	0.48
40:BG:166:C:H3'	65:Bf:81:ARG:NH2	2.28	0.48
41:BH:29:G:H1'	41:BH:128:G:N2	2.28	0.48
41:BH:29:G:N2	41:BH:127:A:C2	2.80	0.48
41:BH:39:G:C6	41:BH:113:G:C6	3.00	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BH:42:U:H4'	41:BH:43:G:H5''	1.95	0.48
41:BH:48:G:H5''	41:BH:49:C:OP1	2.13	0.48
41:BH:50:A:H2'	41:BH:51:C:O4'	2.13	0.48
41:BH:115:A:H5''	41:BH:118:U:H5	1.78	0.48
47:BN:112:GLU:CD	47:BN:112:GLU:H	2.14	0.48
48:BO:30:LYS:HA	48:BO:58:LYS:HB3	1.94	0.48
51:BR:36:ILE:C	51:BR:44:ALA:HB1	2.38	0.48
61:Bb:135:ARG:HH11	61:Bb:135:ARG:HG2	1.78	0.48
62:Bc:48:THR:HA	62:Bc:67:GLY:HA3	1.95	0.48
69:Bj:44:HIS:CG	69:Bj:52:LYS:O	2.66	0.48
76:Bq:44:TRP:CE3	76:Bq:45:ARG:N	2.81	0.48
77:Br:139:ARG:HG3	77:Br:245:GLY:CA	2.43	0.48
82:Bw:191:ASP:OD2	82:Bw:209:HIS:CG	2.66	0.48
85:AA:278:C:H2'	85:AA:279:C:H6	1.72	0.48
85:AA:332:A:H4'	85:AA:333:A:OP1	2.13	0.48
85:AA:424:A:H2'	85:AA:425:G:N7	2.27	0.48
85:AA:478:U:C6	85:AA:478:U:O5'	2.66	0.48
85:AA:499:G:N2	85:AA:501:A:C8	2.81	0.48
85:AA:589:A:N7	85:AA:605:A:C4	2.81	0.48
85:AA:744:C:C2	85:AA:766:G:C5	3.01	0.48
85:AA:791:C:C2	85:AA:792:A:N6	2.81	0.48
85:AA:847:G:C5	85:AA:848:C:C5	3.01	0.48
85:AA:883:A:C4	85:AA:884:A:N6	2.81	0.48
85:AA:924:A:C5	85:AA:925:G:C8	3.01	0.48
85:AA:977:U:C6	85:AA:977:U:H5''	2.48	0.48
85:AA:1187:G:C6	85:AA:1191:G:C6	3.01	0.48
85:AA:1212:C:C4	85:AA:1212:C:OP2	2.66	0.48
85:AA:1421:U:H4'	85:AA:1422:A:C8	2.48	0.48
85:AA:1486:G:C4	85:AA:1487:G:C8	3.01	0.48
85:AA:1498:C:C2	85:AA:1499:G:C8	3.01	0.48
85:AA:1676:G:H2'	85:AA:1677:A:C8	2.47	0.48
85:AA:1684:U:C5	85:AA:1685:G:C8	3.00	0.48
85:AA:1954:C:C2	85:AA:1955:U:C5	3.01	0.48
85:AA:1979:A:H4'	85:AA:1981:A:C2	2.48	0.48
85:AA:2037:A:C6	85:AA:2038:C:C2	3.01	0.48
85:AA:2088:U:C4	85:AA:2089:G:N7	2.81	0.48
85:AA:2114:U:O2	85:AA:2205:A:C2	2.66	0.48
85:AA:2156:C:C2	85:AA:2163:G:N2	2.81	0.48
2:A1:79:TYR:CE2	2:A1:80:PRO:HG2	2.47	0.48
5:A4:192:TRP:HA	85:AA:1356:U:H5'	1.95	0.48
12:AD:30:LEU:HD21	12:AD:38:GLY:O	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AD:33:TRP:CE2	85:AA:1957:C:C5	3.01	0.48
19:AK:19:LYS:HB3	19:AK:129:ARG:HD2	1.95	0.48
19:AK:37:ILE:HB	19:AK:45:ILE:HG21	1.95	0.48
21:AM:35:LYS:CG	21:AM:36:GLY:H	2.27	0.48
34:BA:2:A:C2	36:BC:169:G:N3	2.80	0.48
34:BA:12:G:C5	34:BA:13:U:C4	3.01	0.48
34:BA:38:G:H1'	35:BB:1259:A:N6	2.28	0.48
34:BA:57:A:C8	34:BA:390:A:C6	3.01	0.48
34:BA:110:C:C6	34:BA:110:C:C3'	2.93	0.48
34:BA:194:G:H2'	34:BA:195:G:H5'	1.94	0.48
34:BA:320:G:H2'	34:BA:321:G:H8	1.73	0.48
34:BA:473:A:C6	34:BA:474:A:C6	3.01	0.48
34:BA:478:G:C5	34:BA:479:U:C5	3.01	0.48
34:BA:484:A:C2	36:BC:5:U:C2	3.01	0.48
34:BA:529:A:N6	34:BA:530:A:H62	2.09	0.48
34:BA:567:U:C6	34:BA:567:U:H3'	2.48	0.48
34:BA:649:A:C2	34:BA:650:C:N1	2.82	0.48
34:BA:677:U:C6	34:BA:677:U:O5'	2.65	0.48
34:BA:744:G:C6	34:BA:745:A:N7	2.81	0.48
34:BA:771:A:C5	34:BA:774:A:H1'	2.48	0.48
34:BA:818:G:C6	34:BA:853:A:C5	3.01	0.48
34:BA:857:C:H2'	34:BA:858:C:C6	2.48	0.48
34:BA:1077:G:C2	34:BA:1217:A:C2	3.01	0.48
34:BA:1091:U:O5'	34:BA:1091:U:H6	1.96	0.48
34:BA:1136:A:C2	34:BA:1137:U:H1'	2.49	0.48
34:BA:1155:U:C4	34:BA:1156:U:C4	3.02	0.48
34:BA:1158:A:H3'	34:BA:1159:A:H8	1.76	0.48
34:BA:1243:A:C8	34:BA:1245:C:C5	3.01	0.48
34:BA:1535:G:C4	34:BA:1572:G:C5	3.00	0.48
34:BA:1597:G:N2	35:BB:622:G:C4	2.81	0.48
34:BA:1731:A:C5	34:BA:1732:A:N7	2.80	0.48
34:BA:1741:G:H1'	35:BB:2:C:P	2.53	0.48
34:BA:1797:A:N3	34:BA:1798:G:C5	2.81	0.48
34:BA:1846:G:C4	35:BB:5:A:N1	2.81	0.48
35:BB:6:A:C6	35:BB:7:C:C4	3.01	0.48
35:BB:22:A:C4	35:BB:26:C:C4	3.01	0.48
35:BB:65:A:N1	35:BB:66:G:C5	2.81	0.48
35:BB:408:U:N1	35:BB:1436:U:C5	2.81	0.48
35:BB:423:G:C6	35:BB:424:U:C2	3.00	0.48
35:BB:451:A:C5	35:BB:452:A:N7	2.81	0.48
35:BB:526:A:H3'	35:BB:527:U:C6	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:637:G:C6	35:BB:638:G:C5	3.01	0.48
35:BB:653:G:C5	35:BB:1452:U:C2	3.01	0.48
35:BB:804:U:C5	35:BB:805:G:N9	2.80	0.48
35:BB:812:G:H1	35:BB:827:U:H3	1.61	0.48
35:BB:831:C:C6	35:BB:831:C:H3'	2.48	0.48
35:BB:834:U:OP2	35:BB:834:U:C5	2.66	0.48
35:BB:859:U:C4	35:BB:861:C:H5''	2.48	0.48
35:BB:891:U:N3	35:BB:893:U:C4	2.81	0.48
35:BB:975:G:H2'	35:BB:975:G:N3	2.27	0.48
35:BB:1096:G:N3	35:BB:1096:G:H2'	2.27	0.48
35:BB:1191:G:C6	35:BB:1199:A:C6	3.02	0.48
35:BB:1360:A:C8	35:BB:1360:A:O5'	2.66	0.48
35:BB:1454:G:C8	35:BB:1455:A:N7	2.81	0.48
35:BB:1497:C:C2	35:BB:1509:G:C2	3.01	0.48
36:BC:145:G:C2	36:BC:146:U:C2	3.01	0.48
37:BD:41:G:N2	37:BD:45:U:C2	2.80	0.48
37:BD:90:A:N7	37:BD:91:U:H1'	2.28	0.48
38:BE:119:U:C6	38:BE:119:U:OP2	2.66	0.48
38:BE:123:A:C6	38:BE:124:G:C5	3.01	0.48
38:BE:180:G:H5''	38:BE:182:U:H5'	1.95	0.48
40:BG:44:G:N1	40:BG:45:G:C4	2.81	0.48
40:BG:104:A:C2	40:BG:105:A:C4	3.01	0.48
41:BH:127:A:C2	41:BH:128:G:C5	3.02	0.48
44:BK:68:ALA:HB2	44:BK:158:LYS:HB2	1.95	0.48
47:BN:59:LEU:CD1	47:BN:158:TYR:CE1	2.96	0.48
49:BP:28:VAL:HG21	49:BP:39:GLU:CB	2.42	0.48
56:BW:29:ASP:CG	56:BW:111:MET:HE1	2.38	0.48
65:Bf:276:VAL:HA	65:Bf:329:HIS:O	2.13	0.48
68:Bi:89:GLN:CD	68:Bi:93:TYR:H	2.22	0.48
77:Br:100:MET:SD	77:Br:100:MET:C	2.95	0.48
77:Br:349:ARG:HA	77:Br:352:ARG:CZ	2.43	0.48
79:Bt:11:HIS:CE1	79:Bt:13:PRO:N	2.81	0.48
83:Bx:149:LEU:HD21	83:Bx:209:THR:CG2	2.42	0.48
85:AA:279:C:C2	85:AA:291:G:N2	2.81	0.48
85:AA:476:C:N3	85:AA:477:U:C5	2.81	0.48
85:AA:506:G:C2	85:AA:534:A:C2	3.01	0.48
85:AA:510:A:H3'	85:AA:511:A:H8	1.78	0.48
85:AA:637:U:H2'	85:AA:638:G:C8	2.48	0.48
85:AA:640:C:H2'	85:AA:641:A:C8	2.48	0.48
85:AA:669:G:C6	85:AA:670:C:C4	3.00	0.48
85:AA:690:G:H1'	85:AA:695:A:C4	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:696:G:C2	85:AA:1482:C:C2	3.01	0.48
85:AA:983:A:C8	85:AA:983:A:H3'	2.48	0.48
85:AA:1251:G:C2	85:AA:1252:A:C4	3.01	0.48
85:AA:1444:U:H3'	85:AA:1445:C:C6	2.48	0.48
85:AA:1564:U:H3	85:AA:1575:G:N2	2.11	0.48
85:AA:1595:G:H5''	85:AA:1595:G:C8	2.48	0.48
85:AA:1641:A:C2	85:AA:1642:A:C4	3.01	0.48
85:AA:1671:G:C5	85:AA:1672:G:C8	3.01	0.48
85:AA:1679:U:H2'	85:AA:1680:U:C6	2.48	0.48
85:AA:1784:G:C2	85:AA:1785:U:C2	3.02	0.48
4:A3:186:THR:O	4:A3:189:ALA:HB3	2.14	0.48
5:A4:149:THR:HG23	18:AJ:49:GLU:OE1	2.14	0.48
11:AC:126:PHE:HA	11:AC:129:LEU:HD23	1.95	0.48
11:AC:192:PHE:CD1	25:AR:64:ARG:CB	2.97	0.48
13:AE:98:ARG:C	13:AE:127:CYS:SG	2.95	0.48
23:AP:100:THR:HG23	85:AA:1523:G:H4'	1.95	0.48
23:AP:113:VAL:HG11	23:AP:197:ILE:HG23	1.94	0.48
34:BA:1:C:N3	34:BA:2:A:C2	2.81	0.48
34:BA:38:G:C4	34:BA:39:C:C6	3.02	0.48
34:BA:112:C:O2	34:BA:112:C:H2'	2.12	0.48
34:BA:172:A:C5	34:BA:316:G:C6	3.02	0.48
34:BA:213:A:C2	34:BA:220:U:C2	3.00	0.48
34:BA:359:G:H3'	34:BA:360:C:C5'	2.43	0.48
34:BA:374:U:H3'	34:BA:375:C:C6	2.48	0.48
34:BA:424:U:H1'	34:BA:916:A:H62	1.78	0.48
34:BA:426:A:H3'	34:BA:427:G:O4'	2.12	0.48
34:BA:502:U:C4	34:BA:701:G:C6	3.01	0.48
34:BA:596:G:C5	34:BA:1487:U:H2'	2.49	0.48
34:BA:611:A:C8	34:BA:611:A:H3'	2.47	0.48
34:BA:611:A:C2	34:BA:668:G:N2	2.82	0.48
34:BA:618:G:H2'	34:BA:619:U:C6	2.48	0.48
34:BA:733:G:H3'	34:BA:734:G:H8	1.78	0.48
34:BA:758:G:H22	34:BA:782:C:H1'	1.78	0.48
34:BA:825:G:N2	34:BA:826:C:C2	2.81	0.48
34:BA:931:G:O6	34:BA:932:G:C5	2.66	0.48
34:BA:1046:G:C4	34:BA:1047:U:C5	3.01	0.48
34:BA:1073:G:C5	34:BA:1074:C:C6	3.01	0.48
34:BA:1323:G:C6	34:BA:1324:G:N7	2.81	0.48
34:BA:1392:A:C5	34:BA:1393:C:C5	3.01	0.48
34:BA:1566:G:C2	34:BA:1567:G:N1	2.81	0.48
34:BA:1607:U:O4	35:BB:60:A:C2	2.66	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1634:A:N7	34:BA:1678:U:C2	2.81	0.48
34:BA:1665:G:C4	34:BA:1686:G:N2	2.81	0.48
34:BA:1666:U:H2'	34:BA:1667:G:O4'	2.13	0.48
34:BA:1702:G:C8	34:BA:1703:A:N7	2.81	0.48
34:BA:1841:A:C4	35:BB:9:G:C2	3.01	0.48
34:BA:1842:U:H4'	36:BC:126:G:H4'	1.95	0.48
35:BB:99:G:C2	35:BB:100:A:C4	3.02	0.48
35:BB:300:U:H2'	35:BB:301:G:C8	2.48	0.48
35:BB:622:G:H4'	51:BR:139:TYR:CD2	2.48	0.48
35:BB:693:U:H2'	35:BB:694:C:C6	2.47	0.48
35:BB:735:A:C6	35:BB:745:C:H4'	2.48	0.48
35:BB:736:G:H2'	35:BB:737:C:C6	2.49	0.48
35:BB:747:A:H3'	35:BB:748:A:C8	2.48	0.48
35:BB:797:C:H2'	35:BB:798:A:O4'	2.14	0.48
35:BB:830:G:C2	35:BB:831:C:C6	3.01	0.48
35:BB:842:G:C2	35:BB:843:G:C8	3.01	0.48
35:BB:843:G:C2	35:BB:970:C:O2	2.66	0.48
35:BB:1117:G:N2	80:Bu:3:PHE:CE2	2.81	0.48
35:BB:1150:A:C6	80:Bu:23:ARG:HD3	2.49	0.48
35:BB:1241:U:C2	35:BB:1242:C:C6	3.00	0.48
35:BB:1291:G:C2	35:BB:1314:G:N3	2.81	0.48
35:BB:1355:C:H2'	35:BB:1357:C:C5'	2.42	0.48
35:BB:1401:G:C8	65:Bf:53:SER:N	2.81	0.48
35:BB:1458:U:O2'	71:Bl:85:HIS:CE1	2.66	0.48
36:BC:50:C:H2'	76:Bq:26:TRP:NE1	2.28	0.48
36:BC:55:U:C2	36:BC:62:A:C2	3.01	0.48
37:BD:31:U:C2	37:BD:32:A:C8	3.01	0.48
37:BD:110:G:N1	37:BD:111:U:C4	2.81	0.48
40:BG:28:A:C5	40:BG:29:U:C5	3.01	0.48
40:BG:35:G:C4	40:BG:36:G:C8	3.01	0.48
40:BG:74:G:C2	40:BG:124:A:C5	3.01	0.48
40:BG:152:G:H5''	84:By:38:ARG:NH1	2.28	0.48
41:BH:29:G:O6	41:BH:30:C:C4	2.66	0.48
41:BH:31:A:C4	41:BH:32:U:C5	3.01	0.48
41:BH:44:A:C8	41:BH:45:G:C8	3.01	0.48
41:BH:100:A:H3'	41:BH:101:A:C5'	2.44	0.48
42:BI:112:PHE:CE2	42:BI:127:CYS:HA	2.47	0.48
44:BK:30:ARG:HH21	44:BK:63:GLU:CD	2.21	0.48
48:BO:28:ASP:O	48:BO:32:HIS:CE1	2.66	0.48
49:BP:17:ARG:CB	49:BP:55:ASN:HD21	2.26	0.48
52:BS:8:HIS:ND1	52:BS:66:VAL:HG13	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:Bi:99:HIS:CD2	68:Bi:100:THR:N	2.80	0.48
79:Bt:16:ARG:HH22	79:Bt:78:LYS:HE3	1.78	0.48
82:Bw:42:LYS:O	82:Bw:45:ILE:HG22	2.14	0.48
85:AA:15:U:O4'	85:AA:693:A:C5	2.66	0.48
85:AA:25:C:C6	85:AA:540:A:H4'	2.49	0.48
85:AA:36:U:C2	85:AA:543:A:C2	3.01	0.48
85:AA:147:G:N1	85:AA:148:G:C5	2.81	0.48
85:AA:175:A:C5	85:AA:176:C:C5	3.01	0.48
85:AA:271:A:C8	85:AA:271:A:H3'	2.48	0.48
85:AA:342:C:H2'	85:AA:343:U:O4'	2.14	0.48
85:AA:345:U:C4	85:AA:346:U:C2	3.01	0.48
85:AA:555:C:H2'	85:AA:556:C:N1	2.29	0.48
85:AA:560:C:N3	85:AA:561:C:C5	2.81	0.48
85:AA:704:A:N3	85:AA:1219:A:C4	2.81	0.48
85:AA:927:A:C6	85:AA:928:U:C4	3.01	0.48
85:AA:1004:G:C5	85:AA:1005:C:C6	3.01	0.48
85:AA:1128:G:C2	85:AA:1129:A:C5	3.01	0.48
85:AA:1217:U:H2'	85:AA:1218:C:O4'	2.14	0.48
85:AA:1286:C:N3	85:AA:1287:C:C5	2.82	0.48
85:AA:1304:C:H3'	85:AA:1305:A:N7	2.28	0.48
85:AA:1495:G:N1	85:AA:1496:U:C2	2.81	0.48
85:AA:1549:G:C5	85:AA:1550:C:C4	3.01	0.48
85:AA:1553:G:C2	85:AA:1554:C:C2	3.02	0.48
85:AA:1797:U:C2	85:AA:1798:U:H4'	2.48	0.48
85:AA:1872:G:C8	85:AA:1873:U:C6	3.01	0.48
85:AA:1988:A:N3	85:AA:1989:A:C5	2.82	0.48
85:AA:2060:G:C6	85:AA:2061:C:C5	3.00	0.48
85:AA:2129:U:C4	85:AA:2130:G:C6	3.00	0.48
86:AB:5:G:C6	86:AB:69:G:C6	3.01	0.48
86:AB:30:G:H3'	86:AB:31:A:H8	1.78	0.48
86:AB:44:G:C2	86:AB:45:U:H1'	2.49	0.48
1:A0:234:HIS:HE1	1:A0:237:VAL:H	1.61	0.48
18:AJ:2:THR:HG22	85:AA:1284:A:C5'	2.43	0.48
18:AJ:102:VAL:HB	18:AJ:113:HIS:CG	2.48	0.48
19:AK:36:ARG:HH21	19:AK:70:ARG:HD3	1.77	0.48
20:AL:53:TYR:CE1	20:AL:56:HIS:CD2	3.00	0.48
34:BA:18:G:C3'	34:BA:19:G:H8	2.26	0.48
34:BA:20:A:N7	34:BA:21:C:C5	2.81	0.48
34:BA:86:A:C8	34:BA:97:A:C6	3.01	0.48
34:BA:124:G:N2	34:BA:141:G:C6	2.81	0.48
34:BA:184:C:N3	34:BA:185:A:C8	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:316:G:H1'	34:BA:317:U:H5	1.78	0.48
34:BA:427:G:C6	34:BA:428:C:C4	3.02	0.48
34:BA:474:A:N1	34:BA:475:A:N1	2.61	0.48
34:BA:481:A:H2	36:BC:8:C:C2	2.30	0.48
34:BA:534:C:C4	34:BA:535:G:N7	2.81	0.48
34:BA:534:C:C2	34:BA:535:G:C8	3.02	0.48
34:BA:586:G:H2'	34:BA:587:U:H5''	1.95	0.48
34:BA:587:U:C5'	34:BA:587:U:H6	2.27	0.48
34:BA:737:U:C2	34:BA:738:C:N3	2.82	0.48
34:BA:782:C:O2'	34:BA:783:U:H5'	2.13	0.48
34:BA:800:G:C4	34:BA:801:U:C5	3.02	0.48
34:BA:809:U:C2	34:BA:810:A:C8	3.02	0.48
34:BA:1059:U:OP2	35:BB:677:U:C5	2.66	0.48
34:BA:1093:G:N1	34:BA:1094:U:C2	2.81	0.48
34:BA:1111:U:O2'	44:BK:92:HIS:CE1	2.66	0.48
34:BA:1125:G:C6	34:BA:1126:U:O4	2.66	0.48
34:BA:1190:A:C5	34:BA:1191:C:C4	3.01	0.48
34:BA:1329:U:H1'	34:BA:1413:G:N2	2.29	0.48
34:BA:1343:A:H3'	34:BA:1344:G:H8	1.79	0.48
34:BA:1420:A:H1'	35:BB:1345:A:H5''	1.94	0.48
34:BA:1441:C:C2	34:BA:1442:A:C8	3.00	0.48
34:BA:1537:G:OP2	34:BA:1537:G:C6	2.67	0.48
34:BA:1653:G:C6	34:BA:1654:G:N7	2.82	0.48
34:BA:1661:U:C4	35:BB:18:A:C5	3.01	0.48
35:BB:43:G:C4	35:BB:44:C:C6	3.00	0.48
35:BB:145:G:H4'	35:BB:146:U:OP2	2.13	0.48
35:BB:377:A:C2	35:BB:378:C:C6	3.01	0.48
35:BB:512:C:C5'	64:Be:219:ILE:HG21	2.44	0.48
35:BB:628:A:H2'	35:BB:629:C:C6	2.49	0.48
35:BB:823:G:O6	35:BB:824:C:C4	2.66	0.48
35:BB:1064:U:C5	35:BB:1068:G:OP2	2.66	0.48
35:BB:1067:G:C5	35:BB:1068:G:C8	3.02	0.48
35:BB:1529:G:C2	35:BB:1530:U:C2	3.01	0.48
35:BB:1533:U:C4	35:BB:1536:G:C6	3.01	0.48
36:BC:18:G:C4	36:BC:19:A:N7	2.81	0.48
36:BC:36:G:N9	70:Bk:93:HIS:CE1	2.82	0.48
36:BC:50:C:H1'	70:Bk:44:ARG:NH2	2.26	0.48
36:BC:75:G:C6	36:BC:76:C:C4	3.01	0.48
36:BC:136:G:C4	36:BC:137:C:C6	3.02	0.48
36:BC:138:C:H2'	36:BC:139:A:C8	2.48	0.48
37:BD:11:A:N6	80:Bu:13:TYR:CD1	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BD:28:C:C5	37:BD:29:C:C5	3.01	0.48
37:BD:71:G:C4	37:BD:72:U:C6	3.02	0.48
37:BD:105:G:C4	37:BD:106:G:C8	3.02	0.48
38:BE:5:A:C6	38:BE:6:A:C6	3.01	0.48
38:BE:19:G:H4'	38:BE:20:C:OP2	2.13	0.48
38:BE:23:G:C2	38:BE:197:A:C6	3.01	0.48
38:BE:26:G:N2	38:BE:193:A:C8	2.81	0.48
38:BE:31:A:H2'	38:BE:32:U:C4	2.49	0.48
38:BE:59:U:H2'	38:BE:60:C:C6	2.47	0.48
38:BE:170:U:C6	38:BE:171:U:C6	3.01	0.48
38:BE:175:U:H2'	38:BE:175:U:O2	2.12	0.48
40:BG:25:G:C5	40:BG:26:G:N7	2.81	0.48
40:BG:36:G:N1	40:BG:167:C:C4	2.82	0.48
40:BG:44:G:C2	40:BG:45:G:N9	2.81	0.48
40:BG:88:G:H2'	40:BG:89:A:O4'	2.14	0.48
40:BG:112:C:C4	40:BG:113:G:N7	2.81	0.48
41:BH:134:U:C6	41:BH:134:U:C3'	2.96	0.48
45:BL:44:LEU:HD23	45:BL:74:VAL:HB	1.96	0.48
45:BL:103:PHE:CD2	45:BL:109:PHE:HB3	2.48	0.48
45:BL:123:TYR:CZ	45:BL:125:PRO:HA	2.48	0.48
45:BL:145:VAL:HA	45:BL:148:ARG:CZ	2.43	0.48
57:BX:48:ALA:C	57:BX:49:TYR:CG	2.91	0.48
71:BI:97:LYS:C	71:BI:99:PRO:HA	2.39	0.48
79:Bt:40:LYS:O	79:Bt:44:ASP:CG	2.56	0.48
82:Bw:7:ILE:HG22	82:Bw:14:GLU:OE1	2.14	0.48
85:AA:28:A:C4	85:AA:29:U:C6	3.01	0.48
85:AA:35:U:H5''	85:AA:35:U:H6	1.76	0.48
85:AA:52:U:H6	85:AA:52:U:O5'	1.96	0.48
85:AA:85:U:H5'	85:AA:85:U:H6	1.78	0.48
85:AA:118:C:N3	85:AA:362:G:C2	2.81	0.48
85:AA:264:A:H61	85:AA:866:U:H1'	1.79	0.48
85:AA:338:G:N1	85:AA:339:A:C4	2.81	0.48
85:AA:348:G:C4	85:AA:349:C:C6	3.02	0.48
85:AA:472:A:H8	85:AA:472:A:O5'	1.96	0.48
85:AA:480:U:C5	85:AA:482:C:N4	2.81	0.48
85:AA:634:U:N3	85:AA:660:G:C2	2.82	0.48
85:AA:635:G:C4	85:AA:659:A:C2	3.01	0.48
85:AA:637:U:C4	85:AA:638:G:O6	2.67	0.48
85:AA:675:A:C5	85:AA:676:U:C4	3.01	0.48
85:AA:698:G:C5	85:AA:699:U:C5	3.01	0.48
85:AA:705:G:H2'	85:AA:706:U:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:774:C:H3'	85:AA:775:C:C6	2.48	0.48
85:AA:792:A:N6	85:AA:800:A:H3'	2.27	0.48
85:AA:867:G:C6	85:AA:869:A:C6	3.02	0.48
85:AA:1089:G:C2	85:AA:1090:A:H1'	2.48	0.48
85:AA:1091:C:H2'	85:AA:1092:G:C8	2.47	0.48
85:AA:1540:A:O5'	85:AA:1540:A:H8	1.95	0.48
85:AA:1540:A:C2	85:AA:2049:U:N3	2.81	0.48
85:AA:1612:C:H3'	85:AA:1613:A:C8	2.49	0.48
85:AA:1844:A:C2	85:AA:1845:G:C4	3.01	0.48
85:AA:1897:A:C4	85:AA:1897:A:OP2	2.66	0.48
85:AA:1917:G:H2'	85:AA:1918:U:C6	2.48	0.48
85:AA:1934:A:C5	85:AA:1957:C:H4'	2.48	0.48
85:AA:1935:G:C2	85:AA:1955:U:O2	2.67	0.48
85:AA:2008:G:H1	85:AA:2034:G:C2'	2.25	0.48
85:AA:2059:A:C2	85:AA:2072:G:C4	3.01	0.48
85:AA:2069:A:C5	85:AA:2070:C:C5	3.01	0.48
4:A3:58:ASP:O	4:A3:61:GLY:HA2	2.13	0.48
4:A3:220:ARG:HD3	85:AA:307:G:C8	2.48	0.48
5:A4:61:LYS:HA	5:A4:93:GLY:O	2.13	0.48
7:A6:4:TYR:CG	7:A6:5:ASN:N	2.81	0.48
8:A7:33:SER:O	8:A7:40:LEU:HA	2.13	0.48
11:AC:153:MET:HE1	11:AC:155:PRO:CB	2.44	0.48
15:AG:89:TYR:CZ	15:AG:93:LYS:HB2	2.49	0.48
18:AJ:98:GLN:HG3	18:AJ:99:PHE:CE2	2.47	0.48
19:AK:58:VAL:HG12	19:AK:66:PHE:CD2	2.48	0.48
24:AQ:19:VAL:HG13	24:AQ:111:ILE:HG22	1.95	0.48
27:AT:126:GLY:HA3	85:AA:152:A:C5'	2.44	0.48
31:AX:173:HIS:CE1	85:AA:1654:G:H21	2.31	0.48
32:AY:38:LEU:HD13	32:AY:39:LYS:N	2.29	0.48
34:BA:66:C:N3	34:BA:67:A:H1'	2.28	0.48
34:BA:104:A:C8	34:BA:105:U:C5	3.01	0.48
34:BA:123:C:H2'	34:BA:124:G:C8	2.48	0.48
34:BA:125:G:N2	34:BA:126:G:H1'	2.28	0.48
34:BA:307:C:C4	34:BA:308:C:C5	3.01	0.48
34:BA:332:U:C4	34:BA:333:A:N7	2.81	0.48
34:BA:431:A:N6	34:BA:432:A:C2	2.82	0.48
34:BA:485:C:H4'	34:BA:705:C:C5'	2.43	0.48
34:BA:615:A:N1	34:BA:666:C:N3	2.60	0.48
34:BA:648:C:C2	34:BA:649:A:C8	3.02	0.48
34:BA:653:U:C6	34:BA:653:U:O5'	2.66	0.48
34:BA:687:G:C8	34:BA:687:G:C3'	2.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:744:G:C4	34:BA:745:A:C8	3.01	0.48
34:BA:1077:G:N3	34:BA:1217:A:C2	2.81	0.48
34:BA:1163:G:H1'	54:BU:60:ARG:HA	1.95	0.48
34:BA:1247:G:C2	34:BA:1248:A:C8	3.02	0.48
34:BA:1294:C:H1'	48:BO:141:LYS:NZ	2.29	0.48
34:BA:1346:U:H2'	34:BA:1347:G:C8	2.49	0.48
34:BA:1458:A:C6	34:BA:1460:U:C6	3.02	0.48
34:BA:1488:C:C5	34:BA:1489:U:C5	3.01	0.48
34:BA:1547:G:C4	34:BA:1549:U:C5	3.01	0.48
34:BA:1565:U:H2'	34:BA:1566:G:C8	2.49	0.48
34:BA:1569:C:O2	34:BA:1570:C:C6	2.67	0.48
34:BA:1731:A:N6	34:BA:1732:A:C2	2.82	0.48
34:BA:1741:G:C2	34:BA:1742:G:C4	3.02	0.48
34:BA:1815:G:C2	34:BA:1816:G:C4	3.02	0.48
34:BA:1818:A:C5'	53:BT:42:ARG:HH21	2.27	0.48
34:BA:1828:A:H3'	34:BA:1828:A:C8	2.48	0.48
35:BB:1:U:H5''	35:BB:2:C:H1'	1.94	0.48
35:BB:89:C:C4	35:BB:90:G:C5	3.01	0.48
35:BB:100:A:H5''	53:BT:84:THR:CA	2.43	0.48
35:BB:121:A:H2'	35:BB:121:A:N3	2.29	0.48
35:BB:510:A:N1	35:BB:580:A:C5	2.81	0.48
35:BB:736:G:C6	35:BB:737:C:C4	3.01	0.48
35:BB:782:A:H3'	35:BB:783:U:C6	2.48	0.48
35:BB:793:A:C6	35:BB:794:G:C6	3.02	0.48
35:BB:1056:A:C2	35:BB:1057:G:C5	3.02	0.48
35:BB:1061:G:H2'	35:BB:1062:G:C8	2.49	0.48
35:BB:1118:G:C6	35:BB:1119:G:C6	3.02	0.48
35:BB:1122:C:H3'	35:BB:1123:A:H2'	1.94	0.48
35:BB:1332:G:C6	35:BB:1403:G:C5	3.01	0.48
35:BB:1455:A:C8	35:BB:1455:A:O5'	2.67	0.48
35:BB:1524:G:N1	35:BB:1525:G:C5	2.82	0.48
35:BB:1543:C:H2'	35:BB:1544:A:C8	2.47	0.48
36:BC:125:A:N1	36:BC:126:G:C4	2.80	0.48
37:BD:35:C:C1'	80:Bu:204:ARG:HH21	2.27	0.48
37:BD:108:G:C6	37:BD:109:U:O4	2.65	0.48
38:BE:144:A:N3	38:BE:144:A:H2'	2.29	0.48
38:BE:166:G:C5	38:BE:167:U:C4	3.00	0.48
40:BG:28:A:C6	40:BG:178:G:C6	3.01	0.48
41:BH:31:A:N1	41:BH:32:U:C4	2.81	0.48
43:BJ:12:ALA:HB1	43:BJ:214:TYR:H	1.79	0.48
44:BK:64:ALA:HB1	44:BK:158:LYS:O	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BN:93:ARG:HB3	70:Bk:118:PHE:CZ	2.48	0.48
47:BN:133:LEU:HD13	47:BN:136:LYS:HD3	1.96	0.48
47:BN:201:ARG:CG	47:BN:204:ASN:HB2	2.43	0.48
48:BO:39:ALA:O	48:BO:42:ALA:HB3	2.13	0.48
62:Bc:92:LYS:O	62:Bc:107:TYR:CE1	2.65	0.48
65:Bf:281:GLY:O	65:Bf:325:GLN:HA	2.13	0.48
73:Bn:16:HIS:CG	73:Bn:26:ALA:HA	2.48	0.48
74:Bo:13:ARG:HB2	74:Bo:14:TYR:CZ	2.49	0.48
77:Br:255:PHE:O	77:Br:258:LEU:HB3	2.14	0.48
81:Bv:176:HIS:N	81:Bv:176:HIS:CD2	2.78	0.48
82:Bw:127:PHE:CE1	82:Bw:223:ALA:O	2.67	0.48
82:Bw:168:HIS:HA	82:Bw:178:ILE:HG23	1.95	0.48
82:Bw:202:GLN:HG2	82:Bw:213:VAL:HG11	1.96	0.48
83:Bx:178:TRP:CE3	83:Bx:179:MET:SD	3.06	0.48
84:By:10:THR:HA	84:By:53:PHE:O	2.13	0.48
85:AA:30:G:C6	85:AA:31:C:C4	3.01	0.48
85:AA:39:A:H1'	85:AA:540:A:C5	2.48	0.48
85:AA:57:G:C6	85:AA:88:G:N1	2.82	0.48
85:AA:84:C:N4	85:AA:85:U:C5	2.81	0.48
85:AA:147:G:C2	85:AA:177:A:H1'	2.48	0.48
85:AA:172:A:N1	85:AA:173:A:C5	2.81	0.48
85:AA:362:G:C2	85:AA:363:A:H1'	2.49	0.48
85:AA:604:C:H2'	85:AA:605:A:C6	2.48	0.48
85:AA:823:C:C4	85:AA:824:C:C5	3.01	0.48
85:AA:1290:G:N2	85:AA:1291:A:C6	2.82	0.48
85:AA:1598:A:C4	85:AA:1640:G:C2	3.01	0.48
85:AA:1654:G:H3'	85:AA:1655:G:C8	2.47	0.48
85:AA:1671:G:C5	85:AA:1672:G:N7	2.81	0.48
85:AA:1721:A:C2	85:AA:1722:G:C4	3.01	0.48
85:AA:1909:C:C5	85:AA:2040:A:C6	3.01	0.48
85:AA:2012:G:C2	85:AA:2032:G:C2	3.01	0.48
85:AA:2086:C:H2'	85:AA:2086:C:O2	2.13	0.48
86:AB:30:G:C2	86:AB:31:A:C4	3.00	0.48
1:A0:43:PHE:CE2	1:A0:44:ALA:HB3	2.49	0.48
4:A3:121:GLU:HG3	4:A3:122:GLN:H	1.77	0.48
7:A6:38:LYS:HB3	7:A6:42:TRP:CZ2	2.49	0.48
7:A6:108:LEU:CD1	7:A6:147:VAL:HG22	2.44	0.48
7:A6:135:VAL:HA	7:A6:154:HIS:HB3	1.94	0.48
15:AG:140:LYS:NZ	34:BA:946:A:H5'	2.24	0.48
23:AP:80:LEU:HD23	23:AP:80:LEU:C	2.38	0.48
23:AP:154:TRP:HD1	23:AP:181:PRO:HB2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AW:75:VAL:HG13	30:AW:76:THR:HG23	1.96	0.48
34:BA:4:A:C8	34:BA:4:A:H5''	2.49	0.48
34:BA:8:G:C2	34:BA:9:A:C4	3.02	0.48
34:BA:55:G:H5''	50:BQ:171:ALA:HB1	1.96	0.48
34:BA:121:A:C6	34:BA:146:G:H1'	2.49	0.48
34:BA:192:G:N2	34:BA:193:C:C2	2.81	0.48
34:BA:198:U:O4	34:BA:262:A:C4	2.66	0.48
34:BA:205:G:H2'	34:BA:249:A:C2	2.48	0.48
34:BA:248:G:N9	34:BA:437:G:C5	2.82	0.48
34:BA:329:G:N1	34:BA:382:G:C6	2.82	0.48
34:BA:339:G:N1	34:BA:351:A:C6	2.82	0.48
34:BA:631:G:C6	34:BA:632:U:C5	3.01	0.48
34:BA:649:A:C6	34:BA:650:C:C4	3.01	0.48
34:BA:681:G:N7	81:Bv:16:VAL:HG11	2.29	0.48
34:BA:718:U:C5	34:BA:719:G:N7	2.81	0.48
34:BA:795:G:H2'	34:BA:796:G:H8	1.78	0.48
34:BA:798:G:C2	61:Bb:114:HIS:CG	3.01	0.48
34:BA:830:U:H1'	34:BA:838:U:N3	2.29	0.48
34:BA:843:G:C6	34:BA:844:U:C4	3.01	0.48
34:BA:933:U:C5	34:BA:934:G:C4	3.02	0.48
34:BA:975:A:H2'	34:BA:975:A:N3	2.28	0.48
34:BA:1010:C:C4	34:BA:1011:G:C5	3.02	0.48
34:BA:1046:G:N1	34:BA:1047:U:C4	2.82	0.48
34:BA:1097:G:C2	35:BB:1084:A:C6	3.02	0.48
34:BA:1119:A:H1'	34:BA:1120:U:C5	2.48	0.48
34:BA:1252:G:N1	34:BA:1253:G:C4	2.81	0.48
34:BA:1286:C:H4'	34:BA:1292:A:C6	2.48	0.48
34:BA:1482:A:C5	34:BA:1483:U:C5	3.01	0.48
34:BA:1484:A:N1	34:BA:1485:U:C4	2.81	0.48
34:BA:1640:G:C6	34:BA:1641:G:C5	3.01	0.48
34:BA:1644:A:C2	34:BA:1645:C:C2	3.02	0.48
34:BA:1644:A:C4	35:BB:60:A:C2	3.02	0.48
34:BA:1734:U:C4	34:BA:1735:G:C5	3.02	0.48
34:BA:1740:U:H3	34:BA:1784:G:H1	1.61	0.48
34:BA:1816:G:C2	34:BA:1818:A:C2	3.01	0.48
35:BB:439:G:C4	35:BB:440:U:C5	3.01	0.48
35:BB:555:G:H2'	35:BB:555:G:N3	2.28	0.48
35:BB:619:A:C6	35:BB:620:G:C5	3.01	0.48
35:BB:676:G:C5	35:BB:678:U:C5	3.01	0.48
35:BB:681:G:C6	35:BB:682:U:C2	3.01	0.48
35:BB:691:A:C4	35:BB:1054:G:C2	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:755:A:C6	35:BB:756:C:C5	3.01	0.48
35:BB:773:G:C6	35:BB:774:C:N4	2.82	0.48
35:BB:780:U:H4'	83:Bx:251:LEU:HD23	1.95	0.48
35:BB:810:G:C4	35:BB:830:G:C2	3.01	0.48
35:BB:814:A:H1'	35:BB:826:G:N2	2.28	0.48
35:BB:855:G:C6	35:BB:856:U:C5	3.01	0.48
35:BB:1021:C:H2'	35:BB:1022:C:C6	2.49	0.48
35:BB:1204:C:O5'	35:BB:1204:C:H6	1.96	0.48
35:BB:1355:C:H3'	84:By:171:ARG:HH12	1.78	0.48
35:BB:1374:U:C5	35:BB:1393:C:C6	3.01	0.48
35:BB:1443:C:C2	35:BB:1444:U:C6	3.02	0.48
35:BB:1455:A:C4	35:BB:1456:G:C8	3.02	0.48
35:BB:1494:G:C2	35:BB:1513:U:N3	2.82	0.48
35:BB:1501:U:H4'	35:BB:1504:U:OP1	2.14	0.48
35:BB:1524:G:N3	35:BB:1544:A:C2	2.81	0.48
36:BC:11:G:C2	36:BC:12:A:C4	3.01	0.48
36:BC:48:A:C6	36:BC:62:A:C5	3.01	0.48
36:BC:73:U:C4	36:BC:74:U:C5	3.01	0.48
36:BC:106:G:C2	36:BC:107:C:N1	2.82	0.48
36:BC:108:A:C5	36:BC:109:A:C5	3.02	0.48
36:BC:164:G:H4'	83:Bx:65:TRP:CZ3	2.48	0.48
36:BC:166:G:C8	83:Bx:72:GLN:OE1	2.66	0.48
37:BD:32:A:C2	37:BD:46:G:C6	3.00	0.48
37:BD:74:A:H5'	37:BD:76:U:H1'	1.96	0.48
37:BD:94:C:H2'	37:BD:95:G:N9	2.29	0.48
38:BE:104:G:C5	38:BE:105:A:C6	3.01	0.48
38:BE:107:U:C4	38:BE:108:U:H5	2.31	0.48
39:BF:56:C:O2'	39:BF:57:C:C5	2.67	0.48
40:BG:41:U:N3	40:BG:69:G:N1	2.61	0.48
40:BG:44:G:C2	40:BG:45:G:C8	3.02	0.48
40:BG:103:C:C6	40:BG:103:C:O5'	2.66	0.48
40:BG:127:G:N1	40:BG:163:G:C6	2.81	0.48
40:BG:150:A:C2	40:BG:151:A:C8	3.02	0.48
41:BH:50:A:C5	41:BH:51:C:C4	3.01	0.48
48:BO:186:HIS:O	48:BO:189:LYS:HD3	2.12	0.48
49:BP:46:MET:HG2	49:BP:49:HIS:CG	2.49	0.48
50:BQ:61:ARG:NH1	50:BQ:137:TRP:CZ3	2.81	0.48
53:BT:30:VAL:HG13	53:BT:31:GLU:N	2.28	0.48
53:BT:95:TRP:CZ3	53:BT:99:LEU:HD23	2.48	0.48
58:BY:63:HIS:C	58:BY:65:LYS:H	2.20	0.48
58:BY:83:GLU:HG2	85:AA:2159:C:N1	2.10	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Bb:37:GLY:HA2	61:Bb:41:HIS:HB2	1.96	0.48
62:Bc:48:THR:HG22	62:Bc:67:GLY:O	2.14	0.48
62:Bc:95:VAL:HG22	62:Bc:97:ASP:H	1.79	0.48
65:Bf:350:ASN:CG	65:Bf:351:GLN:N	2.71	0.48
65:Bf:444:ASP:HA	65:Bf:448:ARG:HB3	1.95	0.48
72:Bm:52:ILE:HA	72:Bm:55:LEU:HB3	1.95	0.48
72:Bm:61:MET:SD	72:Bm:62:GLU:N	2.86	0.48
77:Br:318:ASN:C	77:Br:322:ASN:H	2.21	0.48
79:Bt:13:PRO:HA	79:Bt:18:ASN:HA	1.96	0.48
80:Bu:117:GLU:HA	80:Bu:120:VAL:HB	1.96	0.48
81:Bv:48:ALA:HB2	81:Bv:71:VAL:HG21	1.96	0.48
81:Bv:77:ASP:CG	81:Bv:79:ARG:H	2.22	0.48
81:Bv:173:GLY:HA3	81:Bv:174:TYR:C	2.39	0.48
85:AA:16:G:C2	85:AA:17:C:C4	3.01	0.48
85:AA:40:A:C5	85:AA:41:G:H1'	2.49	0.48
85:AA:50:C:N3	85:AA:495:G:C6	2.82	0.48
85:AA:57:G:N2	85:AA:86:G:H1	2.12	0.48
85:AA:81:A:H3'	85:AA:82:A:C8	2.49	0.48
85:AA:132:G:C2	85:AA:133:G:C4	3.02	0.48
85:AA:167:A:C2	85:AA:168:A:C5	3.02	0.48
85:AA:179:G:H1	85:AA:330:C:H5'	1.79	0.48
85:AA:251:A:N7	85:AA:253:C:C4	2.82	0.48
85:AA:274:A:H1'	85:AA:975:G:N2	2.28	0.48
85:AA:282:C:N3	85:AA:283:A:C5	2.81	0.48
85:AA:286:C:C6	85:AA:286:C:O5'	2.67	0.48
85:AA:431:G:C2	85:AA:432:A:C5	3.01	0.48
85:AA:434:U:C2	85:AA:438:G:C2	3.02	0.48
85:AA:436:G:C5	85:AA:437:G:C5	3.02	0.48
85:AA:467:U:C4	85:AA:467:U:OP2	2.67	0.48
85:AA:475:A:C6	85:AA:476:C:C2	3.02	0.48
85:AA:521:A:OP2	85:AA:522:A:H3'	2.13	0.48
85:AA:561:C:C5	85:AA:567:G:N1	2.82	0.48
85:AA:629:A:C5	85:AA:630:A:C6	3.01	0.48
85:AA:674:U:H2'	85:AA:675:A:C8	2.48	0.48
85:AA:690:G:C4	85:AA:1483:A:C2	3.02	0.48
85:AA:793:C:H3'	85:AA:794:A:H8	1.76	0.48
85:AA:962:U:C2	85:AA:992:G:C2	3.01	0.48
85:AA:988:C:OP1	85:AA:989:U:H2'	2.14	0.48
85:AA:997:U:C2	85:AA:999:A:OP1	2.66	0.48
85:AA:1034:U:H2'	85:AA:1035:C:C2'	2.43	0.48
85:AA:1182:A:C2'	85:AA:1184:A:C8	2.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1488:G:C2	85:AA:1512:U:C2	3.01	0.48
85:AA:1492:U:H2'	85:AA:1493:A:O4'	2.14	0.48
85:AA:1676:G:O5'	85:AA:1676:G:C8	2.66	0.48
85:AA:1689:G:C6	85:AA:1690:A:C4	3.01	0.48
85:AA:1896:G:O5'	85:AA:1896:G:C8	2.67	0.48
85:AA:2057:G:C2	85:AA:2058:C:C6	3.01	0.48
85:AA:2165:C:H2'	85:AA:2166:G:C8	2.49	0.48
85:AA:2195:A:C2	85:AA:2196:G:C2	3.01	0.48
85:AA:2215:C:C2	85:AA:2218:G:C6	3.02	0.48
2:A1:159:TYR:OH	2:A1:164:LYS:HA	2.14	0.48
4:A3:215:LEU:HD13	4:A3:216:VAL:N	2.29	0.48
5:A4:136:TYR:C	5:A4:138:CYS:H	2.21	0.48
5:A4:146:ARG:O	5:A4:153:LYS:HA	2.12	0.48
6:A5:49:ARG:HB3	85:AA:399:A:H5'	1.95	0.48
6:A5:206:ALA:HA	6:A5:209:GLN:CD	2.38	0.48
12:AD:24:SER:H	31:AX:74:GLN:CB	2.27	0.48
15:AG:123:HIS:CD2	34:BA:945:A:H2'	2.49	0.48
17:AI:129:THR:HG22	21:AM:121:HIS:HB3	1.95	0.48
21:AM:41:PHE:CE1	21:AM:43:TYR:HA	2.49	0.48
21:AM:85:LEU:HB3	21:AM:88:GLN:HG3	1.96	0.48
23:AP:160:GLU:CD	23:AP:184:ARG:HH12	2.22	0.48
23:AP:190:ALA:HA	85:AA:3:U:O4'	2.14	0.48
29:AV:65:GLY:O	29:AV:66:PHE:CD2	2.67	0.48
33:AZ:76:ILE:HG23	33:AZ:98:GLU:HG2	1.95	0.48
34:BA:23:A:C2	34:BA:24:C:H1'	2.49	0.48
34:BA:54:A:H4'	50:BQ:174:LYS:HB2	1.95	0.48
34:BA:94:G:N1	34:BA:95:C:C2	2.82	0.48
34:BA:112:C:O2	34:BA:112:C:C2'	2.60	0.48
34:BA:234:A:H2'	34:BA:235:C:C6	2.48	0.48
34:BA:263:G:H3'	77:Br:221:ASN:CG	2.38	0.48
34:BA:330:A:C6	50:BQ:29:LYS:HD3	2.48	0.48
34:BA:336:A:C5	34:BA:337:C:C4	3.01	0.48
34:BA:389:U:C4	34:BA:390:A:N7	2.82	0.48
34:BA:532:C:H3'	34:BA:532:C:H6	1.79	0.48
34:BA:667:U:C6	34:BA:667:U:O5'	2.67	0.48
34:BA:729:C:H2'	34:BA:730:C:C5	2.49	0.48
34:BA:749:G:O6	34:BA:888:G:C5	2.67	0.48
34:BA:952:G:C6	34:BA:953:G:C5	3.01	0.48
34:BA:954:U:O4	34:BA:955:G:C5	2.66	0.48
34:BA:1006:G:C4	34:BA:1008:A:C6	3.01	0.48
34:BA:1102:A:C6	34:BA:1103:G:C6	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1260:G:C6	34:BA:1261:G:N7	2.81	0.48
34:BA:1343:A:H3'	34:BA:1344:G:C8	2.48	0.48
34:BA:1470:G:N1	34:BA:1472:G:C5	2.81	0.48
34:BA:1524:G:N2	42:BI:18:HIS:CE1	2.82	0.48
34:BA:1553:G:H5'	68:BI:66:TYR:HA	1.95	0.48
34:BA:1622:U:H1'	67:Bh:44:LYS:HB3	1.95	0.48
34:BA:1637:G:H2'	34:BA:1638:U:C6	2.49	0.48
34:BA:1740:U:C4	34:BA:1741:G:N7	2.82	0.48
34:BA:1792:U:O4	34:BA:1793:G:C6	2.67	0.48
34:BA:1842:U:C6	34:BA:1842:U:H5''	2.49	0.48
35:BB:20:U:C5	35:BB:21:C:C4	3.02	0.48
35:BB:121:A:N1	35:BB:122:U:C4	2.82	0.48
35:BB:362:A:C2	35:BB:364:U:C4	2.97	0.48
35:BB:375:G:O2'	35:BB:376:A:H5'	2.13	0.48
35:BB:434:A:C6	35:BB:435:A:C6	3.01	0.48
35:BB:497:C:N4	35:BB:498:G:C6	2.82	0.48
35:BB:547:A:C6	35:BB:549:U:N3	2.82	0.48
35:BB:624:A:C2	35:BB:1441:C:N4	2.81	0.48
35:BB:712:U:C5	35:BB:769:C:N4	2.82	0.48
35:BB:797:C:H3'	35:BB:977:G:OP1	2.13	0.48
35:BB:854:G:C6	35:BB:855:G:C5	3.02	0.48
35:BB:975:G:C6	35:BB:976:U:O4	2.66	0.48
35:BB:1207:C:C6	79:Bt:87:ARG:CZ	2.96	0.48
35:BB:1210:U:C4	35:BB:1211:C:C4	3.02	0.48
35:BB:1264:U:N3	35:BB:1265:U:C4	2.82	0.48
35:BB:1337:C:C6	35:BB:1338:U:C5	3.01	0.48
35:BB:1344:U:N3	35:BB:1369:A:N1	2.61	0.48
35:BB:1382:U:C6	35:BB:1383:C:C6	3.01	0.48
35:BB:1407:U:H2'	35:BB:1408:G:C4	2.49	0.48
35:BB:1511:U:N3	35:BB:1512:C:C5	2.81	0.48
36:BC:63:G:C4	36:BC:64:U:C5	3.02	0.48
37:BD:13:A:H5'	37:BD:14:C:C5	2.49	0.48
37:BD:68:C:H1'	37:BD:108:G:N2	2.29	0.48
37:BD:93:G:C3'	37:BD:94:C:C5	2.97	0.48
37:BD:103:C:C6	37:BD:103:C:O5'	2.67	0.48
38:BE:17:U:C4	38:BE:18:U:C4	3.01	0.48
38:BE:38:C:C4	38:BE:39:U:C4	3.02	0.48
38:BE:73:A:N1	38:BE:74:U:C5	2.81	0.48
38:BE:110:U:C4	38:BE:111:C:C4	3.02	0.48
38:BE:207:G:C4	60:Ba:63:ARG:HG2	2.48	0.48
39:BF:13:U:H3'	39:BF:13:U:H6	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:4:A:H2	40:BG:21:C:C5	2.30	0.48
40:BG:25:G:C6	40:BG:26:G:N7	2.82	0.48
40:BG:66:C:H3'	65:Bf:406:ARG:NH1	2.28	0.48
40:BG:76:C:H5	40:BG:119:A:H62	1.61	0.48
41:BH:5:G:C6	41:BH:131:A:N1	2.81	0.48
41:BH:13:C:H1'	41:BH:19:G:C2	2.49	0.48
49:BP:87:TYR:O	49:BP:93:ARG:HD2	2.13	0.48
49:BP:107:ASP:HA	49:BP:110:ARG:HD2	1.96	0.48
49:BP:139:TRP:CZ2	49:BP:140:HIS:CG	3.02	0.48
52:BS:155:GLN:HE22	84:By:6:HIS:CE1	2.31	0.48
57:BX:139:ASP:OD1	57:BX:139:ASP:N	2.47	0.48
62:Bc:73:PRO:HA	62:Bc:77:TYR:N	2.28	0.48
65:Bf:311:TRP:CD1	65:Bf:312:HIS:CE1	3.01	0.48
72:Bm:100:GLU:HA	72:Bm:103:ARG:HH11	1.79	0.48
77:Br:336:GLU:HA	77:Br:336:GLU:OE1	2.12	0.48
83:Bx:63:MET:HE2	83:Bx:65:TRP:CD2	2.48	0.48
85:AA:58:C:H5''	85:AA:526:G:O2'	2.14	0.48
85:AA:84:C:H1'	85:AA:172:A:N1	2.28	0.48
85:AA:93:G:C2	85:AA:491:G:H5'	2.48	0.48
85:AA:175:A:C6	85:AA:176:C:C4	3.02	0.48
85:AA:253:C:C2	85:AA:329:G:C6	3.02	0.48
85:AA:386:G:H3'	85:AA:387:U:H5'	1.95	0.48
85:AA:484:G:C5	85:AA:485:A:C8	3.02	0.48
85:AA:557:G:H2'	85:AA:558:U:C6	2.49	0.48
85:AA:603:C:O2	85:AA:608:A:C8	2.66	0.48
85:AA:711:C:H2'	85:AA:712:U:C4	2.48	0.48
85:AA:725:G:C1'	85:AA:777:U:C6	2.96	0.48
85:AA:810:C:C2	85:AA:811:A:C8	3.01	0.48
85:AA:899:A:C2	85:AA:900:G:C1'	2.97	0.48
85:AA:1112:G:C6	85:AA:1114:A:H1'	2.48	0.48
85:AA:1116:G:C4	85:AA:1117:G:C8	3.02	0.48
85:AA:1194:U:N3	85:AA:1195:U:C4	2.82	0.48
85:AA:1357:U:H3'	85:AA:1358:A:C5'	2.43	0.48
85:AA:1432:C:C2	85:AA:1435:C:C2	3.02	0.48
85:AA:1492:U:N3	85:AA:1493:A:C4	2.82	0.48
85:AA:1563:U:C5	85:AA:1585:A:C6	3.01	0.48
85:AA:1593:C:C4	85:AA:1883:C:O2	2.67	0.48
85:AA:1607:A:H61	85:AA:1632:G:H1'	1.78	0.48
85:AA:1823:G:C6	85:AA:1824:G:C6	3.02	0.48
85:AA:2026:U:C6	85:AA:2026:U:O5'	2.66	0.48
85:AA:2095:U:O5'	85:AA:2095:U:H6	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2145:G:H3'	85:AA:2146:G:H8	1.79	0.48
5:A4:37:LYS:O	5:A4:41:ALA:HB3	2.14	0.48
5:A4:104:ILE:HG23	5:A4:123:SER:N	2.29	0.48
8:A7:49:ARG:O	8:A7:50:HIS:CD2	2.66	0.48
8:A7:234:MET:SD	8:A7:263:PHE:CD2	3.07	0.48
15:AG:125:LEU:O	15:AG:129:TYR:CE2	2.67	0.48
20:AL:112:MET:SD	25:AR:85:ILE:CG2	3.01	0.48
22:AO:110:THR:HG22	22:AO:111:ARG:N	2.29	0.48
26:AS:41:PHE:CZ	26:AS:47:ALA:HB3	2.48	0.48
26:AS:134:TYR:C	26:AS:134:TYR:CD1	2.92	0.48
27:AT:42:PRO:CA	85:AA:591:A:H4'	2.36	0.48
34:BA:14:G:N2	36:BC:154:A:C4	2.82	0.48
34:BA:115:U:C2	34:BA:327:G:C8	3.02	0.48
34:BA:128:C:C2	34:BA:129:U:C5	3.02	0.48
34:BA:357:A:C2	34:BA:358:A:C4	3.01	0.48
34:BA:399:G:C6	34:BA:400:A:N7	2.82	0.48
34:BA:401:A:N3	34:BA:402:G:C8	2.82	0.48
34:BA:447:U:H2'	34:BA:448:U:C5	2.48	0.48
34:BA:463:A:O4'	34:BA:465:A:C8	2.66	0.48
34:BA:534:C:C4	34:BA:535:G:C5	3.02	0.48
34:BA:545:U:C4	34:BA:546:U:C6	3.02	0.48
34:BA:566:G:C8	34:BA:566:G:C3'	2.96	0.48
34:BA:743:A:N6	34:BA:894:G:C6	2.82	0.48
34:BA:763:U:C4	34:BA:771:A:OP2	2.67	0.48
34:BA:785:G:H2'	34:BA:786:U:H6	1.79	0.48
34:BA:787:A:C5	34:BA:797:A:C8	3.02	0.48
34:BA:816:G:H2'	34:BA:817:U:C6	2.47	0.48
34:BA:899:G:H1'	34:BA:1032:A:C2	2.48	0.48
34:BA:905:A:C5'	34:BA:1035:A:H61	2.27	0.48
34:BA:906:A:H4'	35:BB:1270:C:C4'	2.44	0.48
34:BA:927:A:C2	34:BA:928:C:C2	3.02	0.48
34:BA:989:C:H2'	34:BA:990:G:C8	2.48	0.48
34:BA:1084:A:H2'	34:BA:1085:G:C8	2.49	0.48
34:BA:1102:A:C8	34:BA:1102:A:O5'	2.66	0.48
34:BA:1114:G:N2	44:BK:196:HIS:HE2	2.11	0.48
34:BA:1122:G:C8	34:BA:1122:G:OP1	2.67	0.48
34:BA:1244:G:H4'	34:BA:1245:C:OP2	2.12	0.48
34:BA:1275:G:C2	34:BA:1466:U:C2	3.02	0.48
34:BA:1289:C:C4	34:BA:1290:A:C5	3.02	0.48
34:BA:1295:U:H1'	34:BA:1296:U:O4	2.13	0.48
34:BA:1405:A:C5	34:BA:1406:U:C4	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1496:G:H5''	34:BA:1497:A:N9	2.29	0.48
34:BA:1513:G:C6	34:BA:1514:A:C5	3.02	0.48
34:BA:1592:U:H2'	34:BA:1593:U:O4'	2.13	0.48
34:BA:1597:G:C4	35:BB:622:G:O6	2.67	0.48
34:BA:1599:A:C2	35:BB:623:A:C4	3.02	0.48
34:BA:1711:G:C8	34:BA:1711:G:C5'	2.95	0.48
34:BA:1831:A:H61	75:Bp:67:ILE:CG2	2.27	0.48
35:BB:60:A:H4'	35:BB:61:A:H4'	1.96	0.48
35:BB:66:G:C6	35:BB:67:A:C5	3.01	0.48
35:BB:123:U:H6	35:BB:123:U:O5'	1.97	0.48
35:BB:386:G:C6	35:BB:387:G:C4	3.02	0.48
35:BB:423:G:C6	35:BB:424:U:N3	2.82	0.48
35:BB:503:G:H3'	35:BB:504:C:C5	2.49	0.48
35:BB:584:A:C5	35:BB:585:U:C6	3.02	0.48
35:BB:802:G:C2'	35:BB:804:U:C6	2.97	0.48
35:BB:849:A:H3'	35:BB:850:U:C5'	2.44	0.48
35:BB:861:C:H4'	35:BB:862:U:H5'	1.96	0.48
35:BB:1036:G:C6	35:BB:1037:A:C5	3.01	0.48
35:BB:1045:G:H2'	35:BB:1046:C:H6	1.78	0.48
35:BB:1047:C:C2	35:BB:1048:A:C8	3.02	0.48
35:BB:1092:G:C4	35:BB:1093:C:C6	3.02	0.48
35:BB:1223:A:H1'	35:BB:1226:G:H5'	1.95	0.48
35:BB:1301:U:C6	35:BB:1301:U:C3'	2.96	0.48
35:BB:1395:G:C6	35:BB:1396:G:C5	3.01	0.48
35:BB:1419:G:C5	35:BB:1420:U:C4	3.02	0.48
35:BB:1482:A:H2'	35:BB:1483:A:O4'	2.14	0.48
36:BC:38:U:C2	70:Bk:85:LYS:HB3	2.49	0.48
36:BC:74:U:C4	36:BC:74:U:OP2	2.66	0.48
36:BC:90:U:N3	36:BC:91:G:C8	2.82	0.48
36:BC:91:G:H8	36:BC:91:G:OP2	1.97	0.48
36:BC:92:C:C5	36:BC:93:C:C5	3.02	0.48
37:BD:51:G:H3'	37:BD:52:U:C5	2.49	0.48
37:BD:66:G:C6	37:BD:67:C:C5	3.02	0.48
38:BE:186:C:C6	38:BE:189:A:N7	2.81	0.48
39:BF:23:G:C4	48:BO:132:ARG:HA	2.49	0.48
39:BF:36:G:N1	39:BF:48:G:C5	2.81	0.48
40:BG:8:U:C2	40:BG:9:G:C8	3.01	0.48
40:BG:52:A:O5'	40:BG:52:A:C8	2.67	0.48
40:BG:94:G:N1	40:BG:104:A:C6	2.82	0.48
40:BG:170:G:OP2	40:BG:173:C:C6	2.66	0.48
41:BH:58:C:C4	41:BH:59:G:C5	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BK:66:GLU:HA	44:BK:66:GLU:OE1	2.13	0.48
47:BN:34:PRO:HD2	47:BN:35:ALA:H	1.78	0.48
48:BO:183:SER:O	48:BO:187:HIS:HB3	2.14	0.48
58:BY:17:HIS:CE1	65:Bf:106:HIS:NE2	2.82	0.48
65:Bf:102:ALA:HB3	65:Bf:129:ILE:O	2.14	0.48
77:Br:157:VAL:HA	77:Br:160:TYR:CE2	2.48	0.48
85:AA:192:G:C6	85:AA:194:U:C4	3.02	0.48
85:AA:313:A:N3	85:AA:313:A:C2'	2.75	0.48
85:AA:331:G:OP1	85:AA:332:A:C4	2.66	0.48
85:AA:531:G:C6	85:AA:532:G:C5	3.02	0.48
85:AA:660:G:C5	85:AA:661:C:C4	3.02	0.48
85:AA:686:U:C5'	85:AA:1477:A:N1	2.76	0.48
85:AA:781:G:C2	85:AA:782:G:C4	3.01	0.48
85:AA:818:C:N3	85:AA:863:C:H1'	2.29	0.48
85:AA:859:G:C6	85:AA:860:C:C5	3.02	0.48
85:AA:1263:G:C5	85:AA:1264:U:C4	3.02	0.48
85:AA:1357:U:H3'	85:AA:1357:U:C6	2.49	0.48
85:AA:1448:A:H2'	85:AA:1449:C:C6	2.49	0.48
85:AA:1654:G:C4	85:AA:1875:A:C2	3.01	0.48
85:AA:1726:G:N2	85:AA:1816:C:H41	2.11	0.48
85:AA:1759:U:H4'	85:AA:1760:C:C5	2.49	0.48
85:AA:1906:C:C4	85:AA:1907:U:C4	3.02	0.48
85:AA:1916:A:C5	85:AA:1917:G:N7	2.81	0.48
85:AA:2215:C:C4	85:AA:2218:G:C2	3.01	0.48
4:A3:6:ALA:HA	4:A3:13:VAL:HA	1.96	0.48
4:A3:12:THR:HG22	4:A3:132:VAL:HG13	1.96	0.48
4:A3:85:PHE:CD1	4:A3:86:ASN:N	2.81	0.48
22:AO:34:ILE:O	22:AO:37:GLN:HB2	2.14	0.48
23:AP:48:LYS:HG2	23:AP:261:ARG:HD3	1.95	0.48
24:AQ:63:ARG:HB2	85:AA:1576:G:C8	2.48	0.48
24:AQ:114:PRO:C	24:AQ:115:HIS:CG	2.91	0.48
27:AT:132:MET:H	27:AT:132:MET:CE	2.25	0.48
34:BA:124:G:N1	34:BA:125:G:C5	2.81	0.48
34:BA:191:G:C6	34:BA:192:G:C5	3.02	0.48
34:BA:278:U:O2	34:BA:278:U:H2'	2.14	0.48
34:BA:297:A:C2	36:BC:32:U:C6	3.02	0.48
34:BA:311:C:H4'	70:Bk:116:HIS:NE2	2.28	0.48
34:BA:331:G:C5'	50:BQ:137:TRP:CE3	2.97	0.48
34:BA:351:A:C6	34:BA:352:G:N7	2.82	0.48
34:BA:405:C:N3	36:BC:24:G:N1	2.61	0.48
34:BA:405:C:N4	36:BC:24:G:H1	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:412:G:C5	34:BA:418:G:N7	2.81	0.48
34:BA:448:U:O2	34:BA:454:G:C2	2.67	0.48
34:BA:502:U:C2	34:BA:701:G:C2	3.01	0.48
34:BA:539:C:H4'	34:BA:571:G:H22	1.78	0.48
34:BA:580:U:H5'	34:BA:581:U:OP2	2.13	0.48
34:BA:630:U:C2	34:BA:652:C:C4	3.01	0.48
34:BA:733:G:H2'	34:BA:734:G:C8	2.49	0.48
34:BA:761:U:C4	34:BA:762:A:N7	2.82	0.48
34:BA:800:G:C4	34:BA:801:U:C4	3.01	0.48
34:BA:828:A:C2	34:BA:829:U:N1	2.82	0.48
34:BA:946:A:N3	34:BA:946:A:H2'	2.29	0.48
34:BA:1042:U:C6	34:BA:1582:C:C4	3.01	0.48
34:BA:1079:C:C5'	34:BA:1079:C:C6	2.97	0.48
34:BA:1138:C:H2'	34:BA:1139:G:C8	2.49	0.48
34:BA:1164:C:C2	34:BA:1165:A:C8	3.02	0.48
34:BA:1317:U:H3'	34:BA:1317:U:H6	1.79	0.48
34:BA:1330:G:H2'	34:BA:1330:G:N3	2.29	0.48
34:BA:1447:C:C6	49:BP:47:TRP:CZ2	3.02	0.48
34:BA:1484:A:C2	34:BA:1502:G:N3	2.82	0.48
34:BA:1654:G:N2	69:Bj:13:HIS:CD2	2.81	0.48
34:BA:1673:G:C2	34:BA:1680:G:C4	3.02	0.48
34:BA:1739:G:N2	34:BA:1785:G:H22	2.11	0.48
35:BB:125:G:N2	35:BB:126:C:H1'	2.29	0.48
35:BB:489:A:C5	35:BB:490:G:C6	3.02	0.48
35:BB:490:G:C2	35:BB:491:A:C4	3.02	0.48
35:BB:602:G:C2	35:BB:607:G:C5	3.01	0.48
35:BB:658:G:N1	35:BB:659:C:C2	2.81	0.48
35:BB:661:G:C6	35:BB:662:G:C6	3.01	0.48
35:BB:780:U:O2'	35:BB:781:U:H5''	2.14	0.48
35:BB:815:G:C2	35:BB:825:U:O2	2.66	0.48
35:BB:961:G:C6	35:BB:962:U:C4	3.02	0.48
35:BB:1081:U:C4	35:BB:1082:A:C2	3.01	0.48
35:BB:1124:G:H2'	35:BB:1126:A:N1	2.28	0.48
35:BB:1192:C:N3	35:BB:1193:G:C5	2.82	0.48
35:BB:1193:G:C2	35:BB:1197:G:C6	3.01	0.48
35:BB:1235:A:C6	61:Bb:60:HIS:CG	3.01	0.48
35:BB:1301:U:C6	35:BB:1301:U:H3'	2.48	0.48
35:BB:1401:G:H2'	35:BB:1402:U:C6	2.49	0.48
35:BB:1458:U:C2	39:BF:14:C:H5	2.32	0.48
35:BB:1535:G:C2	41:BH:122:U:C4	3.02	0.48
35:BB:1543:C:C4	35:BB:1544:A:N7	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:66:G:C2	36:BC:93:C:O2	2.67	0.48
36:BC:66:G:N1	36:BC:67:U:C2	2.82	0.48
36:BC:115:G:C4	36:BC:116:C:C5	3.02	0.48
37:BD:3:G:N1	37:BD:117:U:C2	2.82	0.48
37:BD:71:G:C8	37:BD:72:U:C5	3.01	0.48
38:BE:49:A:C5	38:BE:50:G:N7	2.82	0.48
38:BE:135:A:OP1	38:BE:136:G:C2	2.66	0.48
38:BE:194:A:H3'	38:BE:195:G:C8	2.49	0.48
39:BF:6:C:O2	39:BF:7:G:C5	2.66	0.48
39:BF:47:C:H2'	39:BF:48:G:O4'	2.13	0.48
39:BF:53:G:P	39:BF:54:U:C5	3.07	0.48
39:BF:65:U:H3	49:BP:123:TRP:HH2	1.62	0.48
40:BG:6:A:C5	40:BG:7:U:C5	3.01	0.48
40:BG:49:A:OP1	40:BG:51:U:H1'	2.14	0.48
40:BG:82:U:H2'	40:BG:83:U:C5	2.49	0.48
42:BI:149:ARG:HE	42:BI:150:LYS:C	2.22	0.48
58:BY:11:PHE:CE2	65:Bf:428:PHE:CE2	3.02	0.48
59:BZ:97:HIS:CE1	59:BZ:100:ASN:H	2.32	0.48
62:Bc:53:ILE:H	62:Bc:109:ARG:CZ	2.26	0.48
65:Bf:173:TRP:CE3	65:Bf:173:TRP:HA	2.48	0.48
77:Br:359:ARG:HA	77:Br:362:LYS:HB3	1.95	0.48
85:AA:11:A:C5	85:AA:12:U:C5	3.01	0.48
85:AA:28:A:H2'	85:AA:29:U:C6	2.49	0.48
85:AA:96:C:H4'	85:AA:97:A:O5'	2.14	0.48
85:AA:113:U:C2	85:AA:114:C:C6	3.01	0.48
85:AA:125:A:C2	85:AA:126:U:C6	3.02	0.48
85:AA:147:G:C2	85:AA:148:G:C4	3.01	0.48
85:AA:194:U:H2'	85:AA:195:C:H6	1.74	0.48
85:AA:202:U:C5	85:AA:204:U:OP2	2.67	0.48
85:AA:237:G:H2'	85:AA:239:G:OP1	2.14	0.48
85:AA:244:G:C4	85:AA:245:A:C8	3.02	0.48
85:AA:298:C:H1'	85:AA:299:A:C5	2.49	0.48
85:AA:305:A:H3'	85:AA:305:A:C8	2.48	0.48
85:AA:365:G:O2'	85:AA:366:A:H5'	2.13	0.48
85:AA:602:U:C6	85:AA:602:U:H5''	2.49	0.48
85:AA:744:C:C5	85:AA:745:C:C5	3.02	0.48
85:AA:890:U:H3'	85:AA:891:G:N7	2.28	0.48
85:AA:1060:U:H2'	85:AA:1064:C:H5'	1.94	0.48
85:AA:1233:G:N2	85:AA:1234:G:C4	2.82	0.48
85:AA:1357:U:O5'	85:AA:1357:U:H6	1.96	0.48
85:AA:1448:A:C4	85:AA:1449:C:C6	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1462:A:H2'	85:AA:1463:A:O4'	2.14	0.48
85:AA:1540:A:H2'	85:AA:1541:G:O4'	2.13	0.48
85:AA:1695:G:C5	85:AA:1696:U:C4	3.02	0.48
85:AA:1758:C:H1'	85:AA:1785:U:O4	2.13	0.48
85:AA:1913:G:C8	85:AA:1913:G:H3'	2.49	0.48
85:AA:1955:U:C5	85:AA:1956:C:C6	3.02	0.48
85:AA:2108:C:C6	85:AA:2108:C:H3'	2.49	0.48
5:A4:67:LEU:HA	5:A4:99:VAL:O	2.13	0.48
7:A6:41:ILE:HA	7:A6:44:VAL:HG22	1.96	0.48
11:AC:98:ALA:HA	11:AC:101:ILE:HB	1.95	0.48
12:AD:30:LEU:HD11	12:AD:38:GLY:O	2.14	0.48
23:AP:45:PRO:HB2	23:AP:50:GLY:C	2.39	0.48
34:BA:95:C:H2'	34:BA:96:G:H8	1.78	0.48
34:BA:146:G:H5'	50:BQ:72:THR:HB	1.96	0.48
34:BA:161:U:O2	34:BA:323:C:C6	2.67	0.48
34:BA:290:G:C6	34:BA:291:C:C5	3.02	0.48
34:BA:331:G:N2	34:BA:356:C:H2'	2.29	0.48
34:BA:354:G:C5	34:BA:355:U:C5	3.02	0.48
34:BA:463:A:C5	34:BA:465:A:C6	3.02	0.48
34:BA:473:A:C8	36:BC:16:A:N3	2.82	0.48
34:BA:484:A:C6	36:BC:6:G:N1	2.82	0.48
34:BA:498:A:C6	34:BA:499:C:C4	3.02	0.48
34:BA:536:C:C5	34:BA:537:C:C4	3.02	0.48
34:BA:650:C:C4	34:BA:651:U:C4	3.02	0.48
34:BA:666:C:C2	34:BA:667:U:C5	3.02	0.48
34:BA:744:G:H1'	47:BN:5:ASN:C	2.39	0.48
34:BA:798:G:C2	61:Bb:114:HIS:CD2	3.02	0.48
34:BA:815:C:C5	42:BI:72:ARG:NH1	2.82	0.48
34:BA:823:G:N2	34:BA:824:C:H1'	2.29	0.48
34:BA:853:A:H5''	63:Bd:31:ASN:O	2.13	0.48
34:BA:936:A:H2'	34:BA:936:A:N3	2.29	0.48
34:BA:1035:A:O3'	61:Bb:28:HIS:CD2	2.66	0.48
34:BA:1103:G:H2'	34:BA:1104:C:C5	2.48	0.48
34:BA:1115:A:N3	44:BK:193:ARG:CZ	2.77	0.48
34:BA:1182:U:O4'	80:Bu:44:PHE:CE1	2.67	0.48
34:BA:1203:G:C4	34:BA:1204:U:C6	3.02	0.48
34:BA:1333:G:C3'	34:BA:1334:G:H5''	2.44	0.48
34:BA:1405:A:H2'	34:BA:1406:U:C6	2.49	0.48
34:BA:1494:G:C1'	34:BA:1495:A:H5''	2.43	0.48
34:BA:1551:G:C2	34:BA:1559:C:C2	3.02	0.48
34:BA:1622:U:C2	34:BA:1623:U:O4'	2.67	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1690:U:H1'	57:BX:133:ASN:HB3	1.96	0.48
34:BA:1696:G:C8	34:BA:1696:G:OP2	2.66	0.48
34:BA:1794:A:C2	34:BA:1795:A:C5	3.02	0.48
34:BA:1829:A:H2'	34:BA:1830:A:C4	2.48	0.48
34:BA:1839:G:H2'	34:BA:1840:C:O4'	2.13	0.48
35:BB:34:G:C5	35:BB:35:G:N7	2.82	0.48
35:BB:59:U:C6	35:BB:59:U:H5''	2.49	0.48
35:BB:104:G:N3	35:BB:119:G:C6	2.81	0.48
35:BB:111:C:C2	35:BB:112:G:C6	3.02	0.48
35:BB:119:G:C6	35:BB:120:C:C5	3.02	0.48
35:BB:357:C:C5	35:BB:359:A:C8	3.02	0.48
35:BB:543:G:H3'	35:BB:544:C:C6	2.49	0.48
35:BB:547:A:C2	35:BB:549:U:C4	3.02	0.48
35:BB:700:C:C6	35:BB:1044:U:O4	2.67	0.48
35:BB:707:G:C6	35:BB:775:U:N3	2.81	0.48
35:BB:715:G:H2'	35:BB:716:G:H8	1.77	0.48
35:BB:753:A:H1'	35:BB:754:U:C5	2.49	0.48
35:BB:844:G:C5	35:BB:845:C:C6	3.02	0.48
35:BB:876:G:H4'	35:BB:877:A:H8	1.79	0.48
35:BB:970:C:C2	35:BB:971:A:C8	3.02	0.48
35:BB:999:G:N1	35:BB:1020:U:C2	2.82	0.48
35:BB:1065:G:C2	44:BK:115:MET:HB2	2.48	0.48
35:BB:1344:U:C2	35:BB:1369:A:C6	3.02	0.48
35:BB:1443:C:H2'	35:BB:1444:U:O4'	2.14	0.48
35:BB:1444:U:C2	35:BB:1445:A:C8	3.02	0.48
35:BB:1475:U:C6	35:BB:1475:U:H5''	2.48	0.48
35:BB:1490:G:H3'	35:BB:1490:G:C8	2.49	0.48
35:BB:1493:A:N1	35:BB:1494:G:C4	2.81	0.48
36:BC:65:G:H1'	36:BC:95:A:C2	2.49	0.48
37:BD:84:U:N3	37:BD:85:C:C5	2.82	0.48
38:BE:30:C:C6	38:BE:31:A:N7	2.82	0.48
40:BG:56:G:C2	40:BG:57:A:C4	3.02	0.48
40:BG:71:C:C6	40:BG:71:C:H3'	2.49	0.48
40:BG:100:G:C8	40:BG:101:G:C8	3.01	0.48
41:BH:103:C:H3'	41:BH:103:C:C6	2.48	0.48
44:BK:56:GLU:HA	44:BK:56:GLU:OE1	2.14	0.48
44:BK:181:TYR:CE1	44:BK:190:LEU:HD21	2.47	0.48
45:BL:56:ARG:H	45:BL:58:ARG:HH11	1.61	0.48
48:BO:179:ARG:NH2	48:BO:180:ILE:HG22	2.29	0.48
49:BP:39:GLU:N	49:BP:46:MET:HE1	2.29	0.48
49:BP:164:VAL:C	49:BP:167:ALA:H	2.22	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BU:94:GLU:CD	54:BU:94:GLU:H	2.22	0.48
54:BU:132:THR:HG23	54:BU:133:ARG:N	2.28	0.48
55:BV:90:PHE:HA	55:BV:93:LEU:HD23	1.95	0.48
57:BX:124:LEU:HB2	57:BX:125:TYR:CE2	2.48	0.48
58:BY:79:THR:HG22	85:AA:2163:G:H4'	1.81	0.48
65:Bf:164:GLU:CD	65:Bf:164:GLU:N	2.70	0.48
65:Bf:339:TYR:OH	65:Bf:412:ILE:HG21	2.14	0.48
66:Bg:44:THR:CG2	66:Bg:104:THR:HG22	2.40	0.48
66:Bg:59:CYS:SG	66:Bg:60:PRO:O	2.71	0.48
69:Bj:8:TYR:CD2	69:Bj:13:HIS:CD2	3.02	0.48
73:Bn:71:HIS:CD2	73:Bn:71:HIS:C	2.91	0.48
85:AA:27:U:O2'	85:AA:28:A:H5'	2.13	0.48
85:AA:42:G:H1'	85:AA:502:A:C6	2.49	0.48
85:AA:57:G:C5	85:AA:58:C:C5	3.02	0.48
85:AA:77:C:H2'	85:AA:78:A:H5'	1.95	0.48
85:AA:106:G:C8	85:AA:107:A:N7	2.82	0.48
85:AA:139:G:C6	85:AA:140:C:C4	3.02	0.48
85:AA:441:C:C4	85:AA:442:G:C5	3.02	0.48
85:AA:559:G:C2	85:AA:569:A:H1'	2.48	0.48
85:AA:680:U:O2	85:AA:680:U:H2'	2.13	0.48
85:AA:717:G:C6	85:AA:718:C:C5	3.02	0.48
85:AA:890:U:O2	85:AA:917:A:H2	1.97	0.48
85:AA:1033:C:H2'	85:AA:1034:U:N1	2.29	0.48
85:AA:1175:A:H4'	85:AA:1237:A:C6	2.48	0.48
85:AA:1241:A:C6	85:AA:1242:A:O4'	2.67	0.48
85:AA:1280:U:C4	85:AA:1470:A:N7	2.82	0.48
85:AA:1506:U:O2'	85:AA:1507:G:H5'	2.13	0.48
85:AA:1652:A:H62	85:AA:1870:C:H42	1.60	0.48
85:AA:1688:U:O2	85:AA:1690:A:H3'	2.14	0.48
85:AA:2018:U:C4	85:AA:2026:U:C5	3.02	0.48
85:AA:2063:C:C4'	85:AA:2066:C:H41	2.27	0.48
85:AA:2086:C:H3'	85:AA:2087:C:H6	1.79	0.48
85:AA:2107:C:OP2	85:AA:2107:C:C6	2.67	0.48
85:AA:2183:U:C2	85:AA:2184:A:C8	3.02	0.48
86:AB:5:G:C6	86:AB:6:G:C6	3.01	0.48
6:A5:207:GLU:CD	6:A5:207:GLU:H	2.20	0.47
11:AC:134:PHE:N	11:AC:134:PHE:CD1	2.80	0.47
13:AE:171:PHE:CD1	85:AA:941:C:H2'	2.50	0.47
23:AP:74:HIS:ND1	23:AP:140:ILE:HG22	2.29	0.47
23:AP:111:PHE:N	23:AP:111:PHE:CD1	2.82	0.47
25:AR:6:THR:O	25:AR:13:ASN:CG	2.57	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AS:65:ALA:HA	85:AA:640:C:H5''	1.94	0.47
32:AY:59:LYS:HE2	85:AA:624:A:C2	2.49	0.47
34:BA:165:C:C1'	34:BA:166:G:C8	2.97	0.47
34:BA:177:G:N2	34:BA:310:C:C2	2.82	0.47
34:BA:200:C:C2	34:BA:257:G:C2	3.01	0.47
34:BA:212:A:C2	34:BA:213:A:N3	2.82	0.47
34:BA:262:A:C2	34:BA:280:A:C5	3.02	0.47
34:BA:328:A:C8	34:BA:328:A:C3'	2.97	0.47
34:BA:375:C:C2	34:BA:376:U:C5	3.02	0.47
34:BA:384:U:H5'	50:BQ:167:TRP:CZ2	2.48	0.47
34:BA:412:G:N9	34:BA:418:G:C6	2.82	0.47
34:BA:504:A:C2	34:BA:699:G:C2	3.02	0.47
34:BA:616:G:N2	34:BA:666:C:C2	2.82	0.47
34:BA:673:U:OP1	77:Br:338:ALA:HB1	2.13	0.47
34:BA:698:U:O5'	34:BA:698:U:H6	1.97	0.47
34:BA:743:A:C4	47:BN:7:ALA:HA	2.39	0.47
34:BA:843:G:C4	34:BA:844:U:C5	3.02	0.47
34:BA:860:G:C2	34:BA:877:U:C2	3.03	0.47
34:BA:911:G:O6	34:BA:912:G:C5	2.67	0.47
34:BA:1086:A:N6	34:BA:1215:U:H3	2.12	0.47
34:BA:1095:G:H1'	34:BA:1163:G:C2	2.49	0.47
34:BA:1190:A:C6	34:BA:1191:C:N3	2.81	0.47
34:BA:1222:C:C2	34:BA:1223:C:C5	3.02	0.47
34:BA:1318:G:C6	34:BA:1320:A:C8	3.02	0.47
34:BA:1412:G:C2	34:BA:1413:G:N9	2.83	0.47
34:BA:1447:C:H3'	34:BA:1448:G:H5''	1.96	0.47
34:BA:1551:G:H2'	34:BA:1552:C:H6	1.79	0.47
34:BA:1595:G:H2'	34:BA:1596:C:C5	2.49	0.47
34:BA:1612:C:H2'	34:BA:1613:G:C8	2.49	0.47
34:BA:1695:G:C6	34:BA:1696:G:C6	3.02	0.47
34:BA:1699:A:N6	34:BA:1700:C:C4	2.81	0.47
35:BB:67:A:C5	35:BB:68:G:C5	3.02	0.47
35:BB:86:A:H5''	35:BB:87:G:OP2	2.12	0.47
35:BB:124:G:C6	35:BB:125:G:C6	3.02	0.47
35:BB:124:G:C5	35:BB:125:G:C5	3.02	0.47
35:BB:131:A:C2	35:BB:132:G:C4	3.02	0.47
35:BB:600:C:H2'	35:BB:601:U:C1'	2.44	0.47
35:BB:666:A:C6	35:BB:667:G:C2	3.02	0.47
35:BB:692:G:C6	35:BB:693:U:C4	3.01	0.47
35:BB:814:A:N3	35:BB:826:G:C2	2.82	0.47
35:BB:844:G:C2	35:BB:969:C:C2	3.01	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:903:U:H2'	35:BB:904:C:C6	2.48	0.47
35:BB:970:C:C2'	35:BB:971:A:H5'	2.23	0.47
35:BB:1035:C:C4	35:BB:1036:G:N7	2.82	0.47
35:BB:1114:A:C4	35:BB:1137:G:C2	3.02	0.47
35:BB:1162:A:C4	35:BB:1201:G:C5	3.02	0.47
35:BB:1326:U:H2'	35:BB:1327:U:O4'	2.14	0.47
35:BB:1491:G:C5	35:BB:1492:C:C5	3.02	0.47
35:BB:1511:U:N3	35:BB:1512:C:C6	2.82	0.47
36:BC:106:G:N2	36:BC:107:C:H1'	2.29	0.47
36:BC:106:G:N2	36:BC:115:G:H1'	2.28	0.47
36:BC:125:A:C2	36:BC:126:G:H1'	2.49	0.47
37:BD:5:A:H2'	37:BD:6:C:H6	1.77	0.47
37:BD:6:C:H5''	80:Bu:54:ARG:HE	1.79	0.47
37:BD:42:A:C6	37:BD:43:U:C4	3.01	0.47
37:BD:89:G:C5	37:BD:90:A:N6	2.81	0.47
37:BD:107:G:H2'	37:BD:108:G:C8	2.49	0.47
38:BE:2:G:N7	38:BE:8:G:C5	2.82	0.47
38:BE:6:A:C4	38:BE:126:G:H1'	2.48	0.47
38:BE:27:A:O4'	38:BE:28:C:C6	2.67	0.47
38:BE:161:G:C4	38:BE:162:U:C6	3.02	0.47
40:BG:14:G:N1	40:BG:15:G:C6	2.82	0.47
40:BG:129:G:C6	40:BG:162:A:N6	2.82	0.47
40:BG:142:A:H3'	40:BG:143:C:C6	2.48	0.47
41:BH:40:C:H2'	41:BH:41:A:O5'	2.14	0.47
42:BI:69:VAL:CG2	42:BI:72:ARG:HH21	2.27	0.47
47:BN:128:LEU:HD11	47:BN:130:LEU:HB2	1.96	0.47
50:BQ:74:GLN:C	50:BQ:76:TYR:H	2.22	0.47
52:BS:16:THR:HG23	52:BS:57:HIS:HE1	1.78	0.47
61:Bb:90:ALA:HB1	61:Bb:95:ALA:O	2.14	0.47
62:Bc:76:MET:HB2	62:Bc:79:LYS:H	1.78	0.47
65:Bf:366:MET:HE2	65:Bf:421:SER:HB2	1.96	0.47
66:Bg:79:HIS:CE1	66:Bg:80:HIS:N	2.81	0.47
71:Bl:95:TRP:CE3	71:Bl:95:TRP:N	2.82	0.47
71:Bl:145:TYR:HA	71:Bl:146:PRO:O	2.14	0.47
75:Bp:25:VAL:HG22	75:Bp:34:PHE:CZ	2.49	0.47
77:Br:64:GLU:CB	77:Br:79:HIS:CE1	2.96	0.47
80:Bu:235:PHE:N	80:Bu:235:PHE:CD1	2.82	0.47
82:Bw:35:GLN:H	82:Bw:35:GLN:NE2	2.10	0.47
85:AA:35:U:H6	85:AA:35:U:C5'	2.27	0.47
85:AA:71:G:C4	85:AA:78:A:N1	2.82	0.47
85:AA:87:C:C6	85:AA:87:C:H5''	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:173:A:C5	85:AA:175:A:C5	3.02	0.47
85:AA:200:U:C6	85:AA:200:U:C3'	2.97	0.47
85:AA:309:G:N1	85:AA:317:A:C5	2.82	0.47
85:AA:494:G:C2'	85:AA:495:G:H5''	2.44	0.47
85:AA:596:A:H2'	85:AA:597:A:O4'	2.14	0.47
85:AA:791:C:O2	85:AA:800:A:C8	2.67	0.47
85:AA:840:A:C6	85:AA:851:G:C6	3.02	0.47
85:AA:856:G:N1	85:AA:857:G:C4	2.82	0.47
85:AA:867:G:N2	85:AA:869:A:C4	2.82	0.47
85:AA:879:G:H2'	85:AA:880:A:C8	2.49	0.47
85:AA:899:A:C2	85:AA:900:G:H1'	2.48	0.47
85:AA:936:C:H2'	85:AA:937:G:C4	2.49	0.47
85:AA:1131:A:N1	85:AA:1132:A:C4	2.81	0.47
85:AA:1257:A:N3	85:AA:1257:A:H2'	2.29	0.47
85:AA:1268:C:C4	85:AA:1269:A:C8	3.02	0.47
85:AA:1269:A:C2	85:AA:1270:C:H1'	2.49	0.47
85:AA:1467:U:O2	85:AA:1468:G:C6	2.67	0.47
85:AA:1505:G:H2'	85:AA:1506:U:C6	2.49	0.47
85:AA:1652:A:C2	85:AA:1877:G:H1'	2.49	0.47
85:AA:1692:U:C4	85:AA:1693:C:C5	3.02	0.47
85:AA:1706:A:C4	85:AA:1707:G:C8	3.01	0.47
85:AA:1725:G:C8	85:AA:1983:C:O4'	2.67	0.47
85:AA:1956:C:H4'	85:AA:1958:C:C6	2.49	0.47
85:AA:2137:A:C6	85:AA:2138:G:C4	3.02	0.47
85:AA:2137:A:C4	85:AA:2138:G:C8	3.01	0.47
85:AA:2147:A:C4	85:AA:2172:A:C6	3.01	0.47
2:A1:24:PHE:O	85:AA:513:G:H4'	2.14	0.47
2:A1:217:THR:HG23	85:AA:883:A:OP2	2.13	0.47
4:A3:122:GLN:HG3	4:A3:124:ILE:H	1.78	0.47
5:A4:122:THR:O	5:A4:126:VAL:HG23	2.14	0.47
7:A6:170:ARG:HB2	7:A6:176:ARG:HG2	1.96	0.47
11:AC:60:HIS:CD2	11:AC:60:HIS:N	2.81	0.47
12:AD:72:TYR:CD1	31:AX:23:PHE:CE1	3.02	0.47
18:AJ:81:CYS:O	18:AJ:122:GLY:HA3	2.14	0.47
21:AM:131:ARG:HD2	85:AA:2010:C:OP1	2.14	0.47
27:AT:7:LYS:C	27:AT:37:TRP:HA	2.39	0.47
27:AT:10:VAL:CG2	27:AT:34:HIS:HB3	2.45	0.47
33:AZ:53:ARG:HH11	33:AZ:53:ARG:HG2	1.77	0.47
34:BA:144:C:H5'	34:BA:145:U:C5	2.49	0.47
34:BA:168:U:O5'	34:BA:168:U:H6	1.96	0.47
34:BA:223:U:C4	34:BA:224:G:N7	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:323:C:H4'	34:BA:324:C:C6	2.49	0.47
34:BA:405:C:C4	36:BC:24:G:N1	2.81	0.47
34:BA:430:A:H4'	77:Br:85:MET:HG3	1.95	0.47
34:BA:439:A:C6	34:BA:441:A:C6	3.01	0.47
34:BA:473:A:C4	34:BA:474:A:C8	3.03	0.47
34:BA:538:G:C2	34:BA:539:C:C2	3.02	0.47
34:BA:603:U:N3	34:BA:680:C:H2'	2.28	0.47
34:BA:657:C:OP2	34:BA:657:C:C6	2.67	0.47
34:BA:739:A:C5	47:BN:13:GLN:O	2.67	0.47
34:BA:1040:G:C8	34:BA:1041:U:C5	3.02	0.47
34:BA:1054:U:C4	34:BA:1066:A:C2	3.01	0.47
34:BA:1178:U:H2'	34:BA:1179:U:H6	1.74	0.47
34:BA:1299:G:OP1	49:BP:52:ASN:CG	2.57	0.47
34:BA:1320:A:N7	34:BA:1419:A:C2	2.82	0.47
34:BA:1332:U:C2	34:BA:1333:G:C8	3.02	0.47
34:BA:1368:G:C2	34:BA:1369:C:C4	3.02	0.47
34:BA:1488:C:C6	34:BA:1488:C:H3'	2.50	0.47
34:BA:1525:G:C6	34:BA:1526:C:C4	3.03	0.47
34:BA:1731:A:H3'	34:BA:1731:A:C8	2.49	0.47
35:BB:50:A:N1	35:BB:51:U:C2	2.82	0.47
35:BB:85:A:C6	35:BB:91:G:C5	3.02	0.47
35:BB:119:G:C6	35:BB:120:C:C4	3.02	0.47
35:BB:129:U:O2	35:BB:375:G:C2	2.67	0.47
35:BB:472:C:H4'	35:BB:473:U:C5	2.49	0.47
35:BB:537:A:C5	35:BB:538:A:C5	3.01	0.47
35:BB:555:G:C2	35:BB:556:U:C6	3.01	0.47
35:BB:562:A:N1	35:BB:563:A:C2	2.83	0.47
35:BB:593:A:C6	35:BB:594:U:C4	3.02	0.47
35:BB:812:G:C2	35:BB:828:G:N3	2.83	0.47
35:BB:816:U:N3	35:BB:817:C:C5	2.83	0.47
35:BB:817:C:N4	35:BB:818:U:C2	2.82	0.47
35:BB:837:A:OP2	35:BB:838:G:C5	2.68	0.47
35:BB:862:U:OP2	35:BB:862:U:C6	2.68	0.47
35:BB:866:A:C2	35:BB:867:C:H1'	2.49	0.47
35:BB:955:U:H3'	35:BB:956:G:C8	2.49	0.47
35:BB:1007:U:H2'	35:BB:1009:U:H5	1.78	0.47
35:BB:1040:C:H2'	35:BB:1041:A:N3	2.29	0.47
35:BB:1071:G:C8	35:BB:1071:G:O5'	2.68	0.47
35:BB:1129:C:H2'	35:BB:1130:U:C6	2.49	0.47
35:BB:1161:G:O4'	35:BB:1163:U:C6	2.67	0.47
35:BB:1446:C:H5''	48:BO:83:ASN:HD21	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1461:C:H41	71:Bl:87:TYR:HA	1.79	0.47
36:BC:163:A:C6	36:BC:164:G:O6	2.67	0.47
37:BD:36:C:O2	37:BD:45:U:H1'	2.14	0.47
37:BD:66:G:C2	37:BD:67:C:C2	3.02	0.47
38:BE:48:G:H5''	55:BV:111:ALA:CB	2.44	0.47
38:BE:59:U:N3	38:BE:60:C:C4	2.82	0.47
38:BE:123:A:H2	38:BE:124:G:H1'	1.79	0.47
38:BE:123:A:N6	38:BE:124:G:C6	2.81	0.47
38:BE:209:U:C5	38:BE:210:G:C5	3.02	0.47
39:BF:62:U:H2'	39:BF:62:U:OP2	2.14	0.47
40:BG:74:G:C6	40:BG:75:C:C5	3.02	0.47
40:BG:74:G:N1	40:BG:75:C:C2	2.82	0.47
40:BG:88:G:C4	40:BG:89:A:C8	3.03	0.47
40:BG:176:G:C4	40:BG:177:U:C5	3.02	0.47
41:BH:6:U:C2	41:BH:131:A:C2	3.03	0.47
41:BH:29:G:N7	41:BH:30:C:C6	2.82	0.47
44:BK:35:ASP:CG	44:BK:86:HIS:CE1	2.92	0.47
44:BK:150:GLU:CG	44:BK:154:ARG:HH12	2.25	0.47
47:BN:185:LYS:C	47:BN:186:MET:SD	2.97	0.47
50:BQ:200:LYS:O	50:BQ:203:PRO:HD2	2.14	0.47
53:BT:84:THR:HG23	53:BT:87:ALA:H	1.79	0.47
57:BX:62:ARG:HD3	57:BX:62:ARG:N	2.29	0.47
62:Bc:136:PHE:HA	62:Bc:139:LYS:CB	2.44	0.47
69:Bj:44:HIS:HA	69:Bj:53:ARG:HG2	1.97	0.47
71:Bl:38:LEU:HD23	81:Bv:181:ILE:HG13	1.94	0.47
72:Bm:13:THR:HG22	72:Bm:14:GLY:HA3	1.97	0.47
85:AA:22:A:C2	85:AA:677:U:O2	2.67	0.47
85:AA:64:A:N1	85:AA:84:C:C4	2.82	0.47
85:AA:68:A:C5	85:AA:81:A:C4	3.02	0.47
85:AA:70:U:C2	85:AA:79:G:C2	3.02	0.47
85:AA:84:C:OP2	85:AA:84:C:C5	2.67	0.47
85:AA:90:A:C5	85:AA:464:A:C2	3.02	0.47
85:AA:92:G:H2'	85:AA:93:G:C8	2.48	0.47
85:AA:118:C:C2	85:AA:362:G:N2	2.82	0.47
85:AA:119:G:C6	85:AA:120:C:C4	3.02	0.47
85:AA:136:U:C6	85:AA:136:U:H3'	2.49	0.47
85:AA:271:A:C6	85:AA:272:C:C5	3.02	0.47
85:AA:369:A:C2	85:AA:370:A:C8	3.02	0.47
85:AA:526:G:C6	85:AA:527:A:C5	3.02	0.47
85:AA:548:G:C6	85:AA:549:A:C5	3.02	0.47
85:AA:683:U:C2	85:AA:1485:G:C2	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:887:A:H2'	85:AA:889:G:N7	2.30	0.47
85:AA:894:A:C8	85:AA:899:A:N3	2.82	0.47
85:AA:938:A:C8	85:AA:938:A:P	3.07	0.47
85:AA:965:G:C4	85:AA:991:G:N7	2.82	0.47
85:AA:1133:C:O2	85:AA:1134:G:C5	2.68	0.47
85:AA:1150:G:C5	85:AA:1151:G:C5	3.03	0.47
85:AA:1150:G:C2	85:AA:1151:G:C2	3.02	0.47
85:AA:1153:G:C8	85:AA:1153:G:C3'	2.86	0.47
85:AA:1226:A:H1'	85:AA:1274:A:N1	2.29	0.47
85:AA:1462:A:C6	85:AA:1463:A:C5	3.02	0.47
85:AA:1484:G:C4	85:AA:1485:G:N7	2.82	0.47
85:AA:1600:G:C6	85:AA:1601:G:C5	3.03	0.47
85:AA:1666:U:C6	85:AA:1666:U:H3'	2.49	0.47
85:AA:1728:G:C2	85:AA:1813:C:C2	3.02	0.47
85:AA:1826:U:C5	85:AA:1828:C:H1'	2.48	0.47
85:AA:2083:G:H2'	85:AA:2084:U:C6	2.49	0.47
85:AA:2192:A:C6	85:AA:2193:A:C5	3.02	0.47
4:A3:173:ARG:NH2	85:AA:76:G:C8	2.82	0.47
8:A7:151:HIS:C	8:A7:153:ASP:H	2.22	0.47
10:A9:137:HIS:CE1	85:AA:1627:U:O2	2.67	0.47
12:AD:23:VAL:HG13	12:AD:41:THR:CG2	2.44	0.47
15:AG:55:ARG:HG2	30:AW:48:TYR:CE2	2.49	0.47
15:AG:113:PHE:CE2	85:AA:1188:A:C5	3.02	0.47
16:AH:27:TYR:C	16:AH:27:TYR:CD1	2.88	0.47
19:AK:103:HIS:CG	19:AK:104:ASN:N	2.71	0.47
23:AP:91:MET:HG3	23:AP:113:VAL:HG23	1.96	0.47
24:AQ:52:ARG:O	85:AA:1818:C:H2'	2.14	0.47
26:AS:27:TRP:CE2	26:AS:31:HIS:CG	3.02	0.47
27:AT:54:TYR:O	27:AT:56:VAL:HG23	2.14	0.47
31:AX:125:VAL:HG12	31:AX:130:ALA:HB3	1.95	0.47
32:AY:31:ARG:HB2	85:AA:546:U:C2	2.49	0.47
34:BA:15:G:N1	34:BA:16:C:C2	2.82	0.47
34:BA:25:C:N4	34:BA:26:C:C4	2.82	0.47
34:BA:64:A:C6	34:BA:380:A:C4	3.02	0.47
34:BA:108:A:N1	34:BA:386:A:C8	2.81	0.47
34:BA:113:G:C8	34:BA:113:G:C3'	2.92	0.47
34:BA:161:U:C2	34:BA:165:C:N3	2.83	0.47
34:BA:266:G:H2'	34:BA:267:G:H8	1.80	0.47
34:BA:416:A:C2	76:Bq:39:GLU:CD	2.92	0.47
34:BA:439:A:N3	34:BA:441:A:C8	2.82	0.47
34:BA:462:C:C4	34:BA:465:A:C5	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:649:A:N1	34:BA:650:C:C2	2.81	0.47
34:BA:655:U:C2'	34:BA:657:C:H5'	2.45	0.47
34:BA:657:C:C2	34:BA:658:C:C6	3.02	0.47
34:BA:668:G:C6	34:BA:669:U:C4	3.02	0.47
34:BA:804:G:N1	34:BA:810:A:C6	2.83	0.47
34:BA:826:C:H2'	34:BA:827:A:C8	2.49	0.47
34:BA:828:A:C2	34:BA:829:U:C6	3.03	0.47
34:BA:831:U:C6	34:BA:832:C:C5	3.02	0.47
34:BA:931:G:O6	34:BA:932:G:C4	2.67	0.47
34:BA:933:U:O4	34:BA:934:G:C2	2.68	0.47
34:BA:937:G:N2	38:BE:112:G:OP1	2.47	0.47
34:BA:1088:G:N7	63:Bd:17:HIS:CD2	2.82	0.47
34:BA:1100:A:C4	34:BA:1158:A:C6	3.02	0.47
34:BA:1123:G:C2	34:BA:1138:C:O2	2.67	0.47
34:BA:1142:C:C2	34:BA:1143:U:C5	3.02	0.47
34:BA:1226:G:H4'	34:BA:1519:G:H4'	1.96	0.47
34:BA:1287:G:H1'	34:BA:1294:C:C4	2.49	0.47
34:BA:1489:U:C6	34:BA:1489:U:H3'	2.50	0.47
34:BA:1599:A:H5''	34:BA:1600:G:P	2.54	0.47
34:BA:1663:U:O2	34:BA:1664:C:C6	2.67	0.47
34:BA:1695:G:C5	34:BA:1696:G:N7	2.83	0.47
34:BA:1805:C:H4'	34:BA:1806:A:OP2	2.14	0.47
35:BB:350:U:H2'	35:BB:351:G:C8	2.49	0.47
35:BB:357:C:C5	35:BB:359:A:H2'	2.49	0.47
35:BB:430:A:H2'	35:BB:431:U:O4'	2.14	0.47
35:BB:661:G:H1'	65:Bf:316:VAL:HG22	1.96	0.47
35:BB:674:C:N3	35:BB:675:U:C4	2.83	0.47
35:BB:839:G:H4'	35:BB:1025:A:C5	2.50	0.47
35:BB:1033:U:C4	35:BB:1034:U:C5	3.03	0.47
35:BB:1214:U:H5'	79:Bt:33:ALA:H	1.79	0.47
35:BB:1284:U:C2	35:BB:1285:U:C6	3.02	0.47
35:BB:1313:C:H5'	44:BK:160:PRO:CB	2.44	0.47
35:BB:1483:A:H2'	35:BB:1484:A:O4'	2.14	0.47
35:BB:1510:G:N1	35:BB:1511:U:C4	2.83	0.47
35:BB:1513:U:C2	35:BB:1514:G:C8	3.01	0.47
36:BC:59:A:N3	36:BC:59:A:H5'	2.30	0.47
36:BC:78:G:C6	36:BC:79:A:C6	3.02	0.47
36:BC:82:C:C2	36:BC:84:U:C4	3.02	0.47
36:BC:115:G:C2	36:BC:116:C:C2	3.03	0.47
36:BC:166:G:N2	36:BC:167:U:H1'	2.29	0.47
37:BD:17:G:N1	37:BD:18:G:C5	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BD:35:C:C2	37:BD:36:C:C6	3.02	0.47
38:BE:5:A:N1	38:BE:6:A:N1	2.62	0.47
38:BE:74:U:O4	38:BE:75:C:C2	2.67	0.47
38:BE:106:C:C6	53:BT:121:ARG:CZ	2.96	0.47
39:BF:13:U:C6	39:BF:13:U:H3'	2.49	0.47
39:BF:36:G:H2'	39:BF:37:C:C6	2.49	0.47
40:BG:3:G:N1	40:BG:4:A:C5	2.82	0.47
40:BG:114:A:C6	40:BG:115:C:C2	3.02	0.47
40:BG:124:A:C6	40:BG:125:C:C4	3.02	0.47
40:BG:147:U:H3'	40:BG:148:C:H5''	1.96	0.47
40:BG:158:A:C2	40:BG:159:A:H5'	2.49	0.47
41:BH:17:A:C6	41:BH:18:C:C5	3.02	0.47
41:BH:50:A:C2	41:BH:51:C:C2	3.02	0.47
41:BH:57:A:N1	41:BH:58:C:C4	2.82	0.47
41:BH:105:U:H6	41:BH:105:U:O5'	1.97	0.47
44:BK:47:PRO:HA	44:BK:171:TRP:NE1	2.29	0.47
48:BO:206:LYS:C	48:BO:208:MET:H	2.21	0.47
50:BQ:89:LYS:HA	50:BQ:107:LEU:HD23	1.96	0.47
56:BW:96:TYR:CE1	58:BY:21:TYR:HB2	2.49	0.47
57:BX:114:LYS:O	57:BX:118:LYS:HG3	2.14	0.47
58:BY:52:PHE:HA	58:BY:59:TYR:CE1	2.48	0.47
62:Bc:21:LYS:CB	62:Bc:26:ARG:HG2	2.44	0.47
65:Bf:218:GLN:NE2	65:Bf:220:ARG:H	2.11	0.47
68:Bi:103:ALA:HA	68:Bi:106:ARG:HD3	1.95	0.47
70:Bk:74:TYR:CD1	70:Bk:82:ALA:HA	2.49	0.47
71:Bl:69:THR:HG22	71:Bl:115:PRO:HB2	1.95	0.47
73:Bn:74:ILE:HA	73:Bn:78:PHE:CE2	2.49	0.47
76:Bq:32:GLY:C	76:Bq:33:ASN:HD22	2.21	0.47
79:Bt:11:HIS:CE1	79:Bt:13:PRO:CD	2.97	0.47
81:Bv:34:THR:HG23	81:Bv:87:ARG:NH2	2.29	0.47
84:By:110:ILE:HB	84:By:120:ARG:HB2	1.96	0.47
85:AA:247:G:C6	85:AA:248:U:C4	3.02	0.47
85:AA:248:U:C4	85:AA:249:C:C4	3.02	0.47
85:AA:378:A:N1	85:AA:381:A:C8	2.82	0.47
85:AA:447:C:C2	85:AA:448:G:C8	3.02	0.47
85:AA:453:G:C6	85:AA:475:A:N1	2.83	0.47
85:AA:456:A:C2	85:AA:472:A:C2	3.02	0.47
85:AA:470:C:C5	85:AA:471:U:C5	3.02	0.47
85:AA:569:A:C2	85:AA:570:U:N1	2.82	0.47
85:AA:572:G:H2'	85:AA:573:U:O4'	2.14	0.47
85:AA:582:A:H3'	85:AA:583:U:C5	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:715:G:C5	85:AA:716:G:C8	3.03	0.47
85:AA:720:A:C2	85:AA:781:G:C2	3.02	0.47
85:AA:746:G:C2	85:AA:759:G:C4	3.02	0.47
85:AA:789:A:C8	85:AA:802:A:C5	3.02	0.47
85:AA:876:U:O5'	85:AA:876:U:C6	2.68	0.47
85:AA:907:G:C2'	85:AA:908:C:C5	2.98	0.47
85:AA:910:G:C2	85:AA:911:A:C6	3.02	0.47
85:AA:928:U:O4	85:AA:929:G:C6	2.67	0.47
85:AA:1288:A:H2	85:AA:1454:U:O2	1.97	0.47
85:AA:1517:G:C2	85:AA:1518:A:C8	3.02	0.47
85:AA:1534:A:C2	85:AA:2089:G:N3	2.82	0.47
85:AA:1548:A:C2	85:AA:1549:G:C5	3.02	0.47
85:AA:1686:G:C6	85:AA:1687:U:C4	3.01	0.47
85:AA:1846:G:C2	85:AA:1847:U:N3	2.82	0.47
85:AA:1914:U:C4	85:AA:1915:C:C5	3.02	0.47
85:AA:2011:C:H2'	85:AA:2012:G:C8	2.49	0.47
85:AA:2014:G:N2	85:AA:2029:G:C2	2.82	0.47
85:AA:2016:A:C4	85:AA:2028:G:N2	2.83	0.47
85:AA:2103:C:C4	85:AA:2105:G:C2	3.03	0.47
85:AA:2121:G:C2'	85:AA:2122:A:H8	2.28	0.47
2:A1:63:ARG:HG3	85:AA:519:A:C8	2.49	0.47
2:A1:100:TYR:CZ	2:A1:106:PHE:CE2	3.01	0.47
3:A2:85:ILE:O	3:A2:89:LEU:HB2	2.13	0.47
11:AC:158:LEU:O	11:AC:180:VAL:HA	2.15	0.47
13:AE:56:LEU:HA	85:AA:312:G:C8	2.50	0.47
26:AS:84:PHE:CG	26:AS:85:VAL:N	2.83	0.47
27:AT:25:ARG:HD2	27:AT:83:TYR:CZ	2.50	0.47
28:AU:85:GLY:HA2	28:AU:88:HIS:CE1	2.49	0.47
34:BA:20:A:N7	34:BA:1716:A:N1	2.62	0.47
34:BA:214:A:OP2	34:BA:215:C:C6	2.67	0.47
34:BA:297:A:C6	73:Bn:77:HIS:ND1	2.83	0.47
34:BA:340:U:OP1	79:Bt:50:TYR:CG	2.67	0.47
34:BA:367:G:C6	61:Bb:62:HIS:ND1	2.82	0.47
34:BA:395:G:N2	36:BC:34:U:C5	2.80	0.47
34:BA:409:A:C6	34:BA:410:G:C4	3.03	0.47
34:BA:526:C:N3	34:BA:587:U:C4	2.82	0.47
34:BA:530:A:C2	34:BA:580:U:N3	2.82	0.47
34:BA:592:G:C4	34:BA:1278:A:H4'	2.50	0.47
34:BA:760:G:C2	34:BA:761:U:C5	3.02	0.47
34:BA:911:G:C6	34:BA:912:G:C8	3.03	0.47
34:BA:938:C:H1'	38:BE:112:G:H5'	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:942:G:C2	34:BA:943:G:C4	3.03	0.47
34:BA:1122:G:C6	34:BA:1123:G:C4	3.03	0.47
34:BA:1218:G:C2	34:BA:1219:G:C4	3.03	0.47
34:BA:1241:U:C4	35:BB:1286:G:H1'	2.49	0.47
34:BA:1258:G:OP1	68:Bi:45:ARG:NH1	2.47	0.47
34:BA:1300:G:H2'	34:BA:1301:G:C8	2.50	0.47
34:BA:1661:U:C6	34:BA:1662:U:O4	2.68	0.47
34:BA:1776:G:C2	34:BA:1778:U:C6	3.03	0.47
34:BA:1845:G:C8	34:BA:1847:G:O6	2.67	0.47
35:BB:68:G:H3'	35:BB:69:A:N7	2.29	0.47
35:BB:475:A:C8	35:BB:505:G:H1'	2.50	0.47
35:BB:530:C:H6	85:AA:2231:G:N3	2.11	0.47
35:BB:641:C:N3	35:BB:1399:A:C5	2.83	0.47
35:BB:669:A:C5	35:BB:1329:G:N3	2.82	0.47
35:BB:681:G:C2	35:BB:682:U:H1'	2.50	0.47
35:BB:758:A:C2	35:BB:759:C:H1'	2.50	0.47
35:BB:780:U:H2'	35:BB:1038:G:H1	1.79	0.47
35:BB:857:G:C8	35:BB:857:G:O5'	2.68	0.47
35:BB:876:G:H4'	35:BB:877:A:C8	2.48	0.47
35:BB:906:G:C2	35:BB:953:G:C6	3.02	0.47
35:BB:1004:A:C4	35:BB:1005:A:C8	3.03	0.47
35:BB:1036:G:C2	35:BB:1037:A:H1'	2.49	0.47
35:BB:1133:C:H3'	35:BB:1134:G:C8	2.49	0.47
35:BB:1147:G:C5	35:BB:1148:U:O4	2.67	0.47
35:BB:1151:A:C5	35:BB:1153:G:C5	3.02	0.47
35:BB:1186:A:N3	35:BB:1186:A:H2'	2.30	0.47
35:BB:1251:G:C8	35:BB:1251:G:C3'	2.97	0.47
35:BB:1276:U:H5'	35:BB:1276:U:C6	2.48	0.47
35:BB:1444:U:O5'	35:BB:1444:U:H6	1.97	0.47
35:BB:1490:G:N1	35:BB:1491:G:C4	2.83	0.47
35:BB:1514:G:H2'	35:BB:1515:C:C6	2.49	0.47
35:BB:1542:C:C2	35:BB:1543:C:C6	3.02	0.47
36:BC:11:G:N1	36:BC:12:A:C4	2.82	0.47
36:BC:78:G:H2'	36:BC:79:A:C8	2.50	0.47
37:BD:74:A:C5'	37:BD:76:U:H1'	2.43	0.47
38:BE:50:G:C6	38:BE:51:C:C4	3.03	0.47
38:BE:83:U:C3'	38:BE:83:U:C6	2.96	0.47
38:BE:157:C:C6	38:BE:158:U:C5	3.02	0.47
38:BE:166:G:H2'	38:BE:167:U:O4'	2.14	0.47
38:BE:184:G:H2'	38:BE:185:G:C8	2.49	0.47
38:BE:192:A:C2	38:BE:193:A:C6	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:45:G:O3'	56:BW:9:LYS:HB3	2.15	0.47
44:BK:38:LYS:HG2	44:BK:40:ARG:H	1.78	0.47
44:BK:139:ARG:HG2	44:BK:173:PHE:CZ	2.48	0.47
49:BP:93:ARG:O	49:BP:96:HIS:CG	2.68	0.47
51:BR:45:GLN:CD	51:BR:113:VAL:HG13	2.39	0.47
52:BS:47:MET:HA	52:BS:51:ASN:HB3	1.96	0.47
54:BU:6:GLY:C	54:BU:8:LYS:H	2.19	0.47
64:Be:181:LYS:HG2	64:Be:184:ASN:OD1	2.14	0.47
65:Bf:143:TYR:CE1	65:Bf:152:THR:HB	2.49	0.47
67:Bh:92:LEU:HA	67:Bh:95:LEU:HD12	1.96	0.47
68:Bi:65:LYS:O	68:Bi:67:ILE:HG23	2.14	0.47
72:Bm:87:SER:O	72:Bm:90:ALA:HB3	2.14	0.47
80:Bu:75:VAL:CG2	80:Bu:109:MET:HE1	2.44	0.47
82:Bw:159:VAL:HA	82:Bw:162:MET:SD	2.55	0.47
84:By:86:PHE:CE2	84:By:149:LEU:N	2.82	0.47
85:AA:167:A:C8	85:AA:167:A:H3'	2.50	0.47
85:AA:213:G:H22	85:AA:232:U:H3	1.61	0.47
85:AA:277:G:C2	85:AA:293:A:C4	3.02	0.47
85:AA:314:C:C6	85:AA:316:C:C5	3.02	0.47
85:AA:441:C:C2	85:AA:442:G:C8	3.02	0.47
85:AA:466:A:C6	85:AA:469:G:C5	2.73	0.47
85:AA:557:G:N2	85:AA:571:G:H1'	2.29	0.47
85:AA:660:G:H2'	85:AA:661:C:O4'	2.15	0.47
85:AA:662:U:C5	85:AA:663:C:C5	3.03	0.47
85:AA:730:G:C6	85:AA:731:U:O4	2.68	0.47
85:AA:889:G:H2'	85:AA:889:G:N3	2.30	0.47
85:AA:901:C:H4'	85:AA:902:A:C4'	2.45	0.47
85:AA:959:C:C6	85:AA:960:G:C8	3.02	0.47
85:AA:976:G:C5	85:AA:977:U:C5	3.01	0.47
85:AA:989:U:H4'	85:AA:991:G:N7	2.30	0.47
85:AA:1040:U:H2'	85:AA:1041:U:C6	2.49	0.47
85:AA:1140:G:C2	85:AA:1141:U:C2	3.02	0.47
85:AA:1144:G:C5	85:AA:1145:U:C5	3.02	0.47
85:AA:1209:U:C6	85:AA:1209:U:O5'	2.68	0.47
85:AA:1241:A:C4	85:AA:1262:A:C2	3.01	0.47
85:AA:1299:A:C2	85:AA:1444:U:C2	3.02	0.47
85:AA:1503:G:H2'	85:AA:1504:A:H8	1.79	0.47
85:AA:1658:G:C2	85:AA:1659:C:C2	3.02	0.47
85:AA:1668:G:C4	85:AA:1669:G:C8	3.01	0.47
85:AA:1925:A:H1'	85:AA:2059:A:O2'	2.14	0.47
85:AA:2003:C:O3'	85:AA:2004:U:H6	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2014:G:N1	85:AA:2029:G:N1	2.62	0.47
85:AA:2221:A:C4	85:AA:2244:G:N3	2.82	0.47
1:A0:27:LYS:HG2	1:A0:49:ASN:HA	1.97	0.47
7:A6:91:LYS:C	7:A6:92:LEU:HG	2.40	0.47
11:AC:120:GLN:HB3	11:AC:124:PHE:CZ	2.49	0.47
11:AC:241:ARG:HH22	11:AC:244:GLU:N	2.12	0.47
15:AG:31:ARG:HH12	85:AA:1002:G:H4'	1.79	0.47
15:AG:52:MET:SD	85:AA:1119:A:H1'	2.55	0.47
32:AY:57:MET:HE2	85:AA:663:C:O3'	2.14	0.47
34:BA:74:A:N1	34:BA:75:U:C2	2.82	0.47
34:BA:122:U:O2	34:BA:146:G:N2	2.47	0.47
34:BA:138:C:N3	34:BA:139:U:C5	2.82	0.47
34:BA:377:G:C2	34:BA:378:C:C2	3.02	0.47
34:BA:412:G:C5	34:BA:413:A:C6	3.01	0.47
34:BA:484:A:N1	36:BC:5:U:C2	2.83	0.47
34:BA:515:U:C2	34:BA:516:U:C5	3.03	0.47
34:BA:530:A:C2	34:BA:582:U:C2	3.03	0.47
34:BA:618:G:C6	34:BA:619:U:C4	3.03	0.47
34:BA:698:U:C6	34:BA:698:U:H3'	2.48	0.47
34:BA:712:C:H2'	34:BA:713:C:C5	2.50	0.47
34:BA:743:A:C6	34:BA:894:G:C6	3.02	0.47
34:BA:751:A:H2'	34:BA:751:A:N3	2.28	0.47
34:BA:825:G:C5	34:BA:826:C:C5	3.02	0.47
34:BA:849:G:C2	34:BA:850:C:C4	3.02	0.47
34:BA:919:A:C4	34:BA:920:U:C5	3.02	0.47
34:BA:971:G:C6	34:BA:972:C:C4	3.02	0.47
34:BA:994:G:C4	34:BA:996:U:C6	3.02	0.47
34:BA:1016:A:C6	34:BA:1017:C:C4	3.03	0.47
34:BA:1043:C:C5	34:BA:1581:G:N1	2.83	0.47
34:BA:1052:G:C2	34:BA:1230:G:C1'	2.98	0.47
34:BA:1185:U:C5	80:Bu:144:SER:OG	2.67	0.47
34:BA:1246:G:C6	34:BA:1247:G:C8	3.02	0.47
34:BA:1276:G:C6	34:BA:1277:G:N7	2.83	0.47
34:BA:1415:C:C2	34:BA:1416:C:C5	3.02	0.47
34:BA:1425:G:C6	34:BA:1426:A:C6	3.03	0.47
34:BA:1518:A:H4'	61:Bb:21:ARG:HG2	1.95	0.47
34:BA:1610:A:H2'	34:BA:1611:A:C8	2.49	0.47
34:BA:1663:U:C2	34:BA:1664:C:C6	3.03	0.47
34:BA:1664:C:H6	34:BA:1664:C:O5'	1.97	0.47
34:BA:1671:A:C5	34:BA:1672:C:C5	3.02	0.47
34:BA:1700:C:C6	34:BA:1700:C:H3'	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1737:A:C2	34:BA:1788:U:N3	2.83	0.47
34:BA:1750:A:C2	34:BA:1774:G:C2	3.03	0.47
34:BA:1814:U:C2	34:BA:1815:G:C8	3.03	0.47
35:BB:134:G:C6	35:BB:135:C:C5	3.02	0.47
35:BB:371:C:C2	35:BB:372:U:C4	3.02	0.47
35:BB:481:A:N1	35:BB:482:A:N1	2.62	0.47
35:BB:491:A:H3'	35:BB:492:U:C6	2.49	0.47
35:BB:526:A:C8	35:BB:527:U:C6	3.03	0.47
35:BB:545:C:N4	35:BB:574:G:C6	2.83	0.47
35:BB:569:G:C5	35:BB:570:A:C8	3.02	0.47
35:BB:707:G:N1	35:BB:775:U:C2	2.82	0.47
35:BB:736:G:C6	35:BB:744:U:N3	2.83	0.47
35:BB:783:U:H3'	35:BB:784:C:H6	1.78	0.47
35:BB:844:G:C2	35:BB:969:C:O2	2.67	0.47
35:BB:1056:A:N1	35:BB:1057:G:C6	2.82	0.47
35:BB:1145:G:H2'	35:BB:1146:C:H6	1.80	0.47
35:BB:1219:A:H3'	35:BB:1220:A:C8	2.48	0.47
35:BB:1225:A:O2'	47:BN:192:LYS:HE3	2.14	0.47
35:BB:1298:C:C4	35:BB:1299:G:C5	3.03	0.47
35:BB:1489:A:N7	49:BP:158:PRO:HD3	2.28	0.47
35:BB:1491:G:C2	35:BB:1492:C:C2	3.02	0.47
37:BD:37:G:C6	37:BD:38:U:O4	2.68	0.47
37:BD:56:G:C8	37:BD:57:C:C5	3.03	0.47
37:BD:63:C:C6	44:BK:205:LYS:O	2.68	0.47
37:BD:69:U:H2'	37:BD:70:C:C6	2.49	0.47
37:BD:101:A:O5'	37:BD:101:A:C8	2.68	0.47
38:BE:41:C:C2	38:BE:173:G:C2	3.02	0.47
38:BE:76:U:H1'	38:BE:84:U:C5	2.50	0.47
38:BE:130:G:C4	38:BE:131:C:C6	3.02	0.47
39:BF:6:C:P	39:BF:6:C:H3'	2.55	0.47
40:BG:22:G:H4'	40:BG:23:C:C5'	2.44	0.47
40:BG:88:G:H2'	40:BG:89:A:C8	2.50	0.47
41:BH:127:A:C2	41:BH:128:G:C2	3.03	0.47
44:BK:3:ARG:NH2	44:BK:6:ALA:H	2.12	0.47
49:BP:19:PRO:HB2	49:BP:20:ARG:HE	1.79	0.47
49:BP:131:ASN:HA	49:BP:134:LYS:HB2	1.97	0.47
55:BV:113:GLY:C	55:BV:115:ASP:H	2.22	0.47
57:BX:95:MET:N	57:BX:95:MET:SD	2.87	0.47
57:BX:122:ARG:HH21	57:BX:129:THR:H	1.62	0.47
57:BX:124:LEU:CB	57:BX:125:TYR:CE2	2.97	0.47
60:Ba:6:PRO:HA	60:Ba:24:ILE:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:Be:169:VAL:HG12	64:Be:171:GLY:CA	2.44	0.47
65:Bf:82:SER:H	65:Bf:397:ARG:HH21	1.61	0.47
66:Bg:25:ILE:HA	66:Bg:28:VAL:CG2	2.45	0.47
67:Bh:68:CYS:SG	67:Bh:76:ARG:HD2	2.54	0.47
77:Br:120:ARG:HD2	77:Br:272:LYS:HD3	1.96	0.47
84:By:94:TYR:CD1	84:By:94:TYR:C	2.92	0.47
84:By:96:HIS:CE1	84:By:97:PHE:CE1	3.01	0.47
85:AA:10:G:C8	85:AA:2100:A:O2'	2.68	0.47
85:AA:19:A:H2'	85:AA:20:G:O4'	2.15	0.47
85:AA:21:U:H2'	85:AA:22:A:C8	2.49	0.47
85:AA:47:A:N3	85:AA:490:A:C5	2.83	0.47
85:AA:88:G:C6	85:AA:89:C:N3	2.82	0.47
85:AA:94:C:H2'	85:AA:95:U:C6	2.49	0.47
85:AA:130:G:N2	85:AA:131:C:H1'	2.29	0.47
85:AA:159:G:C4	85:AA:164:G:C6	3.02	0.47
85:AA:381:A:C4	85:AA:419:A:C5	3.03	0.47
85:AA:448:G:C6	85:AA:449:G:C4	3.02	0.47
85:AA:526:G:C5	85:AA:527:A:C8	3.02	0.47
85:AA:572:G:C4	85:AA:573:U:C6	3.02	0.47
85:AA:574:U:C6	85:AA:574:U:H5''	2.49	0.47
85:AA:635:G:C6	85:AA:659:A:C6	3.02	0.47
85:AA:806:G:H2'	85:AA:807:A:O4'	2.15	0.47
85:AA:849:A:C6	85:AA:850:U:C4	3.02	0.47
85:AA:1117:G:N3	85:AA:1117:G:H2'	2.28	0.47
85:AA:1257:A:C4	85:AA:1258:U:C5	3.02	0.47
85:AA:1281:G:C5	85:AA:1282:A:C5	3.03	0.47
85:AA:1457:C:C3'	85:AA:1457:C:C6	2.97	0.47
85:AA:1540:A:N1	85:AA:2049:U:C4	2.82	0.47
85:AA:1600:G:H2'	85:AA:1601:G:C8	2.49	0.47
85:AA:1654:G:C2	85:AA:1655:G:H1'	2.50	0.47
85:AA:1814:U:O2	85:AA:1815:U:C5	2.67	0.47
85:AA:2007:G:H2'	85:AA:2008:G:C1'	2.44	0.47
85:AA:2069:A:C4	85:AA:2070:C:C6	3.02	0.47
85:AA:2081:A:C8	85:AA:2082:C:C5	3.02	0.47
85:AA:2110:U:C5	85:AA:2111:C:C5	3.03	0.47
85:AA:2111:C:O5'	85:AA:2111:C:H6	1.98	0.47
85:AA:2219:G:H4'	85:AA:2220:U:OP2	2.15	0.47
85:AA:2221:A:C5	85:AA:2222:G:N7	2.82	0.47
86:AB:9:A:H1'	86:AB:45:U:O2	2.14	0.47
2:A1:211:SER:OG	2:A1:242:LEU:HD13	2.15	0.47
4:A3:49:TYR:CD2	4:A3:120:GLY:HA3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:119:ARG:CZ	85:AA:1109:G:C4	2.97	0.47
5:A4:191:MET:O	5:A4:192:TRP:CE3	2.68	0.47
6:A5:109:PHE:CD1	6:A5:109:PHE:N	2.79	0.47
7:A6:94:TYR:CE2	7:A6:98:LEU:HD23	2.49	0.47
8:A7:116:ALA:HB1	8:A7:160:PHE:HB2	1.96	0.47
13:AE:39:LYS:NZ	13:AE:41:HIS:CE1	2.83	0.47
17:AI:45:HIS:NE2	85:AA:2015:U:C5	2.83	0.47
21:AM:35:LYS:HG3	85:AA:2034:G:H4'	1.95	0.47
23:AP:163:THR:HG23	23:AP:205:ASP:O	2.14	0.47
34:BA:31:A:C5	34:BA:48:C:C2	3.03	0.47
34:BA:57:A:C5	34:BA:58:A:C8	3.02	0.47
34:BA:101:G:C2	34:BA:102:G:C4	3.02	0.47
34:BA:114:U:C5	34:BA:327:G:C2	3.03	0.47
34:BA:117:C:OP2	34:BA:149:G:C2	2.68	0.47
34:BA:135:G:C5	34:BA:136:A:C8	3.03	0.47
34:BA:212:A:H2'	34:BA:213:A:C8	2.50	0.47
34:BA:216:C:C6	34:BA:217:C:N3	2.82	0.47
34:BA:299:C:H2'	34:BA:300:C:O4'	2.13	0.47
34:BA:345:G:C8	61:Bb:61:TYR:CZ	3.02	0.47
34:BA:515:U:H1'	39:BF:3:A:C6	2.49	0.47
34:BA:524:G:C5	34:BA:525:A:N7	2.82	0.47
34:BA:580:U:H3'	34:BA:580:U:C6	2.50	0.47
34:BA:594:G:N3	34:BA:684:G:C6	2.83	0.47
34:BA:605:G:H8	34:BA:605:G:O5'	1.97	0.47
34:BA:761:U:C5	34:BA:762:A:N7	2.83	0.47
34:BA:790:G:C4	34:BA:794:G:C6	3.02	0.47
34:BA:856:G:C2	34:BA:857:C:C2	3.03	0.47
34:BA:856:G:C2	34:BA:857:C:N1	2.82	0.47
34:BA:888:G:C4	34:BA:889:U:C6	3.03	0.47
34:BA:990:G:H2'	34:BA:991:U:C6	2.50	0.47
34:BA:995:A:C2	34:BA:1012:A:C6	3.03	0.47
34:BA:997:U:C2	34:BA:998:U:C4	3.02	0.47
34:BA:1044:A:N3	34:BA:1045:C:C6	2.83	0.47
34:BA:1071:G:C2	34:BA:1072:U:C2	3.03	0.47
34:BA:1100:A:C6	34:BA:1158:A:C8	3.03	0.47
34:BA:1123:G:N2	34:BA:1124:U:H1'	2.30	0.47
34:BA:1257:U:C6	34:BA:1257:U:C5'	2.98	0.47
34:BA:1274:A:C2	34:BA:1275:G:C4	3.02	0.47
34:BA:1276:G:C2	34:BA:1465:C:C2	3.02	0.47
34:BA:1297:G:C4	49:BP:19:PRO:CD	2.98	0.47
34:BA:1331:G:C2	34:BA:1332:U:N1	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1341:A:C6	34:BA:1342:C:C2	3.03	0.47
34:BA:1343:A:C2	40:BG:144:G:N7	2.83	0.47
34:BA:1421:A:C5	35:BB:1345:A:N1	2.83	0.47
34:BA:1441:C:N3	34:BA:1442:A:C8	2.83	0.47
34:BA:1489:U:C6	34:BA:1489:U:C3'	2.97	0.47
34:BA:1498:A:C6	34:BA:1499:A:C5	3.03	0.47
34:BA:1519:G:C6	34:BA:1520:A:C5	3.03	0.47
34:BA:1536:A:C2	77:Br:184:ASP:HB2	2.49	0.47
34:BA:1563:G:C6	34:BA:1565:U:O4	2.68	0.47
34:BA:1564:A:H1'	36:BC:10:C:OP1	2.14	0.47
34:BA:1703:A:C8	34:BA:1703:A:H3'	2.49	0.47
34:BA:1774:G:C6	34:BA:1775:U:C4	3.02	0.47
34:BA:1809:G:OP1	69:Bj:62:HIS:HE1	1.97	0.47
35:BB:136:A:C6	35:BB:366:G:C5	3.01	0.47
35:BB:391:G:N1	35:BB:598:C:N3	2.63	0.47
35:BB:417:A:C8	35:BB:418:G:C8	3.02	0.47
35:BB:460:C:C5	35:BB:461:U:O4	2.67	0.47
35:BB:478:G:C6	35:BB:479:U:C4	3.02	0.47
35:BB:562:A:C6	35:BB:563:A:N1	2.83	0.47
35:BB:622:G:H4'	51:BR:139:TYR:CG	2.50	0.47
35:BB:639:A:H5''	35:BB:640:A:C5'	2.42	0.47
35:BB:662:G:C5	35:BB:663:G:N7	2.83	0.47
35:BB:692:G:H2'	35:BB:693:U:C6	2.49	0.47
35:BB:697:G:C2	35:BB:698:C:C2	3.02	0.47
35:BB:711:C:H4'	35:BB:712:U:OP2	2.13	0.47
35:BB:780:U:H2'	35:BB:1038:G:C6	2.50	0.47
35:BB:799:A:H2'	35:BB:972:C:C4'	2.45	0.47
35:BB:805:G:C5	35:BB:806:U:N3	2.83	0.47
35:BB:1086:G:H3'	35:BB:1087:A:H8	1.80	0.47
35:BB:1123:A:C5	35:BB:1127:A:C6	3.02	0.47
35:BB:1125:A:C5	35:BB:1126:A:C5	3.03	0.47
35:BB:1127:A:H3'	35:BB:1128:U:C5	2.50	0.47
35:BB:1478:G:C6	35:BB:1479:C:C5	3.02	0.47
36:BC:50:C:C4	76:Bq:26:TRP:CH2	3.02	0.47
36:BC:68:A:C5	36:BC:69:U:C4	3.03	0.47
36:BC:96:A:C2	36:BC:97:U:C2	3.02	0.47
36:BC:128:U:C4	36:BC:129:C:C4	3.03	0.47
37:BD:65:G:C6	37:BD:66:G:C4	3.01	0.47
38:BE:17:U:C6	38:BE:17:U:O5'	2.68	0.47
38:BE:23:G:N2	38:BE:25:U:C6	2.81	0.47
39:BF:21:C:C6	48:BO:133:THR:HG23	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:26:G:C6	40:BG:27:C:C4	3.03	0.47
40:BG:32:U:C5'	65:Bf:212:ARG:HH22	2.26	0.47
40:BG:33:G:C6	40:BG:168:A:C4	3.03	0.47
40:BG:95:U:H6	53:BT:62:ARG:HH22	1.62	0.47
40:BG:145:C:O5'	40:BG:145:C:C6	2.68	0.47
41:BH:1:U:H4'	67:Bh:38:TRP:CZ3	2.50	0.47
41:BH:20:A:N1	41:BH:21:G:C4	2.82	0.47
41:BH:30:C:C4	41:BH:31:A:C5	3.02	0.47
41:BH:68:G:C4	41:BH:69:C:C6	3.02	0.47
41:BH:103:C:N3	41:BH:104:U:N1	2.61	0.47
41:BH:115:A:O5'	41:BH:118:U:C5	2.68	0.47
44:BK:31:ILE:HA	44:BK:66:GLU:CD	2.39	0.47
49:BP:98:ALA:CB	49:BP:102:PHE:CZ	2.97	0.47
50:BQ:23:TYR:CD1	50:BQ:23:TYR:N	2.81	0.47
50:BQ:116:ARG:HG3	50:BQ:147:TYR:CE2	2.50	0.47
58:BY:81:ARG:N	85:AA:2163:G:C5'	2.77	0.47
61:Bb:91:LYS:HA	61:Bb:118:PRO:HD2	1.97	0.47
72:Bm:99:GLU:CD	72:Bm:103:ARG:HH12	2.23	0.47
77:Br:189:ARG:N	77:Br:199:ARG:O	2.48	0.47
82:Bw:4:THR:O	82:Bw:18:ALA:HA	2.14	0.47
84:By:106:GLN:CD	84:By:106:GLN:N	2.70	0.47
85:AA:75:U:C4	85:AA:76:G:H1'	2.50	0.47
85:AA:111:A:C5	85:AA:314:C:C2	3.03	0.47
85:AA:151:A:C8	85:AA:152:A:C4	3.02	0.47
85:AA:269:G:OP2	85:AA:269:G:C8	2.67	0.47
85:AA:274:A:C2	85:AA:275:A:O4'	2.68	0.47
85:AA:293:A:O5'	85:AA:293:A:C8	2.67	0.47
85:AA:424:A:O5'	85:AA:424:A:C8	2.68	0.47
85:AA:436:G:C6	85:AA:437:G:C5	3.03	0.47
85:AA:449:G:C6	85:AA:450:A:C4	3.02	0.47
85:AA:453:G:N1	85:AA:475:A:C2	2.83	0.47
85:AA:542:G:C5	85:AA:543:A:C8	3.03	0.47
85:AA:583:U:H2'	85:AA:611:G:H22	1.79	0.47
85:AA:584:G:C3'	85:AA:584:G:C8	2.97	0.47
85:AA:619:A:C2	85:AA:668:A:C4	3.03	0.47
85:AA:709:A:N6	85:AA:710:A:C6	2.83	0.47
85:AA:814:G:C8	85:AA:814:G:H3'	2.49	0.47
85:AA:825:U:H1'	85:AA:827:C:C5	2.50	0.47
85:AA:975:G:C2	85:AA:976:G:C4	3.03	0.47
85:AA:1117:G:H2'	85:AA:1118:U:O4'	2.15	0.47
85:AA:1139:G:C2	85:AA:1172:A:N3	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1238:U:H2'	85:AA:1239:C:C6	2.49	0.47
85:AA:1244:A:C4	85:AA:1245:U:C6	3.03	0.47
85:AA:1287:C:N3	85:AA:1471:G:C2	2.83	0.47
85:AA:1303:U:OP2	85:AA:1351:U:C6	2.68	0.47
85:AA:1461:A:C6	85:AA:1462:A:C6	3.02	0.47
85:AA:1463:A:OP2	85:AA:1464:G:C8	2.67	0.47
85:AA:1666:U:H2'	85:AA:1667:C:O4'	2.15	0.47
85:AA:1695:G:C2	85:AA:1696:U:C2	3.02	0.47
85:AA:1798:U:H1'	85:AA:1808:G:N7	2.30	0.47
85:AA:1830:U:C2	85:AA:1831:U:C6	3.03	0.47
85:AA:1832:G:C4	85:AA:1843:A:N1	2.82	0.47
85:AA:1845:G:C6	85:AA:1846:G:C5	3.03	0.47
85:AA:2155:U:C2	85:AA:2164:G:C6	3.03	0.47
86:AB:13:C:H2'	86:AB:22:G:N1	2.29	0.47
1:A0:29:TRP:CD1	16:AH:11:GLY:HA3	2.49	0.47
3:A2:37:HIS:H	3:A2:56:GLU:CD	2.23	0.47
4:A3:1:MET:SD	4:A3:2:LYS:O	2.73	0.47
4:A3:83:VAL:HG22	85:AA:166:C:H5''	1.97	0.47
4:A3:211:GLU:OE1	4:A3:211:GLU:HA	2.15	0.47
5:A4:130:ILE:HA	5:A4:133:ASP:OD2	2.15	0.47
5:A4:159:LEU:HB2	5:A4:190:PHE:CE2	2.50	0.47
6:A5:116:HIS:CD2	6:A5:117:TYR:CE1	3.01	0.47
7:A6:158:ALA:C	7:A6:161:SER:H	2.23	0.47
11:AC:153:MET:SD	11:AC:153:MET:C	2.98	0.47
15:AG:49:ARG:NH2	15:AG:52:MET:HB3	2.30	0.47
15:AG:130:ARG:HB2	15:AG:135:LEU:HD12	1.96	0.47
16:AH:78:CYS:HA	16:AH:81:CYS:SG	2.54	0.47
17:AI:107:ARG:HD3	85:AA:1560:A:C5	2.50	0.47
18:AJ:28:ARG:NE	85:AA:1113:G:C4	2.82	0.47
21:AM:145:LYS:C	85:AA:1900:C:OP1	2.58	0.47
22:AO:74:CYS:HA	22:AO:124:LEU:HD11	1.97	0.47
23:AP:92:LEU:CB	23:AP:111:PHE:CD1	2.97	0.47
24:AQ:19:VAL:HG22	24:AQ:111:ILE:HG22	1.96	0.47
31:AX:16:PHE:CE1	31:AX:20:LEU:HD11	2.49	0.47
32:AY:23:LYS:HD3	85:AA:660:G:H5''	1.97	0.47
34:BA:15:G:C4	36:BC:153:C:C2	3.02	0.47
34:BA:57:A:N1	34:BA:58:A:C4	2.83	0.47
34:BA:94:G:C5	34:BA:95:C:C5	3.02	0.47
34:BA:115:U:O4	34:BA:326:A:H4'	2.14	0.47
34:BA:165:C:H42	34:BA:323:C:H5''	1.80	0.47
34:BA:170:U:C2	34:BA:171:U:C6	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:188:C:H6	34:BA:188:C:O5'	1.98	0.47
34:BA:220:U:H2'	34:BA:221:G:C8	2.49	0.47
34:BA:228:A:H2'	34:BA:229:C:H6	1.80	0.47
34:BA:233:U:C4	34:BA:234:A:C5	3.02	0.47
34:BA:248:G:C8	34:BA:437:G:C2	3.03	0.47
34:BA:248:G:H1'	34:BA:437:G:N7	2.28	0.47
34:BA:363:G:H2'	34:BA:364:C:C6	2.50	0.47
34:BA:387:A:C6	34:BA:388:A:C6	3.03	0.47
34:BA:400:A:N1	36:BC:28:C:N3	2.62	0.47
34:BA:417:A:H5'	34:BA:419:U:H1'	1.97	0.47
34:BA:443:U:C4	34:BA:466:G:C4	3.03	0.47
34:BA:455:A:H5''	51:BR:16:LYS:O	2.14	0.47
34:BA:519:G:N7	34:BA:683:C:H4'	2.29	0.47
34:BA:523:A:H61	34:BA:590:U:H3	1.62	0.47
34:BA:540:G:N2	34:BA:567:U:H3	2.08	0.47
34:BA:559:C:OP2	34:BA:559:C:C6	2.68	0.47
34:BA:564:C:N4	34:BA:565:U:C4	2.83	0.47
34:BA:565:U:C6	34:BA:565:U:H3'	2.50	0.47
34:BA:603:U:C4	34:BA:1492:G:C8	3.03	0.47
34:BA:619:U:N3	34:BA:620:C:C4	2.82	0.47
34:BA:627:U:H1'	34:BA:629:G:O6	2.14	0.47
34:BA:630:U:C2	34:BA:652:C:N4	2.83	0.47
34:BA:678:C:H2'	34:BA:679:U:O4'	2.15	0.47
34:BA:728:A:C2	34:BA:729:C:C6	3.02	0.47
34:BA:741:A:C8	34:BA:742:C:C6	3.02	0.47
34:BA:743:A:C8	34:BA:743:A:C1'	2.84	0.47
34:BA:745:A:C4	34:BA:746:C:C6	3.02	0.47
34:BA:763:U:H6	34:BA:770:G:H1'	1.73	0.47
34:BA:795:G:C4	34:BA:796:G:C8	3.03	0.47
34:BA:805:A:H2'	34:BA:807:U:OP1	2.14	0.47
34:BA:916:A:C2	73:Bn:11:ARG:O	2.67	0.47
34:BA:1001:G:C2	34:BA:1002:U:C6	3.03	0.47
34:BA:1042:U:H6	34:BA:1582:C:C5	2.32	0.47
34:BA:1088:G:C4	63:Bd:17:HIS:CE1	3.03	0.47
34:BA:1098:G:C4	34:BA:1157:A:C6	3.02	0.47
34:BA:1104:C:C2	34:BA:1149:C:N4	2.82	0.47
34:BA:1122:G:O6	34:BA:1123:G:C6	2.68	0.47
34:BA:1123:G:C2	34:BA:1124:U:N1	2.83	0.47
34:BA:1230:G:C4	34:BA:1231:C:C6	3.02	0.47
34:BA:1241:U:H3'	34:BA:1242:A:H8	1.79	0.47
34:BA:1260:G:C5	34:BA:1270:G:C2	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1315:C:C4	34:BA:1316:G:C5	3.02	0.47
34:BA:1317:U:H3'	34:BA:1317:U:C6	2.50	0.47
34:BA:1327:G:C6	34:BA:1415:C:N3	2.83	0.47
34:BA:1341:A:C6	34:BA:1404:A:C4	3.03	0.47
34:BA:1473:A:C2	34:BA:1474:G:C1'	2.97	0.47
34:BA:1488:C:C5	34:BA:1489:U:C4	3.03	0.47
34:BA:1497:A:C2	82:Bw:22:PRO:HA	2.49	0.47
34:BA:1498:A:H2'	34:BA:1499:A:O4'	2.15	0.47
34:BA:1553:G:C2	34:BA:1557:G:N1	2.82	0.47
34:BA:1566:G:C8	34:BA:1566:G:O5'	2.68	0.47
34:BA:1572:G:H2'	34:BA:1573:C:C6	2.50	0.47
34:BA:1627:U:C4	34:BA:1628:A:C6	3.02	0.47
34:BA:1844:U:C2	34:BA:1845:G:C8	3.03	0.47
34:BA:1845:G:C2	35:BB:5:A:N1	2.82	0.47
35:BB:72:G:C2	35:BB:73:G:C4	3.02	0.47
35:BB:108:G:C5	35:BB:109:U:O4	2.67	0.47
35:BB:133:G:C2	35:BB:134:G:C4	3.02	0.47
35:BB:377:A:C6	35:BB:378:C:C4	3.01	0.47
35:BB:406:A:C4	73:Bn:3:LYS:CG	2.97	0.47
35:BB:428:G:H2'	35:BB:429:C:H6	1.75	0.47
35:BB:447:C:C4	64:Be:131:GLY:HA3	2.50	0.47
35:BB:466:A:C5	35:BB:537:A:C4	3.03	0.47
35:BB:466:A:C5	35:BB:467:G:C8	3.02	0.47
35:BB:480:C:N3	35:BB:501:G:C6	2.83	0.47
35:BB:501:G:C4	35:BB:502:C:C6	3.02	0.47
35:BB:503:G:C8	35:BB:504:C:C5	3.02	0.47
35:BB:518:G:C4	35:BB:533:U:O2	2.68	0.47
35:BB:530:C:C5'	85:AA:2231:G:C2'	2.89	0.47
35:BB:537:A:C6	35:BB:538:A:C6	3.02	0.47
35:BB:554:C:C2	35:BB:565:U:O4'	2.68	0.47
35:BB:555:G:N1	35:BB:556:U:C4	2.83	0.47
35:BB:637:G:C6	35:BB:638:G:C6	3.03	0.47
35:BB:644:A:C8	35:BB:644:A:O5'	2.67	0.47
35:BB:648:G:C6	35:BB:649:A:C5	3.02	0.47
35:BB:665:A:N6	35:BB:1404:A:C8	2.82	0.47
35:BB:683:U:C2	35:BB:1263:A:C2	3.03	0.47
35:BB:790:A:C6	35:BB:1033:U:C5	3.03	0.47
35:BB:794:G:C4	35:BB:795:A:C8	3.03	0.47
35:BB:812:G:N2	35:BB:828:G:H1'	2.29	0.47
35:BB:837:A:H4'	35:BB:1026:G:C6	2.50	0.47
35:BB:851:U:O2'	69:Bj:122:ALA:HA	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:874:G:C6	35:BB:961:G:C6	3.03	0.47
35:BB:890:U:C4	35:BB:891:U:C4	3.03	0.47
35:BB:988:G:N7	66:Bg:61:PRO:HD3	2.30	0.47
35:BB:1031:G:OP1	83:Bx:80:ARG:NH1	2.48	0.47
35:BB:1081:U:C4	35:BB:1082:A:C6	3.03	0.47
35:BB:1098:G:C6	35:BB:1254:G:C2	3.03	0.47
35:BB:1198:C:N3	35:BB:1199:A:C5	2.82	0.47
35:BB:1209:A:C8	35:BB:1258:G:C2	3.03	0.47
35:BB:1210:U:H3'	35:BB:1211:C:C5	2.49	0.47
35:BB:1214:U:H2'	35:BB:1215:U:C5	2.49	0.47
35:BB:1235:A:C6	61:Bb:60:HIS:ND1	2.83	0.47
35:BB:1337:C:C5	35:BB:1338:U:C5	3.03	0.47
35:BB:1358:A:C2	40:BG:54:G:O4'	2.67	0.47
35:BB:1358:A:C5	35:BB:1359:G:N7	2.83	0.47
35:BB:1367:U:C5	35:BB:1368:A:C8	3.03	0.47
35:BB:1379:U:C6	35:BB:1379:U:C3'	2.98	0.47
35:BB:1384:A:C4	35:BB:1385:C:C6	3.03	0.47
35:BB:1445:A:C6	35:BB:1446:C:C4	3.02	0.47
35:BB:1448:U:H4'	65:Bf:70:ARG:O	2.14	0.47
35:BB:1459:U:O2	35:BB:1461:C:C5'	2.62	0.47
35:BB:1488:G:C6	35:BB:1489:A:N7	2.82	0.47
35:BB:1493:A:C2	35:BB:1514:G:N3	2.83	0.47
36:BC:41:A:C6	36:BC:42:G:C5	3.03	0.47
36:BC:83:A:C2	59:BZ:110:THR:CG2	2.98	0.47
36:BC:137:C:C4	36:BC:138:C:C4	3.03	0.47
37:BD:51:G:H3'	37:BD:52:U:C6	2.50	0.47
37:BD:68:C:C4	37:BD:69:U:C5	3.03	0.47
38:BE:4:A:C4	60:Ba:37:TYR:CZ	3.02	0.47
38:BE:4:A:H3'	38:BE:4:A:C8	2.49	0.47
38:BE:19:G:H8	64:Be:72:VAL:HG23	1.78	0.47
38:BE:30:C:C5	38:BE:31:A:C5	3.03	0.47
38:BE:45:G:H3'	38:BE:46:G:H8	1.78	0.47
38:BE:73:A:C2	38:BE:74:U:C2	3.03	0.47
38:BE:110:U:H2'	38:BE:111:C:O4'	2.15	0.47
38:BE:144:A:C6	38:BE:145:A:C4	3.02	0.47
38:BE:209:U:H1'	60:Ba:58:LYS:HB3	1.96	0.47
39:BF:19:A:H61	39:BF:57:C:H42	1.63	0.47
39:BF:42:G:C8	39:BF:44:C:OP2	2.68	0.47
40:BG:25:G:C2	40:BG:26:G:C4	3.02	0.47
40:BG:28:A:C2	40:BG:178:G:C6	3.02	0.47
40:BG:34:A:N3	40:BG:169:A:C4	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:52:A:H4'	84:By:97:PHE:CZ	2.50	0.47
40:BG:114:A:C2	40:BG:115:C:H1'	2.50	0.47
40:BG:119:A:C4	40:BG:122:G:C8	3.02	0.47
40:BG:133:C:C4	40:BG:157:A:C8	3.02	0.47
41:BH:2:U:C6	41:BH:2:U:H3'	2.49	0.47
41:BH:2:U:H3'	41:BH:2:U:H6	1.80	0.47
41:BH:28:U:C4	41:BH:29:G:N7	2.82	0.47
41:BH:38:G:O6	41:BH:114:G:C5	2.67	0.47
41:BH:54:U:C2	41:BH:55:C:C5	3.03	0.47
41:BH:69:C:C4	41:BH:70:U:C5	3.03	0.47
41:BH:98:U:C6	55:BV:59:GLY:CA	2.86	0.47
41:BH:111:U:C5	41:BH:112:U:C5	3.03	0.47
44:BK:100:ASN:ND2	44:BK:102:MET:HE3	2.30	0.47
47:BN:10:HIS:C	47:BN:10:HIS:ND1	2.72	0.47
47:BN:199:PHE:HB3	47:BN:206:ARG:HD2	1.96	0.47
50:BQ:70:TYR:CE1	50:BQ:76:TYR:CD2	3.03	0.47
58:BY:83:GLU:CB	85:AA:2161:C:O4'	2.46	0.47
58:BY:83:GLU:CB	85:AA:2161:C:H4'	2.45	0.47
62:Bc:7:LEU:HD22	77:Br:285:THR:HG21	1.97	0.47
62:Bc:73:PRO:HA	62:Bc:77:TYR:CA	2.45	0.47
65:Bf:111:VAL:HG12	65:Bf:112:ASP:N	2.29	0.47
66:Bg:57:ALA:C	66:Bg:58:ASN:HD22	2.22	0.47
67:Bh:50:ARG:NE	67:Bh:54:HIS:CE1	2.81	0.47
70:Bk:74:TYR:CE1	70:Bk:81:SER:O	2.68	0.47
71:Bl:39:TYR:HD2	71:Bl:143:TYR:CE1	2.33	0.47
75:Bp:26:LYS:HB3	75:Bp:33:LYS:H	1.79	0.47
79:Bt:8:LYS:HB3	79:Bt:10:MET:SD	2.54	0.47
79:Bt:70:LEU:O	79:Bt:82:GLN:HA	2.14	0.47
80:Bu:107:ARG:HE	80:Bu:120:VAL:HG23	1.79	0.47
80:Bu:110:LEU:HG	80:Bu:148:PHE:CE1	2.50	0.47
80:Bu:146:PHE:C	80:Bu:146:PHE:CD2	2.92	0.47
81:Bv:33:GLY:CA	81:Bv:90:LEU:HD11	2.44	0.47
83:Bx:155:THR:HG22	83:Bx:161:ALA:H	1.80	0.47
84:By:24:VAL:HB	84:By:78:MET:HE1	1.96	0.47
84:By:25:THR:HA	84:By:34:THR:HG22	1.97	0.47
85:AA:10:G:N1	85:AA:11:A:C4	2.83	0.47
85:AA:47:A:C2	85:AA:97:A:C4	3.03	0.47
85:AA:55:A:C6	85:AA:491:G:C5	3.03	0.47
85:AA:68:A:C4	85:AA:81:A:C2	3.02	0.47
85:AA:69:C:C2	85:AA:70:U:C6	3.02	0.47
85:AA:90:A:H5''	85:AA:91:U:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:124:A:C4	85:AA:185:A:C6	3.03	0.47
85:AA:179:G:C6	85:AA:331:G:OP2	2.67	0.47
85:AA:186:U:H3'	85:AA:186:U:H6	1.75	0.47
85:AA:192:G:H1'	85:AA:193:C:C5	2.50	0.47
85:AA:281:C:H5''	85:AA:282:C:OP2	2.14	0.47
85:AA:283:A:C2	85:AA:287:G:C6	3.03	0.47
85:AA:354:C:N3	85:AA:355:G:C8	2.82	0.47
85:AA:355:G:H2'	85:AA:356:U:C6	2.50	0.47
85:AA:366:A:C4	85:AA:367:A:C8	3.02	0.47
85:AA:421:G:C2	85:AA:422:G:C4	3.03	0.47
85:AA:439:U:C6	85:AA:439:U:H3'	2.49	0.47
85:AA:485:A:C6	85:AA:486:G:C5	3.02	0.47
85:AA:497:G:C6	85:AA:498:C:C4	3.02	0.47
85:AA:524:A:C6	85:AA:525:C:H1'	2.49	0.47
85:AA:524:A:N1	85:AA:525:C:H1'	2.30	0.47
85:AA:548:G:H3'	85:AA:548:G:C8	2.50	0.47
85:AA:596:A:C4	85:AA:597:A:C8	3.02	0.47
85:AA:631:G:H2'	85:AA:633:C:C4	2.50	0.47
85:AA:637:U:N3	85:AA:638:G:C6	2.82	0.47
85:AA:639:C:H1'	85:AA:650:G:C2	2.50	0.47
85:AA:662:U:C3'	85:AA:662:U:C6	2.98	0.47
85:AA:668:A:H4'	85:AA:669:G:O5'	2.15	0.47
85:AA:691:U:C4	85:AA:1470:A:C4	3.03	0.47
85:AA:708:G:N2	85:AA:1215:A:C4	2.83	0.47
85:AA:774:C:C2	85:AA:775:C:C6	3.03	0.47
85:AA:817:G:H2'	85:AA:818:C:C6	2.50	0.47
85:AA:888:A:H2'	85:AA:889:G:H8	1.80	0.47
85:AA:924:A:C2	85:AA:925:G:H1'	2.50	0.47
85:AA:925:G:C4	85:AA:926:C:C5	3.03	0.47
85:AA:1024:G:C6	85:AA:1025:U:C4	3.02	0.47
85:AA:1139:G:C3'	85:AA:1140:G:H5''	2.44	0.47
85:AA:1271:U:C5	85:AA:1272:G:C6	3.03	0.47
85:AA:1299:A:C6	85:AA:1444:U:N3	2.83	0.47
85:AA:1345:C:O2'	85:AA:1346:C:H5'	2.15	0.47
85:AA:1527:G:C6	85:AA:2219:G:N7	2.83	0.47
85:AA:1648:G:C6	85:AA:1649:U:C4	3.02	0.47
85:AA:1650:G:H1	85:AA:1875:A:H61	1.62	0.47
85:AA:1792:C:H3'	85:AA:1793:A:C5'	2.45	0.47
85:AA:1872:G:N7	85:AA:1873:U:C6	2.83	0.47
85:AA:2020:C:C4	85:AA:2021:A:C5	3.02	0.47
85:AA:2041:G:H5''	85:AA:2042:G:OP1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2076:C:C4	85:AA:2077:G:C6	3.03	0.47
85:AA:2132:A:N3	85:AA:2133:A:C8	2.82	0.47
85:AA:2133:A:C2	85:AA:2186:U:O2	2.67	0.47
86:AB:7:A:N3	86:AB:49:C:C2	2.83	0.47
4:A3:49:TYR:HB3	4:A3:51:PHE:CE1	2.50	0.47
5:A4:3:ALA:HB2	5:A4:47:HIS:NE2	2.29	0.47
5:A4:143:ARG:HB3	5:A4:145:TRP:NE1	2.30	0.47
8:A7:146:LEU:H	8:A7:146:LEU:HD12	1.80	0.47
8:A7:250:TYR:CD2	8:A7:265:LEU:HB2	2.49	0.47
15:AG:77:HIS:CG	85:AA:1108:U:O4	2.68	0.47
23:AP:189:VAL:HA	85:AA:3:U:OP2	2.15	0.47
23:AP:249:PRO:CD	23:AP:250:THR:H	2.22	0.47
26:AS:100:VAL:HG12	26:AS:125:VAL:HA	1.97	0.47
34:BA:27:G:C2	34:BA:52:G:C4	3.02	0.47
34:BA:71:G:C6	34:BA:72:U:C5	3.02	0.47
34:BA:186:G:N1	34:BA:187:G:C5	2.83	0.47
34:BA:253:U:C5	34:BA:254:U:C5	3.02	0.47
34:BA:257:G:C4	34:BA:258:C:C5	3.03	0.47
34:BA:266:G:C2	34:BA:267:G:N9	2.83	0.47
34:BA:325:A:H2'	34:BA:326:A:H4'	1.96	0.47
34:BA:325:A:H2'	34:BA:326:A:H5'	1.97	0.47
34:BA:339:G:C6	34:BA:340:U:O4	2.68	0.47
34:BA:346:A:N6	34:BA:369:A:C8	2.82	0.47
34:BA:419:U:C5	34:BA:429:G:N2	2.83	0.47
34:BA:420:A:C2	34:BA:430:A:C4	3.03	0.47
34:BA:423:G:C6	34:BA:427:G:N1	2.82	0.47
34:BA:455:A:H5''	51:BR:17:ALA:HA	1.97	0.47
34:BA:490:A:H2'	34:BA:491:U:C2	2.50	0.47
34:BA:514:U:C4	34:BA:515:U:C4	3.02	0.47
34:BA:515:U:H2'	34:BA:516:U:C6	2.50	0.47
34:BA:578:C:O2'	34:BA:579:U:H5'	2.14	0.47
34:BA:611:A:P	82:Bw:68:ARG:HH21	2.38	0.47
34:BA:683:C:H5'	34:BA:1492:G:OP1	2.15	0.47
34:BA:700:G:C2	34:BA:701:G:C8	3.02	0.47
34:BA:736:G:N1	34:BA:901:C:C2	2.83	0.47
34:BA:796:G:H3'	61:Bb:110:LEU:CD2	2.44	0.47
34:BA:982:A:C6	34:BA:1020:A:C5	3.03	0.47
34:BA:1028:A:C2	34:BA:1029:C:C2	3.03	0.47
34:BA:1055:U:H2'	34:BA:1056:C:C6	2.49	0.47
34:BA:1195:G:H2'	34:BA:1196:C:C6	2.50	0.47
34:BA:1320:A:C5	34:BA:1419:A:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1330:G:N3	34:BA:1412:G:C2	2.82	0.47
34:BA:1335:A:H3'	34:BA:1336:U:C6	2.50	0.47
34:BA:1338:G:C4	34:BA:1404:A:C6	3.03	0.47
34:BA:1433:U:O5'	34:BA:1433:U:C6	2.67	0.47
34:BA:1460:U:C6	34:BA:1460:U:O5'	2.68	0.47
34:BA:1542:A:N6	34:BA:1543:A:C4	2.83	0.47
34:BA:1578:A:C5	34:BA:1580:U:C4	3.03	0.47
34:BA:1625:C:C4	34:BA:1626:U:C4	3.02	0.47
34:BA:1673:G:N1	34:BA:1680:G:C4	2.83	0.47
34:BA:1709:A:N1	34:BA:1721:U:N3	2.63	0.47
34:BA:1729:G:C6	34:BA:1794:A:C5	3.03	0.47
34:BA:1731:A:N7	34:BA:1732:A:C6	2.83	0.47
34:BA:1746:G:H1	34:BA:1778:U:H3	1.63	0.47
34:BA:1797:A:H4'	34:BA:1798:G:O4'	2.15	0.47
35:BB:13:A:H3'	35:BB:13:A:C8	2.49	0.47
35:BB:34:G:C4	35:BB:35:G:C8	3.02	0.47
35:BB:85:A:C6	35:BB:91:G:C4	3.02	0.47
35:BB:133:G:C2	35:BB:369:A:C4	3.02	0.47
35:BB:363:A:O5'	53:BT:143:HIS:CE1	2.68	0.47
35:BB:376:A:H2'	35:BB:377:A:H8	1.77	0.47
35:BB:522:A:O2'	85:AA:2208:G:O2'	2.31	0.47
35:BB:567:G:C5	35:BB:568:A:N7	2.83	0.47
35:BB:635:A:C6	35:BB:636:G:C5	3.03	0.47
35:BB:641:C:C2	35:BB:1399:A:N6	2.83	0.47
35:BB:751:A:H1'	86:AB:56:C:H42	1.80	0.47
35:BB:832:C:C4	35:BB:833:G:C5	3.03	0.47
35:BB:835:C:H2'	35:BB:836:U:C5	2.49	0.47
35:BB:844:G:N2	35:BB:969:C:H1'	2.30	0.47
35:BB:861:C:H4'	35:BB:862:U:C5'	2.44	0.47
35:BB:877:A:H2'	60:Ba:94:GLY:N	2.30	0.47
35:BB:1075:A:C5	35:BB:1076:U:N1	2.82	0.47
35:BB:1082:A:O4'	35:BB:1083:C:C4	2.68	0.47
35:BB:1133:C:N4	35:BB:1134:G:C6	2.83	0.47
35:BB:1141:A:C5	35:BB:1142:C:C5	3.03	0.47
35:BB:1430:G:C6	35:BB:1431:G:C6	3.03	0.47
36:BC:3:C:C2	36:BC:4:G:C8	3.02	0.47
36:BC:119:G:N1	36:BC:145:G:C6	2.82	0.47
36:BC:147:G:C6	36:BC:148:C:N3	2.83	0.47
37:BD:32:A:N3	37:BD:46:G:C2	2.83	0.47
38:BE:122:G:C4	38:BE:123:A:C8	3.03	0.47
39:BF:19:A:N1	39:BF:58:U:C6	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:15:G:N1	40:BG:16:G:C4	2.82	0.47
40:BG:33:G:C4	40:BG:168:A:N1	2.83	0.47
40:BG:34:A:H3'	40:BG:35:G:H8	1.77	0.47
40:BG:116:G:C5	40:BG:117:C:C6	3.03	0.47
40:BG:178:G:H4'	65:Bf:181:PHE:CE1	2.50	0.47
41:BH:5:G:C2	41:BH:131:A:C2	3.03	0.47
41:BH:28:U:H3	41:BH:127:A:H61	1.63	0.47
41:BH:30:C:N4	41:BH:31:A:C6	2.83	0.47
41:BH:34:G:C5	41:BH:121:A:C2	3.02	0.47
41:BH:40:C:C6	41:BH:41:A:C8	3.03	0.47
41:BH:104:U:C5	41:BH:105:U:C4	3.03	0.47
44:BK:170:TYR:CD2	44:BK:175:ASN:HA	2.50	0.47
45:BL:161:VAL:HG22	45:BL:162:ARG:H	1.80	0.47
65:Bf:59:HIS:CD2	65:Bf:60:PRO:O	2.68	0.47
68:Bi:75:PHE:CD2	68:Bi:75:PHE:C	2.92	0.47
75:Bp:54:ASP:CG	75:Bp:58:ARG:HH12	2.23	0.47
77:Br:154:GLU:O	77:Br:157:VAL:HG12	2.15	0.47
81:Bv:39:LEU:HG	81:Bv:80:TYR:O	2.15	0.47
81:Bv:68:TYR:HA	81:Bv:176:HIS:CE1	2.49	0.47
82:Bw:2:PHE:CD2	82:Bw:22:PRO:HD2	2.50	0.47
84:By:170:ILE:HA	84:By:173:PHE:CD2	2.50	0.47
85:AA:33:U:C4	85:AA:538:A:C6	3.03	0.47
85:AA:41:G:C8	85:AA:41:G:OP2	2.68	0.47
85:AA:65:A:C5	85:AA:66:U:O2	2.68	0.47
85:AA:105:A:C4	85:AA:373:G:N2	2.83	0.47
85:AA:125:A:C4	85:AA:126:U:C2	3.02	0.47
85:AA:248:U:C4	85:AA:249:C:C5	3.03	0.47
85:AA:381:A:N1	85:AA:416:U:C5	2.82	0.47
85:AA:399:A:C2	85:AA:400:G:C5	3.03	0.47
85:AA:466:A:N3	85:AA:466:A:H2'	2.29	0.47
85:AA:550:G:C2	85:AA:579:U:O2	2.67	0.47
85:AA:562:C:C6	85:AA:564:A:OP2	2.68	0.47
85:AA:597:A:C6	85:AA:598:C:C5	3.03	0.47
85:AA:605:A:N7	85:AA:608:A:H5''	2.30	0.47
85:AA:639:C:C4	85:AA:651:G:C6	3.03	0.47
85:AA:678:A:N6	85:AA:679:A:C6	2.82	0.47
85:AA:699:U:C6	85:AA:699:U:O5'	2.68	0.47
85:AA:761:G:C4	85:AA:1036:A:C5	3.03	0.47
85:AA:799:G:H3'	85:AA:800:A:C8	2.50	0.47
85:AA:886:A:OP2	85:AA:886:A:C8	2.67	0.47
85:AA:959:C:C3'	85:AA:960:G:C8	2.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:976:G:C2	85:AA:977:U:C6	3.03	0.47
85:AA:1007:G:C6	85:AA:1008:C:C4	3.03	0.47
85:AA:1029:G:C5	85:AA:1041:U:C4	3.02	0.47
85:AA:1286:C:O2	85:AA:1286:C:H2'	2.15	0.47
85:AA:1452:C:H2'	85:AA:1453:U:C6	2.50	0.47
85:AA:1875:A:C2	85:AA:1876:U:O2	2.68	0.47
85:AA:1877:G:C5	85:AA:1878:C:C4	3.03	0.47
85:AA:1903:G:C5	85:AA:1904:C:C5	3.02	0.47
85:AA:1923:A:C5	85:AA:1990:U:O2	2.68	0.47
85:AA:2138:G:H2'	85:AA:2139:G:O4'	2.14	0.47
85:AA:2193:A:C2	85:AA:2194:U:C2	3.02	0.47
86:AB:7:A:C6	86:AB:67:C:C2	3.03	0.47
86:AB:58:A:H1'	86:AB:60:U:C5	2.49	0.47
5:A4:191:MET:SD	5:A4:192:TRP:N	2.88	0.47
7:A6:18:PHE:CB	85:AA:628:C:H4'	2.44	0.47
7:A6:18:PHE:CD2	85:AA:629:A:C8	3.03	0.47
17:AI:45:HIS:HA	85:AA:2015:U:OP2	2.15	0.47
20:AL:85:VAL:HB	20:AL:86:PRO:HD3	1.96	0.47
22:AO:36:SER:HA	22:AO:39:PHE:CD2	2.50	0.47
23:AP:43:TRP:CE2	23:AP:75:GLN:HB2	2.48	0.47
26:AS:27:TRP:NE1	26:AS:31:HIS:CE1	2.82	0.47
27:AT:69:THR:HG21	85:AA:600:C:C2	2.49	0.47
29:AV:91:ARG:CZ	85:AA:2248:A:C6	2.98	0.47
34:BA:18:G:H1	36:BC:149:A:N6	2.13	0.47
34:BA:27:G:C4	34:BA:52:G:N1	2.83	0.47
34:BA:57:A:C2	34:BA:58:A:C4	3.03	0.47
34:BA:65:A:H5''	50:BQ:194:LYS:HA	1.97	0.47
34:BA:108:A:C2	34:BA:386:A:N7	2.83	0.47
34:BA:135:G:C6	34:BA:136:A:C6	3.03	0.47
34:BA:188:C:H3'	34:BA:189:G:C8	2.49	0.47
34:BA:216:C:C4	34:BA:217:C:C4	3.03	0.47
34:BA:232:U:C4	34:BA:233:U:C5	3.03	0.47
34:BA:321:G:C5	34:BA:322:U:C5	3.03	0.47
34:BA:402:G:C2	34:BA:404:C:C5	3.03	0.47
34:BA:463:A:C6	34:BA:466:G:C4	3.03	0.47
34:BA:596:G:H1'	34:BA:1494:G:N1	2.30	0.47
34:BA:706:C:O2	71:BL:133:ALA:HB1	2.14	0.47
34:BA:755:G:C8	34:BA:755:G:H3'	2.50	0.47
34:BA:785:G:C6	34:BA:786:U:C2	3.03	0.47
34:BA:901:C:N3	34:BA:902:C:C5	2.83	0.47
34:BA:923:C:O5'	34:BA:923:C:C6	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1093:G:N2	34:BA:1165:A:C4	2.83	0.47
34:BA:1102:A:C6	34:BA:1103:G:C5	3.02	0.47
34:BA:1114:G:C6	34:BA:1115:A:C5	3.03	0.47
34:BA:1136:A:C5	34:BA:1137:U:C6	3.02	0.47
34:BA:1223:C:C2'	34:BA:1224:A:C8	2.98	0.47
34:BA:1300:G:C5	34:BA:1440:C:N3	2.83	0.47
34:BA:1327:G:C4	34:BA:1328:U:C6	3.03	0.47
34:BA:1339:G:H5''	34:BA:1340:G:C8	2.50	0.47
34:BA:1409:A:H2'	34:BA:1410:C:C6	2.50	0.47
34:BA:1421:A:H1'	34:BA:1422:A:C2	2.49	0.47
34:BA:1429:A:C2	34:BA:1430:C:H1'	2.50	0.47
34:BA:1438:C:C4	34:BA:1439:C:C5	3.02	0.47
34:BA:1531:G:C2	34:BA:1532:G:C5	3.03	0.47
34:BA:1540:C:O3'	68:Bi:103:ALA:HB3	2.15	0.47
34:BA:1616:A:H4'	34:BA:1617:U:N3	2.29	0.47
34:BA:1695:G:C4	34:BA:1696:G:C8	3.02	0.47
34:BA:1697:U:OP2	34:BA:1697:U:H2'	2.14	0.47
34:BA:1727:A:C4	57:BX:54:PHE:CE2	3.03	0.47
34:BA:1739:G:C2	34:BA:1785:G:N1	2.72	0.47
35:BB:643:G:C5	35:BB:644:A:N6	2.82	0.47
35:BB:804:U:H2'	35:BB:805:G:C4'	2.44	0.47
35:BB:839:G:H4'	35:BB:1025:A:C6	2.50	0.47
35:BB:963:G:C2	35:BB:964:G:C4	3.03	0.47
35:BB:997:G:O6	35:BB:998:G:C5	2.68	0.47
35:BB:1066:G:C6	35:BB:1067:G:C6	3.03	0.47
35:BB:1128:U:H6	35:BB:1128:U:O5'	1.98	0.47
35:BB:1164:U:C2	35:BB:1188:A:C2	3.03	0.47
35:BB:1174:C:N3	35:BB:1176:G:C6	2.83	0.47
35:BB:1190:U:C2	35:BB:1191:G:C8	3.03	0.47
35:BB:1233:U:O4'	61:Bb:58:MET:HE1	2.15	0.47
35:BB:1337:C:H2'	35:BB:1338:U:C6	2.50	0.47
35:BB:1401:G:C5	35:BB:1402:U:N3	2.82	0.47
35:BB:1415:G:C6	35:BB:1434:G:N1	2.83	0.47
36:BC:27:U:C2	36:BC:28:C:C5	3.03	0.47
36:BC:117:A:H2'	36:BC:118:U:C6	2.49	0.47
36:BC:120:G:H2'	36:BC:121:G:C8	2.49	0.47
37:BD:87:G:C2	37:BD:91:U:N3	2.83	0.47
38:BE:13:A:H3'	38:BE:14:C:H6	1.79	0.47
38:BE:96:G:C4	38:BE:97:G:C8	3.03	0.47
38:BE:101:C:N3	38:BE:117:A:C2	2.83	0.47
38:BE:107:U:C5	38:BE:108:U:H5	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:148:C:H2'	38:BE:149:A:O4'	2.14	0.47
38:BE:179:A:C5'	38:BE:182:U:H3	2.27	0.47
40:BG:78:C:H5''	40:BG:79:U:OP2	2.15	0.47
40:BG:87:G:N2	40:BG:88:G:C4	2.83	0.47
40:BG:166:C:C2	40:BG:167:C:H5	2.33	0.47
41:BH:7:C:C6	41:BH:8:C:C6	3.03	0.47
41:BH:35:G:C8	41:BH:36:C:C5	3.03	0.47
41:BH:44:A:C2	41:BH:45:G:H1'	2.50	0.47
41:BH:111:U:C6	41:BH:112:U:C5	3.02	0.47
44:BK:38:LYS:O	44:BK:86:HIS:CD2	2.68	0.47
49:BP:46:MET:HE3	49:BP:46:MET:HB3	1.56	0.47
56:BW:56:LEU:HD22	56:BW:121:ALA:HB2	1.96	0.47
56:BW:122:LYS:HB2	56:BW:139:VAL:HG21	1.97	0.47
60:Ba:25:VAL:HA	60:Ba:88:LEU:HD22	1.96	0.47
60:Ba:66:GLN:O	60:Ba:67:VAL:HG23	2.15	0.47
65:Bf:201:LEU:HA	65:Bf:204:PHE:CD2	2.50	0.47
65:Bf:299:HIS:CG	65:Bf:300:ARG:N	2.82	0.47
66:Bg:94:ARG:O	66:Bg:95:HIS:CD2	2.68	0.47
67:Bh:72:SER:HA	67:Bh:76:ARG:HG3	1.97	0.47
68:Bi:42:PRO:HB2	68:Bi:50:GLN:HE22	1.80	0.47
77:Br:182:VAL:C	77:Br:184:ASP:H	2.22	0.47
77:Br:261:ILE:HG22	77:Br:262:PHE:CZ	2.50	0.47
78:Bs:19:VAL:HG22	78:Bs:46:ARG:O	2.14	0.47
79:Bt:28:TYR:CG	79:Bt:29:LYS:N	2.83	0.47
80:Bu:120:VAL:HG22	80:Bu:120:VAL:O	2.14	0.47
85:AA:22:A:N6	85:AA:678:A:C6	2.83	0.47
85:AA:53:G:C6	85:AA:493:A:N1	2.83	0.47
85:AA:118:C:N3	85:AA:119:G:C6	2.83	0.47
85:AA:188:G:C8	85:AA:252:G:C2	3.03	0.47
85:AA:240:A:C2	85:AA:242:G:C2	3.02	0.47
85:AA:271:A:C2	85:AA:272:C:C6	3.03	0.47
85:AA:285:C:C4	85:AA:286:C:C5	3.03	0.47
85:AA:322:A:C6	85:AA:323:U:C4	3.03	0.47
85:AA:378:A:N3	85:AA:380:C:H3'	2.30	0.47
85:AA:420:C:C2	85:AA:421:G:C8	3.02	0.47
85:AA:474:C:C4	85:AA:475:A:N7	2.83	0.47
85:AA:519:A:H2'	85:AA:521:A:N7	2.30	0.47
85:AA:576:U:H2'	85:AA:577:U:H5''	1.95	0.47
85:AA:652:U:O5'	85:AA:652:U:C6	2.68	0.47
85:AA:720:A:C6	85:AA:781:G:C6	3.03	0.47
85:AA:720:A:C4	85:AA:781:G:C2	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:722:G:N7	85:AA:723:U:C4	2.83	0.47
85:AA:790:A:OP1	85:AA:793:C:C5	2.67	0.47
85:AA:874:A:C2	85:AA:875:C:N1	2.83	0.47
85:AA:886:A:C2	85:AA:887:A:H4'	2.49	0.47
85:AA:890:U:O2	85:AA:918:U:C5	2.68	0.47
85:AA:939:A:C4	85:AA:939:A:C3'	2.94	0.47
85:AA:984:A:C2	85:AA:985:G:N9	2.83	0.47
85:AA:1089:G:C5	85:AA:1090:A:C8	3.03	0.47
85:AA:1186:C:C2	85:AA:1187:G:C8	3.03	0.47
85:AA:1257:A:N3	85:AA:1257:A:C2'	2.78	0.47
85:AA:1268:C:H2'	85:AA:1269:A:O4'	2.14	0.47
85:AA:1290:G:C2	85:AA:1291:A:C5	3.03	0.47
85:AA:1456:A:C8	85:AA:1456:A:C3'	2.97	0.47
85:AA:1464:G:C2	85:AA:1465:C:C2	3.02	0.47
85:AA:1488:G:N2	85:AA:1512:U:H1'	2.29	0.47
85:AA:1516:A:H2'	85:AA:1517:G:O4'	2.14	0.47
85:AA:1618:G:H3'	85:AA:1619:A:H8	1.77	0.47
85:AA:1652:A:C2	85:AA:1877:G:C1'	2.98	0.47
85:AA:1732:G:C6	85:AA:1733:G:C5	3.03	0.47
85:AA:1934:A:C2	85:AA:1935:G:C4	3.03	0.47
85:AA:1968:A:C5	85:AA:1969:A:C4	3.03	0.47
85:AA:2042:G:N1	85:AA:2043:A:C6	2.82	0.47
85:AA:2059:A:H3'	85:AA:2060:G:H8	1.79	0.47
85:AA:2141:G:C2	85:AA:2142:A:C8	3.03	0.47
85:AA:2155:U:H3	85:AA:2163:G:H1	1.62	0.47
1:A0:116:LEU:HA	1:A0:144:PHE:CE2	2.50	0.47
2:A1:68:CYS:HA	2:A1:73:PRO:O	2.14	0.47
3:A2:7:LYS:HG2	3:A2:13:SER:HA	1.96	0.47
3:A2:46:ARG:HA	3:A2:49:LYS:CE	2.45	0.47
5:A4:13:LEU:HG	5:A4:48:ILE:HG12	1.97	0.47
5:A4:106:LYS:HG2	5:A4:107:ARG:H	1.80	0.47
6:A5:74:GLN:HB2	6:A5:109:PHE:CZ	2.50	0.47
7:A6:18:PHE:HB2	85:AA:628:C:C4'	2.45	0.47
7:A6:33:TYR:CG	7:A6:104:LEU:HD22	2.49	0.47
11:AC:227:ARG:C	11:AC:229:VAL:H	2.23	0.47
12:AD:71:PHE:HB3	12:AD:73:TRP:CE2	2.50	0.47
13:AE:49:ARG:NE	13:AE:50:TYR:H	2.12	0.47
13:AE:58:PHE:CD1	13:AE:58:PHE:N	2.81	0.47
13:AE:143:GLN:HA	13:AE:153:TYR:CD1	2.50	0.47
22:AO:133:CYS:SG	22:AO:134:LYS:HG3	2.55	0.47
23:AP:43:TRP:CH2	23:AP:74:HIS:CG	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AP:52:LEU:HD13	23:AP:256:PHE:CE1	2.49	0.47
27:AT:95:ASN:HA	27:AT:98:LYS:HG3	1.97	0.47
30:AW:48:TYR:CD1	30:AW:50:HIS:O	2.68	0.47
34:BA:10:G:C2	34:BA:11:U:C4	3.02	0.47
34:BA:24:C:C6	34:BA:24:C:O5'	2.68	0.47
34:BA:55:G:H21	34:BA:57:A:H1'	1.80	0.47
34:BA:152:C:C5	72:Bm:37:ARG:NH2	2.83	0.47
34:BA:196:A:N6	34:BA:281:C:N3	2.63	0.47
34:BA:248:G:H1'	34:BA:437:G:C6	2.49	0.47
34:BA:260:A:H1'	77:Br:217:ARG:NH1	2.30	0.47
34:BA:266:G:C2	34:BA:277:A:C4	3.03	0.47
34:BA:295:G:H5''	73:Bn:79:LYS:HB2	1.97	0.47
34:BA:300:C:N3	34:BA:301:U:C6	2.83	0.47
34:BA:337:C:N3	34:BA:338:U:C4	2.83	0.47
34:BA:346:A:C4	79:Bt:41:ARG:CZ	2.97	0.47
34:BA:403:A:H4'	77:Br:198:ARG:NH1	2.30	0.47
34:BA:491:U:H2'	34:BA:492:G:H5'	1.97	0.47
34:BA:519:G:N1	34:BA:1491:U:H4'	2.30	0.47
34:BA:532:C:C6	34:BA:532:C:C3'	2.97	0.47
34:BA:605:G:C5	34:BA:606:G:C5	3.02	0.47
34:BA:629:G:C4	34:BA:654:C:O2	2.68	0.47
34:BA:686:U:C4	34:BA:687:G:N7	2.83	0.47
34:BA:718:U:C4	34:BA:719:G:C6	3.03	0.47
34:BA:758:G:C8	34:BA:759:A:N9	2.83	0.47
34:BA:825:G:C6	34:BA:826:C:C4	3.03	0.47
34:BA:925:G:C4	34:BA:999:G:C6	3.03	0.47
34:BA:1007:G:C5	34:BA:1024:A:N7	2.83	0.47
34:BA:1082:U:H1'	34:BA:1206:C:C6	2.49	0.47
34:BA:1084:A:H2'	34:BA:1085:G:N9	2.30	0.47
34:BA:1090:A:C4	34:BA:1091:U:C6	3.03	0.47
34:BA:1092:U:N3	34:BA:1093:G:C5	2.83	0.47
34:BA:1223:C:O2'	34:BA:1224:A:C8	2.64	0.47
34:BA:1288:U:H2'	34:BA:1289:C:O4'	2.15	0.47
34:BA:1488:C:C5	34:BA:1489:U:O4	2.68	0.47
34:BA:1790:U:P	34:BA:1790:U:H6	2.38	0.47
35:BB:130:G:C6	35:BB:131:A:C5	3.03	0.47
35:BB:403:U:H3	35:BB:413:A:H61	1.62	0.47
35:BB:413:A:C2	35:BB:414:C:C2	3.03	0.47
35:BB:436:G:O6	35:BB:438:G:C4	2.68	0.47
35:BB:620:G:N2	35:BB:621:C:H1'	2.30	0.47
35:BB:624:A:H2'	35:BB:625:A:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:630:A:C2	35:BB:643:G:C5	3.03	0.47
35:BB:667:G:H5'	35:BB:668:A:OP2	2.15	0.47
35:BB:1153:G:C5	35:BB:1154:C:C4	3.03	0.47
35:BB:1169:A:C2	35:BB:1184:C:C2	3.03	0.47
35:BB:1208:G:C4	35:BB:1253:U:C5	3.03	0.47
35:BB:1254:G:O4'	35:BB:1256:C:C2	2.68	0.47
35:BB:1335:G:O6	35:BB:1336:G:C6	2.68	0.47
35:BB:1350:A:C8	40:BG:158:A:N7	2.83	0.47
35:BB:1529:G:C6	35:BB:1540:U:N3	2.83	0.47
36:BC:24:G:H3'	36:BC:25:C:C6	2.49	0.47
36:BC:49:G:C6	36:BC:50:C:C4	3.02	0.47
36:BC:88:A:O5'	36:BC:88:A:C8	2.68	0.47
36:BC:132:U:H2'	36:BC:133:C:O4'	2.15	0.47
36:BC:145:G:C6	36:BC:146:U:C5	3.03	0.47
36:BC:147:G:C2	36:BC:148:C:C2	3.03	0.47
37:BD:31:U:C4	37:BD:32:A:N7	2.83	0.47
37:BD:56:G:H3'	37:BD:57:C:C5	2.49	0.47
37:BD:74:A:H4'	37:BD:76:U:H1'	1.96	0.47
38:BE:45:G:C5	38:BE:46:G:N7	2.82	0.47
38:BE:93:U:C2	38:BE:94:U:C4	3.03	0.47
38:BE:165:U:C3'	38:BE:166:G:H8	2.28	0.47
38:BE:201:A:N7	38:BE:202:C:C5	2.82	0.47
39:BF:58:U:O5'	39:BF:58:U:C6	2.68	0.47
39:BF:64:U:H5'	49:BP:119:SER:HB2	1.97	0.47
41:BH:68:G:C2	41:BH:69:C:C2	3.02	0.47
42:BI:79:LYS:HZ2	63:Bd:68:ALA:HB3	1.77	0.47
44:BK:98:ARG:HB3	44:BK:120:GLY:HA3	1.96	0.47
45:BL:27:ASN:OD1	45:BL:73:ALA:HB1	2.15	0.47
49:BP:126:LYS:O	49:BP:128:PHE:HA	2.15	0.47
50:BQ:35:VAL:HG13	50:BQ:36:MET:SD	2.55	0.47
52:BS:82:TYR:HA	52:BS:122:ASN:O	2.15	0.47
57:BX:49:TYR:CD2	57:BX:49:TYR:N	2.82	0.47
59:BZ:109:ASN:H	59:BZ:112:ARG:CG	2.28	0.47
61:Bb:99:ILE:HB	61:Bb:121:VAL:HA	1.97	0.47
64:Be:186:PHE:CD1	64:Be:186:PHE:C	2.91	0.47
65:Bf:188:ALA:O	65:Bf:191:THR:HG22	2.14	0.47
65:Bf:299:HIS:CG	65:Bf:300:ARG:H	2.33	0.47
65:Bf:410:GLU:CG	65:Bf:412:ILE:HG23	2.43	0.47
66:Bg:21:ILE:HA	66:Bg:24:LYS:HE3	1.97	0.47
69:Bj:41:GLN:H	69:Bj:61:ARG:HB2	1.80	0.47
73:Bn:28:HIS:CD2	73:Bn:28:HIS:C	2.91	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:Bp:33:LYS:CG	75:Bp:46:VAL:HG13	2.44	0.47
80:Bu:202:ARG:O	80:Bu:206:PHE:CD2	2.68	0.47
82:Bw:62:ARG:HH11	82:Bw:198:ASP:CG	2.22	0.47
84:By:18:SER:HB2	84:By:25:THR:N	2.29	0.47
85:AA:100:A:N6	85:AA:424:A:C2	2.83	0.47
85:AA:172:A:C6	85:AA:173:A:C6	3.03	0.47
85:AA:311:U:N3	85:AA:314:C:OP2	2.48	0.47
85:AA:364:C:H2'	85:AA:365:G:O4'	2.14	0.47
85:AA:425:G:O2'	85:AA:426:C:H4'	2.15	0.47
85:AA:534:A:C6	85:AA:535:G:C8	3.03	0.47
85:AA:658:C:C2	85:AA:659:A:C8	3.02	0.47
85:AA:698:G:C6	85:AA:699:U:C4	3.03	0.47
85:AA:704:A:C2	85:AA:1219:A:C4	3.02	0.47
85:AA:740:A:C2	85:AA:769:C:H1'	2.50	0.47
85:AA:741:G:O6	85:AA:762:U:C6	2.68	0.47
85:AA:750:A:H3'	85:AA:750:A:C8	2.50	0.47
85:AA:809:A:N1	85:AA:870:U:C4	2.83	0.47
85:AA:877:G:H1	85:AA:928:U:H3	1.61	0.47
85:AA:902:A:OP2	85:AA:902:A:C8	2.68	0.47
85:AA:966:G:H2'	85:AA:967:C:O4'	2.15	0.47
85:AA:989:U:C6	85:AA:991:G:OP2	2.67	0.47
85:AA:995:G:N2	85:AA:996:A:H1'	2.29	0.47
85:AA:1095:C:H2'	85:AA:1096:G:C8	2.50	0.47
85:AA:1137:C:C3'	85:AA:1138:U:H5''	2.45	0.47
85:AA:1140:G:C2	85:AA:1141:U:H1'	2.49	0.47
85:AA:1184:A:O2'	85:AA:1185:G:H5'	2.14	0.47
85:AA:1251:G:C6	85:AA:1252:A:C6	3.03	0.47
85:AA:1449:C:C2	85:AA:1450:U:C1'	2.98	0.47
85:AA:1515:A:C5	85:AA:1516:A:C5	3.03	0.47
85:AA:1517:G:H5''	85:AA:1517:G:C8	2.49	0.47
85:AA:1541:G:N3	85:AA:1542:A:C8	2.83	0.47
85:AA:1923:A:C8	85:AA:2074:G:H4'	2.49	0.47
85:AA:2120:C:C5	85:AA:2121:G:N7	2.83	0.47
86:AB:69:G:C2	86:AB:70:G:C2	3.03	0.47
1:A0:40:VAL:HG12	1:A0:43:PHE:HA	1.98	0.46
13:AE:103:ARG:HE	13:AE:120:HIS:CD2	2.32	0.46
16:AH:49:VAL:HA	16:AH:53:MET:SD	2.55	0.46
18:AJ:101:PHE:N	18:AJ:101:PHE:CD1	2.82	0.46
20:AL:20:TYR:OH	31:AX:208:GLU:N	2.48	0.46
22:AO:74:CYS:HA	22:AO:120:CYS:SG	2.55	0.46
27:AT:65:PHE:CE1	27:AT:81:LEU:HG	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AT:126:GLY:CA	85:AA:152:A:H4'	2.39	0.46
28:AU:27:LYS:HD3	85:AA:2003:C:H5''	1.97	0.46
31:AX:166:PHE:CZ	31:AX:200:LEU:HD21	2.50	0.46
34:BA:94:G:N7	34:BA:95:C:C5	2.82	0.46
34:BA:152:C:C2	72:Bm:37:ARG:NE	2.82	0.46
34:BA:214:A:C3'	34:BA:215:C:C5	2.96	0.46
34:BA:257:G:C5	34:BA:258:C:C5	3.02	0.46
34:BA:331:G:C4	34:BA:356:C:C4	3.04	0.46
34:BA:399:G:C6	34:BA:400:A:C5	3.02	0.46
34:BA:401:A:C2	34:BA:402:G:C5	3.03	0.46
34:BA:409:A:C6	34:BA:410:G:C2	3.04	0.46
34:BA:413:A:C1'	34:BA:417:A:C2	2.98	0.46
34:BA:580:U:C6	34:BA:580:U:C3'	2.98	0.46
34:BA:589:A:N3	34:BA:590:U:C6	2.83	0.46
34:BA:627:U:C6	34:BA:627:U:H3'	2.49	0.46
34:BA:676:G:N7	34:BA:677:U:C4	2.83	0.46
34:BA:799:A:O4'	34:BA:857:C:H4'	2.15	0.46
34:BA:803:U:C2	34:BA:804:G:N7	2.84	0.46
34:BA:941:G:C6	34:BA:942:G:C5	3.03	0.46
34:BA:946:A:C5	34:BA:947:A:C8	3.03	0.46
34:BA:958:G:H3'	34:BA:994:G:OP2	2.14	0.46
34:BA:994:G:C5	34:BA:996:U:C4	3.03	0.46
34:BA:1091:U:N3	34:BA:1092:U:C4	2.83	0.46
34:BA:1107:A:N1	34:BA:1108:U:C2	2.83	0.46
34:BA:1129:U:C5	34:BA:1130:U:C2	3.03	0.46
34:BA:1219:G:C2	34:BA:1220:C:C2	3.03	0.46
34:BA:1239:G:C5	34:BA:1240:G:C5	3.02	0.46
34:BA:1241:U:C5	34:BA:1242:A:N7	2.83	0.46
34:BA:1302:C:C2	34:BA:1303:U:C6	3.03	0.46
34:BA:1333:G:C2'	34:BA:1334:G:H5''	2.45	0.46
34:BA:1335:A:C4	34:BA:1336:U:C5	3.02	0.46
34:BA:1348:G:C5	34:BA:1349:A:C8	3.04	0.46
34:BA:1358:A:C8	34:BA:1359:U:C5	3.03	0.46
34:BA:1482:A:C4	34:BA:1483:U:C5	3.03	0.46
34:BA:1533:G:H4'	77:Br:240:PRO:HB2	1.96	0.46
34:BA:1614:G:O6	34:BA:1616:A:C5	2.67	0.46
34:BA:1637:G:C6	34:BA:1638:U:O4	2.68	0.46
34:BA:1680:G:C6	34:BA:1682:A:C5	3.04	0.46
35:BB:3:C:OP1	35:BB:3:C:H4'	2.15	0.46
35:BB:80:C:C4	35:BB:602:G:C8	3.03	0.46
35:BB:138:A:C2'	35:BB:362:A:H61	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:361:A:C6	35:BB:362:A:C4	3.03	0.46
35:BB:364:U:C5	35:BB:365:U:N3	2.83	0.46
35:BB:482:A:C8	35:BB:482:A:H3'	2.49	0.46
35:BB:488:G:H2'	35:BB:490:G:OP1	2.15	0.46
35:BB:512:C:C2	35:BB:513:G:H1'	2.49	0.46
35:BB:669:A:C6	35:BB:1329:G:C2	3.02	0.46
35:BB:942:G:C2	35:BB:943:U:C2	3.03	0.46
35:BB:960:C:C2	35:BB:961:G:C8	3.03	0.46
35:BB:1004:A:H2	35:BB:1015:U:H1'	1.79	0.46
35:BB:1014:U:N3	35:BB:1015:U:C5	2.83	0.46
35:BB:1026:G:N7	35:BB:1027:U:C4	2.83	0.46
35:BB:1168:G:N1	35:BB:1185:G:N1	2.63	0.46
35:BB:1535:G:OP1	41:BH:27:A:C6	2.68	0.46
36:BC:6:G:H2'	36:BC:7:U:C5	2.50	0.46
36:BC:22:U:C5	59:BZ:17:PHE:CD2	3.03	0.46
36:BC:26:U:H5'	77:Br:53:VAL:HA	1.97	0.46
36:BC:31:A:H1'	36:BC:32:U:P	2.55	0.46
36:BC:46:G:N3	36:BC:61:A:C2	2.83	0.46
36:BC:108:A:C2	36:BC:113:G:C5	3.03	0.46
36:BC:109:A:H1'	36:BC:111:C:H5	1.81	0.46
37:BD:23:A:C8	37:BD:23:A:H3'	2.50	0.46
38:BE:3:G:N1	38:BE:7:U:N3	2.63	0.46
38:BE:4:A:C5'	60:Ba:72:ARG:HE	2.28	0.46
38:BE:26:G:OP1	69:Bj:41:GLN:C	2.59	0.46
38:BE:76:U:C2	38:BE:85:G:N1	2.83	0.46
38:BE:148:C:C4	38:BE:149:A:C6	3.02	0.46
39:BF:32:G:H2'	39:BF:32:G:N3	2.30	0.46
39:BF:41:U:H1'	39:BF:42:G:C6	2.49	0.46
39:BF:66:C:C4	39:BF:67:A:C8	3.03	0.46
40:BG:39:A:N1	40:BG:72:G:H4'	2.30	0.46
40:BG:49:A:H5'	40:BG:51:U:O4'	2.15	0.46
40:BG:60:A:C6	40:BG:61:A:C5	3.03	0.46
40:BG:64:C:C5	40:BG:65:C:C5	3.04	0.46
40:BG:129:G:C6	40:BG:130:G:C5	3.02	0.46
41:BH:31:A:C6	41:BH:32:U:O4	2.68	0.46
41:BH:57:A:N1	41:BH:65:G:C6	2.84	0.46
47:BN:60:ARG:NE	47:BN:77:GLY:O	2.48	0.46
53:BT:190:ARG:HH21	53:BT:191:ASP:CG	2.22	0.46
54:BU:22:HIS:CD2	54:BU:22:HIS:H	2.33	0.46
66:Bg:25:ILE:HA	66:Bg:28:VAL:HG23	1.97	0.46
67:Bh:148:ARG:H	67:Bh:172:HIS:CE1	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:Bk:74:TYR:HB3	70:Bk:82:ALA:HA	1.97	0.46
72:Bm:94:ARG:HA	72:Bm:97:LYS:CE	2.45	0.46
74:Bo:49:ARG:CG	74:Bo:53:GLY:H	2.28	0.46
75:Bp:19:ASP:CG	75:Bp:20:ALA:H	2.23	0.46
79:Bt:17:CYS:SG	79:Bt:18:ASN:C	2.99	0.46
81:Bv:188:HIS:H	81:Bv:188:HIS:CE1	2.31	0.46
83:Bx:178:TRP:CH2	83:Bx:179:MET:SD	3.08	0.46
85:AA:15:U:O4'	85:AA:693:A:C6	2.67	0.46
85:AA:128:U:H1'	85:AA:180:A:C4'	2.46	0.46
85:AA:151:A:N1	85:AA:172:A:C5	2.83	0.46
85:AA:275:A:C2	85:AA:276:C:C2	3.02	0.46
85:AA:382:G:N1	85:AA:415:G:C4	2.83	0.46
85:AA:454:G:C5	85:AA:455:G:C5	3.02	0.46
85:AA:494:G:C8	85:AA:494:G:H5''	2.50	0.46
85:AA:494:G:C3'	85:AA:495:G:H5''	2.45	0.46
85:AA:513:G:C2	85:AA:530:A:C2	3.03	0.46
85:AA:515:C:H2'	85:AA:516:G:C8	2.50	0.46
85:AA:541:A:C8	85:AA:541:A:O5'	2.69	0.46
85:AA:576:U:C2'	85:AA:577:U:H5'	2.45	0.46
85:AA:577:U:C6	85:AA:577:U:OP2	2.68	0.46
85:AA:592:C:C2	85:AA:601:A:C2	3.03	0.46
85:AA:595:A:C6	85:AA:596:A:C6	3.03	0.46
85:AA:602:U:H3'	85:AA:603:C:C5'	2.45	0.46
85:AA:669:G:C2	85:AA:670:C:C2	3.03	0.46
85:AA:678:A:H2'	85:AA:679:A:O4'	2.15	0.46
85:AA:690:G:C6	85:AA:696:G:C6	3.03	0.46
85:AA:771:A:H2'	85:AA:773:G:N7	2.30	0.46
85:AA:781:G:C6	85:AA:782:G:C5	3.02	0.46
85:AA:880:A:H2'	85:AA:881:C:C6	2.51	0.46
85:AA:1203:G:C4	85:AA:1204:A:C8	3.03	0.46
85:AA:1216:A:C6	85:AA:1217:U:C4	3.03	0.46
85:AA:1362:A:C4	85:AA:1363:U:C5	3.03	0.46
85:AA:1466:U:O2'	85:AA:1467:U:H6	1.98	0.46
85:AA:1495:G:C6	85:AA:1496:U:N3	2.83	0.46
85:AA:1549:G:H4'	85:AA:2036:A:C2	2.50	0.46
85:AA:1559:U:H2'	85:AA:1560:A:C3'	2.45	0.46
85:AA:1582:U:C5	85:AA:1583:U:C4	3.03	0.46
85:AA:1591:U:H2'	85:AA:1592:C:C6	2.50	0.46
85:AA:1692:U:C4	85:AA:1693:C:C4	3.03	0.46
85:AA:1916:A:C2	85:AA:1997:G:C4	3.03	0.46
85:AA:2145:G:C2	85:AA:2146:G:N3	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2238:C:H2'	85:AA:2239:A:C8	2.49	0.46
86:AB:31:A:C6	86:AB:32:U:C4	3.02	0.46
3:A2:29:THR:O	3:A2:53:PRO:HA	2.15	0.46
4:A3:54:ARG:HD3	4:A3:54:ARG:C	2.40	0.46
4:A3:109:ILE:HG22	4:A3:111:VAL:N	2.30	0.46
4:A3:118:LYS:CE	58:BY:80:VAL:O	2.63	0.46
13:AE:42:VAL:HG22	85:AA:970:U:H4'	1.97	0.46
15:AG:77:HIS:CE1	85:AA:1107:A:H2	2.33	0.46
16:AH:128:VAL:H	85:AA:1136:A:H5''	1.80	0.46
21:AM:42:ALA:C	21:AM:44:MET:H	2.22	0.46
23:AP:234:PHE:O	25:AR:28:LEU:HD11	2.15	0.46
27:AT:10:VAL:HB	27:AT:37:TRP:CE3	2.49	0.46
31:AX:166:PHE:CE1	31:AX:193:MET:SD	3.08	0.46
32:AY:57:MET:C	32:AY:60:GLN:HE22	2.21	0.46
33:AZ:92:LEU:HB3	33:AZ:95:THR:HG22	1.96	0.46
34:BA:9:A:N1	36:BC:162:C:N3	2.63	0.46
34:BA:20:A:H3'	34:BA:20:A:C8	2.50	0.46
34:BA:23:A:C4	34:BA:395:G:C5	3.04	0.46
34:BA:127:U:C6	34:BA:127:U:O5'	2.68	0.46
34:BA:210:G:C2	34:BA:223:U:N3	2.83	0.46
34:BA:244:A:C5	34:BA:245:U:C5	3.03	0.46
34:BA:395:G:C2	36:BC:34:U:C4	3.03	0.46
34:BA:428:C:H2'	34:BA:429:G:H5'	1.97	0.46
34:BA:474:A:C2	34:BA:475:A:C4	3.03	0.46
34:BA:496:G:C2	34:BA:497:U:C2	3.04	0.46
34:BA:496:G:C5	34:BA:497:U:C5	3.03	0.46
34:BA:513:U:C4	34:BA:690:G:N1	2.83	0.46
34:BA:590:U:O2	34:BA:590:U:H2'	2.15	0.46
34:BA:672:G:H1'	77:Br:339:MET:HE2	1.95	0.46
34:BA:724:A:C6	34:BA:725:C:N4	2.83	0.46
34:BA:742:C:N3	47:BN:10:HIS:CD2	2.84	0.46
34:BA:745:A:C6	34:BA:746:C:N3	2.83	0.46
34:BA:750:C:H5'	77:Br:117:HIS:CE1	2.50	0.46
34:BA:805:A:N3	34:BA:807:U:C5	2.83	0.46
34:BA:832:C:C2	34:BA:836:U:O4	2.68	0.46
34:BA:976:C:N4	34:BA:977:G:C6	2.83	0.46
34:BA:1016:A:C8	34:BA:1017:C:C5	3.03	0.46
34:BA:1044:A:C5	34:BA:1525:G:C2	3.03	0.46
34:BA:1052:G:H2'	34:BA:1230:G:H5''	1.96	0.46
34:BA:1327:G:N2	34:BA:1328:U:H1'	2.30	0.46
34:BA:1455:C:C2	34:BA:1456:C:C5	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1485:U:N3	34:BA:1501:U:C2	2.84	0.46
34:BA:1529:G:C5	34:BA:1530:G:C5	3.03	0.46
34:BA:1640:G:H4'	53:BT:23:TRP:HE1	1.81	0.46
34:BA:1643:U:N3	35:BB:60:A:C6	2.83	0.46
34:BA:1708:A:C8	34:BA:1709:A:N7	2.83	0.46
34:BA:1738:G:O5'	34:BA:1738:G:C8	2.67	0.46
34:BA:1816:G:C4	34:BA:1818:A:C5	3.03	0.46
35:BB:102:G:C2	35:BB:103:C:C2	3.03	0.46
35:BB:491:A:H2'	35:BB:492:U:H5'	1.96	0.46
35:BB:562:A:C5	35:BB:563:A:C6	3.03	0.46
35:BB:632:U:C4	35:BB:633:C:C5	3.03	0.46
35:BB:1296:A:C4	35:BB:1309:A:C5	3.04	0.46
35:BB:1415:G:C5	35:BB:1416:A:C8	3.04	0.46
35:BB:1476:C:C4	35:BB:1477:C:C5	3.03	0.46
35:BB:1483:A:N7	35:BB:1484:A:C6	2.83	0.46
36:BC:45:C:H2'	36:BC:46:G:O4'	2.15	0.46
37:BD:13:A:C4	37:BD:110:G:C6	3.04	0.46
37:BD:32:A:N6	37:BD:41:G:H1'	2.30	0.46
38:BE:42:C:C2	38:BE:43:A:C8	3.03	0.46
39:BF:26:U:H2'	39:BF:27:G:C4	2.50	0.46
40:BG:37:G:C2	40:BG:38:A:C4	3.04	0.46
40:BG:79:U:H2'	40:BG:80:G:C8	2.50	0.46
40:BG:88:G:C2	40:BG:112:C:C2	3.03	0.46
40:BG:104:A:C6	40:BG:105:A:C6	3.04	0.46
41:BH:9:C:H3'	41:BH:9:C:O2	2.15	0.46
42:BI:2:GLY:HA3	82:Bw:107:ILE:HG21	1.97	0.46
44:BK:145:VAL:O	44:BK:148:ALA:HB3	2.16	0.46
45:BL:53:VAL:CG2	45:BL:75:HIS:CE1	2.98	0.46
47:BN:40:ARG:O	47:BN:44:ARG:HB2	2.15	0.46
47:BN:111:GLU:CD	72:Bm:26:THR:CB	2.89	0.46
54:BU:65:TRP:CZ3	54:BU:73:GLY:HA3	2.50	0.46
54:BU:71:GLY:HA3	54:BU:92:ARG:HA	1.97	0.46
57:BX:80:ASP:CG	57:BX:81:ALA:N	2.69	0.46
57:BX:98:ILE:HA	57:BX:103:THR:O	2.16	0.46
59:BZ:96:VAL:HG22	59:BZ:97:HIS:N	2.30	0.46
60:Ba:28:THR:HG21	60:Ba:39:HIS:CE1	2.49	0.46
61:Bb:113:GLY:C	61:Bb:114:HIS:ND1	2.73	0.46
73:Bn:49:TRP:CD1	73:Bn:49:TRP:H	2.21	0.46
74:Bo:56:ARG:HA	74:Bo:63:THR:HA	1.96	0.46
85:AA:6:G:C6	85:AA:19:A:C6	3.03	0.46
85:AA:25:C:P	85:AA:26:A:H5''	2.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:31:C:C4	85:AA:32:U:C4	3.03	0.46
85:AA:245:A:H2'	85:AA:246:C:C6	2.51	0.46
85:AA:372:U:O4	85:AA:373:G:C6	2.68	0.46
85:AA:484:G:O2'	85:AA:485:A:H5'	2.15	0.46
85:AA:522:A:C5'	85:AA:523:U:H3'	2.45	0.46
85:AA:538:A:N6	85:AA:669:G:C6	2.83	0.46
85:AA:552:C:C6	85:AA:552:C:O5'	2.67	0.46
85:AA:587:G:N1	85:AA:588:G:C4	2.84	0.46
85:AA:591:A:OP2	85:AA:592:C:C6	2.68	0.46
85:AA:603:C:H4'	85:AA:604:C:H5''	1.96	0.46
85:AA:619:A:O2'	85:AA:620:U:C6	2.68	0.46
85:AA:659:A:C2	85:AA:660:G:N9	2.84	0.46
85:AA:681:G:H8	85:AA:681:G:O5'	1.97	0.46
85:AA:698:G:C6	85:AA:1225:C:C2	3.03	0.46
85:AA:722:G:C6	85:AA:779:G:C2	3.03	0.46
85:AA:885:A:H2'	85:AA:886:A:H8	1.80	0.46
85:AA:894:A:H2'	85:AA:896:C:C5	2.50	0.46
85:AA:903:G:N1	85:AA:913:U:C2	2.83	0.46
85:AA:938:A:H8	85:AA:938:A:O5'	1.97	0.46
85:AA:995:G:C6	85:AA:996:A:C5	3.03	0.46
85:AA:1004:G:C5	85:AA:1005:C:C5	3.02	0.46
85:AA:1006:C:H1'	85:AA:1097:G:C2	2.50	0.46
85:AA:1170:C:N3	85:AA:1171:C:C5	2.83	0.46
85:AA:1220:A:C5	85:AA:1221:G:C4	3.03	0.46
85:AA:1250:A:C6	85:AA:1251:G:C6	3.04	0.46
85:AA:1259:U:C5	85:AA:1260:G:N7	2.83	0.46
85:AA:1441:G:C4	85:AA:1442:U:C5	3.04	0.46
85:AA:1532:G:C5	85:AA:1533:C:C5	3.04	0.46
85:AA:1534:A:C2	85:AA:2089:G:C2	3.04	0.46
85:AA:1540:A:N3	85:AA:1541:G:H1'	2.30	0.46
85:AA:1580:A:N1	85:AA:2021:A:C4	2.83	0.46
85:AA:1637:C:C4	85:AA:1638:C:C5	3.03	0.46
85:AA:1656:C:C4	85:AA:1657:C:C4	3.03	0.46
85:AA:1681:G:O5'	85:AA:1681:G:C8	2.68	0.46
85:AA:1723:U:H3	85:AA:1817:U:H3	1.62	0.46
85:AA:1729:C:C4	85:AA:1730:C:C5	3.03	0.46
85:AA:1960:C:N4	85:AA:1977:G:H1	2.13	0.46
85:AA:2037:A:N7	85:AA:2038:C:C4	2.83	0.46
85:AA:2132:A:C2	85:AA:2133:A:N9	2.83	0.46
86:AB:52:G:C5	86:AB:63:G:C6	3.03	0.46
1:A0:127:VAL:HG11	1:A0:174:ILE:HG13	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A1:40:SER:HA	2:A1:80:PRO:HA	1.96	0.46
3:A2:93:ASN:O	3:A2:97:VAL:HG23	2.15	0.46
4:A3:29:GLY:C	4:A3:30:ASP:CG	2.83	0.46
11:AC:88:HIS:CE1	20:AL:108:MET:SD	3.08	0.46
13:AE:41:HIS:CG	85:AA:971:U:C5'	2.98	0.46
13:AE:142:GLY:C	13:AE:153:TYR:CD2	2.93	0.46
24:AQ:16:ARG:HD2	24:AQ:18:LEU:HD21	1.97	0.46
26:AS:17:ARG:HH11	26:AS:17:ARG:HG2	1.80	0.46
32:AY:60:GLN:O	32:AY:60:GLN:CD	2.58	0.46
34:BA:131:A:N6	34:BA:184:C:H5''	2.31	0.46
34:BA:321:G:C6	34:BA:322:U:C5	3.03	0.46
34:BA:440:A:HO2'	34:BA:442:G:H8	1.52	0.46
34:BA:529:A:C6	34:BA:583:G:N1	2.83	0.46
34:BA:614:A:C5	34:BA:615:A:C8	3.03	0.46
34:BA:757:G:C8	34:BA:757:G:H3'	2.50	0.46
34:BA:763:U:O5'	34:BA:770:G:C8	2.67	0.46
34:BA:775:C:N4	34:BA:776:U:C5	2.84	0.46
34:BA:804:G:C2	34:BA:810:A:C2	3.03	0.46
34:BA:827:A:C2	34:BA:841:G:C2	3.03	0.46
34:BA:846:U:P	42:BI:73:ARG:HE	2.38	0.46
34:BA:862:C:N4	34:BA:863:G:C4	2.83	0.46
34:BA:932:G:H2'	34:BA:933:U:O4'	2.15	0.46
34:BA:946:A:C2	34:BA:947:A:C1'	2.98	0.46
34:BA:1158:A:H3'	34:BA:1159:A:C8	2.50	0.46
34:BA:1202:G:C2	34:BA:1203:G:N9	2.83	0.46
34:BA:1295:U:H1'	34:BA:1296:U:C4	2.51	0.46
34:BA:1532:G:N1	34:BA:1533:G:C5	2.84	0.46
34:BA:1566:G:C2	34:BA:1567:G:C2	3.02	0.46
34:BA:1607:U:O2	34:BA:1608:C:C6	2.68	0.46
34:BA:1613:G:O6	34:BA:1616:A:C8	2.68	0.46
34:BA:1692:U:O2	34:BA:1692:U:H2'	2.13	0.46
34:BA:1816:G:C6	34:BA:1818:A:N1	2.83	0.46
35:BB:47:C:C4	35:BB:48:G:C6	3.04	0.46
35:BB:87:G:C6	35:BB:88:U:C2	3.04	0.46
35:BB:108:G:O6	35:BB:114:A:C2	2.68	0.46
35:BB:125:G:OP1	53:BT:75:HIS:HE1	1.99	0.46
35:BB:543:G:C6	35:BB:544:C:C4	3.03	0.46
35:BB:597:C:C2	35:BB:598:C:C5	3.03	0.46
35:BB:661:G:C5	35:BB:662:G:N7	2.83	0.46
35:BB:728:A:OP2	35:BB:728:A:C8	2.68	0.46
35:BB:984:U:H4'	35:BB:987:U:H4'	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1108:G:C5	35:BB:1157:G:N1	2.83	0.46
35:BB:1123:A:C2	35:BB:1127:A:C8	3.03	0.46
35:BB:1224:C:C4	35:BB:1226:G:H5''	2.50	0.46
35:BB:1224:C:C6	35:BB:1225:A:H3'	2.51	0.46
35:BB:1288:G:N3	35:BB:1319:U:C4	2.84	0.46
35:BB:1291:G:N1	35:BB:1292:G:C4	2.83	0.46
35:BB:1293:C:H2'	35:BB:1294:C:O4'	2.14	0.46
35:BB:1353:G:C2'	35:BB:1354:C:H5''	2.45	0.46
35:BB:1407:U:H3'	35:BB:1408:G:N3	2.30	0.46
35:BB:1499:U:C6	35:BB:1500:U:C6	3.03	0.46
35:BB:1508:G:C5	35:BB:1509:G:N7	2.83	0.46
35:BB:1516:C:N3	35:BB:1517:G:C5	2.83	0.46
35:BB:1523:U:O5'	35:BB:1523:U:H6	1.98	0.46
35:BB:1525:G:C5	35:BB:1526:C:C5	3.03	0.46
36:BC:14:G:C4	36:BC:15:G:C4	3.03	0.46
36:BC:37:U:C4	36:BC:103:A:N7	2.83	0.46
36:BC:46:G:C6	36:BC:47:C:C4	3.03	0.46
36:BC:48:A:C6	36:BC:51:A:C4	3.03	0.46
37:BD:108:G:C5	37:BD:109:U:C5	3.02	0.46
38:BE:4:A:N1	38:BE:97:G:H4'	2.31	0.46
38:BE:30:C:N3	38:BE:31:A:C4	2.83	0.46
38:BE:33:C:H2'	38:BE:34:C:O4'	2.15	0.46
38:BE:116:U:C2'	38:BE:117:A:C2	2.99	0.46
39:BF:38:C:H2'	39:BF:39:C:O4'	2.15	0.46
40:BG:133:C:C2	40:BG:157:A:N7	2.83	0.46
41:BH:9:C:C4	41:BH:9:C:OP2	2.68	0.46
41:BH:29:G:N1	41:BH:127:A:C2	2.83	0.46
41:BH:112:U:O5'	41:BH:112:U:H6	1.97	0.46
42:BI:25:TYR:CZ	77:Br:281:MET:HB3	2.50	0.46
42:BI:89:ILE:HG23	42:BI:89:ILE:O	2.16	0.46
45:BL:64:PHE:HB2	45:BL:66:ILE:HG13	1.97	0.46
47:BN:128:LEU:HG	47:BN:129:VAL:C	2.41	0.46
50:BQ:74:GLN:OE1	50:BQ:156:HIS:CE1	2.68	0.46
52:BS:44:TRP:CE3	52:BS:44:TRP:CA	2.96	0.46
53:BT:98:ARG:HA	53:BT:101:ILE:HG12	1.97	0.46
58:BY:3:THR:HG22	58:BY:14:HIS:HA	1.97	0.46
59:BZ:32:LEU:HD11	59:BZ:45:MET:HB2	1.97	0.46
60:Ba:10:VAL:HG12	60:Ba:81:PRO:HA	1.97	0.46
62:Bc:107:TYR:N	62:Bc:107:TYR:CD1	2.81	0.46
65:Bf:143:TYR:HA	65:Bf:152:THR:HA	1.97	0.46
65:Bf:327:GLY:O	65:Bf:329:HIS:CE1	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:Bg:99:CYS:SG	66:Bg:100:VAL:HG12	2.56	0.46
73:Bn:10:GLN:HA	73:Bn:12:HIS:NE2	2.30	0.46
85:AA:128:U:C6	85:AA:181:A:H5'	2.49	0.46
85:AA:335:G:C2	85:AA:355:G:H1'	2.50	0.46
85:AA:392:G:N2	85:AA:393:C:H1'	2.29	0.46
85:AA:479:C:N3	85:AA:485:A:C6	2.84	0.46
85:AA:547:A:C8	85:AA:547:A:O5'	2.68	0.46
85:AA:622:G:N1	85:AA:623:G:C5	2.83	0.46
85:AA:779:G:N2	85:AA:780:U:C2	2.83	0.46
85:AA:911:A:C6	85:AA:912:C:C4	3.04	0.46
85:AA:927:A:N1	85:AA:928:U:C2	2.83	0.46
85:AA:1056:C:N4	85:AA:1057:G:H1'	2.31	0.46
85:AA:1063:U:C5'	85:AA:1082:U:H4'	2.45	0.46
85:AA:1148:G:C2	85:AA:1149:A:H1'	2.51	0.46
85:AA:1175:A:C5	85:AA:1176:C:C4	3.03	0.46
85:AA:1226:A:C6	85:AA:1274:A:C8	3.03	0.46
85:AA:1228:A:H2'	85:AA:1229:G:C8	2.50	0.46
85:AA:1241:A:H2'	85:AA:1242:A:H5'	1.98	0.46
85:AA:1246:G:C2	85:AA:1247:A:H1'	2.50	0.46
85:AA:1556:G:C6	85:AA:1557:U:N3	2.83	0.46
85:AA:1617:G:H1'	85:AA:1623:U:H3	1.81	0.46
85:AA:1644:G:C6	85:AA:1882:U:O2	2.69	0.46
85:AA:1693:C:H2'	85:AA:1694:C:C6	2.51	0.46
85:AA:1731:G:C2	85:AA:1732:G:C6	3.04	0.46
85:AA:1761:C:H2'	85:AA:1762:G:C8	2.50	0.46
85:AA:1895:C:H3'	85:AA:1896:G:C8	2.51	0.46
85:AA:1942:U:C5	85:AA:1943:U:C4	3.03	0.46
85:AA:2138:G:C6	85:AA:2139:G:C5	3.03	0.46
85:AA:2147:A:N7	85:AA:2148:C:C5	2.83	0.46
85:AA:2152:C:N3	85:AA:2167:A:C2	2.83	0.46
85:AA:2197:A:C2	85:AA:2198:G:C4	3.03	0.46
86:AB:5:G:C5	86:AB:6:G:C5	3.03	0.46
86:AB:31:A:C5	86:AB:32:U:C5	3.02	0.46
1:A0:197:ASP:O	1:A0:201:LYS:HG2	2.16	0.46
2:A1:38:CYS:CB	2:A1:80:PRO:HB3	2.46	0.46
2:A1:133:ILE:HA	2:A1:146:TYR:CZ	2.51	0.46
4:A3:49:TYR:CE1	4:A3:119:VAL:HA	2.51	0.46
4:A3:54:ARG:CZ	85:AA:167:A:H5''	2.46	0.46
5:A4:156:LYS:HD2	5:A4:188:PHE:O	2.15	0.46
7:A6:27:MET:O	7:A6:27:MET:HE2	2.16	0.46
9:A8:24:ILE:HG22	9:A8:25:CYS:SG	2.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AC:227:ARG:NE	85:AA:755:G:H4'	2.30	0.46
17:AI:88:ARG:HG2	85:AA:2023:U:C6	2.51	0.46
21:AM:5:LEU:HB3	28:AU:50:LYS:HA	1.98	0.46
22:AO:35:CYS:SG	22:AO:151:ILE:HG21	2.56	0.46
23:AP:101:SER:CA	85:AA:2102:A:H61	2.29	0.46
26:AS:52:LEU:HD11	26:AS:73:GLN:HB2	1.97	0.46
27:AT:36:GLY:HA2	85:AA:607:U:C2	2.50	0.46
33:AZ:62:ARG:NH1	33:AZ:73:ASN:HD22	2.13	0.46
34:BA:3:G:N1	36:BC:168:C:C2	2.84	0.46
34:BA:117:C:C2	34:BA:118:C:C6	3.02	0.46
34:BA:125:G:C5	34:BA:126:G:N7	2.84	0.46
34:BA:130:U:C2	34:BA:132:U:C5	3.03	0.46
34:BA:154:A:C5	34:BA:155:U:C6	3.03	0.46
34:BA:183:G:C2'	34:BA:184:C:H5'	2.45	0.46
34:BA:266:G:H2'	34:BA:267:G:C8	2.50	0.46
34:BA:282:A:H5'	34:BA:287:U:C5'	2.46	0.46
34:BA:398:G:N2	34:BA:399:G:H1'	2.30	0.46
34:BA:471:U:N3	36:BC:17:U:N3	2.62	0.46
34:BA:484:A:C4	36:BC:6:G:N2	2.83	0.46
34:BA:633:G:C2	34:BA:649:A:C4	3.04	0.46
34:BA:760:G:H2'	34:BA:761:U:C6	2.50	0.46
34:BA:771:A:C8	34:BA:774:A:H1'	2.50	0.46
34:BA:792:A:N3	34:BA:793:A:C4	2.83	0.46
34:BA:958:G:C6	34:BA:960:C:C4	3.04	0.46
34:BA:968:G:H2'	34:BA:969:A:C8	2.51	0.46
34:BA:971:G:C2	34:BA:972:C:C2	3.04	0.46
34:BA:1200:U:C5	34:BA:1201:G:N7	2.84	0.46
34:BA:1219:G:C5	34:BA:1220:C:C4	3.04	0.46
34:BA:1268:C:N3	34:BA:1269:C:C5	2.84	0.46
34:BA:1300:G:C4	34:BA:1440:C:C2	3.03	0.46
34:BA:1312:A:N1	34:BA:1427:U:C4	2.83	0.46
34:BA:1328:U:N3	34:BA:1329:U:C5	2.83	0.46
34:BA:1336:U:C4	34:BA:1337:A:C5	3.03	0.46
34:BA:1413:G:C6	34:BA:1414:C:N4	2.84	0.46
34:BA:1466:U:C2	34:BA:1467:U:C6	3.03	0.46
34:BA:1661:U:O4	35:BB:18:A:C5	2.68	0.46
34:BA:1808:A:H5'	69:Bj:17:ARG:CZ	2.45	0.46
34:BA:1841:A:C2	35:BB:9:G:C4	3.03	0.46
35:BB:89:C:C5	35:BB:90:G:C8	3.04	0.46
35:BB:130:G:N3	35:BB:374:A:C2	2.84	0.46
35:BB:425:G:N1	35:BB:446:U:C5	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:465:C:N4	35:BB:508:U:H2'	2.31	0.46
35:BB:527:U:O5'	35:BB:527:U:H6	1.99	0.46
35:BB:568:A:C6	35:BB:569:G:C5	3.04	0.46
35:BB:701:U:H6	35:BB:701:U:HO2'	1.62	0.46
35:BB:707:G:C6	35:BB:775:U:C2	3.03	0.46
35:BB:832:C:C6	35:BB:832:C:OP2	2.68	0.46
35:BB:832:C:C4	35:BB:833:G:C4	3.04	0.46
35:BB:981:A:H61	64:Be:93:LYS:CG	2.28	0.46
35:BB:1001:G:N2	35:BB:1018:U:H1'	2.30	0.46
35:BB:1081:U:H5	35:BB:1082:A:HO2'	1.64	0.46
35:BB:1106:G:C6	35:BB:1107:C:C4	3.03	0.46
35:BB:1118:G:N1	35:BB:1119:G:C5	2.84	0.46
35:BB:1123:A:O4'	35:BB:1124:G:C6	2.68	0.46
35:BB:1183:U:N3	35:BB:1184:C:C5	2.83	0.46
35:BB:1218:G:H2'	35:BB:1219:A:O5'	2.15	0.46
35:BB:1221:G:H2'	35:BB:1222:A:C2	2.50	0.46
35:BB:1282:G:H2'	35:BB:1283:C:H6	1.81	0.46
35:BB:1409:G:C2	35:BB:1410:G:C8	3.04	0.46
35:BB:1409:G:H2'	35:BB:1409:G:N3	2.29	0.46
35:BB:1423:U:H2'	35:BB:1424:G:O4'	2.14	0.46
35:BB:1482:A:N1	35:BB:1483:A:C6	2.84	0.46
35:BB:1547:U:C2	35:BB:1548:C:C6	3.03	0.46
36:BC:7:U:C3'	36:BC:8:C:C6	2.98	0.46
36:BC:11:G:C4	36:BC:12:A:C8	3.03	0.46
36:BC:59:A:N1	36:BC:99:U:H1'	2.30	0.46
36:BC:139:A:O5'	36:BC:139:A:H8	1.99	0.46
36:BC:163:A:C6	36:BC:164:G:C6	3.03	0.46
37:BD:57:C:C6	37:BD:57:C:O5'	2.69	0.46
37:BD:95:G:C6	37:BD:96:C:C5	3.03	0.46
37:BD:107:G:C6	37:BD:108:G:C5	3.03	0.46
38:BE:50:G:C5	38:BE:51:C:C5	3.03	0.46
39:BF:32:G:N1	39:BF:50:C:N3	2.59	0.46
40:BG:79:U:C4	40:BG:80:G:N7	2.83	0.46
40:BG:173:C:H2'	40:BG:174:G:O4'	2.16	0.46
41:BH:40:C:C5	41:BH:41:A:N7	2.83	0.46
41:BH:42:U:H1'	41:BH:110:C:H1'	1.98	0.46
41:BH:97:C:O3'	55:BV:64:LEU:N	2.49	0.46
49:BP:15:ILE:CB	49:BP:21:GLN:HA	2.45	0.46
62:Bc:21:LYS:HB3	62:Bc:26:ARG:HG2	1.96	0.46
62:Bc:114:ALA:O	62:Bc:117:ILE:HG12	2.15	0.46
64:Be:249:SER:CB	85:AA:1236:G:N7	2.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:Bj:46:PRO:O	69:Bj:47:TRP:HB2	2.15	0.46
70:Bk:85:LYS:HA	70:Bk:88:ARG:HB3	1.97	0.46
75:Bp:25:VAL:HG13	75:Bp:34:PHE:CE1	2.51	0.46
76:Bq:12:LYS:HE2	76:Bq:49:LEU:CD2	2.45	0.46
77:Br:264:THR:O	77:Br:276:MET:SD	2.74	0.46
77:Br:330:ASN:HB3	77:Br:333:GLN:OE1	2.16	0.46
84:By:59:PHE:CG	84:By:60:GLY:N	2.72	0.46
84:By:130:VAL:C	84:By:131:TYR:CD1	2.94	0.46
85:AA:130:G:C2	85:AA:141:A:N3	2.84	0.46
85:AA:204:U:H2'	85:AA:205:A:C5'	2.45	0.46
85:AA:269:G:C8	85:AA:270:A:H1'	2.50	0.46
85:AA:314:C:C5	85:AA:316:C:C6	3.03	0.46
85:AA:345:U:C2'	85:AA:346:U:H5'	2.44	0.46
85:AA:421:G:C5	85:AA:422:G:N7	2.83	0.46
85:AA:441:C:O2	85:AA:441:C:H2'	2.14	0.46
85:AA:559:G:N1	85:AA:560:C:C2	2.83	0.46
85:AA:638:G:N7	85:AA:652:U:C2	2.83	0.46
85:AA:686:U:H3'	85:AA:687:G:H2'	1.98	0.46
85:AA:725:G:C8	85:AA:777:U:C5	3.03	0.46
85:AA:743:C:C2	85:AA:744:C:C5	3.03	0.46
85:AA:977:U:N3	85:AA:978:U:C5	2.83	0.46
85:AA:1019:U:C6	85:AA:1051:A:C8	3.04	0.46
85:AA:1216:A:C5	85:AA:1217:U:C5	3.03	0.46
85:AA:1237:A:H2'	85:AA:1238:U:C6	2.50	0.46
85:AA:1293:U:O4	85:AA:1294:U:C5	2.68	0.46
85:AA:1587:C:C6	85:AA:1587:C:O5'	2.68	0.46
85:AA:1668:G:H1	85:AA:1701:G:N2	2.12	0.46
85:AA:1669:G:C2	85:AA:1670:U:C2	3.03	0.46
85:AA:1672:G:H4'	85:AA:1698:A:C6	2.51	0.46
85:AA:1783:G:C6	85:AA:1784:G:C6	3.03	0.46
85:AA:1830:U:C2	85:AA:1845:G:N2	2.83	0.46
85:AA:1911:A:N1	85:AA:2001:C:C5	2.84	0.46
85:AA:1959:G:H22	85:AA:1978:G:N2	2.13	0.46
85:AA:1962:U:C2	85:AA:1976:G:C2	3.04	0.46
85:AA:2046:G:C6	85:AA:2047:U:O4	2.68	0.46
85:AA:2079:U:C2	85:AA:2080:U:N3	2.84	0.46
1:A0:107:MET:HG2	1:A0:111:ARG:HE	1.80	0.46
1:A0:195:LEU:O	1:A0:198:ARG:HB3	2.16	0.46
1:A0:202:ARG:HD2	1:A0:202:ARG:HA	1.79	0.46
4:A3:177:PRO:CA	85:AA:65:A:C4	2.98	0.46
5:A4:6:HIS:CD2	5:A4:6:HIS:C	2.93	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A5:180:ARG:C	41:BH:91:G:H2'	2.41	0.46
8:A7:213:SER:O	8:A7:220:ALA:HA	2.15	0.46
8:A7:247:PRO:HD2	8:A7:297:GLY:HA3	1.98	0.46
9:A8:24:ILE:C	12:AD:69:ARG:HE	2.24	0.46
15:AG:52:MET:SD	85:AA:1209:U:C6	3.08	0.46
23:AP:168:VAL:HG22	23:AP:169:THR:H	1.81	0.46
23:AP:232:TYR:CZ	25:AR:19:PRO:HG3	2.50	0.46
25:AR:62:TYR:HA	25:AR:65:CYS:SG	2.55	0.46
30:AW:23:ARG:CZ	85:AA:1113:G:C4	2.99	0.46
32:AY:31:ARG:CA	32:AY:35:PHE:HB2	2.45	0.46
33:AZ:42:VAL:HG13	33:AZ:44:ILE:HG23	1.96	0.46
34:BA:3:G:C8	34:BA:3:G:O5'	2.69	0.46
34:BA:27:G:C6	34:BA:28:C:C5	3.03	0.46
34:BA:35:U:C6	34:BA:35:U:O5'	2.69	0.46
34:BA:40:A:C6	35:BB:1260:A:C4	3.03	0.46
34:BA:279:U:H3'	34:BA:279:U:C6	2.51	0.46
34:BA:292:C:C2'	34:BA:293:A:H5'	2.45	0.46
34:BA:334:G:C4	34:BA:335:C:C5	3.03	0.46
34:BA:428:C:N4	34:BA:429:G:C4	2.83	0.46
34:BA:480:G:C4	34:BA:481:A:C5	3.02	0.46
34:BA:498:A:C5	34:BA:499:C:C4	3.04	0.46
34:BA:520:G:O6	34:BA:521:C:C6	2.69	0.46
34:BA:545:U:C6	34:BA:545:U:H3'	2.50	0.46
34:BA:593:G:C4	34:BA:594:G:N3	2.83	0.46
34:BA:626:G:C8	34:BA:626:G:H3'	2.50	0.46
34:BA:664:C:C2	34:BA:665:C:C6	3.04	0.46
34:BA:706:C:O2	34:BA:707:C:C5	2.69	0.46
34:BA:771:A:H2'	34:BA:774:A:C8	2.50	0.46
34:BA:800:G:H2'	34:BA:801:U:O4'	2.15	0.46
34:BA:809:U:H6	34:BA:809:U:O5'	1.98	0.46
34:BA:936:A:C5	34:BA:937:G:N7	2.83	0.46
34:BA:959:G:C8	64:Be:181:LYS:HD2	2.50	0.46
34:BA:984:U:C5	34:BA:985:C:C5	3.03	0.46
34:BA:1034:U:O5'	34:BA:1034:U:H6	1.99	0.46
34:BA:1115:A:O4'	44:BK:194:GLY:HA2	2.15	0.46
34:BA:1168:C:N4	34:BA:1170:A:C2	2.84	0.46
34:BA:1263:A:C6	34:BA:1264:U:C5	3.03	0.46
34:BA:1287:G:N1	34:BA:1288:U:C4	2.83	0.46
34:BA:1321:A:C4	34:BA:1322:A:C8	3.04	0.46
34:BA:1474:G:C6	34:BA:1509:U:C4	3.03	0.46
34:BA:1589:U:H2'	34:BA:1590:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1603:A:C8	35:BB:33:A:C6	3.03	0.46
34:BA:1611:A:C4	34:BA:1612:C:C6	3.03	0.46
34:BA:1613:G:C8	34:BA:1613:G:H3'	2.51	0.46
34:BA:1661:U:O4'	34:BA:1662:U:C4	2.69	0.46
34:BA:1689:U:C2	35:BB:18:A:O4'	2.68	0.46
34:BA:1723:U:C4	34:BA:1799:G:H2'	2.51	0.46
34:BA:1729:G:C2	34:BA:1794:A:C4	3.03	0.46
34:BA:1827:C:H5'	57:BX:101:ASN:OD1	2.15	0.46
35:BB:130:G:C4	35:BB:374:A:N1	2.84	0.46
35:BB:363:A:O2'	35:BB:364:U:C5	2.67	0.46
35:BB:501:G:C2	35:BB:502:C:C2	3.04	0.46
35:BB:546:A:C5	35:BB:555:G:C6	3.04	0.46
35:BB:605:C:C2	35:BB:606:C:N3	2.84	0.46
35:BB:693:U:H3	35:BB:1050:A:H61	1.64	0.46
35:BB:785:G:C4	35:BB:1036:G:N2	2.84	0.46
35:BB:810:G:C2	35:BB:830:G:C4	3.04	0.46
35:BB:825:U:H2'	35:BB:826:G:C8	2.50	0.46
35:BB:828:G:C4	35:BB:829:C:C6	3.04	0.46
35:BB:854:G:C4	35:BB:855:G:C8	3.03	0.46
35:BB:857:G:C2	35:BB:866:A:C2	3.04	0.46
35:BB:866:A:C2	35:BB:867:C:C2	3.04	0.46
35:BB:1004:A:C2	35:BB:1005:A:N9	2.83	0.46
35:BB:1005:A:C2	35:BB:1006:C:H1'	2.50	0.46
35:BB:1219:A:C6	35:BB:1220:A:C4	3.04	0.46
35:BB:1271:A:C6	35:BB:1272:G:C4	3.03	0.46
35:BB:1337:C:H5''	35:BB:1338:U:OP2	2.16	0.46
35:BB:1442:C:C2	35:BB:1443:C:C5	3.03	0.46
35:BB:1487:G:N1	35:BB:1488:G:C5	2.83	0.46
36:BC:135:A:H2'	36:BC:136:G:O4'	2.15	0.46
37:BD:93:G:H3'	37:BD:93:G:C8	2.51	0.46
37:BD:110:G:C4	37:BD:111:U:C5	3.04	0.46
38:BE:35:A:C6	38:BE:36:U:C4	3.04	0.46
38:BE:46:G:H2'	38:BE:47:U:C6	2.51	0.46
38:BE:84:U:C4	38:BE:85:G:H1'	2.50	0.46
38:BE:89:G:H2'	38:BE:90:G:C8	2.50	0.46
38:BE:106:C:C4	53:BT:121:ARG:NH1	2.84	0.46
38:BE:154:A:H2'	38:BE:155:C:C5'	2.45	0.46
39:BF:50:C:O2	39:BF:50:C:C2'	2.61	0.46
39:BF:50:C:H1'	39:BF:52:A:H62	1.80	0.46
40:BG:81:G:C6	40:BG:82:U:N3	2.83	0.46
40:BG:93:U:C4	40:BG:94:G:N7	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:111:C:N3	40:BG:112:C:C5	2.84	0.46
40:BG:133:C:C5	40:BG:157:A:C8	3.03	0.46
40:BG:149:U:C2	40:BG:150:A:C8	3.04	0.46
41:BH:103:C:N4	41:BH:104:U:C4	2.84	0.46
41:BH:130:G:C8	41:BH:130:G:H5''	2.50	0.46
41:BH:135:U:H2'	41:BH:135:U:OP1	2.16	0.46
44:BK:185:ARG:HB2	44:BK:190:LEU:HD23	1.97	0.46
45:BL:67:ARG:HB3	79:Bt:106:TRP:CE3	2.51	0.46
45:BL:87:LEU:HD11	45:BL:91:LEU:HD11	1.98	0.46
45:BL:116:HIS:CD2	45:BL:129:ILE:HA	2.50	0.46
45:BL:169:TRP:CZ3	45:BL:170:PHE:HA	2.50	0.46
48:BO:89:PHE:O	48:BO:90:HIS:CD2	2.68	0.46
80:Bu:198:ALA:O	80:Bu:202:ARG:HB3	2.15	0.46
80:Bu:213:TYR:CD2	80:Bu:232:PHE:CE2	3.03	0.46
85:AA:24:U:C3'	85:AA:25:C:H5''	2.45	0.46
85:AA:25:C:H4'	85:AA:26:A:C5'	2.45	0.46
85:AA:34:G:H2'	85:AA:35:U:C6	2.51	0.46
85:AA:51:A:H8	85:AA:51:A:H5'	1.80	0.46
85:AA:410:A:C6	85:AA:411:U:N3	2.84	0.46
85:AA:559:G:C6	85:AA:560:C:N3	2.84	0.46
85:AA:561:C:C4	85:AA:567:G:C6	3.03	0.46
85:AA:565:G:C5	85:AA:566:U:C5	3.03	0.46
85:AA:654:A:N1	85:AA:657:C:C2	2.84	0.46
85:AA:701:C:H3'	85:AA:702:G:C8	2.51	0.46
85:AA:739:C:C6	85:AA:740:A:O3'	2.69	0.46
85:AA:792:A:N7	85:AA:800:A:C4	2.84	0.46
85:AA:823:C:N3	85:AA:824:C:C5	2.83	0.46
85:AA:860:C:H1'	85:AA:861:G:C5	2.50	0.46
85:AA:939:A:H2'	85:AA:940:G:OP1	2.16	0.46
85:AA:1065:G:C6	85:AA:1066:U:C4	3.03	0.46
85:AA:1133:C:H2'	85:AA:1134:G:C8	2.51	0.46
85:AA:1138:U:H2'	85:AA:1139:G:O4'	2.15	0.46
85:AA:1197:U:C2	85:AA:1198:U:C6	3.03	0.46
85:AA:1215:A:H2'	85:AA:1216:A:H5'	1.97	0.46
85:AA:1288:A:H5'	85:AA:1288:A:H8	1.81	0.46
85:AA:1366:A:C8	85:AA:1366:A:O5'	2.68	0.46
85:AA:1471:G:C6	85:AA:1472:G:C5	3.03	0.46
85:AA:1696:U:H2'	85:AA:1697:C:O4'	2.15	0.46
85:AA:1856:G:H2'	85:AA:1857:G:O4'	2.15	0.46
85:AA:1902:C:O2	85:AA:1902:C:H2'	2.15	0.46
85:AA:2018:U:C4	85:AA:2026:U:C4	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2091:C:H2'	85:AA:2092:A:O4'	2.15	0.46
85:AA:2187:G:C5	85:AA:2188:C:C5	3.03	0.46
85:AA:2189:U:H2'	85:AA:2190:U:C6	2.50	0.46
5:A4:3:ALA:HB1	5:A4:10:LEU:N	2.31	0.46
5:A4:143:ARG:HB2	18:AJ:54:ASP:CB	2.46	0.46
7:A6:82:TYR:CG	7:A6:148:ARG:HA	2.51	0.46
7:A6:108:LEU:HD13	7:A6:147:VAL:HG22	1.96	0.46
9:A8:51:ILE:HA	31:AX:14:GLY:HA3	1.98	0.46
11:AC:99:ARG:NH2	25:AR:43:ASN:HA	2.30	0.46
15:AG:132:VAL:HG23	15:AG:134:GLN:HG2	1.96	0.46
18:AJ:40:VAL:HG12	18:AJ:44:HIS:CE1	2.51	0.46
19:AK:46:LEU:O	19:AK:46:LEU:HG	2.14	0.46
20:AL:102:ASP:HA	20:AL:122:PRO:HA	1.96	0.46
22:AO:54:VAL:HG11	22:AO:69:TRP:CE3	2.51	0.46
23:AP:163:THR:HG22	23:AP:164:ILE:H	1.79	0.46
29:AV:8:HIS:CE1	85:AA:2243:G:OP2	2.69	0.46
29:AV:17:ARG:HD3	85:AA:1185:G:N7	2.31	0.46
29:AV:46:MET:SD	29:AV:69:PRO:O	2.74	0.46
30:AW:65:CYS:HA	30:AW:73:MET:O	2.14	0.46
32:AY:2:GLY:C	85:AA:2205:A:H4'	2.41	0.46
34:BA:19:G:C5	34:BA:1716:A:C2	3.04	0.46
34:BA:25:C:C2	34:BA:54:A:C5	3.04	0.46
34:BA:86:A:C8	34:BA:97:A:N6	2.83	0.46
34:BA:99:G:C5	34:BA:100:A:C5	3.03	0.46
34:BA:133:A:C8	34:BA:134:U:C5	3.03	0.46
34:BA:172:A:C5	34:BA:316:G:C2	3.04	0.46
34:BA:237:A:C8	34:BA:238:C:C4	3.03	0.46
34:BA:262:A:N3	34:BA:280:A:C5	2.83	0.46
34:BA:269:G:N1	34:BA:438:A:C8	2.84	0.46
34:BA:373:G:H2'	34:BA:374:U:O4'	2.16	0.46
34:BA:374:U:C6	34:BA:374:U:H5''	2.50	0.46
34:BA:407:A:C5	34:BA:433:G:C6	3.04	0.46
34:BA:463:A:C6	34:BA:465:A:C6	3.03	0.46
34:BA:540:G:N2	34:BA:541:C:H1'	2.31	0.46
34:BA:545:U:H2'	34:BA:546:U:C5'	2.45	0.46
34:BA:596:G:N3	34:BA:1494:G:O6	2.48	0.46
34:BA:674:G:C2'	34:BA:675:C:H5'	2.45	0.46
34:BA:700:G:N3	34:BA:700:G:H2'	2.29	0.46
34:BA:770:G:C4	34:BA:770:G:OP2	2.68	0.46
34:BA:796:G:O4'	34:BA:859:G:H5'	2.16	0.46
34:BA:846:U:OP1	42:BI:73:ARG:CG	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:848:U:C4	42:BI:66:ARG:NE	2.84	0.46
34:BA:849:G:H1'	42:BI:147:ARG:NE	2.31	0.46
34:BA:935:A:C2	34:BA:936:A:C8	3.04	0.46
34:BA:990:G:C4	34:BA:991:U:C6	3.04	0.46
34:BA:1067:G:C6	34:BA:1068:C:N3	2.84	0.46
34:BA:1074:C:C2	34:BA:1075:U:C5	3.03	0.46
34:BA:1101:A:H4'	37:BD:78:C:H4'	1.97	0.46
34:BA:1123:G:H2'	34:BA:1124:U:O4'	2.15	0.46
34:BA:1226:G:H4'	34:BA:1519:G:C5'	2.46	0.46
34:BA:1377:A:C2	34:BA:1378:A:C4	3.04	0.46
34:BA:1454:G:H1	34:BA:1455:C:N4	2.13	0.46
34:BA:1547:G:C2	34:BA:1549:U:C6	3.04	0.46
34:BA:1643:U:C4	35:BB:60:A:N6	2.84	0.46
35:BB:92:C:H3'	35:BB:93:A:H8	1.80	0.46
35:BB:114:A:O5'	35:BB:114:A:C8	2.69	0.46
35:BB:402:G:C2	35:BB:403:U:C6	3.04	0.46
35:BB:423:G:C6	35:BB:450:A:C6	3.04	0.46
35:BB:555:G:N3	35:BB:556:U:C6	2.84	0.46
35:BB:593:A:C6	35:BB:594:U:C5	3.03	0.46
35:BB:614:U:N3	35:BB:615:A:C5	2.83	0.46
35:BB:622:G:H5'	51:BR:139:TYR:CZ	2.51	0.46
35:BB:623:A:H61	35:BB:1441:C:H41	1.64	0.46
35:BB:735:A:C5	35:BB:755:A:C6	3.03	0.46
35:BB:784:C:H4'	35:BB:1042:U:O2'	2.15	0.46
35:BB:798:A:N6	35:BB:976:U:C2	2.84	0.46
35:BB:825:U:C6	35:BB:825:U:H3'	2.50	0.46
35:BB:854:G:C6	35:BB:855:G:C6	3.03	0.46
35:BB:957:A:H2'	35:BB:958:C:C6	2.51	0.46
35:BB:1054:G:C2	35:BB:1055:G:C4	3.03	0.46
35:BB:1209:A:C4	35:BB:1258:G:C4	3.04	0.46
35:BB:1232:A:H2	35:BB:1244:U:H3	1.64	0.46
35:BB:1315:C:H2'	35:BB:1316:U:C6	2.51	0.46
35:BB:1316:U:C2	35:BB:1317:U:C4	3.03	0.46
35:BB:1336:G:C6	35:BB:1337:C:N4	2.83	0.46
35:BB:1357:C:C4	84:By:169:ASP:OD1	2.68	0.46
35:BB:1370:G:C6	35:BB:1371:G:C5	3.04	0.46
35:BB:1399:A:C4	65:Bf:311:TRP:CE2	3.04	0.46
35:BB:1464:G:N1	40:BG:24:A:H5'	2.30	0.46
36:BC:105:C:C2	36:BC:149:A:C6	3.03	0.46
36:BC:119:G:C6	36:BC:145:G:C6	3.04	0.46
36:BC:144:C:C2	36:BC:145:G:C8	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:158:U:OP2	36:BC:159:U:C5	2.69	0.46
37:BD:25:G:N1	37:BD:26:C:C2	2.84	0.46
37:BD:72:U:H2'	37:BD:73:U:C6	2.50	0.46
37:BD:114:U:H2'	37:BD:115:A:C8	2.51	0.46
38:BE:33:C:C2	38:BE:34:C:C6	3.03	0.46
38:BE:45:G:C4	38:BE:46:G:C8	3.04	0.46
38:BE:150:G:C6	38:BE:163:A:N1	2.83	0.46
38:BE:170:U:C5	38:BE:171:U:C5	3.04	0.46
39:BF:6:C:O2	39:BF:7:G:C6	2.68	0.46
39:BF:38:C:C4	39:BF:39:C:C4	3.04	0.46
40:BG:94:G:C2	40:BG:95:U:C6	3.04	0.46
40:BG:104:A:C5	40:BG:105:A:N7	2.84	0.46
40:BG:135:C:C3'	40:BG:135:C:C6	2.98	0.46
41:BH:63:G:C5	41:BH:64:U:C6	3.04	0.46
41:BH:64:U:H2'	41:BH:65:G:C8	2.51	0.46
41:BH:69:C:C2	41:BH:70:U:C6	3.03	0.46
44:BK:47:PRO:O	44:BK:171:TRP:HA	2.15	0.46
45:BL:91:LEU:HB3	45:BL:96:PHE:CE1	2.50	0.46
47:BN:59:LEU:HA	47:BN:158:TYR:CD2	2.50	0.46
47:BN:200:PHE:CE2	47:BN:207:ALA:HB2	2.51	0.46
48:BO:139:ILE:O	48:BO:142:ALA:HB3	2.16	0.46
48:BO:151:GLU:O	84:By:39:HIS:CE1	2.68	0.46
49:BP:151:ALA:O	49:BP:152:LYS:C	2.59	0.46
51:BR:5:SER:HA	51:BR:118:GLN:OE1	2.16	0.46
52:BS:8:HIS:CG	52:BS:66:VAL:HG13	2.51	0.46
58:BY:10:HIS:CD2	58:BY:57:ARG:NH1	2.83	0.46
59:BZ:71:TYR:CE1	59:BZ:73:LEU:HB3	2.50	0.46
65:Bf:351:GLN:HE22	65:Bf:362:THR:HB	1.81	0.46
67:Bh:69:THR:HA	67:Bh:72:SER:OG	2.16	0.46
75:Bp:26:LYS:CD	75:Bp:69:VAL:HG21	2.46	0.46
80:Bu:160:THR:HA	80:Bu:185:ARG:HD2	1.97	0.46
82:Bw:66:TYR:O	82:Bw:69:GLU:HB3	2.16	0.46
85:AA:26:A:N3	85:AA:27:U:C5	2.84	0.46
85:AA:65:A:C8	85:AA:66:U:N3	2.84	0.46
85:AA:71:G:C5	85:AA:78:A:C6	3.03	0.46
85:AA:128:U:C6	85:AA:128:U:O5'	2.69	0.46
85:AA:272:C:C4	85:AA:273:C:C5	3.04	0.46
85:AA:339:A:O5'	85:AA:339:A:H8	1.99	0.46
85:AA:402:G:C6	85:AA:404:A:C8	3.03	0.46
85:AA:619:A:C4	85:AA:668:A:C6	3.03	0.46
85:AA:686:U:C6	85:AA:687:G:C8	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:698:G:C2'	85:AA:699:U:H5'	2.45	0.46
85:AA:704:A:N3	85:AA:1219:A:C5	2.83	0.46
85:AA:748:C:C2	85:AA:757:A:N1	2.84	0.46
85:AA:824:C:C5	85:AA:826:C:C4	3.04	0.46
85:AA:923:A:H2'	85:AA:923:A:N3	2.30	0.46
85:AA:978:U:H2'	85:AA:979:U:O4'	2.15	0.46
85:AA:1019:U:H2'	85:AA:1051:A:C5	2.50	0.46
85:AA:1159:C:C6	85:AA:1159:C:H3'	2.50	0.46
85:AA:1295:G:C5	85:AA:1296:G:N7	2.84	0.46
85:AA:1382:A:C6	85:AA:1385:C:H5'	2.50	0.46
85:AA:1492:U:C5	85:AA:1507:G:C2	3.04	0.46
85:AA:1499:G:H21	85:AA:1502:A:H2	1.63	0.46
85:AA:1575:G:N1	85:AA:1577:G:N1	2.64	0.46
85:AA:1690:A:C2	85:AA:1853:U:O4	2.68	0.46
85:AA:1938:G:N2	85:AA:1939:C:H1'	2.30	0.46
85:AA:2132:A:C4	85:AA:2133:A:C8	3.03	0.46
85:AA:2148:C:H2'	85:AA:2149:C:O4'	2.15	0.46
85:AA:2180:C:C5	85:AA:2181:G:C5	3.04	0.46
86:AB:5:G:C5	86:AB:69:G:N1	2.83	0.46
86:AB:72:C:O2	86:AB:73:A:C8	2.68	0.46
5:A4:99:VAL:HG22	5:A4:100:ALA:N	2.31	0.46
19:AK:5:LYS:CB	85:AA:1793:A:C8	2.98	0.46
22:AO:28:PRO:CB	22:AO:32:VAL:HG13	2.46	0.46
23:AP:44:VAL:HG13	23:AP:46:CYS:SG	2.55	0.46
23:AP:61:LEU:HB3	23:AP:65:PHE:CZ	2.50	0.46
27:AT:111:ARG:HH11	85:AA:508:C:H5	1.64	0.46
34:BA:3:G:O5'	34:BA:3:G:H8	1.99	0.46
34:BA:44:U:H6	34:BA:45:A:H2'	1.81	0.46
34:BA:75:U:C4	34:BA:76:U:C5	3.03	0.46
34:BA:125:G:O6	34:BA:126:G:C6	2.69	0.46
34:BA:195:G:O6	34:BA:289:A:C5	2.69	0.46
34:BA:212:A:N1	34:BA:221:G:C2	2.83	0.46
34:BA:292:C:N3	34:BA:293:A:C8	2.84	0.46
34:BA:405:C:P	77:Br:196:ARG:HH12	2.38	0.46
34:BA:445:C:C6	34:BA:445:C:O5'	2.69	0.46
34:BA:536:C:C6	34:BA:537:C:C6	3.04	0.46
34:BA:663:U:H2'	34:BA:664:C:H6	1.81	0.46
34:BA:702:G:C5	34:BA:703:U:C5	3.03	0.46
34:BA:717:U:H2'	34:BA:719:G:OP2	2.15	0.46
34:BA:730:C:C4	34:BA:1591:G:C2	3.04	0.46
34:BA:772:G:C2	77:Br:111:HIS:CD2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1043:C:C4	34:BA:1581:G:C6	3.04	0.46
34:BA:1063:G:OP1	61:Bb:25:HIS:CE1	2.69	0.46
34:BA:1219:G:H2'	34:BA:1220:C:O4'	2.16	0.46
34:BA:1244:G:C6	35:BB:640:A:N3	2.84	0.46
34:BA:1260:G:N2	34:BA:1261:G:H1'	2.30	0.46
34:BA:1280:A:C6	34:BA:1281:U:C5	3.04	0.46
34:BA:1378:A:C4	34:BA:1379:G:C5	3.04	0.46
34:BA:1430:C:C6	34:BA:1430:C:C3'	2.99	0.46
34:BA:1431:G:C6	34:BA:1432:C:N4	2.84	0.46
34:BA:1539:A:C5	34:BA:1568:A:C6	3.04	0.46
34:BA:1672:C:H2'	34:BA:1673:G:C8	2.51	0.46
34:BA:1709:A:C2	34:BA:1721:U:O2	2.69	0.46
34:BA:1719:G:H2'	34:BA:1720:U:O4'	2.16	0.46
34:BA:1841:A:C2	35:BB:9:G:N3	2.84	0.46
34:BA:1845:G:H1	35:BB:5:A:N6	2.14	0.46
35:BB:50:A:C4	35:BB:51:U:C6	3.04	0.46
35:BB:67:A:H2'	35:BB:68:G:C8	2.51	0.46
35:BB:93:A:C4	35:BB:94:A:C4	3.04	0.46
35:BB:111:C:H5'	35:BB:112:G:C8	2.50	0.46
35:BB:417:A:H8	35:BB:417:A:O5'	1.99	0.46
35:BB:436:G:C5	35:BB:438:G:C8	3.04	0.46
35:BB:465:C:C2	35:BB:508:U:N3	2.84	0.46
35:BB:704:G:H2'	35:BB:705:C:C6	2.50	0.46
35:BB:712:U:C6	35:BB:713:U:C4	3.03	0.46
35:BB:796:C:H1'	35:BB:978:C:N4	2.31	0.46
35:BB:909:U:H3	35:BB:949:G:H1	1.63	0.46
35:BB:963:G:N1	35:BB:964:G:C4	2.84	0.46
35:BB:971:A:C5'	35:BB:971:A:C8	2.99	0.46
35:BB:1209:A:C4	35:BB:1258:G:C5	3.03	0.46
35:BB:1210:U:C2	35:BB:1211:C:C6	3.04	0.46
35:BB:1314:G:C4	35:BB:1315:C:C5	3.04	0.46
35:BB:1337:C:C5	35:BB:1338:U:H5	2.33	0.46
36:BC:52:A:H3'	36:BC:52:A:C8	2.50	0.46
37:BD:81:C:C2	37:BD:96:C:N3	2.84	0.46
38:BE:31:A:H2'	38:BE:32:U:N3	2.30	0.46
38:BE:72:C:C6	38:BE:72:C:C3'	2.98	0.46
39:BF:2:G:H5''	81:Bv:75:ARG:HD3	1.96	0.46
39:BF:25:G:H4'	39:BF:26:U:OP1	2.15	0.46
39:BF:49:C:H3'	39:BF:50:C:C5	2.51	0.46
39:BF:61:A:H5''	39:BF:62:U:C4	2.51	0.46
40:BG:3:G:C8	40:BG:3:G:H5''	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:26:G:N7	40:BG:27:C:C5	2.84	0.46
40:BG:49:A:C4	40:BG:51:U:C4	3.04	0.46
41:BH:15:A:C5	41:BH:16:A:C5	3.03	0.46
41:BH:25:A:C8	41:BH:25:A:O5'	2.69	0.46
41:BH:130:G:N2	41:BH:131:A:H1'	2.30	0.46
44:BK:176:ILE:HG23	44:BK:177:LEU:O	2.15	0.46
47:BN:20:CYS:C	47:BN:22:SER:H	2.22	0.46
47:BN:52:PHE:C	47:BN:152:THR:HA	2.40	0.46
47:BN:59:LEU:HA	47:BN:158:TYR:CE1	2.51	0.46
49:BP:106:THR:H	49:BP:109:GLU:CD	2.23	0.46
50:BQ:178:GLN:OE1	50:BQ:179:ARG:HG3	2.15	0.46
52:BS:8:HIS:HB2	52:BS:32:PHE:CZ	2.51	0.46
54:BU:52:MET:CE	54:BU:95:HIS:CE1	2.99	0.46
60:Ba:51:LYS:CB	60:Ba:56:MET:HE1	2.45	0.46
62:Bc:100:PRO:O	62:Bc:103:ALA:HB3	2.15	0.46
67:Bh:159:GLU:O	67:Bh:164:LYS:HB2	2.15	0.46
70:Bk:68:GLU:HA	70:Bk:71:ARG:HG3	1.97	0.46
73:Bn:70:VAL:HA	73:Bn:73:ARG:CZ	2.46	0.46
80:Bu:166:PHE:HB3	80:Bu:186:PHE:CE1	2.50	0.46
83:Bx:178:TRP:CZ3	83:Bx:179:MET:SD	3.09	0.46
85:AA:43:A:C4	85:AA:443:A:N3	2.84	0.46
85:AA:85:U:C6	85:AA:85:U:H3'	2.50	0.46
85:AA:104:C:H5'	85:AA:448:G:O2'	2.15	0.46
85:AA:116:G:N3	85:AA:462:A:C6	2.84	0.46
85:AA:133:G:H2'	85:AA:134:U:O4'	2.15	0.46
85:AA:275:A:C2	85:AA:974:U:C2	3.04	0.46
85:AA:371:C:C4	85:AA:372:U:C5	3.04	0.46
85:AA:439:U:C6	85:AA:439:U:C3'	2.98	0.46
85:AA:495:G:C6	85:AA:496:C:C4	3.04	0.46
85:AA:546:U:C6	85:AA:546:U:H3'	2.51	0.46
85:AA:560:C:C2	85:AA:561:C:C6	3.04	0.46
85:AA:582:A:C5	85:AA:583:U:C6	3.04	0.46
85:AA:680:U:O2	85:AA:682:C:C5	2.68	0.46
85:AA:917:A:C2'	85:AA:918:U:H5'	2.46	0.46
85:AA:938:A:C4	85:AA:939:A:C8	3.03	0.46
85:AA:1000:U:H2'	85:AA:1001:G:C8	2.50	0.46
85:AA:1109:G:C2	85:AA:1110:A:C4	3.03	0.46
85:AA:1196:C:C4	85:AA:1197:U:C5	3.04	0.46
85:AA:1225:C:C5	85:AA:1272:G:O6	2.69	0.46
85:AA:1244:A:H2'	85:AA:1245:U:C6	2.50	0.46
85:AA:1367:C:H2'	85:AA:1368:G:N7	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1498:C:C6	85:AA:1498:C:H5''	2.51	0.46
85:AA:1607:A:N6	85:AA:1632:G:H1'	2.30	0.46
85:AA:1946:C:H3'	85:AA:1947:A:C8	2.51	0.46
85:AA:1985:C:P	85:AA:1986:G:H5''	2.56	0.46
85:AA:2076:C:C4	85:AA:2077:G:C5	3.03	0.46
85:AA:2153:G:N1	85:AA:2166:G:N1	2.64	0.46
85:AA:2159:C:C6	85:AA:2161:C:H1'	2.51	0.46
85:AA:2208:G:H8	85:AA:2208:G:OP1	1.99	0.46
85:AA:2221:A:C8	85:AA:2244:G:C2	3.04	0.46
85:AA:2228:G:H2'	85:AA:2229:G:H8	1.77	0.46
2:A1:79:TYR:CG	2:A1:80:PRO:HD2	2.51	0.46
3:A2:81:HIS:CE1	28:AU:106:VAL:HG22	2.51	0.46
4:A3:9:ARG:NE	58:BY:84:ARG:CZ	2.71	0.46
4:A3:152:ARG:CG	85:AA:145:C:C5'	2.94	0.46
4:A3:204:LYS:NZ	4:A3:208:GLU:HB2	2.30	0.46
6:A5:81:VAL:HA	6:A5:102:VAL:HG12	1.97	0.46
6:A5:161:LYS:HA	6:A5:164:TYR:CD2	2.51	0.46
8:A7:151:HIS:CE1	8:A7:179:LYS:HE2	2.50	0.46
11:AC:235:VAL:HA	11:AC:238:PHE:HB2	1.96	0.46
13:AE:55:GLY:HA2	85:AA:313:A:C1'	2.46	0.46
13:AE:102:ILE:HG12	13:AE:123:ILE:HG23	1.98	0.46
14:AF:119:LEU:HD13	85:AA:1604:A:H62	1.81	0.46
16:AH:21:TYR:CE1	16:AH:85:ALA:HB1	2.50	0.46
17:AI:40:PHE:CE1	17:AI:93:THR:HG22	2.51	0.46
18:AJ:41:MET:HA	18:AJ:129:PHE:CZ	2.51	0.46
18:AJ:43:LYS:C	18:AJ:44:HIS:CD2	2.94	0.46
25:AR:22:CYS:C	25:AR:24:ALA:H	2.24	0.46
32:AY:3:LYS:O	32:AY:5:HIS:CE1	2.69	0.46
32:AY:62:PRO:HD2	85:AA:633:C:H1'	1.98	0.46
34:BA:26:C:H4'	34:BA:59:A:H4'	1.98	0.46
34:BA:97:A:C2	34:BA:98:A:C5	3.04	0.46
34:BA:130:U:H2'	34:BA:131:A:H3'	1.98	0.46
34:BA:146:G:C6	34:BA:147:U:C5	3.04	0.46
34:BA:186:G:H2'	34:BA:187:G:C8	2.51	0.46
34:BA:255:G:C6	34:BA:257:G:N7	2.84	0.46
34:BA:300:C:O2'	34:BA:301:U:H5'	2.15	0.46
34:BA:369:A:C6	35:BB:1242:C:C2	3.04	0.46
34:BA:370:U:H2'	34:BA:370:U:O2	2.16	0.46
34:BA:371:U:H2'	34:BA:372:U:O4'	2.15	0.46
34:BA:443:U:H1'	34:BA:458:G:N2	2.31	0.46
34:BA:527:C:C2	34:BA:585:G:C2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:618:G:C5	34:BA:619:U:C4	3.04	0.46
34:BA:701:G:C2	34:BA:702:G:N9	2.83	0.46
34:BA:804:G:C8	34:BA:805:A:C4	3.03	0.46
34:BA:821:G:H1'	34:BA:849:G:N1	2.31	0.46
34:BA:827:A:C2	34:BA:841:G:N3	2.84	0.46
34:BA:845:U:H1'	42:BI:77:TRP:CZ2	2.51	0.46
34:BA:890:G:H2'	34:BA:891:C:C6	2.50	0.46
34:BA:902:C:C2	34:BA:903:C:C5	3.04	0.46
34:BA:902:C:N3	34:BA:903:C:C4	2.84	0.46
34:BA:955:G:C2	34:BA:956:G:C2	3.04	0.46
34:BA:1063:G:C2	34:BA:1064:A:C4	3.03	0.46
34:BA:1192:A:N1	34:BA:1193:A:C4	2.84	0.46
34:BA:1255:G:C6	34:BA:1256:A:C6	3.04	0.46
34:BA:1295:U:H1'	34:BA:1296:U:N3	2.31	0.46
34:BA:1353:U:H2'	34:BA:1355:G:H5''	1.97	0.46
34:BA:1376:U:O2	34:BA:1378:A:C8	2.69	0.46
34:BA:1627:U:H3'	34:BA:1628:A:C8	2.50	0.46
34:BA:1675:C:C5	34:BA:1676:A:N7	2.83	0.46
34:BA:1675:C:N4	34:BA:1676:A:C6	2.84	0.46
34:BA:1786:C:N3	34:BA:1787:U:C4	2.84	0.46
34:BA:1797:A:H4'	34:BA:1798:G:O5'	2.16	0.46
34:BA:1845:G:C2	35:BB:6:A:C5	3.04	0.46
35:BB:357:C:H4'	35:BB:358:U:C6	2.50	0.46
35:BB:369:A:C6	35:BB:370:A:N6	2.84	0.46
35:BB:408:U:C4	35:BB:1414:A:C2	3.04	0.46
35:BB:411:A:C5	35:BB:413:A:N7	2.84	0.46
35:BB:423:G:C6	35:BB:424:U:C4	3.03	0.46
35:BB:530:C:C5	35:BB:531:U:C5	3.04	0.46
35:BB:630:A:C6	35:BB:631:G:C6	3.04	0.46
35:BB:751:A:C8	86:AB:57:G:C2	3.03	0.46
35:BB:849:A:H5''	35:BB:850:U:H5''	1.97	0.46
35:BB:872:A:C2	35:BB:963:G:C4	3.04	0.46
35:BB:907:U:C4	35:BB:952:U:C4	3.04	0.46
35:BB:961:G:C2	35:BB:962:U:C6	3.04	0.46
35:BB:990:G:P	35:BB:990:G:H3'	2.56	0.46
35:BB:1000:U:C4	35:BB:1001:G:N7	2.83	0.46
35:BB:1102:U:C5	35:BB:1103:A:C6	3.04	0.46
35:BB:1110:G:C6	35:BB:1111:C:C4	3.04	0.46
35:BB:1136:G:O3'	35:BB:1138:A:C8	2.69	0.46
35:BB:1144:A:N1	35:BB:1145:G:C5	2.84	0.46
35:BB:1153:G:C4	35:BB:1154:C:C6	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1157:G:H2'	35:BB:1158:C:C6	2.50	0.46
35:BB:1164:U:O2	35:BB:1187:G:N2	2.48	0.46
35:BB:1231:U:H2'	35:BB:1232:A:H8	1.81	0.46
35:BB:1311:G:C6	35:BB:1312:U:N3	2.84	0.46
35:BB:1335:G:C5	35:BB:1336:G:C5	3.04	0.46
36:BC:54:G:C5	36:BC:55:U:C5	3.04	0.46
36:BC:88:A:C2	36:BC:90:U:C2	3.04	0.46
36:BC:117:A:C2	36:BC:147:G:C4	3.04	0.46
37:BD:1:G:C2	80:Bu:271:ALA:O	2.69	0.46
37:BD:2:G:H1'	80:Bu:275:PRO:HG3	1.98	0.46
37:BD:17:G:C6	37:BD:18:G:C5	3.04	0.46
37:BD:105:G:C5	37:BD:106:G:N7	2.84	0.46
37:BD:107:G:C6	37:BD:108:G:C6	3.04	0.46
38:BE:8:G:C2	38:BE:9:C:N3	2.84	0.46
38:BE:30:C:H2'	38:BE:31:A:C8	2.51	0.46
38:BE:104:G:C2	38:BE:105:A:C4	3.04	0.46
38:BE:154:A:H2'	38:BE:155:C:H5''	1.97	0.46
38:BE:163:A:C5	38:BE:164:C:C5	3.04	0.46
39:BF:3:A:C5	39:BF:4:A:C8	3.03	0.46
39:BF:8:C:C4	39:BF:18:U:N3	2.84	0.46
40:BG:4:A:C8	40:BG:4:A:OP2	2.69	0.46
40:BG:28:A:H2'	40:BG:29:U:O4'	2.16	0.46
40:BG:80:G:C6	40:BG:81:G:C5	3.04	0.46
40:BG:94:G:C6	40:BG:104:A:N6	2.84	0.46
40:BG:110:U:C2	40:BG:111:C:C5	3.04	0.46
40:BG:136:G:C6	40:BG:137:G:N9	2.84	0.46
41:BH:18:C:C4	41:BH:19:G:C8	3.03	0.46
47:BN:62:GLN:HA	47:BN:76:LEU:CD1	2.45	0.46
47:BN:102:VAL:HG23	47:BN:103:ASP:H	1.80	0.46
48:BO:170:ASP:O	48:BO:173:GLU:HB3	2.15	0.46
57:BX:58:HIS:CD2	57:BX:61:ARG:HH11	2.34	0.46
58:BY:6:CYS:O	58:BY:10:HIS:CA	2.64	0.46
70:Bk:72:LYS:C	70:Bk:74:TYR:H	2.24	0.46
74:Bo:73:THR:O	74:Bo:76:ASN:HB3	2.15	0.46
77:Br:225:LEU:HA	77:Br:225:LEU:HD12	1.78	0.46
83:Bx:149:LEU:HD21	83:Bx:209:THR:HG22	1.97	0.46
84:By:4:LYS:HE2	84:By:61:ASN:CG	2.40	0.46
85:AA:51:A:H3'	85:AA:52:U:H6	1.79	0.46
85:AA:114:C:C6	85:AA:114:C:H3'	2.51	0.46
85:AA:123:A:C2	85:AA:330:C:C4	3.03	0.46
85:AA:127:U:C5	85:AA:180:A:H5''	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:130:G:H2'	85:AA:131:C:O4'	2.16	0.46
85:AA:159:G:C4	85:AA:164:G:C2	3.04	0.46
85:AA:267:U:N3	85:AA:268:A:C2	2.84	0.46
85:AA:346:U:C4	85:AA:347:U:C5	3.03	0.46
85:AA:372:U:H3'	85:AA:372:U:C6	2.51	0.46
85:AA:389:A:C6	85:AA:390:U:C4	3.04	0.46
85:AA:412:G:N1	85:AA:413:G:C5	2.84	0.46
85:AA:557:G:C6	85:AA:571:G:C6	3.04	0.46
85:AA:713:G:C3'	85:AA:714:U:H5'	2.45	0.46
85:AA:875:C:N4	85:AA:930:G:H1	2.14	0.46
85:AA:985:G:C4	85:AA:986:U:C6	3.03	0.46
85:AA:1007:G:C2	85:AA:1096:G:C2	3.03	0.46
85:AA:1099:U:C5	85:AA:1100:U:C5	3.04	0.46
85:AA:1109:G:N3	85:AA:1109:G:H2'	2.31	0.46
85:AA:1119:A:N1	85:AA:1206:A:C2	2.84	0.46
85:AA:1274:A:C2	85:AA:1276:A:O4'	2.69	0.46
85:AA:1457:C:H6	85:AA:1457:C:C5'	2.29	0.46
85:AA:1475:A:OP2	85:AA:1475:A:H4'	2.15	0.46
85:AA:1491:G:O2'	85:AA:1492:U:H6	1.98	0.46
85:AA:1544:G:C4	85:AA:2046:G:C6	3.03	0.46
85:AA:1667:C:H3'	85:AA:1668:G:C8	2.51	0.46
85:AA:1681:G:O5'	85:AA:1681:G:H8	1.98	0.46
85:AA:1703:A:C6	85:AA:1704:C:N4	2.84	0.46
85:AA:1885:A:C5	85:AA:1887:G:C8	3.04	0.46
85:AA:1969:A:C2	85:AA:1970:A:C2	3.04	0.46
85:AA:2067:A:C5	85:AA:2069:A:C4	3.04	0.46
85:AA:2186:U:C6	85:AA:2186:U:C3'	2.98	0.46
85:AA:2202:G:C6	85:AA:2203:C:C4	3.03	0.46
85:AA:2225:G:C5	85:AA:2226:U:C4	3.04	0.46
2:A1:24:PHE:CD1	2:A1:27:ARG:HD3	2.51	0.46
2:A1:51:TYR:CE2	27:AT:22:LEU:HB3	2.51	0.46
2:A1:190:GLY:HA2	2:A1:208:LYS:O	2.16	0.46
3:A2:42:TRP:CH2	3:A2:52:ILE:HB	2.51	0.46
4:A3:125:GLU:O	4:A3:130:VAL:HG22	2.15	0.46
7:A6:82:TYR:HB3	7:A6:106:ARG:NH2	2.30	0.46
15:AG:23:PRO:HG2	15:AG:25:TRP:NE1	2.31	0.46
21:AM:136:HIS:CE1	21:AM:139:THR:CG2	2.99	0.46
23:AP:193:VAL:N	23:AP:194:PRO:HD2	2.31	0.46
26:AS:119:ARG:HB3	26:AS:120:PHE:CZ	2.51	0.46
30:AW:32:TYR:HA	85:AA:1208:C:H41	1.81	0.46
33:AZ:41:GLY:HA2	33:AZ:63:LEU:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:14:G:C6	36:BC:153:C:N3	2.84	0.46
34:BA:37:A:C5	34:BA:1036:G:C6	3.04	0.46
34:BA:111:U:C4	34:BA:383:G:N3	2.84	0.46
34:BA:112:C:C4	34:BA:382:G:O6	2.68	0.46
34:BA:113:G:C8	34:BA:114:U:OP2	2.69	0.46
34:BA:135:G:H2'	34:BA:136:A:O4'	2.16	0.46
34:BA:239:C:H6	34:BA:239:C:H5''	1.80	0.46
34:BA:363:G:N1	34:BA:379:C:C2	2.83	0.46
34:BA:449:G:C4	34:BA:453:A:C6	3.04	0.46
34:BA:597:C:C5	34:BA:598:G:C6	3.04	0.46
34:BA:667:U:O5'	34:BA:667:U:H6	1.98	0.46
34:BA:689:C:H5''	39:BF:1:C:C5	2.51	0.46
34:BA:695:A:O2'	34:BA:696:A:H5'	2.16	0.46
34:BA:716:C:N4	34:BA:720:A:C8	2.84	0.46
34:BA:742:C:C2	47:BN:10:HIS:CG	3.04	0.46
34:BA:757:G:C5'	34:BA:758:G:N2	2.79	0.46
34:BA:797:A:C2	34:BA:858:C:H1'	2.51	0.46
34:BA:798:G:C6	61:Bb:114:HIS:ND1	2.84	0.46
34:BA:856:G:N2	34:BA:857:C:H1'	2.31	0.46
34:BA:912:G:H2'	34:BA:913:U:C6	2.51	0.46
34:BA:952:G:C6	34:BA:953:G:C4	3.03	0.46
34:BA:1016:A:C4	34:BA:1017:C:C6	3.03	0.46
34:BA:1054:U:H3'	34:BA:1055:U:C6	2.51	0.46
34:BA:1080:U:H2'	34:BA:1081:U:C5'	2.45	0.46
34:BA:1090:A:C6	34:BA:1091:U:C2	3.04	0.46
34:BA:1092:U:H2'	34:BA:1093:G:O4'	2.16	0.46
34:BA:1186:U:H3'	34:BA:1187:U:C5'	2.46	0.46
34:BA:1201:G:C6	34:BA:1202:G:N7	2.83	0.46
34:BA:1208:U:H6	34:BA:1208:U:OP1	1.99	0.46
34:BA:1236:U:C4	34:BA:1249:G:C6	3.04	0.46
34:BA:1261:G:H2'	34:BA:1262:A:C5'	2.46	0.46
34:BA:1477:C:H5''	34:BA:1478:G:C2	2.50	0.46
34:BA:1603:A:C5	34:BA:1604:A:C5	3.04	0.46
34:BA:1662:U:C5	35:BB:18:A:C2	3.04	0.46
34:BA:1820:G:N1	34:BA:1821:A:C2	2.84	0.46
35:BB:1:U:O5'	35:BB:2:C:H1'	2.16	0.46
35:BB:72:G:O6	35:BB:73:G:C6	2.69	0.46
35:BB:81:A:H1'	40:BG:121:C:C4	2.51	0.46
35:BB:141:G:C6	35:BB:320:G:C6	3.04	0.46
35:BB:537:A:N1	35:BB:538:A:C2	2.83	0.46
35:BB:620:G:N7	35:BB:621:C:C5	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:669:A:C5	77:Br:74:ARG:CZ	2.98	0.46
35:BB:799:A:H2'	35:BB:972:C:H4'	1.98	0.46
35:BB:830:G:H2'	35:BB:831:C:O4'	2.15	0.46
35:BB:1002:G:C6	35:BB:1003:G:C5	3.04	0.46
35:BB:1081:U:C5	35:BB:1082:A:N3	2.83	0.46
35:BB:1086:G:N3	35:BB:1086:G:H2'	2.30	0.46
35:BB:1094:A:C6	35:BB:1095:G:C8	3.04	0.46
35:BB:1263:A:C6	35:BB:1264:U:C4	3.04	0.46
35:BB:1274:G:C2	35:BB:1328:C:C2	3.04	0.46
35:BB:1322:A:H2'	35:BB:1323:U:H6	1.80	0.46
35:BB:1361:A:C2	35:BB:1362:G:N3	2.84	0.46
35:BB:1367:U:O4	35:BB:1368:A:C4	2.69	0.46
35:BB:1379:U:C6	35:BB:1379:U:H3'	2.51	0.46
35:BB:1399:A:C6	65:Bf:311:TRP:CZ2	3.04	0.46
35:BB:1415:G:C5	35:BB:1416:A:N7	2.84	0.46
35:BB:1432:U:C4	35:BB:1433:U:O4	2.68	0.46
36:BC:56:G:N7	36:BC:57:C:C5	2.83	0.46
36:BC:71:A:N9	36:BC:87:C:H1'	2.31	0.46
36:BC:134:G:C2	36:BC:135:A:C4	3.04	0.46
36:BC:135:A:N1	36:BC:136:G:C5	2.83	0.46
37:BD:52:U:H4'	45:BL:16:MET:HB3	1.98	0.46
37:BD:60:C:C2	37:BD:61:C:C6	3.04	0.46
39:BF:36:G:C2	39:BF:48:G:N3	2.84	0.46
39:BF:53:G:O5'	39:BF:54:U:C5	2.69	0.46
39:BF:70:A:H3'	39:BF:70:A:C8	2.51	0.46
40:BG:7:U:C4	40:BG:8:U:C5	3.03	0.46
40:BG:28:A:C4	40:BG:29:U:C5	3.03	0.46
40:BG:94:G:C6	40:BG:95:U:C5	3.04	0.46
40:BG:119:A:C4	40:BG:122:G:N7	2.84	0.46
41:BH:68:G:N2	41:BH:69:C:C2	2.84	0.46
41:BH:107:A:C8	41:BH:108:U:C5	3.04	0.46
44:BK:43:VAL:HB	44:BK:174:THR:HG21	1.98	0.46
49:BP:46:MET:HG2	49:BP:49:HIS:CD2	2.51	0.46
50:BQ:137:TRP:CE3	50:BQ:137:TRP:O	2.69	0.46
54:BU:56:TYR:HB3	54:BU:57:TYR:CE2	2.51	0.46
54:BU:79:PRO:HA	54:BU:84:THR:HG22	1.97	0.46
56:BW:36:LEU:HD23	56:BW:63:SER:C	2.41	0.46
65:Bf:211:ILE:O	65:Bf:238:GLN:HA	2.16	0.46
65:Bf:410:GLU:CD	65:Bf:411:LYS:H	2.24	0.46
66:Bg:25:ILE:O	66:Bg:28:VAL:HB	2.16	0.46
67:Bh:86:MET:HA	67:Bh:186:ILE:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:Bl:37:ARG:HH21	71:Bl:40:MET:HA	1.79	0.46
72:Bm:6:ARG:HH11	72:Bm:36:ASP:HB2	1.80	0.46
72:Bm:85:LEU:CD1	72:Bm:85:LEU:N	2.79	0.46
74:Bo:13:ARG:HB2	74:Bo:14:TYR:CE2	2.51	0.46
78:Bs:2:MET:HB3	84:By:94:TYR:C	2.41	0.46
82:Bw:136:LYS:HA	82:Bw:139:GLU:CD	2.41	0.46
85:AA:90:A:C5	85:AA:463:G:C2	3.04	0.46
85:AA:241:U:H4'	85:AA:242:G:N2	2.31	0.46
85:AA:283:A:C2	85:AA:286:C:OP2	2.69	0.46
85:AA:386:G:C2	85:AA:387:U:H4'	2.50	0.46
85:AA:412:G:C4	85:AA:413:G:C8	3.04	0.46
85:AA:456:A:C5	85:AA:457:G:C8	3.04	0.46
85:AA:524:A:C2	85:AA:525:C:H1'	2.51	0.46
85:AA:568:C:H2'	85:AA:569:A:O4'	2.16	0.46
85:AA:621:U:H2'	85:AA:622:G:C8	2.50	0.46
85:AA:688:C:C2	85:AA:689:U:C6	3.04	0.46
85:AA:709:A:N7	85:AA:710:A:C2	2.84	0.46
85:AA:777:U:H5	85:AA:778:C:C5	2.33	0.46
85:AA:850:U:H2'	85:AA:851:G:C8	2.51	0.46
85:AA:1112:G:N7	85:AA:1114:A:C4	2.83	0.46
85:AA:1209:U:C2	85:AA:1210:U:C4	3.04	0.46
85:AA:1234:G:C2	85:AA:1235:G:H1'	2.51	0.46
85:AA:1278:C:C6	85:AA:1278:C:C3'	2.99	0.46
85:AA:1448:A:C6	85:AA:1449:C:N3	2.84	0.46
85:AA:1547:G:C2	85:AA:2041:G:C2	3.03	0.46
85:AA:1553:G:C2	85:AA:1903:G:C4	3.04	0.46
85:AA:1580:A:C6	85:AA:2021:A:C5	3.04	0.46
85:AA:1622:G:N2	85:AA:1625:C:C5	2.84	0.46
85:AA:1690:A:C5	85:AA:1692:U:O4'	2.69	0.46
85:AA:1718:C:N3	85:AA:1720:C:C5	2.84	0.46
85:AA:1772:U:H5'	85:AA:1775:U:C5	2.50	0.46
85:AA:1955:U:O4	85:AA:1956:C:C2	2.69	0.46
85:AA:2164:G:C6	85:AA:2165:C:C5	3.04	0.46
2:A1:9:LEU:CD2	2:A1:11:ALA:H	2.29	0.46
2:A1:189:ILE:H	2:A1:241:GLY:HA3	1.81	0.46
3:A2:18:GLN:O	3:A2:99:ILE:HG21	2.15	0.46
3:A2:42:TRP:CD1	3:A2:48:ARG:O	2.69	0.46
5:A4:191:MET:SD	85:AA:1356:U:OP1	2.74	0.46
6:A5:181:GLU:HB3	41:BH:92:A:OP1	2.15	0.46
7:A6:14:PRO:HG3	7:A6:42:TRP:CD1	2.51	0.46
8:A7:223:TRP:CE3	8:A7:230:ALA:HA	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AC:66:SER:HA	11:AC:83:ASN:HD21	1.81	0.46
18:AJ:12:ARG:NH1	85:AA:1472:G:C6	2.84	0.46
23:AP:87:ARG:HB3	23:AP:200:PHE:CG	2.50	0.46
23:AP:120:HIS:HA	23:AP:147:VAL:O	2.15	0.46
26:AS:140:LYS:HG3	26:AS:141:PRO:HD2	1.97	0.46
29:AV:59:SER:C	29:AV:61:ILE:H	2.24	0.46
34:BA:5:C:C4	34:BA:6:C:C5	3.04	0.46
34:BA:15:G:N3	34:BA:15:G:H2'	2.30	0.46
34:BA:129:U:C2	34:BA:135:G:C2	3.04	0.46
34:BA:155:U:H2'	34:BA:167:U:O3'	2.16	0.46
34:BA:252:A:H3'	34:BA:252:A:C8	2.51	0.46
34:BA:450:G:C4	34:BA:1615:A:C4	3.03	0.46
34:BA:463:A:C6	34:BA:466:G:C5	3.04	0.46
34:BA:487:A:H2	35:BB:652:G:H5'	1.80	0.46
34:BA:534:C:C5'	82:Bw:82:ARG:HG3	2.45	0.46
34:BA:628:U:C5	34:BA:630:U:C4	3.04	0.46
34:BA:696:A:C2	34:BA:697:A:C4	3.04	0.46
34:BA:726:G:O6	34:BA:727:G:C6	2.69	0.46
34:BA:732:A:C5	34:BA:733:G:C8	3.04	0.46
34:BA:763:U:C6	34:BA:770:G:O2'	2.61	0.46
34:BA:802:G:C5	34:BA:803:U:C6	3.04	0.46
34:BA:854:A:C5	34:BA:855:C:C5	3.04	0.46
34:BA:906:A:H61	34:BA:1033:G:H1	1.64	0.46
34:BA:937:G:C4	34:BA:938:C:C6	3.04	0.46
34:BA:943:G:C4	34:BA:944:G:C8	3.04	0.46
34:BA:1043:C:C4	34:BA:1581:G:N1	2.84	0.46
34:BA:1046:G:N1	34:BA:1522:G:C5	2.84	0.46
34:BA:1053:U:C6	34:BA:1053:U:H3'	2.51	0.46
34:BA:1073:G:C8	34:BA:1073:G:H3'	2.51	0.46
34:BA:1093:G:C2	34:BA:1165:A:C2	3.03	0.46
34:BA:1117:G:C2	34:BA:1142:C:N3	2.84	0.46
34:BA:1142:C:OP2	34:BA:1142:C:C5	2.69	0.46
34:BA:1146:U:C6	34:BA:1146:U:O5'	2.69	0.46
34:BA:1156:U:C4	34:BA:1157:A:C5	3.04	0.46
34:BA:1242:A:C2	34:BA:1243:A:C2	3.04	0.46
34:BA:1408:C:H2'	34:BA:1409:A:C8	2.51	0.46
34:BA:1409:A:C2	34:BA:1410:C:H1'	2.50	0.46
34:BA:1467:U:H5''	68:Bi:61:ASP:HA	1.98	0.46
34:BA:1523:U:C2	34:BA:1525:G:C8	3.04	0.46
34:BA:1551:G:H2'	34:BA:1552:C:C5	2.50	0.46
34:BA:1583:A:C5	34:BA:1584:G:C6	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1615:A:H4'	34:BA:1616:A:OP1	2.16	0.46
34:BA:1691:G:C6	34:BA:1825:U:O4	2.69	0.46
34:BA:1822:U:N3	34:BA:1823:A:C2	2.84	0.46
35:BB:59:U:H5''	35:BB:59:U:H6	1.80	0.46
35:BB:125:G:N2	35:BB:379:U:H1'	2.30	0.46
35:BB:425:G:C5	64:Be:150:LEU:HD13	2.51	0.46
35:BB:446:U:OP1	64:Be:129:ALA:HB3	2.15	0.46
35:BB:479:U:N3	35:BB:480:C:C5	2.84	0.46
35:BB:526:A:H61	85:AA:2112:G:HO2'	1.49	0.46
35:BB:595:U:H2'	35:BB:596:C:C6	2.51	0.46
35:BB:660:G:N2	35:BB:1440:A:C2	2.84	0.46
35:BB:683:U:H2'	35:BB:684:U:C6	2.51	0.46
35:BB:902:C:H2'	35:BB:903:U:C6	2.50	0.46
35:BB:1018:U:H6	35:BB:1018:U:O5'	1.99	0.46
35:BB:1232:A:C6	35:BB:1245:A:C2	3.04	0.46
35:BB:1249:G:N3	35:BB:1249:G:H2'	2.30	0.46
35:BB:1287:U:C4	35:BB:1288:G:N7	2.84	0.46
35:BB:1323:U:C6	35:BB:1323:U:O5'	2.69	0.46
35:BB:1353:G:N1	35:BB:1365:G:C6	2.84	0.46
35:BB:1384:A:C6	35:BB:1385:C:C2	3.04	0.46
35:BB:1427:A:H8	64:Be:215:ASN:OD1	1.99	0.46
35:BB:1468:A:H2'	35:BB:1469:A:N7	2.30	0.46
35:BB:1479:C:H2'	35:BB:1480:G:C8	2.51	0.46
35:BB:1529:G:N1	35:BB:1540:U:C2	2.84	0.46
36:BC:124:A:N1	36:BC:140:U:C2	2.84	0.46
36:BC:138:C:O5'	36:BC:138:C:H6	1.99	0.46
38:BE:20:C:C4	38:BE:21:C:C5	3.04	0.46
38:BE:50:G:C2	38:BE:59:U:C2	3.04	0.46
38:BE:66:A:H3'	38:BE:67:A:C8	2.50	0.46
38:BE:66:A:C8	38:BE:67:A:C8	3.04	0.46
38:BE:67:A:C8	38:BE:67:A:O5'	2.69	0.46
38:BE:96:G:C4	38:BE:97:G:N7	2.84	0.46
38:BE:101:C:C2'	38:BE:117:A:H61	2.26	0.46
38:BE:123:A:C6	38:BE:124:G:C6	3.03	0.46
38:BE:148:C:H3'	38:BE:149:A:C8	2.50	0.46
38:BE:158:U:C3'	38:BE:159:A:C8	2.98	0.46
38:BE:180:G:C2	38:BE:181:U:H2'	2.50	0.46
39:BF:60:C:O2'	39:BF:61:A:H2'	2.16	0.46
40:BG:6:A:C6	40:BG:7:U:C4	3.04	0.46
40:BG:34:A:C4	40:BG:169:A:N9	2.84	0.46
40:BG:64:C:H2'	40:BG:65:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:95:U:OP1	53:BT:58:HIS:CE1	2.69	0.46
40:BG:95:U:H2'	53:BT:62:ARG:HH12	1.80	0.46
40:BG:129:G:C5	40:BG:162:A:C6	3.04	0.46
40:BG:164:U:C2	40:BG:165:C:C5	3.04	0.46
41:BH:28:U:C2	41:BH:29:G:C8	3.04	0.46
41:BH:33:G:P	67:Bh:91:HIS:CE1	3.09	0.46
41:BH:43:G:C4	41:BH:44:A:N7	2.84	0.46
41:BH:63:G:O6	41:BH:64:U:C4	2.69	0.46
44:BK:177:LEU:CD1	44:BK:180:GLU:H	2.28	0.46
45:BL:105:ASP:HA	45:BL:163:LYS:HE3	1.98	0.46
47:BN:36:GLN:O	47:BN:39:ARG:HB3	2.15	0.46
56:BW:89:ARG:HE	56:BW:93:THR:HG21	1.81	0.46
56:BW:120:VAL:O	56:BW:139:VAL:CG2	2.64	0.46
67:Bh:91:HIS:HA	67:Bh:146:ARG:CD	2.46	0.46
67:Bh:172:HIS:CE1	67:Bh:173:ILE:O	2.69	0.46
82:Bw:101:VAL:O	82:Bw:129:THR:HA	2.15	0.46
83:Bx:45:LYS:CB	83:Bx:47:PHE:CZ	2.99	0.46
84:By:86:PHE:CD2	84:By:149:LEU:N	2.83	0.46
85:AA:24:U:H2'	85:AA:26:A:C8	2.50	0.46
85:AA:108:C:N3	85:AA:369:A:N1	2.64	0.46
85:AA:146:U:C6	85:AA:333:A:H1'	2.51	0.46
85:AA:148:G:C2	85:AA:176:C:O2	2.69	0.46
85:AA:159:G:N2	85:AA:162:A:OP2	2.49	0.46
85:AA:206:U:H2'	85:AA:207:G:H3'	1.97	0.46
85:AA:209:C:H3'	85:AA:209:C:C6	2.51	0.46
85:AA:274:A:C2	85:AA:975:G:C6	3.04	0.46
85:AA:312:G:C8	85:AA:313:A:C8	3.03	0.46
85:AA:348:G:N1	85:AA:349:C:C2	2.84	0.46
85:AA:355:G:H2'	85:AA:356:U:H6	1.81	0.46
85:AA:369:A:O2'	85:AA:370:A:H5'	2.16	0.46
85:AA:466:A:H5''	85:AA:467:U:OP2	2.15	0.46
85:AA:512:U:H2'	85:AA:513:G:C8	2.51	0.46
85:AA:690:G:C6	85:AA:696:G:O6	2.69	0.46
85:AA:692:U:H5''	85:AA:1279:A:C8	2.50	0.46
85:AA:937:G:O3'	85:AA:938:A:C8	2.69	0.46
85:AA:1133:C:OP2	85:AA:1133:C:C5	2.69	0.46
85:AA:1241:A:C5	85:AA:1262:A:C4	3.04	0.46
85:AA:1450:U:H2'	85:AA:1451:U:O4'	2.15	0.46
85:AA:1571:A:C8	85:AA:1572:C:C5	3.04	0.46
85:AA:1600:G:C6	85:AA:1601:G:C6	3.04	0.46
85:AA:1828:C:OP2	85:AA:1829:C:C5	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1910:A:C6	85:AA:2006:G:C4'	2.99	0.46
85:AA:2057:G:H2'	85:AA:2057:G:N3	2.31	0.46
85:AA:2147:A:C2	85:AA:2148:C:H1'	2.51	0.46
85:AA:2171:A:H3'	85:AA:2171:A:C8	2.51	0.46
86:AB:70:G:H2'	86:AB:71:G:OP1	2.16	0.46
1:A0:107:MET:SD	1:A0:111:ARG:HG3	2.56	0.45
2:A1:51:TYR:CZ	27:AT:22:LEU:HB3	2.51	0.45
2:A1:111:VAL:HG12	2:A1:235:THR:HG23	1.98	0.45
2:A1:120:MET:SD	2:A1:158:VAL:HG22	2.55	0.45
3:A2:129:PRO:HD3	33:AZ:90:LEU:CD1	2.45	0.45
3:A2:184:ARG:CZ	86:AB:41:C:C4'	2.74	0.45
11:AC:79:SER:N	20:AL:127:ALA:HA	2.31	0.45
15:AG:23:PRO:HG2	15:AG:25:TRP:CD1	2.51	0.45
20:AL:102:ASP:HA	20:AL:121:LEU:O	2.16	0.45
21:AM:27:VAL:N	21:AM:28:PRO:CD	2.79	0.45
27:AT:8:ALA:N	27:AT:37:TRP:HA	2.31	0.45
31:AX:196:GLU:HA	31:AX:196:GLU:OE1	2.16	0.45
32:AY:62:PRO:CB	85:AA:631:G:H21	2.29	0.45
34:BA:52:G:C6	34:BA:53:G:C5	3.03	0.45
34:BA:87:G:O6	34:BA:96:G:C4	2.69	0.45
34:BA:135:G:C2	34:BA:136:A:C4	3.04	0.45
34:BA:156:U:H2'	34:BA:167:U:H5'	1.98	0.45
34:BA:161:U:C6	34:BA:161:U:C5'	2.99	0.45
34:BA:162:G:C5	34:BA:321:G:N7	2.84	0.45
34:BA:165:C:C4	34:BA:322:U:C2	3.04	0.45
34:BA:255:G:N1	34:BA:257:G:C5	2.85	0.45
34:BA:266:G:N2	34:BA:267:G:H1'	2.31	0.45
34:BA:279:U:H3'	34:BA:280:A:N7	2.31	0.45
34:BA:299:C:C2	34:BA:300:C:C6	3.04	0.45
34:BA:490:A:C5	34:BA:491:U:N3	2.84	0.45
34:BA:518:C:C2'	34:BA:684:G:H21	2.25	0.45
34:BA:526:C:C4	34:BA:527:C:C5	3.04	0.45
34:BA:563:A:C2'	34:BA:564:C:H5'	2.46	0.45
34:BA:705:C:C2'	34:BA:706:C:C6	2.97	0.45
34:BA:728:A:O4'	35:BB:627:G:H2'	2.16	0.45
34:BA:736:G:N3	34:BA:901:C:H1'	2.31	0.45
34:BA:756:A:C8	34:BA:757:G:C1'	2.99	0.45
34:BA:760:G:C2	34:BA:761:U:C4	3.04	0.45
34:BA:817:U:C4	34:BA:854:A:N1	2.84	0.45
34:BA:959:G:C2	35:BB:401:U:C2	3.04	0.45
34:BA:1025:A:C2	34:BA:1026:C:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1260:G:C4	34:BA:1270:G:N2	2.84	0.45
34:BA:1282:G:C5	34:BA:1283:U:C4	3.04	0.45
34:BA:1309:U:C5	34:BA:1309:U:OP1	2.69	0.45
34:BA:1333:G:C4	34:BA:1409:A:N1	2.84	0.45
34:BA:1377:A:H1'	34:BA:1399:A:O4'	2.16	0.45
34:BA:1547:G:C2	34:BA:1562:G:C4	3.04	0.45
34:BA:1554:C:C5	34:BA:1555:G:C5	3.05	0.45
34:BA:1620:U:H2'	34:BA:1621:U:C6	2.51	0.45
34:BA:1623:U:C4	34:BA:1625:C:H5''	2.51	0.45
34:BA:1661:U:C1'	34:BA:1662:U:C5	2.98	0.45
34:BA:1690:U:O4	34:BA:1823:A:C2	2.69	0.45
34:BA:1736:A:N1	34:BA:1737:A:C4	2.84	0.45
34:BA:1817:G:C8	75:Bp:72:ARG:CZ	2.99	0.45
34:BA:1834:A:C2	34:BA:1835:A:C1'	2.98	0.45
34:BA:1845:G:N1	35:BB:5:A:N6	2.64	0.45
35:BB:30:A:O2'	35:BB:32:C:C5	2.69	0.45
35:BB:54:U:H2'	35:BB:55:C:C6	2.52	0.45
35:BB:68:G:C4	35:BB:69:A:C6	3.04	0.45
35:BB:72:G:C5	35:BB:73:G:N7	2.84	0.45
35:BB:124:G:C2	35:BB:380:G:C6	3.04	0.45
35:BB:440:U:O2	35:BB:441:G:C8	2.69	0.45
35:BB:546:A:C5	35:BB:555:G:C5	3.03	0.45
35:BB:561:C:C4	35:BB:563:A:C8	3.04	0.45
35:BB:769:C:C2	35:BB:770:G:C2	3.04	0.45
35:BB:822:G:C6	35:BB:823:G:N7	2.84	0.45
35:BB:842:G:N1	35:BB:843:G:C5	2.84	0.45
35:BB:967:G:C6	35:BB:968:C:C4	3.04	0.45
35:BB:999:G:C2	35:BB:1020:U:O2	2.69	0.45
35:BB:1196:A:C5	35:BB:1197:G:H1'	2.50	0.45
35:BB:1230:A:N6	47:BN:199:PHE:CE1	2.84	0.45
35:BB:1250:A:H5''	79:Bt:67:LYS:HE3	1.98	0.45
35:BB:1269:A:C4	35:BB:1270:C:C6	3.05	0.45
35:BB:1345:A:H2'	35:BB:1345:A:N3	2.30	0.45
35:BB:1406:C:C4	35:BB:1407:U:C4	3.03	0.45
35:BB:1449:G:H5''	65:Bf:72:ARG:HB2	1.98	0.45
35:BB:1541:G:OP2	35:BB:1541:G:C8	2.69	0.45
36:BC:3:C:N3	36:BC:4:G:C5	2.83	0.45
36:BC:13:U:C3'	36:BC:13:U:C6	2.99	0.45
36:BC:78:G:H2'	36:BC:79:A:N9	2.32	0.45
36:BC:91:G:C2	36:BC:92:C:C2	3.04	0.45
38:BE:76:U:H1'	38:BE:84:U:C4	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:152:U:N3	38:BE:154:A:C2	2.84	0.45
38:BE:161:G:C5	38:BE:162:U:C5	3.04	0.45
39:BF:3:A:N1	39:BF:4:A:C4	2.85	0.45
39:BF:49:C:H3'	39:BF:50:C:C6	2.50	0.45
39:BF:72:A:H3'	39:BF:73:U:O2	2.16	0.45
40:BG:33:G:H22	40:BG:173:C:H42	1.64	0.45
41:BH:26:C:OP2	41:BH:26:C:C6	2.70	0.45
41:BH:47:G:C4	41:BH:106:G:C2	3.03	0.45
42:BI:87:ALA:HB3	42:BI:107:ILE:HA	1.97	0.45
44:BK:99:ILE:HG12	44:BK:123:ASN:CG	2.41	0.45
50:BQ:178:GLN:HE22	50:BQ:179:ARG:HG2	1.81	0.45
51:BR:4:TYR:CE2	51:BR:18:LYS:HB2	2.52	0.45
52:BS:75:ASN:O	52:BS:130:SER:HA	2.15	0.45
53:BT:100:ARG:HA	53:BT:103:ARG:HB2	1.98	0.45
60:Ba:56:MET:HE2	60:Ba:64:ARG:NH2	2.31	0.45
65:Bf:421:SER:HB3	65:Bf:426:GLY:HA2	1.98	0.45
70:Bk:92:THR:O	70:Bk:96:ARG:HG2	2.15	0.45
71:Bl:115:PRO:HA	71:Bl:122:VAL:HA	1.98	0.45
72:Bm:6:ARG:HH11	72:Bm:36:ASP:CB	2.30	0.45
76:Bq:23:VAL:HG13	76:Bq:28:ARG:HD2	1.97	0.45
77:Br:269:SER:HA	77:Br:273:SER:O	2.16	0.45
80:Bu:60:VAL:HG12	80:Bu:80:SER:HB3	1.98	0.45
81:Bv:172:ALA:O	81:Bv:174:TYR:HA	2.16	0.45
84:By:61:ASN:OD1	84:By:64:ASN:HB3	2.15	0.45
85:AA:55:A:C4	85:AA:468:A:N1	2.84	0.45
85:AA:64:A:C2	85:AA:84:C:C2	3.04	0.45
85:AA:71:G:C2'	85:AA:76:G:H1	2.28	0.45
85:AA:116:G:C6	85:AA:117:C:H1'	2.51	0.45
85:AA:172:A:C6	85:AA:173:A:C2	3.04	0.45
85:AA:265:A:O4'	85:AA:868:A:C2	2.69	0.45
85:AA:347:U:C6	85:AA:348:G:C8	3.03	0.45
85:AA:392:G:H2'	85:AA:393:C:C6	2.50	0.45
85:AA:458:C:H41	85:AA:465:A:H1'	1.81	0.45
85:AA:519:A:C4	85:AA:521:A:N7	2.83	0.45
85:AA:561:C:C4	85:AA:562:C:C2	3.04	0.45
85:AA:686:U:H5''	85:AA:1477:A:C2	2.51	0.45
85:AA:703:U:H2'	85:AA:704:A:C5'	2.46	0.45
85:AA:792:A:C4	85:AA:800:A:C2	3.04	0.45
85:AA:892:C:C5	85:AA:892:C:OP2	2.69	0.45
85:AA:941:C:OP2	85:AA:1108:U:N3	2.49	0.45
85:AA:1247:A:C6	85:AA:1248:U:C2	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1287:C:C2	85:AA:1471:G:N2	2.84	0.45
85:AA:1288:A:C5	85:AA:1289:U:C4	3.04	0.45
85:AA:1350:A:H2'	85:AA:1351:U:C6	2.51	0.45
85:AA:1357:U:H3'	85:AA:1358:A:H5''	1.99	0.45
85:AA:1366:A:H2'	85:AA:1367:C:H4'	1.97	0.45
85:AA:1370:G:H8	85:AA:1370:G:O5'	1.98	0.45
85:AA:1555:G:C2	85:AA:1901:G:C5	3.03	0.45
85:AA:1566:A:H4'	85:AA:1868:G:H5''	1.98	0.45
85:AA:1567:C:C2	85:AA:1571:A:C5	3.03	0.45
85:AA:1575:G:C2	85:AA:1577:G:C6	3.04	0.45
85:AA:1686:G:C5	85:AA:1687:U:C4	3.05	0.45
85:AA:1829:C:C2	85:AA:1830:U:C5	3.04	0.45
85:AA:1922:A:C2	85:AA:1922:A:OP1	2.68	0.45
85:AA:1975:G:C2	85:AA:1976:G:C4	3.04	0.45
85:AA:2135:A:C2	85:AA:2184:A:N3	2.84	0.45
85:AA:2173:A:C5	85:AA:2174:G:C5	3.03	0.45
85:AA:2182:A:N7	85:AA:2183:U:C4	2.84	0.45
2:A1:88:GLU:HG2	2:A1:89:ILE:N	2.30	0.45
3:A2:145:ARG:HB3	3:A2:149:PHE:CZ	2.52	0.45
4:A3:47:ARG:C	4:A3:49:TYR:H	2.25	0.45
4:A3:190:ARG:CZ	85:AA:334:A:H2	2.29	0.45
5:A4:12:LYS:HD2	5:A4:15:ARG:HA	1.98	0.45
7:A6:33:TYR:CE2	7:A6:104:LEU:HD13	2.50	0.45
11:AC:183:PHE:HA	11:AC:197:ILE:HB	1.98	0.45
17:AI:94:PRO:HA	17:AI:97:VAL:HB	1.96	0.45
25:AR:6:THR:O	25:AR:7:TYR:CD1	2.69	0.45
26:AS:74:LEU:O	26:AS:78:ASP:HA	2.15	0.45
28:AU:27:LYS:HE3	85:AA:2039:G:C5	2.52	0.45
34:BA:12:G:C2	36:BC:155:C:N3	2.84	0.45
34:BA:15:G:C5	34:BA:16:C:C5	3.03	0.45
34:BA:40:A:N6	35:BB:1260:A:C4	2.85	0.45
34:BA:44:U:C6	34:BA:45:A:C8	3.04	0.45
34:BA:156:U:C6	34:BA:166:G:O3'	2.69	0.45
34:BA:160:G:C3'	34:BA:161:U:H5	2.25	0.45
34:BA:170:U:C2	34:BA:319:C:C2	3.04	0.45
34:BA:173:U:O5'	34:BA:173:U:H6	2.00	0.45
34:BA:290:G:C8	34:BA:290:G:H3'	2.51	0.45
34:BA:352:G:C2	34:BA:353:U:C2	3.03	0.45
34:BA:362:G:C2	34:BA:363:G:C4	3.04	0.45
34:BA:404:C:H3'	77:Br:196:ARG:NH1	2.31	0.45
34:BA:419:U:OP2	34:BA:429:G:C6	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:451:A:H2'	34:BA:452:A:C8	2.52	0.45
34:BA:499:C:H5''	71:BI:89:ILE:HB	1.98	0.45
34:BA:544:U:N3	34:BA:545:U:C5	2.84	0.45
34:BA:626:G:H2'	34:BA:627:U:H5'	1.99	0.45
34:BA:692:U:N3	34:BA:696:A:H1'	2.31	0.45
34:BA:718:U:O4	34:BA:719:G:C6	2.69	0.45
34:BA:752:A:H1'	34:BA:785:G:N2	2.31	0.45
34:BA:849:G:C8	42:BI:147:ARG:HG3	2.51	0.45
34:BA:856:G:C2	34:BA:882:G:C2	3.04	0.45
34:BA:1043:C:H42	34:BA:1526:C:N4	2.14	0.45
34:BA:1075:U:H6	34:BA:1075:U:O5'	1.98	0.45
34:BA:1241:U:H2'	34:BA:1242:A:O4'	2.16	0.45
34:BA:1357:C:C2	34:BA:1358:A:C8	3.04	0.45
34:BA:1384:G:C2	34:BA:1394:U:H1'	2.52	0.45
34:BA:1400:A:C5	34:BA:1401:C:C5	3.03	0.45
34:BA:1519:G:N1	34:BA:1520:A:C5	2.85	0.45
34:BA:1686:G:C4	34:BA:1687:A:C8	3.04	0.45
34:BA:1715:C:H5'	34:BA:1718:C:C6	2.51	0.45
34:BA:1728:G:H4'	34:BA:1729:G:OP2	2.16	0.45
34:BA:1731:A:C5	34:BA:1732:A:C5	3.04	0.45
34:BA:1737:A:N1	34:BA:1738:G:C6	2.84	0.45
34:BA:1752:A:C2	34:BA:1772:G:C5	3.05	0.45
34:BA:1840:C:C2	34:BA:1841:A:C8	3.05	0.45
35:BB:52:G:H2'	35:BB:53:C:C5	2.51	0.45
35:BB:96:A:C2	35:BB:97:U:C5	3.04	0.45
35:BB:110:U:H3	35:BB:456:A:H61	1.63	0.45
35:BB:127:U:P	53:BT:74:ARG:HH21	2.39	0.45
35:BB:386:G:H2'	35:BB:387:G:O4'	2.16	0.45
35:BB:391:G:C6	35:BB:392:G:N7	2.84	0.45
35:BB:481:A:C2	35:BB:482:A:N3	2.84	0.45
35:BB:492:U:C6	35:BB:492:U:H3'	2.50	0.45
35:BB:494:C:H3'	35:BB:494:C:C6	2.51	0.45
35:BB:552:C:N3	35:BB:553:U:C4	2.84	0.45
35:BB:634:A:C2	35:BB:648:G:N3	2.85	0.45
35:BB:691:A:C5	35:BB:1054:G:C2	3.04	0.45
35:BB:794:G:C5	35:BB:795:A:N7	2.84	0.45
35:BB:812:G:N3	35:BB:828:G:C2	2.84	0.45
35:BB:843:G:N2	35:BB:844:G:C4	2.84	0.45
35:BB:843:G:N2	35:BB:970:C:H1'	2.32	0.45
35:BB:847:U:C3'	35:BB:848:A:C5'	2.89	0.45
35:BB:1034:U:O4	35:BB:1035:C:C4	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1113:C:C2	35:BB:1114:A:C8	3.04	0.45
35:BB:1163:U:C5	35:BB:1164:U:C4	3.04	0.45
35:BB:1220:A:C6	35:BB:1221:G:C6	3.03	0.45
35:BB:1295:A:C4	35:BB:1308:G:C2	3.04	0.45
35:BB:1391:G:C6	35:BB:1392:A:N1	2.84	0.45
35:BB:1499:U:C6	35:BB:1500:U:C5	3.04	0.45
35:BB:1510:G:C2	35:BB:1511:U:C4	3.04	0.45
35:BB:1533:U:C5	35:BB:1535:G:C5'	2.99	0.45
36:BC:19:A:C5	36:BC:20:C:C5	3.04	0.45
36:BC:27:U:H2'	36:BC:28:C:C6	2.50	0.45
37:BD:5:A:C2	37:BD:115:A:C2	3.05	0.45
37:BD:79:G:C5	37:BD:98:G:C6	3.04	0.45
37:BD:93:G:H3'	37:BD:94:C:C5	2.51	0.45
38:BE:59:U:C2	38:BE:60:C:C5	3.04	0.45
38:BE:64:A:C2	38:BE:140:G:C5	3.03	0.45
38:BE:92:C:N3	38:BE:129:G:C6	2.84	0.45
38:BE:102:U:O4	38:BE:104:G:C2	2.69	0.45
38:BE:108:U:C5	53:BT:124:TYR:CE2	3.03	0.45
38:BE:170:U:N3	38:BE:171:U:C2	2.85	0.45
40:BG:69:G:N1	40:BG:70:C:N3	2.64	0.45
40:BG:70:C:H2'	40:BG:71:C:C6	2.52	0.45
40:BG:179:C:H5'	65:Bf:181:PHE:N	2.31	0.45
41:BH:28:U:C6	41:BH:28:U:H3'	2.51	0.45
41:BH:35:G:C4	41:BH:36:C:C6	3.04	0.45
45:BL:27:ASN:HA	45:BL:75:HIS:HA	1.97	0.45
45:BL:59:LEU:H	45:BL:68:ARG:HA	1.82	0.45
47:BN:56:LEU:HB2	47:BN:155:ARG:HB3	1.98	0.45
47:BN:103:ASP:OD1	47:BN:104:ARG:N	2.49	0.45
49:BP:15:ILE:HB	49:BP:22:ASN:N	2.30	0.45
49:BP:34:ASN:ND2	49:BP:52:ASN:HD21	2.13	0.45
49:BP:39:GLU:OE2	49:BP:71:THR:HA	2.16	0.45
49:BP:92:VAL:HG13	49:BP:93:ARG:N	2.32	0.45
53:BT:31:GLU:O	53:BT:34:ASN:HB3	2.16	0.45
62:Bc:70:ASN:O	62:Bc:77:TYR:CZ	2.69	0.45
65:Bf:261:ILE:HG23	65:Bf:262:ASP:N	2.31	0.45
66:Bg:36:LEU:HD12	66:Bg:36:LEU:H	1.81	0.45
67:Bh:60:ALA:HB1	67:Bh:64:ARG:CB	2.46	0.45
69:Bj:66:ARG:HB2	69:Bj:67:LEU:HD23	1.99	0.45
74:Bo:38:PHE:CD1	74:Bo:45:PHE:HB3	2.51	0.45
77:Br:207:MET:O	77:Br:248:ILE:HA	2.16	0.45
77:Br:250:TRP:CZ3	77:Br:255:PHE:HA	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:Br:326:ARG:C	77:Br:333:GLN:HE22	2.24	0.45
81:Bv:51:LEU:HA	81:Bv:90:LEU:HD13	1.98	0.45
83:Bx:91:PHE:CD2	83:Bx:91:PHE:N	2.81	0.45
85:AA:10:G:C6	85:AA:11:A:C6	3.05	0.45
85:AA:11:A:C5	85:AA:12:U:C6	3.04	0.45
85:AA:88:G:C5	85:AA:89:C:C5	3.04	0.45
85:AA:159:G:C2	85:AA:161:A:H5''	2.50	0.45
85:AA:159:G:N2	85:AA:161:A:H5''	2.31	0.45
85:AA:161:A:H3'	85:AA:162:A:H8	1.81	0.45
85:AA:268:A:O5'	85:AA:269:G:H5'	2.16	0.45
85:AA:311:U:N3	85:AA:313:A:H3'	2.31	0.45
85:AA:367:A:C8	85:AA:367:A:H5''	2.52	0.45
85:AA:388:G:C5	85:AA:403:G:N2	2.84	0.45
85:AA:427:G:C6	85:AA:428:G:N7	2.84	0.45
85:AA:572:G:O2'	85:AA:573:U:H5'	2.16	0.45
85:AA:587:G:N1	85:AA:588:G:C5	2.85	0.45
85:AA:725:G:H5'	85:AA:778:C:C2	2.52	0.45
85:AA:772:C:H2'	85:AA:773:G:H5'	1.99	0.45
85:AA:774:C:C4	85:AA:775:C:C4	3.03	0.45
85:AA:788:G:H8	85:AA:790:A:C6	2.34	0.45
85:AA:842:G:C6	85:AA:843:U:C4	3.04	0.45
85:AA:939:A:C4	85:AA:939:A:H3'	2.50	0.45
85:AA:1132:A:C2	85:AA:1194:U:N3	2.84	0.45
85:AA:1168:C:H2'	85:AA:1169:A:H8	1.79	0.45
85:AA:1226:A:C2	85:AA:1227:A:H1'	2.50	0.45
85:AA:1257:A:C6	85:AA:1258:U:C4	3.04	0.45
85:AA:1457:C:H2'	85:AA:1458:G:H5''	1.95	0.45
85:AA:1474:U:H1'	85:AA:1476:C:O2	2.16	0.45
85:AA:1662:U:C2	85:AA:1663:U:C6	3.04	0.45
85:AA:1852:U:H2'	85:AA:1854:U:H5'	1.97	0.45
85:AA:1857:G:N2	85:AA:1858:G:H1'	2.32	0.45
85:AA:1917:G:C2	85:AA:1918:U:C2	3.05	0.45
85:AA:1937:G:C2	85:AA:1938:G:C4	3.04	0.45
85:AA:2034:G:H3'	85:AA:2035:C:H4'	1.98	0.45
85:AA:2040:A:H4'	85:AA:2041:G:C4	2.52	0.45
85:AA:2054:G:C2	85:AA:2055:G:C5	3.04	0.45
85:AA:2082:C:H4'	85:AA:2083:G:O4'	2.16	0.45
85:AA:2112:G:C4	85:AA:2113:U:C6	3.04	0.45
85:AA:2124:G:H2'	85:AA:2125:A:C8	2.51	0.45
85:AA:2215:C:N4	85:AA:2218:G:C2	2.85	0.45
1:A0:21:GLN:HG2	1:A0:25:SER:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A0:151:GLN:HG2	1:A0:156:CYS:SG	2.57	0.45
2:A1:145:ARG:NH1	85:AA:122:A:H4'	2.31	0.45
4:A3:58:ASP:OD1	4:A3:62:PHE:N	2.50	0.45
6:A5:183:ARG:HD2	41:BH:93:G:O5'	2.05	0.45
8:A7:195:HIS:CD2	8:A7:195:HIS:N	2.85	0.45
11:AC:65:ASN:HA	11:AC:82:THR:N	2.31	0.45
13:AE:55:GLY:C	13:AE:56:LEU:HD12	2.41	0.45
15:AG:77:HIS:CG	85:AA:941:C:C5'	2.99	0.45
15:AG:89:TYR:O	15:AG:92:ILE:HB	2.16	0.45
20:AL:2:GLY:C	20:AL:4:ILE:H	2.23	0.45
25:AR:8:ASN:H	25:AR:11:GLY:C	2.24	0.45
34:BA:23:A:C6	34:BA:395:G:C2	3.05	0.45
34:BA:62:A:C4	34:BA:109:A:N7	2.85	0.45
34:BA:82:A:C5	34:BA:84:U:O4	2.70	0.45
34:BA:135:G:C8	34:BA:135:G:H3'	2.51	0.45
34:BA:169:C:H2'	34:BA:170:U:C6	2.51	0.45
34:BA:238:C:H3'	34:BA:238:C:H6	1.81	0.45
34:BA:248:G:N9	34:BA:437:G:C4	2.84	0.45
34:BA:398:G:C4	36:BC:30:U:N3	2.84	0.45
34:BA:478:G:H1	36:BC:10:C:H42	1.63	0.45
34:BA:484:A:N1	36:BC:6:G:C5	2.84	0.45
34:BA:515:U:H2'	34:BA:516:U:C5	2.52	0.45
34:BA:544:U:O4	34:BA:545:U:C5	2.69	0.45
34:BA:557:U:C3'	34:BA:557:U:H2'	2.19	0.45
34:BA:568:G:C6	34:BA:569:C:C5	3.05	0.45
34:BA:576:C:O5'	34:BA:578:C:H3'	2.17	0.45
34:BA:663:U:C2	34:BA:664:C:C6	3.04	0.45
34:BA:734:G:N1	34:BA:1582:C:C2	2.84	0.45
34:BA:828:A:C2	34:BA:829:U:C1'	2.99	0.45
34:BA:954:U:O4	34:BA:955:G:C4	2.70	0.45
34:BA:955:G:C2	34:BA:956:G:C4	3.04	0.45
34:BA:982:A:C8	34:BA:982:A:C5'	2.99	0.45
34:BA:1015:G:N7	34:BA:1023:G:C6	2.85	0.45
34:BA:1147:C:C6	34:BA:1147:C:O5'	2.70	0.45
34:BA:1195:G:C5	34:BA:1196:C:C5	3.05	0.45
34:BA:1208:U:C5	34:BA:1210:A:C6	3.05	0.45
34:BA:1212:A:C6	34:BA:1213:A:C5	3.05	0.45
34:BA:1273:U:C6	34:BA:1273:U:OP2	2.70	0.45
34:BA:1287:G:C6	34:BA:1436:A:N1	2.84	0.45
34:BA:1537:G:H2'	34:BA:1537:G:N3	2.30	0.45
34:BA:1553:G:C2	34:BA:1557:G:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1630:A:N3	51:BR:54:LYS:HA	2.31	0.45
34:BA:1692:U:H1'	35:BB:12:G:N3	2.31	0.45
34:BA:1709:A:H2'	34:BA:1709:A:N3	2.31	0.45
34:BA:1718:C:H2'	34:BA:1719:G:C8	2.51	0.45
34:BA:1745:G:H1	34:BA:1779:U:H3	1.64	0.45
34:BA:1756:C:C2	34:BA:1768:G:N2	2.85	0.45
35:BB:34:G:N1	35:BB:35:G:C5	2.84	0.45
35:BB:386:G:O6	35:BB:387:G:C6	2.69	0.45
35:BB:543:G:H3'	35:BB:544:C:H6	1.81	0.45
35:BB:594:U:C2	35:BB:595:U:C5	3.05	0.45
35:BB:610:U:H2'	35:BB:611:U:C5	2.51	0.45
35:BB:613:C:H2'	35:BB:614:U:O4'	2.16	0.45
35:BB:634:A:C6	35:BB:648:G:N1	2.85	0.45
35:BB:653:G:C6	35:BB:654:C:C2	3.05	0.45
35:BB:681:G:N1	35:BB:682:U:C2	2.84	0.45
35:BB:684:U:C4	35:BB:1053:G:N1	2.84	0.45
35:BB:709:G:C2'	35:BB:710:A:H5'	2.46	0.45
35:BB:846:A:N1	35:BB:967:G:C4	2.85	0.45
35:BB:847:U:C6	35:BB:848:A:H5''	2.50	0.45
35:BB:996:G:C6	35:BB:997:G:N7	2.84	0.45
35:BB:996:G:N1	35:BB:997:G:C4	2.84	0.45
35:BB:1036:G:C6	35:BB:1037:A:C4	3.04	0.45
35:BB:1110:G:C2	35:BB:1111:C:C2	3.05	0.45
35:BB:1144:A:C5	35:BB:1145:G:N7	2.84	0.45
35:BB:1203:C:C4	35:BB:1204:C:C5	3.05	0.45
35:BB:1294:C:C6	35:BB:1311:G:C2	3.05	0.45
36:BC:3:C:H2'	36:BC:4:G:C8	2.51	0.45
36:BC:66:G:C5	36:BC:67:U:C4	3.05	0.45
36:BC:105:C:C1'	36:BC:149:A:C5	2.99	0.45
36:BC:108:A:C2	36:BC:113:G:C6	3.04	0.45
37:BD:5:A:C6	37:BD:6:C:C4	3.04	0.45
37:BD:15:U:C6	37:BD:15:U:O5'	2.69	0.45
38:BE:128:G:H5'	69:Bj:55:ALA:HA	1.98	0.45
38:BE:150:G:N1	38:BE:151:C:C2	2.85	0.45
38:BE:158:U:C2	38:BE:159:A:C5	3.04	0.45
38:BE:191:U:C2	38:BE:192:A:C8	3.04	0.45
38:BE:201:A:H2'	38:BE:202:C:O4'	2.17	0.45
39:BF:5:U:C5	71:Bl:105:THR:HG22	2.51	0.45
40:BG:116:G:N1	40:BG:117:C:C2	2.85	0.45
45:BL:157:PHE:C	45:BL:159:HIS:H	2.24	0.45
51:BR:59:PRO:HG2	51:BR:76:TRP:CD1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BU:69:PRO:CD	63:Bd:37:TRP:NE1	2.75	0.45
58:BY:4:ILE:HG22	58:BY:5:ASP:N	2.30	0.45
60:Ba:86:MET:HE2	60:Ba:127:PHE:CG	2.52	0.45
60:Ba:88:LEU:HD12	60:Ba:91:GLU:OE1	2.16	0.45
61:Bb:70:LYS:HA	61:Bb:71:PRO:HD3	1.76	0.45
62:Bc:89:SER:HA	82:Bw:5:GLY:C	2.41	0.45
65:Bf:299:HIS:CE1	65:Bf:300:ARG:H	2.35	0.45
66:Bg:24:LYS:O	66:Bg:27:LEU:HB3	2.16	0.45
68:Bi:47:TYR:O	68:Bi:50:GLN:HG2	2.16	0.45
78:Bs:10:ALA:HA	78:Bs:13:TYR:CD2	2.52	0.45
79:Bt:3:ASN:HA	79:Bt:92:GLU:HB3	1.99	0.45
79:Bt:11:HIS:CE1	79:Bt:13:PRO:HD3	2.51	0.45
82:Bw:35:GLN:CD	82:Bw:35:GLN:N	2.74	0.45
82:Bw:168:HIS:CA	82:Bw:178:ILE:HG23	2.46	0.45
85:AA:66:U:C5'	85:AA:81:A:H61	2.29	0.45
85:AA:88:G:C8	85:AA:89:C:C5	3.05	0.45
85:AA:102:A:H3'	85:AA:103:U:C5	2.51	0.45
85:AA:124:A:H2'	85:AA:185:A:H61	1.81	0.45
85:AA:180:A:H2'	85:AA:181:A:C8	2.50	0.45
85:AA:298:C:C1'	85:AA:299:A:C6	3.00	0.45
85:AA:376:C:N1	85:AA:423:G:C2	2.84	0.45
85:AA:428:G:C2	85:AA:447:C:C2	3.04	0.45
85:AA:582:A:H3'	85:AA:583:U:C6	2.51	0.45
85:AA:683:U:C2	85:AA:1485:G:N2	2.84	0.45
85:AA:740:A:C2	85:AA:741:G:H5''	2.51	0.45
85:AA:775:C:H2'	85:AA:776:C:C6	2.52	0.45
85:AA:786:G:H2'	85:AA:787:U:C6	2.52	0.45
85:AA:787:U:OP2	85:AA:788:G:C4	2.69	0.45
85:AA:789:A:P	85:AA:790:A:H2'	2.57	0.45
85:AA:969:U:C6	85:AA:969:U:O5'	2.69	0.45
85:AA:1149:A:C6	85:AA:1150:G:C4	3.04	0.45
85:AA:1175:A:H4'	85:AA:1237:A:N1	2.31	0.45
85:AA:1252:A:C6	85:AA:1254:A:C6	3.03	0.45
85:AA:1272:G:H3'	85:AA:1272:G:C8	2.52	0.45
85:AA:1563:U:O4'	85:AA:1585:A:C8	2.69	0.45
85:AA:1580:A:C2	85:AA:2021:A:C4	3.04	0.45
85:AA:1643:U:OP2	85:AA:1643:U:C5	2.70	0.45
85:AA:1993:C:C5	85:AA:1994:G:C6	3.04	0.45
85:AA:2016:A:N6	85:AA:2027:U:H3	2.14	0.45
85:AA:2083:G:C6	85:AA:2084:U:C4	3.04	0.45
85:AA:2130:G:C4	85:AA:2131:C:C6	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2189:U:N3	85:AA:2190:U:C4	2.84	0.45
3:A2:142:LYS:HB3	3:A2:174:TYR:CE1	2.51	0.45
6:A5:22:ARG:HD3	85:AA:450:A:H5''	1.98	0.45
7:A6:122:HIS:CD2	7:A6:123:HIS:N	2.84	0.45
7:A6:157:PHE:CE1	7:A6:163:PHE:HB3	2.51	0.45
13:AE:171:PHE:CZ	85:AA:943:U:C4	3.04	0.45
21:AM:27:VAL:CG1	21:AM:28:PRO:HD3	2.46	0.45
23:AP:217:ARG:HA	23:AP:220:PHE:HB2	1.99	0.45
29:AV:22:PRO:HA	29:AV:32:VAL:O	2.17	0.45
34:BA:29:U:H2'	34:BA:30:A:H8	1.81	0.45
34:BA:40:A:N1	35:BB:1260:A:C2	2.84	0.45
34:BA:44:U:C4	34:BA:45:A:C5	3.04	0.45
34:BA:72:U:C6	34:BA:73:G:C6	3.05	0.45
34:BA:74:A:C5	34:BA:75:U:C5	3.04	0.45
34:BA:93:A:C8	34:BA:93:A:O5'	2.68	0.45
34:BA:214:A:C2'	34:BA:215:C:C5	2.99	0.45
34:BA:221:G:C2	34:BA:222:C:C2	3.03	0.45
34:BA:234:A:N7	34:BA:235:C:C4	2.84	0.45
34:BA:236:A:O2'	34:BA:239:C:C5	2.68	0.45
34:BA:239:C:C4	34:BA:240:C:C6	3.04	0.45
34:BA:398:G:N3	34:BA:398:G:H2'	2.32	0.45
34:BA:480:G:N1	36:BC:8:C:C2	2.84	0.45
34:BA:482:C:O2	36:BC:6:G:C2	2.69	0.45
34:BA:531:C:C2	34:BA:580:U:O4'	2.69	0.45
34:BA:544:U:H2'	34:BA:545:U:O4'	2.15	0.45
34:BA:557:U:C3'	34:BA:557:U:N1	2.57	0.45
34:BA:594:G:P	34:BA:594:G:H3'	2.57	0.45
34:BA:597:C:C2	34:BA:598:G:C4	3.04	0.45
34:BA:604:G:OP2	34:BA:679:U:N3	2.50	0.45
34:BA:616:G:C6	34:BA:617:G:C6	3.05	0.45
34:BA:772:G:H4'	47:BN:37:LYS:CD	2.47	0.45
34:BA:958:G:C2	34:BA:960:C:C2	3.04	0.45
34:BA:1079:C:H4'	34:BA:1080:U:C5'	2.46	0.45
34:BA:1123:G:N2	34:BA:1138:C:H1'	2.31	0.45
34:BA:1126:U:N3	34:BA:1127:U:C4	2.85	0.45
34:BA:1134:A:C6	34:BA:1135:U:C2	3.05	0.45
34:BA:1140:A:H2'	34:BA:1140:A:N3	2.32	0.45
34:BA:1160:U:C4	34:BA:1161:G:C8	3.05	0.45
34:BA:1219:G:C6	34:BA:1220:C:N3	2.84	0.45
34:BA:1277:G:H1	34:BA:1463:U:H3	1.64	0.45
34:BA:1299:G:N2	34:BA:1440:C:N3	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1321:A:N1	34:BA:1322:A:C4	2.85	0.45
34:BA:1324:G:C2	34:BA:1325:G:C5	3.05	0.45
34:BA:1385:U:C4	34:BA:1386:G:N1	2.85	0.45
34:BA:1494:G:H4'	34:BA:1495:A:H5''	1.98	0.45
34:BA:1616:A:O4'	34:BA:1634:A:C2	2.69	0.45
34:BA:1689:U:H2'	57:BX:137:ARG:HD3	1.99	0.45
34:BA:1738:G:N1	34:BA:1739:G:C4	2.84	0.45
35:BB:18:A:H2'	35:BB:19:C:C6	2.51	0.45
35:BB:381:C:C5	35:BB:382:U:C4	3.04	0.45
35:BB:448:G:C6	35:BB:449:C:C4	3.04	0.45
35:BB:459:U:C2	35:BB:584:A:N1	2.84	0.45
35:BB:478:G:C6	35:BB:503:G:C5	3.04	0.45
35:BB:557:C:H6	35:BB:557:C:O5'	1.99	0.45
35:BB:601:U:O5'	35:BB:601:U:H6	1.99	0.45
35:BB:624:A:H2'	35:BB:625:A:C8	2.52	0.45
35:BB:665:A:N6	35:BB:666:A:C6	2.84	0.45
35:BB:697:G:C6	35:BB:698:C:C4	3.04	0.45
35:BB:705:C:C2	35:BB:706:G:C8	3.05	0.45
35:BB:817:C:C5	35:BB:818:U:C6	3.04	0.45
35:BB:817:C:C4	35:BB:818:U:C4	3.04	0.45
35:BB:999:G:C6	35:BB:1000:U:C5	3.04	0.45
35:BB:1000:U:H3'	35:BB:1000:U:C6	2.51	0.45
35:BB:1003:G:O5'	35:BB:1003:G:C8	2.69	0.45
35:BB:1018:U:C6	35:BB:1018:U:C3'	3.00	0.45
35:BB:1075:A:N7	35:BB:1076:U:C6	2.84	0.45
35:BB:1248:A:N6	35:BB:1249:G:C5	2.84	0.45
35:BB:1294:C:H4'	44:BK:157:MET:SD	2.56	0.45
35:BB:1295:A:H2'	35:BB:1303:A:N1	2.32	0.45
35:BB:1355:C:C5	35:BB:1357:C:N3	2.85	0.45
35:BB:1458:U:N3	39:BF:14:C:C5	2.84	0.45
36:BC:7:U:H2'	36:BC:8:C:N1	2.31	0.45
36:BC:63:G:C6	36:BC:64:U:O4	2.70	0.45
36:BC:80:A:C6	36:BC:81:U:C4	3.04	0.45
36:BC:108:A:C6	36:BC:109:A:C6	3.04	0.45
36:BC:114:C:O5'	36:BC:114:C:H6	1.99	0.45
37:BD:63:C:H3'	44:BK:206:ILE:N	2.31	0.45
37:BD:79:G:N3	37:BD:98:G:C2	2.85	0.45
38:BE:65:U:C6	38:BE:65:U:C3'	2.98	0.45
38:BE:174:U:H3'	38:BE:175:U:C5	2.51	0.45
39:BF:6:C:H1'	39:BF:7:G:N9	2.31	0.45
39:BF:23:G:N1	48:BO:131:VAL:HG13	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BF:32:G:N2	39:BF:34:C:C2	2.85	0.45
39:BF:43:U:O2'	39:BF:44:C:H5'	2.17	0.45
40:BG:6:A:C4	40:BG:7:U:C6	3.04	0.45
40:BG:72:G:C2	40:BG:126:G:C4	3.05	0.45
40:BG:75:C:H2'	40:BG:76:C:O2	2.17	0.45
40:BG:124:A:C4	40:BG:125:C:C5	3.04	0.45
40:BG:170:G:H8	40:BG:172:C:H3'	1.82	0.45
41:BH:23:G:C5	41:BH:24:U:N3	2.85	0.45
41:BH:35:G:H2'	41:BH:36:C:O4'	2.16	0.45
41:BH:117:U:H5''	65:Bf:226:ARG:HH21	1.82	0.45
42:BI:3:VAL:HG13	42:BI:4:ASP:H	1.81	0.45
42:BI:24:PRO:HA	42:BI:27:LYS:HD2	1.98	0.45
44:BK:48:VAL:HG21	44:BK:142:ASP:N	2.31	0.45
47:BN:174:PRO:CA	61:Bb:96:LEU:HD13	2.47	0.45
47:BN:175:ARG:HE	47:BN:176:LYS:CE	2.29	0.45
47:BN:185:LYS:HA	61:Bb:131:ASP:OD1	2.15	0.45
47:BN:198:ARG:HG2	47:BN:199:PHE:CD1	2.51	0.45
49:BP:15:ILE:HB	49:BP:22:ASN:H	1.81	0.45
52:BS:15:GLU:CD	52:BS:25:THR:H	2.24	0.45
57:BX:107:ILE:HG23	57:BX:141:LEU:HD13	1.98	0.45
60:Ba:28:THR:OG1	60:Ba:41:LEU:HD11	2.16	0.45
60:Ba:51:LYS:HB2	60:Ba:56:MET:HE1	1.98	0.45
62:Bc:89:SER:CB	82:Bw:3:MET:SD	3.05	0.45
65:Bf:410:GLU:C	65:Bf:412:ILE:H	2.24	0.45
67:Bh:91:HIS:CD2	67:Bh:91:HIS:N	2.74	0.45
67:Bh:176:PRO:O	67:Bh:181:LEU:HD11	2.16	0.45
74:Bo:45:PHE:CD1	74:Bo:45:PHE:N	2.83	0.45
79:Bt:21:LYS:HD3	79:Bt:76:ASN:HD21	1.81	0.45
82:Bw:182:GLN:OE1	82:Bw:183:MET:SD	2.74	0.45
85:AA:36:U:O2	85:AA:543:A:C2	2.69	0.45
85:AA:94:C:H1'	85:AA:491:G:H5''	1.97	0.45
85:AA:105:A:C6	85:AA:373:G:N1	2.84	0.45
85:AA:114:C:N3	85:AA:366:A:C2	2.85	0.45
85:AA:173:A:C6	85:AA:175:A:C5	3.04	0.45
85:AA:270:A:C4	85:AA:271:A:C8	3.04	0.45
85:AA:454:G:C6	85:AA:455:G:C6	3.05	0.45
85:AA:568:C:C4	85:AA:569:A:C5	3.05	0.45
85:AA:577:U:H3'	85:AA:578:U:H5'	1.98	0.45
85:AA:624:A:C2	85:AA:631:G:N7	2.84	0.45
85:AA:683:U:O4	85:AA:1485:G:C4	2.70	0.45
85:AA:690:G:N1	85:AA:1483:A:C4	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:883:A:C2	85:AA:884:A:C6	3.04	0.45
85:AA:966:G:H3'	85:AA:967:C:C6	2.51	0.45
85:AA:1023:U:H3	85:AA:1047:G:H1	1.64	0.45
85:AA:1182:A:H3'	85:AA:1182:A:H8	1.80	0.45
85:AA:1220:A:C5	85:AA:1221:G:N9	2.85	0.45
85:AA:1455:C:H2'	85:AA:1456:A:O5'	2.16	0.45
85:AA:1478:G:C8	85:AA:1478:G:H5''	2.51	0.45
85:AA:1593:C:N3	85:AA:1887:G:C2	2.85	0.45
85:AA:1687:U:O5'	85:AA:1687:U:C6	2.69	0.45
85:AA:1754:G:H2'	85:AA:1755:U:C4	2.52	0.45
85:AA:1814:U:O2	85:AA:1815:U:C6	2.70	0.45
85:AA:1841:G:C5	85:AA:1842:C:C5	3.05	0.45
85:AA:2091:C:H2'	85:AA:2092:A:C8	2.52	0.45
85:AA:2138:G:H2'	85:AA:2139:G:C8	2.52	0.45
85:AA:2159:C:C5	85:AA:2161:C:O2	2.69	0.45
85:AA:2193:A:N1	85:AA:2194:U:C2	2.83	0.45
85:AA:2200:A:C2	85:AA:2201:A:H1'	2.51	0.45
85:AA:2204:A:N1	85:AA:2205:A:C5	2.85	0.45
85:AA:2211:G:C6	85:AA:2212:U:C4	3.05	0.45
86:AB:33:U:H1'	86:AB:37:A:H62	1.82	0.45
1:A0:81:ASP:HA	1:A0:83:TYR:CD1	2.51	0.45
3:A2:128:SER:HB2	33:AZ:84:CYS:SG	2.57	0.45
4:A3:9:ARG:CD	58:BY:84:ARG:HH22	2.09	0.45
4:A3:162:ARG:HB3	4:A3:174:PHE:CG	2.52	0.45
5:A4:104:ILE:HG22	5:A4:105:THR:N	2.09	0.45
5:A4:150:ASP:CG	85:AA:778:C:H5'	2.41	0.45
7:A6:107:ARG:HH21	7:A6:144:SER:HA	1.80	0.45
11:AC:217:GLU:O	11:AC:221:LEU:HG	2.16	0.45
15:AG:71:ILE:HG22	15:AG:75:LEU:CD1	2.45	0.45
15:AG:77:HIS:CD2	85:AA:941:C:H5'	2.51	0.45
16:AH:35:VAL:HB	16:AH:49:VAL:H	1.81	0.45
17:AI:105:ASN:ND2	85:AA:1893:G:H4'	2.31	0.45
17:AI:145:SER:H	85:AA:1558:U:H5	1.63	0.45
18:AJ:26:LEU:HD12	18:AJ:61:ILE:O	2.17	0.45
22:AO:38:HIS:HA	22:AO:41:GLN:NE2	2.32	0.45
27:AT:34:HIS:CE1	85:AA:604:C:N4	2.84	0.45
32:AY:31:ARG:HG2	32:AY:31:ARG:NH1	2.32	0.45
34:BA:25:C:C5	34:BA:26:C:C5	3.04	0.45
34:BA:46:C:C6	34:BA:342:U:OP1	2.70	0.45
34:BA:54:A:H4'	50:BQ:179:ARG:HH22	1.81	0.45
34:BA:74:A:H2'	34:BA:75:U:C5'	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:95:C:H2'	34:BA:96:G:C8	2.52	0.45
34:BA:203:U:C4	34:BA:204:U:C4	3.05	0.45
34:BA:213:A:C6	34:BA:217:C:C5	3.05	0.45
34:BA:253:U:O4	34:BA:254:U:C2	2.69	0.45
34:BA:275:C:H2'	34:BA:276:C:C6	2.51	0.45
34:BA:411:C:C4	34:BA:413:A:C5	3.05	0.45
34:BA:453:A:C2	34:BA:454:G:C4	3.05	0.45
34:BA:504:A:C2	34:BA:505:U:C6	3.04	0.45
34:BA:540:G:C6	34:BA:568:G:C6	3.04	0.45
34:BA:609:G:C4	34:BA:610:A:C8	3.05	0.45
34:BA:752:A:C2	34:BA:886:G:H1'	2.51	0.45
34:BA:753:G:H2'	34:BA:754:G:O4'	2.15	0.45
34:BA:768:G:C6	34:BA:769:U:H5	2.34	0.45
34:BA:823:G:C4	34:BA:824:C:C6	3.05	0.45
34:BA:927:A:C6	34:BA:928:C:C4	3.05	0.45
34:BA:1232:C:C6	34:BA:1232:C:O5'	2.69	0.45
34:BA:1248:A:H4'	35:BB:1089:A:H1'	1.99	0.45
34:BA:1310:C:C4	34:BA:1311:G:C4	3.04	0.45
34:BA:1502:G:C2	34:BA:1503:U:N1	2.85	0.45
34:BA:1520:A:H2'	34:BA:1521:C:H6	1.82	0.45
34:BA:1529:G:N1	34:BA:1578:A:C4	2.85	0.45
34:BA:1597:G:C6	51:BR:25:HIS:ND1	2.85	0.45
34:BA:1604:A:C2	35:BB:23:U:O2	2.70	0.45
34:BA:1622:U:C6	34:BA:1623:U:C6	3.04	0.45
34:BA:1675:C:C4	34:BA:1676:A:C5	3.05	0.45
34:BA:1699:A:C6	34:BA:1700:C:C4	3.04	0.45
34:BA:1700:C:C4	34:BA:1701:U:C4	3.05	0.45
34:BA:1782:C:OP1	38:BE:209:U:C5	2.69	0.45
34:BA:1817:G:N3	34:BA:1817:G:C2'	2.79	0.45
35:BB:50:A:H2'	35:BB:51:U:H6	1.82	0.45
35:BB:136:A:C4	35:BB:366:G:C2	3.05	0.45
35:BB:406:A:H3'	35:BB:407:A:C2'	2.45	0.45
35:BB:422:U:H2'	35:BB:423:G:O4'	2.17	0.45
35:BB:430:A:H3'	35:BB:430:A:C8	2.52	0.45
35:BB:504:C:O5'	35:BB:504:C:H6	2.00	0.45
35:BB:679:G:N2	35:BB:680:A:H1'	2.31	0.45
35:BB:855:G:N2	35:BB:856:U:C2	2.85	0.45
35:BB:963:G:C2	35:BB:964:G:N9	2.84	0.45
35:BB:981:A:OP2	35:BB:981:A:C2	2.70	0.45
35:BB:992:C:C4	64:Be:70:ARG:O	2.69	0.45
35:BB:1005:A:N1	35:BB:1006:C:C2	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1021:C:H2'	35:BB:1022:C:H6	1.82	0.45
35:BB:1102:U:C2	35:BB:1103:A:N1	2.85	0.45
35:BB:1118:G:C2	35:BB:1131:C:C2	3.05	0.45
35:BB:1138:A:C8	35:BB:1139:A:C5	3.04	0.45
35:BB:1177:U:O4	35:BB:1178:A:C5	2.70	0.45
35:BB:1273:G:H21	35:BB:1276:U:H3	1.64	0.45
35:BB:1350:A:C8	40:BG:158:A:C8	3.05	0.45
35:BB:1371:G:C6	35:BB:1372:G:C6	3.04	0.45
35:BB:1419:G:H2'	35:BB:1420:U:C6	2.52	0.45
35:BB:1471:A:C8	39:BF:21:C:H5'	2.51	0.45
35:BB:1481:C:N3	35:BB:1482:A:C4	2.85	0.45
35:BB:1520:C:H5'	65:Bf:189:ARG:HA	1.99	0.45
35:BB:1528:U:C4	67:Bh:14:GLU:OE2	2.69	0.45
36:BC:26:U:C3'	36:BC:26:U:C6	2.99	0.45
36:BC:75:G:H2'	36:BC:76:C:C6	2.52	0.45
36:BC:88:A:C8	36:BC:88:A:C3'	3.00	0.45
36:BC:121:G:C2	36:BC:143:C:N3	2.85	0.45
36:BC:125:A:H61	36:BC:138:C:N4	2.14	0.45
36:BC:168:C:C6	36:BC:168:C:O5'	2.69	0.45
37:BD:15:U:O4	37:BD:16:U:C4	2.70	0.45
37:BD:37:G:C2	37:BD:41:G:C2	3.03	0.45
37:BD:60:C:H5'	80:Bu:280:THR:O	2.16	0.45
37:BD:90:A:C8	37:BD:91:U:C1'	2.99	0.45
38:BE:112:G:N2	38:BE:183:C:H1'	2.31	0.45
38:BE:158:U:N3	38:BE:159:A:C6	2.84	0.45
38:BE:190:U:C6	38:BE:190:U:O5'	2.69	0.45
38:BE:207:G:C8	60:Ba:63:ARG:HG2	2.52	0.45
40:BG:35:G:C2	40:BG:36:G:C5	3.04	0.45
40:BG:162:A:N1	40:BG:163:G:C5	2.85	0.45
41:BH:13:C:C2	41:BH:19:G:C6	3.05	0.45
41:BH:26:C:N3	41:BH:28:U:C2	2.85	0.45
41:BH:31:A:C6	41:BH:32:U:C4	3.05	0.45
45:BL:115:GLU:HA	45:BL:129:ILE:HG23	1.99	0.45
47:BN:111:GLU:HB3	72:Bm:26:THR:HB	1.99	0.45
49:BP:25:GLY:HA3	49:BP:46:MET:CE	2.46	0.45
51:BR:14:THR:H	51:BR:105:LYS:HZ3	1.64	0.45
59:BZ:40:TYR:HB2	59:BZ:42:VAL:HG23	1.99	0.45
59:BZ:41:ASN:O	59:BZ:123:THR:HB	2.17	0.45
60:Ba:8:LYS:HA	60:Ba:85:ASN:HA	1.98	0.45
61:Bb:108:LYS:HG2	61:Bb:125:TRP:HB2	1.98	0.45
65:Bf:356:TYR:HB2	65:Bf:416:PHE:CD1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:Bf:374:THR:O	65:Bf:375:VAL:HG12	2.17	0.45
67:Bh:85:VAL:O	67:Bh:186:ILE:HB	2.15	0.45
72:Bm:75:LYS:O	72:Bm:78:LEU:HD23	2.16	0.45
73:Bn:64:CYS:HB3	73:Bn:67:LEU:HB3	1.99	0.45
74:Bo:50:LYS:N	74:Bo:54:ILE:O	2.50	0.45
77:Br:171:LYS:HA	77:Br:175:ALA:HB3	1.97	0.45
79:Bt:15:GLU:O	79:Bt:16:ARG:HD3	2.16	0.45
80:Bu:276:LYS:HD3	80:Bu:276:LYS:HA	1.87	0.45
82:Bw:22:PRO:HD2	82:Bw:25:GLU:OE1	2.16	0.45
83:Bx:251:LEU:H	83:Bx:251:LEU:HD12	1.81	0.45
85:AA:1:G:O6	85:AA:3:U:C4	2.70	0.45
85:AA:73:A:H3'	85:AA:74:U:H5''	1.99	0.45
85:AA:151:A:C8	85:AA:152:A:C5	3.04	0.45
85:AA:235:U:H3	85:AA:241:U:H5''	1.81	0.45
85:AA:248:U:H2'	85:AA:249:C:C6	2.52	0.45
85:AA:258:G:N1	85:AA:259:A:C5	2.85	0.45
85:AA:309:G:C6	85:AA:317:A:N6	2.85	0.45
85:AA:366:A:C6	85:AA:367:A:C6	3.05	0.45
85:AA:370:A:C5	85:AA:371:C:C5	3.05	0.45
85:AA:382:G:C6	85:AA:415:G:C5	3.05	0.45
85:AA:466:A:H2	85:AA:467:U:H5'	1.80	0.45
85:AA:602:U:OP2	85:AA:603:C:C4	2.69	0.45
85:AA:725:G:H3'	85:AA:726:U:C2	2.51	0.45
85:AA:761:G:OP2	85:AA:763:U:H4'	2.17	0.45
85:AA:767:A:H2'	85:AA:768:C:C5	2.52	0.45
85:AA:812:C:H2'	85:AA:813:G:H8	1.82	0.45
85:AA:860:C:H4'	85:AA:861:G:N7	2.31	0.45
85:AA:900:G:N1	85:AA:901:C:C5	2.85	0.45
85:AA:1226:A:C6	85:AA:1227:A:C8	3.04	0.45
85:AA:1700:C:H2'	85:AA:1701:G:O4'	2.16	0.45
85:AA:1823:G:H2'	85:AA:1823:G:N3	2.30	0.45
85:AA:1923:A:H62	85:AA:1991:C:H41	1.63	0.45
85:AA:2087:C:H2'	85:AA:2088:U:C6	2.51	0.45
85:AA:2132:A:C5	85:AA:2187:G:N1	2.85	0.45
85:AA:2155:U:H1'	85:AA:2164:G:N2	2.31	0.45
85:AA:2173:A:C2	85:AA:2174:G:C1'	2.99	0.45
1:A0:198:ARG:CZ	1:A0:198:ARG:HA	2.47	0.45
1:A0:215:ARG:HH11	1:A0:215:ARG:HB2	1.81	0.45
4:A3:33:LEU:C	4:A3:35:ASN:H	2.23	0.45
4:A3:36:GLU:CD	4:A3:50:THR:HB	2.41	0.45
4:A3:97:ARG:NH2	85:AA:472:A:H5'	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A6:83:GLY:O	7:A6:106:ARG:HD2	2.17	0.45
7:A6:113:PHE:CG	7:A6:120:SER:C	2.94	0.45
8:A7:133:LEU:HB2	8:A7:146:LEU:HB2	1.99	0.45
9:A8:22:CYS:HG	9:A8:25:CYS:HG	1.64	0.45
10:A9:147:HIS:CE1	85:AA:1611:A:H4'	2.52	0.45
13:AE:74:CYS:O	13:AE:78:SER:HB2	2.16	0.45
18:AJ:7:LEU:HB2	18:AJ:34:VAL:HG12	1.98	0.45
23:AP:123:VAL:O	23:AP:142:ALA:HA	2.16	0.45
24:AQ:52:ARG:HG3	85:AA:1819:U:C1'	2.46	0.45
26:AS:59:ALA:HB3	26:AS:63:ASN:C	2.41	0.45
27:AT:101:LEU:C	27:AT:101:LEU:HD23	2.41	0.45
34:BA:11:U:C4	34:BA:12:G:O6	2.69	0.45
34:BA:19:G:C8	34:BA:1716:A:N3	2.85	0.45
34:BA:83:G:N2	34:BA:96:G:C8	2.85	0.45
34:BA:86:A:N7	34:BA:87:G:C8	2.85	0.45
34:BA:185:A:H1'	34:BA:304:G:C2	2.52	0.45
34:BA:249:A:H1'	34:BA:251:U:C4	2.51	0.45
34:BA:250:G:C8	34:BA:272:A:N6	2.85	0.45
34:BA:272:A:C6	34:BA:275:C:C2	3.05	0.45
34:BA:277:A:H2'	34:BA:278:U:H6	1.82	0.45
34:BA:325:A:H5''	34:BA:325:A:H8	1.80	0.45
34:BA:437:G:OP2	34:BA:438:A:H3'	2.16	0.45
34:BA:442:G:N7	34:BA:467:A:C2	2.84	0.45
34:BA:549:G:H5'	52:BS:147:HIS:N	1.96	0.45
34:BA:563:A:O2'	52:BS:132:PRO:HB3	2.15	0.45
34:BA:679:U:C5	34:BA:680:C:N3	2.84	0.45
34:BA:686:U:C6	34:BA:686:U:C3'	2.99	0.45
34:BA:704:G:C6	34:BA:705:C:N4	2.84	0.45
34:BA:739:A:OP1	50:BQ:221:ARG:NH2	2.50	0.45
34:BA:740:A:OP1	50:BQ:221:ARG:HD3	2.16	0.45
34:BA:747:G:C6	34:BA:890:G:N1	2.85	0.45
34:BA:798:G:H3'	34:BA:800:G:O4'	2.16	0.45
34:BA:963:G:C5	34:BA:992:A:C5	3.04	0.45
34:BA:982:A:C8	34:BA:1020:A:C2	3.05	0.45
34:BA:1034:U:C6	34:BA:1034:U:O5'	2.70	0.45
34:BA:1101:A:H3'	34:BA:1101:A:C8	2.52	0.45
34:BA:1138:C:H2'	34:BA:1139:G:O4'	2.17	0.45
34:BA:1140:A:H3'	34:BA:1141:C:C6	2.51	0.45
34:BA:1164:C:H2'	34:BA:1165:A:H8	1.81	0.45
34:BA:1249:G:C6	34:BA:1250:C:C5	3.05	0.45
34:BA:1324:G:N2	34:BA:1325:G:C4	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1335:A:C2	34:BA:1407:C:N3	2.85	0.45
34:BA:1344:G:C6	34:BA:1345:U:C4	3.05	0.45
34:BA:1372:C:C2	34:BA:1381:A:C6	3.05	0.45
34:BA:1563:G:N3	34:BA:1565:U:C6	2.85	0.45
34:BA:1625:C:H2'	34:BA:1626:U:C6	2.52	0.45
34:BA:1656:A:N1	34:BA:1657:A:C5	2.85	0.45
34:BA:1657:A:N6	34:BA:1658:G:C4	2.85	0.45
34:BA:1841:A:N3	35:BB:9:G:C2	2.84	0.45
35:BB:71:A:H61	35:BB:615:A:C1'	2.23	0.45
35:BB:102:G:H2'	35:BB:103:C:C6	2.52	0.45
35:BB:124:G:C2	35:BB:380:G:C4	3.05	0.45
35:BB:133:G:C4	35:BB:369:A:C2	3.04	0.45
35:BB:325:G:C6	35:BB:326:G:C5	3.05	0.45
35:BB:408:U:O4'	35:BB:1436:U:C2	2.70	0.45
35:BB:470:C:C4	35:BB:471:U:C4	3.04	0.45
35:BB:522:A:OP2	35:BB:528:G:N1	2.49	0.45
35:BB:620:G:C8	35:BB:620:G:H3'	2.52	0.45
35:BB:657:A:H2'	35:BB:658:G:O4'	2.16	0.45
35:BB:679:G:C5	35:BB:680:A:C8	3.04	0.45
35:BB:868:C:H2'	35:BB:868:C:O2	2.15	0.45
35:BB:1004:A:N1	35:BB:1005:A:C5	2.84	0.45
35:BB:1085:C:H3'	35:BB:1086:G:C8	2.52	0.45
35:BB:1174:C:C4	35:BB:1176:G:C6	3.04	0.45
35:BB:1192:C:N3	35:BB:1193:G:C6	2.84	0.45
35:BB:1195:A:C8	35:BB:1195:A:OP2	2.69	0.45
35:BB:1210:U:H3'	35:BB:1211:C:C6	2.51	0.45
35:BB:1219:A:C5	79:Bt:16:ARG:CZ	2.99	0.45
35:BB:1294:C:C5	35:BB:1311:G:N1	2.84	0.45
35:BB:1305:A:C6	35:BB:1306:G:C4	3.05	0.45
35:BB:1347:C:H2'	35:BB:1348:C:C6	2.51	0.45
35:BB:1354:C:H2'	35:BB:1355:C:C6	2.52	0.45
35:BB:1361:A:H2'	35:BB:1362:G:O4'	2.16	0.45
35:BB:1384:A:C6	35:BB:1385:C:N3	2.85	0.45
35:BB:1415:G:C2	35:BB:1416:A:C4	3.05	0.45
35:BB:1504:U:C6	49:BP:139:TRP:CD2	3.04	0.45
35:BB:1533:U:C5	35:BB:1536:G:C4	3.05	0.45
36:BC:13:U:O4	36:BC:14:G:C4	2.70	0.45
36:BC:62:A:H4'	36:BC:63:G:O5'	2.16	0.45
36:BC:96:A:C6	36:BC:97:U:C4	3.05	0.45
36:BC:98:C:C6	36:BC:98:C:C3'	3.00	0.45
36:BC:139:A:C4	36:BC:140:U:H5	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:157:U:O2'	36:BC:158:U:H5''	2.17	0.45
37:BD:41:G:H4'	37:BD:42:A:N7	2.31	0.45
37:BD:73:U:C6	37:BD:73:U:O5'	2.70	0.45
38:BE:49:A:N1	38:BE:50:G:C5	2.84	0.45
38:BE:100:U:O4	38:BE:119:U:C2	2.69	0.45
39:BF:18:U:H6	39:BF:18:U:O5'	2.00	0.45
40:BG:71:C:C4	40:BG:72:G:N7	2.85	0.45
41:BH:45:G:C5	41:BH:46:C:C5	3.04	0.45
41:BH:47:G:C5	41:BH:106:G:N1	2.84	0.45
41:BH:49:C:O3'	41:BH:50:A:C8	2.69	0.45
41:BH:70:U:H3'	41:BH:71:C:C6	2.51	0.45
41:BH:125:U:C2	41:BH:126:C:C5	3.05	0.45
43:BJ:12:ALA:CB	43:BJ:214:TYR:H	2.29	0.45
49:BP:106:THR:N	49:BP:109:GLU:CD	2.74	0.45
51:BR:24:CYS:O	51:BR:144:CYS:SG	2.74	0.45
58:BY:33:LEU:HB3	58:BY:35:PHE:CZ	2.51	0.45
58:BY:98:ARG:CZ	85:AA:2161:C:OP1	2.55	0.45
61:Bb:131:ASP:CG	61:Bb:135:ARG:HH21	2.25	0.45
62:Bc:92:LYS:HG2	62:Bc:107:TYR:CD1	2.51	0.45
67:Bh:71:ALA:O	67:Bh:75:LYS:HB3	2.16	0.45
68:Bi:26:PHE:HB2	68:Bi:29:LEU:HB2	1.98	0.45
69:Bj:61:ARG:HG2	69:Bj:62:HIS:N	2.30	0.45
73:Bn:76:ASN:C	73:Bn:78:PHE:H	2.24	0.45
77:Br:286:ASP:O	77:Br:289:ARG:HB3	2.15	0.45
78:Bs:2:MET:C	78:Bs:6:LEU:HD12	2.40	0.45
80:Bu:79:TYR:HB2	80:Bu:81:HIS:CE1	2.51	0.45
83:Bx:41:VAL:HG22	83:Bx:42:ALA:N	2.32	0.45
83:Bx:186:ASN:O	83:Bx:188:ILE:HG23	2.16	0.45
85:AA:20:G:H4'	85:AA:645:C:C5	2.51	0.45
85:AA:66:U:C6	85:AA:66:U:O5'	2.70	0.45
85:AA:151:A:H2'	85:AA:152:A:O4'	2.16	0.45
85:AA:244:G:C6	85:AA:245:A:C4	3.05	0.45
85:AA:432:A:C2	85:AA:433:U:N3	2.84	0.45
85:AA:495:G:H2'	85:AA:496:C:H6	1.81	0.45
85:AA:531:G:C2	85:AA:532:G:C4	3.04	0.45
85:AA:557:G:H2'	85:AA:558:U:H6	1.81	0.45
85:AA:660:G:C5	85:AA:661:C:C5	3.04	0.45
85:AA:686:U:O4	85:AA:687:G:C2	2.69	0.45
85:AA:771:A:C6	85:AA:773:G:C4	3.04	0.45
85:AA:810:C:N3	85:AA:869:A:H2	2.14	0.45
85:AA:938:A:N7	85:AA:939:A:C8	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:959:C:C6	85:AA:960:G:N7	2.85	0.45
85:AA:994:A:C2	85:AA:995:G:N9	2.85	0.45
85:AA:1023:U:H3	85:AA:1047:G:H22	1.65	0.45
85:AA:1105:G:C6	85:AA:1106:A:N7	2.84	0.45
85:AA:1221:G:H3'	85:AA:1221:G:C8	2.51	0.45
85:AA:1290:G:H1	85:AA:1291:A:H62	1.65	0.45
85:AA:1291:A:N7	85:AA:1292:A:C8	2.85	0.45
85:AA:1293:U:N3	85:AA:1294:U:C6	2.85	0.45
85:AA:1355:U:O2	85:AA:1356:U:C4	2.69	0.45
85:AA:1495:G:C6	85:AA:1496:U:C2	3.05	0.45
85:AA:1501:A:H2'	85:AA:1502:A:O4'	2.15	0.45
85:AA:1524:A:C4	85:AA:1525:C:C5	3.05	0.45
85:AA:1735:U:C6	85:AA:1735:U:O5'	2.70	0.45
85:AA:1829:C:C2	85:AA:1846:G:C2	3.05	0.45
85:AA:1877:G:C2	85:AA:1878:C:C2	3.05	0.45
85:AA:2009:A:C5	85:AA:2010:C:O4'	2.70	0.45
85:AA:2185:U:C4	85:AA:2186:U:C4	3.05	0.45
85:AA:2211:G:C5	85:AA:2212:U:C5	3.05	0.45
85:AA:2234:C:N3	85:AA:2235:C:C4	2.84	0.45
86:AB:18:G:C2	86:AB:58:A:C6	3.05	0.45
86:AB:49:C:H3'	86:AB:50:U:C6	2.52	0.45
1:A0:88:PHE:CD2	1:A0:101:GLN:C	2.95	0.45
4:A3:60:GLU:HG2	85:AA:161:A:N6	2.31	0.45
5:A4:58:ARG:HH21	5:A4:173:LEU:HD11	1.82	0.45
5:A4:69:PRO:CG	85:AA:998:U:C2	3.00	0.45
8:A7:7:GLY:HA2	8:A7:56:TYR:CG	2.52	0.45
8:A7:133:LEU:HD21	8:A7:171:SER:HB3	1.99	0.45
11:AC:57:MET:SD	11:AC:209:MET:HB3	2.56	0.45
11:AC:118:PHE:HB3	11:AC:207:ILE:HG12	1.99	0.45
12:AD:1:MET:HB2	85:AA:1596:A:C5'	2.47	0.45
12:AD:71:PHE:HB2	12:AD:73:TRP:CZ2	2.52	0.45
12:AD:88:TYR:CZ	14:AF:43:THR:HG22	2.51	0.45
15:AG:71:ILE:HG22	15:AG:75:LEU:HD13	1.98	0.45
16:AH:64:PRO:HB3	16:AH:107:ALA:HB2	1.98	0.45
16:AH:89:LYS:HB3	16:AH:125:VAL:HG21	1.98	0.45
17:AI:146:SER:HB2	85:AA:1559:U:H3	1.80	0.45
20:AL:92:ASP:HA	20:AL:94:ALA:HB3	1.99	0.45
27:AT:111:ARG:CZ	85:AA:507:C:C5	3.00	0.45
28:AU:32:LYS:HG2	85:AA:2039:G:C4	2.51	0.45
31:AX:178:ALA:HB1	85:AA:1877:G:O2'	2.16	0.45
32:AY:61:PRO:HB3	85:AA:632:U:H3	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:2:A:C6	36:BC:169:G:C6	3.05	0.45
34:BA:120:A:H1'	83:Bx:113:GLU:O	2.17	0.45
34:BA:129:U:O2	34:BA:130:U:C2	2.70	0.45
34:BA:157:U:H5''	34:BA:325:A:N6	2.30	0.45
34:BA:204:U:H3	34:BA:252:A:H61	1.64	0.45
34:BA:275:C:H2'	34:BA:276:C:H6	1.82	0.45
34:BA:290:G:N1	34:BA:291:C:C4	2.84	0.45
34:BA:363:G:C4	34:BA:364:C:C5	3.04	0.45
34:BA:375:C:O2	34:BA:376:U:C6	2.69	0.45
34:BA:398:G:N1	36:BC:30:U:C4	2.85	0.45
34:BA:412:G:C6	34:BA:418:G:N7	2.84	0.45
34:BA:422:C:H2'	34:BA:423:G:C8	2.52	0.45
34:BA:459:U:C4	34:BA:460:G:C6	3.05	0.45
34:BA:469:C:H5'	34:BA:470:C:P	2.56	0.45
34:BA:492:G:C6	34:BA:710:A:N1	2.84	0.45
34:BA:498:A:C2	34:BA:704:G:C2	3.04	0.45
34:BA:520:G:C6	34:BA:521:C:C6	3.04	0.45
34:BA:608:G:H2'	34:BA:609:G:O4'	2.16	0.45
34:BA:651:U:H6	34:BA:651:U:O5'	2.00	0.45
34:BA:792:A:C2	34:BA:793:A:N3	2.85	0.45
34:BA:792:A:H8	34:BA:792:A:O5'	1.99	0.45
34:BA:798:G:C2	34:BA:800:G:C4	3.05	0.45
34:BA:943:G:N2	34:BA:949:C:C2	2.85	0.45
34:BA:1044:A:C6	34:BA:1045:C:N4	2.85	0.45
34:BA:1045:C:C2	34:BA:1046:G:C8	3.05	0.45
34:BA:1081:U:H3'	34:BA:1081:U:C6	2.51	0.45
34:BA:1161:G:H3'	34:BA:1162:U:C5	2.52	0.45
34:BA:1208:U:H6	34:BA:1208:U:P	2.40	0.45
34:BA:1327:G:C5	34:BA:1328:U:C4	3.04	0.45
34:BA:1343:A:C6	34:BA:1344:G:C5	3.05	0.45
34:BA:1387:U:O2	34:BA:1391:A:C5	2.69	0.45
34:BA:1469:G:C2	34:BA:1470:G:C5	3.04	0.45
34:BA:1535:G:H4'	62:Bc:17:LYS:HD3	1.99	0.45
34:BA:1615:A:C8	34:BA:1615:A:C3'	3.00	0.45
34:BA:1617:U:C6	34:BA:1617:U:C3'	2.95	0.45
34:BA:1622:U:H2'	34:BA:1623:U:C5'	2.47	0.45
34:BA:1638:U:O5'	34:BA:1638:U:H6	1.99	0.45
34:BA:1816:G:N1	34:BA:1827:C:C4	2.85	0.45
35:BB:111:C:O4'	35:BB:112:G:C5	2.70	0.45
35:BB:399:A:C2	35:BB:456:A:C2	3.05	0.45
35:BB:460:C:C5	35:BB:461:U:C5	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:489:A:C2	35:BB:490:G:H1'	2.52	0.45
35:BB:516:G:C5	35:BB:539:G:C2	3.05	0.45
35:BB:676:G:N1	35:BB:678:U:N3	2.65	0.45
35:BB:777:C:O2'	35:BB:778:A:H5''	2.17	0.45
35:BB:780:U:H4'	35:BB:781:U:OP1	2.17	0.45
35:BB:795:A:H2	35:BB:1028:C:C2	2.35	0.45
35:BB:869:G:H2'	35:BB:870:C:C6	2.51	0.45
35:BB:987:U:C2	35:BB:987:U:O5'	2.70	0.45
35:BB:1041:A:C4	35:BB:1042:U:C6	3.05	0.45
35:BB:1202:G:H21	54:BU:49:ARG:HD3	1.82	0.45
35:BB:1280:U:C5	35:BB:1281:G:N7	2.85	0.45
35:BB:1406:C:C2	35:BB:1407:U:C5	3.05	0.45
35:BB:1426:G:C6	35:BB:1427:A:N7	2.85	0.45
35:BB:1507:U:H5''	49:BP:171:ARG:HE	1.82	0.45
36:BC:12:A:N6	36:BC:13:U:C2	2.85	0.45
36:BC:16:A:C5	36:BC:17:U:C5	3.05	0.45
36:BC:60:U:H3	70:Bk:60:THR:N	2.15	0.45
36:BC:77:A:N1	36:BC:78:G:C4	2.84	0.45
36:BC:95:A:C4	36:BC:96:A:C8	3.04	0.45
38:BE:35:A:C2	38:BE:178:G:N3	2.85	0.45
38:BE:44:C:H2'	38:BE:45:G:C8	2.51	0.45
38:BE:101:C:N4	38:BE:120:C:C6	2.85	0.45
39:BF:17:U:C2	71:Bl:85:HIS:HE1	2.32	0.45
39:BF:36:G:H2'	39:BF:37:C:H6	1.81	0.45
39:BF:46:G:C6	39:BF:47:C:C5	3.05	0.45
39:BF:66:C:C5	81:Bv:171:MET:SD	3.10	0.45
40:BG:14:G:H2'	40:BG:15:G:C8	2.52	0.45
40:BG:44:G:H3'	40:BG:44:G:C8	2.51	0.45
40:BG:48:U:C2	40:BG:49:A:N7	2.85	0.45
40:BG:72:G:C4	40:BG:73:U:C6	3.04	0.45
41:BH:13:C:C6	41:BH:14:C:O2	2.70	0.45
41:BH:57:A:C6	41:BH:65:G:C6	3.04	0.45
45:BL:26:ILE:O	45:BL:75:HIS:HB2	2.16	0.45
47:BN:62:GLN:HA	47:BN:76:LEU:HA	1.99	0.45
49:BP:87:TYR:CD2	49:BP:93:ARG:NH1	2.85	0.45
56:BW:48:LEU:C	56:BW:50:ARG:H	2.23	0.45
60:Ba:54:ARG:CG	60:Ba:55:GLY:H	2.29	0.45
62:Bc:89:SER:HA	82:Bw:5:GLY:HA3	1.98	0.45
67:Bh:86:MET:SD	67:Bh:86:MET:N	2.90	0.45
70:Bk:69:ASN:C	70:Bk:73:PHE:CE2	2.94	0.45
72:Bm:13:THR:HA	72:Bm:24:LYS:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Bm:80:PHE:O	72:Bm:84:ARG:HB2	2.17	0.45
74:Bo:73:THR:HG23	74:Bo:76:ASN:H	1.82	0.45
74:Bo:84:ARG:HA	74:Bo:87:ARG:HH12	1.82	0.45
80:Bu:49:TYR:CE2	80:Bu:66:HIS:HB2	2.51	0.45
80:Bu:275:PRO:HA	80:Bu:278:TYR:HE2	1.82	0.45
82:Bw:187:LYS:C	82:Bw:190:ASN:HD22	2.24	0.45
84:By:116:GLU:C	84:By:117:LYS:HG3	2.42	0.45
85:AA:7:G:C2	85:AA:18:C:N3	2.85	0.45
85:AA:119:G:C2	85:AA:120:C:C6	3.04	0.45
85:AA:123:A:N1	85:AA:330:C:N3	2.65	0.45
85:AA:177:A:C2	85:AA:178:U:N3	2.84	0.45
85:AA:261:U:C6	85:AA:261:U:C3'	2.99	0.45
85:AA:314:C:H3'	85:AA:316:C:C5	2.52	0.45
85:AA:391:G:C2	85:AA:410:A:C2	3.04	0.45
85:AA:546:U:OP2	85:AA:546:U:C4	2.70	0.45
85:AA:694:A:H2'	85:AA:695:A:C4	2.52	0.45
85:AA:757:A:C4	85:AA:758:C:C6	3.04	0.45
85:AA:857:G:C6	85:AA:858:G:N7	2.85	0.45
85:AA:866:U:O2	85:AA:867:G:C8	2.70	0.45
85:AA:887:A:N6	85:AA:919:U:C5	2.85	0.45
85:AA:937:G:H2'	85:AA:938:A:OP1	2.17	0.45
85:AA:958:C:N3	85:AA:996:A:C2	2.84	0.45
85:AA:994:A:C2	85:AA:995:G:C1'	3.00	0.45
85:AA:1007:G:C2	85:AA:1096:G:N3	2.85	0.45
85:AA:1226:A:C5	85:AA:1227:A:N7	2.84	0.45
85:AA:1226:A:N6	85:AA:1227:A:C5	2.84	0.45
85:AA:1448:A:C4	85:AA:1449:C:N1	2.85	0.45
85:AA:1462:A:C8	85:AA:1463:A:N7	2.85	0.45
85:AA:1466:U:O2	85:AA:1469:G:C2	2.70	0.45
85:AA:1532:G:C2	85:AA:2091:C:N3	2.84	0.45
85:AA:1637:C:H2'	85:AA:1638:C:O4'	2.17	0.45
85:AA:1677:A:H2'	85:AA:1678:U:H5'	1.99	0.45
85:AA:1679:U:C6	85:AA:1679:U:O5'	2.70	0.45
85:AA:1868:G:N7	85:AA:1869:U:C5	2.85	0.45
85:AA:2014:G:C2	85:AA:2029:G:C2	3.05	0.45
85:AA:2193:A:H2'	85:AA:2194:U:C6	2.52	0.45
1:A0:102:PHE:CE2	1:A0:187:VAL:HG23	2.52	0.45
2:A1:230:SER:HB3	2:A1:236:LEU:HD21	1.99	0.45
3:A2:27:TYR:CG	3:A2:130:MET:SD	3.09	0.45
4:A3:111:VAL:CG1	85:AA:158:C:H5'	2.46	0.45
4:A3:152:ARG:HG2	85:AA:145:C:C5'	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A3:164:LYS:HA	4:A3:173:ARG:O	2.16	0.45
5:A4:92:PRO:HB3	85:AA:1025:U:OP1	2.17	0.45
6:A5:29:LEU:HD22	85:AA:465:A:H62	1.82	0.45
7:A6:82:TYR:CE2	7:A6:148:ARG:HB3	2.52	0.45
8:A7:48:ASP:O	8:A7:50:HIS:CE1	2.70	0.45
8:A7:93:LEU:CD2	8:A7:117:PHE:CZ	3.00	0.45
12:AD:32:THR:C	12:AD:33:TRP:CD2	2.95	0.45
13:AE:166:LYS:HD3	85:AA:937:G:P	2.56	0.45
19:AK:98:TYR:CZ	19:AK:102:TYR:CD2	3.05	0.45
20:AL:113:GLU:O	20:AL:116:VAL:HG13	2.16	0.45
21:AM:85:LEU:HD21	21:AM:96:THR:HB	1.98	0.45
24:AQ:51:VAL:CG2	85:AA:1722:G:H21	2.30	0.45
34:BA:15:G:H2'	34:BA:16:C:H6	1.82	0.45
34:BA:31:A:H2'	34:BA:32:A:O4'	2.17	0.45
34:BA:38:G:C2'	34:BA:39:C:H5'	2.47	0.45
34:BA:86:A:H4'	61:Bb:63:LYS:HB2	1.98	0.45
34:BA:271:C:C5	34:BA:1538:G:C6	3.05	0.45
34:BA:295:G:H3'	34:BA:295:G:N3	2.32	0.45
34:BA:349:G:C6	34:BA:350:C:C4	3.05	0.45
34:BA:428:C:H5'	34:BA:1028:A:C5'	2.47	0.45
34:BA:495:A:C6	34:BA:496:G:C5	3.05	0.45
34:BA:498:A:N1	34:BA:499:C:C2	2.85	0.45
34:BA:519:G:C6	34:BA:1491:U:H5''	2.50	0.45
34:BA:561:U:C2	34:BA:562:C:C4	3.04	0.45
34:BA:596:G:N1	34:BA:1487:U:H2'	2.30	0.45
34:BA:608:G:C4	34:BA:609:G:C8	3.04	0.45
34:BA:630:U:N3	34:BA:631:G:C6	2.84	0.45
34:BA:769:U:O4	34:BA:771:A:C5	2.70	0.45
34:BA:843:G:C4	34:BA:844:U:C6	3.04	0.45
34:BA:958:G:C2	34:BA:960:C:N3	2.85	0.45
34:BA:1001:G:N7	34:BA:1002:U:C5	2.85	0.45
34:BA:1009:G:C5	34:BA:1010:C:C5	3.05	0.45
34:BA:1038:U:O4	34:BA:1039:G:C5	2.70	0.45
34:BA:1057:C:H2'	34:BA:1059:U:O4'	2.17	0.45
34:BA:1115:A:C6	34:BA:1116:G:C5	3.04	0.45
34:BA:1155:U:C4	34:BA:1156:U:C5	3.05	0.45
34:BA:1226:G:C5	34:BA:1227:U:C4	3.05	0.45
34:BA:1287:G:C5	34:BA:1436:A:C4	3.04	0.45
34:BA:1320:A:C5	34:BA:1419:A:C5	3.04	0.45
34:BA:1334:G:C6	34:BA:1408:C:N4	2.85	0.45
34:BA:1520:A:C5	34:BA:1521:C:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1529:G:C6	34:BA:1578:A:C5	3.03	0.45
34:BA:1577:U:H2'	34:BA:1578:A:H8	1.78	0.45
34:BA:1667:G:C6	34:BA:1668:C:C2	3.04	0.45
34:BA:1686:G:H2'	34:BA:1687:A:H8	1.76	0.45
34:BA:1705:C:C4	34:BA:1722:U:O4	2.70	0.45
34:BA:1709:A:C2	34:BA:1710:C:C5	3.05	0.45
34:BA:1733:G:H2'	34:BA:1734:U:O4'	2.15	0.45
34:BA:1820:G:C6	34:BA:1821:A:N1	2.85	0.45
35:BB:65:A:H2'	35:BB:66:G:C8	2.51	0.45
35:BB:81:A:C4	40:BG:121:C:C5	3.04	0.45
35:BB:87:G:C5	35:BB:88:U:C5	3.05	0.45
35:BB:120:C:O2	35:BB:120:C:H2'	2.17	0.45
35:BB:130:G:C2	35:BB:374:A:C4	3.05	0.45
35:BB:136:A:N3	35:BB:136:A:H2'	2.31	0.45
35:BB:371:C:C2	35:BB:372:U:C5	3.04	0.45
35:BB:447:C:H41	64:Be:132:ASP:CG	2.25	0.45
35:BB:519:A:C6	35:BB:532:C:N3	2.85	0.45
35:BB:612:A:H2'	35:BB:613:C:C6	2.52	0.45
35:BB:768:A:C6	35:BB:769:C:C5	3.04	0.45
35:BB:864:U:C6	35:BB:864:U:O5'	2.70	0.45
35:BB:971:A:C5'	35:BB:971:A:H8	2.30	0.45
35:BB:1002:G:N1	35:BB:1003:G:C4	2.85	0.45
35:BB:1081:U:C4	54:BU:3:HIS:CE1	3.05	0.45
35:BB:1118:G:N1	35:BB:1119:G:C4	2.85	0.45
35:BB:1132:A:N3	80:Bu:3:PHE:HD2	2.15	0.45
35:BB:1143:A:C5	35:BB:1144:A:C6	3.05	0.45
35:BB:1203:C:C2	35:BB:1204:C:C6	3.05	0.45
35:BB:1221:G:H2'	35:BB:1222:A:N3	2.32	0.45
35:BB:1288:G:H1'	35:BB:1319:U:C2	2.52	0.45
35:BB:1434:G:H2'	35:BB:1435:G:O4'	2.16	0.45
35:BB:1475:U:C6	35:BB:1475:U:C3'	3.00	0.45
35:BB:1482:A:C5	35:BB:1483:A:N7	2.85	0.45
35:BB:1512:C:C6	35:BB:1512:C:C3'	2.99	0.45
35:BB:1543:C:C6	35:BB:1543:C:H3'	2.52	0.45
36:BC:28:C:H2'	36:BC:29:C:C5	2.50	0.45
36:BC:55:U:O2	36:BC:62:A:C2	2.70	0.45
36:BC:83:A:H4'	36:BC:84:U:H5'	1.99	0.45
36:BC:91:G:C6	36:BC:92:C:N3	2.85	0.45
36:BC:123:G:N2	36:BC:141:C:C2	2.85	0.45
37:BD:23:A:C6	37:BD:24:U:C4	3.04	0.45
38:BE:3:G:H3'	60:Ba:72:ARG:NH2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:20:C:N3	38:BE:21:C:C5	2.84	0.45
38:BE:88:G:O5'	38:BE:88:G:H8	2.00	0.45
38:BE:119:U:O5'	38:BE:119:U:C6	2.68	0.45
38:BE:122:G:C5	38:BE:123:A:C5	3.05	0.45
38:BE:140:G:OP1	38:BE:140:G:H8	2.00	0.45
38:BE:149:A:H5''	55:BV:108:ARG:NH2	2.32	0.45
38:BE:176:G:C6	38:BE:177:U:C2	3.05	0.45
38:BE:200:A:N6	38:BE:201:A:C6	2.85	0.45
39:BF:3:A:C6	39:BF:4:A:C4	3.05	0.45
39:BF:12:U:OP1	40:BG:22:G:C2	2.70	0.45
39:BF:22:U:C5	39:BF:57:C:C4	3.05	0.45
40:BG:40:G:C2	40:BG:71:C:C2	3.04	0.45
40:BG:103:C:OP1	67:Bh:138:LYS:NZ	2.50	0.45
40:BG:129:G:C2	40:BG:162:A:C5	3.04	0.45
40:BG:178:G:H4'	65:Bf:181:PHE:CD1	2.52	0.45
41:BH:29:G:C6	41:BH:30:C:N1	2.85	0.45
41:BH:111:U:C4	41:BH:112:U:N3	2.85	0.45
44:BK:75:TYR:CD2	44:BK:75:TYR:C	2.95	0.45
48:BO:90:HIS:HB2	48:BO:92:ARG:HH21	1.81	0.45
48:BO:139:ILE:HG22	52:BS:168:PHE:O	2.16	0.45
48:BO:139:ILE:HA	52:BS:170:LYS:O	2.16	0.45
49:BP:128:PHE:CE2	49:BP:133:LYS:NZ	2.85	0.45
50:BQ:136:TYR:CE1	50:BQ:148:GLU:HB3	2.52	0.45
52:BS:46:MET:SD	52:BS:46:MET:N	2.89	0.45
56:BW:108:LYS:HD3	56:BW:108:LYS:HA	1.76	0.45
57:BX:85:ILE:HB	57:BX:106:PHE:CE1	2.52	0.45
57:BX:122:ARG:NH2	57:BX:129:THR:H	2.15	0.45
65:Bf:159:HIS:CE1	65:Bf:188:ALA:HB2	2.51	0.45
67:Bh:47:PRO:HB2	67:Bh:79:ARG:CZ	2.46	0.45
70:Bk:85:LYS:C	70:Bk:88:ARG:H	2.25	0.45
71:Bl:74:TRP:CD2	81:Bv:188:HIS:HB3	2.51	0.45
75:Bp:2:PRO:HB3	75:Bp:42:LEU:HB3	1.99	0.45
81:Bv:87:ARG:CZ	81:Bv:87:ARG:HB2	2.46	0.45
81:Bv:101:GLU:O	81:Bv:107:LYS:HB2	2.16	0.45
81:Bv:173:GLY:HA3	81:Bv:175:LEU:N	2.32	0.45
85:AA:33:U:C6	85:AA:538:A:N1	2.85	0.45
85:AA:94:C:H2'	85:AA:95:U:H6	1.81	0.45
85:AA:128:U:O5'	85:AA:129:U:C5	2.69	0.45
85:AA:147:G:N2	85:AA:148:G:C4	2.84	0.45
85:AA:240:A:H2'	85:AA:242:G:N2	2.32	0.45
85:AA:253:C:N3	85:AA:329:G:C6	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:357:C:C6	85:AA:357:C:O5'	2.70	0.45
85:AA:370:A:C5	85:AA:371:C:C4	3.05	0.45
85:AA:474:C:H2'	85:AA:475:A:O4'	2.17	0.45
85:AA:491:G:O2'	85:AA:492:C:H5'	2.17	0.45
85:AA:519:A:H2'	85:AA:520:A:OP2	2.16	0.45
85:AA:584:G:C6	85:AA:612:A:C8	3.05	0.45
85:AA:602:U:C4	85:AA:604:C:C2	3.04	0.45
85:AA:614:U:OP1	85:AA:614:U:H4'	2.16	0.45
85:AA:636:G:N1	85:AA:637:U:C2	2.85	0.45
85:AA:680:U:C4	85:AA:682:C:H2'	2.52	0.45
85:AA:744:C:H1'	85:AA:766:G:N3	2.32	0.45
85:AA:800:A:O3'	85:AA:801:U:H4'	2.16	0.45
85:AA:833:U:N3	85:AA:834:U:C5	2.85	0.45
85:AA:940:G:C5'	85:AA:941:C:C4	3.00	0.45
85:AA:1013:C:N3	85:AA:1058:G:C4	2.85	0.45
85:AA:1139:G:O6	85:AA:1140:G:C5	2.70	0.45
85:AA:1242:A:H2'	85:AA:1243:G:H5'	1.99	0.45
85:AA:1252:A:N1	85:AA:1254:A:C6	2.84	0.45
85:AA:1291:A:C8	85:AA:1292:A:C8	3.05	0.45
85:AA:1431:U:O2	85:AA:1432:C:C4	2.69	0.45
85:AA:1584:U:C6	85:AA:1585:A:C2	3.05	0.45
85:AA:1617:G:H2'	85:AA:1619:A:C5	2.52	0.45
85:AA:1655:G:C5	85:AA:1656:C:C5	3.05	0.45
85:AA:1655:G:H2'	85:AA:1656:C:O4'	2.16	0.45
85:AA:1658:G:C6	85:AA:1867:G:C6	3.04	0.45
85:AA:1756:C:O5'	85:AA:1756:C:H6	1.99	0.45
85:AA:1795:C:C6	85:AA:1795:C:O5'	2.69	0.45
85:AA:1868:G:C2	85:AA:1869:U:H1'	2.52	0.45
85:AA:2053:A:C2'	85:AA:2054:G:H5'	2.44	0.45
85:AA:2126:U:C2	85:AA:2127:G:C8	3.04	0.45
85:AA:2140:U:C5	85:AA:2141:G:N7	2.85	0.45
85:AA:2155:U:H1'	85:AA:2164:G:C2	2.52	0.45
85:AA:2232:A:C6	85:AA:2232:A:OP2	2.70	0.45
86:AB:32:U:H3	86:AB:38:A:H61	1.65	0.45
3:A2:29:THR:HG21	3:A2:51:ARG:O	2.17	0.45
3:A2:131:ARG:CA	33:AZ:83:PRO:HG2	2.47	0.45
4:A3:41:ILE:HG23	4:A3:42:PHE:CE2	2.52	0.45
5:A4:48:ILE:HG13	5:A4:49:ASN:N	2.31	0.45
8:A7:116:ALA:HB3	8:A7:125:VAL:CG1	2.46	0.45
13:AE:19:GLN:HB2	13:AE:24:TYR:CE2	2.52	0.45
14:AF:70:ASP:HB2	14:AF:96:GLU:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AJ:26:LEU:HA	18:AJ:61:ILE:O	2.17	0.45
18:AJ:28:ARG:NH1	85:AA:1113:G:H3'	2.32	0.45
23:AP:154:TRP:CD2	23:AP:155:GLY:N	2.85	0.45
24:AQ:63:ARG:NH2	85:AA:1577:G:OP2	2.49	0.45
25:AR:75:HIS:CG	30:AW:4:PHE:CE1	3.05	0.45
29:AV:94:GLU:CD	29:AV:94:GLU:H	2.24	0.45
30:AW:41:CYS:C	30:AW:43:ASN:H	2.23	0.45
34:BA:2:A:N1	36:BC:169:G:N1	2.65	0.45
34:BA:20:A:C8	34:BA:20:A:C3'	2.99	0.45
34:BA:49:A:H8	34:BA:49:A:O5'	1.99	0.45
34:BA:112:C:N3	34:BA:113:G:C5	2.85	0.45
34:BA:202:A:H2'	34:BA:203:U:C6	2.52	0.45
34:BA:214:A:C5	34:BA:214:A:N6	2.64	0.45
34:BA:234:A:C6	34:BA:235:C:N3	2.85	0.45
34:BA:267:G:OP1	59:BZ:9:ARG:NH2	2.50	0.45
34:BA:320:G:C4	34:BA:321:G:C8	3.05	0.45
34:BA:361:C:O5'	34:BA:361:C:C6	2.70	0.45
34:BA:384:U:H5''	50:BQ:167:TRP:CH2	2.51	0.45
34:BA:399:G:C6	36:BC:29:C:N3	2.85	0.45
34:BA:502:U:O2	34:BA:502:U:C2'	2.58	0.45
34:BA:520:G:O6	34:BA:521:C:C5	2.70	0.45
34:BA:557:U:C6	34:BA:557:U:H3'	2.51	0.45
34:BA:579:U:C6	34:BA:579:U:OP1	2.70	0.45
34:BA:585:G:H4'	81:Bv:7:LYS:HA	1.99	0.45
34:BA:602:G:N2	34:BA:682:A:C6	2.85	0.45
34:BA:714:G:C5	34:BA:715:U:C5	3.05	0.45
34:BA:733:G:C2	34:BA:1588:U:N3	2.85	0.45
34:BA:743:A:N1	34:BA:894:G:C4	2.85	0.45
34:BA:774:A:C4	34:BA:775:C:C6	3.05	0.45
34:BA:785:G:C2	34:BA:786:U:C6	3.05	0.45
34:BA:793:A:H2'	47:BN:198:ARG:NH2	2.31	0.45
34:BA:799:A:C8	34:BA:857:C:OP1	2.70	0.45
34:BA:1022:C:C2	34:BA:1025:A:H4'	2.52	0.45
34:BA:1056:C:N3	34:BA:1057:C:C5	2.85	0.45
34:BA:1097:G:C4	35:BB:1084:A:N3	2.85	0.45
34:BA:1108:U:C6	34:BA:1108:U:H3'	2.52	0.45
34:BA:1186:U:H2'	34:BA:1189:A:N7	2.31	0.45
34:BA:1256:A:H3'	68:Bi:45:ARG:NH2	2.32	0.45
34:BA:1264:U:C5	34:BA:1264:U:OP2	2.70	0.45
34:BA:1285:G:C2	34:BA:1286:C:N1	2.85	0.45
34:BA:1300:G:N1	34:BA:1301:G:C5	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1338:G:C2	34:BA:1404:A:C5	3.05	0.45
34:BA:1352:G:C2	34:BA:1373:C:C2	3.05	0.45
34:BA:1412:G:C6	34:BA:1413:G:N7	2.85	0.45
34:BA:1442:A:C6	34:BA:1443:U:C4	3.05	0.45
34:BA:1469:G:C6	34:BA:1470:G:C6	3.05	0.45
34:BA:1484:A:N1	34:BA:1502:G:C5	2.85	0.45
34:BA:1531:G:C2	34:BA:1532:G:C4	3.04	0.45
34:BA:1603:A:C2	34:BA:1604:A:H1'	2.52	0.45
34:BA:1604:A:C2	35:BB:23:U:C2	3.05	0.45
34:BA:1729:G:C5	34:BA:1794:A:C6	3.04	0.45
34:BA:1790:U:OP2	34:BA:1790:U:H6	1.99	0.45
35:BB:57:G:H2'	35:BB:58:G:O4'	2.17	0.45
35:BB:369:A:H2'	35:BB:370:A:C2	2.52	0.45
35:BB:441:G:N1	35:BB:442:U:C4	2.84	0.45
35:BB:552:C:N4	35:BB:553:U:H3	2.15	0.45
35:BB:587:A:H3'	35:BB:587:A:C8	2.52	0.45
35:BB:656:A:C6	35:BB:657:A:C6	3.05	0.45
35:BB:658:G:C5	35:BB:659:C:C4	3.04	0.45
35:BB:702:G:C6	35:BB:1039:A:C5	3.05	0.45
35:BB:709:G:C2	35:BB:773:G:C4	3.04	0.45
35:BB:780:U:H5'	83:Bx:251:LEU:HD23	1.99	0.45
35:BB:795:A:C2	35:BB:1028:C:C2	3.05	0.45
35:BB:992:C:C5	60:Ba:132:ARG:NH1	2.85	0.45
35:BB:1118:G:C4	35:BB:1119:G:C8	3.05	0.45
35:BB:1124:G:O6	45:BL:64:PHE:CE1	2.70	0.45
35:BB:1197:G:C6	35:BB:1198:C:N3	2.85	0.45
35:BB:1383:C:C6	35:BB:1383:C:O5'	2.70	0.45
35:BB:1462:G:H2'	35:BB:1463:A:C8	2.52	0.45
35:BB:1519:U:H2'	35:BB:1520:C:O4'	2.17	0.45
35:BB:1534:U:O2'	41:BH:122:U:C6	2.69	0.45
36:BC:7:U:H2'	36:BC:8:C:O4'	2.17	0.45
36:BC:17:U:O5'	36:BC:17:U:H6	2.00	0.45
36:BC:38:U:H5''	36:BC:39:G:C8	2.52	0.45
36:BC:98:C:C6	36:BC:98:C:H3'	2.52	0.45
36:BC:125:A:H3'	36:BC:125:A:C8	2.52	0.45
37:BD:106:G:N1	37:BD:107:G:C5	2.85	0.45
38:BE:6:A:H3'	38:BE:7:U:O4'	2.16	0.45
38:BE:42:C:H2'	38:BE:43:A:C8	2.51	0.45
38:BE:63:C:H41	38:BE:167:U:C2'	2.30	0.45
38:BE:110:U:H5''	53:BT:103:ARG:CZ	2.47	0.45
38:BE:193:A:C2	38:BE:194:A:C2	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BF:28:C:H4'	39:BF:29:U:H2'	1.99	0.45
39:BF:36:G:C2	39:BF:48:G:C2	3.05	0.45
39:BF:60:C:C6	39:BF:62:U:O2	2.70	0.45
40:BG:31:G:H5'	65:Bf:236:GLU:OE1	2.17	0.45
40:BG:72:G:H2'	40:BG:73:U:C6	2.52	0.45
40:BG:124:A:C5	40:BG:125:C:C5	3.04	0.45
41:BH:16:A:C5	41:BH:17:A:C6	3.05	0.45
41:BH:40:C:N3	41:BH:41:A:C4	2.85	0.45
41:BH:119:U:C2	41:BH:120:C:C6	3.05	0.45
47:BN:82:LEU:HA	47:BN:85:LEU:HD12	1.98	0.45
48:BO:30:LYS:HD3	48:BO:55:ARG:HD2	1.99	0.45
49:BP:122:TYR:N	49:BP:123:TRP:CD1	2.78	0.45
58:BY:21:TYR:CZ	58:BY:22:VAL:O	2.70	0.45
62:Bc:21:LYS:O	62:Bc:22:ARG:CD	2.65	0.45
64:Be:216:HIS:CD2	64:Be:218:HIS:CE1	3.05	0.45
65:Bf:84:PRO:N	65:Bf:400:MET:HE1	2.31	0.45
65:Bf:116:SER:H	65:Bf:119:ASN:ND2	2.15	0.45
68:Bi:99:HIS:CD2	68:Bi:99:HIS:C	2.95	0.45
70:Bk:64:LYS:O	70:Bk:68:GLU:HG3	2.17	0.45
73:Bn:28:HIS:CE1	73:Bn:30:GLN:CB	2.98	0.45
73:Bn:72:ARG:HG3	73:Bn:76:ASN:ND2	2.32	0.45
74:Bo:48:ARG:O	74:Bo:55:TRP:HA	2.16	0.45
74:Bo:49:ARG:HB2	74:Bo:55:TRP:CZ3	2.52	0.45
80:Bu:249:TYR:CB	80:Bu:253:HIS:CE1	2.96	0.45
81:Bv:6:LYS:HB2	81:Bv:8:ALA:H	1.81	0.45
83:Bx:97:ARG:HA	83:Bx:100:ARG:CZ	2.47	0.45
83:Bx:182:LEU:O	83:Bx:185:ALA:HB3	2.16	0.45
84:By:99:ILE:HA	84:By:112:ASN:CB	2.47	0.45
85:AA:10:G:N1	85:AA:11:A:C5	2.84	0.45
85:AA:51:A:C4	85:AA:52:U:O4'	2.70	0.45
85:AA:58:C:H4'	85:AA:526:G:H1'	1.99	0.45
85:AA:87:C:C2	85:AA:88:G:C5	3.05	0.45
85:AA:173:A:C6	85:AA:175:A:C4	3.05	0.45
85:AA:189:G:N1	85:AA:190:A:C5	2.85	0.45
85:AA:314:C:C6	85:AA:314:C:C3'	3.00	0.45
85:AA:344:U:C6	85:AA:344:U:O5'	2.70	0.45
85:AA:391:G:N1	85:AA:392:G:C5	2.85	0.45
85:AA:431:G:N2	85:AA:432:A:C4	2.85	0.45
85:AA:433:U:H2'	85:AA:434:U:H6	1.81	0.45
85:AA:439:U:C6	85:AA:439:U:O5'	2.70	0.45
85:AA:439:U:O4	85:AA:440:U:C4	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:508:C:C2	85:AA:532:G:N2	2.85	0.45
85:AA:546:U:C6	85:AA:546:U:C3'	2.99	0.45
85:AA:561:C:N4	85:AA:567:G:C6	2.85	0.45
85:AA:638:G:O2'	85:AA:651:G:H4'	2.16	0.45
85:AA:662:U:C6	85:AA:662:U:H3'	2.51	0.45
85:AA:817:G:C8	85:AA:817:G:C3'	2.96	0.45
85:AA:876:U:H3	85:AA:929:G:H22	1.63	0.45
85:AA:882:C:H2'	85:AA:883:A:C8	2.52	0.45
85:AA:914:U:N3	85:AA:915:G:C4	2.84	0.45
85:AA:1226:A:N6	85:AA:1227:A:C6	2.84	0.45
85:AA:1230:U:H6	85:AA:1230:U:O5'	1.99	0.45
85:AA:1269:A:H2'	85:AA:1269:A:N3	2.31	0.45
85:AA:1464:G:C8	85:AA:1464:G:C5'	2.95	0.45
85:AA:1893:G:C2	85:AA:1894:G:C4	3.05	0.45
85:AA:1937:G:N2	85:AA:1938:G:C4	2.85	0.45
85:AA:1974:C:C4	85:AA:1975:G:C5	3.04	0.45
85:AA:1979:A:H2'	85:AA:1981:A:OP2	2.16	0.45
85:AA:2132:A:H2'	85:AA:2133:A:O5'	2.17	0.45
1:A0:212:LEU:HA	1:A0:212:LEU:HD22	1.74	0.45
2:A1:82:GLY:O	2:A1:98:ILE:HB	2.17	0.45
5:A4:21:GLU:CD	5:A4:21:GLU:N	2.71	0.45
6:A5:83:TYR:CZ	6:A5:85:ALA:HA	2.52	0.45
8:A7:15:TRP:N	8:A7:15:TRP:CE3	2.84	0.45
13:AE:57:GLY:HA3	13:AE:58:PHE:CZ	2.52	0.45
13:AE:100:ILE:HG23	13:AE:127:CYS:SG	2.57	0.45
19:AK:34:ASN:HB2	85:AA:1791:U:OP1	2.17	0.45
20:AL:33:ARG:HA	20:AL:36:MET:SD	2.57	0.45
20:AL:113:GLU:CD	20:AL:118:ARG:HH22	2.25	0.45
21:AM:143:ARG:HH11	85:AA:1548:A:H5''	1.82	0.45
23:AP:152:GLY:HA3	23:AP:165:PRO:HA	1.97	0.45
25:AR:75:HIS:HB3	30:AW:4:PHE:CE2	2.52	0.45
27:AT:17:PHE:HB3	27:AT:28:PHE:HB2	1.98	0.45
32:AY:59:LYS:CE	85:AA:624:A:C2	2.99	0.45
34:BA:3:G:N2	36:BC:168:C:C2	2.84	0.45
34:BA:159:U:H3	34:BA:160:G:H2'	1.81	0.45
34:BA:171:U:O2	34:BA:318:U:H1'	2.17	0.45
34:BA:240:C:C5	34:BA:241:U:C5	3.05	0.45
34:BA:342:U:C2	34:BA:348:U:C4	3.05	0.45
34:BA:474:A:N1	34:BA:475:A:C2	2.84	0.45
34:BA:478:G:H2'	34:BA:479:U:O4'	2.16	0.45
34:BA:545:U:C4	34:BA:546:U:C2	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:568:G:C2	34:BA:569:C:C2	3.05	0.45
34:BA:624:G:C6	34:BA:658:C:O2	2.70	0.45
34:BA:669:U:H2'	34:BA:670:U:C5'	2.46	0.45
34:BA:670:U:H2'	34:BA:671:C:O4'	2.17	0.45
34:BA:678:C:C6	34:BA:679:U:C6	3.05	0.45
34:BA:743:A:H2	34:BA:894:G:H1'	1.82	0.45
34:BA:765:U:P	77:Br:213:ASN:H	2.40	0.45
34:BA:792:A:C5	34:BA:793:A:C6	3.05	0.45
34:BA:801:U:C2	34:BA:802:G:C8	3.05	0.45
34:BA:842:U:H2'	34:BA:843:G:H8	1.83	0.45
34:BA:938:C:C1'	38:BE:112:G:H5'	2.47	0.45
34:BA:942:G:N1	34:BA:943:G:C4	2.85	0.45
34:BA:988:U:C4	34:BA:989:C:C4	3.05	0.45
34:BA:1011:G:N1	34:BA:1013:A:C2	2.83	0.45
34:BA:1157:A:H3'	34:BA:1157:A:C8	2.52	0.45
34:BA:1234:U:C4	34:BA:1235:C:C5	3.05	0.45
34:BA:1357:C:C2	34:BA:1368:G:C2	3.05	0.45
34:BA:1489:U:OP2	34:BA:1490:U:C5	2.70	0.45
34:BA:1502:G:C8	62:Bc:104:LYS:NZ	2.76	0.45
34:BA:1533:G:C2	34:BA:1534:U:C2	3.05	0.45
34:BA:1535:G:H3'	34:BA:1536:A:C5'	2.47	0.45
34:BA:1572:G:C4	34:BA:1573:C:C5	3.05	0.45
34:BA:1600:G:C5	34:BA:1601:C:N4	2.85	0.45
34:BA:1673:G:O6	34:BA:1680:G:C6	2.70	0.45
35:BB:18:A:C6	35:BB:19:C:C2	3.05	0.45
35:BB:66:G:N1	35:BB:618:U:C2	2.85	0.45
35:BB:95:A:C3'	35:BB:96:A:N7	2.80	0.45
35:BB:109:U:C6	35:BB:109:U:O5'	2.70	0.45
35:BB:116:G:C5	35:BB:389:G:N3	2.85	0.45
35:BB:133:G:C4	35:BB:369:A:N1	2.85	0.45
35:BB:420:U:H4'	35:BB:510:A:C5	2.51	0.45
35:BB:456:A:C8	35:BB:456:A:C3'	2.99	0.45
35:BB:511:A:C2	64:Be:222:PRO:HG3	2.52	0.45
35:BB:556:U:O5'	35:BB:556:U:H6	1.99	0.45
35:BB:656:A:C6	35:BB:657:A:C5	3.05	0.45
35:BB:712:U:HO2'	35:BB:713:U:H6	1.59	0.45
35:BB:790:A:N1	35:BB:1033:U:C4	2.85	0.45
35:BB:828:G:C6	35:BB:829:C:C4	3.05	0.45
35:BB:857:G:C5	35:BB:866:A:N1	2.85	0.45
35:BB:889:U:H1'	35:BB:894:A:C6	2.52	0.45
35:BB:895:U:H3'	35:BB:896:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:942:G:C6	35:BB:943:U:C4	3.05	0.45
35:BB:993:A:C2	38:BE:17:U:O2	2.70	0.45
35:BB:1023:G:C6	35:BB:1024:G:O6	2.70	0.45
35:BB:1105:G:C6	35:BB:1106:G:C6	3.05	0.45
35:BB:1158:C:C4	35:BB:1159:U:C4	3.05	0.45
35:BB:1241:U:O2	35:BB:1241:U:H2'	2.16	0.45
35:BB:1399:A:C5	65:Bf:311:TRP:CD2	3.05	0.45
35:BB:1466:A:H8	35:BB:1466:A:P	2.40	0.45
36:BC:65:G:C6	36:BC:66:G:C5	3.05	0.45
36:BC:106:G:C8	36:BC:148:C:N4	2.85	0.45
37:BD:71:G:N7	37:BD:72:U:C5	2.84	0.45
37:BD:76:U:O4	37:BD:77:A:C5	2.70	0.45
38:BE:93:U:H2'	38:BE:94:U:O4'	2.17	0.45
38:BE:95:G:H1'	38:BE:126:G:N2	2.32	0.45
38:BE:122:G:H2'	38:BE:123:A:C8	2.52	0.45
38:BE:144:A:C2	38:BE:145:A:H1'	2.52	0.45
38:BE:147:G:N1	38:BE:166:G:C6	2.85	0.45
38:BE:187:G:C6	64:Be:174:ARG:O	2.70	0.45
38:BE:194:A:C8	38:BE:194:A:O5'	2.69	0.45
40:BG:36:G:C5	40:BG:37:G:N7	2.85	0.45
41:BH:42:U:C6	41:BH:110:C:C5	3.05	0.45
41:BH:67:G:C2	41:BH:68:G:C4	3.04	0.45
42:BI:69:VAL:HG23	42:BI:72:ARG:HH21	1.82	0.45
44:BK:51:HIS:HB3	44:BK:134:ILE:HG23	1.98	0.45
50:BQ:44:ALA:O	50:BQ:48:ARG:HB2	2.17	0.45
50:BQ:116:ARG:HA	50:BQ:147:TYR:CZ	2.52	0.45
51:BR:74:LYS:C	51:BR:76:TRP:H	2.23	0.45
54:BU:6:GLY:O	54:BU:9:CYS:HB2	2.16	0.45
57:BX:158:ALA:CA	57:BX:163:LEU:HD12	2.42	0.45
58:BY:10:HIS:CD2	58:BY:10:HIS:O	2.70	0.45
60:Ba:127:PHE:CD2	60:Ba:127:PHE:C	2.94	0.45
65:Bf:429:GLN:HG2	65:Bf:430:THR:HG23	1.99	0.45
66:Bg:27:LEU:HD11	66:Bg:108:ASP:OD2	2.17	0.45
66:Bg:34:TYR:N	66:Bg:34:TYR:CD1	2.85	0.45
67:Bh:28:GLU:N	67:Bh:58:ASN:HD21	2.14	0.45
67:Bh:35:ASP:HB2	67:Bh:38:TRP:CZ2	2.52	0.45
67:Bh:35:ASP:HA	67:Bh:38:TRP:CG	2.52	0.45
69:Bj:99:GLU:O	69:Bj:103:ILE:HG12	2.17	0.45
77:Br:100:MET:H	77:Br:100:MET:HE3	1.82	0.45
77:Br:255:PHE:CD2	77:Br:255:PHE:C	2.94	0.45
84:By:11:PHE:CG	84:By:12:PRO:N	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:By:48:LYS:CB	84:By:51:ARG:HB2	2.47	0.45
85:AA:11:A:C2	85:AA:12:U:C2	3.05	0.45
85:AA:44:C:N3	85:AA:501:A:C2	2.84	0.45
85:AA:160:A:H4'	85:AA:481:A:C2	2.52	0.45
85:AA:162:A:C5	85:AA:164:G:O4'	2.70	0.45
85:AA:378:A:C6	85:AA:381:A:C8	3.05	0.45
85:AA:432:A:C2	85:AA:440:U:C2	3.06	0.45
85:AA:450:A:C8	85:AA:450:A:O5'	2.69	0.45
85:AA:470:C:C2	85:AA:471:U:C6	3.05	0.45
85:AA:556:C:C2	85:AA:572:G:N2	2.85	0.45
85:AA:584:G:H2'	85:AA:585:G:O4'	2.16	0.45
85:AA:809:A:C5	85:AA:810:C:C5	3.05	0.45
85:AA:861:G:O5'	85:AA:861:G:C8	2.70	0.45
85:AA:905:C:H4'	85:AA:908:C:N4	2.32	0.45
85:AA:932:A:H2'	85:AA:933:U:C5	2.52	0.45
85:AA:1050:C:H2'	85:AA:1051:A:C5	2.52	0.45
85:AA:1185:G:C6	85:AA:1186:C:C4	3.05	0.45
85:AA:1252:A:N1	85:AA:1254:A:C2	2.85	0.45
85:AA:1259:U:C5	85:AA:1260:G:C8	3.05	0.45
85:AA:1367:C:C2'	85:AA:1368:G:C8	3.00	0.45
85:AA:1456:A:H2'	85:AA:1457:C:C4	2.52	0.45
85:AA:1457:C:H6	85:AA:1457:C:H5''	1.82	0.45
85:AA:1464:G:N3	85:AA:1465:C:C6	2.84	0.45
85:AA:1518:A:C2	85:AA:1519:A:C4	3.05	0.45
85:AA:1565:G:C6	85:AA:1566:A:C5	3.05	0.45
85:AA:1694:C:C2	85:AA:1695:G:C8	3.05	0.45
85:AA:1719:C:N4	85:AA:1823:G:H1'	2.32	0.45
85:AA:1728:G:C6	85:AA:1813:C:C2	3.05	0.45
85:AA:1835:U:H3'	85:AA:1836:U:C6	2.51	0.45
85:AA:1868:G:C5	85:AA:1869:U:C5	3.05	0.45
85:AA:1872:G:C5	85:AA:1873:U:H1'	2.52	0.45
85:AA:2054:G:C2	85:AA:2055:G:C4	3.05	0.45
85:AA:2115:G:C2	85:AA:2116:U:C6	3.05	0.45
2:A1:55:ALA:HB2	85:AA:512:U:OP2	2.17	0.44
4:A3:96:ARG:HD3	85:AA:470:C:O3'	2.17	0.44
5:A4:90:ARG:C	5:A4:92:PRO:HD3	2.42	0.44
7:A6:79:CYS:C	7:A6:85:LEU:H	2.25	0.44
7:A6:176:ARG:CZ	85:AA:611:G:C5	3.00	0.44
8:A7:108:HIS:HE1	8:A7:126:SER:OG	2.01	0.44
10:A9:110:ASP:HB3	14:AF:86:GLN:HE22	1.82	0.44
11:AC:57:MET:SD	11:AC:209:MET:HE3	2.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AC:126:PHE:CE2	11:AC:215:ALA:HB2	2.52	0.44
11:AC:184:CYS:HB2	11:AC:190:LEU:HD11	1.99	0.44
13:AE:53:LYS:HE2	85:AA:868:A:H5'	1.99	0.44
22:AO:84:ARG:NH2	85:AA:1988:A:H3'	2.32	0.44
23:AP:43:TRP:CE3	23:AP:75:GLN:HB2	2.52	0.44
23:AP:180:ILE:HB	23:AP:207:TYR:HB2	1.98	0.44
26:AS:7:GLN:NE2	26:AS:8:HIS:CE1	2.85	0.44
27:AT:26:LYS:O	27:AT:81:LEU:HA	2.18	0.44
30:AW:55:VAL:O	30:AW:63:LEU:HA	2.17	0.44
34:BA:25:C:C4	34:BA:26:C:C4	3.05	0.44
34:BA:35:U:H4'	61:Bb:32:ARG:HD3	1.99	0.44
34:BA:52:G:C5	34:BA:53:G:C8	3.05	0.44
34:BA:56:G:H1'	34:BA:57:A:H4'	1.99	0.44
34:BA:105:U:C2	34:BA:106:U:C6	3.05	0.44
34:BA:108:A:C5	34:BA:386:A:C6	3.04	0.44
34:BA:161:U:C6	34:BA:161:U:P	3.11	0.44
34:BA:202:A:C2	34:BA:203:U:N3	2.85	0.44
34:BA:334:G:C6	34:BA:356:C:O2	2.70	0.44
34:BA:372:U:C6	34:BA:372:U:H3'	2.52	0.44
34:BA:544:U:C6	34:BA:544:U:O5'	2.70	0.44
34:BA:594:G:N2	34:BA:684:G:C2	2.84	0.44
34:BA:676:G:C6	34:BA:677:U:N3	2.85	0.44
34:BA:688:G:C6	34:BA:689:C:C4	3.05	0.44
34:BA:738:C:OP2	34:BA:738:C:C5	2.69	0.44
34:BA:758:G:C8	34:BA:759:A:C1'	3.00	0.44
34:BA:819:G:C2	34:BA:852:C:N3	2.85	0.44
34:BA:831:U:C5	34:BA:832:C:C5	3.05	0.44
34:BA:921:G:C5	34:BA:922:C:C5	3.05	0.44
34:BA:934:G:C4	34:BA:956:G:N1	2.84	0.44
34:BA:966:G:C6	34:BA:967:C:N3	2.85	0.44
34:BA:1070:G:H8	34:BA:1070:G:O5'	2.00	0.44
34:BA:1078:U:H3'	34:BA:1079:C:H41	1.82	0.44
34:BA:1083:A:C8	34:BA:1168:C:C2'	3.00	0.44
34:BA:1101:A:C6	34:BA:1102:A:C8	3.05	0.44
34:BA:1153:C:C2	34:BA:1154:U:C5	3.04	0.44
34:BA:1297:G:N2	34:BA:1298:U:C5	2.84	0.44
34:BA:1460:U:C2	34:BA:1461:A:C8	3.05	0.44
34:BA:1498:A:C8	34:BA:1498:A:C3'	3.00	0.44
34:BA:1515:U:C5	34:BA:1516:G:C8	3.05	0.44
34:BA:1555:G:C5	34:BA:1556:A:C5	3.05	0.44
34:BA:1690:U:H4'	57:BX:135:LEU:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:97:U:C4	35:BB:98:A:N6	2.85	0.44
35:BB:361:A:C6	35:BB:362:A:C6	3.05	0.44
35:BB:364:U:C5	35:BB:365:U:C5	3.04	0.44
35:BB:426:A:N7	35:BB:428:G:C2	2.86	0.44
35:BB:432:C:O2	35:BB:439:G:C4	2.69	0.44
35:BB:448:G:C5	35:BB:449:C:C4	3.05	0.44
35:BB:462:G:C6	35:BB:463:C:C4	3.05	0.44
35:BB:476:A:OP2	85:AA:1162:A:O2'	2.32	0.44
35:BB:562:A:H2'	35:BB:563:A:C5	2.52	0.44
35:BB:602:G:C6	35:BB:607:G:N1	2.85	0.44
35:BB:674:C:C2	35:BB:1273:G:N2	2.85	0.44
35:BB:692:G:O6	35:BB:1052:G:C2	2.71	0.44
35:BB:710:A:C2	35:BB:772:U:O2	2.70	0.44
35:BB:780:U:H2'	35:BB:1038:G:O6	2.17	0.44
35:BB:824:C:C4	35:BB:825:U:C6	3.05	0.44
35:BB:847:U:C6	35:BB:848:A:C5'	3.00	0.44
35:BB:869:G:C8	35:BB:869:G:OP2	2.70	0.44
35:BB:872:A:C5	35:BB:963:G:C2	3.06	0.44
35:BB:1007:U:H1'	35:BB:1012:G:N2	2.31	0.44
35:BB:1040:C:C2	35:BB:1041:A:C4	3.05	0.44
35:BB:1103:A:N9	35:BB:1105:G:C8	2.84	0.44
35:BB:1198:C:H2'	35:BB:1199:A:C8	2.52	0.44
35:BB:1210:U:C5	35:BB:1211:C:N4	2.85	0.44
35:BB:1286:G:C5	35:BB:1321:G:C2	3.06	0.44
35:BB:1410:G:C5	35:BB:1411:U:C5	3.05	0.44
35:BB:1500:U:H1'	35:BB:1505:U:C5	2.52	0.44
35:BB:1546:C:C6	35:BB:1546:C:O5'	2.70	0.44
36:BC:55:U:C2	36:BC:56:G:C8	3.05	0.44
36:BC:63:G:C2	36:BC:64:U:C5	3.04	0.44
36:BC:71:A:C5	36:BC:87:C:O4'	2.70	0.44
36:BC:95:A:C6	36:BC:96:A:C5	3.05	0.44
36:BC:98:C:OP2	36:BC:98:C:C4	2.70	0.44
36:BC:123:G:H1	36:BC:141:C:N4	2.14	0.44
37:BD:48:G:H5'	80:Bu:231:GLN:HE22	1.82	0.44
37:BD:53:U:H1'	37:BD:54:A:N7	2.32	0.44
38:BE:57:U:C6	55:BV:86:ARG:CZ	3.00	0.44
38:BE:75:C:N3	38:BE:76:U:C6	2.85	0.44
38:BE:104:G:C2	38:BE:105:A:N3	2.85	0.44
38:BE:113:C:H1'	38:BE:114:G:O4'	2.17	0.44
38:BE:131:C:N3	38:BE:132:U:C4	2.84	0.44
38:BE:141:A:C4	38:BE:144:A:H1'	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:162:U:H2'	38:BE:163:A:C8	2.52	0.44
38:BE:201:A:C5	38:BE:202:C:N3	2.85	0.44
40:BG:53:C:H2'	40:BG:54:G:O4'	2.17	0.44
40:BG:136:G:C8	40:BG:136:G:H3'	2.52	0.44
40:BG:159:A:H2'	40:BG:159:A:N3	2.32	0.44
41:BH:13:C:C2'	41:BH:14:C:H5'	2.48	0.44
44:BK:154:ARG:HG2	44:BK:154:ARG:HH11	1.82	0.44
45:BL:57:ALA:H	45:BL:70:GLU:HB3	1.82	0.44
45:BL:147:HIS:O	45:BL:147:HIS:CD2	2.70	0.44
47:BN:147:GLU:H	47:BN:147:GLU:CD	2.24	0.44
53:BT:45:ILE:C	53:BT:47:ASP:H	2.24	0.44
53:BT:78:THR:HA	53:BT:81:ARG:HG2	1.99	0.44
56:BW:136:PRO:C	56:BW:138:ILE:H	2.25	0.44
59:BZ:118:ARG:HA	59:BZ:121:ARG:CZ	2.46	0.44
74:Bo:8:MET:HB2	74:Bo:11:MET:HB2	1.99	0.44
79:Bt:23:PHE:CE2	79:Bt:74:CYS:HB2	2.51	0.44
80:Bu:2:THR:C	80:Bu:3:PHE:CD2	2.95	0.44
80:Bu:63:GLN:HB3	80:Bu:74:VAL:HG13	1.99	0.44
85:AA:74:U:C2	85:AA:75:U:C6	3.04	0.44
85:AA:119:G:C2	85:AA:362:G:H1'	2.52	0.44
85:AA:263:A:H2'	85:AA:264:A:H3'	1.99	0.44
85:AA:267:U:C2	85:AA:268:A:C2	3.05	0.44
85:AA:346:U:O4	85:AA:347:U:C4	2.70	0.44
85:AA:382:G:C4	85:AA:415:G:C2	3.05	0.44
85:AA:430:G:C2	85:AA:442:G:N3	2.85	0.44
85:AA:484:G:H2'	85:AA:485:A:O5'	2.17	0.44
85:AA:523:U:C6	85:AA:523:U:O5'	2.70	0.44
85:AA:530:A:H5'	85:AA:531:G:OP2	2.17	0.44
85:AA:545:A:C2	85:AA:618:A:C6	3.05	0.44
85:AA:552:C:H2'	85:AA:553:G:C8	2.52	0.44
85:AA:635:G:C2	85:AA:659:A:N3	2.85	0.44
85:AA:686:U:N3	85:AA:687:G:C5	2.85	0.44
85:AA:701:C:H3'	85:AA:702:G:H8	1.82	0.44
85:AA:709:A:C6	85:AA:710:A:C6	3.05	0.44
85:AA:730:G:O2'	85:AA:731:U:H5'	2.17	0.44
85:AA:814:G:N1	85:AA:864:C:C2	2.84	0.44
85:AA:914:U:H3'	85:AA:915:G:H8	1.81	0.44
85:AA:1009:G:N3	85:AA:1094:G:C2	2.85	0.44
85:AA:1139:G:C5	85:AA:1140:G:C8	3.05	0.44
85:AA:1155:A:H2'	85:AA:1156:A:O4'	2.16	0.44
85:AA:1226:A:C2	85:AA:1227:A:C1'	2.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1229:G:C4	85:AA:1230:U:C5	3.05	0.44
85:AA:1462:A:H2	85:AA:1519:A:H4'	1.82	0.44
85:AA:1728:G:C6	85:AA:1813:C:N3	2.86	0.44
85:AA:1754:G:O4'	85:AA:1790:G:C6	2.70	0.44
85:AA:1832:G:C2	85:AA:1833:C:C6	3.06	0.44
85:AA:1955:U:H5	85:AA:1956:C:C5	2.35	0.44
85:AA:2125:A:C2	85:AA:2126:U:C4	3.06	0.44
85:AA:2170:G:N1	85:AA:2171:A:H1'	2.32	0.44
85:AA:2191:C:O2'	85:AA:2192:A:H5'	2.17	0.44
3:A2:174:TYR:CD1	3:A2:174:TYR:C	2.95	0.44
4:A3:165:VAL:HG13	4:A3:167:LYS:HE2	1.99	0.44
4:A3:215:LEU:HD13	4:A3:216:VAL:HB	1.98	0.44
5:A4:58:ARG:HH21	5:A4:173:LEU:HG	1.83	0.44
6:A5:80:ASP:OD2	6:A5:103:VAL:HG21	2.17	0.44
7:A6:142:ILE:HB	7:A6:145:PHE:CZ	2.53	0.44
8:A7:63:LEU:HB3	8:A7:94:TRP:CZ3	2.51	0.44
12:AD:12:ASP:HB3	12:AD:44:LEU:HD11	2.00	0.44
13:AE:151:ILE:HG22	13:AE:153:TYR:H	1.82	0.44
16:AH:56:LYS:HE2	16:AH:56:LYS:HA	2.00	0.44
18:AJ:14:ILE:O	18:AJ:17:ALA:HB3	2.17	0.44
21:AM:138:CYS:SG	85:AA:1900:C:C5	3.10	0.44
25:AR:30:THR:HB	25:AR:32:PHE:CZ	2.51	0.44
29:AV:100:TYR:CG	85:AA:2249:U:H5'	2.53	0.44
31:AX:157:ILE:HG23	31:AX:163:HIS:HA	1.99	0.44
33:AZ:46:VAL:HG23	33:AZ:86:GLU:HB3	2.00	0.44
34:BA:8:G:C2	36:BC:163:A:N1	2.86	0.44
34:BA:13:U:C2	36:BC:154:A:C2	3.05	0.44
34:BA:130:U:C4	34:BA:132:U:C6	3.05	0.44
34:BA:182:U:C2	34:BA:183:G:C8	3.06	0.44
34:BA:202:A:C2	34:BA:203:U:C2	3.06	0.44
34:BA:212:A:C6	34:BA:221:G:C2	3.04	0.44
34:BA:257:G:H2'	34:BA:257:G:N3	2.31	0.44
34:BA:380:A:C6	34:BA:381:A:C5	3.06	0.44
34:BA:420:A:N3	34:BA:430:A:C5	2.85	0.44
34:BA:478:G:C2	34:BA:479:U:C2	3.06	0.44
34:BA:531:C:H2'	34:BA:579:U:H2'	1.98	0.44
34:BA:617:G:C5	34:BA:618:G:C5	3.06	0.44
34:BA:617:G:C2	34:BA:618:G:C4	3.04	0.44
34:BA:653:U:C4	34:BA:654:C:C6	3.05	0.44
34:BA:718:U:H2'	34:BA:719:G:O4'	2.17	0.44
34:BA:736:G:C4	34:BA:901:C:C1'	3.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:743:A:C6	47:BN:7:ALA:N	2.85	0.44
34:BA:744:G:C5	47:BN:6:ASN:HA	2.48	0.44
34:BA:758:G:C8	34:BA:758:G:H3'	2.53	0.44
34:BA:762:A:C2	34:BA:771:A:OP2	2.71	0.44
34:BA:798:G:C5	34:BA:800:G:N7	2.84	0.44
34:BA:900:A:C2	47:BN:14:ARG:HB2	2.52	0.44
34:BA:979:G:C6	51:BR:132:ALA:HB1	2.52	0.44
34:BA:1040:G:C2	34:BA:1041:U:C2	3.05	0.44
34:BA:1184:A:OP1	80:Bu:134:THR:N	2.46	0.44
34:BA:1260:G:C6	34:BA:1270:G:C6	3.06	0.44
34:BA:1603:A:C4	35:BB:33:A:N1	2.86	0.44
34:BA:1640:G:H2'	34:BA:1641:G:O4'	2.17	0.44
34:BA:1658:G:C4	34:BA:1659:G:C8	3.05	0.44
34:BA:1720:U:O2'	34:BA:1721:U:H5'	2.17	0.44
34:BA:1745:G:C2	34:BA:1780:U:C2	3.05	0.44
34:BA:1827:C:H4'	57:BX:101:ASN:HD21	1.82	0.44
34:BA:1846:G:C4	35:BB:5:A:N6	2.85	0.44
35:BB:18:A:N1	35:BB:19:C:C2	2.85	0.44
35:BB:110:U:C5	35:BB:587:A:C1'	3.00	0.44
35:BB:385:C:H4'	40:BG:108:G:H21	1.83	0.44
35:BB:430:A:C2	35:BB:441:G:C4	3.05	0.44
35:BB:461:U:O4'	35:BB:579:A:C2	2.70	0.44
35:BB:465:C:C6	35:BB:509:A:C5	3.05	0.44
35:BB:493:U:C6	35:BB:493:U:O5'	2.71	0.44
35:BB:564:U:C2	35:BB:566:A:C6	3.05	0.44
35:BB:575:C:H5	35:BB:576:A:HO2'	1.66	0.44
35:BB:585:U:H2'	35:BB:586:U:C6	2.53	0.44
35:BB:666:A:C8	35:BB:667:G:C5	3.05	0.44
35:BB:702:G:C2	35:BB:1039:A:C6	3.05	0.44
35:BB:702:G:C2	35:BB:703:U:C2	3.05	0.44
35:BB:743:C:H2'	35:BB:744:U:C4'	2.46	0.44
35:BB:770:G:C6	35:BB:771:U:N3	2.85	0.44
35:BB:770:G:C2	35:BB:771:U:C2	3.05	0.44
35:BB:783:U:H3'	35:BB:784:C:C6	2.52	0.44
35:BB:806:U:H3	35:BB:833:G:N2	2.15	0.44
35:BB:812:G:N1	35:BB:813:C:C2	2.85	0.44
35:BB:817:C:N3	35:BB:818:U:C1'	2.80	0.44
35:BB:856:U:C6	35:BB:856:U:C3'	2.99	0.44
35:BB:1001:G:C6	35:BB:1002:G:N7	2.86	0.44
35:BB:1099:U:C4	35:BB:1100:C:C6	3.06	0.44
35:BB:1145:G:C6	35:BB:1146:C:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1219:A:C2'	35:BB:1220:A:H8	2.30	0.44
35:BB:1226:G:H4'	47:BN:206:ARG:NH2	2.31	0.44
35:BB:1299:G:C2'	35:BB:1356:G:N2	2.80	0.44
35:BB:1346:A:C8	35:BB:1368:A:C6	3.05	0.44
35:BB:1353:G:C4	35:BB:1365:G:C2	3.05	0.44
35:BB:1381:U:C4	35:BB:1382:U:C4	3.05	0.44
35:BB:1405:G:OP2	35:BB:1405:G:H4'	2.16	0.44
35:BB:1445:A:H3'	35:BB:1446:C:C5	2.51	0.44
35:BB:1509:G:C5	35:BB:1510:G:C8	3.05	0.44
35:BB:1521:G:H2'	35:BB:1522:G:H8	1.82	0.44
36:BC:106:G:N3	36:BC:115:G:C2	2.85	0.44
36:BC:108:A:N3	36:BC:113:G:C6	2.86	0.44
36:BC:127:C:H2'	36:BC:128:U:O4'	2.17	0.44
36:BC:138:C:C6	36:BC:138:C:O5'	2.71	0.44
37:BD:1:G:C6	37:BD:2:G:C6	3.05	0.44
37:BD:7:G:C6	37:BD:8:A:N6	2.86	0.44
37:BD:16:U:H3'	37:BD:16:U:C6	2.51	0.44
37:BD:18:G:C2	37:BD:61:C:C2	3.05	0.44
37:BD:26:C:C4	37:BD:27:A:C8	3.06	0.44
37:BD:33:U:C4	37:BD:34:C:C4	3.05	0.44
37:BD:37:G:H2'	37:BD:38:U:C6	2.51	0.44
37:BD:85:C:C2'	37:BD:86:A:C8	2.98	0.44
37:BD:108:G:N2	37:BD:109:U:C2	2.85	0.44
38:BE:6:A:C5'	69:Bj:85:HIS:CG	2.99	0.44
38:BE:95:G:C6	38:BE:126:G:C6	3.06	0.44
39:BF:1:C:H3'	39:BF:2:G:C5'	2.48	0.44
39:BF:9:C:C4	39:BF:10:A:C2	3.05	0.44
39:BF:19:A:C2	39:BF:20:U:N3	2.85	0.44
39:BF:62:U:H2'	39:BF:62:U:P	2.56	0.44
40:BG:25:G:N1	40:BG:26:G:C5	2.85	0.44
40:BG:50:G:C4	40:BG:59:G:C6	3.05	0.44
41:BH:26:C:OP2	67:Bh:60:ALA:HB2	2.16	0.44
41:BH:39:G:H1'	41:BH:113:G:H22	1.82	0.44
41:BH:51:C:C2	41:BH:52:G:C8	3.05	0.44
48:BO:82:SER:O	65:Bf:318:TYR:CD1	2.70	0.44
48:BO:195:VAL:O	48:BO:198:LYS:HB2	2.16	0.44
50:BQ:186:ARG:O	50:BQ:190:GLY:N	2.50	0.44
52:BS:81:ALA:HA	52:BS:90:THR:O	2.17	0.44
56:BW:36:LEU:HD22	56:BW:62:ALA:CB	2.47	0.44
58:BY:4:ILE:HG22	58:BY:5:ASP:H	1.82	0.44
62:Bc:133:LYS:HG2	62:Bc:136:PHE:CD1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:Bf:103:GLY:HA3	65:Bf:369:PHE:CD1	2.53	0.44
66:Bg:84:ASN:O	66:Bg:88:LEU:HB2	2.17	0.44
67:Bh:45:MET:HE3	67:Bh:47:PRO:CG	2.47	0.44
74:Bo:39:CYS:SG	74:Bo:40:SER:N	2.90	0.44
77:Br:123:VAL:O	77:Br:126:ALA:HB3	2.17	0.44
77:Br:163:THR:HG23	77:Br:217:ARG:HG2	1.99	0.44
77:Br:179:VAL:HG23	77:Br:225:LEU:HD21	1.99	0.44
80:Bu:115:LEU:CD1	80:Bu:142:ASP:HA	2.46	0.44
82:Bw:91:TYR:CE2	82:Bw:92:LEU:O	2.71	0.44
82:Bw:183:MET:HA	82:Bw:186:ASP:OD2	2.18	0.44
85:AA:20:G:C4	85:AA:21:U:C5	3.05	0.44
85:AA:104:C:H4'	85:AA:448:G:N3	2.33	0.44
85:AA:194:U:H2'	85:AA:195:C:C5	2.52	0.44
85:AA:229:U:O2	85:AA:230:U:C5	2.70	0.44
85:AA:326:C:O2	85:AA:326:C:H2'	2.16	0.44
85:AA:328:U:H6	85:AA:328:U:H3'	1.82	0.44
85:AA:466:A:OP1	85:AA:467:U:C5	2.70	0.44
85:AA:480:U:C4	85:AA:482:C:N3	2.84	0.44
85:AA:517:A:N7	85:AA:518:A:C8	2.86	0.44
85:AA:616:A:C6	85:AA:617:C:H2'	2.53	0.44
85:AA:681:G:O4'	85:AA:687:G:C2	2.70	0.44
85:AA:690:G:O4'	85:AA:695:A:C5	2.71	0.44
85:AA:717:G:C5	85:AA:718:C:C5	3.05	0.44
85:AA:743:C:H2'	85:AA:744:C:C5	2.52	0.44
85:AA:744:C:C4	85:AA:745:C:C5	3.05	0.44
85:AA:877:G:C4	85:AA:878:U:C6	3.05	0.44
85:AA:910:G:H2'	85:AA:910:G:N3	2.32	0.44
85:AA:924:A:C2	85:AA:925:G:C1'	3.00	0.44
85:AA:938:A:C4	85:AA:939:A:N9	2.86	0.44
85:AA:995:G:N2	85:AA:996:A:C1'	2.80	0.44
85:AA:1121:U:C4	85:AA:1122:U:C5	3.06	0.44
85:AA:1126:G:C2	85:AA:1201:A:N3	2.85	0.44
85:AA:1139:G:C6	85:AA:1140:G:C4	3.05	0.44
85:AA:1150:G:C4	85:AA:1151:G:C5	3.05	0.44
85:AA:1182:A:H2'	85:AA:1184:A:C8	2.52	0.44
85:AA:1435:C:H3'	85:AA:1435:C:C6	2.52	0.44
85:AA:1441:G:C5	85:AA:1442:U:C4	3.05	0.44
85:AA:1446:U:H5''	85:AA:1446:U:H6	1.82	0.44
85:AA:1486:G:O2'	85:AA:1487:G:H5'	2.18	0.44
85:AA:1572:C:H5''	85:AA:1574:C:C5	2.51	0.44
85:AA:1799:C:O5'	85:AA:1799:C:H6	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1825:A:H5'	85:AA:1826:U:C5	2.52	0.44
85:AA:2132:A:N1	85:AA:2133:A:C5	2.85	0.44
85:AA:2134:U:C2	85:AA:2135:A:C8	3.06	0.44
85:AA:2147:A:C2	85:AA:2148:C:C1'	3.00	0.44
85:AA:2204:A:C6	85:AA:2205:A:C5	3.05	0.44
85:AA:2230:U:O5'	85:AA:2230:U:H6	2.01	0.44
1:A0:118:LYS:O	1:A0:119:TRP:CD1	2.71	0.44
4:A3:28:LEU:HD21	4:A3:41:ILE:HG21	1.98	0.44
11:AC:93:LYS:HD2	11:AC:195:ILE:HG23	2.00	0.44
11:AC:227:ARG:NH2	11:AC:228:SER:H	2.16	0.44
12:AD:24:SER:H	31:AX:74:GLN:HB3	1.82	0.44
12:AD:68:TRP:HE1	31:AX:22:GLU:HG3	1.83	0.44
18:AJ:107:SER:O	85:AA:930:G:H5'	2.16	0.44
21:AM:100:THR:C	21:AM:104:VAL:HG23	2.43	0.44
23:AP:47:THR:O	23:AP:51:ARG:HB3	2.16	0.44
24:AQ:77:TYR:CD2	24:AQ:77:TYR:N	2.84	0.44
27:AT:17:PHE:CD2	27:AT:17:PHE:N	2.85	0.44
27:AT:42:PRO:HA	85:AA:591:A:C5'	2.47	0.44
27:AT:117:ARG:HA	27:AT:120:ARG:NH2	2.32	0.44
29:AV:44:ARG:HD3	29:AV:45:ARG:H	1.82	0.44
30:AW:14:ARG:HB3	30:AW:15:THR:HG23	1.99	0.44
34:BA:2:A:C8	34:BA:2:A:O5'	2.71	0.44
34:BA:15:G:C6	36:BC:153:C:C4	3.04	0.44
34:BA:144:C:H42	83:Bx:171:ASP:CG	2.25	0.44
34:BA:241:U:H2'	34:BA:242:U:O4'	2.18	0.44
34:BA:365:A:C4	34:BA:377:G:C2	3.05	0.44
34:BA:402:G:C6	36:BC:26:U:N3	2.86	0.44
34:BA:412:G:C1'	34:BA:418:G:C6	3.00	0.44
34:BA:416:A:C2	36:BC:52:A:N1	2.85	0.44
34:BA:487:A:H1'	34:BA:488:C:O2	2.18	0.44
34:BA:610:A:C8	34:BA:610:A:H3'	2.52	0.44
34:BA:680:C:H5'	34:BA:681:G:H8	1.82	0.44
34:BA:738:C:C2	34:BA:739:A:N7	2.85	0.44
34:BA:753:G:N1	34:BA:754:G:C5	2.85	0.44
34:BA:804:G:C5	34:BA:805:A:C4	3.05	0.44
34:BA:818:G:C2	34:BA:853:A:C4	3.05	0.44
34:BA:878:G:N1	34:BA:880:G:C5	2.85	0.44
34:BA:938:C:C2'	34:BA:939:C:H6	2.30	0.44
34:BA:984:U:C4	34:BA:985:C:C4	3.05	0.44
34:BA:1070:G:H2'	34:BA:1071:G:O4'	2.16	0.44
34:BA:1167:A:C6	34:BA:1206:C:C4	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1316:G:C4	34:BA:1317:U:O4	2.71	0.44
34:BA:1352:G:O6	34:BA:1353:U:C5	2.71	0.44
34:BA:1488:C:C6	34:BA:1489:U:H5	2.34	0.44
34:BA:1600:G:C6	34:BA:1601:C:N4	2.85	0.44
34:BA:1610:A:C6	34:BA:1640:G:C6	3.06	0.44
34:BA:1642:A:C5	34:BA:1643:U:C4	3.05	0.44
34:BA:1671:A:N7	34:BA:1672:C:C5	2.85	0.44
34:BA:1684:A:H2'	34:BA:1685:C:C6	2.53	0.44
34:BA:1729:G:C4	34:BA:1794:A:C6	3.05	0.44
34:BA:1731:A:C8	34:BA:1793:G:N3	2.86	0.44
34:BA:1737:A:N1	34:BA:1738:G:C5	2.85	0.44
34:BA:1841:A:H3'	34:BA:1842:U:C5	2.52	0.44
35:BB:60:A:C4'	35:BB:61:A:H5''	2.45	0.44
35:BB:133:G:P	53:BT:134:ASN:HD21	2.40	0.44
35:BB:361:A:C2	35:BB:362:A:C4	3.06	0.44
35:BB:404:A:C2	35:BB:411:A:N6	2.85	0.44
35:BB:514:G:C4	35:BB:515:C:C5	3.06	0.44
35:BB:589:U:H6	35:BB:589:U:O5'	2.00	0.44
35:BB:606:C:C6	35:BB:606:C:OP1	2.70	0.44
35:BB:635:A:C5	35:BB:636:G:C8	3.05	0.44
35:BB:639:A:C5'	35:BB:640:A:H5''	2.46	0.44
35:BB:682:U:H5''	64:Be:207:VAL:HG13	1.99	0.44
35:BB:841:U:H2'	35:BB:842:G:C8	2.52	0.44
35:BB:970:C:C6	35:BB:970:C:H3'	2.53	0.44
35:BB:1003:G:C2	35:BB:1004:A:C5	3.05	0.44
35:BB:1005:A:C2	35:BB:1014:U:C2	3.06	0.44
35:BB:1031:G:C4	83:Bx:250:GLN:NE2	2.86	0.44
35:BB:1147:G:O5'	35:BB:1147:G:C8	2.70	0.44
35:BB:1295:A:C6	35:BB:1308:G:C5	3.06	0.44
35:BB:1363:A:H2'	35:BB:1364:C:C6	2.51	0.44
35:BB:1525:G:C2	35:BB:1526:C:C2	3.06	0.44
36:BC:111:C:C2	36:BC:113:G:H1'	2.52	0.44
36:BC:140:U:C4	36:BC:140:U:OP2	2.70	0.44
37:BD:74:A:H62	37:BD:102:C:H41	1.64	0.44
38:BE:18:U:H6	38:BE:18:U:O5'	2.00	0.44
38:BE:72:C:O2'	38:BE:135:A:C5	2.68	0.44
38:BE:90:G:C5	38:BE:91:G:N7	2.84	0.44
38:BE:117:A:N3	38:BE:117:A:H5'	2.32	0.44
38:BE:133:C:O2	38:BE:134:A:H2'	2.17	0.44
39:BF:25:G:C6	39:BF:26:U:O4	2.71	0.44
39:BF:45:G:N1	39:BF:46:G:C6	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BF:50:C:H2'	39:BF:50:C:O2	2.17	0.44
40:BG:29:U:H4'	65:Bf:168:ARG:HH12	1.82	0.44
40:BG:50:G:N3	40:BG:59:G:C6	2.85	0.44
41:BH:66:G:O5'	41:BH:66:G:C8	2.70	0.44
41:BH:69:C:C5	41:BH:70:U:C5	3.06	0.44
41:BH:128:G:OP2	67:Bh:76:ARG:CZ	2.66	0.44
47:BN:28:LYS:HB3	50:BQ:217:PHE:CE2	2.52	0.44
47:BN:59:LEU:HD12	47:BN:158:TYR:CE1	2.52	0.44
50:BQ:28:TRP:CH2	83:Bx:174:GLU:HB3	2.52	0.44
51:BR:26:TYR:CZ	51:BR:120:ASP:C	2.95	0.44
51:BR:67:ILE:HB	51:BR:80:LYS:HE2	1.98	0.44
62:Bc:9:TRP:CD2	62:Bc:40:LYS:HA	2.51	0.44
65:Bf:143:TYR:CE2	65:Bf:152:THR:HG22	2.53	0.44
65:Bf:170:TYR:HB3	65:Bf:172:ASN:O	2.17	0.44
65:Bf:217:THR:HG21	65:Bf:233:HIS:CD2	2.52	0.44
65:Bf:255:LEU:C	65:Bf:257:LYS:H	2.25	0.44
67:Bh:135:ILE:C	67:Bh:137:HIS:H	2.23	0.44
69:Bj:45:THR:HB	69:Bj:46:PRO:O	2.17	0.44
70:Bk:103:GLU:CD	70:Bk:103:GLU:N	2.71	0.44
77:Br:160:TYR:N	77:Br:160:TYR:CD1	2.82	0.44
77:Br:265:PHE:CD1	77:Br:265:PHE:O	2.70	0.44
77:Br:321:ARG:HA	77:Br:323:ARG:H	1.82	0.44
83:Bx:261:LYS:CG	83:Bx:262:LYS:H	2.30	0.44
84:By:26:VAL:O	84:By:32:THR:HA	2.17	0.44
85:AA:43:A:C6	85:AA:443:A:C6	3.06	0.44
85:AA:48:G:C6	85:AA:497:G:C4	3.06	0.44
85:AA:104:C:N4	85:AA:373:G:H1	2.15	0.44
85:AA:119:G:N2	85:AA:362:G:H1'	2.32	0.44
85:AA:143:U:C2	85:AA:144:A:N7	2.85	0.44
85:AA:202:U:H6	85:AA:202:U:H3'	1.82	0.44
85:AA:227:A:C5	85:AA:228:C:C6	3.05	0.44
85:AA:379:U:H3	85:AA:1495:G:C2'	2.30	0.44
85:AA:401:U:O4	85:AA:402:G:C6	2.71	0.44
85:AA:427:G:C2	85:AA:448:G:N3	2.86	0.44
85:AA:450:A:O5'	85:AA:450:A:H8	2.01	0.44
85:AA:482:C:H4'	85:AA:483:G:C6	2.52	0.44
85:AA:556:C:H2'	85:AA:557:G:C8	2.52	0.44
85:AA:637:U:C3'	85:AA:638:G:C8	3.01	0.44
85:AA:669:G:C5	85:AA:670:C:C5	3.05	0.44
85:AA:764:U:H2'	85:AA:766:G:N7	2.32	0.44
85:AA:833:U:C4	85:AA:834:U:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:835:C:H5	85:AA:836:A:C8	2.34	0.44
85:AA:1002:G:N1	85:AA:1003:G:C5	2.86	0.44
85:AA:1194:U:N3	85:AA:1195:U:C5	2.86	0.44
85:AA:1218:C:C6	85:AA:1218:C:C3'	3.00	0.44
85:AA:1287:C:N4	85:AA:1468:G:H4'	2.32	0.44
85:AA:1288:A:H1'	85:AA:1455:C:O2	2.17	0.44
85:AA:1563:U:C4	85:AA:1564:U:C4	3.06	0.44
85:AA:1644:G:C6	85:AA:1645:G:C4	3.05	0.44
85:AA:1650:G:C2'	85:AA:1869:U:C5	3.00	0.44
85:AA:1665:G:OP2	85:AA:1691:U:H6	2.01	0.44
85:AA:1672:G:N1	85:AA:1680:U:C2	2.86	0.44
85:AA:1714:G:H2'	85:AA:1715:C:C5	2.52	0.44
85:AA:1716:U:N3	85:AA:1823:G:C6	2.85	0.44
85:AA:1726:G:H22	85:AA:1814:U:H3	1.65	0.44
85:AA:1864:G:C4	85:AA:1865:C:C5	3.05	0.44
85:AA:1953:G:C4	85:AA:1954:C:C5	3.06	0.44
85:AA:2044:A:P	86:AB:35:A:H4'	2.58	0.44
85:AA:2137:A:N6	85:AA:2138:G:C6	2.85	0.44
85:AA:2145:G:H1'	85:AA:2174:G:H1	1.80	0.44
85:AA:2154:C:C2	85:AA:2155:U:C6	3.05	0.44
85:AA:2172:A:C2	85:AA:2173:A:C1'	3.00	0.44
85:AA:2187:G:N1	85:AA:2188:C:C2	2.86	0.44
85:AA:2212:U:H4'	85:AA:2233:A:C2	2.53	0.44
86:AB:3:C:C4	86:AB:71:G:C5	3.06	0.44
86:AB:49:C:H3'	86:AB:50:U:C5	2.53	0.44
3:A2:12:TRP:CD1	3:A2:93:ASN:HA	2.52	0.44
4:A3:45:ALA:HB3	4:A3:46:PHE:CE2	2.53	0.44
5:A4:91:PHE:N	5:A4:91:PHE:CD2	2.84	0.44
5:A4:159:LEU:HB2	5:A4:190:PHE:CD2	2.52	0.44
7:A6:50:LYS:O	7:A6:54:THR:HG23	2.18	0.44
7:A6:142:ILE:HB	7:A6:145:PHE:CE1	2.53	0.44
8:A7:197:ASN:HD22	8:A7:217:ASP:HA	1.83	0.44
13:AE:145:ARG:HB3	85:AA:112:A:C8	2.51	0.44
21:AM:34:VAL:HG13	21:AM:39:ILE:HG21	1.98	0.44
21:AM:98:HIS:O	21:AM:98:HIS:CD2	2.70	0.44
21:AM:126:HIS:CE1	85:AA:2011:C:H5''	2.53	0.44
23:AP:214:THR:HG21	85:AA:4:C:H5'	1.98	0.44
24:AQ:63:ARG:HE	85:AA:1576:G:H1'	1.82	0.44
31:AX:86:PHE:N	31:AX:86:PHE:CD1	2.84	0.44
34:BA:2:A:C6	36:BC:169:G:N1	2.85	0.44
34:BA:45:A:O3'	34:BA:46:C:H4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:55:G:C4	34:BA:56:G:C5	3.06	0.44
34:BA:77:C:H2'	34:BA:78:U:C6	2.52	0.44
34:BA:219:U:C4	34:BA:220:U:C4	3.05	0.44
34:BA:315:U:C5	34:BA:316:G:N7	2.85	0.44
34:BA:371:U:C2	34:BA:372:U:N1	2.86	0.44
34:BA:529:A:C5	34:BA:530:A:N7	2.85	0.44
34:BA:544:U:N3	34:BA:545:U:C6	2.85	0.44
34:BA:603:U:O4	34:BA:1491:U:C2	2.70	0.44
34:BA:616:G:N2	34:BA:617:G:C2	2.85	0.44
34:BA:659:U:H3'	34:BA:660:C:C5'	2.47	0.44
34:BA:757:G:H5'	34:BA:758:G:N2	2.33	0.44
34:BA:834:C:C5	34:BA:835:U:C6	3.05	0.44
34:BA:838:U:C4	34:BA:839:U:C1'	3.00	0.44
34:BA:970:U:O2	34:BA:971:G:C8	2.70	0.44
34:BA:1014:A:C5	34:BA:1016:A:H1'	2.52	0.44
34:BA:1048:C:C2	34:BA:1049:G:C8	3.06	0.44
34:BA:1139:G:N3	34:BA:1139:G:H2'	2.33	0.44
34:BA:1154:U:H3'	54:BU:13:HIS:HE1	1.83	0.44
34:BA:1259:C:O5'	34:BA:1259:C:C6	2.70	0.44
34:BA:1270:G:H2'	34:BA:1271:C:O4'	2.18	0.44
34:BA:1292:A:O5'	34:BA:1292:A:C8	2.71	0.44
34:BA:1341:A:N7	34:BA:1342:C:C5	2.86	0.44
34:BA:1369:C:N4	34:BA:1370:A:N3	2.66	0.44
34:BA:1409:A:N1	34:BA:1410:C:C2	2.84	0.44
34:BA:1495:A:H2'	34:BA:1498:A:N7	2.31	0.44
34:BA:1599:A:C4	34:BA:1600:G:H1'	2.52	0.44
34:BA:1627:U:H3'	34:BA:1628:A:H8	1.83	0.44
35:BB:24:C:O2'	35:BB:25:A:H5''	2.18	0.44
35:BB:69:A:H62	67:Bh:99:ARG:CZ	2.30	0.44
35:BB:346:U:C4	35:BB:347:G:C5	3.05	0.44
35:BB:475:A:C6	35:BB:504:C:O2	2.71	0.44
35:BB:494:C:H2'	35:BB:495:A:C8	2.53	0.44
35:BB:515:C:H3'	35:BB:540:G:N7	2.33	0.44
35:BB:555:G:H5''	35:BB:556:U:OP2	2.17	0.44
35:BB:596:C:C2	35:BB:597:C:C5	3.06	0.44
35:BB:640:A:C2	35:BB:1283:C:H5'	2.52	0.44
35:BB:693:U:O5'	35:BB:693:U:H6	1.99	0.44
35:BB:707:G:H2'	35:BB:708:C:H6	1.83	0.44
35:BB:717:A:C2	35:BB:764:C:H1'	2.51	0.44
35:BB:732:G:C2	35:BB:758:A:C6	3.05	0.44
35:BB:808:U:O5'	35:BB:808:U:C6	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:812:G:C4	35:BB:813:C:C6	3.05	0.44
35:BB:849:A:C8	35:BB:850:U:H2'	2.52	0.44
35:BB:1023:G:H1	83:Bx:43:ARG:NH1	2.15	0.44
35:BB:1041:A:C2	35:BB:1042:U:C5	3.05	0.44
35:BB:1095:G:C6	35:BB:1096:G:N7	2.86	0.44
35:BB:1148:U:O4'	35:BB:1152:U:C4	2.71	0.44
35:BB:1150:A:H3'	35:BB:1151:A:C5'	2.48	0.44
35:BB:1226:G:C4	47:BN:192:LYS:HE2	2.52	0.44
35:BB:1373:U:H3'	65:Bf:58:GLU:HB2	1.99	0.44
35:BB:1404:A:C5	35:BB:1440:A:C2	3.05	0.44
35:BB:1466:A:C8	35:BB:1466:A:OP2	2.70	0.44
36:BC:23:G:O6	59:BZ:10:ARG:NH2	2.50	0.44
36:BC:52:A:C2	36:BC:53:A:H1'	2.53	0.44
36:BC:117:A:C5	36:BC:118:U:C5	3.06	0.44
36:BC:156:A:H4'	36:BC:157:U:OP2	2.17	0.44
37:BD:61:C:C5'	80:Bu:283:LEU:HD23	2.47	0.44
38:BE:35:A:C6	38:BE:36:U:N3	2.86	0.44
38:BE:42:C:H4'	53:BT:63:TRP:CZ3	2.52	0.44
38:BE:87:U:N3	38:BE:88:G:C8	2.86	0.44
38:BE:164:C:N3	38:BE:165:U:C5	2.86	0.44
38:BE:178:G:H5''	38:BE:179:A:C2	2.52	0.44
38:BE:186:C:N4	38:BE:189:A:C2	2.85	0.44
39:BF:36:G:N3	39:BF:48:G:C2	2.85	0.44
39:BF:42:G:C4	39:BF:44:C:C2	3.05	0.44
39:BF:45:G:C4	39:BF:46:G:C8	3.05	0.44
39:BF:53:G:P	39:BF:54:U:H5	2.41	0.44
39:BF:66:C:C6	39:BF:66:C:O5'	2.69	0.44
40:BG:35:G:OP1	48:BO:91:HIS:HA	2.18	0.44
40:BG:77:U:C6	40:BG:78:C:C5	3.05	0.44
40:BG:80:G:C5	40:BG:81:G:C5	3.05	0.44
41:BH:32:U:C5	41:BH:33:G:C4	3.06	0.44
41:BH:101:A:C2'	41:BH:102:C:H5'	2.47	0.44
42:BI:35:PHE:CZ	42:BI:39:ARG:HB3	2.52	0.44
47:BN:81:SER:O	47:BN:85:LEU:HG	2.18	0.44
47:BN:101:ARG:HH11	47:BN:101:ARG:CG	2.30	0.44
49:BP:139:TRP:C	49:BP:139:TRP:CE3	2.96	0.44
51:BR:49:ARG:O	51:BR:53:ALA:HB3	2.17	0.44
52:BS:111:ASP:O	52:BS:115:ARG:N	2.49	0.44
59:BZ:31:PRO:HA	59:BZ:37:ARG:NH2	2.32	0.44
60:Ba:28:THR:HB	60:Ba:39:HIS:O	2.17	0.44
60:Ba:57:SER:OG	60:Ba:61:ILE:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Bb:102:LEU:CD2	61:Bb:102:LEU:H	2.31	0.44
61:Bb:142:VAL:HG12	61:Bb:143:LEU:O	2.18	0.44
62:Bc:21:LYS:O	62:Bc:22:ARG:HD2	2.18	0.44
64:Be:150:LEU:HD23	64:Be:151:PRO:HD3	1.99	0.44
67:Bh:106:PRO:HA	67:Bh:109:ILE:HG23	2.00	0.44
70:Bk:59:MET:HE2	70:Bk:59:MET:HA	1.99	0.44
70:Bk:79:LEU:O	70:Bk:82:ALA:HB3	2.18	0.44
71:Bl:82:TYR:HB3	71:Bl:108:ILE:HG23	1.99	0.44
74:Bo:75:ASN:O	74:Bo:79:VAL:HG23	2.18	0.44
77:Br:134:ALA:HA	77:Br:137:MET:SD	2.57	0.44
81:Bv:188:HIS:CE1	81:Bv:189:ARG:HD2	2.53	0.44
82:Bw:98:VAL:HA	82:Bw:132:VAL:O	2.18	0.44
82:Bw:160:ARG:O	82:Bw:163:VAL:HB	2.16	0.44
84:By:85:GLY:O	84:By:184:ASN:HA	2.17	0.44
85:AA:5:U:C2	85:AA:6:G:C8	3.06	0.44
85:AA:41:G:C2	85:AA:503:A:C5	3.05	0.44
85:AA:65:A:C8	85:AA:66:U:O4	2.71	0.44
85:AA:72:C:O5'	85:AA:72:C:C6	2.70	0.44
85:AA:258:G:C6	85:AA:259:A:N7	2.86	0.44
85:AA:271:A:N1	85:AA:978:U:C2	2.85	0.44
85:AA:283:A:H2	85:AA:286:C:OP2	2.01	0.44
85:AA:286:C:C4	85:AA:287:G:C4	3.05	0.44
85:AA:295:U:C5'	85:AA:296:A:C8	3.00	0.44
85:AA:457:G:C6	85:AA:458:C:C5	3.05	0.44
85:AA:542:G:O6	85:AA:543:A:C6	2.71	0.44
85:AA:544:A:N6	85:AA:669:G:OP1	2.51	0.44
85:AA:550:G:H2'	85:AA:551:C:C6	2.53	0.44
85:AA:575:G:N1	85:AA:577:U:C4	2.86	0.44
85:AA:637:U:C4	85:AA:638:G:C6	3.05	0.44
85:AA:638:G:C6	85:AA:652:U:C1'	3.00	0.44
85:AA:642:G:C2	85:AA:643:C:C2	3.05	0.44
85:AA:671:G:C5	85:AA:672:U:C4	3.06	0.44
85:AA:686:U:H5'	85:AA:1477:A:N1	2.33	0.44
85:AA:739:C:H6	85:AA:740:A:H5''	1.82	0.44
85:AA:810:C:N3	85:AA:811:A:C8	2.85	0.44
85:AA:810:C:C4	85:AA:811:A:N7	2.85	0.44
85:AA:835:C:N4	85:AA:836:A:C4	2.85	0.44
85:AA:959:C:C6	85:AA:960:G:C4	3.05	0.44
85:AA:1016:G:H4'	85:AA:1056:C:C5	2.53	0.44
85:AA:1019:U:H2'	85:AA:1051:A:N7	2.32	0.44
85:AA:1143:C:H42	85:AA:1168:C:H42	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1264:U:H3'	85:AA:1265:C:H5	1.82	0.44
85:AA:1348:C:H2'	85:AA:1349:A:C8	2.53	0.44
85:AA:1458:G:H3'	85:AA:1458:G:OP2	2.17	0.44
85:AA:1624:U:H2'	85:AA:1625:C:C6	2.53	0.44
85:AA:1651:C:N1	85:AA:1866:A:C5	2.85	0.44
85:AA:1705:G:C5	85:AA:1706:A:N7	2.86	0.44
85:AA:1762:G:C6	85:AA:1763:G:O6	2.71	0.44
85:AA:1847:U:O5'	85:AA:1847:U:H6	2.00	0.44
85:AA:1941:C:H2'	85:AA:1942:U:C6	2.53	0.44
85:AA:1953:G:N2	85:AA:1954:C:C2	2.85	0.44
85:AA:1964:A:H2'	85:AA:1965:U:C5	2.52	0.44
85:AA:1988:A:C2	85:AA:1989:A:C2	3.06	0.44
85:AA:2063:C:HO2'	85:AA:2065:U:H5	1.65	0.44
85:AA:2081:A:C4	85:AA:2082:C:C5	3.05	0.44
85:AA:2216:A:C5	85:AA:2218:G:N1	2.86	0.44
85:AA:2228:G:H2'	85:AA:2229:G:O4'	2.17	0.44
86:AB:28:G:H2'	86:AB:29:G:C8	2.52	0.44
1:A0:101:GLN:O	1:A0:103:HIS:HE1	2.00	0.44
1:A0:165:TRP:O	1:A0:168:MET:SD	2.75	0.44
3:A2:131:ARG:HA	33:AZ:83:PRO:HG2	1.98	0.44
4:A3:77:LEU:HA	4:A3:97:ARG:HA	2.00	0.44
4:A3:139:LYS:HE2	85:AA:65:A:C8	2.53	0.44
5:A4:3:ALA:C	5:A4:30:PHE:CD1	2.96	0.44
6:A5:107:ALA:HA	6:A5:110:ARG:CZ	2.47	0.44
7:A6:139:ILE:HG12	7:A6:140:VAL:H	1.82	0.44
10:A9:123:CYS:HB3	10:A9:132:VAL:HG13	2.00	0.44
13:AE:109:PHE:HA	13:AE:116:TYR:HA	1.99	0.44
15:AG:49:ARG:HH21	15:AG:52:MET:HB3	1.81	0.44
19:AK:33:CYS:N	85:AA:1792:C:OP2	2.51	0.44
24:AQ:63:ARG:HA	24:AQ:74:TRP:CE3	2.53	0.44
30:AW:29:PRO:HB3	85:AA:1208:C:C4	2.53	0.44
34:BA:10:G:C2	34:BA:11:U:C5	3.06	0.44
34:BA:14:G:C2	36:BC:153:C:C2	3.06	0.44
34:BA:23:A:C6	34:BA:24:C:C4	3.06	0.44
34:BA:40:A:C6	35:BB:1260:A:C5	3.06	0.44
34:BA:187:G:C2	34:BA:300:C:C2	3.05	0.44
34:BA:213:A:C4	34:BA:217:C:C4	3.06	0.44
34:BA:244:A:C6	34:BA:245:U:C4	3.06	0.44
34:BA:259:C:N3	34:BA:260:A:C6	2.86	0.44
34:BA:283:U:C5	34:BA:284:U:C4	3.05	0.44
34:BA:295:G:C8	34:BA:296:G:O6	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:306:G:C6	34:BA:307:C:C5	3.06	0.44
34:BA:366:G:N2	35:BB:1236:A:C5	2.86	0.44
34:BA:371:U:C4	34:BA:372:U:C4	3.06	0.44
34:BA:400:A:C2	36:BC:27:U:O2	2.71	0.44
34:BA:403:A:C2	34:BA:1531:G:H1'	2.53	0.44
34:BA:412:G:C6	34:BA:418:G:C8	3.06	0.44
34:BA:441:A:H3'	34:BA:442:G:H5''	1.98	0.44
34:BA:446:U:H2'	34:BA:447:U:O4'	2.18	0.44
34:BA:524:G:N2	34:BA:590:U:C2	2.86	0.44
34:BA:619:U:C4	34:BA:620:C:C5	3.06	0.44
34:BA:630:U:C2	34:BA:631:G:C4	3.06	0.44
34:BA:678:C:H2'	34:BA:679:U:H5'	2.00	0.44
34:BA:757:G:H5'	34:BA:758:G:C2	2.52	0.44
34:BA:757:G:OP1	34:BA:782:C:C2	2.71	0.44
34:BA:775:C:C6	34:BA:775:C:H3'	2.52	0.44
34:BA:839:U:H6	34:BA:839:U:O5'	2.01	0.44
34:BA:925:G:N1	34:BA:926:A:C4	2.85	0.44
34:BA:1049:G:C5	34:BA:1516:G:N1	2.86	0.44
34:BA:1068:C:H4'	63:Bd:18:ARG:HE	1.83	0.44
34:BA:1201:G:C5	34:BA:1202:G:C8	3.05	0.44
34:BA:1276:G:N1	34:BA:1277:G:C5	2.86	0.44
34:BA:1467:U:N3	34:BA:1468:U:C5	2.86	0.44
34:BA:1534:U:H5'	77:Br:139:ARG:NH2	2.31	0.44
34:BA:1544:G:C5	34:BA:1545:C:C5	3.06	0.44
34:BA:1563:G:C2	34:BA:1565:U:C2	3.05	0.44
34:BA:1597:G:O6	51:BR:25:HIS:CE1	2.71	0.44
34:BA:1618:A:O2'	34:BA:1619:U:H5'	2.16	0.44
34:BA:1708:A:C5	34:BA:1709:A:C1'	3.00	0.44
34:BA:1736:A:C5	34:BA:1737:A:N7	2.86	0.44
34:BA:1737:A:C2	34:BA:1788:U:C4	3.06	0.44
35:BB:28:G:H5'	35:BB:29:C:H5''	1.98	0.44
35:BB:128:C:C4	35:BB:376:A:N1	2.85	0.44
35:BB:133:G:N1	35:BB:134:G:C5	2.85	0.44
35:BB:412:A:C6	35:BB:548:A:C5	3.06	0.44
35:BB:413:A:C2	35:BB:414:C:N1	2.86	0.44
35:BB:419:G:H1'	35:BB:580:A:N1	2.33	0.44
35:BB:517:G:C2	35:BB:534:C:O2	2.70	0.44
35:BB:621:C:N4	35:BB:622:G:C6	2.86	0.44
35:BB:648:G:O2'	35:BB:649:A:H5'	2.17	0.44
35:BB:694:C:N3	35:BB:695:U:C4	2.86	0.44
35:BB:756:C:C5	35:BB:757:C:C6	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:799:A:C6	35:BB:975:G:N7	2.86	0.44
35:BB:810:G:C5	35:BB:811:C:C4	3.05	0.44
35:BB:852:G:HO2'	69:Bj:118:LYS:CE	2.08	0.44
35:BB:901:U:C4	35:BB:902:C:C5	3.05	0.44
35:BB:1014:U:O5'	35:BB:1014:U:H6	2.01	0.44
35:BB:1057:G:H2'	35:BB:1058:U:C6	2.52	0.44
35:BB:1070:G:C5	35:BB:1071:G:N7	2.85	0.44
35:BB:1147:G:H3'	35:BB:1148:U:C6	2.52	0.44
35:BB:1149:A:C2	35:BB:1151:A:N6	2.85	0.44
35:BB:1150:A:C5	80:Bu:29:ASP:CG	2.96	0.44
35:BB:1305:A:H1'	35:BB:1356:G:C8	2.53	0.44
35:BB:1330:A:C3'	35:BB:1331:U:H5'	2.48	0.44
36:BC:11:G:C2	36:BC:12:A:N9	2.86	0.44
36:BC:168:C:H5''	83:Bx:194:LYS:NZ	2.32	0.44
37:BD:30:A:N1	37:BD:48:G:C4	2.85	0.44
37:BD:32:A:C6	37:BD:41:G:C5	3.05	0.44
37:BD:77:A:H2'	37:BD:78:C:O4'	2.18	0.44
37:BD:101:A:C5	37:BD:102:C:C4	3.06	0.44
37:BD:107:G:C2	37:BD:108:G:C4	3.06	0.44
38:BE:2:G:C6	38:BE:3:G:C5	3.05	0.44
38:BE:37:C:C2	38:BE:176:G:C2	3.05	0.44
38:BE:96:G:N1	38:BE:124:G:C6	2.85	0.44
38:BE:122:G:C5	38:BE:123:A:N7	2.86	0.44
38:BE:141:A:C8	38:BE:144:A:C5	3.05	0.44
38:BE:149:A:H2	38:BE:164:C:N3	2.13	0.44
38:BE:149:A:H2'	38:BE:150:G:H8	1.80	0.44
38:BE:171:U:C6	38:BE:171:U:H5''	2.53	0.44
39:BF:23:G:H1'	48:BO:133:THR:N	2.32	0.44
40:BG:4:A:C8	40:BG:4:A:O5'	2.71	0.44
40:BG:9:G:C6	40:BG:10:U:C5	3.06	0.44
40:BG:44:G:N2	40:BG:45:G:H1'	2.33	0.44
40:BG:77:U:H3'	40:BG:78:C:H6	1.82	0.44
40:BG:169:A:O2'	40:BG:173:C:C1'	2.66	0.44
41:BH:61:C:H3'	41:BH:62:C:H5'	2.00	0.44
41:BH:130:G:C6	41:BH:131:A:N7	2.86	0.44
44:BK:95:HIS:CD2	44:BK:128:ARG:HG2	2.52	0.44
44:BK:171:TRP:CE3	44:BK:181:TYR:CD1	3.06	0.44
45:BL:37:LEU:C	45:BL:37:LEU:HD13	2.42	0.44
45:BL:140:ARG:H	45:BL:143:GLU:CD	2.25	0.44
47:BN:76:LEU:HD21	47:BN:164:GLY:HA2	1.99	0.44
48:BO:201:ARG:HA	48:BO:202:LYS:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BP:66:SER:HB2	49:BP:69:CYS:SG	2.58	0.44
50:BQ:131:ARG:NE	50:BQ:173:HIS:O	2.50	0.44
53:BT:17:CYS:HB2	53:BT:21:ARG:HB2	1.99	0.44
53:BT:178:LEU:C	53:BT:180:LYS:H	2.25	0.44
54:BU:82:ASN:O	63:Bd:21:ILE:HA	2.17	0.44
60:Ba:35:ARG:C	60:Ba:37:TYR:H	2.26	0.44
61:Bb:102:LEU:H	61:Bb:102:LEU:HD23	1.82	0.44
62:Bc:95:VAL:C	62:Bc:97:ASP:H	2.25	0.44
62:Bc:111:ARG:CG	82:Bw:15:VAL:HG22	2.47	0.44
72:Bm:16:ILE:HA	72:Bm:21:LYS:HA	2.00	0.44
72:Bm:81:CYS:O	72:Bm:85:LEU:HD22	2.18	0.44
73:Bn:67:LEU:HA	73:Bn:70:VAL:HG23	2.00	0.44
80:Bu:133:ARG:HB3	80:Bu:133:ARG:CZ	2.47	0.44
81:Bv:69:SER:CB	81:Bv:71:VAL:HG23	2.47	0.44
82:Bw:156:LEU:HB2	82:Bw:204:TYR:CZ	2.52	0.44
83:Bx:163:LEU:HA	83:Bx:189:PRO:HB2	1.99	0.44
84:By:48:LYS:HB2	84:By:51:ARG:HB2	1.99	0.44
84:By:76:ARG:O	84:By:79:ILE:HB	2.17	0.44
85:AA:231:G:C5	85:AA:232:U:C5	3.06	0.44
85:AA:255:A:N1	85:AA:325:C:C4	2.85	0.44
85:AA:286:C:C5	85:AA:286:C:OP2	2.71	0.44
85:AA:367:A:C4	85:AA:368:C:C6	3.06	0.44
85:AA:401:U:C5	85:AA:402:G:C5	3.06	0.44
85:AA:408:C:C2	85:AA:409:C:C6	3.05	0.44
85:AA:438:G:N3	85:AA:438:G:H2'	2.32	0.44
85:AA:499:G:C2	85:AA:501:A:H8	2.36	0.44
85:AA:547:A:C6	85:AA:582:A:N3	2.86	0.44
85:AA:548:G:C6	85:AA:581:A:C2	3.05	0.44
85:AA:553:G:C6	85:AA:554:A:C5	3.06	0.44
85:AA:570:U:N3	85:AA:571:G:C8	2.86	0.44
85:AA:716:G:C4	85:AA:717:G:C8	3.06	0.44
85:AA:821:U:C6	85:AA:821:U:O5'	2.70	0.44
85:AA:823:C:C2	85:AA:858:G:N3	2.85	0.44
85:AA:851:G:O2'	85:AA:853:G:C6	2.70	0.44
85:AA:872:U:C2	85:AA:873:U:C5	3.06	0.44
85:AA:876:U:H2'	85:AA:877:G:O4'	2.18	0.44
85:AA:892:C:C4	85:AA:900:G:C6	3.06	0.44
85:AA:1101:C:C4	85:AA:1102:C:C5	3.06	0.44
85:AA:1138:U:N3	85:AA:1139:G:C5	2.85	0.44
85:AA:1204:A:C4	85:AA:1205:U:C5	3.05	0.44
85:AA:1481:U:C2	85:AA:1482:C:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1521:U:C2	85:AA:1522:U:C4	3.06	0.44
85:AA:1546:G:N2	85:AA:2042:G:C8	2.86	0.44
85:AA:1731:G:C4	85:AA:1732:G:N7	2.85	0.44
85:AA:1796:C:C2	85:AA:1797:U:C6	3.05	0.44
85:AA:1800:U:H2'	85:AA:1801:U:O4'	2.17	0.44
85:AA:1844:A:N1	85:AA:1845:G:C5	2.86	0.44
85:AA:1846:G:C6	85:AA:1847:U:O4	2.71	0.44
85:AA:1926:A:N6	85:AA:1985:C:H42	2.14	0.44
85:AA:2006:G:H2'	85:AA:2007:G:H5'	1.99	0.44
85:AA:2056:C:H2'	85:AA:2057:G:O4'	2.17	0.44
85:AA:2110:U:C4	85:AA:2111:C:C4	3.05	0.44
85:AA:2121:G:C3'	85:AA:2122:A:C8	3.00	0.44
85:AA:2132:A:C6	85:AA:2187:G:N1	2.86	0.44
85:AA:2146:G:H2'	85:AA:2171:A:C2	2.53	0.44
85:AA:2149:C:C6	85:AA:2149:C:O5'	2.71	0.44
85:AA:2237:G:C6	85:AA:2238:C:C5	3.05	0.44
3:A2:41:ARG:HD3	3:A2:48:ARG:HH12	1.83	0.44
4:A3:31:TYR:HA	4:A3:32:ARG:HH21	1.83	0.44
5:A4:58:ARG:HE	5:A4:173:LEU:HD21	1.83	0.44
5:A4:183:HIS:HB2	85:AA:716:G:O2'	2.17	0.44
6:A5:9:HIS:CE1	6:A5:10:LYS:HD2	2.53	0.44
7:A6:27:MET:O	7:A6:30:CYS:SG	2.74	0.44
18:AJ:98:GLN:HG3	18:AJ:99:PHE:CD2	2.53	0.44
20:AL:28:PHE:CZ	85:AA:1825:A:H5''	2.52	0.44
21:AM:29:PHE:CD1	85:AA:2005:U:H5''	2.52	0.44
23:AP:61:LEU:O	23:AP:64:ILE:HB	2.17	0.44
24:AQ:82:TYR:CD1	24:AQ:82:TYR:N	2.86	0.44
25:AR:6:THR:O	25:AR:7:TYR:CG	2.71	0.44
30:AW:29:PRO:HB3	85:AA:1208:C:C5	2.53	0.44
34:BA:57:A:N6	34:BA:58:A:C6	2.86	0.44
34:BA:127:U:C4	34:BA:128:C:N4	2.85	0.44
34:BA:157:U:H2'	34:BA:158:U:H5'	2.00	0.44
34:BA:164:C:C2'	34:BA:165:C:H3'	2.48	0.44
34:BA:240:C:C6	34:BA:241:U:C5	3.05	0.44
34:BA:261:A:H4'	34:BA:262:A:OP1	2.16	0.44
34:BA:282:A:O5'	34:BA:288:U:H5'	2.17	0.44
34:BA:304:G:C2	34:BA:305:C:C6	3.06	0.44
34:BA:325:A:C2'	34:BA:326:A:H5'	2.48	0.44
34:BA:399:G:N1	36:BC:29:C:N3	2.65	0.44
34:BA:401:A:C5	34:BA:402:G:N7	2.86	0.44
34:BA:470:C:C2	34:BA:471:U:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:477:C:C4	36:BC:12:A:N1	2.86	0.44
34:BA:496:G:O2'	71:Bl:132:PRO:HA	2.17	0.44
34:BA:505:U:H2'	34:BA:506:U:H6	1.82	0.44
34:BA:598:G:H4'	34:BA:599:U:O4'	2.17	0.44
34:BA:606:G:C8	34:BA:607:C:N4	2.86	0.44
34:BA:682:A:P	77:Br:324:ARG:HE	2.41	0.44
34:BA:798:G:C1'	61:Bb:114:HIS:HE1	2.31	0.44
34:BA:798:G:H3'	34:BA:800:G:C4'	2.48	0.44
34:BA:804:G:C8	34:BA:805:A:C8	3.06	0.44
34:BA:908:G:C6	34:BA:909:G:N7	2.86	0.44
34:BA:968:G:C2	34:BA:990:G:C5	3.06	0.44
34:BA:1000:G:C6	34:BA:1001:G:C5	3.06	0.44
34:BA:1001:G:N1	34:BA:1002:U:C2	2.86	0.44
34:BA:1046:G:C2	34:BA:1522:G:C4	3.05	0.44
34:BA:1092:U:C2	34:BA:1093:G:C8	3.06	0.44
34:BA:1109:G:C6	34:BA:1110:A:N7	2.86	0.44
34:BA:1133:A:H2'	34:BA:1134:A:C8	2.51	0.44
34:BA:1175:G:N2	34:BA:1176:C:C2	2.86	0.44
34:BA:1198:U:C4	34:BA:1198:U:OP1	2.71	0.44
34:BA:1202:G:C4	34:BA:1203:G:C8	3.06	0.44
34:BA:1237:U:H2'	34:BA:1238:C:C6	2.52	0.44
34:BA:1257:U:C6	34:BA:1515:U:O2	2.70	0.44
34:BA:1457:C:O5'	34:BA:1457:C:H6	2.01	0.44
34:BA:1479:G:O2'	34:BA:1480:C:H5'	2.17	0.44
34:BA:1489:U:H5	34:BA:1490:U:C2	2.36	0.44
34:BA:1534:U:C5	77:Br:203:ARG:CZ	3.00	0.44
34:BA:1535:G:C4	34:BA:1572:G:C6	3.06	0.44
34:BA:1599:A:C6	34:BA:1600:G:H1'	2.52	0.44
34:BA:1621:U:C2	34:BA:1623:U:C4	3.06	0.44
34:BA:1741:G:C6	34:BA:1742:G:C5	3.06	0.44
34:BA:1800:G:H2'	34:BA:1801:G:C8	2.53	0.44
34:BA:1816:G:C2'	34:BA:1818:A:C8	3.00	0.44
34:BA:1837:U:C2	34:BA:1838:U:C6	3.05	0.44
34:BA:1837:U:N3	34:BA:1838:U:C5	2.85	0.44
35:BB:392:G:C6	35:BB:597:C:N4	2.86	0.44
35:BB:536:U:O5'	35:BB:536:U:C6	2.70	0.44
35:BB:616:U:N3	35:BB:617:C:C5	2.85	0.44
35:BB:665:A:C2	35:BB:666:A:H1'	2.52	0.44
35:BB:805:G:C6	35:BB:834:U:O4	2.71	0.44
35:BB:815:G:C2	35:BB:816:U:N1	2.86	0.44
35:BB:846:A:C2	35:BB:847:U:C4'	3.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:876:G:C2	35:BB:959:C:C2	3.05	0.44
35:BB:986:C:H42	74:Bo:87:ARG:HH22	1.66	0.44
35:BB:1014:U:C6	35:BB:1014:U:O5'	2.71	0.44
35:BB:1111:C:C2	35:BB:1112:U:C5	3.05	0.44
35:BB:1170:U:OP1	54:BU:88:ARG:NH2	2.50	0.44
35:BB:1220:A:C2	35:BB:1221:G:C5	3.06	0.44
35:BB:1482:A:C6	35:BB:1483:A:C6	3.06	0.44
36:BC:6:G:C4	36:BC:7:U:O4	2.71	0.44
36:BC:102:G:C2	36:BC:104:A:C6	3.06	0.44
36:BC:156:A:H3'	36:BC:159:U:C4	2.53	0.44
37:BD:18:G:N2	37:BD:61:C:H1'	2.32	0.44
38:BE:134:A:H5''	38:BE:136:G:O4'	2.17	0.44
38:BE:139:U:H3'	38:BE:140:G:H2'	2.00	0.44
38:BE:187:G:N3	64:Be:174:ARG:HB2	2.33	0.44
39:BF:6:C:O2	39:BF:7:G:C2	2.70	0.44
39:BF:62:U:O2'	39:BF:63:U:H2'	2.17	0.44
40:BG:63:U:C6	40:BG:64:C:C5	3.06	0.44
40:BG:94:G:N1	40:BG:95:U:C4	2.86	0.44
41:BH:34:G:N3	41:BH:121:A:C2	2.86	0.44
41:BH:60:A:C5	65:Bf:454:LYS:HB2	2.52	0.44
41:BH:133:U:C6	41:BH:134:U:H1'	2.53	0.44
44:BK:41:ALA:HB1	44:BK:45:GLU:HG2	1.99	0.44
47:BN:190:LEU:HD12	47:BN:190:LEU:HA	1.81	0.44
49:BP:137:VAL:CG2	49:BP:140:HIS:HB2	2.47	0.44
51:BR:26:TYR:CE2	51:BR:121:GLN:HG3	2.53	0.44
52:BS:47:MET:HE1	52:BS:51:ASN:CG	2.42	0.44
53:BT:63:TRP:CE3	53:BT:67:LYS:HE2	2.52	0.44
60:Ba:28:THR:HG22	60:Ba:30:THR:H	1.82	0.44
65:Bf:243:THR:HG22	65:Bf:246:GLN:H	1.82	0.44
74:Bo:33:GLN:HG3	74:Bo:34:HIS:CE1	2.52	0.44
77:Br:108:ARG:H	77:Br:110:TRP:NE1	2.15	0.44
77:Br:293:SER:HB3	77:Br:296:VAL:HB	1.99	0.44
77:Br:340:ALA:HB3	77:Br:343:MET:SD	2.58	0.44
80:Bu:172:ALA:HB1	80:Bu:177:LEU:HD12	1.99	0.44
82:Bw:41:PHE:CZ	82:Bw:45:ILE:HG22	2.53	0.44
85:AA:63:G:C6	85:AA:64:A:C5	3.05	0.44
85:AA:116:G:C5	85:AA:117:C:C6	3.06	0.44
85:AA:125:A:H2	85:AA:127:U:OP2	2.00	0.44
85:AA:147:G:C6	85:AA:148:G:C5	3.05	0.44
85:AA:156:G:N2	85:AA:157:G:H1'	2.32	0.44
85:AA:234:G:C6	85:AA:237:G:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:396:U:H2'	85:AA:397:G:C8	2.52	0.44
85:AA:445:U:H4'	85:AA:446:C:OP1	2.16	0.44
85:AA:493:A:C4	85:AA:494:G:C8	3.06	0.44
85:AA:671:G:C4	85:AA:672:U:C6	3.05	0.44
85:AA:680:U:H4'	85:AA:681:G:H5''	2.00	0.44
85:AA:686:U:C4	85:AA:687:G:C4	3.06	0.44
85:AA:741:G:C4	85:AA:743:C:N4	2.86	0.44
85:AA:746:G:N2	85:AA:747:U:C2	2.86	0.44
85:AA:831:C:C6	85:AA:831:C:C3'	3.00	0.44
85:AA:876:U:O5'	85:AA:876:U:H6	2.00	0.44
85:AA:944:C:C5	85:AA:945:A:N9	2.85	0.44
85:AA:945:A:C2	85:AA:1104:G:P	3.11	0.44
85:AA:968:U:C2	85:AA:985:G:C2	3.05	0.44
85:AA:1012:C:H2'	85:AA:1013:C:H6	1.81	0.44
85:AA:1102:C:H2'	85:AA:1103:A:H8	1.80	0.44
85:AA:1130:G:N3	85:AA:1197:U:C2	2.86	0.44
85:AA:1233:G:C2	85:AA:1234:G:C5	3.06	0.44
85:AA:1248:U:H2'	85:AA:1249:U:O4'	2.18	0.44
85:AA:1252:A:N1	85:AA:1254:A:N1	2.66	0.44
85:AA:1282:A:N1	85:AA:1480:C:N3	2.65	0.44
85:AA:1450:U:C4	85:AA:1451:U:N3	2.86	0.44
85:AA:1484:G:N1	85:AA:1485:G:C6	2.86	0.44
85:AA:1559:U:H3'	85:AA:1560:A:H5''	1.98	0.44
85:AA:1590:A:C2	85:AA:1890:C:N3	2.86	0.44
85:AA:1751:G:H4'	85:AA:1752:C:OP2	2.16	0.44
85:AA:1903:G:C6	85:AA:1904:C:C2	3.06	0.44
85:AA:1913:G:C5	85:AA:1914:U:C5	3.05	0.44
85:AA:1930:U:N3	85:AA:1931:C:C2	2.85	0.44
85:AA:1968:A:H2'	85:AA:1969:A:O4'	2.17	0.44
85:AA:2233:A:H2'	85:AA:2234:C:H5'	1.99	0.44
1:A0:75:LYS:HD2	1:A0:77:GLN:H	1.83	0.44
2:A1:211:SER:HB2	2:A1:213:HIS:CD2	2.53	0.44
3:A2:42:TRP:CZ2	3:A2:52:ILE:HG22	2.52	0.44
4:A3:54:ARG:C	4:A3:54:ARG:CD	2.91	0.44
4:A3:77:LEU:HD23	4:A3:97:ARG:CA	2.47	0.44
5:A4:144:ARG:HG3	5:A4:158:PHE:CE1	2.53	0.44
8:A7:118:SER:HA	8:A7:160:PHE:CG	2.53	0.44
11:AC:141:PRO:HB2	85:AA:1698:A:C6	2.53	0.44
11:AC:192:PHE:CD1	25:AR:64:ARG:HB3	2.53	0.44
12:AD:5:VAL:HA	12:AD:6:PRO:HD3	1.76	0.44
13:AE:93:SER:O	13:AE:96:MET:HE1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AI:101:VAL:O	17:AI:111:ALA:HA	2.18	0.44
22:AO:89:TYR:CE1	85:AA:1963:G:OP2	2.71	0.44
22:AO:130:LEU:HD23	22:AO:138:HIS:CD2	2.53	0.44
23:AP:100:THR:HA	85:AA:1523:G:C4'	2.47	0.44
27:AT:112:LYS:HZ2	85:AA:529:G:P	2.41	0.44
27:AT:125:ARG:CZ	85:AA:84:C:H5'	2.48	0.44
31:AX:178:ALA:HB1	85:AA:1877:G:C4'	2.48	0.44
32:AY:31:ARG:CZ	85:AA:618:A:C8	3.01	0.44
34:BA:64:A:C8	34:BA:380:A:H1'	2.53	0.44
34:BA:115:U:N1	34:BA:327:G:C8	2.85	0.44
34:BA:122:U:N3	34:BA:146:G:N1	2.66	0.44
34:BA:136:A:C8	34:BA:136:A:O5'	2.70	0.44
34:BA:157:U:O3'	34:BA:326:A:C2	2.71	0.44
34:BA:188:C:H3'	34:BA:189:G:N7	2.33	0.44
34:BA:213:A:H2	34:BA:220:U:C2	2.36	0.44
34:BA:316:G:C2	34:BA:318:U:H1'	2.53	0.44
34:BA:374:U:H3'	34:BA:375:C:C5	2.53	0.44
34:BA:461:A:H3'	34:BA:461:A:C8	2.52	0.44
34:BA:529:A:C6	34:BA:530:A:N7	2.86	0.44
34:BA:593:G:C5	34:BA:594:G:N3	2.86	0.44
34:BA:628:U:O2	34:BA:629:G:C8	2.71	0.44
34:BA:664:C:C2	34:BA:665:C:C5	3.05	0.44
34:BA:674:G:H3'	34:BA:675:C:H6	1.79	0.44
34:BA:733:G:H3'	34:BA:734:G:C8	2.52	0.44
34:BA:749:G:O3'	77:Br:117:HIS:CE1	2.71	0.44
34:BA:817:U:O2	34:BA:817:U:H2'	2.18	0.44
34:BA:1013:A:H4'	34:BA:1014:A:C4	2.53	0.44
34:BA:1287:G:C5	34:BA:1436:A:C2	3.06	0.44
34:BA:1342:C:N4	34:BA:1343:A:H62	2.16	0.44
34:BA:1399:A:C2	34:BA:1400:A:C4	3.06	0.44
34:BA:1442:A:C2	34:BA:1443:U:C2	3.06	0.44
34:BA:1470:G:N1	34:BA:1472:G:C4	2.85	0.44
34:BA:1484:A:N1	34:BA:1502:G:C4	2.86	0.44
34:BA:1518:A:C8	34:BA:1518:A:C3'	3.00	0.44
34:BA:1527:G:C6	34:BA:1581:G:O6	2.71	0.44
34:BA:1531:G:N2	34:BA:1532:G:C4	2.86	0.44
34:BA:1611:A:C4	34:BA:1612:C:C5	3.05	0.44
34:BA:1644:A:C2	34:BA:1645:C:C6	3.05	0.44
34:BA:1660:A:C2	76:Bq:13:TYR:OH	2.70	0.44
34:BA:1684:A:C4	34:BA:1685:C:C5	3.06	0.44
34:BA:1691:G:C2	34:BA:1694:C:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1743:U:H6	34:BA:1743:U:O5'	2.01	0.44
35:BB:1:U:C5'	35:BB:2:C:H1'	2.47	0.44
35:BB:4:C:N1	38:BE:13:A:H1'	2.32	0.44
35:BB:20:U:H3'	35:BB:21:C:C6	2.53	0.44
35:BB:22:A:H3'	35:BB:22:A:C8	2.52	0.44
35:BB:354:C:H2'	35:BB:355:A:C8	2.53	0.44
35:BB:374:A:C2	35:BB:375:G:H1'	2.53	0.44
35:BB:382:U:H1'	35:BB:384:A:N1	2.33	0.44
35:BB:417:A:C8	35:BB:417:A:O5'	2.70	0.44
35:BB:425:G:C2	35:BB:446:U:C5	3.05	0.44
35:BB:432:C:N3	35:BB:439:G:C6	2.85	0.44
35:BB:495:A:C6	35:BB:496:C:C4	3.05	0.44
35:BB:583:G:C4	35:BB:584:A:C8	3.05	0.44
35:BB:812:G:C2	35:BB:828:G:C2	3.06	0.44
35:BB:976:U:O2'	35:BB:977:G:C4	2.59	0.44
35:BB:988:G:N7	74:Bo:41:PHE:CD2	2.86	0.44
35:BB:1004:A:C2	35:BB:1005:A:C8	3.05	0.44
35:BB:1009:U:H2'	35:BB:1011:C:C5	2.52	0.44
35:BB:1043:C:OP1	35:BB:1044:U:H5'	2.16	0.44
35:BB:1165:A:C6	35:BB:1167:C:N3	2.85	0.44
35:BB:1180:G:H2'	35:BB:1181:A:C8	2.52	0.44
35:BB:1213:U:N3	35:BB:1214:U:C4	2.86	0.44
35:BB:1288:G:C6	35:BB:1289:G:C4	3.06	0.44
35:BB:1346:A:H2'	35:BB:1368:A:N6	2.30	0.44
35:BB:1391:G:N1	35:BB:1392:A:N1	2.66	0.44
35:BB:1450:G:C2	35:BB:1451:C:C2	3.06	0.44
35:BB:1512:C:H5'	35:BB:1512:C:H6	1.82	0.44
35:BB:1525:G:C6	35:BB:1526:C:C4	3.06	0.44
35:BB:1544:A:C6	35:BB:1545:U:C5	3.06	0.44
36:BC:40:A:H2'	36:BC:41:A:C8	2.53	0.44
36:BC:56:G:C4	36:BC:57:C:C6	3.06	0.44
36:BC:92:C:H2'	36:BC:93:C:O4'	2.18	0.44
36:BC:126:G:H2'	36:BC:127:C:O4'	2.18	0.44
37:BD:17:G:C2	37:BD:62:A:C2	3.05	0.44
37:BD:64:A:N3	37:BD:64:A:H2'	2.32	0.44
38:BE:48:G:N2	38:BE:49:A:C4	2.85	0.44
38:BE:123:A:C2	38:BE:124:G:N9	2.85	0.44
38:BE:141:A:N7	38:BE:144:A:C5	2.86	0.44
38:BE:142:A:C4	75:Bp:26:LYS:HE2	2.53	0.44
38:BE:154:A:C4'	38:BE:157:C:C5	2.99	0.44
39:BF:32:G:C8	39:BF:52:A:C8	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BF:52:A:O2'	39:BF:53:G:H3'	2.18	0.44
40:BG:4:A:C2	40:BG:21:C:C6	3.06	0.44
40:BG:14:G:C8	40:BG:14:G:H3'	2.53	0.44
40:BG:33:G:N1	40:BG:168:A:C2	2.86	0.44
40:BG:49:A:C8	40:BG:51:U:C2	3.06	0.44
40:BG:87:G:H2'	40:BG:88:G:C8	2.53	0.44
40:BG:175:G:C4	40:BG:176:G:C8	3.05	0.44
42:BI:16:ARG:O	42:BI:17:HIS:CG	2.71	0.44
42:BI:94:LEU:HD13	42:BI:94:LEU:HA	1.78	0.44
53:BT:132:PHE:N	53:BT:132:PHE:CD1	2.85	0.44
54:BU:157:ILE:HB	54:BU:158:PRO:CD	2.47	0.44
56:BW:82:ARG:HA	56:BW:97:PHE:CD2	2.53	0.44
57:BX:151:SER:HB2	57:BX:152:TYR:CZ	2.53	0.44
58:BY:79:THR:HG21	85:AA:2163:G:C5'	2.36	0.44
62:Bc:73:PRO:HA	62:Bc:77:TYR:CB	2.48	0.44
65:Bf:62:HIS:CD2	65:Bf:62:HIS:N	2.83	0.44
65:Bf:222:LEU:HD22	65:Bf:222:LEU:N	2.32	0.44
65:Bf:338:ILE:HA	65:Bf:382:LEU:HD23	2.00	0.44
65:Bf:437:TRP:CD1	65:Bf:438:TYR:CZ	3.05	0.44
67:Bh:72:SER:HA	67:Bh:76:ARG:N	2.26	0.44
71:Bl:95:TRP:O	71:Bl:95:TRP:CG	2.70	0.44
73:Bn:17:ILE:O	73:Bn:25:ASN:HA	2.17	0.44
80:Bu:51:LEU:HB3	80:Bu:152:LEU:HA	1.99	0.44
80:Bu:159:THR:HB	80:Bu:185:ARG:NH2	2.32	0.44
85:AA:31:C:C2	85:AA:32:U:C6	3.06	0.44
85:AA:68:A:N7	85:AA:69:C:C4	2.85	0.44
85:AA:202:U:C6	85:AA:204:U:OP2	2.71	0.44
85:AA:209:C:C2	85:AA:210:G:H5''	2.52	0.44
85:AA:559:G:C2	85:AA:560:C:C2	3.05	0.44
85:AA:561:C:C6	85:AA:562:C:C6	3.06	0.44
85:AA:561:C:N4	85:AA:565:G:C8	2.85	0.44
85:AA:567:G:H2'	85:AA:568:C:O4'	2.17	0.44
85:AA:637:U:C2	85:AA:638:G:C5	3.06	0.44
85:AA:713:G:H3'	85:AA:713:G:C4	2.52	0.44
85:AA:764:U:H2'	85:AA:767:A:C2	2.51	0.44
85:AA:793:C:C4	85:AA:794:A:C8	3.06	0.44
85:AA:831:C:H5'	85:AA:853:G:C5'	2.48	0.44
85:AA:879:G:C4	85:AA:927:A:N1	2.86	0.44
85:AA:906:U:H5'	85:AA:907:G:H8	1.81	0.44
85:AA:1098:C:C4	85:AA:1099:U:O4	2.70	0.44
85:AA:1140:G:C5	85:AA:1141:U:C4	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1144:G:C4	85:AA:1145:U:C6	3.06	0.44
85:AA:1220:A:C8	85:AA:1221:G:C8	3.05	0.44
85:AA:1357:U:C6	85:AA:1357:U:C3'	3.01	0.44
85:AA:1367:C:O2'	85:AA:1368:G:C8	2.71	0.44
85:AA:1517:G:N3	85:AA:1518:A:C8	2.85	0.44
85:AA:1522:U:H2'	85:AA:1523:G:O4'	2.18	0.44
85:AA:1526:G:C6	85:AA:2096:G:C6	3.05	0.44
85:AA:1585:A:C8	85:AA:1586:C:C6	3.05	0.44
85:AA:1674:G:H2'	85:AA:1676:G:OP2	2.18	0.44
85:AA:1681:G:C5'	85:AA:1699:A:OP1	2.66	0.44
85:AA:1700:C:H2'	85:AA:1701:G:C8	2.53	0.44
85:AA:1800:U:C2	85:AA:1801:U:C6	3.06	0.44
85:AA:1811:C:C3'	85:AA:1812:C:H4'	2.46	0.44
85:AA:1899:A:H3'	85:AA:1899:A:C8	2.53	0.44
85:AA:2014:G:N1	85:AA:2030:U:N3	2.65	0.44
85:AA:2096:G:H2'	85:AA:2097:U:C6	2.52	0.44
86:AB:71:G:H2'	86:AB:72:C:C5	2.52	0.44
1:A0:32:VAL:HA	1:A0:98:LEU:HG	1.99	0.44
1:A0:145:THR:HA	1:A0:209:LEU:HA	2.00	0.44
1:A0:201:LYS:HB3	85:AA:1373:U:C5'	2.48	0.44
3:A2:27:TYR:CD1	3:A2:130:MET:SD	3.10	0.44
3:A2:44:LYS:O	85:AA:2082:C:C6	2.71	0.44
4:A3:213:LEU:HA	4:A3:216:VAL:HG12	1.99	0.44
5:A4:26:ALA:O	5:A4:30:PHE:CD1	2.71	0.44
5:A4:69:PRO:CD	85:AA:998:U:C4	3.00	0.44
5:A4:71:ARG:HG3	85:AA:998:U:O5'	2.18	0.44
5:A4:144:ARG:C	5:A4:145:TRP:CD1	2.96	0.44
5:A4:183:HIS:CE1	85:AA:786:G:C5	3.06	0.44
7:A6:94:TYR:CD1	7:A6:97:SER:HB2	2.53	0.44
7:A6:170:ARG:O	7:A6:176:ARG:HG3	2.18	0.44
11:AC:192:PHE:CD1	25:AR:64:ARG:HB2	2.52	0.44
12:AD:17:PHE:CE1	12:AD:22:VAL:HA	2.53	0.44
17:AI:44:VAL:HG12	17:AI:45:HIS:N	2.32	0.44
32:AY:34:ALA:HB3	85:AA:546:U:C5	2.53	0.44
32:AY:46:ALA:CB	85:AA:573:U:H4'	2.47	0.44
34:BA:55:G:N1	34:BA:56:G:C6	2.86	0.44
34:BA:121:A:C2	34:BA:123:C:H1'	2.53	0.44
34:BA:205:G:C6	34:BA:252:A:N1	2.86	0.44
34:BA:221:G:C5	34:BA:222:C:C5	3.05	0.44
34:BA:226:A:H3'	34:BA:227:C:C5'	2.46	0.44
34:BA:234:A:C5	34:BA:235:C:N3	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:234:A:N1	34:BA:242:U:C2	2.86	0.44
34:BA:320:G:N1	34:BA:321:G:C4	2.86	0.44
34:BA:329:G:H2'	34:BA:381:A:C5	2.52	0.44
34:BA:333:A:C6	34:BA:334:G:C4	3.05	0.44
34:BA:384:U:O5'	34:BA:384:U:H6	2.00	0.44
34:BA:435:U:N3	34:BA:436:U:C2	2.86	0.44
34:BA:446:U:C2	34:BA:456:G:C2	3.06	0.44
34:BA:453:A:H2'	34:BA:454:G:C8	2.53	0.44
34:BA:496:G:N1	34:BA:497:U:C2	2.85	0.44
34:BA:514:U:C6	34:BA:515:U:C5	3.05	0.44
34:BA:524:G:N2	34:BA:589:A:H2	2.16	0.44
34:BA:533:U:C5	34:BA:575:U:N3	2.85	0.44
34:BA:608:G:C2	34:BA:672:G:C2	3.05	0.44
34:BA:608:G:N2	77:Br:339:MET:HE1	2.33	0.44
34:BA:615:A:N6	34:BA:616:G:C6	2.86	0.44
34:BA:630:U:O2	34:BA:652:C:C4	2.70	0.44
34:BA:668:G:C5	34:BA:669:U:C5	3.06	0.44
34:BA:675:C:N4	34:BA:676:G:C6	2.86	0.44
34:BA:742:C:H2'	34:BA:743:A:C8	2.52	0.44
34:BA:747:G:N1	34:BA:748:C:C2	2.85	0.44
34:BA:1046:G:C2	34:BA:1047:U:C4	3.05	0.44
34:BA:1286:C:C4'	34:BA:1292:A:C6	3.01	0.44
34:BA:1287:G:C2	34:BA:1288:U:C2	3.06	0.44
34:BA:1316:G:O4'	34:BA:1317:U:C2	2.71	0.44
34:BA:1323:G:C4	34:BA:1324:G:C8	3.05	0.44
34:BA:1332:U:C4	34:BA:1333:G:N7	2.86	0.44
34:BA:1470:G:N2	34:BA:1472:G:C4	2.85	0.44
34:BA:1518:A:N7	34:BA:1519:G:C8	2.85	0.44
34:BA:1539:A:C8	34:BA:1541:G:N2	2.85	0.44
34:BA:1708:A:N1	34:BA:1724:G:C8	2.86	0.44
34:BA:1769:U:C4	34:BA:1770:U:C4	3.05	0.44
34:BA:1812:C:C2	34:BA:1835:A:C2	3.05	0.44
34:BA:1829:A:C8	34:BA:1830:A:C5	3.06	0.44
35:BB:8:U:H2'	35:BB:9:G:H8	1.81	0.44
35:BB:47:C:N3	35:BB:48:G:C6	2.85	0.44
35:BB:93:A:H2'	35:BB:94:A:C1'	2.46	0.44
35:BB:99:G:C5	35:BB:100:A:N7	2.86	0.44
35:BB:102:G:N2	35:BB:121:A:C4	2.86	0.44
35:BB:126:C:C5	35:BB:126:C:OP2	2.71	0.44
35:BB:308:C:H2'	35:BB:309:G:C8	2.52	0.44
35:BB:382:U:C2'	35:BB:384:A:C2	3.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:423:G:C5	35:BB:424:U:C6	3.05	0.44
35:BB:467:G:C2	35:BB:468:U:C2	3.06	0.44
35:BB:472:C:O2	35:BB:506:G:C2	2.70	0.44
35:BB:490:G:H2'	35:BB:491:A:O4'	2.18	0.44
35:BB:500:C:H3'	35:BB:501:G:H8	1.83	0.44
35:BB:582:G:C6	35:BB:583:G:N7	2.86	0.44
35:BB:658:G:C8	35:BB:659:C:C5	3.05	0.44
35:BB:1071:G:N1	35:BB:1072:C:C4	2.86	0.44
35:BB:1096:G:N1	35:BB:1097:U:C4	2.86	0.44
35:BB:1103:A:C2	35:BB:1105:G:C5	3.06	0.44
35:BB:1121:A:C2	45:BL:131:GLY:HA3	2.52	0.44
35:BB:1162:A:N1	35:BB:1201:G:C6	2.86	0.44
35:BB:1232:A:C4	35:BB:1245:A:C2	3.06	0.44
35:BB:1355:C:H2'	35:BB:1357:C:H5'	1.98	0.44
35:BB:1382:U:H2'	35:BB:1383:C:O4'	2.18	0.44
35:BB:1457:A:OP2	35:BB:1460:G:H5'	2.18	0.44
35:BB:1471:A:N7	48:BO:133:THR:HB	2.32	0.44
35:BB:1531:G:C2	35:BB:1538:G:C4	3.06	0.44
36:BC:38:U:O4	70:Bk:85:LYS:HA	2.18	0.44
36:BC:42:G:N2	36:BC:43:A:H1'	2.33	0.44
36:BC:106:G:N1	36:BC:115:G:C5	2.86	0.44
36:BC:108:A:H2	36:BC:111:C:C5	2.35	0.44
36:BC:134:G:H2'	36:BC:135:A:O4'	2.18	0.44
36:BC:152:C:C2'	36:BC:153:C:C6	3.00	0.44
37:BD:26:C:C6	37:BD:26:C:H3'	2.51	0.44
37:BD:75:G:C6	37:BD:99:G:N7	2.85	0.44
37:BD:90:A:C8	37:BD:91:U:H1'	2.53	0.44
38:BE:9:C:H3'	69:Bj:71:HIS:CD2	2.53	0.44
38:BE:95:G:N2	38:BE:126:G:C4	2.86	0.44
38:BE:127:G:O6	38:BE:128:G:C6	2.71	0.44
40:BG:40:G:N1	40:BG:71:C:C2	2.85	0.44
40:BG:47:G:C2	40:BG:48:U:C2	3.06	0.44
40:BG:53:C:C4	40:BG:54:G:N7	2.85	0.44
40:BG:95:U:H6	53:BT:62:ARG:NH2	2.15	0.44
40:BG:141:A:H2'	40:BG:142:A:O4'	2.18	0.44
40:BG:166:C:C5	65:Bf:81:ARG:NE	2.86	0.44
41:BH:70:U:C4	41:BH:71:C:C2	3.06	0.44
44:BK:39:ARG:C	44:BK:195:LEU:HD13	2.43	0.44
44:BK:46:PHE:CE1	44:BK:141:LYS:HE2	2.52	0.44
47:BN:21:SER:HA	77:Br:56:LEU:HG	2.00	0.44
49:BP:87:TYR:CE1	49:BP:93:ARG:HD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BP:163:ARG:HH12	49:BP:167:ALA:HB2	1.81	0.44
49:BP:172:LYS:O	49:BP:176:ALA:N	2.49	0.44
50:BQ:79:PHE:CD2	50:BQ:79:PHE:N	2.85	0.44
51:BR:4:TYR:CZ	51:BR:18:LYS:CB	3.01	0.44
51:BR:67:ILE:HG21	51:BR:80:LYS:HD3	1.99	0.44
52:BS:94:LYS:HA	52:BS:95:GLU:CD	2.42	0.44
56:BW:93:THR:HG22	56:BW:95:ILE:HG23	1.99	0.44
62:Bc:89:SER:HB3	82:Bw:3:MET:SD	2.58	0.44
64:Be:116:VAL:HG22	64:Be:117:GLU:N	2.33	0.44
65:Bf:97:PHE:CE2	65:Bf:261:ILE:HB	2.53	0.44
65:Bf:264:VAL:HB	65:Bf:265:PHE:CD2	2.53	0.44
71:Bl:116:HIS:CD2	71:Bl:121:THR:HB	2.52	0.44
73:Bn:28:HIS:CD2	73:Bn:30:GLN:N	2.81	0.44
80:Bu:90:HIS:HE1	80:Bu:238:ALA:CB	2.31	0.44
84:By:148:ASP:O	84:By:152:VAL:HG23	2.18	0.44
85:AA:30:G:C2	85:AA:671:G:C5	3.05	0.44
85:AA:44:C:C5	85:AA:45:U:H5	2.35	0.44
85:AA:135:C:C6	85:AA:135:C:C3'	3.00	0.44
85:AA:172:A:H2'	85:AA:173:A:O4'	2.18	0.44
85:AA:278:C:H4'	85:AA:303:A:H5'	1.99	0.44
85:AA:370:A:C2	85:AA:371:C:C2	3.05	0.44
85:AA:371:C:C4	85:AA:372:U:C6	3.06	0.44
85:AA:383:C:H2'	85:AA:384:C:O4'	2.18	0.44
85:AA:438:G:N1	85:AA:439:U:C6	2.86	0.44
85:AA:576:U:C2	85:AA:577:U:H5'	2.53	0.44
85:AA:596:A:C5	85:AA:597:A:N7	2.86	0.44
85:AA:708:G:C6	85:AA:1215:A:N6	2.86	0.44
85:AA:766:G:OP1	85:AA:767:A:C8	2.70	0.44
85:AA:774:C:N3	85:AA:775:C:C2	2.86	0.44
85:AA:794:A:N1	85:AA:800:A:N3	2.65	0.44
85:AA:801:U:H5	85:AA:802:A:C2	2.36	0.44
85:AA:959:C:N1	85:AA:960:G:C8	2.86	0.44
85:AA:1025:U:H3	85:AA:1045:G:H1	1.64	0.44
85:AA:1115:G:C2	85:AA:1116:G:N9	2.86	0.44
85:AA:1122:U:O5'	85:AA:1122:U:C6	2.71	0.44
85:AA:1166:C:H2'	85:AA:1167:G:C8	2.53	0.44
85:AA:1254:A:C4	85:AA:1255:C:C6	3.06	0.44
85:AA:1288:A:N3	85:AA:1455:C:C1'	2.80	0.44
85:AA:1356:U:H2'	85:AA:1357:U:O4'	2.16	0.44
85:AA:1454:U:O2	85:AA:1455:C:C5	2.71	0.44
85:AA:1560:A:N6	85:AA:1561:A:C2	2.84	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1561:A:H5''	85:AA:1562:U:OP2	2.18	0.44
85:AA:1570:A:C4	85:AA:1659:C:H4'	2.52	0.44
85:AA:1590:A:C2	85:AA:1890:C:C2	3.06	0.44
85:AA:1878:C:C2	85:AA:1879:U:C6	3.06	0.44
85:AA:1917:G:C6	85:AA:1918:U:C4	3.05	0.44
85:AA:1976:G:C8	85:AA:1976:G:H5''	2.53	0.44
85:AA:2090:C:C2	85:AA:2091:C:C5	3.06	0.44
85:AA:2132:A:C4	85:AA:2187:G:N2	2.86	0.44
85:AA:2141:G:O2'	85:AA:2142:A:H5'	2.18	0.44
85:AA:2178:A:H8	85:AA:2178:A:O5'	2.01	0.44
85:AA:2182:A:H2'	85:AA:2183:U:O4'	2.18	0.44
85:AA:2228:G:C6	85:AA:2229:G:C6	3.06	0.44
2:A1:123:VAL:HA	2:A1:138:THR:HA	1.99	0.44
5:A4:11:ARG:C	5:A4:13:LEU:N	2.76	0.44
7:A6:119:LYS:H	7:A6:123:HIS:HB3	1.83	0.44
7:A6:132:HIS:CG	7:A6:163:PHE:CD2	3.05	0.44
8:A7:129:ARG:HG3	8:A7:154:TRP:CD1	2.53	0.44
11:AC:70:MET:SD	11:AC:70:MET:C	3.01	0.44
11:AC:209:MET:HG2	11:AC:235:VAL:HG21	2.00	0.44
21:AM:1:MET:SD	85:AA:2000:C:C5	3.11	0.44
22:AO:45:MET:HG2	22:AO:127:LEU:HD11	2.00	0.44
32:AY:48:THR:HA	85:AA:557:G:H5'	2.00	0.44
34:BA:113:G:C2	34:BA:329:G:C2	3.06	0.44
34:BA:149:G:C6	34:BA:150:C:N3	2.86	0.44
34:BA:159:U:C4	34:BA:166:G:H1'	2.53	0.44
34:BA:189:G:C6	34:BA:190:U:C5	3.05	0.44
34:BA:191:G:H2'	34:BA:192:G:C8	2.53	0.44
34:BA:208:A:H4'	34:BA:209:A:N7	2.33	0.44
34:BA:259:C:N3	34:BA:260:A:C5	2.86	0.44
34:BA:336:A:C5	34:BA:337:C:C5	3.06	0.44
34:BA:430:A:C4	34:BA:431:A:C8	3.06	0.44
34:BA:471:U:C6	34:BA:472:G:C5	3.06	0.44
34:BA:473:A:C2	34:BA:474:A:C4	3.06	0.44
34:BA:495:A:N1	34:BA:496:G:C4	2.86	0.44
34:BA:513:U:O4	34:BA:690:G:C5	2.70	0.44
34:BA:513:U:C2	34:BA:691:A:N7	2.85	0.44
34:BA:625:U:N3	34:BA:657:C:C2	2.86	0.44
34:BA:750:C:P	42:BI:111:ARG:HH12	2.41	0.44
34:BA:756:A:C8	34:BA:757:G:O4'	2.71	0.44
34:BA:828:A:C2	34:BA:840:U:N3	2.86	0.44
34:BA:854:A:C4	34:BA:855:C:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:986:G:C6	34:BA:987:C:C4	3.05	0.44
34:BA:1031:U:OP1	34:BA:1031:U:H6	2.00	0.44
34:BA:1052:G:C2	34:BA:1230:G:H1'	2.52	0.44
34:BA:1067:G:C5	34:BA:1068:C:C4	3.06	0.44
34:BA:1071:G:H2'	34:BA:1072:U:O4'	2.18	0.44
34:BA:1093:G:H2'	34:BA:1094:U:O4'	2.18	0.44
34:BA:1112:U:N3	34:BA:1147:C:N3	2.65	0.44
34:BA:1223:C:O2	34:BA:1224:A:C5	2.71	0.44
34:BA:1229:G:C6	35:BB:1275:A:C5	3.06	0.44
34:BA:1276:G:C2	34:BA:1465:C:N3	2.86	0.44
34:BA:1343:A:N3	40:BG:144:G:C5	2.86	0.44
34:BA:1365:U:C6	34:BA:1365:U:OP2	2.71	0.44
34:BA:1428:G:C4	34:BA:1429:A:C8	3.05	0.44
34:BA:1443:U:C2	34:BA:1454:G:C5	3.05	0.44
34:BA:1532:G:N1	34:BA:1575:U:C2	2.86	0.44
34:BA:1603:A:H2'	34:BA:1604:A:C8	2.53	0.44
34:BA:1636:C:C4	34:BA:1676:A:H1'	2.53	0.44
34:BA:1640:G:C4	34:BA:1641:G:C8	3.06	0.44
34:BA:1741:G:H1'	35:BB:1:U:O3'	2.18	0.44
34:BA:1812:C:C2	34:BA:1835:A:C4	3.06	0.44
35:BB:50:A:H2'	35:BB:51:U:C6	2.53	0.44
35:BB:85:A:H61	35:BB:93:A:N6	2.16	0.44
35:BB:93:A:C6	35:BB:94:A:C6	3.06	0.44
35:BB:136:A:C6	35:BB:366:G:C6	3.05	0.44
35:BB:469:G:C2	35:BB:470:C:C2	3.05	0.44
35:BB:723:A:N1	35:BB:724:G:C4	2.86	0.44
35:BB:728:A:C2	35:BB:753:A:H5'	2.53	0.44
35:BB:780:U:H2'	35:BB:1038:G:N1	2.33	0.44
35:BB:780:U:C2'	35:BB:1038:G:H1	2.31	0.44
35:BB:785:G:C4	35:BB:1036:G:C2	3.06	0.44
35:BB:793:A:C6	83:Bx:61:ARG:CZ	3.01	0.44
35:BB:812:G:C5	35:BB:813:C:C6	3.05	0.44
35:BB:967:G:N3	35:BB:968:C:C6	2.86	0.44
35:BB:1050:A:C4	35:BB:1051:U:C6	3.06	0.44
35:BB:1096:G:C2	35:BB:1097:U:C5	3.06	0.44
35:BB:1100:C:O2	35:BB:1141:A:C5	2.71	0.44
35:BB:1155:U:C2'	35:BB:1156:U:O5'	2.66	0.44
35:BB:1162:A:O4'	35:BB:1201:G:C8	2.71	0.44
35:BB:1179:C:C4	35:BB:1180:G:C5	3.06	0.44
35:BB:1188:A:C6	35:BB:1189:C:C2	3.06	0.44
35:BB:1219:A:C5	35:BB:1220:A:C8	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1224:C:N4	35:BB:1226:G:H5''	2.32	0.44
35:BB:1297:G:O6	35:BB:1308:G:C2	2.70	0.44
35:BB:1307:C:N4	35:BB:1308:G:C6	2.85	0.44
35:BB:1330:A:O2'	35:BB:1331:U:H5'	2.18	0.44
35:BB:1361:A:C2	35:BB:1362:G:C2	3.06	0.44
35:BB:1450:G:H3'	35:BB:1451:C:C5	2.52	0.44
35:BB:1522:G:C2	35:BB:1523:U:C5	3.06	0.44
36:BC:36:G:OP1	70:Bk:92:THR:HA	2.18	0.44
36:BC:41:A:C5	36:BC:42:G:C5	3.06	0.44
36:BC:60:U:N3	70:Bk:59:MET:SD	2.90	0.44
36:BC:72:A:C6	36:BC:73:U:C4	3.06	0.44
36:BC:139:A:H2'	36:BC:140:U:C5	2.53	0.44
37:BD:2:G:C5	37:BD:3:G:N7	2.86	0.44
37:BD:25:G:H2'	37:BD:26:C:O4'	2.18	0.44
37:BD:54:A:C4	37:BD:55:A:C8	3.05	0.44
37:BD:66:G:C5	37:BD:67:C:C6	3.06	0.44
37:BD:79:G:N1	37:BD:98:G:C5	2.86	0.44
37:BD:80:G:N1	37:BD:97:U:C4	2.86	0.44
38:BE:47:U:H2'	38:BE:48:G:H8	1.81	0.44
38:BE:115:U:N3	38:BE:116:U:C4	2.86	0.44
38:BE:141:A:C8	38:BE:144:A:C4	3.06	0.44
39:BF:24:G:C4	48:BO:187:HIS:CG	3.06	0.44
40:BG:39:A:H2'	65:Bf:64:HIS:HE2	1.82	0.44
40:BG:112:C:O5'	40:BG:112:C:H6	2.01	0.44
40:BG:139:U:O4	40:BG:140:G:C5	2.71	0.44
40:BG:169:A:O2'	40:BG:173:C:C2	2.71	0.44
41:BH:3:U:C2	41:BH:4:U:C4	3.06	0.44
41:BH:11:C:O2	41:BH:13:C:C5	2.70	0.44
41:BH:48:G:C4	41:BH:72:G:C8	3.06	0.44
41:BH:106:G:C6	41:BH:107:A:C6	3.06	0.44
41:BH:106:G:N2	41:BH:107:A:C2	2.86	0.44
41:BH:119:U:C5	41:BH:120:C:C5	3.06	0.44
42:BI:16:ARG:HD3	42:BI:20:TYR:CZ	2.53	0.44
42:BI:120:ILE:HG22	42:BI:125:GLY:HA3	2.00	0.44
44:BK:139:ARG:HB2	44:BK:172:GLY:HA3	2.00	0.44
47:BN:52:PHE:CZ	47:BN:153:GLN:HA	2.53	0.44
47:BN:173:ALA:O	61:Bb:96:LEU:HB2	2.18	0.44
51:BR:118:GLN:O	51:BR:147:GLN:HG2	2.17	0.44
52:BS:28:LYS:O	54:BU:145:VAL:HG12	2.18	0.44
53:BT:23:TRP:CD2	53:BT:23:TRP:C	2.96	0.44
53:BT:186:GLU:CD	53:BT:189:ARG:HE	2.26	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:Bf:213:VAL:HG13	65:Bf:237:ILE:HB	2.00	0.44
67:Bh:15:LYS:O	67:Bh:18:ALA:HB3	2.18	0.44
67:Bh:136:TRP:CE3	67:Bh:139:GLY:HA2	2.53	0.44
75:Bp:58:ARG:NE	75:Bp:58:ARG:HA	2.33	0.44
77:Br:175:ALA:O	77:Br:176:ILE:C	2.59	0.44
77:Br:208:LEU:O	77:Br:227:LEU:HA	2.18	0.44
80:Bu:16:PHE:CE1	80:Bu:17:GLN:O	2.71	0.44
85:AA:153:C:H2'	85:AA:154:U:H6	1.83	0.44
85:AA:160:A:HO2'	85:AA:481:A:N6	2.16	0.44
85:AA:228:C:C5	85:AA:229:U:N3	2.86	0.44
85:AA:268:A:H3'	85:AA:268:A:H8	1.80	0.44
85:AA:309:G:C5	85:AA:317:A:N6	2.85	0.44
85:AA:346:U:C4	85:AA:347:U:C6	3.05	0.44
85:AA:398:U:H2'	85:AA:400:G:OP2	2.18	0.44
85:AA:421:G:C5	85:AA:422:G:C8	3.06	0.44
85:AA:464:A:C8	85:AA:464:A:H3'	2.53	0.44
85:AA:553:G:C2	85:AA:575:G:C4	3.06	0.44
85:AA:629:A:C5	85:AA:630:A:C2	3.06	0.44
85:AA:639:C:N3	85:AA:651:G:C6	2.85	0.44
85:AA:649:C:C4	85:AA:650:G:C5	3.06	0.44
85:AA:743:C:O2	85:AA:766:G:C2	2.70	0.44
85:AA:759:G:C2	85:AA:763:U:C6	3.06	0.44
85:AA:792:A:N7	85:AA:800:A:C5	2.86	0.44
85:AA:877:G:N1	85:AA:878:U:C2	2.86	0.44
85:AA:884:A:O5'	85:AA:884:A:C8	2.71	0.44
85:AA:1011:G:C2	85:AA:1092:G:C2	3.06	0.44
85:AA:1014:U:H4'	85:AA:1015:U:C5	2.52	0.44
85:AA:1037:U:OP2	85:AA:1037:U:H6	2.01	0.44
85:AA:1140:G:N2	85:AA:1141:U:H1'	2.33	0.44
85:AA:1228:A:C2	85:AA:1229:G:H1'	2.53	0.44
85:AA:1307:U:C2	85:AA:1350:A:C2	3.06	0.44
85:AA:1448:A:C2	85:AA:1449:C:O2	2.71	0.44
85:AA:1462:A:C2	85:AA:1519:A:H4'	2.53	0.44
85:AA:1541:G:C2	85:AA:1542:A:C4	3.06	0.44
85:AA:1547:G:C6	85:AA:1548:A:C8	3.06	0.44
85:AA:1679:U:C6	85:AA:1679:U:OP2	2.71	0.44
85:AA:1916:A:C6	85:AA:1917:G:C5	3.06	0.44
85:AA:1922:A:O2'	85:AA:1923:A:C8	2.71	0.44
85:AA:1934:A:C2	85:AA:1958:C:OP2	2.70	0.44
85:AA:1986:G:P	85:AA:1989:A:H62	2.41	0.44
85:AA:2018:U:C4	85:AA:2019:G:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2026:U:O5'	85:AA:2026:U:H6	2.01	0.44
85:AA:2043:A:C8	85:AA:2044:A:C8	3.06	0.44
85:AA:2044:A:C2	85:AA:2045:U:H1'	2.52	0.44
85:AA:2121:G:H2'	85:AA:2122:A:N7	2.31	0.44
85:AA:2145:G:H1'	85:AA:2174:G:C2	2.53	0.44
2:A1:208:LYS:HA	2:A1:214:GLU:HA	1.98	0.43
4:A3:152:ARG:CG	85:AA:145:C:H5''	2.49	0.43
6:A5:26:LYS:HG3	6:A5:29:LEU:HD22	1.99	0.43
6:A5:113:TYR:CE2	6:A5:117:TYR:CE2	3.06	0.43
6:A5:186:ALA:HA	6:A5:203:LEU:N	2.32	0.43
7:A6:65:HIS:CD2	7:A6:68:ARG:HE	2.35	0.43
9:A8:22:CYS:HA	9:A8:38:ASN:HB3	1.99	0.43
11:AC:64:LYS:HB2	11:AC:66:SER:O	2.18	0.43
13:AE:172:SER:O	85:AA:941:C:H1'	2.17	0.43
15:AG:18:TYR:CE1	18:AJ:56:HIS:CE1	3.06	0.43
15:AG:25:TRP:CD2	15:AG:25:TRP:C	2.96	0.43
17:AI:40:PHE:O	17:AI:43:LEU:HB2	2.17	0.43
21:AM:68:ILE:HA	21:AM:71:VAL:HG22	2.00	0.43
23:AP:119:GLY:HA2	23:AP:149:VAL:HB	1.99	0.43
23:AP:151:ARG:HD2	23:AP:203:VAL:HG23	2.00	0.43
30:AW:15:THR:HA	30:AW:18:MET:SD	2.58	0.43
30:AW:36:VAL:HA	30:AW:80:PHE:HA	2.00	0.43
32:AY:47:LYS:HB2	85:AA:573:U:H1'	2.00	0.43
34:BA:20:A:C6	34:BA:21:C:C2	3.05	0.43
34:BA:36:A:C8	34:BA:38:G:OP2	2.70	0.43
34:BA:52:G:C2	34:BA:53:G:C4	3.06	0.43
34:BA:71:G:H5''	47:BN:109:LYS:HB2	1.99	0.43
34:BA:117:C:H2'	34:BA:118:C:H6	1.82	0.43
34:BA:144:C:H4'	34:BA:145:U:C6	2.53	0.43
34:BA:185:A:C4	34:BA:304:G:N1	2.86	0.43
34:BA:193:C:H3'	34:BA:194:G:H4'	2.00	0.43
34:BA:205:G:H2'	34:BA:249:A:N1	2.33	0.43
34:BA:226:A:H5'	34:BA:227:C:C5'	2.47	0.43
34:BA:345:G:C5	61:Bb:61:TYR:CD2	3.06	0.43
34:BA:397:A:N1	36:BC:31:A:C4	2.86	0.43
34:BA:401:A:N1	34:BA:402:G:C5	2.86	0.43
34:BA:412:G:N1	34:BA:418:G:C8	2.86	0.43
34:BA:493:G:C6	34:BA:494:A:C5	3.06	0.43
34:BA:602:G:C6	34:BA:1492:G:N3	2.86	0.43
34:BA:651:U:C6	34:BA:651:U:H3'	2.53	0.43
34:BA:671:C:H4'	77:Br:343:MET:SD	2.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:897:U:C2	47:BN:14:ARG:CZ	3.01	0.43
34:BA:927:A:C6	34:BA:997:U:C4	3.06	0.43
34:BA:981:A:C8	34:BA:984:U:H1'	2.52	0.43
34:BA:1011:G:H2'	34:BA:1013:A:N7	2.32	0.43
34:BA:1078:U:C6	34:BA:1078:U:O5'	2.71	0.43
34:BA:1152:A:C8	44:BK:22:PHE:CE2	3.05	0.43
34:BA:1161:G:C4	34:BA:1162:U:C5	3.05	0.43
34:BA:1301:G:C6	34:BA:1302:C:N4	2.86	0.43
34:BA:1430:C:N3	34:BA:1431:G:H1'	2.32	0.43
34:BA:1465:C:C2	34:BA:1466:U:C5	3.06	0.43
34:BA:1488:C:C4	34:BA:1489:U:O4	2.71	0.43
34:BA:1564:A:C8	34:BA:1564:A:H3'	2.53	0.43
34:BA:1642:A:C5	34:BA:1643:U:C5	3.06	0.43
34:BA:1648:G:OP1	34:BA:1648:G:H4'	2.18	0.43
34:BA:1689:U:H1'	35:BB:18:A:H5'	2.00	0.43
34:BA:1741:G:H21	35:BB:1:U:H1'	1.82	0.43
34:BA:1755:U:H3	34:BA:1768:G:H1	1.64	0.43
34:BA:1781:A:C6	34:BA:1782:C:C5	3.06	0.43
35:BB:14:C:C5	35:BB:15:C:C4	3.06	0.43
35:BB:119:G:C2	35:BB:120:C:N1	2.86	0.43
35:BB:143:G:C2	35:BB:318:C:C2	3.06	0.43
35:BB:269:A:H2'	35:BB:270:G:C8	2.53	0.43
35:BB:357:C:H5''	35:BB:358:U:C5	2.52	0.43
35:BB:430:A:C6	35:BB:431:U:C2	3.06	0.43
35:BB:436:G:C6	35:BB:438:G:N9	2.87	0.43
35:BB:634:A:C2	35:BB:648:G:C2	3.06	0.43
35:BB:641:C:C4	35:BB:1399:A:C6	3.05	0.43
35:BB:738:G:C6	35:BB:741:A:C6	3.06	0.43
35:BB:797:C:C4	35:BB:798:A:N6	2.86	0.43
35:BB:811:C:C6	35:BB:811:C:H3'	2.52	0.43
35:BB:817:C:N4	35:BB:818:U:N3	2.66	0.43
35:BB:863:U:H3'	35:BB:864:U:C6	2.53	0.43
35:BB:866:A:C2	35:BB:867:C:N1	2.86	0.43
35:BB:1136:G:H4'	35:BB:1137:G:N3	2.33	0.43
35:BB:1184:C:P	54:BU:92:ARG:HH21	2.41	0.43
35:BB:1274:G:HO2'	35:BB:1327:U:H5	1.55	0.43
35:BB:1277:A:C5	35:BB:1278:A:C8	3.06	0.43
35:BB:1384:A:C2	35:BB:1385:C:C2	3.06	0.43
35:BB:1527:A:C6	35:BB:1541:G:C2	3.06	0.43
35:BB:1536:G:H1'	41:BH:27:A:N6	2.33	0.43
36:BC:36:G:N7	70:Bk:93:HIS:CE1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:39:G:N3	36:BC:104:A:C2	2.86	0.43
36:BC:101:U:C4	36:BC:102:G:C6	3.05	0.43
36:BC:115:G:N1	36:BC:116:C:C4	2.86	0.43
36:BC:129:C:O5'	36:BC:129:C:H6	2.01	0.43
37:BD:75:G:N3	37:BD:99:G:C2	2.86	0.43
39:BF:1:C:H3'	39:BF:2:G:H5'	2.00	0.43
40:BG:7:U:C4	40:BG:8:U:C6	3.05	0.43
40:BG:31:G:C2	40:BG:31:G:H2'	2.53	0.43
40:BG:169:A:C2	40:BG:170:G:H5'	2.53	0.43
40:BG:175:G:C2	40:BG:176:G:N9	2.86	0.43
40:BG:179:C:H2'	40:BG:180:C:C6	2.50	0.43
44:BK:92:HIS:HB3	44:BK:94:PHE:CZ	2.53	0.43
47:BN:171:ARG:CG	47:BN:172:GLU:H	2.22	0.43
48:BO:215:VAL:HG23	48:BO:219:PHE:CE2	2.52	0.43
49:BP:34:ASN:HB3	49:BP:35:ARG:HE	1.81	0.43
49:BP:160:ALA:C	49:BP:164:VAL:HG12	2.43	0.43
53:BT:184:GLU:HA	53:BT:187:ARG:HB2	1.99	0.43
54:BU:157:ILE:HB	54:BU:158:PRO:HD2	2.00	0.43
62:Bc:9:TRP:CZ3	62:Bc:12:VAL:CG1	3.01	0.43
62:Bc:89:SER:HA	82:Bw:5:GLY:O	2.17	0.43
64:Be:101:VAL:HA	64:Be:164:ALA:O	2.17	0.43
64:Be:148:LEU:N	64:Be:148:LEU:HD23	2.32	0.43
65:Bf:57:PHE:CD2	65:Bf:57:PHE:N	2.86	0.43
65:Bf:130:LEU:HD12	65:Bf:380:VAL:O	2.18	0.43
65:Bf:343:ARG:HD2	65:Bf:378:ASP:CG	2.43	0.43
67:Bh:146:ARG:HD3	67:Bh:146:ARG:HA	1.83	0.43
67:Bh:172:HIS:CG	67:Bh:173:ILE:H	2.36	0.43
68:Bi:94:ALA:HB1	68:Bi:119:ARG:HD2	2.00	0.43
69:Bj:44:HIS:ND1	69:Bj:51:HIS:HA	2.33	0.43
77:Br:272:LYS:HD2	77:Br:275:PHE:CD1	2.53	0.43
80:Bu:90:HIS:CE1	80:Bu:238:ALA:CB	3.00	0.43
85:AA:63:G:H2'	85:AA:63:G:N3	2.31	0.43
85:AA:92:G:H2'	85:AA:92:G:N3	2.33	0.43
85:AA:125:A:C2	85:AA:127:U:OP2	2.71	0.43
85:AA:245:A:C5	85:AA:246:C:C5	3.06	0.43
85:AA:279:C:N3	85:AA:291:G:C2	2.86	0.43
85:AA:290:G:C2	85:AA:291:G:C4	3.06	0.43
85:AA:335:G:C6	85:AA:355:G:C5	3.06	0.43
85:AA:377:U:O2	85:AA:422:G:C2	2.72	0.43
85:AA:393:C:O2	85:AA:393:C:H2'	2.18	0.43
85:AA:397:G:C2	85:AA:404:A:N1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:413:G:C2	85:AA:414:C:C6	3.05	0.43
85:AA:493:A:C2	85:AA:494:G:C1'	3.00	0.43
85:AA:584:G:C2	85:AA:612:A:C5	3.06	0.43
85:AA:636:G:C6	85:AA:637:U:N3	2.86	0.43
85:AA:696:G:H2'	85:AA:1281:G:H5'	2.00	0.43
85:AA:725:G:H2'	85:AA:726:U:H5'	2.00	0.43
85:AA:725:G:C5	85:AA:726:U:C6	3.05	0.43
85:AA:789:A:H2'	85:AA:802:A:C6	2.53	0.43
85:AA:792:A:C2	85:AA:793:C:N4	2.86	0.43
85:AA:817:G:C8	85:AA:819:G:OP2	2.71	0.43
85:AA:878:U:H6	85:AA:878:U:O5'	2.01	0.43
85:AA:1003:G:H2'	85:AA:1004:G:C8	2.53	0.43
85:AA:1204:A:C5	85:AA:1205:U:C5	3.06	0.43
85:AA:1211:C:C6	85:AA:1211:C:H3'	2.53	0.43
85:AA:1228:A:H2'	85:AA:1229:G:O4'	2.18	0.43
85:AA:1263:G:H3'	85:AA:1264:U:C6	2.53	0.43
85:AA:1288:A:C2	85:AA:1289:U:N3	2.85	0.43
85:AA:1499:G:N2	85:AA:1503:G:C5	2.86	0.43
85:AA:1668:G:N1	85:AA:1701:G:N2	2.66	0.43
85:AA:1699:A:H2'	85:AA:1700:C:O4'	2.17	0.43
85:AA:1825:A:C6	85:AA:1850:G:C4	3.06	0.43
85:AA:1960:C:H42	85:AA:1977:G:H1	1.66	0.43
85:AA:1978:G:H1'	85:AA:1984:A:C5	2.51	0.43
85:AA:2105:G:N7	85:AA:2106:C:C5	2.86	0.43
85:AA:2106:C:C4	85:AA:2107:C:C2	3.06	0.43
85:AA:2225:G:C2	85:AA:2239:A:C2	3.06	0.43
2:A1:9:LEU:HG	2:A1:11:ALA:H	1.82	0.43
2:A1:33:HIS:CD2	2:A1:140:ASP:O	2.71	0.43
2:A1:88:GLU:HG3	2:A1:95:ARG:HG2	1.98	0.43
3:A2:42:TRP:CZ2	3:A2:51:ARG:CZ	3.01	0.43
4:A3:36:GLU:HG2	4:A3:37:VAL:N	2.33	0.43
4:A3:171:LYS:HB2	85:AA:74:U:OP2	2.18	0.43
5:A4:143:ARG:HA	5:A4:156:LYS:O	2.17	0.43
6:A5:80:ASP:O	6:A5:103:VAL:N	2.51	0.43
10:A9:132:VAL:CG2	85:AA:1630:U:H4'	2.48	0.43
11:AC:145:THR:CG2	11:AC:175:LEU:HD13	2.48	0.43
12:AD:33:TRP:CG	85:AA:1957:C:N1	2.86	0.43
15:AG:136:PRO:O	15:AG:139:TRP:HB2	2.18	0.43
24:AQ:71:THR:HG22	85:AA:1570:A:C5'	2.47	0.43
25:AR:10:GLU:O	25:AR:10:GLU:HG3	2.18	0.43
27:AT:115:LYS:CD	27:AT:118:ARG:HH12	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AV:4:LYS:HD2	29:AV:5:ARG:CZ	2.48	0.43
34:BA:173:U:C4	34:BA:174:A:N7	2.86	0.43
34:BA:180:G:C2	34:BA:181:G:C4	3.07	0.43
34:BA:265:A:N1	34:BA:278:U:H1'	2.33	0.43
34:BA:269:G:C6	34:BA:438:A:O4'	2.71	0.43
34:BA:295:G:H5''	73:BN:79:LYS:HA	2.00	0.43
34:BA:339:G:C6	34:BA:351:A:C6	3.05	0.43
34:BA:354:G:C6	34:BA:355:U:C4	3.06	0.43
34:BA:446:U:N3	34:BA:447:U:C4	2.86	0.43
34:BA:687:G:C6	34:BA:688:G:C4	3.05	0.43
34:BA:702:G:C4	34:BA:703:U:C5	3.06	0.43
34:BA:742:C:C5	47:BN:10:HIS:CD2	3.06	0.43
34:BA:750:C:H2'	34:BA:751:A:H8	1.83	0.43
34:BA:766:A:N1	34:BA:769:U:OP2	2.51	0.43
34:BA:825:G:C2	34:BA:826:C:C2	3.06	0.43
34:BA:893:U:C2	47:BN:6:ASN:CG	2.97	0.43
34:BA:1087:A:N6	34:BA:1213:A:H61	2.16	0.43
34:BA:1168:C:C2	34:BA:1170:A:C4	3.06	0.43
34:BA:1193:A:C6	34:BA:1194:G:C5	3.05	0.43
34:BA:1222:C:C6	34:BA:1223:C:C5	3.06	0.43
34:BA:1335:A:H3'	34:BA:1336:U:C5	2.52	0.43
34:BA:1335:A:C2	34:BA:1336:U:N3	2.87	0.43
34:BA:1377:A:C4	34:BA:1399:A:H1'	2.53	0.43
34:BA:1420:A:N3	35:BB:1345:A:C8	2.86	0.43
34:BA:1614:G:H1'	34:BA:1678:U:O2	2.17	0.43
34:BA:1617:U:OP2	34:BA:1617:U:C5	2.71	0.43
34:BA:1781:A:C2	34:BA:1782:C:C2	3.05	0.43
34:BA:1788:U:C6	34:BA:1789:A:N7	2.85	0.43
35:BB:47:C:H3'	35:BB:48:G:C8	2.53	0.43
35:BB:58:G:N1	35:BB:59:U:C2	2.86	0.43
35:BB:62:C:O2'	35:BB:63:A:H5'	2.18	0.43
35:BB:95:A:H2'	35:BB:96:A:H8	1.80	0.43
35:BB:132:G:P	53:BT:136:ARG:HH21	2.41	0.43
35:BB:398:A:N1	35:BB:590:G:C6	2.86	0.43
35:BB:462:G:H2'	35:BB:463:C:C6	2.53	0.43
35:BB:610:U:H2'	35:BB:611:U:C6	2.53	0.43
35:BB:615:A:C8	35:BB:616:U:C5	3.06	0.43
35:BB:656:A:N6	35:BB:1449:G:C6	2.87	0.43
35:BB:694:C:H4'	64:Be:228:HIS:HE1	1.79	0.43
35:BB:843:G:C2	35:BB:844:G:C8	3.07	0.43
35:BB:868:C:O5'	35:BB:868:C:H6	2.02	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:981:A:P	83:Bx:51:ARG:HH12	2.41	0.43
35:BB:992:C:C6	64:Be:70:ARG:HB2	2.54	0.43
35:BB:1123:A:H4'	35:BB:1124:G:O5'	2.17	0.43
35:BB:1191:G:C6	35:BB:1199:A:N1	2.86	0.43
35:BB:1277:A:C6	35:BB:1278:A:N7	2.85	0.43
35:BB:1419:G:C6	35:BB:1430:G:C6	3.06	0.43
35:BB:1464:G:C6	40:BG:24:A:OP2	2.71	0.43
36:BC:18:G:N3	36:BC:19:A:C4	2.86	0.43
37:BD:18:G:C6	37:BD:19:C:C4	3.05	0.43
37:BD:58:G:H2'	37:BD:59:G:C8	2.53	0.43
37:BD:108:G:C8	37:BD:108:G:O5'	2.71	0.43
38:BE:20:C:N3	38:BE:199:A:C2	2.86	0.43
38:BE:39:U:H2'	38:BE:40:C:O4'	2.18	0.43
38:BE:74:U:C6	38:BE:75:C:C5	3.06	0.43
38:BE:147:G:C6	38:BE:166:G:C6	3.06	0.43
40:BG:48:U:N3	40:BG:49:A:C6	2.86	0.43
40:BG:92:U:C2	40:BG:108:G:N2	2.86	0.43
41:BH:13:C:H4'	65:Bf:328:TYR:CE1	2.53	0.43
41:BH:26:C:H41	67:Bh:64:ARG:HD2	1.83	0.43
41:BH:26:C:P	67:Bh:60:ALA:HB2	2.57	0.43
41:BH:38:G:C4	41:BH:39:G:C8	3.06	0.43
41:BH:39:G:C2	41:BH:40:C:N1	2.87	0.43
41:BH:47:G:C2	41:BH:106:G:C2	3.06	0.43
41:BH:60:A:C2	65:Bf:454:LYS:HD3	2.52	0.43
49:BP:19:PRO:HG2	49:BP:20:ARG:NH2	2.34	0.43
54:BU:40:VAL:HG12	54:BU:98:LYS:CG	2.48	0.43
58:BY:61:ARG:HA	58:BY:66:THR:OG1	2.17	0.43
60:Ba:53:VAL:HG23	60:Ba:54:ARG:HB2	2.00	0.43
61:Bb:92:LYS:HG3	61:Bb:94:GLU:H	1.82	0.43
65:Bf:321:ALA:O	65:Bf:322:ARG:HB2	2.18	0.43
68:Bi:38:GLY:HA3	68:Bi:41:SER:HB2	1.99	0.43
75:Bp:3:ARG:HB2	75:Bp:43:TYR:CD1	2.53	0.43
76:Bq:25:TYR:CD1	76:Bq:25:TYR:C	2.96	0.43
80:Bu:118:LYS:CB	80:Bu:142:ASP:OD1	2.67	0.43
81:Bv:71:VAL:HA	81:Bv:72:PRO:HD2	1.91	0.43
81:Bv:75:ARG:HG3	81:Bv:103:PHE:CD2	2.53	0.43
82:Bw:29:LYS:O	82:Bw:33:PHE:CG	2.71	0.43
82:Bw:151:TYR:CZ	82:Bw:244:ASN:HB2	2.54	0.43
83:Bx:258:GLU:HA	83:Bx:258:GLU:OE1	2.17	0.43
84:By:176:GLY:HA3	84:By:178:TYR:CZ	2.53	0.43
85:AA:50:C:C2	85:AA:495:G:N1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:372:U:C6	85:AA:372:U:C3'	3.01	0.43
85:AA:382:G:C5	85:AA:415:G:C2	3.07	0.43
85:AA:391:G:N1	85:AA:410:A:C6	2.86	0.43
85:AA:496:C:C2	85:AA:497:G:C8	3.06	0.43
85:AA:559:G:C6	85:AA:569:A:N3	2.86	0.43
85:AA:576:U:H2'	85:AA:577:U:H5'	2.00	0.43
85:AA:627:A:H3'	85:AA:628:C:C6	2.53	0.43
85:AA:678:A:C2	85:AA:679:A:H1'	2.53	0.43
85:AA:698:G:C8	85:AA:1276:A:C6	3.06	0.43
85:AA:720:A:N3	85:AA:781:G:C2	2.86	0.43
85:AA:813:G:C4	85:AA:865:G:N2	2.86	0.43
85:AA:931:G:C6	85:AA:932:A:N6	2.86	0.43
85:AA:1022:G:H2'	85:AA:1023:U:C6	2.53	0.43
85:AA:1105:G:N7	85:AA:1107:A:H4'	2.33	0.43
85:AA:1115:G:C5	85:AA:1214:C:N4	2.85	0.43
85:AA:1139:G:C3'	85:AA:1140:G:C5'	2.96	0.43
85:AA:1140:G:C5	85:AA:1141:U:C5	3.06	0.43
85:AA:1465:C:C6	85:AA:1465:C:O5'	2.71	0.43
85:AA:1466:U:O2'	85:AA:1467:U:C6	2.71	0.43
85:AA:1489:G:O5'	85:AA:1489:G:C8	2.71	0.43
85:AA:1504:A:C6	85:AA:1505:G:C5	3.06	0.43
85:AA:1508:A:C6	85:AA:1509:A:N1	2.86	0.43
85:AA:1518:A:N1	85:AA:1519:A:C6	2.86	0.43
85:AA:1532:G:H2'	85:AA:1533:C:H6	1.82	0.43
85:AA:1579:A:C8	85:AA:1896:G:O6	2.71	0.43
85:AA:1585:A:C8	85:AA:1585:A:H3'	2.53	0.43
85:AA:1593:C:C2	85:AA:1887:G:N2	2.86	0.43
85:AA:1695:G:H2'	85:AA:1696:U:H6	1.82	0.43
85:AA:1855:U:H2'	85:AA:1856:G:C8	2.53	0.43
85:AA:2082:C:C5'	85:AA:2083:G:O4'	2.66	0.43
85:AA:2107:C:OP2	85:AA:2107:C:C5	2.71	0.43
85:AA:2180:C:H2'	85:AA:2181:G:O4'	2.17	0.43
85:AA:2191:C:C2	85:AA:2192:A:C8	3.06	0.43
2:A1:226:GLY:HA3	2:A1:231:SER:H	1.83	0.43
4:A3:7:TYR:H	4:A3:127:VAL:HG12	1.83	0.43
5:A4:104:ILE:HG12	5:A4:123:SER:HA	2.00	0.43
5:A4:137:PRO:C	5:A4:138:CYS:SG	3.01	0.43
6:A5:130:THR:HG21	6:A5:158:LEU:HD22	1.99	0.43
7:A6:84:PHE:C	7:A6:84:PHE:CD1	2.93	0.43
8:A7:49:ARG:C	8:A7:50:HIS:CG	2.96	0.43
8:A7:87:TRP:CD2	8:A7:111:ASP:HB3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:A7:146:LEU:HD12	8:A7:146:LEU:N	2.33	0.43
10:A9:135:ALA:O	10:A9:141:LYS:HA	2.19	0.43
17:AI:25:ARG:HG3	17:AI:43:LEU:HB3	2.00	0.43
18:AJ:113:HIS:CG	18:AJ:114:GLU:N	2.87	0.43
20:AL:90:HIS:CE1	20:AL:91:VAL:HG12	2.53	0.43
20:AL:91:VAL:C	20:AL:93:GLN:H	2.26	0.43
21:AM:25:ARG:HG3	21:AM:30:ALA:HB2	1.99	0.43
21:AM:142:ARG:CD	85:AA:1550:C:C5	3.01	0.43
23:AP:121:ILE:O	23:AP:146:ILE:HA	2.19	0.43
23:AP:189:VAL:HG12	23:AP:190:ALA:N	2.33	0.43
27:AT:69:THR:CG2	85:AA:600:C:C2	3.01	0.43
30:AW:31:SER:HB3	30:AW:50:HIS:CD2	2.54	0.43
32:AY:60:GLN:HA	32:AY:62:PRO:HD3	2.00	0.43
34:BA:9:A:C2	36:BC:162:C:C2	3.06	0.43
34:BA:31:A:C5	34:BA:32:A:C5	3.07	0.43
34:BA:65:A:H4'	50:BQ:194:LYS:HA	2.00	0.43
34:BA:69:C:N3	34:BA:71:G:C6	2.86	0.43
34:BA:116:G:H4'	34:BA:117:C:O5'	2.18	0.43
34:BA:159:U:C6	34:BA:159:U:H3'	2.54	0.43
34:BA:168:U:C2	34:BA:321:G:N2	2.86	0.43
34:BA:233:U:C5	34:BA:234:A:N7	2.86	0.43
34:BA:369:A:C2	34:BA:370:U:C6	3.06	0.43
34:BA:412:G:C2'	34:BA:413:A:C8	3.01	0.43
34:BA:459:U:O4	34:BA:460:G:C6	2.71	0.43
34:BA:461:A:C8	34:BA:461:A:C3'	3.01	0.43
34:BA:490:A:C6	34:BA:491:U:N3	2.85	0.43
34:BA:516:U:O2'	34:BA:517:A:H5'	2.18	0.43
34:BA:534:C:C5	34:BA:535:G:N7	2.86	0.43
34:BA:603:U:H5''	34:BA:604:G:C5'	2.48	0.43
34:BA:605:G:C5	34:BA:606:G:C8	3.06	0.43
34:BA:669:U:N3	34:BA:670:U:C6	2.87	0.43
34:BA:679:U:H3'	34:BA:680:C:C5	2.52	0.43
34:BA:682:A:C2	34:BA:1492:G:H4'	2.53	0.43
34:BA:690:G:O4'	34:BA:691:A:C2	2.71	0.43
34:BA:725:C:H4'	35:BB:1329:G:H2'	1.99	0.43
34:BA:762:A:C6	34:BA:771:A:OP2	2.71	0.43
34:BA:798:G:C5	61:Bb:114:HIS:ND1	2.87	0.43
34:BA:798:G:C2'	34:BA:800:G:O4'	2.66	0.43
34:BA:799:A:C2	34:BA:858:C:OP1	2.71	0.43
34:BA:821:G:N2	42:BI:73:ARG:HH22	2.16	0.43
34:BA:824:C:C2	34:BA:825:G:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:845:U:O2	42:BI:73:ARG:NH1	2.51	0.43
34:BA:925:G:C5	34:BA:926:A:N7	2.87	0.43
34:BA:949:C:N3	34:BA:950:C:C5	2.86	0.43
34:BA:972:C:H4'	34:BA:973:U:OP2	2.19	0.43
34:BA:976:C:H3'	34:BA:977:G:C8	2.53	0.43
34:BA:994:G:C8	34:BA:996:U:N1	2.86	0.43
34:BA:1056:C:C5'	35:BB:1257:A:H62	2.31	0.43
34:BA:1158:A:C6	34:BA:1159:A:C4	3.06	0.43
34:BA:1158:A:C5	34:BA:1159:A:C5	3.06	0.43
34:BA:1208:U:C4'	34:BA:1209:A:C8	3.01	0.43
34:BA:1229:G:C6	35:BB:1275:A:C6	3.05	0.43
34:BA:1258:G:C8	34:BA:1259:C:C5	3.06	0.43
34:BA:1312:A:O5'	34:BA:1312:A:C8	2.71	0.43
34:BA:1319:A:N1	37:BD:87:G:C8	2.86	0.43
34:BA:1428:G:C2	34:BA:1429:A:C4	3.06	0.43
34:BA:1428:G:C2	34:BA:1429:A:C8	3.06	0.43
34:BA:1470:G:C6	34:BA:1472:G:C5	3.06	0.43
34:BA:1474:G:O6	34:BA:1475:G:C5	2.71	0.43
34:BA:1532:G:C4	34:BA:1533:G:C8	3.07	0.43
34:BA:1539:A:N1	34:BA:1568:A:N1	2.67	0.43
34:BA:1554:C:N4	34:BA:1555:G:C6	2.86	0.43
34:BA:1681:U:C5	35:BB:24:C:O2	2.71	0.43
34:BA:1708:A:N3	34:BA:1708:A:C2'	2.79	0.43
34:BA:1744:C:C2	34:BA:1781:A:N1	2.86	0.43
34:BA:1781:A:C2	34:BA:1782:C:C6	3.06	0.43
34:BA:1796:A:H2'	34:BA:1796:A:P	2.58	0.43
34:BA:1801:G:C2	34:BA:1802:C:C6	3.06	0.43
34:BA:1815:G:N1	34:BA:1832:A:C5	2.85	0.43
34:BA:1817:G:O6	75:Bp:74:HIS:HB3	2.18	0.43
35:BB:107:A:C5	35:BB:108:G:C5	3.06	0.43
35:BB:363:A:C5'	53:BT:143:HIS:CE1	3.01	0.43
35:BB:666:A:C4	35:BB:667:G:C4	3.07	0.43
35:BB:673:C:H2'	35:BB:674:C:C6	2.53	0.43
35:BB:692:G:C5	35:BB:693:U:O4	2.71	0.43
35:BB:882:U:C5	35:BB:896:C:C5	3.07	0.43
35:BB:891:U:C2	35:BB:893:U:C4	3.05	0.43
35:BB:997:G:C6	35:BB:998:G:N7	2.86	0.43
35:BB:1030:U:H2'	35:BB:1031:G:C4	2.54	0.43
35:BB:1106:G:C4	35:BB:1107:C:C5	3.07	0.43
35:BB:1114:A:C6	35:BB:1137:G:C6	3.07	0.43
35:BB:1123:A:C4	35:BB:1127:A:N7	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1146:C:H3'	35:BB:1147:G:C8	2.53	0.43
35:BB:1242:C:C2	35:BB:1243:A:C8	3.06	0.43
35:BB:1272:G:C4	35:BB:1273:G:C8	3.06	0.43
35:BB:1288:G:C2	35:BB:1319:U:C4	3.06	0.43
35:BB:1401:G:C5	35:BB:1402:U:C2	3.06	0.43
35:BB:1476:C:N3	35:BB:1489:A:C5	2.87	0.43
35:BB:1512:C:N4	35:BB:1513:U:C4	2.86	0.43
35:BB:1524:G:C2	35:BB:1525:G:C8	3.06	0.43
36:BC:117:A:N1	36:BC:147:G:C5	2.86	0.43
36:BC:166:G:C2'	36:BC:167:U:C6	3.00	0.43
37:BD:13:A:C6	37:BD:110:G:N1	2.86	0.43
37:BD:46:G:C4	37:BD:47:U:C5	3.06	0.43
37:BD:62:A:C2	37:BD:64:A:C4	3.06	0.43
38:BE:74:U:C4	38:BE:75:C:N1	2.87	0.43
38:BE:112:G:H3'	38:BE:112:G:C8	2.53	0.43
38:BE:114:G:C5	38:BE:115:U:C5	3.06	0.43
40:BG:95:U:H2'	40:BG:96:C:C6	2.53	0.43
40:BG:146:C:C6	40:BG:146:C:O5'	2.72	0.43
41:BH:23:G:C4	41:BH:24:U:N3	2.87	0.43
41:BH:35:G:C8	41:BH:35:G:O5'	2.71	0.43
41:BH:66:G:C6	41:BH:67:G:C5	3.06	0.43
44:BK:47:PRO:O	44:BK:171:TRP:CG	2.71	0.43
44:BK:49:CYS:SG	44:BK:173:PHE:CD1	3.11	0.43
45:BL:147:HIS:O	45:BL:147:HIS:CG	2.71	0.43
52:BS:82:TYR:O	52:BS:90:THR:HG22	2.18	0.43
56:BW:79:VAL:HG11	56:BW:128:TRP:CZ2	2.53	0.43
71:Bl:39:TYR:HB2	71:Bl:142:VAL:C	2.43	0.43
71:Bl:94:ARG:HA	71:Bl:95:TRP:CZ3	2.53	0.43
71:Bl:95:TRP:N	71:Bl:95:TRP:CD2	2.86	0.43
72:Bm:98:VAL:HG13	72:Bm:99:GLU:N	2.33	0.43
75:Bp:3:ARG:NH2	75:Bp:41:HIS:CE1	2.86	0.43
80:Bu:90:HIS:HE1	80:Bu:238:ALA:HB3	1.80	0.43
80:Bu:280:THR:HG22	80:Bu:281:VAL:H	1.83	0.43
82:Bw:79:GLY:O	82:Bw:82:ARG:HB3	2.17	0.43
83:Bx:183:CYS:HB2	83:Bx:190:TYR:CD1	2.52	0.43
85:AA:160:A:C5	85:AA:161:A:C5	3.06	0.43
85:AA:270:A:N3	85:AA:271:A:C8	2.86	0.43
85:AA:370:A:C2	85:AA:371:C:N1	2.86	0.43
85:AA:428:G:C8	85:AA:428:G:C5'	3.01	0.43
85:AA:506:G:N3	85:AA:534:A:C2	2.86	0.43
85:AA:508:C:C2	85:AA:509:C:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:532:G:C5	85:AA:533:C:H5	2.37	0.43
85:AA:562:C:H1'	85:AA:565:G:N7	2.34	0.43
85:AA:635:G:N3	85:AA:635:G:H2'	2.33	0.43
85:AA:741:G:C6	85:AA:764:U:O4	2.71	0.43
85:AA:794:A:N6	85:AA:800:A:C2	2.86	0.43
85:AA:886:A:C2	85:AA:887:A:C4'	3.02	0.43
85:AA:887:A:C2	85:AA:889:G:C4	3.07	0.43
85:AA:895:C:H2'	85:AA:896:C:O4'	2.18	0.43
85:AA:938:A:OP2	85:AA:939:A:H8	2.01	0.43
85:AA:965:G:H2'	85:AA:966:G:C8	2.53	0.43
85:AA:1051:A:C8	85:AA:1051:A:OP2	2.72	0.43
85:AA:1247:A:N6	85:AA:1248:U:C4	2.86	0.43
85:AA:1255:C:C4	85:AA:1256:C:C6	3.06	0.43
85:AA:1554:C:H2'	85:AA:1555:G:H8	1.83	0.43
85:AA:1674:G:N1	85:AA:1678:U:N3	2.67	0.43
85:AA:1799:C:H42	85:AA:1808:G:P	2.41	0.43
85:AA:1928:A:C5	85:AA:1978:G:C6	3.06	0.43
85:AA:1928:A:C6	85:AA:1978:G:C6	3.06	0.43
85:AA:2121:G:O5'	85:AA:2121:G:H8	2.00	0.43
85:AA:2145:G:C6	85:AA:2146:G:C5	3.06	0.43
85:AA:2222:G:C4	85:AA:2223:C:C6	3.06	0.43
2:A1:24:PHE:CE1	2:A1:27:ARG:HD3	2.53	0.43
5:A4:117:VAL:HG22	5:A4:118:GLN:N	2.33	0.43
7:A6:123:HIS:CE1	85:AA:548:G:HO2'	2.36	0.43
15:AG:73:ARG:CZ	85:AA:940:G:C5	3.01	0.43
15:AG:76:LYS:HA	15:AG:81:ALA:HB2	1.99	0.43
18:AJ:20:ARG:CZ	18:AJ:20:ARG:HB2	2.48	0.43
18:AJ:83:ALA:H	18:AJ:85:ASP:CG	2.27	0.43
21:AM:126:HIS:CE1	21:AM:132:VAL:HG21	2.52	0.43
27:AT:67:PHE:CE1	85:AA:592:C:H2'	2.54	0.43
27:AT:85:ASP:CG	27:AT:87:ALA:H	2.27	0.43
27:AT:117:ARG:HH21	27:AT:128:ALA:HB1	1.83	0.43
29:AV:65:GLY:C	29:AV:66:PHE:CG	2.96	0.43
29:AV:91:ARG:NH2	85:AA:2248:A:C2	2.86	0.43
32:AY:31:ARG:O	85:AA:546:U:C4	2.70	0.43
34:BA:4:A:H5''	34:BA:4:A:H8	1.83	0.43
34:BA:18:G:O6	36:BC:37:U:C6	2.71	0.43
34:BA:124:G:H2'	34:BA:125:G:C8	2.53	0.43
34:BA:172:A:C6	34:BA:316:G:C4	3.07	0.43
34:BA:214:A:H1'	62:Bc:78:LYS:HE2	1.99	0.43
34:BA:223:U:N3	34:BA:224:G:C8	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:234:A:C5	34:BA:235:C:C4	3.06	0.43
34:BA:369:A:C6	35:BB:1242:C:O2	2.71	0.43
34:BA:371:U:H1'	35:BB:489:A:H2	1.83	0.43
34:BA:383:G:N2	34:BA:384:U:C5	2.86	0.43
34:BA:389:U:N3	34:BA:390:A:C8	2.87	0.43
34:BA:401:A:H5'	59:BZ:5:LYS:NZ	2.32	0.43
34:BA:412:G:C2	34:BA:413:A:C4	3.06	0.43
34:BA:417:A:C8	34:BA:419:U:N3	2.87	0.43
34:BA:457:A:C5	34:BA:458:G:N7	2.86	0.43
34:BA:496:G:C6	34:BA:497:U:N3	2.87	0.43
34:BA:521:C:H3'	34:BA:522:C:C6	2.54	0.43
34:BA:596:G:C2	34:BA:1487:U:H2'	2.54	0.43
34:BA:597:C:C5	77:Br:309:ARG:HG2	2.53	0.43
34:BA:617:G:C6	34:BA:618:G:C5	3.06	0.43
34:BA:726:G:N1	34:BA:727:G:C4	2.87	0.43
34:BA:728:A:C6	34:BA:729:C:C4	3.07	0.43
34:BA:738:C:H2'	34:BA:739:A:H8	1.83	0.43
34:BA:756:A:N1	34:BA:757:G:C2	2.87	0.43
34:BA:824:C:H5''	42:BI:142:ASN:N	2.33	0.43
34:BA:825:G:N1	34:BA:826:C:C4	2.87	0.43
34:BA:827:A:C6	34:BA:841:G:C6	3.06	0.43
34:BA:851:C:C2	34:BA:852:C:C5	3.06	0.43
34:BA:891:C:N3	34:BA:892:C:C4	2.86	0.43
34:BA:925:G:C4	34:BA:999:G:N1	2.86	0.43
34:BA:982:A:H3'	34:BA:1020:A:H2	1.83	0.43
34:BA:1009:G:H2'	34:BA:1010:C:C6	2.53	0.43
34:BA:1095:G:C6	34:BA:1163:G:N7	2.86	0.43
34:BA:1112:U:O4'	44:BK:92:HIS:CE1	2.72	0.43
34:BA:1125:G:C6	34:BA:1136:A:C6	3.06	0.43
34:BA:1133:A:C5	34:BA:1134:A:C5	3.06	0.43
34:BA:1208:U:C4	34:BA:1210:A:N3	2.86	0.43
34:BA:1235:C:H2'	34:BA:1236:U:C6	2.53	0.43
34:BA:1246:G:C6	34:BA:1247:G:C5	3.06	0.43
34:BA:1269:C:O3'	37:BD:83:A:C2	2.71	0.43
34:BA:1297:G:N1	34:BA:1451:A:H1'	2.33	0.43
34:BA:1309:U:OP1	34:BA:1309:U:C4	2.72	0.43
34:BA:1335:A:C5	34:BA:1336:U:C4	3.06	0.43
34:BA:1349:A:C8	34:BA:1349:A:O5'	2.72	0.43
34:BA:1469:G:C6	34:BA:1513:G:N1	2.87	0.43
34:BA:1535:G:H1'	34:BA:1572:G:C2	2.54	0.43
34:BA:1546:C:C2	34:BA:1547:G:C8	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1586:U:C4	77:Br:72:VAL:N	2.86	0.43
34:BA:1653:G:N1	34:BA:1654:G:C4	2.87	0.43
34:BA:1790:U:C5	34:BA:1790:U:OP2	2.71	0.43
34:BA:1800:G:H2'	34:BA:1801:G:H8	1.82	0.43
35:BB:81:A:C6	35:BB:82:G:C5	3.06	0.43
35:BB:113:C:H5''	35:BB:113:C:H6	1.83	0.43
35:BB:118:A:N6	35:BB:119:G:C4	2.86	0.43
35:BB:130:G:C5	35:BB:374:A:N1	2.86	0.43
35:BB:130:G:H2'	35:BB:131:A:C8	2.54	0.43
35:BB:413:A:C4	35:BB:414:C:C6	3.06	0.43
35:BB:434:A:C2	35:BB:435:A:N3	2.86	0.43
35:BB:472:C:N3	35:BB:506:G:C6	2.86	0.43
35:BB:522:A:C6	35:BB:528:G:C2	3.06	0.43
35:BB:524:C:C5	35:BB:525:U:C2	3.06	0.43
35:BB:555:G:C2	35:BB:556:U:C5	3.06	0.43
35:BB:563:A:O5'	35:BB:563:A:H8	2.02	0.43
35:BB:568:A:N1	35:BB:569:G:C5	2.87	0.43
35:BB:593:A:C5	35:BB:594:U:C6	3.05	0.43
35:BB:593:A:C4	35:BB:594:U:C6	3.07	0.43
35:BB:650:A:C2	35:BB:651:G:C8	3.06	0.43
35:BB:717:A:OP2	35:BB:718:G:C8	2.71	0.43
35:BB:823:G:H2'	35:BB:824:C:O4'	2.18	0.43
35:BB:991:C:C5	35:BB:992:C:N4	2.78	0.43
35:BB:1069:C:N4	35:BB:1070:G:C2	2.86	0.43
35:BB:1215:U:C2	35:BB:1216:G:N7	2.86	0.43
35:BB:1291:G:C2	35:BB:1292:G:C1'	3.01	0.43
35:BB:1299:G:C2	35:BB:1302:C:O2	2.71	0.43
35:BB:1301:U:C4	35:BB:1302:C:C2	3.07	0.43
35:BB:1353:G:H5''	78:Bs:26:ARG:HH21	1.83	0.43
35:BB:1354:C:H5'	35:BB:1354:C:H6	1.82	0.43
35:BB:1399:A:N7	65:Bf:311:TRP:CD2	2.87	0.43
35:BB:1525:G:C2	35:BB:1543:C:C2	3.06	0.43
36:BC:1:A:C2	36:BC:2:A:C4	3.07	0.43
36:BC:41:A:H61	36:BC:102:G:C2'	2.32	0.43
37:BD:46:G:C6	37:BD:47:U:O4	2.71	0.43
37:BD:87:G:N2	37:BD:91:U:C2	2.86	0.43
38:BE:4:A:C2	60:Ba:37:TYR:CD1	3.07	0.43
38:BE:89:G:H1'	38:BE:134:A:N6	2.33	0.43
38:BE:122:G:C6	38:BE:123:A:C6	3.06	0.43
38:BE:145:A:C6	38:BE:146:U:C5	3.07	0.43
38:BE:152:U:C5	38:BE:154:A:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BF:2:G:C8	81:Bv:75:ARG:NH2	2.86	0.43
39:BF:19:A:N6	39:BF:57:C:H42	2.15	0.43
39:BF:60:C:H2'	39:BF:62:U:N3	2.34	0.43
40:BG:14:G:H2'	40:BG:15:G:H8	1.83	0.43
40:BG:44:G:C4	40:BG:67:A:N1	2.87	0.43
40:BG:55:A:C6	40:BG:56:G:C5	3.07	0.43
40:BG:58:G:C5	40:BG:59:G:C8	3.07	0.43
40:BG:67:A:H2'	40:BG:68:U:C6	2.53	0.43
40:BG:70:C:C4	40:BG:71:C:C4	3.06	0.43
40:BG:132:U:C6	40:BG:132:U:C3'	3.01	0.43
40:BG:134:U:O5'	40:BG:134:U:H6	2.02	0.43
41:BH:8:C:P	41:BH:9:C:H41	2.42	0.43
45:BL:18:GLU:CD	45:BL:18:GLU:N	2.69	0.43
47:BN:28:LYS:HB3	50:BQ:217:PHE:CD2	2.53	0.43
51:BR:122:ALA:HA	51:BR:145:HIS:CE1	2.54	0.43
53:BT:177:GLU:HB3	85:AA:999:A:H62	1.82	0.43
54:BU:71:GLY:CA	54:BU:92:ARG:HA	2.48	0.43
56:BW:74:LYS:CD	56:BW:75:VAL:H	2.31	0.43
56:BW:130:LYS:O	56:BW:134:HIS:CD2	2.71	0.43
57:BX:48:ALA:HA	83:Bx:58:ASP:OD1	2.18	0.43
59:BZ:20:PRO:O	59:BZ:24:ARG:HG3	2.19	0.43
60:Ba:35:ARG:HG3	60:Ba:39:HIS:CD2	2.53	0.43
60:Ba:100:ASP:CG	60:Ba:101:ALA:HB3	2.44	0.43
62:Bc:9:TRP:CH2	62:Bc:12:VAL:CG1	3.01	0.43
62:Bc:53:ILE:HG23	62:Bc:113:MET:SD	2.59	0.43
65:Bf:356:TYR:C	65:Bf:358:LEU:HG	2.43	0.43
66:Bg:34:TYR:HA	66:Bg:103:ILE:HA	2.01	0.43
79:Bt:4:TYR:CG	79:Bt:5:PRO:HD2	2.54	0.43
82:Bw:5:GLY:C	82:Bw:16:MET:HG3	2.44	0.43
84:By:7:ASP:C	84:By:8:GLN:HG2	2.43	0.43
84:By:10:THR:HG23	84:By:54:THR:HG23	2.01	0.43
84:By:81:GLY:HA2	84:By:86:PHE:CE2	2.53	0.43
84:By:86:PHE:HA	84:By:184:ASN:HA	1.99	0.43
85:AA:100:A:C8	85:AA:424:A:N6	2.86	0.43
85:AA:106:G:C2	85:AA:372:U:O2	2.71	0.43
85:AA:131:C:H2'	85:AA:132:G:O4'	2.19	0.43
85:AA:133:G:N2	85:AA:138:C:C2	2.86	0.43
85:AA:146:U:C6	85:AA:146:U:C3'	3.01	0.43
85:AA:156:G:C5	85:AA:157:G:C8	3.06	0.43
85:AA:197:C:N4	85:AA:209:C:H5''	2.30	0.43
85:AA:203:C:O2'	85:AA:204:U:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:314:C:C6	85:AA:314:C:H3'	2.53	0.43
85:AA:413:G:C5	85:AA:414:C:C5	3.06	0.43
85:AA:450:A:C6	85:AA:451:G:C5	3.07	0.43
85:AA:472:A:H2'	85:AA:473:C:C6	2.53	0.43
85:AA:494:G:C3'	85:AA:495:G:C5'	2.96	0.43
85:AA:495:G:H2'	85:AA:496:C:O4'	2.19	0.43
85:AA:496:C:N3	85:AA:497:G:C8	2.86	0.43
85:AA:564:A:C2'	85:AA:565:G:H5'	2.47	0.43
85:AA:631:G:C8	85:AA:633:C:N4	2.86	0.43
85:AA:639:C:N3	85:AA:651:G:N1	2.66	0.43
85:AA:684:G:C2	85:AA:688:C:C4	3.06	0.43
85:AA:743:C:O2	85:AA:744:C:C6	2.72	0.43
85:AA:808:A:C2'	85:AA:809:A:H5''	2.47	0.43
85:AA:928:U:H2'	85:AA:929:G:O4'	2.18	0.43
85:AA:938:A:N3	85:AA:939:A:H1'	2.34	0.43
85:AA:939:A:C2	85:AA:940:G:H5'	2.53	0.43
85:AA:940:G:C3'	85:AA:940:G:C8	3.01	0.43
85:AA:1222:A:C2	85:AA:1223:A:C5	3.06	0.43
85:AA:1256:C:C6	85:AA:1256:C:O5'	2.71	0.43
85:AA:1290:G:C2	85:AA:1453:U:C4	3.06	0.43
85:AA:1362:A:C5	85:AA:1363:U:C4	3.07	0.43
85:AA:1492:U:O4	85:AA:1493:A:C6	2.72	0.43
85:AA:1645:G:O3'	85:AA:1646:U:H3'	2.18	0.43
85:AA:1695:G:C4	85:AA:1696:U:C5	3.06	0.43
85:AA:1722:G:H2'	85:AA:1723:U:C6	2.54	0.43
85:AA:1830:U:O5'	85:AA:1830:U:C6	2.64	0.43
85:AA:1909:C:C6	85:AA:2040:A:C6	3.06	0.43
85:AA:1923:A:N7	85:AA:1990:U:N3	2.65	0.43
85:AA:1938:G:H1	85:AA:1951:U:H3	1.66	0.43
85:AA:2148:C:C4	85:AA:2149:C:C5	3.07	0.43
85:AA:2172:A:C8	85:AA:2172:A:OP2	2.72	0.43
85:AA:2192:A:H2'	85:AA:2193:A:H8	1.79	0.43
85:AA:2229:G:C5	85:AA:2230:U:O4	2.71	0.43
3:A2:67:ARG:HA	85:AA:2055:G:H4'	2.01	0.43
4:A3:63:PRO:HG2	4:A3:100:LEU:HD22	1.99	0.43
13:AE:56:LEU:HG	85:AA:313:A:N9	2.33	0.43
18:AJ:57:ARG:NH1	85:AA:1112:G:OP1	2.51	0.43
20:AL:81:ARG:O	20:AL:84:TYR:CE2	2.71	0.43
21:AM:71:VAL:HA	21:AM:78:PHE:CE2	2.53	0.43
21:AM:132:VAL:HG11	85:AA:2025:A:C2	2.54	0.43
22:AO:28:PRO:HA	22:AO:31:TRP:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AO:132:LYS:NZ	85:AA:1964:A:OP1	2.51	0.43
23:AP:178:ARG:HE	85:AA:1475:A:P	2.41	0.43
25:AR:71:HIS:O	25:AR:74:ASN:HB3	2.17	0.43
34:BA:27:G:C6	34:BA:28:C:C4	3.07	0.43
34:BA:38:G:H3'	34:BA:39:C:C5	2.53	0.43
34:BA:44:U:C6	34:BA:45:A:H2'	2.52	0.43
34:BA:50:G:N1	34:BA:51:C:C4	2.86	0.43
34:BA:185:A:C5	34:BA:304:G:O6	2.71	0.43
34:BA:194:G:H2'	34:BA:195:G:C8	2.53	0.43
34:BA:262:A:H1'	34:BA:279:U:O4	2.19	0.43
34:BA:288:U:C5	34:BA:289:A:N7	2.86	0.43
34:BA:293:A:C4	34:BA:294:C:C5	3.07	0.43
34:BA:359:G:H3'	34:BA:360:C:C4'	2.41	0.43
34:BA:373:G:N1	34:BA:374:U:C4	2.87	0.43
34:BA:398:G:N2	36:BC:30:U:C2	2.86	0.43
34:BA:412:G:C8	34:BA:418:G:O6	2.72	0.43
34:BA:455:A:C5	34:BA:456:G:C8	3.07	0.43
34:BA:456:G:H3'	34:BA:457:A:H8	1.83	0.43
34:BA:463:A:H1'	34:BA:465:A:H3'	1.99	0.43
34:BA:480:G:N2	36:BC:9:G:C4	2.86	0.43
34:BA:499:C:P	71:BI:91:ARG:HE	2.41	0.43
34:BA:519:G:H5''	34:BA:684:G:C2	2.53	0.43
34:BA:529:A:H2'	34:BA:530:A:C8	2.53	0.43
34:BA:574:U:C4	34:BA:575:U:C4	3.07	0.43
34:BA:610:A:H2'	34:BA:611:A:H8	1.83	0.43
34:BA:736:G:O6	34:BA:901:C:C5	2.71	0.43
34:BA:740:A:C6	34:BA:741:A:C5	3.06	0.43
34:BA:796:G:C6	61:Bb:110:LEU:HD11	2.53	0.43
34:BA:796:G:H3'	61:Bb:110:LEU:HD22	2.01	0.43
34:BA:954:U:H2'	34:BA:955:G:O4'	2.19	0.43
34:BA:981:A:C6	34:BA:984:U:C4	3.07	0.43
34:BA:1118:C:C4	34:BA:1119:A:C8	3.06	0.43
34:BA:1167:A:C5	34:BA:1206:C:C4	3.07	0.43
34:BA:1198:U:C6	34:BA:1201:G:H5''	2.54	0.43
34:BA:1213:A:C4	34:BA:1214:U:C6	3.07	0.43
34:BA:1226:G:N1	34:BA:1227:U:C2	2.86	0.43
34:BA:1254:C:H2'	34:BA:1255:G:H5'	2.00	0.43
34:BA:1260:G:C6	34:BA:1270:G:N1	2.87	0.43
34:BA:1297:G:C5	49:BP:19:PRO:CD	3.01	0.43
34:BA:1378:A:C2	34:BA:1379:G:N7	2.86	0.43
34:BA:1430:C:C6	34:BA:1430:C:H3'	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1594:G:C2	35:BB:627:G:C2	3.06	0.43
34:BA:1628:A:C2	34:BA:1629:A:C4	3.06	0.43
34:BA:1651:C:H1'	34:BA:1652:G:OP1	2.19	0.43
34:BA:1690:U:C5'	57:BX:135:LEU:HD13	2.47	0.43
34:BA:1719:G:C2	34:BA:1720:U:C6	3.05	0.43
34:BA:1734:U:C2'	34:BA:1735:G:H5'	2.48	0.43
34:BA:1815:G:C5	34:BA:1832:A:C6	3.06	0.43
34:BA:1824:U:C2	69:Bj:9:ARG:CZ	3.01	0.43
35:BB:39:C:O5'	35:BB:39:C:C6	2.72	0.43
35:BB:326:G:C6	35:BB:327:U:C4	3.06	0.43
35:BB:361:A:H2'	35:BB:362:A:O4'	2.18	0.43
35:BB:363:A:P	53:BT:143:HIS:CE1	3.11	0.43
35:BB:370:A:H2'	35:BB:371:C:C6	2.53	0.43
35:BB:404:A:C4	35:BB:410:A:N1	2.86	0.43
35:BB:408:U:H1'	35:BB:1436:U:C6	2.53	0.43
35:BB:510:A:C8	64:Be:245:ARG:HG3	2.54	0.43
35:BB:520:G:C6	35:BB:521:U:C4	3.07	0.43
35:BB:536:U:C2	35:BB:539:G:N3	2.86	0.43
35:BB:556:U:N3	35:BB:557:C:C5	2.86	0.43
35:BB:620:G:H2'	35:BB:621:C:O4'	2.19	0.43
35:BB:656:A:C6	35:BB:1449:G:N1	2.87	0.43
35:BB:679:G:C5	35:BB:680:A:N7	2.87	0.43
35:BB:701:U:C2'	35:BB:701:U:O5'	2.65	0.43
35:BB:702:G:C4	35:BB:1039:A:C2	3.06	0.43
35:BB:709:G:N1	35:BB:773:G:C6	2.86	0.43
35:BB:786:A:H4'	64:Be:119:LYS:CE	2.49	0.43
35:BB:842:G:C4	35:BB:843:G:C8	3.06	0.43
35:BB:874:G:C2	35:BB:961:G:C2	3.07	0.43
35:BB:1014:U:C2	35:BB:1015:U:C6	3.07	0.43
35:BB:1122:C:N3	35:BB:1123:A:C5	2.87	0.43
35:BB:1141:A:H5''	35:BB:1142:C:P	2.59	0.43
35:BB:1196:A:C4	80:Bu:36:MET:SD	3.12	0.43
35:BB:1208:G:N1	35:BB:1253:U:H3'	2.33	0.43
35:BB:1484:A:N6	35:BB:1485:G:C6	2.87	0.43
36:BC:18:G:C6	36:BC:19:A:N1	2.86	0.43
37:BD:13:A:H3'	37:BD:14:C:H6	1.84	0.43
37:BD:49:A:H4'	80:Bu:234:LYS:H	1.84	0.43
38:BE:7:U:P	69:Bj:77:ARG:HH22	2.42	0.43
38:BE:101:C:C5	38:BE:120:C:C4	3.07	0.43
38:BE:119:U:C4	66:Bg:39:GLN:CD	2.97	0.43
38:BE:128:G:C5	38:BE:129:G:N7	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:134:A:O5'	38:BE:136:G:C8	2.71	0.43
39:BF:5:U:C4	71:Bl:105:THR:HB	2.53	0.43
40:BG:3:G:N1	40:BG:4:A:C6	2.87	0.43
40:BG:55:A:C5	40:BG:56:G:C5	3.07	0.43
40:BG:142:A:C4	40:BG:143:C:C5	3.06	0.43
40:BG:164:U:H2'	40:BG:165:C:C6	2.53	0.43
41:BH:11:C:C2	41:BH:12:U:C5	3.06	0.43
41:BH:54:U:H2'	41:BH:55:C:C6	2.54	0.43
41:BH:57:A:C6	41:BH:58:C:C4	3.07	0.43
42:Bl:76:VAL:HG21	63:Bd:62:ARG:CD	2.43	0.43
45:BL:54:LEU:HD21	45:BL:71:LYS:CG	2.48	0.43
47:BN:12:HIS:CD2	47:BN:13:GLN:H	2.36	0.43
47:BN:74:ARG:H	47:BN:74:ARG:CZ	2.32	0.43
47:BN:145:GLU:O	47:BN:148:VAL:HG12	2.18	0.43
52:BS:107:GLN:HA	52:BS:110:ASN:OD1	2.19	0.43
52:BS:155:GLN:NE2	84:By:6:HIS:CE1	2.86	0.43
61:Bb:109:LEU:O	61:Bb:126:VAL:HA	2.17	0.43
62:Bc:115:CYS:SG	82:Bw:15:VAL:HG23	2.58	0.43
62:Bc:133:LYS:C	62:Bc:135:HIS:H	2.27	0.43
65:Bf:220:ARG:HH21	65:Bf:224:ASN:HA	1.83	0.43
66:Bg:20:THR:O	66:Bg:24:LYS:HB3	2.19	0.43
71:Bl:39:TYR:CD1	71:Bl:141:ARG:HB3	2.53	0.43
73:Bn:16:HIS:HB3	73:Bn:26:ALA:CA	2.48	0.43
73:Bn:27:TYR:CE1	73:Bn:32:GLU:HA	2.53	0.43
73:Bn:34:CYS:SG	73:Bn:36:ALA:HB3	2.58	0.43
77:Br:235:LEU:HA	77:Br:238:LEU:HB2	1.99	0.43
77:Br:294:GLU:HA	77:Br:297:ARG:HB3	2.01	0.43
81:Bv:186:ALA:HB3	81:Bv:188:HIS:CE1	2.53	0.43
82:Bw:235:HIS:NE2	82:Bw:237:VAL:HG13	2.33	0.43
83:Bx:149:LEU:HA	83:Bx:210:CYS:SG	2.58	0.43
83:Bx:196:LYS:HB2	83:Bx:207:THR:HB	2.01	0.43
84:By:169:ASP:OD2	84:By:171:ARG:HB2	2.18	0.43
85:AA:71:G:C2'	85:AA:72:C:H6	2.30	0.43
85:AA:197:C:N3	85:AA:209:C:H3'	2.34	0.43
85:AA:270:A:H2	85:AA:271:A:C4	2.36	0.43
85:AA:274:A:C6	85:AA:275:A:C8	3.06	0.43
85:AA:365:G:N1	85:AA:366:A:C6	2.86	0.43
85:AA:440:U:C6	85:AA:440:U:C3'	3.01	0.43
85:AA:484:G:C4	85:AA:485:A:C8	3.06	0.43
85:AA:498:C:C4	85:AA:499:G:C5	3.06	0.43
85:AA:532:G:C5	85:AA:533:C:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:540:A:H2'	85:AA:541:A:H8	1.84	0.43
85:AA:554:A:C2	85:AA:574:U:C2	3.06	0.43
85:AA:583:U:H2'	85:AA:584:G:OP2	2.18	0.43
85:AA:620:U:H2'	85:AA:621:U:O4'	2.18	0.43
85:AA:692:U:C5'	85:AA:1279:A:C8	3.01	0.43
85:AA:708:G:N2	85:AA:1214:C:OP2	2.52	0.43
85:AA:740:A:C2	85:AA:769:C:O2	2.71	0.43
85:AA:751:C:H2'	85:AA:753:U:H3'	1.99	0.43
85:AA:790:A:H8	85:AA:790:A:O5'	2.02	0.43
85:AA:791:C:H1'	85:AA:792:A:N7	2.33	0.43
85:AA:794:A:H2	85:AA:800:A:O2'	2.01	0.43
85:AA:814:G:N2	85:AA:818:C:C5	2.86	0.43
85:AA:879:G:N1	85:AA:927:A:C5	2.86	0.43
85:AA:1227:A:O5'	85:AA:1227:A:H8	2.02	0.43
85:AA:1277:C:C4	85:AA:1279:A:O4'	2.72	0.43
85:AA:1448:A:C4	85:AA:1449:C:C2	3.06	0.43
85:AA:1452:C:H2'	85:AA:1453:U:C5	2.53	0.43
85:AA:1469:G:N2	85:AA:1471:G:C5	2.87	0.43
85:AA:1494:C:H2'	85:AA:2121:G:OP1	2.19	0.43
85:AA:1537:A:H2'	85:AA:1538:C:C6	2.54	0.43
85:AA:1580:A:N1	85:AA:2021:A:C5	2.87	0.43
85:AA:1937:G:N3	85:AA:1953:G:C2	2.87	0.43
85:AA:2088:U:C2	85:AA:2089:G:C8	3.07	0.43
85:AA:2091:C:O2'	85:AA:2092:A:H5'	2.18	0.43
85:AA:2166:G:H2'	85:AA:2167:A:O4'	2.19	0.43
85:AA:2185:U:C6	85:AA:2185:U:C3'	3.01	0.43
2:A1:23:VAL:CG1	2:A1:24:PHE:H	2.29	0.43
5:A4:13:LEU:HD23	5:A4:48:ILE:HG12	2.00	0.43
5:A4:178:TYR:CD1	5:A4:186:VAL:HG12	2.54	0.43
6:A5:106:ALA:HB1	6:A5:179:LEU:CD2	2.45	0.43
7:A6:61:LEU:HB2	7:A6:68:ARG:HH21	1.84	0.43
8:A7:34:THR:HG23	8:A7:73:VAL:CB	2.48	0.43
8:A7:196:THR:H	8:A7:217:ASP:HB2	1.84	0.43
11:AC:99:ARG:NE	25:AR:42:ALA:O	2.51	0.43
11:AC:141:PRO:HB3	11:AC:168:GLN:OE1	2.18	0.43
12:AD:76:ASN:O	12:AD:80:ILE:HG23	2.19	0.43
16:AH:23:VAL:O	16:AH:37:VAL:HA	2.19	0.43
18:AJ:12:ARG:CZ	85:AA:1472:G:C4	3.01	0.43
19:AK:70:ARG:H	85:AA:1792:C:C2'	2.32	0.43
21:AM:26:LYS:O	21:AM:53:VAL:HA	2.19	0.43
23:AP:110:ALA:C	23:AP:111:PHE:CD1	2.97	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AR:75:HIS:CG	25:AR:78:ILE:HG12	2.52	0.43
27:AT:95:ASN:HA	27:AT:98:LYS:HB2	2.01	0.43
29:AV:94:GLU:CD	29:AV:94:GLU:N	2.77	0.43
32:AY:57:MET:SD	85:AA:664:C:H5'	2.58	0.43
34:BA:4:A:N3	34:BA:4:A:H2'	2.32	0.43
34:BA:20:A:C8	34:BA:1716:A:N1	2.86	0.43
34:BA:41:U:C4	34:BA:42:A:H1'	2.53	0.43
34:BA:99:G:H2'	34:BA:100:A:C8	2.54	0.43
34:BA:133:A:N7	34:BA:134:U:C2	2.85	0.43
34:BA:152:C:N3	34:BA:327:G:P	2.91	0.43
34:BA:161:U:N3	34:BA:323:C:O4'	2.51	0.43
34:BA:209:A:C6	34:BA:224:G:H1'	2.54	0.43
34:BA:221:G:H2'	34:BA:222:C:O4'	2.19	0.43
34:BA:320:G:O6	34:BA:321:G:C6	2.72	0.43
34:BA:329:G:O5'	34:BA:329:G:C8	2.72	0.43
34:BA:374:U:C2	34:BA:375:C:C5	3.06	0.43
34:BA:511:U:H3'	34:BA:512:U:C5	2.53	0.43
34:BA:514:U:H2'	34:BA:515:U:C6	2.54	0.43
34:BA:703:U:H2'	34:BA:704:G:C8	2.54	0.43
34:BA:744:G:C2	47:BN:6:ASN:HA	2.53	0.43
34:BA:752:A:C5'	34:BA:885:A:H61	2.32	0.43
34:BA:767:U:C4	34:BA:768:G:N3	2.86	0.43
34:BA:768:G:O2'	34:BA:769:U:H5'	2.19	0.43
34:BA:820:C:N3	34:BA:850:C:N4	2.67	0.43
34:BA:912:G:C6	34:BA:913:U:O4	2.71	0.43
34:BA:932:G:C5	34:BA:933:U:N1	2.86	0.43
34:BA:1044:A:C2	34:BA:1045:C:C2	3.07	0.43
34:BA:1122:G:C5	34:BA:1123:G:N7	2.87	0.43
34:BA:1159:A:C8	34:BA:1159:A:O5'	2.71	0.43
34:BA:1230:G:C6	34:BA:1231:C:N4	2.87	0.43
34:BA:1234:U:C6	34:BA:1235:C:C5	3.07	0.43
34:BA:1237:U:H2'	34:BA:1238:C:C5	2.54	0.43
34:BA:1239:G:H2'	34:BA:1240:G:C8	2.53	0.43
34:BA:1260:G:N3	34:BA:1260:G:H2'	2.34	0.43
34:BA:1311:G:H2'	34:BA:1312:A:C8	2.53	0.43
34:BA:1321:A:C2	34:BA:1322:A:C4	3.06	0.43
34:BA:1391:A:C8	34:BA:1392:A:C8	3.07	0.43
34:BA:1421:A:C5	35:BB:1345:A:C6	3.06	0.43
34:BA:1454:G:C2	34:BA:1455:C:C5	3.06	0.43
34:BA:1510:C:N3	34:BA:1511:C:C5	2.87	0.43
34:BA:1532:G:C2	34:BA:1533:G:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1656:A:OP1	76:Bq:3:ARG:HB2	2.18	0.43
34:BA:1788:U:C4	34:BA:1789:A:C6	3.07	0.43
34:BA:1802:C:C4	34:BA:1803:A:N7	2.87	0.43
35:BB:43:G:C6	35:BB:44:C:C4	3.06	0.43
35:BB:50:A:C2	35:BB:51:U:N1	2.86	0.43
35:BB:79:U:H2'	35:BB:80:C:O4'	2.18	0.43
35:BB:367:C:H2'	35:BB:368:C:O4'	2.17	0.43
35:BB:517:G:N1	35:BB:518:G:C8	2.86	0.43
35:BB:665:A:H2'	35:BB:666:A:O4'	2.18	0.43
35:BB:798:A:N6	35:BB:976:U:N3	2.67	0.43
35:BB:805:G:N7	35:BB:806:U:O4	2.51	0.43
35:BB:839:G:C5	35:BB:978:C:O2	2.72	0.43
35:BB:852:G:C2	35:BB:967:G:OP2	2.72	0.43
35:BB:871:C:C2	35:BB:964:G:C2	3.07	0.43
35:BB:874:G:C2	35:BB:875:G:C8	3.07	0.43
35:BB:969:C:C2	35:BB:970:C:C5	3.06	0.43
35:BB:1078:U:H2'	35:BB:1079:G:C8	2.54	0.43
35:BB:1100:C:P	79:Bt:89:LYS:H	2.42	0.43
35:BB:1123:A:C6	35:BB:1127:A:C5	3.06	0.43
35:BB:1124:G:C4	35:BB:1126:A:N1	2.87	0.43
35:BB:1143:A:C5	35:BB:1205:A:N1	2.87	0.43
35:BB:1158:C:H2'	35:BB:1159:U:C6	2.53	0.43
35:BB:1198:C:C2	35:BB:1199:A:C8	3.07	0.43
35:BB:1305:A:H3'	35:BB:1306:G:H8	1.83	0.43
35:BB:1311:G:N7	35:BB:1312:U:C5	2.86	0.43
35:BB:1332:G:C8	35:BB:1403:G:N1	2.86	0.43
35:BB:1384:A:N7	35:BB:1385:C:C5	2.86	0.43
35:BB:1453:G:H3'	35:BB:1454:G:H5''	2.00	0.43
35:BB:1458:U:O2	39:BF:14:C:C4	2.71	0.43
35:BB:1491:G:C2	35:BB:1516:C:C2	3.06	0.43
35:BB:1493:A:N1	35:BB:1514:G:C6	2.87	0.43
35:BB:1522:G:N2	35:BB:1546:C:H1'	2.33	0.43
35:BB:1538:G:C6	35:BB:1539:C:C5	3.06	0.43
36:BC:46:G:N3	36:BC:61:A:H2	2.16	0.43
36:BC:105:C:O4'	36:BC:149:A:C4	2.72	0.43
36:BC:128:U:H2'	36:BC:129:C:O4'	2.18	0.43
36:BC:147:G:H5''	36:BC:147:G:C8	2.53	0.43
37:BD:89:G:C2	37:BD:90:A:N1	2.86	0.43
38:BE:25:U:O2	38:BE:196:C:C2	2.70	0.43
38:BE:49:A:H5''	55:BV:110:LEU:HD22	2.00	0.43
38:BE:67:A:C6	38:BE:68:U:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:150:G:C6	38:BE:151:C:N3	2.87	0.43
39:BF:36:G:N2	39:BF:37:C:H1'	2.33	0.43
39:BF:45:G:N1	39:BF:46:G:C4	2.86	0.43
40:BG:101:G:C5	40:BG:102:G:C8	3.07	0.43
40:BG:135:C:C6	40:BG:135:C:H3'	2.53	0.43
40:BG:152:G:C4	40:BG:153:C:C5	3.06	0.43
41:BH:39:G:C5	41:BH:113:G:N1	2.86	0.43
41:BH:58:C:H3'	41:BH:59:G:C8	2.53	0.43
44:BK:100:ASN:HD21	44:BK:102:MET:HE3	1.83	0.43
44:BK:134:ILE:HG21	44:BK:137:SER:OG	2.18	0.43
53:BT:10:LEU:HD21	53:BT:38:ARG:HA	1.99	0.43
56:BW:106:ASN:OD1	56:BW:110:GLU:N	2.49	0.43
60:Ba:2:LYS:C	60:Ba:3:PHE:CD2	2.97	0.43
62:Bc:61:LEU:N	62:Bc:82:MET:O	2.50	0.43
64:Be:209:HIS:CD2	64:Be:210:PRO:CD	3.01	0.43
65:Bf:134:PRO:HB3	65:Bf:260:ARG:CD	2.48	0.43
66:Bg:81:TYR:CD1	66:Bg:81:TYR:C	2.94	0.43
71:Bl:116:HIS:CG	71:Bl:121:THR:OG1	2.72	0.43
75:Bp:31:VAL:HG22	75:Bp:32:THR:H	1.84	0.43
76:Bq:48:LYS:O	76:Bq:50:HIS:CD2	2.71	0.43
85:AA:2:A:C6	85:AA:435:A:C2	3.06	0.43
85:AA:39:A:C2	85:AA:40:A:N7	2.86	0.43
85:AA:52:U:O5'	85:AA:52:U:C6	2.71	0.43
85:AA:105:A:C5	85:AA:373:G:N2	2.87	0.43
85:AA:130:G:C5	85:AA:131:C:C5	3.07	0.43
85:AA:248:U:C5	85:AA:249:C:C5	3.06	0.43
85:AA:392:G:C6	85:AA:409:C:N3	2.87	0.43
85:AA:453:G:N2	85:AA:454:G:C4	2.87	0.43
85:AA:466:A:H2	85:AA:467:U:C5'	2.32	0.43
85:AA:466:A:N6	85:AA:469:G:C6	2.64	0.43
85:AA:472:A:C8	85:AA:472:A:O5'	2.71	0.43
85:AA:479:C:H2'	85:AA:480:U:C6	2.53	0.43
85:AA:522:A:H4'	85:AA:523:U:H5''	2.00	0.43
85:AA:578:U:H2'	85:AA:579:U:O4'	2.18	0.43
85:AA:677:U:O2'	85:AA:678:A:H5'	2.19	0.43
85:AA:688:C:N3	85:AA:689:U:C6	2.87	0.43
85:AA:817:G:H2'	85:AA:818:C:C5	2.54	0.43
85:AA:893:G:C8	85:AA:896:C:OP1	2.71	0.43
85:AA:936:C:C6	85:AA:936:C:O5'	2.72	0.43
85:AA:1003:G:C4	85:AA:1004:G:C8	3.06	0.43
85:AA:1220:A:H3'	85:AA:1221:G:H8	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1229:G:C6	85:AA:1230:U:C4	3.06	0.43
85:AA:1251:G:C6	85:AA:1252:A:C5	3.07	0.43
85:AA:1252:A:C2'	85:AA:1253:G:OP2	2.66	0.43
85:AA:1259:U:C4	85:AA:1260:G:C5	3.06	0.43
85:AA:1274:A:H5'	85:AA:1275:A:OP1	2.18	0.43
85:AA:1449:C:H2'	85:AA:1450:U:C1'	2.49	0.43
85:AA:1464:G:H8	85:AA:1464:G:OP2	2.00	0.43
85:AA:1464:G:N2	85:AA:1465:C:C2	2.87	0.43
85:AA:1520:A:H2'	85:AA:1521:U:C6	2.54	0.43
85:AA:1670:U:O5'	85:AA:1670:U:C6	2.70	0.43
85:AA:1717:G:H3'	85:AA:1718:C:H4'	2.00	0.43
85:AA:1825:A:N1	85:AA:1850:G:H2'	2.33	0.43
85:AA:1857:G:C5	85:AA:1858:G:N7	2.86	0.43
85:AA:1867:G:N1	85:AA:1868:G:C4	2.86	0.43
85:AA:1911:A:C5	85:AA:1913:G:C2	3.06	0.43
85:AA:2007:G:C6	85:AA:2008:G:C2	3.07	0.43
85:AA:2042:G:C6	85:AA:2043:A:C6	3.06	0.43
85:AA:2087:C:C4	85:AA:2088:U:C4	3.07	0.43
86:AB:63:G:H2'	86:AB:64:A:C8	2.54	0.43
1:A0:99:LEU:HD12	1:A0:99:LEU:N	2.34	0.43
4:A3:146:LYS:NZ	85:AA:147:G:OP1	2.52	0.43
8:A7:278:HIS:CG	8:A7:286:PRO:HG3	2.53	0.43
11:AC:118:PHE:CD2	11:AC:118:PHE:N	2.86	0.43
13:AE:173:LYS:HB2	13:AE:174:ASN:H	1.65	0.43
21:AM:81:PRO:HB3	21:AM:83:TRP:CD1	2.54	0.43
33:AZ:85:LYS:HG3	33:AZ:86:GLU:H	1.83	0.43
34:BA:26:C:H2'	34:BA:27:G:O4'	2.19	0.43
34:BA:84:U:OP2	34:BA:96:G:N1	2.51	0.43
34:BA:114:U:H2'	34:BA:327:G:O2'	2.19	0.43
34:BA:162:G:C4	34:BA:321:G:N7	2.87	0.43
34:BA:171:U:C6	34:BA:171:U:C3'	2.99	0.43
34:BA:177:G:C2	34:BA:310:C:C2	3.07	0.43
34:BA:297:A:N1	36:BC:32:U:C6	2.87	0.43
34:BA:306:G:C5	34:BA:307:C:C5	3.06	0.43
34:BA:384:U:H5'	50:BQ:167:TRP:CH2	2.53	0.43
34:BA:390:A:C5	34:BA:391:U:C4	3.06	0.43
34:BA:413:A:O4'	34:BA:417:A:C2	2.72	0.43
34:BA:439:A:C2	34:BA:441:A:N9	2.87	0.43
34:BA:449:G:N3	34:BA:449:G:C2'	2.75	0.43
34:BA:472:G:P	34:BA:1566:G:H4'	2.58	0.43
34:BA:520:G:H3'	34:BA:521:C:C5'	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:602:G:H3'	34:BA:1492:G:N2	2.34	0.43
34:BA:603:U:C5	34:BA:680:C:N4	2.87	0.43
34:BA:663:U:C5	34:BA:664:C:C5	3.06	0.43
34:BA:669:U:O4	34:BA:670:U:C5	2.72	0.43
34:BA:724:A:C4	34:BA:725:C:C5	3.06	0.43
34:BA:744:G:C2	34:BA:745:A:C4	3.06	0.43
34:BA:791:A:C6	34:BA:792:A:C4	3.07	0.43
34:BA:795:G:H3'	34:BA:796:G:C8	2.54	0.43
34:BA:832:C:H3'	34:BA:833:U:C5'	2.49	0.43
34:BA:886:G:C2	34:BA:887:U:C2	3.07	0.43
34:BA:893:U:C4	47:BN:6:ASN:CG	2.97	0.43
34:BA:934:G:N3	34:BA:956:G:C2	2.87	0.43
34:BA:935:A:C8	34:BA:957:A:C6	3.06	0.43
34:BA:1043:C:C6	34:BA:1581:G:C2	3.07	0.43
34:BA:1113:A:C2	34:BA:1114:G:C5	3.06	0.43
34:BA:1162:U:C5	34:BA:1162:U:OP2	2.72	0.43
34:BA:1190:A:H2'	34:BA:1191:C:C6	2.54	0.43
34:BA:1225:A:C5	34:BA:1226:G:C4	3.06	0.43
34:BA:1236:U:C2	34:BA:1237:U:C6	3.06	0.43
34:BA:1240:G:C2'	34:BA:1242:A:OP2	2.66	0.43
34:BA:1244:G:N3	35:BB:640:A:C6	2.87	0.43
34:BA:1333:G:C6	34:BA:1334:G:C8	3.07	0.43
34:BA:1355:G:C8	34:BA:1356:C:H4'	2.54	0.43
34:BA:1443:U:C4	34:BA:1454:G:O6	2.72	0.43
34:BA:1586:U:C2	77:Br:71:ALA:C	2.96	0.43
34:BA:1598:U:OP2	35:BB:622:G:N2	2.52	0.43
34:BA:1628:A:H8	34:BA:1628:A:O5'	2.02	0.43
34:BA:1643:U:C2	35:BB:60:A:N1	2.87	0.43
34:BA:1713:U:O3'	34:BA:1714:A:C8	2.72	0.43
34:BA:1736:A:C6	34:BA:1789:A:C2	3.06	0.43
34:BA:1745:G:H2'	34:BA:1746:G:C8	2.54	0.43
34:BA:1748:G:H1	34:BA:1775:U:H3	1.66	0.43
34:BA:1792:U:H3'	34:BA:1793:G:C8	2.50	0.43
34:BA:1839:G:C6	35:BB:11:A:C6	3.07	0.43
35:BB:59:U:C4	35:BB:60:A:C8	3.06	0.43
35:BB:104:G:H1'	35:BB:119:G:N2	2.33	0.43
35:BB:408:U:C1'	35:BB:1436:U:C6	3.02	0.43
35:BB:474:G:H3'	35:BB:474:G:C8	2.54	0.43
35:BB:481:A:C5	35:BB:499:A:C6	3.07	0.43
35:BB:526:A:H61	85:AA:2112:G:C3'	2.31	0.43
35:BB:527:U:OP2	35:BB:527:U:H5	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:599:U:H2'	35:BB:600:C:O4'	2.18	0.43
35:BB:692:G:C6	35:BB:1052:G:N3	2.87	0.43
35:BB:696:G:C4	35:BB:697:G:C8	3.07	0.43
35:BB:804:U:N1	35:BB:805:G:H1'	2.34	0.43
35:BB:805:G:C4	35:BB:806:U:C4	3.07	0.43
35:BB:824:C:N4	35:BB:825:U:C5	2.86	0.43
35:BB:830:G:C2	35:BB:831:C:N1	2.87	0.43
35:BB:851:U:HO2'	69:Bj:122:ALA:HB2	1.79	0.43
35:BB:1045:G:C4	35:BB:1046:C:C6	3.06	0.43
35:BB:1065:G:H5''	44:BK:114:GLY:C	2.44	0.43
35:BB:1075:A:N6	35:BB:1076:U:C4	2.86	0.43
35:BB:1131:C:H2'	35:BB:1132:A:C8	2.53	0.43
35:BB:1170:U:C4	35:BB:1171:U:C5	3.07	0.43
35:BB:1371:G:N1	35:BB:1372:G:C5	2.86	0.43
35:BB:1415:G:N1	35:BB:1416:A:C4	2.87	0.43
36:BC:18:G:H2'	36:BC:19:A:C8	2.53	0.43
36:BC:87:C:H2'	36:BC:88:A:O4'	2.18	0.43
38:BE:2:G:C8	38:BE:2:G:O5'	2.72	0.43
38:BE:30:C:C4	38:BE:31:A:C5	3.07	0.43
38:BE:47:U:OP2	55:BV:87:LYS:HG2	2.18	0.43
38:BE:58:U:C6	38:BE:58:U:H3'	2.54	0.43
38:BE:165:U:H6	38:BE:165:U:H5''	1.84	0.43
38:BE:172:U:C5	38:BE:172:U:OP2	2.72	0.43
38:BE:180:G:H5'	38:BE:182:U:H5'	2.00	0.43
40:BG:136:G:C6	40:BG:137:G:C4	3.07	0.43
41:BH:13:C:H2'	41:BH:14:C:O4'	2.18	0.43
41:BH:15:A:C8	41:BH:16:A:N7	2.86	0.43
41:BH:33:G:C2'	41:BH:34:G:H8	2.31	0.43
41:BH:43:G:C6	41:BH:111:U:C5'	3.02	0.43
41:BH:44:A:C5	41:BH:45:G:N9	2.87	0.43
41:BH:45:G:C6	41:BH:46:C:C4	3.07	0.43
41:BH:96:G:C2	41:BH:97:C:H1'	2.53	0.43
44:BK:157:MET:HA	44:BK:157:MET:HE3	2.00	0.43
47:BN:123:THR:HA	47:BN:126:SER:OG	2.19	0.43
48:BO:128:VAL:C	48:BO:130:VAL:H	2.27	0.43
49:BP:53:LEU:HA	49:BP:56:VAL:HG22	1.99	0.43
49:BP:88:ALA:HA	49:BP:93:ARG:NH1	2.33	0.43
49:BP:119:SER:O	49:BP:123:TRP:CD2	2.71	0.43
49:BP:139:TRP:CE3	49:BP:139:TRP:O	2.72	0.43
54:BU:64:VAL:HG13	54:BU:66:ASN:H	1.84	0.43
54:BU:117:ALA:HA	54:BU:120:LYS:HE2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BZ:76:VAL:HA	59:BZ:96:VAL:O	2.18	0.43
60:Ba:75:ASN:HB3	60:Ba:78:HIS:CG	2.53	0.43
62:Bc:109:ARG:HH11	62:Bc:109:ARG:CB	2.32	0.43
64:Be:130:SER:HA	64:Be:169:VAL:HG11	2.00	0.43
71:Bl:39:TYR:CD1	71:Bl:39:TYR:C	2.94	0.43
74:Bo:33:GLN:HG3	74:Bo:34:HIS:ND1	2.33	0.43
77:Br:120:ARG:HB2	77:Br:275:PHE:CE2	2.54	0.43
84:By:155:GLU:O	84:By:158:VAL:HB	2.19	0.43
85:AA:104:C:C6	85:AA:104:C:C3'	3.01	0.43
85:AA:135:C:C5	85:AA:137:C:H1'	2.54	0.43
85:AA:146:U:C5	85:AA:333:A:H2'	2.53	0.43
85:AA:150:U:C3'	85:AA:150:U:C6	3.02	0.43
85:AA:156:G:C2	85:AA:157:G:C1'	3.01	0.43
85:AA:242:G:C8	85:AA:243:A:N3	2.87	0.43
85:AA:244:G:C5	85:AA:245:A:N7	2.87	0.43
85:AA:293:A:C4'	85:AA:294:G:OP2	2.66	0.43
85:AA:306:C:H6	85:AA:306:C:H3'	1.84	0.43
85:AA:387:U:H1'	85:AA:388:G:C5'	2.48	0.43
85:AA:515:C:N3	85:AA:527:A:C2	2.87	0.43
85:AA:548:G:C6	85:AA:581:A:N3	2.87	0.43
85:AA:626:G:C2	85:AA:627:A:C2	3.07	0.43
85:AA:684:G:C2	85:AA:688:C:C5	3.06	0.43
85:AA:746:G:C6	85:AA:747:U:C4	3.07	0.43
85:AA:779:G:C2	85:AA:780:U:C5	3.06	0.43
85:AA:808:A:H2'	85:AA:809:A:C5'	2.48	0.43
85:AA:812:C:H2'	85:AA:813:G:C8	2.54	0.43
85:AA:942:A:OP2	85:AA:944:C:C5	2.72	0.43
85:AA:1226:A:C4	85:AA:1274:A:C5	3.06	0.43
85:AA:1242:A:C6	85:AA:1243:G:C5	3.06	0.43
85:AA:1284:A:C4	85:AA:1285:C:C5	3.07	0.43
85:AA:1520:A:C4	85:AA:1521:U:C5	3.06	0.43
85:AA:1617:G:H2'	85:AA:1619:A:C6	2.54	0.43
85:AA:1648:G:C2	85:AA:1649:U:C2	3.07	0.43
85:AA:1882:U:O3'	85:AA:1883:C:C6	2.71	0.43
85:AA:1883:C:H1'	85:AA:1885:A:N7	2.33	0.43
85:AA:2190:U:H6	85:AA:2190:U:O5'	2.01	0.43
85:AA:2228:G:C4	85:AA:2229:G:C8	3.06	0.43
86:AB:39:U:H2'	86:AB:40:C:C6	2.54	0.43
1:A0:234:HIS:HE1	1:A0:237:VAL:N	2.16	0.43
3:A2:43:GLN:NE2	85:AA:2050:C:H2'	2.34	0.43
5:A4:36:HIS:O	5:A4:37:LYS:C	2.62	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A5:88:ASN:HD22	6:A5:88:ASN:H	1.67	0.43
6:A5:204:GLU:CD	6:A5:205:GLY:N	2.77	0.43
7:A6:110:THR:HA	7:A6:121:VAL:HG12	1.99	0.43
7:A6:165:ASN:C	7:A6:167:ARG:H	2.27	0.43
12:AD:32:THR:C	12:AD:33:TRP:CG	2.96	0.43
17:AI:133:VAL:HG22	85:AA:1558:U:H1'	2.01	0.43
21:AM:29:PHE:CE1	85:AA:2005:U:H5''	2.53	0.43
23:AP:43:TRP:HE1	23:AP:73:GLU:CD	2.26	0.43
25:AR:62:TYR:CZ	25:AR:65:CYS:HB2	2.54	0.43
32:AY:38:LEU:HD13	32:AY:38:LEU:C	2.44	0.43
34:BA:7:U:OP1	50:BQ:57:ARG:NE	2.51	0.43
34:BA:79:C:H4'	34:BA:758:G:H4'	2.01	0.43
34:BA:81:C:H3'	34:BA:82:A:H2'	2.00	0.43
34:BA:82:A:O4'	34:BA:84:U:C6	2.71	0.43
34:BA:176:G:C2	34:BA:177:G:N9	2.87	0.43
34:BA:239:C:H1'	40:BG:13:A:C4	2.54	0.43
34:BA:253:U:C4	34:BA:254:U:C5	3.07	0.43
34:BA:257:G:H2'	34:BA:258:C:H6	1.81	0.43
34:BA:289:A:N1	34:BA:290:G:C8	2.87	0.43
34:BA:377:G:C6	34:BA:378:C:C5	3.06	0.43
34:BA:455:A:C5'	51:BR:17:ALA:HA	2.49	0.43
34:BA:490:A:H2'	34:BA:491:U:N1	2.34	0.43
34:BA:502:U:O2	34:BA:502:U:H2'	2.18	0.43
34:BA:508:C:C5'	34:BA:511:U:C2	3.02	0.43
34:BA:628:U:O3'	34:BA:629:G:C8	2.72	0.43
34:BA:728:A:N6	34:BA:1593:U:C4	2.87	0.43
34:BA:751:A:N1	34:BA:886:G:C6	2.87	0.43
34:BA:753:G:C5	34:BA:785:G:C6	3.07	0.43
34:BA:798:G:H2'	34:BA:800:G:O4'	2.19	0.43
34:BA:799:A:C6	34:BA:858:C:OP1	2.72	0.43
34:BA:831:U:H6	34:BA:831:U:O5'	2.02	0.43
34:BA:849:G:C1'	42:BI:147:ARG:HG3	2.48	0.43
34:BA:874:G:OP1	34:BA:1180:A:N6	2.51	0.43
34:BA:895:U:O3'	47:BN:9:PRO:HB3	2.18	0.43
34:BA:925:G:C6	34:BA:999:G:C5	3.07	0.43
34:BA:942:G:N2	34:BA:943:G:H1'	2.33	0.43
34:BA:975:A:OP1	65:Bf:299:HIS:CD2	2.72	0.43
34:BA:988:U:C5	34:BA:989:C:C5	3.06	0.43
34:BA:1039:G:N3	34:BA:1039:G:H2'	2.34	0.43
34:BA:1044:A:C6	34:BA:1525:G:C6	3.06	0.43
34:BA:1057:C:OP1	35:BB:1257:A:H3'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1095:G:H1'	34:BA:1163:G:N2	2.34	0.43
34:BA:1110:A:N3	34:BA:1110:A:H2'	2.33	0.43
34:BA:1252:G:OP1	82:Bw:112:PRO:HD3	2.19	0.43
34:BA:1286:C:H4'	34:BA:1292:A:C5	2.54	0.43
34:BA:1323:G:H2'	34:BA:1324:G:O4'	2.19	0.43
34:BA:1383:U:H3'	34:BA:1384:G:H8	1.84	0.43
34:BA:1504:A:C8	62:Bc:41:ARG:O	2.72	0.43
34:BA:1529:G:C2	34:BA:1578:A:C4	3.07	0.43
34:BA:1588:U:H2'	34:BA:1589:U:C6	2.53	0.43
34:BA:1603:A:C6	35:BB:33:A:C5	3.06	0.43
34:BA:1655:G:O4'	69:Bj:13:HIS:CE1	2.72	0.43
34:BA:1659:G:C6	34:BA:1660:A:C5	3.06	0.43
34:BA:1674:G:H3'	34:BA:1675:C:C5'	2.49	0.43
34:BA:1711:G:C5	34:BA:1719:G:N1	2.87	0.43
34:BA:1827:C:O2'	34:BA:1828:A:C6	2.70	0.43
35:BB:93:A:C6	35:BB:94:A:C5	3.06	0.43
35:BB:137:A:N6	35:BB:363:A:N1	2.66	0.43
35:BB:376:A:N1	35:BB:377:A:C4	2.87	0.43
35:BB:534:C:H3'	35:BB:535:U:C6	2.54	0.43
35:BB:543:G:C6	35:BB:544:C:N3	2.86	0.43
35:BB:561:C:C4	35:BB:563:A:H3'	2.54	0.43
35:BB:599:U:C4	35:BB:600:C:C5	3.06	0.43
35:BB:641:C:N4	35:BB:1399:A:C4	2.87	0.43
35:BB:648:G:C6	35:BB:649:A:N7	2.87	0.43
35:BB:716:G:N2	35:BB:765:G:H1'	2.34	0.43
35:BB:733:G:N7	35:BB:734:A:C8	2.87	0.43
35:BB:755:A:C2	35:BB:756:C:C6	3.06	0.43
35:BB:756:C:H5	35:BB:757:C:C6	2.37	0.43
35:BB:790:A:H5''	83:Bx:64:ARG:HE	1.83	0.43
35:BB:816:U:H2'	35:BB:817:C:C6	2.54	0.43
35:BB:977:G:H2'	35:BB:978:C:C5'	2.49	0.43
35:BB:990:G:C5'	35:BB:990:G:C8	3.02	0.43
35:BB:997:G:C6	35:BB:998:G:C4	3.07	0.43
35:BB:1056:A:C6	35:BB:1057:G:C6	3.06	0.43
35:BB:1062:G:H2'	35:BB:1063:C:O4'	2.19	0.43
35:BB:1079:G:C6	35:BB:1094:A:C6	3.06	0.43
35:BB:1105:G:H2'	35:BB:1106:G:C8	2.54	0.43
35:BB:1139:A:C5	35:BB:1140:C:C4	3.07	0.43
35:BB:1168:G:N2	35:BB:1185:G:C2	2.87	0.43
35:BB:1210:U:C4	35:BB:1211:C:N3	2.87	0.43
35:BB:1213:U:O4	35:BB:1251:G:C2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1222:A:C8	35:BB:1222:A:C3'	2.96	0.43
35:BB:1225:A:C2'	35:BB:1226:G:H5''	2.48	0.43
35:BB:1295:A:C2	35:BB:1308:G:N3	2.87	0.43
35:BB:1296:A:C4'	44:BK:71:GLN:HE22	2.32	0.43
35:BB:1340:U:N3	35:BB:1341:U:C4	2.87	0.43
35:BB:1359:G:C8	35:BB:1360:A:C8	3.07	0.43
35:BB:1367:U:C6	35:BB:1367:U:H3'	2.54	0.43
36:BC:36:G:C6	70:Bk:93:HIS:NE2	2.87	0.43
36:BC:48:A:C4'	70:Bk:52:ARG:HH22	2.29	0.43
36:BC:65:G:N1	36:BC:66:G:C5	2.87	0.43
36:BC:101:U:C5	36:BC:102:G:N7	2.87	0.43
36:BC:125:A:C2	36:BC:139:A:C2	3.06	0.43
36:BC:160:C:C4	36:BC:161:U:C5	3.06	0.43
37:BD:29:C:C5'	45:BL:142:GLY:HA2	2.48	0.43
37:BD:77:A:N3	37:BD:100:A:C4	2.87	0.43
37:BD:93:G:C2'	37:BD:94:C:C5	3.02	0.43
38:BE:32:U:C6	38:BE:32:U:H3'	2.52	0.43
38:BE:45:G:C2	38:BE:46:G:C4	3.06	0.43
38:BE:48:G:C6	38:BE:61:A:N1	2.86	0.43
38:BE:49:A:N1	38:BE:50:G:C4	2.87	0.43
38:BE:123:A:N1	38:BE:124:G:C5	2.86	0.43
38:BE:174:U:O5'	38:BE:174:U:C6	2.71	0.43
38:BE:202:C:O3'	38:BE:203:C:C6	2.71	0.43
38:BE:203:C:C3'	38:BE:203:C:H6	2.30	0.43
39:BF:22:U:C4	39:BF:56:C:O2'	2.66	0.43
39:BF:32:G:C2	39:BF:52:A:N7	2.87	0.43
40:BG:63:U:H1'	84:By:117:LYS:C	2.44	0.43
40:BG:93:U:C4	40:BG:94:G:C5	3.07	0.43
40:BG:181:C:C5	40:BG:182:G:O6	2.71	0.43
41:BH:43:G:H1'	41:BH:111:U:O2'	2.19	0.43
41:BH:67:G:N1	41:BH:68:G:C4	2.87	0.43
41:BH:98:U:P	55:BV:58:ASN:C	3.02	0.43
41:BH:104:U:C5	41:BH:105:U:C5	3.07	0.43
47:BN:80:PHE:CD1	47:BN:85:LEU:HD21	2.54	0.43
48:BO:150:ASN:N	48:BO:150:ASN:HD22	2.17	0.43
50:BQ:45:TRP:CH2	83:Bx:74:LYS:HB2	2.54	0.43
50:BQ:67:MET:O	50:BQ:67:MET:HE3	2.19	0.43
50:BQ:161:ARG:HA	70:Bk:103:GLU:CB	2.48	0.43
51:BR:27:LYS:O	51:BR:30:PHE:HB3	2.19	0.43
60:Ba:13:THR:O	60:Ba:18:ALA:HA	2.19	0.43
65:Bf:56:LYS:HB3	65:Bf:57:PHE:CE2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:Bh:50:ARG:HA	67:Bh:53:TYR:CD1	2.53	0.43
75:Bp:34:PHE:N	75:Bp:34:PHE:CD1	2.87	0.43
80:Bu:99:TYR:CD2	80:Bu:205:ILE:HG23	2.54	0.43
80:Bu:118:LYS:HA	80:Bu:139:GLN:CB	2.48	0.43
81:Bv:68:TYR:CD2	81:Bv:169:LYS:HB2	2.54	0.43
85:AA:6:G:H5'	85:AA:627:A:H4'	1.99	0.43
85:AA:118:C:H2'	85:AA:119:G:C8	2.54	0.43
85:AA:136:U:H5''	85:AA:137:C:C6	2.54	0.43
85:AA:143:U:C2	85:AA:144:A:C8	3.07	0.43
85:AA:195:C:N3	85:AA:245:A:C2	2.87	0.43
85:AA:351:C:O2'	85:AA:352:G:H5'	2.18	0.43
85:AA:436:G:C4	85:AA:437:G:C8	3.07	0.43
85:AA:498:C:H2'	85:AA:499:G:C8	2.53	0.43
85:AA:539:A:H3'	85:AA:539:A:C8	2.54	0.43
85:AA:542:G:N1	85:AA:543:A:C4	2.87	0.43
85:AA:554:A:C2	85:AA:555:C:N3	2.87	0.43
85:AA:639:C:C2	85:AA:651:G:N1	2.87	0.43
85:AA:649:C:C6	85:AA:649:C:H5''	2.53	0.43
85:AA:660:G:C6	85:AA:661:C:C4	3.07	0.43
85:AA:731:U:H3	85:AA:773:G:H22	1.67	0.43
85:AA:858:G:C6	85:AA:859:G:C5	3.07	0.43
85:AA:891:G:H3'	85:AA:892:C:C5	2.54	0.43
85:AA:894:A:C8	85:AA:899:A:C2	3.07	0.43
85:AA:996:A:C8	85:AA:997:U:C4	3.06	0.43
85:AA:1009:G:N2	85:AA:1094:G:C4	2.87	0.43
85:AA:1016:G:C4'	85:AA:1056:C:C4	3.00	0.43
85:AA:1083:C:C5	85:AA:1084:A:N7	2.86	0.43
85:AA:1094:G:C4	85:AA:1095:C:C6	3.07	0.43
85:AA:1153:G:C8	85:AA:1154:A:O4'	2.72	0.43
85:AA:1189:A:C6	85:AA:1190:G:C4	3.06	0.43
85:AA:1231:G:C4	85:AA:1232:U:C5	3.07	0.43
85:AA:1233:G:C2	85:AA:1234:G:C8	3.06	0.43
85:AA:1253:G:H3'	85:AA:1254:A:H5''	2.01	0.43
85:AA:1293:U:O2	85:AA:1294:U:H1'	2.19	0.43
85:AA:1449:C:O2	85:AA:1450:U:H1'	2.19	0.43
85:AA:1575:G:N1	85:AA:1577:G:C6	2.87	0.43
85:AA:1593:C:C4	85:AA:1883:C:C2	3.07	0.43
85:AA:1615:A:C2	85:AA:1625:C:C2	3.06	0.43
85:AA:1633:A:C2	85:AA:1635:C:H1'	2.54	0.43
85:AA:1654:G:C6	85:AA:1875:A:C6	3.07	0.43
85:AA:1654:G:C4	85:AA:1655:G:C8	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1699:A:C5	85:AA:1700:C:C4	3.07	0.43
85:AA:1816:C:C5	85:AA:1816:C:OP2	2.72	0.43
85:AA:1867:G:C6	85:AA:1868:G:C6	3.06	0.43
85:AA:1887:G:C8	85:AA:1887:G:H5'	2.54	0.43
85:AA:1937:G:N1	85:AA:1953:G:C6	2.87	0.43
85:AA:1980:A:H4'	85:AA:1981:A:OP1	2.18	0.43
85:AA:2084:U:C2	85:AA:2085:C:C6	3.07	0.43
85:AA:2127:G:N1	85:AA:2128:G:C5	2.86	0.43
85:AA:2145:G:N1	85:AA:2146:G:C2	2.86	0.43
85:AA:2153:G:C2	85:AA:2154:C:N1	2.87	0.43
4:A3:194:LYS:HD2	85:AA:332:A:C8	2.53	0.43
6:A5:49:ARG:CB	85:AA:399:A:H5'	2.48	0.43
7:A6:2:ARG:N	85:AA:446:C:OP2	2.52	0.43
7:A6:113:PHE:HA	7:A6:117:LEU:O	2.19	0.43
8:A7:108:HIS:CG	8:A7:112:VAL:HG22	2.54	0.43
8:A7:120:ASP:C	8:A7:121:ASN:HD22	2.26	0.43
17:AI:116:GLY:C	17:AI:118:MET:H	2.27	0.43
18:AJ:101:PHE:HB2	18:AJ:129:PHE:CE1	2.54	0.43
23:AP:43:TRP:HZ3	23:AP:74:HIS:CE1	2.36	0.43
24:AQ:45:VAL:CG1	24:AQ:88:LEU:HD23	2.49	0.43
32:AY:47:LYS:HG2	85:AA:556:C:H1'	1.99	0.43
32:AY:59:LYS:HE2	85:AA:624:A:H2	1.84	0.43
34:BA:37:A:C4	34:BA:1036:G:C6	3.06	0.43
34:BA:74:A:C4	34:BA:75:U:C6	3.07	0.43
34:BA:108:A:C6	34:BA:386:A:N9	2.87	0.43
34:BA:127:U:H2'	34:BA:128:C:N1	2.34	0.43
34:BA:176:G:C6	34:BA:177:G:N7	2.87	0.43
34:BA:263:G:O6	34:BA:273:G:C5	2.72	0.43
34:BA:266:G:N1	34:BA:277:A:C4	2.87	0.43
34:BA:397:A:N1	36:BC:31:A:N9	2.66	0.43
34:BA:444:A:C2	34:BA:445:C:H1'	2.53	0.43
34:BA:447:U:C2	34:BA:448:U:C4	3.07	0.43
34:BA:513:U:O2	34:BA:514:U:C6	2.71	0.43
34:BA:529:A:C4	34:BA:530:A:N7	2.87	0.43
34:BA:546:U:C5	34:BA:546:U:OP2	2.72	0.43
34:BA:586:G:H2'	34:BA:586:G:N3	2.33	0.43
34:BA:610:A:H2'	34:BA:611:A:C8	2.53	0.43
34:BA:720:A:C2	35:BB:639:A:C4	3.06	0.43
34:BA:774:A:C8	34:BA:774:A:C3'	3.00	0.43
34:BA:800:G:H3'	34:BA:801:U:C6	2.54	0.43
34:BA:816:G:N1	34:BA:855:C:C2	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:824:C:C4'	42:BI:142:ASN:H	2.31	0.43
34:BA:827:A:N3	34:BA:841:G:C2	2.87	0.43
34:BA:830:U:N3	34:BA:831:U:C4	2.87	0.43
34:BA:860:G:O2'	34:BA:861:C:H5'	2.18	0.43
34:BA:899:G:C8	34:BA:1032:A:N7	2.87	0.43
34:BA:901:C:C2	34:BA:902:C:C5	3.06	0.43
34:BA:986:G:O2'	35:BB:76:C:C6	2.72	0.43
34:BA:1014:A:N1	34:BA:1016:A:C5	2.87	0.43
34:BA:1113:A:H61	34:BA:1145:U:H3	1.66	0.43
34:BA:1125:G:C4	34:BA:1126:U:C5	3.07	0.43
34:BA:1169:A:C4	63:Bd:29:MET:CE	3.02	0.43
34:BA:1177:C:O2'	63:Bd:53:LYS:HE2	2.19	0.43
34:BA:1230:G:H2'	34:BA:1231:C:O4'	2.19	0.43
34:BA:1256:A:H3'	68:Bi:45:ARG:HH21	1.84	0.43
34:BA:1535:G:C2	34:BA:1537:G:C8	3.07	0.43
34:BA:1648:G:H5'	34:BA:1648:G:N9	2.32	0.43
34:BA:1683:C:H2'	34:BA:1684:A:C8	2.54	0.43
34:BA:1727:A:O4'	57:BX:54:PHE:CD2	2.72	0.43
34:BA:1735:G:C2'	34:BA:1736:A:C8	2.99	0.43
34:BA:1741:G:H1'	35:BB:2:C:OP2	2.18	0.43
35:BB:19:C:N3	35:BB:20:U:C5	2.87	0.43
35:BB:117:A:H5'	35:BB:118:A:OP2	2.19	0.43
35:BB:127:U:N3	35:BB:128:C:C5	2.87	0.43
35:BB:461:U:H4'	35:BB:579:A:C6	2.54	0.43
35:BB:471:U:C2	35:BB:507:G:C2	3.06	0.43
35:BB:474:G:C4	35:BB:475:A:C5	3.07	0.43
35:BB:482:A:C2'	35:BB:483:C:H5'	2.48	0.43
35:BB:497:C:C4	35:BB:498:G:C5	3.07	0.43
35:BB:519:A:C6	35:BB:520:G:C5	3.07	0.43
35:BB:603:U:C5	35:BB:604:C:C4	3.07	0.43
35:BB:648:G:H2'	35:BB:649:A:O4'	2.19	0.43
35:BB:662:G:H2'	35:BB:663:G:O4'	2.19	0.43
35:BB:692:G:C6	35:BB:693:U:O4	2.72	0.43
35:BB:707:G:H2'	35:BB:708:C:C6	2.54	0.43
35:BB:781:U:C2	83:Bx:81:ARG:HB3	2.54	0.43
35:BB:796:C:C5	35:BB:978:C:OP1	2.72	0.43
35:BB:804:U:C6	35:BB:805:G:H1'	2.54	0.43
35:BB:839:G:C4	35:BB:978:C:O2	2.71	0.43
35:BB:1151:A:C5	35:BB:1153:G:C4	3.07	0.43
35:BB:1177:U:H2'	35:BB:1178:A:H5'	2.01	0.43
35:BB:1315:C:C2	35:BB:1316:U:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1316:U:H3'	35:BB:1317:U:C5	2.54	0.43
35:BB:1380:G:C6	35:BB:1381:U:C6	3.07	0.43
35:BB:1434:G:H2'	35:BB:1435:G:C8	2.54	0.43
35:BB:1512:C:C5'	35:BB:1512:C:H6	2.32	0.43
35:BB:1514:G:C8	35:BB:1514:G:O5'	2.71	0.43
36:BC:165:U:C6	36:BC:165:U:OP1	2.72	0.43
37:BD:8:A:C5	37:BD:9:C:C4	3.07	0.43
37:BD:37:G:C5	37:BD:38:U:C5	3.06	0.43
37:BD:46:G:C2	37:BD:47:U:C5	3.07	0.43
38:BE:1:U:N1	38:BE:12:A:H1'	2.34	0.43
38:BE:84:U:C5	38:BE:85:G:N3	2.87	0.43
38:BE:100:U:C4	38:BE:119:U:C2	3.07	0.43
38:BE:149:A:H2	38:BE:164:C:O2	2.00	0.43
39:BF:22:U:O2'	39:BF:23:G:H5'	2.18	0.43
39:BF:38:C:H3'	39:BF:39:C:C6	2.54	0.43
40:BG:3:G:C2	40:BG:4:A:C4	3.07	0.43
40:BG:26:G:C5	40:BG:27:C:C4	3.07	0.43
40:BG:30:C:N3	40:BG:31:G:C8	2.87	0.43
40:BG:46:G:OP2	56:BW:9:LYS:HD3	2.18	0.43
40:BG:86:U:C4	67:Bh:101:PHE:CE2	3.06	0.43
41:BH:5:G:C4	41:BH:6:U:C6	3.07	0.43
41:BH:23:G:H8	41:BH:23:G:O5'	2.00	0.43
41:BH:70:U:H2'	41:BH:71:C:O4'	2.19	0.43
43:BJ:52:LEU:HD12	43:BJ:152:VAL:HG11	2.01	0.43
44:BK:121:LYS:HB3	44:BK:122:PRO:HD2	1.99	0.43
48:BO:111:LYS:HA	48:BO:114:GLN:OE1	2.18	0.43
48:BO:152:ARG:C	84:By:39:HIS:CE1	2.97	0.43
52:BS:11:VAL:HB	52:BS:43:PHE:CE1	2.54	0.43
53:BT:66:MET:HE3	53:BT:70:LYS:CE	2.49	0.43
53:BT:66:MET:HE3	53:BT:70:LYS:HE3	2.00	0.43
54:BU:7:TYR:HA	54:BU:54:HIS:CE1	2.54	0.43
58:BY:57:ARG:O	58:BY:60:ARG:HG2	2.18	0.43
60:Ba:48:TYR:HB3	60:Ba:49:PRO:HD2	2.01	0.43
60:Ba:126:TRP:HA	60:Ba:129:GLN:NE2	2.34	0.43
61:Bb:71:PRO:HA	61:Bb:106:TYR:C	2.44	0.43
65:Bf:238:GLN:OE1	65:Bf:240:ASN:HB3	2.19	0.43
65:Bf:276:VAL:HG12	65:Bf:328:TYR:HA	2.00	0.43
65:Bf:433:GLU:HA	65:Bf:436:GLN:CD	2.44	0.43
66:Bg:45:LEU:HD21	66:Bg:71:CYS:HA	2.00	0.43
68:Bi:99:HIS:CE1	68:Bi:100:THR:HG23	2.54	0.43
71:Bl:131:VAL:HA	71:Bl:132:PRO:HD2	1.91	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:Bn:11:ARG:C	73:Bn:13:GLY:H	2.25	0.43
75:Bp:21:ARG:HE	75:Bp:37:ARG:C	2.27	0.43
83:Bx:116:LYS:O	83:Bx:120:ASP:HB3	2.19	0.43
85:AA:132:G:C6	85:AA:133:G:C5	3.07	0.43
85:AA:136:U:C6	85:AA:136:U:C3'	3.01	0.43
85:AA:235:U:C6	85:AA:237:G:O6	2.72	0.43
85:AA:249:C:C2'	85:AA:250:C:H6	2.28	0.43
85:AA:253:C:O2	85:AA:329:G:C4	2.72	0.43
85:AA:310:U:H3	85:AA:316:C:N4	2.06	0.43
85:AA:317:A:C4	85:AA:318:A:C8	3.07	0.43
85:AA:381:A:N1	85:AA:416:U:N3	2.66	0.43
85:AA:450:A:H2'	85:AA:451:G:C8	2.54	0.43
85:AA:456:A:C2	85:AA:457:G:N9	2.86	0.43
85:AA:468:A:OP1	85:AA:468:A:H3'	2.19	0.43
85:AA:573:U:C2	85:AA:574:U:C5	3.06	0.43
85:AA:613:G:H4'	85:AA:614:U:H1'	2.01	0.43
85:AA:642:G:C4	85:AA:643:C:C5	3.07	0.43
85:AA:669:G:C4	85:AA:670:C:C5	3.06	0.43
85:AA:746:G:N1	85:AA:747:U:C4	2.87	0.43
85:AA:811:A:C2	85:AA:812:C:N3	2.86	0.43
85:AA:813:G:C2	85:AA:865:G:N3	2.86	0.43
85:AA:857:G:C2	85:AA:858:G:C8	3.06	0.43
85:AA:860:C:H2'	85:AA:862:U:C5	2.54	0.43
85:AA:938:A:OP2	85:AA:938:A:H3'	2.19	0.43
85:AA:1018:G:N2	85:AA:1019:U:C4	2.86	0.43
85:AA:1098:C:C4	85:AA:1099:U:C4	3.07	0.43
85:AA:1105:G:C2	85:AA:1106:A:C6	3.06	0.43
85:AA:1142:G:H2'	85:AA:1143:C:C1'	2.49	0.43
85:AA:1167:G:C5	85:AA:1168:C:N4	2.87	0.43
85:AA:1247:A:C5	85:AA:1248:U:C6	3.07	0.43
85:AA:1256:C:O5'	85:AA:1256:C:H6	2.02	0.43
85:AA:1279:A:OP2	85:AA:1280:U:H6	2.01	0.43
85:AA:1353:U:H3'	85:AA:1354:A:H5'	1.99	0.43
85:AA:1508:A:N1	85:AA:1509:A:C2	2.87	0.43
85:AA:1546:G:C6	85:AA:2041:G:H8	2.36	0.43
85:AA:1660:U:H2'	85:AA:1661:U:C2	2.54	0.43
85:AA:1720:C:H2'	85:AA:1820:G:N2	2.34	0.43
85:AA:1852:U:C6	85:AA:1854:U:H5'	2.53	0.43
85:AA:1877:G:O5'	85:AA:1877:G:C8	2.72	0.43
85:AA:1877:G:H3'	85:AA:1878:C:C6	2.54	0.43
85:AA:1881:C:C4	85:AA:1882:U:O4	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1920:A:OP2	85:AA:1920:A:C8	2.72	0.43
85:AA:2046:G:C4	85:AA:2047:U:C5	3.06	0.43
85:AA:2083:G:H2'	85:AA:2084:U:O4'	2.19	0.43
85:AA:2089:G:H2'	85:AA:2090:C:C5	2.54	0.43
85:AA:2128:G:C2'	85:AA:2129:U:H5'	2.49	0.43
85:AA:2129:U:H2'	85:AA:2130:G:O4'	2.19	0.43
85:AA:2178:A:C2	85:AA:2179:C:N1	2.87	0.43
85:AA:2185:U:C2	85:AA:2186:U:C6	3.07	0.43
85:AA:2195:A:H2'	85:AA:2196:G:C8	2.54	0.43
85:AA:2224:U:H2'	85:AA:2225:G:C8	2.53	0.43
1:A0:202:ARG:NH2	85:AA:1435:C:N3	2.63	0.43
2:A1:96:PHE:HA	2:A1:110:ARG:HA	2.01	0.43
3:A2:190:ARG:CG	16:AH:65:TYR:CZ	3.01	0.43
4:A3:58:ASP:CG	4:A3:73:ARG:HH21	2.26	0.43
4:A3:208:GLU:O	4:A3:212:TYR:HB2	2.19	0.43
4:A3:240:ARG:HH21	85:AA:297:A:P	2.42	0.43
6:A5:108:PRO:O	6:A5:112:TRP:HB2	2.18	0.43
7:A6:132:HIS:CE1	7:A6:157:PHE:CD1	3.06	0.43
8:A7:158:VAL:HA	8:A7:170:VAL:O	2.18	0.43
11:AC:166:ASP:O	11:AC:170:LEU:HD12	2.19	0.43
13:AE:171:PHE:HB2	85:AA:942:A:H2'	2.01	0.43
15:AG:20:ARG:HH12	85:AA:1110:A:C5'	2.32	0.43
16:AH:119:ILE:H	29:AV:58:ALA:HB1	1.84	0.43
21:AM:25:ARG:NH1	21:AM:29:PHE:HB2	2.34	0.43
21:AM:149:VAL:HG22	85:AA:1899:A:H4'	2.00	0.43
23:AP:236:THR:O	23:AP:240:TRP:CD1	2.72	0.43
25:AR:22:CYS:O	25:AR:24:ALA:N	2.51	0.43
26:AS:21:ARG:O	26:AS:27:TRP:CE3	2.71	0.43
27:AT:38:CYS:C	85:AA:605:A:H4'	2.44	0.43
34:BA:8:G:C6	36:BC:163:A:N1	2.87	0.43
34:BA:15:G:N1	36:BC:153:C:N3	2.67	0.43
34:BA:23:A:H3'	34:BA:24:C:C6	2.54	0.43
34:BA:27:G:OP2	50:BQ:206:ARG:NH2	2.52	0.43
34:BA:63:A:C6	47:BN:105:ARG:NE	2.87	0.43
34:BA:141:G:H5''	34:BA:141:G:C8	2.54	0.43
34:BA:145:U:O4	83:Bx:148:GLY:CA	2.67	0.43
34:BA:197:A:C2'	34:BA:280:A:H61	2.20	0.43
34:BA:257:G:N1	34:BA:258:C:C4	2.87	0.43
34:BA:281:C:C4	34:BA:288:U:C5	3.06	0.43
34:BA:316:G:C5	34:BA:318:U:C5	3.07	0.43
34:BA:321:G:N2	34:BA:322:U:H1'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:367:G:C2	61:Bb:62:HIS:NE2	2.87	0.43
34:BA:400:A:C4	36:BC:28:C:N3	2.87	0.43
34:BA:405:C:H42	59:BZ:10:ARG:NH2	2.17	0.43
34:BA:427:G:N1	34:BA:428:C:C2	2.87	0.43
34:BA:441:A:H2'	34:BA:442:G:OP1	2.19	0.43
34:BA:448:U:H6	34:BA:448:U:O5'	2.01	0.43
34:BA:484:A:H5'	34:BA:484:A:C8	2.53	0.43
34:BA:534:C:O2'	82:Bw:85:ARG:HG3	2.19	0.43
34:BA:568:G:N2	34:BA:569:C:H1'	2.34	0.43
34:BA:632:U:C2	34:BA:633:G:C8	3.07	0.43
34:BA:728:A:C4	35:BB:627:G:C2	3.06	0.43
34:BA:739:A:H1'	47:BN:13:GLN:H	1.84	0.43
34:BA:809:U:H2'	34:BA:810:A:C8	2.54	0.43
34:BA:852:C:C2	34:BA:853:A:C8	3.06	0.43
34:BA:857:C:H2'	34:BA:858:C:C5	2.54	0.43
34:BA:935:A:C5	34:BA:957:A:C8	3.07	0.43
34:BA:1013:A:H4'	34:BA:1014:A:C5	2.53	0.43
34:BA:1018:U:C4	34:BA:1022:C:N3	2.87	0.43
34:BA:1097:G:H4'	54:BU:14:LEU:HD13	1.99	0.43
34:BA:1118:C:N3	34:BA:1119:A:C8	2.87	0.43
34:BA:1137:U:O5'	34:BA:1137:U:H6	2.02	0.43
34:BA:1177:C:C2	34:BA:1195:G:C2	3.07	0.43
34:BA:1193:A:N1	34:BA:1194:G:N1	2.67	0.43
34:BA:1241:U:C4	34:BA:1242:A:C5	3.07	0.43
34:BA:1301:G:C2	34:BA:1302:C:C2	3.07	0.43
34:BA:1468:U:O5'	34:BA:1468:U:C6	2.71	0.43
34:BA:1525:G:C5	34:BA:1526:C:C5	3.07	0.43
34:BA:1534:U:P	77:Br:203:ARG:HE	2.42	0.43
34:BA:1603:A:C4	35:BB:33:A:C6	3.07	0.43
34:BA:1623:U:C5	34:BA:1625:C:OP2	2.72	0.43
34:BA:1650:G:C8	34:BA:1652:G:N9	2.87	0.43
34:BA:1671:A:N6	34:BA:1672:C:C4	2.87	0.43
34:BA:1706:A:C5	34:BA:1707:C:C2	3.07	0.43
34:BA:1706:A:N6	34:BA:1723:U:C4	2.86	0.43
34:BA:1724:G:C4	34:BA:1799:G:C6	3.07	0.43
35:BB:45:A:H3'	35:BB:46:U:C6	2.53	0.43
35:BB:58:G:H2'	35:BB:59:U:O4'	2.19	0.43
35:BB:72:G:N2	35:BB:73:G:H1'	2.33	0.43
35:BB:115:A:C8	35:BB:117:A:O4'	2.72	0.43
35:BB:345:U:C5	35:BB:346:U:C6	3.07	0.43
35:BB:491:A:OP2	35:BB:492:U:C4	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:493:U:O5'	35:BB:493:U:H6	2.02	0.43
35:BB:519:A:C2	35:BB:532:C:C2	3.06	0.43
35:BB:543:G:C4	35:BB:544:C:C5	3.07	0.43
35:BB:633:C:O2	35:BB:633:C:H2'	2.19	0.43
35:BB:680:A:H2'	35:BB:681:G:H8	1.83	0.43
35:BB:813:C:C2	35:BB:814:A:C8	3.07	0.43
35:BB:836:U:H2'	35:BB:837:A:N9	2.33	0.43
35:BB:837:A:C5'	35:BB:1026:G:C4	2.95	0.43
35:BB:846:A:C6	35:BB:847:U:H1'	2.54	0.43
35:BB:1135:U:H1'	35:BB:1136:G:C2	2.54	0.43
35:BB:1175:A:C6	35:BB:1177:U:C4	3.07	0.43
35:BB:1203:C:H1'	54:BU:49:ARG:NE	2.33	0.43
35:BB:1211:C:C5'	61:Bb:54:GLY:HA2	2.49	0.43
35:BB:1353:G:C2	35:BB:1365:G:C5	3.07	0.43
35:BB:1482:A:C6	35:BB:1483:A:C5	3.07	0.43
35:BB:1519:U:C2	35:BB:1520:C:C6	3.07	0.43
35:BB:1520:C:C2	35:BB:1521:G:C8	3.07	0.43
35:BB:1524:G:N2	35:BB:1525:G:C4	2.87	0.43
36:BC:12:A:OP1	51:BR:2:VAL:HG13	2.19	0.43
36:BC:17:U:O5'	36:BC:17:U:C6	2.72	0.43
36:BC:43:A:N3	36:BC:43:A:H2'	2.34	0.43
36:BC:61:A:OP2	36:BC:61:A:C8	2.72	0.43
36:BC:64:U:O2	36:BC:64:U:H2'	2.17	0.43
37:BD:23:A:C8	37:BD:23:A:C3'	3.01	0.43
38:BE:5:A:C6	38:BE:6:A:N6	2.87	0.43
38:BE:6:A:H5'	69:Bj:85:HIS:NE2	2.34	0.43
38:BE:189:A:C2	74:Bo:50:LYS:HG2	2.54	0.43
38:BE:193:A:C4	38:BE:194:A:C5	3.07	0.43
39:BF:8:C:H3'	39:BF:10:A:N7	2.34	0.43
39:BF:18:U:H6	39:BF:18:U:P	2.42	0.43
39:BF:64:U:O4	49:BP:123:TRP:CE3	2.72	0.43
40:BG:4:A:H2'	40:BG:5:G:O4'	2.18	0.43
40:BG:27:C:H2'	40:BG:28:A:O4'	2.18	0.43
40:BG:31:G:H4'	65:Bf:236:GLU:OE2	2.19	0.43
40:BG:72:G:C6	40:BG:73:U:O4	2.72	0.43
40:BG:136:G:C8	78:Bs:35:ARG:NH2	2.87	0.43
40:BG:140:G:C2	40:BG:149:U:C5	3.06	0.43
40:BG:178:G:O3'	65:Bf:181:PHE:HA	2.19	0.43
41:BH:39:G:N3	41:BH:113:G:N2	2.67	0.43
41:BH:59:G:H3'	41:BH:60:A:C5'	2.49	0.43
41:BH:69:C:C4	41:BH:70:U:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BH:103:C:N3	41:BH:104:U:C6	2.87	0.43
41:BH:110:C:H4'	65:Bf:442:LYS:HD2	2.01	0.43
41:BH:116:A:H3'	41:BH:117:U:C2	2.54	0.43
41:BH:119:U:H2'	41:BH:120:C:O4'	2.18	0.43
44:BK:68:ALA:HA	44:BK:158:LYS:HG3	2.01	0.43
44:BK:102:MET:HE3	44:BK:102:MET:H	1.84	0.43
45:BL:15:PRO:HD2	45:BL:17:ARG:HG2	2.01	0.43
48:BO:71:LYS:O	48:BO:74:GLN:HG2	2.18	0.43
49:BP:36:VAL:O	49:BP:50:VAL:HA	2.18	0.43
49:BP:165:GLU:H	49:BP:165:GLU:HG2	1.53	0.43
53:BT:117:ARG:O	53:BT:120:TYR:HB3	2.19	0.43
54:BU:3:HIS:O	54:BU:5:HIS:CD2	2.72	0.43
56:BW:87:TRP:CD1	56:BW:87:TRP:C	2.96	0.43
59:BZ:66:ARG:CZ	59:BZ:68:THR:HA	2.49	0.43
65:Bf:165:PHE:O	65:Bf:169:PHE:HB2	2.19	0.43
66:Bg:52:LEU:CD2	66:Bg:112:THR:HG22	2.49	0.43
66:Bg:59:CYS:SG	66:Bg:61:PRO:HA	2.59	0.43
69:Bj:26:THR:HB	69:Bj:27:PRO:CD	2.48	0.43
73:Bn:77:HIS:CD2	73:Bn:79:LYS:H	2.37	0.43
74:Bo:21:ASN:O	74:Bo:24:LYS:HB2	2.18	0.43
77:Br:264:THR:HG22	77:Br:265:PHE:N	2.33	0.43
79:Bt:27:GLN:HE21	79:Bt:68:ILE:HG23	1.84	0.43
82:Bw:33:PHE:O	82:Bw:36:GLN:HB2	2.18	0.43
83:Bx:86:PRO:HB3	83:Bx:242:ILE:O	2.19	0.43
83:Bx:221:GLN:O	83:Bx:224:LEU:HB2	2.19	0.43
84:By:44:PHE:CG	84:By:45:ARG:N	2.86	0.43
85:AA:6:G:C4	85:AA:19:A:C2	3.07	0.43
85:AA:91:U:C6	85:AA:92:G:H5'	2.54	0.43
85:AA:115:U:C2	85:AA:365:G:C2	3.06	0.43
85:AA:177:A:O2'	85:AA:178:U:H5'	2.19	0.43
85:AA:362:G:N1	85:AA:363:A:N1	2.67	0.43
85:AA:372:U:C4	85:AA:373:G:C5	3.07	0.43
85:AA:457:G:N1	85:AA:458:C:C5	2.87	0.43
85:AA:488:G:OP2	85:AA:488:G:H8	2.02	0.43
85:AA:500:C:N3	85:AA:501:A:C2	2.87	0.43
85:AA:635:G:C2	85:AA:659:A:C4	3.07	0.43
85:AA:679:A:C5'	85:AA:680:U:H3'	2.49	0.43
85:AA:680:U:C6	85:AA:682:C:C3'	3.02	0.43
85:AA:709:A:C4	85:AA:1112:G:C2	3.06	0.43
85:AA:741:G:C2	85:AA:766:G:O6	2.72	0.43
85:AA:790:A:H4'	85:AA:791:C:OP1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:871:U:H2'	85:AA:872:U:H6	1.83	0.43
85:AA:892:C:C2	85:AA:900:G:C2	3.07	0.43
85:AA:902:A:H2'	85:AA:903:G:O4'	2.19	0.43
85:AA:944:C:O5'	85:AA:945:A:H3'	2.18	0.43
85:AA:967:C:N3	85:AA:968:U:C5	2.87	0.43
85:AA:997:U:C3'	85:AA:998:U:H5'	2.48	0.43
85:AA:1016:G:C5	85:AA:1018:G:C2	3.07	0.43
85:AA:1099:U:H2'	85:AA:1100:U:C6	2.54	0.43
85:AA:1142:G:C2	85:AA:1169:A:C4	3.06	0.43
85:AA:1203:G:H2'	85:AA:1204:A:C8	2.53	0.43
85:AA:1373:U:H2'	85:AA:1374:A:C8	2.53	0.43
85:AA:1374:A:C2	85:AA:1430:A:N3	2.87	0.43
85:AA:1484:G:C5	85:AA:1485:G:C5	3.07	0.43
85:AA:1593:C:C2'	85:AA:1883:C:H42	2.31	0.43
85:AA:1681:G:C5	85:AA:1682:U:C4	3.06	0.43
85:AA:1701:G:N3	85:AA:1701:G:H2'	2.33	0.43
85:AA:1731:G:C2	85:AA:1808:G:N7	2.87	0.43
85:AA:1799:C:C6	85:AA:1799:C:O5'	2.72	0.43
85:AA:1812:C:O2	85:AA:1812:C:H2'	2.18	0.43
85:AA:2052:U:C5	85:AA:2077:G:N1	2.87	0.43
85:AA:2109:G:C2	85:AA:2211:G:C2	3.07	0.43
85:AA:2129:U:N3	85:AA:2130:G:C4	2.87	0.43
86:AB:10:G:C2	86:AB:11:C:C2	3.07	0.43
1:A0:163:VAL:HA	1:A0:166:VAL:HG22	2.01	0.42
3:A2:43:GLN:HE22	85:AA:2050:C:H2'	1.83	0.42
4:A3:167:LYS:HB2	4:A3:170:LYS:CB	2.48	0.42
5:A4:192:TRP:HA	85:AA:1356:U:C5'	2.49	0.42
6:A5:156:SER:O	6:A5:159:LYS:CB	2.67	0.42
7:A6:19:GLU:HB3	7:A6:22:ARG:HB3	2.01	0.42
8:A7:108:HIS:CE1	8:A7:126:SER:OG	2.72	0.42
13:AE:58:PHE:N	13:AE:58:PHE:CD2	2.85	0.42
20:AL:109:LEU:HA	20:AL:112:MET:HE2	2.01	0.42
22:AO:142:LYS:O	22:AO:145:ARG:HG3	2.19	0.42
27:AT:37:TRP:NE1	85:AA:604:C:C2	2.87	0.42
31:AX:178:ALA:HB2	85:AA:653:A:N6	2.34	0.42
34:BA:26:C:C2	34:BA:53:G:N2	2.87	0.42
34:BA:237:A:H2'	34:BA:238:C:C6	2.54	0.42
34:BA:262:A:H1'	34:BA:279:U:C4	2.54	0.42
34:BA:266:G:C6	34:BA:277:A:C4	3.07	0.42
34:BA:266:G:C2	34:BA:267:G:C4	3.07	0.42
34:BA:364:C:C2	34:BA:365:A:C8	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:385:U:H6	34:BA:385:U:O5'	2.01	0.42
34:BA:403:A:N3	34:BA:1531:G:H1'	2.34	0.42
34:BA:416:A:H2	36:BC:53:A:H1'	1.83	0.42
34:BA:445:C:O5'	34:BA:445:C:H6	2.02	0.42
34:BA:457:A:H2'	34:BA:458:G:C8	2.54	0.42
34:BA:469:C:H5'	34:BA:470:C:OP2	2.19	0.42
34:BA:487:A:C6	35:BB:651:G:C4	3.07	0.42
34:BA:521:C:C4	34:BA:522:C:C2	3.07	0.42
34:BA:669:U:C4	34:BA:670:U:C5	3.07	0.42
34:BA:793:A:OP2	34:BA:794:G:C8	2.72	0.42
34:BA:836:U:H3'	34:BA:837:U:C6	2.54	0.42
34:BA:874:G:H2'	34:BA:875:G:O4'	2.19	0.42
34:BA:923:C:H1'	34:BA:1001:G:N2	2.34	0.42
34:BA:927:A:N1	34:BA:928:C:C4	2.87	0.42
34:BA:1007:G:H4'	34:BA:1008:A:H5''	2.01	0.42
34:BA:1015:G:C5	34:BA:1023:G:C5	3.06	0.42
34:BA:1040:G:C5	34:BA:1041:U:N3	2.87	0.42
34:BA:1054:U:O2	34:BA:1066:A:H1'	2.19	0.42
34:BA:1076:U:C4	34:BA:1077:G:N7	2.86	0.42
34:BA:1084:A:C6	34:BA:1085:G:C6	3.07	0.42
34:BA:1144:A:H2	44:BK:193:ARG:HE	1.67	0.42
34:BA:1153:C:C4	34:BA:1154:U:C4	3.06	0.42
34:BA:1221:A:C6	34:BA:1222:C:N4	2.88	0.42
34:BA:1284:G:C2	34:BA:1285:G:C8	3.07	0.42
34:BA:1298:U:C4	34:BA:1444:G:H5'	2.54	0.42
34:BA:1316:G:C5	34:BA:1317:U:O4	2.72	0.42
34:BA:1420:A:C4	35:BB:1345:A:N7	2.87	0.42
34:BA:1489:U:C4	34:BA:1490:U:H1'	2.54	0.42
34:BA:1517:U:C4	34:BA:1518:A:C5	3.07	0.42
34:BA:1520:A:H2'	34:BA:1521:C:C6	2.54	0.42
34:BA:1532:G:C6	34:BA:1533:G:C5	3.07	0.42
34:BA:1554:C:C5	34:BA:1555:G:N7	2.87	0.42
34:BA:1578:A:C2	34:BA:1580:U:C6	3.07	0.42
34:BA:1644:A:C5	35:BB:60:A:C6	3.07	0.42
34:BA:1648:G:C5	35:BB:42:A:C5	3.06	0.42
34:BA:1671:A:C6	34:BA:1672:C:C4	3.07	0.42
34:BA:1697:U:C6	34:BA:1697:U:OP2	2.66	0.42
34:BA:1702:G:C4	34:BA:1703:A:C5	3.06	0.42
34:BA:1822:U:C4	34:BA:1823:A:N1	2.87	0.42
34:BA:1826:C:N3	34:BA:1827:C:C5	2.87	0.42
34:BA:1843:G:H2'	34:BA:1844:U:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:71:A:C4	35:BB:72:G:C8	3.07	0.42
35:BB:361:A:OP2	35:BB:361:A:C8	2.72	0.42
35:BB:461:U:C6	35:BB:461:U:OP2	2.72	0.42
35:BB:462:G:H2'	35:BB:463:C:H6	1.83	0.42
35:BB:462:G:C4	35:BB:463:C:C5	3.07	0.42
35:BB:483:C:C4	35:BB:484:G:N7	2.87	0.42
35:BB:536:U:C6	35:BB:539:G:C2	3.07	0.42
35:BB:552:C:C2	35:BB:553:U:C5	3.07	0.42
35:BB:554:C:N4	35:BB:565:U:C4	2.87	0.42
35:BB:618:U:H2'	35:BB:619:A:H8	1.83	0.42
35:BB:652:G:N1	40:BG:172:C:N3	2.67	0.42
35:BB:672:C:C5	35:BB:673:C:C4	3.06	0.42
35:BB:716:G:C8	35:BB:718:G:C6	3.07	0.42
35:BB:756:C:N4	35:BB:757:C:C2	2.87	0.42
35:BB:808:U:C5	35:BB:809:U:N1	2.86	0.42
35:BB:809:U:O4	35:BB:830:G:N1	2.51	0.42
35:BB:874:G:N1	35:BB:961:G:C6	2.87	0.42
35:BB:1081:U:O4	35:BB:1082:A:C2	2.72	0.42
35:BB:1128:U:C2	35:BB:1129:C:C5	3.07	0.42
35:BB:1138:A:C4	35:BB:1149:A:N6	2.87	0.42
35:BB:1208:G:C2	35:BB:1253:U:H2'	2.54	0.42
35:BB:1219:A:C5	35:BB:1220:A:C4	3.07	0.42
35:BB:1334:C:H2'	35:BB:1335:G:C8	2.54	0.42
35:BB:1360:A:H2'	35:BB:1361:A:O4'	2.19	0.42
35:BB:1448:U:OP1	65:Bf:69:PRO:HA	2.19	0.42
35:BB:1514:G:C4	35:BB:1515:C:C6	3.07	0.42
36:BC:38:U:H4'	36:BC:39:G:OP2	2.20	0.42
36:BC:52:A:C6	36:BC:53:A:C4	3.07	0.42
36:BC:101:U:C5	36:BC:102:G:C5	3.06	0.42
36:BC:102:G:C6	36:BC:104:A:C2	3.07	0.42
36:BC:106:G:C4	36:BC:115:G:C6	3.07	0.42
36:BC:115:G:C6	36:BC:116:C:C4	3.07	0.42
36:BC:127:C:C2	36:BC:128:U:C6	3.07	0.42
37:BD:80:G:C2	37:BD:97:U:C2	3.07	0.42
37:BD:101:A:O5'	37:BD:101:A:H8	2.02	0.42
37:BD:105:G:C2	37:BD:106:G:C4	3.07	0.42
38:BE:3:G:N2	38:BE:5:A:H3'	2.34	0.42
38:BE:48:G:N1	38:BE:49:A:C6	2.87	0.42
38:BE:106:C:C5	53:BT:121:ARG:NH1	2.87	0.42
38:BE:161:G:C6	38:BE:162:U:C4	3.07	0.42
38:BE:188:C:C6	64:Be:187:TYR:CD2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BF:9:C:N4	39:BF:18:U:C5	2.87	0.42
39:BF:36:G:C5	39:BF:48:G:N1	2.86	0.42
39:BF:51:C:O2	39:BF:52:A:C8	2.68	0.42
40:BG:9:G:C2	40:BG:15:G:N2	2.87	0.42
40:BG:36:G:C4	40:BG:37:G:C8	3.06	0.42
40:BG:115:C:H2'	40:BG:116:G:C8	2.54	0.42
41:BH:107:A:C5	41:BH:108:U:C4	3.07	0.42
41:BH:119:U:C2	41:BH:120:C:C5	3.07	0.42
41:BH:131:A:C8	41:BH:132:C:C5	3.07	0.42
42:BI:114:LYS:HG3	42:BI:115:SER:N	2.32	0.42
44:BK:37:GLY:HA3	44:BK:86:HIS:HA	2.01	0.42
48:BO:25:ILE:O	48:BO:51:ILE:HA	2.19	0.42
48:BO:100:ARG:HD3	48:BO:100:ARG:O	2.19	0.42
48:BO:103:ARG:CD	48:BO:103:ARG:C	2.91	0.42
50:BQ:75:GLY:O	50:BQ:152:VAL:HA	2.18	0.42
51:BR:41:LEU:HD23	51:BR:41:LEU:H	1.84	0.42
51:BR:57:CYS:SG	51:BR:83:TRP:CE2	3.05	0.42
54:BU:150:THR:HB	54:BU:153:TYR:CD2	2.54	0.42
59:BZ:71:TYR:CE2	59:BZ:74:LYS:HB2	2.54	0.42
60:Ba:28:THR:O	60:Ba:76:HIS:CE1	2.72	0.42
64:Be:221:HIS:HB3	64:Be:222:PRO:HD2	2.01	0.42
69:Bj:46:PRO:O	69:Bj:47:TRP:CB	2.66	0.42
69:Bj:98:ILE:HA	69:Bj:101:GLN:NE2	2.34	0.42
70:Bk:76:ASP:C	70:Bk:77:LYS:HD3	2.43	0.42
79:Bt:15:GLU:CD	79:Bt:15:GLU:O	2.62	0.42
82:Bw:246:ASP:O	82:Bw:249:ILE:HG22	2.19	0.42
83:Bx:68:PHE:CD1	83:Bx:68:PHE:C	2.97	0.42
84:By:81:GLY:HA3	84:By:86:PHE:CE2	2.54	0.42
85:AA:11:A:N1	85:AA:1521:U:C2	2.87	0.42
85:AA:50:C:O2	85:AA:495:G:C2	2.72	0.42
85:AA:107:A:H5'	85:AA:923:A:H1'	2.01	0.42
85:AA:205:A:C5	85:AA:205:A:OP2	2.72	0.42
85:AA:244:G:H2'	85:AA:245:A:O4'	2.19	0.42
85:AA:268:A:C8	85:AA:269:G:C5'	3.02	0.42
85:AA:274:A:C4	85:AA:975:G:N1	2.87	0.42
85:AA:314:C:H4'	85:AA:315:U:OP1	2.18	0.42
85:AA:352:G:N1	85:AA:353:G:C5	2.86	0.42
85:AA:381:A:N6	85:AA:416:U:C2	2.87	0.42
85:AA:496:C:O5'	85:AA:496:C:C6	2.71	0.42
85:AA:561:C:C5	85:AA:562:C:N3	2.86	0.42
85:AA:583:U:C6	85:AA:583:U:O5'	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:590:U:C5	85:AA:601:A:N6	2.87	0.42
85:AA:629:A:C5	85:AA:630:A:N1	2.87	0.42
85:AA:675:A:C6	85:AA:676:U:C4	3.07	0.42
85:AA:880:A:C5	85:AA:881:C:C5	3.07	0.42
85:AA:882:C:H3'	85:AA:883:A:H8	1.84	0.42
85:AA:959:C:C6	85:AA:960:G:C6	3.07	0.42
85:AA:976:G:C6	85:AA:977:U:C5	3.07	0.42
85:AA:1148:G:C8	85:AA:1148:G:H3'	2.53	0.42
85:AA:1361:A:C5	85:AA:1362:A:C5	3.07	0.42
85:AA:1520:A:H5''	85:AA:1520:A:H8	1.84	0.42
85:AA:1651:C:C2	85:AA:1866:A:C5	3.06	0.42
85:AA:1696:U:N3	85:AA:1697:C:C2	2.87	0.42
85:AA:1702:G:H2'	85:AA:1702:G:N3	2.33	0.42
85:AA:1832:G:C8	85:AA:1832:G:H3'	2.52	0.42
85:AA:1863:A:N6	85:AA:1864:G:C6	2.87	0.42
85:AA:1869:U:OP2	85:AA:1869:U:C6	2.71	0.42
85:AA:1923:A:N7	85:AA:1990:U:C2	2.86	0.42
85:AA:1980:A:O2'	85:AA:1981:A:C8	2.63	0.42
85:AA:2174:G:H8	85:AA:2174:G:O5'	2.02	0.42
85:AA:2213:A:H2'	85:AA:2214:A:C5'	2.49	0.42
86:AB:7:A:C2	86:AB:67:C:C2	3.07	0.42
2:A1:96:PHE:CD2	2:A1:96:PHE:N	2.84	0.42
2:A1:189:ILE:N	2:A1:241:GLY:HA3	2.34	0.42
3:A2:46:ARG:HE	33:AZ:84:CYS:H	1.67	0.42
7:A6:59:LEU:C	7:A6:68:ARG:HH22	2.26	0.42
13:AE:42:VAL:HG22	85:AA:970:U:H5'	2.01	0.42
13:AE:145:ARG:NE	85:AA:401:U:H4'	2.35	0.42
15:AG:64:LYS:HA	15:AG:69:ARG:O	2.19	0.42
23:AP:99:ALA:HB2	85:AA:10:G:H1'	2.01	0.42
23:AP:191:ALA:HB1	23:AP:193:VAL:HG13	2.00	0.42
27:AT:135:LYS:HD2	85:AA:54:C:OP2	2.18	0.42
29:AV:10:ARG:NE	85:AA:2242:U:OP2	2.52	0.42
30:AW:65:CYS:SG	30:AW:72:ALA:HB1	2.59	0.42
34:BA:12:G:N3	34:BA:13:U:C6	2.87	0.42
34:BA:14:G:N1	36:BC:153:C:C2	2.87	0.42
34:BA:45:A:O4'	34:BA:47:U:C6	2.73	0.42
34:BA:62:A:C6	34:BA:109:A:C8	3.07	0.42
34:BA:62:A:H5''	34:BA:109:A:H62	1.83	0.42
34:BA:88:C:H2'	34:BA:89:G:C8	2.53	0.42
34:BA:92:G:C6	34:BA:93:A:N1	2.87	0.42
34:BA:126:G:H8	34:BA:126:G:O5'	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:141:G:C6	34:BA:142:A:N6	2.87	0.42
34:BA:154:A:C6	34:BA:155:U:C2	3.08	0.42
34:BA:191:G:C2	34:BA:293:A:N3	2.87	0.42
34:BA:224:G:C2	34:BA:225:A:N1	2.87	0.42
34:BA:336:A:C2	34:BA:354:G:C2	3.07	0.42
34:BA:375:C:C2	35:BB:1236:A:N1	2.88	0.42
34:BA:442:G:C2	34:BA:467:A:C4	3.07	0.42
34:BA:548:G:H1'	34:BA:560:U:C4	2.54	0.42
34:BA:578:C:O2'	34:BA:579:U:H5''	2.19	0.42
34:BA:613:A:H4'	77:Br:353:HIS:CG	2.54	0.42
34:BA:620:C:C5	34:BA:621:G:N7	2.88	0.42
34:BA:699:G:C8	34:BA:699:G:O5'	2.72	0.42
34:BA:726:G:C5	34:BA:727:G:N7	2.87	0.42
34:BA:816:G:N1	34:BA:854:A:C2	2.87	0.42
34:BA:827:A:C2	34:BA:828:A:C5	3.07	0.42
34:BA:1038:U:H4'	35:BB:1273:G:OP1	2.18	0.42
34:BA:1146:U:H2'	34:BA:1147:C:C6	2.54	0.42
34:BA:1151:A:N1	34:BA:1152:A:N1	2.67	0.42
34:BA:1177:C:O5'	34:BA:1177:C:H6	2.01	0.42
34:BA:1208:U:H4'	34:BA:1209:A:C8	2.54	0.42
34:BA:1224:A:C1'	47:BN:5:ASN:HD22	2.32	0.42
34:BA:1246:G:O6	34:BA:1247:G:C5	2.72	0.42
34:BA:1320:A:C5	34:BA:1419:A:C6	3.06	0.42
34:BA:1343:A:C4	40:BG:144:G:C6	3.08	0.42
34:BA:1362:A:C8	34:BA:1389:A:C5'	3.02	0.42
34:BA:1433:U:O4'	34:BA:1435:A:C4	2.72	0.42
34:BA:1438:C:H2'	34:BA:1439:C:C6	2.55	0.42
34:BA:1452:U:C6	34:BA:1452:U:H5''	2.53	0.42
34:BA:1496:G:O5'	34:BA:1497:A:C8	2.72	0.42
34:BA:1504:A:C1'	62:Bc:99:ARG:HH12	2.32	0.42
34:BA:1533:G:C8	34:BA:1534:U:C5	3.07	0.42
34:BA:1614:G:C4	34:BA:1634:A:N6	2.87	0.42
34:BA:1614:G:N1	34:BA:1634:A:C5	2.87	0.42
34:BA:1802:C:C2	34:BA:1803:A:C8	3.07	0.42
35:BB:30:A:C6	35:BB:32:C:O2	2.72	0.42
35:BB:387:G:C2	35:BB:388:C:H1'	2.54	0.42
35:BB:630:A:H2'	35:BB:630:A:N3	2.34	0.42
35:BB:798:A:H3'	35:BB:976:U:OP1	2.19	0.42
35:BB:804:U:C6	35:BB:805:G:O4'	2.72	0.42
35:BB:805:G:H5'	35:BB:806:U:OP1	2.19	0.42
35:BB:836:U:C3'	35:BB:837:A:C8	3.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:837:A:C4'	35:BB:1026:G:C6	3.03	0.42
35:BB:1019:C:H2'	35:BB:1020:U:H6	1.83	0.42
35:BB:1077:C:C2	35:BB:1078:U:C5	3.07	0.42
35:BB:1100:C:H1'	35:BB:1141:A:C2	2.54	0.42
35:BB:1190:U:O5'	79:Bt:20:HIS:HB2	2.19	0.42
35:BB:1195:A:C8	35:BB:1195:A:C3'	3.00	0.42
35:BB:1219:A:H2'	35:BB:1220:A:C8	2.52	0.42
35:BB:1296:A:N6	35:BB:1309:A:C8	2.87	0.42
35:BB:1297:G:H2'	35:BB:1298:C:O4'	2.18	0.42
35:BB:1340:U:C2	35:BB:1341:U:C5	3.07	0.42
35:BB:1459:U:H4'	35:BB:1461:C:C5	2.53	0.42
35:BB:1464:G:O6	40:BG:24:A:H5'	2.15	0.42
35:BB:1508:G:H2'	35:BB:1509:G:O4'	2.19	0.42
35:BB:1514:G:C2	35:BB:1515:C:C2	3.06	0.42
36:BC:40:A:C6	36:BC:103:A:N3	2.86	0.42
36:BC:52:A:C5	36:BC:53:A:C8	3.06	0.42
36:BC:96:A:H2'	36:BC:97:U:C5	2.53	0.42
36:BC:132:U:C6	36:BC:133:C:C6	3.07	0.42
37:BD:15:U:C4	37:BD:16:U:C5	3.07	0.42
37:BD:16:U:C4	37:BD:17:G:N7	2.87	0.42
37:BD:82:G:H2'	37:BD:84:U:H5	1.84	0.42
37:BD:107:G:C4	37:BD:108:G:C8	3.07	0.42
37:BD:119:U:O2	37:BD:119:U:H2'	2.18	0.42
38:BE:68:U:H2'	38:BE:69:C:C5	2.53	0.42
38:BE:104:G:H2'	38:BE:105:A:O4'	2.19	0.42
38:BE:131:C:C2	38:BE:132:U:C5	3.07	0.42
38:BE:153:C:C5	38:BE:154:A:N9	2.86	0.42
40:BG:6:A:C2	40:BG:7:U:C2	3.07	0.42
40:BG:36:G:C8	40:BG:36:G:H3'	2.54	0.42
40:BG:44:G:C2	40:BG:45:G:C4	3.07	0.42
40:BG:44:G:N1	40:BG:67:A:C5	2.86	0.42
40:BG:103:C:H2'	40:BG:104:A:H8	1.84	0.42
40:BG:139:U:O4	40:BG:149:U:H5	2.02	0.42
40:BG:155:A:C6	40:BG:156:G:C5	3.07	0.42
40:BG:159:A:C2	40:BG:160:C:C2	3.06	0.42
40:BG:167:C:H5'	40:BG:167:C:C6	2.54	0.42
41:BH:15:A:H3'	41:BH:16:A:H8	1.82	0.42
41:BH:38:G:C2	41:BH:114:G:C4	3.07	0.42
47:BN:17:TRP:NE1	47:BN:24:LYS:HZ2	2.17	0.42
48:BO:88:PRO:O	48:BO:90:HIS:CE1	2.72	0.42
48:BO:216:LEU:HD21	49:BP:112:GLN:HG3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BX:54:PHE:CG	57:BX:55:ARG:N	2.85	0.42
66:Bg:59:CYS:SG	66:Bg:64:LYS:HB2	2.59	0.42
69:Bj:27:PRO:C	69:Bj:29:ASN:H	2.26	0.42
75:Bp:3:ARG:HD3	75:Bp:3:ARG:HA	1.85	0.42
77:Br:153:VAL:H	77:Br:250:TRP:HB2	1.83	0.42
80:Bu:169:LEU:HD23	80:Bu:169:LEU:C	2.44	0.42
80:Bu:205:ILE:HG22	80:Bu:206:PHE:CE1	2.54	0.42
85:AA:30:G:C5	85:AA:31:C:C5	3.07	0.42
85:AA:69:C:H2'	85:AA:70:U:O5'	2.20	0.42
85:AA:99:U:H2'	85:AA:100:A:H8	1.83	0.42
85:AA:111:A:N6	85:AA:314:C:C4	2.88	0.42
85:AA:156:G:N1	85:AA:157:G:C4	2.87	0.42
85:AA:343:U:O2	85:AA:345:U:H3'	2.19	0.42
85:AA:366:A:H2'	85:AA:367:A:O4'	2.18	0.42
85:AA:368:C:O2	85:AA:368:C:H2'	2.19	0.42
85:AA:410:A:C2	85:AA:411:U:C2	3.08	0.42
85:AA:439:U:O5'	85:AA:439:U:H6	2.01	0.42
85:AA:479:C:H42	85:AA:485:A:N6	2.18	0.42
85:AA:596:A:C6	85:AA:597:A:C5	3.07	0.42
85:AA:605:A:H2'	85:AA:607:U:OP1	2.19	0.42
85:AA:774:C:H3'	85:AA:775:C:H6	1.84	0.42
85:AA:887:A:C4	85:AA:889:G:C6	3.07	0.42
85:AA:1005:C:C4	85:AA:1006:C:C5	3.07	0.42
85:AA:1013:C:C6	85:AA:1053:A:C2	3.07	0.42
85:AA:1019:U:H5	85:AA:1052:C:C4	2.37	0.42
85:AA:1117:G:C5	85:AA:1118:U:C5	3.07	0.42
85:AA:1121:U:H3'	85:AA:1122:U:C6	2.55	0.42
85:AA:1134:G:N2	85:AA:1177:G:H1'	2.34	0.42
85:AA:1231:G:H2'	85:AA:1232:U:C6	2.54	0.42
85:AA:1316:G:C2	85:AA:1343:G:C4	3.08	0.42
85:AA:1353:U:H3'	85:AA:1354:A:C5'	2.48	0.42
85:AA:1486:G:C6	85:AA:1487:G:C4	3.07	0.42
85:AA:1547:G:H2'	85:AA:1547:G:N3	2.34	0.42
85:AA:1585:A:C8	85:AA:1585:A:C3'	3.03	0.42
85:AA:2009:A:H2'	85:AA:2009:A:N3	2.34	0.42
85:AA:2126:U:O2'	85:AA:2127:G:H5'	2.19	0.42
85:AA:2146:G:N2	85:AA:2172:A:OP2	2.52	0.42
85:AA:2153:G:C4	85:AA:2154:C:C6	3.06	0.42
85:AA:2167:A:C6	85:AA:2168:C:C5	3.07	0.42
85:AA:2185:U:C4	85:AA:2186:U:C5	3.06	0.42
85:AA:2196:G:H8	85:AA:2196:G:O5'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2237:G:C5	85:AA:2238:C:C5	3.07	0.42
85:AA:2248:A:H5''	85:AA:2248:A:N3	2.33	0.42
86:AB:5:G:C4	86:AB:69:G:C2	3.08	0.42
1:A0:198:ARG:HH12	85:AA:1373:U:C4'	2.33	0.42
1:A0:230:LEU:C	1:A0:230:LEU:HD13	2.45	0.42
4:A3:28:LEU:CD2	4:A3:41:ILE:HG21	2.50	0.42
4:A3:31:TYR:HA	4:A3:32:ARG:NH2	2.34	0.42
5:A4:159:LEU:HD11	5:A4:188:PHE:HB3	2.01	0.42
6:A5:105:ASP:O	6:A5:106:ALA:HB3	2.20	0.42
7:A6:31:GLY:O	32:AY:40:TYR:CE2	2.72	0.42
7:A6:122:HIS:CE1	85:AA:548:G:C5'	3.02	0.42
7:A6:138:GLN:HB2	7:A6:141:THR:HG23	2.01	0.42
12:AD:6:PRO:HG3	85:AA:1634:U:H6	1.83	0.42
13:AE:42:VAL:HG22	85:AA:970:U:C4'	2.48	0.42
16:AH:9:TYR:CE2	16:AH:15:GLY:HA3	2.54	0.42
23:AP:99:ALA:CB	85:AA:10:G:H1'	2.49	0.42
31:AX:127:GLU:C	31:AX:129:GLY:H	2.27	0.42
32:AY:46:ALA:HB1	85:AA:573:U:H4'	2.01	0.42
33:AZ:52:SER:C	33:AZ:53:ARG:HH11	2.28	0.42
34:BA:120:A:H3'	83:Bx:118:ARG:HD3	2.00	0.42
34:BA:183:G:C4	34:BA:306:G:N1	2.88	0.42
34:BA:216:C:H2'	34:BA:217:C:O2	2.18	0.42
34:BA:232:U:N3	34:BA:233:U:C2	2.87	0.42
34:BA:300:C:H2'	34:BA:301:U:C5'	2.49	0.42
34:BA:322:U:O5'	34:BA:322:U:H6	2.02	0.42
34:BA:346:A:C5	79:Bt:41:ARG:NH2	2.87	0.42
34:BA:399:G:N1	36:BC:28:C:O2	2.52	0.42
34:BA:399:G:C4	34:BA:400:A:C8	3.06	0.42
34:BA:487:A:C2	35:BB:652:G:C5'	3.03	0.42
34:BA:487:A:C4	35:BB:651:G:C2	3.07	0.42
34:BA:498:A:H5''	71:Bl:106:ARG:NH1	2.35	0.42
34:BA:498:A:N3	34:BA:704:G:C2	2.87	0.42
34:BA:697:A:H2'	34:BA:698:U:C5	2.55	0.42
34:BA:704:G:C5	34:BA:705:C:C5	3.07	0.42
34:BA:718:U:H2'	34:BA:719:G:C8	2.54	0.42
34:BA:769:U:H3	34:BA:771:A:H1'	1.84	0.42
34:BA:772:G:N1	77:Br:111:HIS:CE1	2.87	0.42
34:BA:779:U:C4	34:BA:780:U:C5	3.07	0.42
34:BA:936:A:C2	34:BA:937:G:C8	3.08	0.42
34:BA:965:A:N7	34:BA:966:G:C8	2.87	0.42
34:BA:1028:A:C4	34:BA:1029:C:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1064:A:C5	34:BA:1065:U:C5	3.06	0.42
34:BA:1086:A:C2	34:BA:1087:A:C8	3.08	0.42
34:BA:1137:U:C6	34:BA:1137:U:O5'	2.72	0.42
34:BA:1225:A:N6	34:BA:1226:G:C2	2.87	0.42
34:BA:1260:G:N1	34:BA:1270:G:C4	2.87	0.42
34:BA:1323:G:H1	34:BA:1417:C:H42	1.67	0.42
34:BA:1334:G:C6	34:BA:1335:A:C8	3.08	0.42
34:BA:1396:A:C6	34:BA:1397:C:C6	3.07	0.42
34:BA:1461:A:H2'	34:BA:1462:U:C6	2.53	0.42
34:BA:1535:G:C5'	62:Bc:17:LYS:HD3	2.50	0.42
34:BA:1625:C:C5	34:BA:1626:U:C4	3.07	0.42
34:BA:1631:U:H2'	34:BA:1632:G:C4'	2.49	0.42
34:BA:1696:G:H3'	34:BA:1697:U:N1	2.32	0.42
34:BA:1700:C:N4	34:BA:1804:A:C8	2.87	0.42
34:BA:1815:G:H2'	34:BA:1816:G:C8	2.54	0.42
34:BA:1832:A:N1	34:BA:1833:G:C2	2.87	0.42
35:BB:68:G:C5	35:BB:69:A:N6	2.86	0.42
35:BB:68:G:H3'	35:BB:69:A:C8	2.55	0.42
35:BB:102:G:C6	35:BB:121:A:N1	2.87	0.42
35:BB:492:U:C6	35:BB:492:U:C3'	3.01	0.42
35:BB:537:A:C6	35:BB:538:A:N1	2.87	0.42
35:BB:551:C:N4	35:BB:575:C:OP2	2.53	0.42
35:BB:652:G:O3'	40:BG:171:A:C8	2.72	0.42
35:BB:698:C:C2	35:BB:699:U:O2	2.73	0.42
35:BB:793:A:N1	35:BB:794:G:C2	2.88	0.42
35:BB:808:U:OP2	35:BB:808:U:C6	2.72	0.42
35:BB:840:C:H2'	35:BB:841:U:H6	1.82	0.42
35:BB:969:C:C4	35:BB:970:C:C5	3.07	0.42
35:BB:997:G:C6	35:BB:998:G:C8	3.07	0.42
35:BB:1006:C:H2'	35:BB:1007:U:O4'	2.19	0.42
35:BB:1122:C:N4	35:BB:1123:A:C2	2.87	0.42
35:BB:1149:A:C4	35:BB:1151:A:C6	3.06	0.42
35:BB:1151:A:C8	35:BB:1153:G:C5	3.07	0.42
35:BB:1243:A:C2	35:BB:1244:U:C6	3.07	0.42
35:BB:1294:C:H5	35:BB:1310:C:N4	2.17	0.42
35:BB:1295:A:C6	35:BB:1308:G:C6	3.07	0.42
35:BB:1361:A:N1	35:BB:1362:G:C6	2.87	0.42
35:BB:1396:G:C6	35:BB:1397:G:N7	2.88	0.42
35:BB:1429:A:H3'	35:BB:1429:A:C8	2.54	0.42
35:BB:1457:A:C2'	35:BB:1460:G:OP1	2.67	0.42
35:BB:1459:U:H4'	35:BB:1461:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1463:A:H5'	40:BG:23:C:OP1	2.18	0.42
35:BB:1468:A:H3'	35:BB:1468:A:P	2.59	0.42
36:BC:33:U:N3	36:BC:34:U:C6	2.87	0.42
36:BC:52:A:C8	76:Bq:24:PRO:HD2	2.54	0.42
36:BC:88:A:C5'	36:BC:89:U:P	3.08	0.42
36:BC:117:A:C2	36:BC:147:G:C5	3.07	0.42
37:BD:2:G:H2'	37:BD:3:G:C8	2.54	0.42
37:BD:27:A:H1'	37:BD:56:G:C2	2.54	0.42
37:BD:64:A:OP1	44:BK:205:LYS:HA	2.20	0.42
37:BD:77:A:C8	37:BD:78:C:C5	3.07	0.42
37:BD:98:G:C6	37:BD:99:G:C5	3.07	0.42
38:BE:66:A:C5	38:BE:67:A:C8	3.07	0.42
40:BG:5:G:N1	40:BG:6:A:C6	2.88	0.42
40:BG:60:A:C2	40:BG:61:A:C1'	3.03	0.42
40:BG:62:C:H2'	40:BG:63:U:C6	2.54	0.42
40:BG:102:G:N1	40:BG:103:C:C2	2.87	0.42
40:BG:154:C:C2	40:BG:155:A:C8	3.07	0.42
41:BH:119:U:OP1	65:Bf:372:TYR:N	2.52	0.42
41:BH:130:G:C2	41:BH:131:A:N9	2.87	0.42
44:BK:60:ILE:O	44:BK:126:CYS:HA	2.19	0.42
44:BK:171:TRP:CD2	44:BK:181:TYR:CE1	3.07	0.42
47:BN:81:SER:HB3	47:BN:84:GLU:HB2	2.01	0.42
49:BP:45:LYS:HA	49:BP:46:MET:HA	1.90	0.42
50:BQ:184:ALA:O	50:BQ:187:LYS:HB3	2.19	0.42
51:BR:147:GLN:CD	51:BR:147:GLN:N	2.77	0.42
52:BS:14:ARG:HD3	52:BS:24:PRO:HB2	2.02	0.42
52:BS:139:LEU:O	52:BS:143:GLN:HB2	2.19	0.42
56:BW:29:ASP:HA	56:BW:115:GLY:O	2.19	0.42
56:BW:59:MET:SD	56:BW:78:ALA:O	2.78	0.42
64:Be:169:VAL:HG12	64:Be:171:GLY:N	2.34	0.42
64:Be:209:HIS:CG	64:Be:210:PRO:N	2.86	0.42
65:Bf:163:VAL:O	65:Bf:167:ARG:N	2.52	0.42
65:Bf:191:THR:HG23	65:Bf:192:GLU:N	2.34	0.42
69:Bj:21:MET:HA	69:Bj:34:GLN:O	2.19	0.42
71:Bl:72:ALA:HA	71:Bl:75:TYR:CD1	2.55	0.42
71:Bl:97:LYS:HB3	71:Bl:101:ARG:HA	2.02	0.42
72:Bm:66:GLN:O	72:Bm:70:ARG:HG3	2.20	0.42
73:Bn:35:ALA:O	73:Bn:45:ARG:HD2	2.18	0.42
77:Br:78:ILE:HB	77:Br:88:ALA:H	1.84	0.42
77:Br:175:ALA:O	77:Br:179:VAL:HG12	2.20	0.42
77:Br:176:ILE:O	77:Br:180:ASN:CG	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:Bu:189:TYR:CE2	80:Bu:196:LEU:HB2	2.54	0.42
80:Bu:192:GLU:C	80:Bu:192:GLU:CD	2.87	0.42
84:By:106:GLN:H	84:By:106:GLN:NE2	2.18	0.42
85:AA:10:G:C5	85:AA:2100:A:N1	2.87	0.42
85:AA:128:U:C4	85:AA:129:U:C1'	3.02	0.42
85:AA:156:G:C6	85:AA:167:A:C6	3.07	0.42
85:AA:189:G:C8	85:AA:189:G:O5'	2.72	0.42
85:AA:192:G:C2	85:AA:247:G:N3	2.88	0.42
85:AA:255:A:C2	85:AA:256:A:C8	3.07	0.42
85:AA:379:U:O4	85:AA:1495:G:H1'	2.18	0.42
85:AA:420:C:O2	85:AA:420:C:H2'	2.18	0.42
85:AA:495:G:C8	85:AA:495:G:H3'	2.54	0.42
85:AA:531:G:H2'	85:AA:532:G:O4'	2.19	0.42
85:AA:539:A:C5	85:AA:540:A:C8	3.06	0.42
85:AA:545:A:H3'	85:AA:545:A:C8	2.54	0.42
85:AA:561:C:C4	85:AA:567:G:N1	2.87	0.42
85:AA:576:U:C3'	85:AA:577:U:C5'	2.97	0.42
85:AA:686:U:C4	85:AA:687:G:C2	3.07	0.42
85:AA:696:G:C2	85:AA:1281:G:C8	3.07	0.42
85:AA:711:C:H2'	85:AA:712:U:O4	2.19	0.42
85:AA:790:A:N6	85:AA:801:U:H5'	2.34	0.42
85:AA:810:C:N3	85:AA:869:A:C2	2.87	0.42
85:AA:844:C:H1'	85:AA:847:G:C2	2.55	0.42
85:AA:874:A:C2	85:AA:875:C:C6	3.07	0.42
85:AA:876:U:C2	85:AA:877:G:C8	3.07	0.42
85:AA:889:G:N2	85:AA:919:U:C5	2.88	0.42
85:AA:965:G:C8	85:AA:965:G:C5'	3.02	0.42
85:AA:1105:G:C2	85:AA:1106:A:N6	2.87	0.42
85:AA:1240:A:C2	85:AA:1261:U:C4	3.07	0.42
85:AA:1432:C:C5	85:AA:1433:C:C2	3.07	0.42
85:AA:1490:A:H4'	85:AA:1491:G:OP1	2.18	0.42
85:AA:1508:A:C6	85:AA:1509:A:C2	3.07	0.42
85:AA:1547:G:C5	85:AA:2041:G:C8	3.07	0.42
85:AA:1626:U:C4	85:AA:1627:U:C4	3.07	0.42
85:AA:1797:U:O4	85:AA:1798:U:C6	2.72	0.42
85:AA:1872:G:C4	85:AA:1873:U:H1'	2.54	0.42
85:AA:1882:U:O4'	85:AA:1885:A:C2	2.73	0.42
85:AA:1919:G:C8	85:AA:1993:C:N4	2.87	0.42
85:AA:1985:C:C6	85:AA:1985:C:C5'	3.00	0.42
85:AA:2060:G:C6	85:AA:2061:C:N4	2.87	0.42
85:AA:2108:C:C6	85:AA:2108:C:C3'	3.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:2117:U:C2	85:AA:2118:U:C5	3.07	0.42
85:AA:2135:A:N3	85:AA:2184:A:C2	2.88	0.42
85:AA:2142:A:C4	85:AA:2177:C:C2	3.08	0.42
85:AA:2167:A:N1	85:AA:2168:C:C4	2.88	0.42
85:AA:2174:G:C6	85:AA:2175:U:C4	3.07	0.42
86:AB:29:G:C6	86:AB:30:G:C5	3.06	0.42
1:A0:64:ARG:HE	16:AH:41:SER:HB3	1.84	0.42
1:A0:206:ILE:HG22	1:A0:207:ILE:H	1.83	0.42
3:A2:42:TRP:CZ2	3:A2:52:ILE:HB	2.54	0.42
3:A2:94:PRO:HA	3:A2:97:VAL:HB	2.01	0.42
4:A3:64:MET:HE3	4:A3:109:ILE:HG23	2.01	0.42
5:A4:36:HIS:HA	5:A4:40:ARG:CB	2.49	0.42
5:A4:144:ARG:HA	18:AJ:53:VAL:HA	2.01	0.42
8:A7:21:CYS:SG	8:A7:292:ALA:HB1	2.60	0.42
10:A9:118:ARG:HD3	10:A9:133:PHE:CZ	2.54	0.42
11:AC:146:ASN:OD1	11:AC:148:ILE:HB	2.20	0.42
11:AC:162:ASP:O	11:AC:163:PRO:C	2.62	0.42
13:AE:104:ARG:NH1	85:AA:372:U:OP1	2.50	0.42
13:AE:151:ILE:CG2	13:AE:153:TYR:H	2.32	0.42
15:AG:123:HIS:NE2	34:BA:946:A:C4'	2.50	0.42
16:AH:59:ARG:NH2	85:AA:1154:A:H3'	2.33	0.42
19:AK:70:ARG:HB3	85:AA:1793:A:OP1	2.19	0.42
20:AL:35:VAL:HG11	20:AL:47:LYS:HA	2.02	0.42
20:AL:89:SER:C	20:AL:91:VAL:H	2.25	0.42
21:AM:39:ILE:H	21:AM:39:ILE:HG23	1.55	0.42
21:AM:122:ARG:CZ	21:AM:122:ARG:HB2	2.49	0.42
22:AO:99:LYS:HG3	22:AO:108:ILE:C	2.43	0.42
26:AS:4:THR:CG2	85:AA:1480:C:C5	3.02	0.42
26:AS:27:TRP:CZ2	26:AS:31:HIS:CD2	3.08	0.42
26:AS:104:GLY:O	26:AS:105:PHE:CD1	2.72	0.42
26:AS:124:LYS:HB3	26:AS:129:GLY:H	1.83	0.42
28:AU:68:PRO:HB2	28:AU:79:VAL:HG23	2.01	0.42
34:BA:8:G:C2	34:BA:9:A:N9	2.88	0.42
34:BA:16:C:H2'	34:BA:17:A:C8	2.54	0.42
34:BA:49:A:C8	34:BA:49:A:O5'	2.73	0.42
34:BA:74:A:C8	34:BA:74:A:C3'	3.02	0.42
34:BA:180:G:C2	34:BA:181:G:C8	3.07	0.42
34:BA:181:G:C5	34:BA:182:U:C5	3.07	0.42
34:BA:185:A:H1'	34:BA:304:G:N2	2.33	0.42
34:BA:265:A:C2	34:BA:277:A:C2	3.07	0.42
34:BA:443:U:H1'	34:BA:458:G:C2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:489:A:C5	34:BA:490:A:C5	3.07	0.42
34:BA:519:G:C6	34:BA:1491:U:C5'	3.02	0.42
34:BA:556:A:C4	34:BA:557:U:H6	2.37	0.42
34:BA:594:G:C8	34:BA:684:G:C8	3.07	0.42
34:BA:625:U:O4	34:BA:657:C:C4	2.72	0.42
34:BA:647:U:C2'	34:BA:648:C:C5	3.00	0.42
34:BA:661:C:N3	34:BA:662:U:C5	2.87	0.42
34:BA:670:U:O2'	34:BA:671:C:H5'	2.19	0.42
34:BA:675:C:C6	34:BA:676:G:N7	2.87	0.42
34:BA:743:A:C2	34:BA:894:G:H1'	2.54	0.42
34:BA:857:C:C2	34:BA:858:C:C5	3.07	0.42
34:BA:912:G:N1	34:BA:913:U:C4	2.88	0.42
34:BA:943:G:N1	34:BA:944:G:C4	2.87	0.42
34:BA:1001:G:C4	34:BA:1002:U:C5	3.07	0.42
34:BA:1054:U:O4	34:BA:1066:A:C6	2.73	0.42
34:BA:1064:A:H2'	34:BA:1065:U:O4'	2.19	0.42
34:BA:1097:G:N3	35:BB:1084:A:H2'	2.34	0.42
34:BA:1099:U:H5''	34:BA:1099:U:H6	1.83	0.42
34:BA:1152:A:C4	44:BK:22:PHE:CZ	3.08	0.42
34:BA:1263:A:N3	34:BA:1263:A:H2'	2.34	0.42
34:BA:1277:G:N1	34:BA:1278:A:C5	2.87	0.42
34:BA:1285:G:N3	34:BA:1292:A:C2	2.86	0.42
34:BA:1296:U:OP2	34:BA:1296:U:C6	2.72	0.42
34:BA:1396:A:O2'	34:BA:1397:C:C6	2.67	0.42
34:BA:1431:G:N3	34:BA:1432:C:C6	2.88	0.42
34:BA:1469:G:N1	34:BA:1470:G:C6	2.88	0.42
34:BA:1476:G:C6	34:BA:1477:C:N1	2.87	0.42
34:BA:1531:G:C2	34:BA:1532:G:C8	3.07	0.42
34:BA:1563:G:C4	34:BA:1565:U:C6	3.07	0.42
34:BA:1683:C:H2'	34:BA:1684:A:H8	1.84	0.42
34:BA:1740:U:C6	34:BA:1740:U:H3'	2.54	0.42
34:BA:1801:G:N2	34:BA:1802:C:C2	2.87	0.42
34:BA:1842:U:H5''	34:BA:1842:U:H6	1.83	0.42
35:BB:20:U:H1'	35:BB:25:A:C5	2.55	0.42
35:BB:66:G:N1	35:BB:67:A:C5	2.87	0.42
35:BB:93:A:C3'	35:BB:94:A:C8	3.01	0.42
35:BB:133:G:H5'	53:BT:135:LYS:HD3	2.01	0.42
35:BB:393:A:C2	35:BB:596:C:N3	2.88	0.42
35:BB:419:G:N3	35:BB:580:A:C2	2.88	0.42
35:BB:517:G:N2	35:BB:534:C:H1'	2.34	0.42
35:BB:566:A:C5	35:BB:567:G:C8	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:576:A:C4	35:BB:1420:U:O4'	2.72	0.42
35:BB:699:U:H2'	35:BB:1044:U:O4	2.19	0.42
35:BB:724:G:H21	35:BB:749:U:H3	1.67	0.42
35:BB:792:G:C6	83:Bx:57:ARG:NH2	2.87	0.42
35:BB:867:C:C5	35:BB:868:C:C5	3.07	0.42
35:BB:987:U:H3'	35:BB:988:G:C2	2.54	0.42
35:BB:1155:U:C2	35:BB:1156:U:C6	3.08	0.42
35:BB:1241:U:C5	35:BB:1242:C:C5	3.08	0.42
35:BB:1358:A:C2	35:BB:1359:G:N9	2.88	0.42
35:BB:1359:G:H5''	84:By:168:LYS:HB3	2.01	0.42
35:BB:1362:G:C5	35:BB:1363:A:N7	2.87	0.42
35:BB:1399:A:N7	65:Bf:312:HIS:HE1	2.14	0.42
35:BB:1404:A:C2	35:BB:1440:A:C4	3.07	0.42
35:BB:1421:C:H2'	35:BB:1422:G:C8	2.55	0.42
35:BB:1457:A:C8	35:BB:1460:G:P	3.13	0.42
35:BB:1537:C:P	67:Bh:24:LYS:HZ2	2.43	0.42
36:BC:4:G:C5	36:BC:5:U:C4	3.08	0.42
36:BC:25:C:C2	36:BC:26:U:O4	2.72	0.42
36:BC:101:U:C4	36:BC:102:G:C4	3.08	0.42
36:BC:106:G:C2	36:BC:107:C:C2	3.07	0.42
37:BD:65:G:C2	37:BD:66:G:H1'	2.55	0.42
38:BE:1:U:C2	38:BE:1:U:H3'	2.55	0.42
38:BE:43:A:C2	38:BE:171:U:O2	2.73	0.42
38:BE:88:G:H4'	38:BE:89:G:OP1	2.19	0.42
38:BE:130:G:C6	38:BE:131:C:C2	3.07	0.42
38:BE:138:U:H5''	75:Bp:46:VAL:HG21	2.01	0.42
38:BE:143:A:H61	75:Bp:75:ALA:HA	1.84	0.42
38:BE:179:A:H4'	38:BE:180:G:C4'	2.49	0.42
38:BE:192:A:C6	38:BE:193:A:N6	2.87	0.42
39:BF:42:G:C2	39:BF:44:C:N3	2.87	0.42
40:BG:37:G:C2	40:BG:166:C:N3	2.87	0.42
40:BG:69:G:C6	40:BG:70:C:N4	2.88	0.42
40:BG:130:G:C2	40:BG:161:C:C2	3.08	0.42
41:BH:39:G:C2	41:BH:40:C:H1'	2.54	0.42
41:BH:110:C:C4	41:BH:111:U:C5	3.07	0.42
42:BI:64:LEU:HD12	42:BI:95:ASP:HA	2.01	0.42
44:BK:49:CYS:SG	44:BK:173:PHE:N	2.92	0.42
44:BK:180:GLU:O	44:BK:184:LEU:HB2	2.19	0.42
48:BO:216:LEU:HG	49:BP:113:LEU:HA	2.02	0.42
49:BP:77:ALA:O	49:BP:81:LYS:HG2	2.19	0.42
51:BR:2:VAL:HG12	51:BR:4:TYR:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BS:69:ARG:C	52:BS:70:LYS:HG3	2.43	0.42
52:BS:133:ASN:C	52:BS:135:GLU:N	2.77	0.42
53:BT:93:ASP:O	53:BT:96:MET:HB2	2.19	0.42
56:BW:87:TRP:HE1	56:BW:89:ARG:HD3	1.85	0.42
57:BX:67:LYS:C	57:BX:69:SER:H	2.26	0.42
61:Bb:4:ARG:CD	61:Bb:4:ARG:H	2.33	0.42
61:Bb:75:LEU:HD12	61:Bb:112:ASN:O	2.18	0.42
65:Bf:107:ILE:CG2	65:Bf:127:VAL:HG13	2.46	0.42
66:Bg:52:LEU:CD1	66:Bg:77:PRO:HB2	2.50	0.42
66:Bg:58:ASN:N	66:Bg:58:ASN:ND2	2.67	0.42
69:Bj:64:LYS:HA	69:Bj:67:LEU:CD1	2.50	0.42
70:Bk:52:ARG:HA	70:Bk:55:ILE:HG13	2.00	0.42
79:Bt:17:CYS:SG	79:Bt:18:ASN:N	2.93	0.42
84:By:113:PHE:C	84:By:116:GLU:H	2.27	0.42
84:By:170:ILE:HA	84:By:173:PHE:CG	2.54	0.42
85:AA:53:G:H2'	85:AA:54:C:C6	2.54	0.42
85:AA:160:A:H62	85:AA:161:A:N6	2.17	0.42
85:AA:196:U:N3	85:AA:210:G:N7	2.67	0.42
85:AA:272:C:C2	85:AA:273:C:C6	3.07	0.42
85:AA:275:A:C6	85:AA:974:U:C4	3.06	0.42
85:AA:338:G:C5	85:AA:339:A:C8	3.07	0.42
85:AA:349:C:N3	85:AA:350:U:C5	2.88	0.42
85:AA:381:A:C2	85:AA:416:U:C4	3.07	0.42
85:AA:401:U:C4	85:AA:402:G:C4	3.07	0.42
85:AA:441:C:C6	85:AA:441:C:H5''	2.54	0.42
85:AA:443:A:C2'	85:AA:444:U:C6	3.02	0.42
85:AA:448:G:C6	85:AA:449:G:C5	3.07	0.42
85:AA:480:U:C2	85:AA:482:C:C2	3.07	0.42
85:AA:534:A:N6	85:AA:535:G:C5	2.88	0.42
85:AA:698:G:N3	85:AA:699:U:C6	2.87	0.42
85:AA:740:A:H2	85:AA:769:C:H1'	1.84	0.42
85:AA:763:U:C6	85:AA:763:U:P	3.12	0.42
85:AA:764:U:C4	85:AA:767:A:H2	2.37	0.42
85:AA:910:G:N1	85:AA:911:A:C6	2.87	0.42
85:AA:923:A:N1	85:AA:924:A:C6	2.87	0.42
85:AA:1091:C:C2	85:AA:1092:G:C8	3.07	0.42
85:AA:1100:U:H2'	85:AA:1101:C:C6	2.55	0.42
85:AA:1114:A:C2	85:AA:1213:U:C1'	3.02	0.42
85:AA:1126:G:C4	85:AA:1127:G:C8	3.07	0.42
85:AA:1171:C:C2	85:AA:1172:A:C8	3.07	0.42
85:AA:1496:U:H2'	85:AA:1497:U:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1521:U:O5'	85:AA:1521:U:C6	2.72	0.42
85:AA:1528:A:H4'	85:AA:2245:A:H62	1.85	0.42
85:AA:1588:A:N1	85:AA:1892:G:C2	2.88	0.42
85:AA:1646:U:H4'	85:AA:1647:G:C5'	2.50	0.42
85:AA:1715:C:H1'	85:AA:1849:A:C4	2.54	0.42
85:AA:1783:G:H2'	85:AA:1784:G:C8	2.54	0.42
85:AA:1916:A:C2	85:AA:1997:G:N3	2.87	0.42
85:AA:2019:G:C4	85:AA:2021:A:OP2	2.72	0.42
85:AA:2081:A:H2'	85:AA:2082:C:C6	2.55	0.42
85:AA:2147:A:H3'	85:AA:2148:C:H6	1.84	0.42
85:AA:2192:A:C2	85:AA:2193:A:C5	3.07	0.42
85:AA:2209:U:O5'	85:AA:2209:U:H6	2.02	0.42
1:A0:165:TRP:CH2	85:AA:1434:U:OP2	2.72	0.42
5:A4:4:GLN:NE2	5:A4:6:HIS:CE1	2.87	0.42
5:A4:21:GLU:O	5:A4:25:VAL:HG23	2.20	0.42
5:A4:99:VAL:HG22	5:A4:100:ALA:H	1.84	0.42
6:A5:13:ILE:C	6:A5:15:GLY:H	2.26	0.42
6:A5:166:ARG:HD2	6:A5:166:ARG:C	2.44	0.42
8:A7:117:PHE:CD1	8:A7:121:ASN:HB3	2.54	0.42
8:A7:279:GLN:CD	8:A7:279:GLN:C	2.87	0.42
10:A9:117:GLU:HA	10:A9:117:GLU:OE1	2.19	0.42
13:AE:125:VAL:HG23	13:AE:153:TYR:C	2.44	0.42
16:AH:65:TYR:CE2	16:AH:69:MET:SD	3.13	0.42
18:AJ:73:GLY:N	18:AJ:128:PHE:CE1	2.88	0.42
19:AK:74:ARG:NH2	19:AK:76:ARG:HB2	2.34	0.42
20:AL:28:PHE:CD1	85:AA:1826:U:C5	3.07	0.42
21:AM:32:ARG:HH22	85:AA:2033:C:H6	1.67	0.42
21:AM:124:VAL:HA	21:AM:127:ALA:HB3	2.00	0.42
22:AO:58:HIS:CG	85:AA:1970:A:H5'	2.54	0.42
23:AP:53:VAL:HG12	23:AP:79:GLN:HG2	2.02	0.42
23:AP:237:PRO:C	23:AP:240:TRP:CD1	2.97	0.42
24:AQ:23:SER:HB2	24:AQ:29:VAL:HB	2.00	0.42
27:AT:21:LYS:H	27:AT:21:LYS:CD	2.30	0.42
27:AT:127:LYS:C	27:AT:129:LYS:HG2	2.45	0.42
28:AU:48:PHE:HA	28:AU:53:MET:HE3	2.01	0.42
31:AX:101:ALA:CB	31:AX:170:ALA:HB3	2.50	0.42
31:AX:178:ALA:HA	85:AA:1877:G:H4'	2.01	0.42
34:BA:45:A:C8	34:BA:47:U:C2	3.07	0.42
34:BA:59:A:N6	34:BA:60:A:C5	2.88	0.42
34:BA:68:A:C2	35:BB:1236:A:H1'	2.54	0.42
34:BA:82:A:C5	34:BA:84:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:94:G:O6	34:BA:95:C:C4	2.73	0.42
34:BA:133:A:H4'	70:Bk:106:ARG:NH1	2.33	0.42
34:BA:254:U:N3	34:BA:255:G:C8	2.87	0.42
34:BA:330:A:H5'	34:BA:381:A:C2	2.55	0.42
34:BA:365:A:C6	34:BA:366:G:N7	2.87	0.42
34:BA:390:A:C6	34:BA:391:U:N3	2.88	0.42
34:BA:500:C:O2	34:BA:702:G:C4	2.72	0.42
34:BA:503:C:O4'	34:BA:1550:G:H5'	2.19	0.42
34:BA:580:U:H3'	34:BA:580:U:H6	1.84	0.42
34:BA:620:C:C4	34:BA:621:G:N7	2.88	0.42
34:BA:763:U:C4	34:BA:770:G:O3'	2.73	0.42
34:BA:791:A:N7	34:BA:792:A:C5	2.88	0.42
34:BA:830:U:H1'	34:BA:838:U:C2	2.54	0.42
34:BA:830:U:N1	34:BA:838:U:C4	2.88	0.42
34:BA:955:G:C2	34:BA:956:G:N3	2.88	0.42
34:BA:963:G:O6	34:BA:992:A:H3'	2.19	0.42
34:BA:1058:C:H4'	34:BA:1059:U:C5	2.54	0.42
34:BA:1270:G:C2	34:BA:1271:C:H1'	2.55	0.42
34:BA:1312:A:C6	34:BA:1427:U:C2	3.07	0.42
34:BA:1473:A:C2	34:BA:1510:C:H1'	2.54	0.42
34:BA:1477:C:C5	34:BA:1506:C:C4	3.07	0.42
34:BA:1504:A:H1'	62:Bc:99:ARG:HH12	1.83	0.42
34:BA:1522:G:N1	34:BA:1523:U:C4	2.88	0.42
34:BA:1527:G:C4	34:BA:1581:G:C6	3.07	0.42
34:BA:1531:G:C6	34:BA:1576:C:N3	2.87	0.42
34:BA:1532:G:C2	34:BA:1575:U:O2	2.72	0.42
34:BA:1603:A:H2'	34:BA:1604:A:H8	1.84	0.42
34:BA:1611:A:H2'	34:BA:1612:C:H6	1.84	0.42
34:BA:1621:U:C2	34:BA:1623:U:O4	2.71	0.42
34:BA:1704:G:N1	34:BA:1705:C:C2	2.88	0.42
34:BA:1707:C:H2'	34:BA:1708:A:O4'	2.20	0.42
34:BA:1742:G:C4	34:BA:1743:U:C6	3.08	0.42
34:BA:1782:C:O2'	34:BA:1783:C:H5'	2.20	0.42
34:BA:1806:A:C4	69:Bj:14:TYR:CE2	3.08	0.42
35:BB:11:A:O5'	35:BB:11:A:C8	2.73	0.42
35:BB:265:C:H2'	35:BB:266:C:O4'	2.19	0.42
35:BB:391:G:C2	35:BB:392:G:C8	3.06	0.42
35:BB:413:A:C4	35:BB:414:C:C5	3.07	0.42
35:BB:484:G:N2	35:BB:497:C:H1'	2.34	0.42
35:BB:516:G:C8	35:BB:516:G:H3'	2.54	0.42
35:BB:526:A:H8	35:BB:526:A:P	2.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:534:C:H3'	35:BB:535:U:H6	1.84	0.42
35:BB:541:U:C4	35:BB:578:G:N2	2.87	0.42
35:BB:547:A:C6	35:BB:549:U:C2	3.07	0.42
35:BB:636:G:N1	35:BB:646:U:C4	2.87	0.42
35:BB:669:A:C4	35:BB:1329:G:C4	3.07	0.42
35:BB:810:G:C2	35:BB:830:G:C2	3.07	0.42
35:BB:994:A:C6	38:BE:202:C:H5'	2.55	0.42
35:BB:1050:A:C6	35:BB:1051:U:C2	3.07	0.42
35:BB:1108:G:C6	35:BB:1109:A:C5	3.07	0.42
35:BB:1108:G:N1	35:BB:1109:A:C5	2.87	0.42
35:BB:1210:U:C6	35:BB:1211:C:C4	3.07	0.42
35:BB:1238:A:H2'	35:BB:1239:A:C8	2.54	0.42
35:BB:1381:U:C2	35:BB:1382:U:C6	3.07	0.42
35:BB:1399:A:C6	65:Bf:311:TRP:CE2	3.07	0.42
35:BB:1399:A:N3	65:Bf:311:TRP:CH2	2.87	0.42
35:BB:1407:U:H2'	35:BB:1408:G:N9	2.34	0.42
35:BB:1419:G:C2	35:BB:1420:U:C2	3.07	0.42
35:BB:1508:G:H2'	35:BB:1509:G:C8	2.55	0.42
35:BB:1519:U:C5	35:BB:1520:C:C5	3.07	0.42
36:BC:69:U:O2	36:BC:69:U:C2'	2.63	0.42
36:BC:125:A:N1	36:BC:139:A:C6	2.87	0.42
36:BC:166:G:N1	36:BC:167:U:C2	2.87	0.42
37:BD:69:U:H1'	37:BD:107:G:N2	2.35	0.42
38:BE:23:G:P	69:Bj:46:PRO:HA	2.59	0.42
38:BE:44:C:H2'	38:BE:45:G:O4'	2.20	0.42
38:BE:49:A:C2	38:BE:60:C:N3	2.87	0.42
38:BE:94:U:H2'	38:BE:95:G:H8	1.84	0.42
38:BE:130:G:H2'	38:BE:131:C:C5'	2.48	0.42
38:BE:163:A:C8	38:BE:163:A:H3'	2.54	0.42
38:BE:193:A:C2	38:BE:194:A:C4	3.07	0.42
39:BF:29:U:O4	84:By:21:ASP:HA	2.19	0.42
39:BF:42:G:OP2	84:By:47:ASN:HB3	2.19	0.42
39:BF:46:G:C4	39:BF:47:C:C6	3.07	0.42
39:BF:63:U:H5'	81:Bv:171:MET:SD	2.59	0.42
40:BG:82:U:O5'	40:BG:82:U:H6	2.03	0.42
40:BG:101:G:C6	40:BG:102:G:N7	2.88	0.42
41:BH:39:G:N1	41:BH:113:G:C6	2.88	0.42
41:BH:66:G:O5'	41:BH:66:G:H8	2.03	0.42
41:BH:103:C:N3	41:BH:104:U:C2	2.88	0.42
41:BH:129:G:H2'	67:Bh:54:HIS:CE1	2.53	0.42
42:BI:79:LYS:HE3	63:Bd:68:ALA:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BK:85:PHE:CD2	44:BK:138:MET:SD	3.13	0.42
45:BL:114:SER:HA	45:BL:131:GLY:HA2	2.01	0.42
47:BN:33:GLN:O	47:BN:34:PRO:C	2.58	0.42
47:BN:112:GLU:HA	47:BN:115:ASN:ND2	2.35	0.42
47:BN:200:PHE:CD2	47:BN:200:PHE:O	2.71	0.42
49:BP:146:LYS:O	49:BP:150:ASN:HB2	2.18	0.42
52:BS:80:ILE:O	52:BS:91:HIS:HA	2.19	0.42
54:BU:80:VAL:O	54:BU:83:ARG:HG2	2.19	0.42
60:Ba:45:ILE:HA	60:Ba:69:VAL:HA	2.01	0.42
65:Bf:128:THR:HG22	65:Bf:129:ILE:N	2.35	0.42
65:Bf:422:LYS:O	65:Bf:423:ILE:CB	2.65	0.42
67:Bh:92:LEU:HD23	67:Bh:95:LEU:HD12	2.00	0.42
68:Bi:127:LEU:H	68:Bi:127:LEU:CD2	2.31	0.42
70:Bk:66:GLU:N	70:Bk:66:GLU:CD	2.78	0.42
76:Bq:43:HIS:CE1	76:Bq:44:TRP:H	2.38	0.42
77:Br:133:PRO:O	77:Br:137:MET:SD	2.78	0.42
77:Br:299:VAL:HG22	77:Br:299:VAL:O	2.19	0.42
80:Bu:110:LEU:HB3	80:Bu:115:LEU:O	2.20	0.42
83:Bx:84:VAL:HG22	83:Bx:247:GLY:CA	2.49	0.42
84:By:10:THR:HB	84:By:72:LEU:HD13	2.01	0.42
85:AA:87:C:H5''	85:AA:87:C:H6	1.84	0.42
85:AA:98:U:C2'	85:AA:99:U:H5'	2.49	0.42
85:AA:102:A:N7	85:AA:103:U:C5	2.87	0.42
85:AA:121:C:N3	85:AA:122:A:C5	2.87	0.42
85:AA:264:A:C2	85:AA:813:G:O4'	2.72	0.42
85:AA:269:G:OP2	85:AA:269:G:H8	2.03	0.42
85:AA:396:U:C4	85:AA:397:G:C6	3.08	0.42
85:AA:419:A:H3'	85:AA:420:C:H6	1.81	0.42
85:AA:456:A:O4'	85:AA:2182:A:H4'	2.20	0.42
85:AA:487:G:C6	85:AA:488:G:O6	2.73	0.42
85:AA:506:G:C6	85:AA:534:A:N6	2.88	0.42
85:AA:572:G:C5	85:AA:573:U:C4	3.07	0.42
85:AA:622:G:C2	85:AA:665:A:C2	3.07	0.42
85:AA:636:G:N3	85:AA:658:C:C2	2.88	0.42
85:AA:736:U:C6	85:AA:737:G:OP1	2.73	0.42
85:AA:813:G:C2	85:AA:865:G:C2	3.07	0.42
85:AA:826:C:C5	85:AA:827:C:C5	3.08	0.42
85:AA:859:G:C2	85:AA:860:C:N1	2.87	0.42
85:AA:939:A:C8	85:AA:939:A:C3'	2.98	0.42
85:AA:994:A:C6	85:AA:995:G:C8	3.07	0.42
85:AA:1121:U:C5	85:AA:1122:U:O4	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1125:G:H3'	85:AA:1185:G:N2	2.34	0.42
85:AA:1156:A:C6	85:AA:1157:U:C5	3.07	0.42
85:AA:1361:A:C3'	85:AA:1362:A:H5'	2.49	0.42
85:AA:1527:G:H1'	85:AA:2219:G:C2	2.54	0.42
85:AA:1562:U:O2	85:AA:1895:C:H5'	2.19	0.42
85:AA:1588:A:C2	85:AA:1892:G:N3	2.88	0.42
85:AA:1599:G:C5	85:AA:1600:G:N7	2.88	0.42
85:AA:1730:C:C6	85:AA:1730:C:O5'	2.72	0.42
85:AA:1832:G:C6	85:AA:1843:A:N6	2.87	0.42
85:AA:1857:G:O6	85:AA:1858:G:C6	2.73	0.42
85:AA:1890:C:C2	85:AA:1891:U:C5	3.08	0.42
85:AA:1935:G:C6	85:AA:1936:C:C4	3.07	0.42
85:AA:2163:G:N2	85:AA:2164:G:C4	2.87	0.42
85:AA:2213:A:C8	85:AA:2213:A:C3'	3.03	0.42
86:AB:19:G:H4'	86:AB:57:G:H1	1.85	0.42
3:A2:17:LEU:HD11	3:A2:96:GLN:HB2	2.00	0.42
4:A3:180:GLN:HE22	85:AA:64:A:H4'	1.83	0.42
4:A3:181:ARG:HG2	85:AA:334:A:H4'	2.01	0.42
5:A4:10:LEU:HA	5:A4:13:LEU:HD13	2.01	0.42
5:A4:11:ARG:HG3	5:A4:16:ALA:C	2.44	0.42
5:A4:52:ARG:O	5:A4:64:MET:HA	2.18	0.42
6:A5:22:ARG:NH1	85:AA:450:A:C5'	2.80	0.42
6:A5:74:GLN:HG2	6:A5:109:PHE:CD2	2.54	0.42
7:A6:63:GLU:CD	7:A6:68:ARG:HH11	2.27	0.42
11:AC:108:GLN:C	11:AC:110:VAL:H	2.27	0.42
13:AE:138:GLU:CD	13:AE:138:GLU:H	2.27	0.42
15:AG:52:MET:HG3	15:AG:55:ARG:NH2	2.35	0.42
16:AH:8:LYS:HA	16:AH:10:TYR:CE1	2.53	0.42
17:AI:94:PRO:O	17:AI:97:VAL:HG12	2.19	0.42
21:AM:35:LYS:N	21:AM:39:ILE:HG12	2.35	0.42
22:AO:114:LYS:O	22:AO:118:HIS:ND1	2.52	0.42
23:AP:66:LEU:O	25:AR:20:ARG:HD3	2.20	0.42
25:AR:39:ILE:HG22	25:AR:41:ILE:HG13	2.01	0.42
26:AS:6:GLY:O	85:AA:707:U:C5'	2.67	0.42
27:AT:7:LYS:HB3	85:AA:607:U:C4	2.54	0.42
27:AT:66:GLY:HA3	27:AT:79:PHE:H	1.84	0.42
29:AV:14:PRO:HB2	85:AA:1449:C:O3'	2.20	0.42
33:AZ:64:MET:HE3	33:AZ:64:MET:CA	2.46	0.42
34:BA:8:G:H3'	34:BA:8:G:C8	2.55	0.42
34:BA:55:G:C6	34:BA:56:G:C6	3.07	0.42
34:BA:85:C:H3'	61:Bb:65:LYS:HZ3	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:173:U:H2'	34:BA:174:A:C8	2.53	0.42
34:BA:186:G:C4	34:BA:187:G:C8	3.08	0.42
34:BA:188:C:H2'	34:BA:189:G:H8	1.85	0.42
34:BA:195:G:N2	34:BA:196:A:C4	2.86	0.42
34:BA:198:U:C4	34:BA:262:A:C5	3.07	0.42
34:BA:225:A:C8	34:BA:225:A:P	3.13	0.42
34:BA:248:G:C8	34:BA:248:G:H3'	2.54	0.42
34:BA:248:G:C6	34:BA:437:G:O2'	2.70	0.42
34:BA:259:C:C2	34:BA:260:A:N7	2.88	0.42
34:BA:261:A:H5''	77:Br:217:ARG:HB2	2.02	0.42
34:BA:266:G:H5''	77:Br:199:ARG:NH1	2.35	0.42
34:BA:302:A:H5''	34:BA:303:C:C4'	2.48	0.42
34:BA:328:A:H2'	34:BA:329:G:OP2	2.19	0.42
34:BA:399:G:C4	36:BC:29:C:C2	3.08	0.42
34:BA:515:U:H3	34:BA:688:G:H1	1.68	0.42
34:BA:544:U:O4	34:BA:545:U:C4	2.73	0.42
34:BA:593:G:C2	34:BA:594:G:C4	3.07	0.42
34:BA:668:G:C8	34:BA:668:G:C3'	3.02	0.42
34:BA:751:A:C2	34:BA:886:G:C5	3.08	0.42
34:BA:761:U:H2'	34:BA:762:A:O4'	2.20	0.42
34:BA:766:A:H2	34:BA:768:G:O5'	2.03	0.42
34:BA:776:U:C4	34:BA:777:C:C4	3.07	0.42
34:BA:825:G:C2	34:BA:843:G:C5	3.08	0.42
34:BA:859:G:C6	34:BA:860:G:N9	2.88	0.42
34:BA:888:G:C2	34:BA:889:U:N1	2.87	0.42
34:BA:939:C:H2'	34:BA:940:C:C6	2.55	0.42
34:BA:943:G:N1	34:BA:944:G:C5	2.88	0.42
34:BA:1011:G:C5	34:BA:1013:A:N6	2.87	0.42
34:BA:1044:A:H2'	34:BA:1045:C:C6	2.54	0.42
34:BA:1046:G:C2	34:BA:1047:U:C5	3.07	0.42
34:BA:1086:A:H61	34:BA:1215:U:H3	1.66	0.42
34:BA:1090:A:C5	34:BA:1091:U:C5	3.08	0.42
34:BA:1196:C:H2'	34:BA:1197:U:C6	2.54	0.42
34:BA:1300:G:C5	34:BA:1440:C:C4	3.08	0.42
34:BA:1434:U:C2	48:BO:149:ARG:HA	2.55	0.42
34:BA:1504:A:H3'	62:Bc:41:ARG:CA	2.48	0.42
34:BA:1529:G:C4	34:BA:1578:A:C2	3.08	0.42
34:BA:1554:C:OP2	68:Bi:60:SER:HB2	2.19	0.42
34:BA:1574:C:OP1	62:Bc:26:ARG:NE	2.53	0.42
34:BA:1644:A:C2	34:BA:1645:C:N1	2.88	0.42
35:BB:38:C:H2'	35:BB:39:C:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:386:G:H2'	35:BB:387:G:C1'	2.49	0.42
35:BB:392:G:C2	35:BB:597:C:N3	2.88	0.42
35:BB:780:U:C4	35:BB:1038:G:C5	3.07	0.42
35:BB:797:C:H2'	35:BB:798:A:C8	2.54	0.42
35:BB:842:G:C6	35:BB:843:G:N7	2.88	0.42
35:BB:851:U:H5'	69:Bj:121:ARG:CD	2.50	0.42
35:BB:1081:U:N3	35:BB:1082:A:C6	2.88	0.42
35:BB:1141:A:H2'	35:BB:1142:C:C6	2.55	0.42
35:BB:1449:G:N1	35:BB:1450:G:C5	2.87	0.42
35:BB:1489:A:C5	49:BP:158:PRO:HG3	2.55	0.42
36:BC:60:U:H3	70:Bk:60:THR:HA	1.85	0.42
36:BC:73:U:N1	36:BC:74:U:H5	2.17	0.42
36:BC:92:C:C2	36:BC:93:C:C5	3.08	0.42
36:BC:119:G:H2'	36:BC:120:G:H8	1.77	0.42
37:BD:64:A:N1	37:BD:65:G:C4	2.87	0.42
37:BD:64:A:C6	37:BD:65:G:C5	3.08	0.42
37:BD:105:G:H8	37:BD:105:G:O5'	2.03	0.42
38:BE:48:G:OP1	55:BV:111:ALA:HB1	2.20	0.42
38:BE:75:C:N3	38:BE:76:U:C5	2.87	0.42
38:BE:154:A:H4'	38:BE:157:C:C6	2.54	0.42
38:BE:160:C:N4	53:BT:43:LYS:HA	2.35	0.42
38:BE:199:A:H2'	38:BE:200:A:C8	2.54	0.42
40:BG:4:A:H2'	40:BG:5:G:C8	2.55	0.42
40:BG:4:A:N1	40:BG:5:G:C6	2.87	0.42
40:BG:63:U:H3'	40:BG:64:C:H6	1.84	0.42
40:BG:101:G:C2	40:BG:102:G:C4	3.07	0.42
40:BG:130:G:N2	40:BG:161:C:C2	2.87	0.42
40:BG:145:C:H3'	40:BG:146:C:C6	2.55	0.42
41:BH:7:C:H3'	41:BH:8:C:C6	2.53	0.42
41:BH:22:A:H62	65:Bf:174:LYS:HD3	1.85	0.42
41:BH:42:U:C1'	41:BH:110:C:C2	3.03	0.42
41:BH:123:G:C6	41:BH:124:C:C4	3.07	0.42
41:BH:127:A:N1	41:BH:128:G:N1	2.67	0.42
42:BI:76:VAL:HG21	63:Bd:62:ARG:CB	2.43	0.42
42:BI:79:LYS:NZ	63:Bd:64:ALA:O	2.52	0.42
45:BL:91:LEU:CB	45:BL:96:PHE:CE1	3.03	0.42
45:BL:103:PHE:HB3	45:BL:163:LYS:HE2	2.02	0.42
49:BP:39:GLU:CA	49:BP:46:MET:HE1	2.49	0.42
49:BP:136:PRO:HB2	49:BP:140:HIS:CB	2.44	0.42
50:BQ:203:PRO:O	50:BQ:207:ALA:HB3	2.19	0.42
51:BR:26:TYR:CD2	51:BR:121:GLN:HG2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BT:181:ARG:NH1	85:AA:999:A:C8	2.83	0.42
57:BX:153:ASP:HB3	57:BX:156:ASP:HB3	2.02	0.42
62:Bc:59:ARG:HH21	62:Bc:85:GLY:HA2	1.85	0.42
65:Bf:77:ARG:HH22	65:Bf:234:VAL:HG13	1.85	0.42
65:Bf:293:CYS:SG	65:Bf:303:ARG:HA	2.60	0.42
65:Bf:339:TYR:CD2	65:Bf:383:LYS:HB2	2.54	0.42
71:Bl:38:LEU:HD23	81:Bv:181:ILE:CG1	2.49	0.42
73:Bn:36:ALA:O	73:Bn:45:ARG:HD2	2.19	0.42
74:Bo:57:CYS:CB	74:Bo:60:CYS:HG	2.31	0.42
74:Bo:74:PRO:O	74:Bo:75:ASN:C	2.60	0.42
77:Br:188:ILE:HA	77:Br:200:TYR:HA	2.00	0.42
77:Br:235:LEU:HD12	77:Br:238:LEU:HB2	2.01	0.42
80:Bu:2:THR:O	80:Bu:3:PHE:CD2	2.71	0.42
82:Bw:6:LEU:N	82:Bw:17:PRO:HD2	2.35	0.42
82:Bw:127:PHE:CZ	82:Bw:224:PRO:HA	2.54	0.42
83:Bx:45:LYS:HB3	83:Bx:47:PHE:CE1	2.55	0.42
85:AA:10:G:H8	85:AA:2100:A:O2'	2.01	0.42
85:AA:131:C:C2	85:AA:132:G:C8	3.08	0.42
85:AA:133:G:C6	85:AA:134:U:C4	3.08	0.42
85:AA:157:G:C6	85:AA:166:C:C4	3.07	0.42
85:AA:274:A:H2'	85:AA:274:A:N3	2.34	0.42
85:AA:280:U:O2	85:AA:280:U:H2'	2.19	0.42
85:AA:312:G:H8	85:AA:313:A:C8	2.37	0.42
85:AA:341:C:C5	85:AA:343:U:O4	2.73	0.42
85:AA:363:A:C4	85:AA:364:C:C6	3.08	0.42
85:AA:419:A:C5	85:AA:420:C:C5	3.06	0.42
85:AA:464:A:H3'	85:AA:464:A:H8	1.83	0.42
85:AA:624:A:O4'	85:AA:630:A:C2	2.72	0.42
85:AA:628:C:H5''	85:AA:629:A:OP1	2.19	0.42
85:AA:684:G:C5	85:AA:688:C:C1'	3.02	0.42
85:AA:711:C:C2'	85:AA:712:U:C5	3.03	0.42
85:AA:763:U:O2	85:AA:765:U:C5	2.73	0.42
85:AA:764:U:H1'	85:AA:765:U:C5	2.54	0.42
85:AA:847:G:N1	85:AA:848:C:C2	2.87	0.42
85:AA:867:G:N1	85:AA:869:A:C2	2.88	0.42
85:AA:877:G:O6	85:AA:928:U:O4	2.38	0.42
85:AA:1226:A:N6	85:AA:1274:A:C8	2.88	0.42
85:AA:1274:A:H2'	85:AA:1274:A:N3	2.33	0.42
85:AA:1359:U:C5	85:AA:1360:C:O2	2.73	0.42
85:AA:1493:A:H2'	85:AA:1494:C:OP1	2.19	0.42
85:AA:1519:A:C4	85:AA:1520:A:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1526:G:C4	85:AA:2096:G:N2	2.87	0.42
85:AA:1532:G:C2	85:AA:1533:C:H1'	2.55	0.42
85:AA:1545:U:C4	85:AA:1546:G:C5	3.08	0.42
85:AA:1582:U:C5	85:AA:1583:U:C2	3.07	0.42
85:AA:1728:G:N1	85:AA:1813:C:C2	2.88	0.42
85:AA:1754:G:H1'	85:AA:1790:G:C4	2.55	0.42
85:AA:1857:G:C6	85:AA:1858:G:C6	3.07	0.42
85:AA:1962:U:H2'	85:AA:1963:G:H8	1.81	0.42
85:AA:2059:A:C6	85:AA:2060:G:C6	3.07	0.42
85:AA:2130:G:H2'	85:AA:2131:C:O4'	2.20	0.42
85:AA:2146:G:H2'	85:AA:2171:A:N1	2.35	0.42
85:AA:2172:A:C5	85:AA:2173:A:C8	3.07	0.42
85:AA:2185:U:C6	85:AA:2185:U:H3'	2.54	0.42
86:AB:18:G:N2	86:AB:58:A:C5	2.88	0.42
86:AB:31:A:C2	86:AB:40:C:N3	2.87	0.42
86:AB:50:U:H2'	86:AB:51:U:C6	2.55	0.42
86:AB:70:G:C2'	86:AB:71:G:OP1	2.62	0.42
1:A0:144:PHE:O	1:A0:209:LEU:HB3	2.19	0.42
2:A1:230:SER:HB2	2:A1:232:VAL:HG23	2.01	0.42
3:A2:126:ASP:CG	33:AZ:78:ARG:HE	2.28	0.42
4:A3:44:GLU:C	4:A3:46:PHE:H	2.27	0.42
5:A4:33:GLU:O	5:A4:40:ARG:HB2	2.19	0.42
6:A5:49:ARG:HG3	85:AA:399:A:C8	2.54	0.42
6:A5:204:GLU:CD	6:A5:205:GLY:H	2.28	0.42
6:A5:206:ALA:HA	6:A5:209:GLN:OE1	2.20	0.42
7:A6:134:ALA:N	7:A6:156:ALA:O	2.52	0.42
11:AC:212:TRP:CD1	11:AC:231:TRP:CZ3	3.08	0.42
12:AD:24:SER:HB3	31:AX:71:CYS:O	2.20	0.42
15:AG:52:MET:HA	85:AA:1209:U:O4'	2.20	0.42
18:AJ:104:LEU:HB2	18:AJ:125:VAL:HA	2.01	0.42
21:AM:83:TRP:CE3	21:AM:84:PHE:HB3	2.55	0.42
31:AX:139:GLY:N	85:AA:1654:G:H4'	2.34	0.42
34:BA:67:A:C6	34:BA:68:A:C6	3.08	0.42
34:BA:79:C:H2'	34:BA:80:U:O4'	2.20	0.42
34:BA:97:A:H2'	34:BA:98:A:C8	2.55	0.42
34:BA:99:G:C6	34:BA:100:A:C6	3.07	0.42
34:BA:105:U:C4	34:BA:106:U:C5	3.07	0.42
34:BA:132:U:C6	34:BA:132:U:O5'	2.72	0.42
34:BA:146:G:C2'	34:BA:147:U:O5'	2.65	0.42
34:BA:189:G:H4'	34:BA:299:C:H1'	2.01	0.42
34:BA:191:G:N1	34:BA:293:A:C4	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:206:C:C4	34:BA:227:C:C5	3.07	0.42
34:BA:250:G:C5	34:BA:268:U:C4	3.07	0.42
34:BA:267:G:N2	59:BZ:99:SER:HB2	2.34	0.42
34:BA:275:C:C4	34:BA:276:C:N4	2.88	0.42
34:BA:334:G:C6	34:BA:335:C:N4	2.87	0.42
34:BA:373:G:N2	34:BA:374:U:C2	2.88	0.42
34:BA:439:A:C2	34:BA:441:A:C8	3.07	0.42
34:BA:457:A:H3'	34:BA:458:G:H8	1.84	0.42
34:BA:470:C:C2	36:BC:19:A:C2	3.07	0.42
34:BA:480:G:N7	34:BA:481:A:C5	2.88	0.42
34:BA:489:A:C4	34:BA:490:A:C8	3.08	0.42
34:BA:565:U:C6	34:BA:565:U:C3'	3.01	0.42
34:BA:575:U:H3'	34:BA:579:U:C4	2.55	0.42
34:BA:580:U:N3	34:BA:582:U:C6	2.87	0.42
34:BA:597:C:H3'	34:BA:598:G:C8	2.54	0.42
34:BA:605:G:C4	34:BA:606:G:C8	3.08	0.42
34:BA:669:U:C2'	34:BA:670:U:H5'	2.49	0.42
34:BA:692:U:C5'	34:BA:692:U:C6	3.03	0.42
34:BA:700:G:N1	34:BA:701:G:C8	2.88	0.42
34:BA:747:G:N7	34:BA:748:C:C5	2.88	0.42
34:BA:764:G:N1	34:BA:769:U:C4	2.88	0.42
34:BA:765:U:C4	34:BA:768:G:C6	3.08	0.42
34:BA:787:A:C5	34:BA:797:A:N7	2.88	0.42
34:BA:801:U:C4	34:BA:802:G:N7	2.87	0.42
34:BA:804:G:N7	34:BA:805:A:C6	2.87	0.42
34:BA:816:G:C6	34:BA:854:A:N1	2.88	0.42
34:BA:823:G:C5	34:BA:824:C:C5	3.08	0.42
34:BA:824:C:C6	34:BA:824:C:O5'	2.72	0.42
34:BA:906:A:N6	34:BA:1033:G:H1	2.16	0.42
34:BA:939:C:C4	34:BA:953:G:C2	3.08	0.42
34:BA:951:C:N4	34:BA:952:G:C5	2.88	0.42
34:BA:999:G:C5	34:BA:1000:G:N7	2.87	0.42
34:BA:1045:C:N3	34:BA:1046:G:C5	2.88	0.42
34:BA:1093:G:N1	34:BA:1165:A:C6	2.87	0.42
34:BA:1095:G:C4	34:BA:1163:G:C5	3.08	0.42
34:BA:1097:G:N3	35:BB:1084:A:C4	2.88	0.42
34:BA:1189:A:C5	34:BA:1190:A:C5	3.08	0.42
34:BA:1213:A:C6	34:BA:1214:U:C5	3.08	0.42
34:BA:1276:G:C6	34:BA:1277:G:C5	3.07	0.42
34:BA:1296:U:C3'	49:BP:54:LYS:HZ2	2.33	0.42
34:BA:1409:A:H2'	34:BA:1410:C:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1469:G:N1	34:BA:1513:G:C5	2.87	0.42
34:BA:1477:C:C5'	34:BA:1478:G:N1	2.83	0.42
34:BA:1505:G:OP1	62:Bc:41:ARG:HB3	2.19	0.42
34:BA:1667:G:C2'	34:BA:1668:C:H6	2.32	0.42
34:BA:1695:G:C4	34:BA:1696:G:N7	2.87	0.42
34:BA:1709:A:C2	34:BA:1710:C:C2	3.08	0.42
34:BA:1727:A:C2	57:BX:54:PHE:CZ	3.08	0.42
34:BA:1729:G:N1	34:BA:1730:A:C5	2.87	0.42
34:BA:1782:C:C2	34:BA:1783:C:C6	3.07	0.42
34:BA:1835:A:OP1	75:Bp:2:PRO:N	2.52	0.42
35:BB:34:G:C6	35:BB:35:G:N7	2.88	0.42
35:BB:60:A:H4'	35:BB:61:A:C5'	2.45	0.42
35:BB:81:A:N1	35:BB:82:G:C2	2.88	0.42
35:BB:98:A:N3	35:BB:388:C:H2'	2.34	0.42
35:BB:116:G:N1	35:BB:389:G:C4	2.88	0.42
35:BB:119:G:C2	35:BB:120:C:C6	3.07	0.42
35:BB:316:U:H2'	35:BB:317:C:C6	2.55	0.42
35:BB:419:G:C6	35:BB:420:U:C5	3.07	0.42
35:BB:526:A:H3'	35:BB:527:U:C5	2.54	0.42
35:BB:542:A:C2	35:BB:579:A:N3	2.88	0.42
35:BB:567:G:H2'	35:BB:568:A:O4'	2.20	0.42
35:BB:782:A:C2	35:BB:783:U:C2	3.08	0.42
35:BB:786:A:C2	35:BB:787:A:C4	3.07	0.42
35:BB:794:G:C5	35:BB:795:A:C5	3.08	0.42
35:BB:812:G:C6	35:BB:813:C:C4	3.08	0.42
35:BB:833:G:H2'	35:BB:834:U:OP2	2.20	0.42
35:BB:893:U:C3'	35:BB:893:U:C6	3.02	0.42
35:BB:1001:G:C2	35:BB:1018:U:O2	2.73	0.42
35:BB:1015:U:C2	35:BB:1016:C:C5	3.08	0.42
35:BB:1016:C:O2	35:BB:1017:U:C6	2.73	0.42
35:BB:1027:U:H2'	35:BB:1028:C:O4'	2.20	0.42
35:BB:1030:U:C2	35:BB:1031:G:N1	2.88	0.42
35:BB:1040:C:H3'	35:BB:1041:A:H2	1.85	0.42
35:BB:1100:C:C4	35:BB:1101:C:C5	3.08	0.42
35:BB:1132:A:H2'	35:BB:1133:C:C6	2.54	0.42
35:BB:1148:U:O5'	35:BB:1148:U:H6	2.03	0.42
35:BB:1190:U:O2'	79:Bt:20:HIS:CE1	2.72	0.42
35:BB:1296:A:C5	35:BB:1309:A:C4	3.07	0.42
35:BB:1299:G:C5	35:BB:1302:C:C2	3.08	0.42
35:BB:1301:U:O4	35:BB:1302:C:C2	2.73	0.42
35:BB:1348:C:C2	35:BB:1372:G:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1394:A:C6	35:BB:1395:G:C5	3.08	0.42
35:BB:1457:A:H3'	35:BB:1460:G:OP1	2.20	0.42
35:BB:1476:C:C6	35:BB:1476:C:H3'	2.55	0.42
36:BC:145:G:C4	36:BC:146:U:C5	3.08	0.42
37:BD:79:G:C2	37:BD:80:G:C4	3.08	0.42
38:BE:3:G:N1	38:BE:7:U:C2	2.88	0.42
38:BE:6:A:OP2	38:BE:7:U:C4	2.73	0.42
38:BE:13:A:H2'	38:BE:14:C:H5'	2.01	0.42
38:BE:18:U:C6	38:BE:18:U:OP2	2.72	0.42
38:BE:59:U:H4'	53:BT:57:VAL:CB	2.50	0.42
38:BE:65:U:C4	38:BE:66:A:N7	2.87	0.42
38:BE:71:A:O5'	38:BE:71:A:C8	2.73	0.42
38:BE:144:A:N3	38:BE:144:A:C2'	2.80	0.42
39:BF:22:U:C5'	39:BF:57:C:H1'	2.50	0.42
40:BG:17:A:C2	40:BG:18:U:N1	2.88	0.42
40:BG:26:G:C8	40:BG:26:G:H3'	2.54	0.42
40:BG:27:C:O5'	40:BG:27:C:C6	2.73	0.42
40:BG:80:G:H2'	40:BG:81:G:C8	2.54	0.42
40:BG:116:G:H2'	40:BG:117:C:O4'	2.20	0.42
40:BG:134:U:O5'	40:BG:134:U:C6	2.73	0.42
40:BG:157:A:C6	40:BG:159:A:C5	3.07	0.42
41:BH:15:A:C2	41:BH:16:A:H1'	2.54	0.42
41:BH:28:U:N3	41:BH:29:G:C6	2.88	0.42
41:BH:49:C:H3'	41:BH:49:C:C2	2.54	0.42
41:BH:54:U:H3	41:BH:67:G:H1	1.67	0.42
41:BH:130:G:C5	41:BH:131:A:C8	3.06	0.42
45:BL:56:ARG:HA	45:BL:72:ILE:H	1.85	0.42
49:BP:74:LEU:HD23	49:BP:75:LYS:CG	2.46	0.42
52:BS:32:PHE:CZ	52:BS:102:ALA:HB2	2.55	0.42
56:BW:68:LYS:HB3	56:BW:70:GLU:CD	2.44	0.42
56:BW:106:ASN:OD1	56:BW:106:ASN:C	2.62	0.42
57:BX:71:ASN:O	57:BX:72:VAL:HG23	2.20	0.42
57:BX:136:ILE:HA	57:BX:142:LYS:HA	2.02	0.42
58:BY:54:ALA:HA	58:BY:59:TYR:CE2	2.53	0.42
59:BZ:54:ARG:HH21	59:BZ:64:GLU:CD	2.26	0.42
59:BZ:112:ARG:O	59:BZ:115:ILE:HG12	2.19	0.42
60:Ba:53:VAL:HG22	60:Ba:56:MET:SD	2.60	0.42
61:Bb:4:ARG:HG3	61:Bb:5:PHE:CZ	2.55	0.42
62:Bc:93:ARG:HB3	82:Bw:3:MET:HE2	2.01	0.42
64:Be:101:VAL:HG22	64:Be:165:MET:HA	2.02	0.42
64:Be:123:ARG:CZ	64:Be:123:ARG:HB2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:Be:171:GLY:HA2	74:Bo:67:GLY:HA3	2.02	0.42
65:Bf:134:PRO:HA	65:Bf:259:VAL:O	2.19	0.42
65:Bf:257:LYS:HE2	65:Bf:257:LYS:HA	2.01	0.42
66:Bg:49:ARG:O	66:Bg:104:THR:HA	2.20	0.42
73:Bn:71:HIS:CD2	73:Bn:71:HIS:O	2.72	0.42
79:Bt:35:LEU:HG	79:Bt:36:TYR:CG	2.54	0.42
82:Bw:15:VAL:HG22	82:Bw:16:MET:N	2.32	0.42
84:By:8:GLN:CA	84:By:44:PHE:HB2	2.50	0.42
84:By:17:VAL:HA	84:By:25:THR:O	2.20	0.42
85:AA:63:G:C2	85:AA:64:A:C4	3.08	0.42
85:AA:125:A:N1	85:AA:126:U:C5	2.88	0.42
85:AA:132:G:N1	85:AA:139:G:C6	2.88	0.42
85:AA:160:A:C2'	85:AA:161:A:O5'	2.67	0.42
85:AA:188:G:O2'	85:AA:321:C:H5''	2.20	0.42
85:AA:202:U:C6	85:AA:202:U:C3'	3.01	0.42
85:AA:211:C:H2'	85:AA:241:U:O2	2.19	0.42
85:AA:287:G:C4	85:AA:288:G:C5	3.08	0.42
85:AA:309:G:C2	85:AA:317:A:C5	3.07	0.42
85:AA:396:U:C4	85:AA:397:G:O6	2.72	0.42
85:AA:429:G:OP2	85:AA:442:G:N2	2.53	0.42
85:AA:519:A:C8	85:AA:521:A:N7	2.88	0.42
85:AA:593:U:C6	85:AA:594:C:C5	3.08	0.42
85:AA:764:U:C5	85:AA:767:A:H2	2.37	0.42
85:AA:905:C:H5''	85:AA:907:G:N7	2.35	0.42
85:AA:940:G:C8	85:AA:1108:U:O2	2.73	0.42
85:AA:1065:G:H2'	85:AA:1066:U:C6	2.55	0.42
85:AA:1106:A:H2'	85:AA:1107:A:O5'	2.19	0.42
85:AA:1134:G:C8	85:AA:1135:U:C6	3.07	0.42
85:AA:1202:G:N1	85:AA:1203:G:C5	2.88	0.42
85:AA:1233:G:N2	85:AA:1267:A:C5	2.88	0.42
85:AA:1250:A:H2'	85:AA:1251:G:C8	2.54	0.42
85:AA:1375:U:C2	85:AA:1376:U:C5	3.08	0.42
85:AA:1434:U:H5'	85:AA:1436:A:C2	2.55	0.42
85:AA:1434:U:O2	85:AA:1436:A:C8	2.72	0.42
85:AA:1469:G:N3	85:AA:1469:G:H5'	2.34	0.42
85:AA:1591:U:C2	85:AA:1592:C:C6	3.08	0.42
85:AA:1644:G:H21	85:AA:1887:G:C4'	2.32	0.42
85:AA:1646:U:C5'	85:AA:1647:G:H5''	2.50	0.42
85:AA:1649:U:C6	85:AA:1649:U:H5''	2.54	0.42
85:AA:1672:G:C2	85:AA:1673:A:C8	3.08	0.42
85:AA:1797:U:C4	85:AA:1798:U:O4'	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1848:G:N2	85:AA:1851:A:C8	2.88	0.42
85:AA:1893:G:C6	85:AA:1894:G:C5	3.07	0.42
85:AA:1904:C:C6	85:AA:1904:C:H5''	2.54	0.42
85:AA:2183:U:H3'	85:AA:2184:A:H8	1.84	0.42
2:A1:130:THR:HA	85:AA:318:A:H5''	2.02	0.42
3:A2:109:GLU:CA	3:A2:127:VAL:HG23	2.50	0.42
3:A2:155:LEU:HB2	3:A2:156:PRO:HD3	2.01	0.42
4:A3:3:LEU:CD1	4:A3:18:VAL:H	2.33	0.42
4:A3:7:TYR:HB2	4:A3:127:VAL:HB	2.02	0.42
5:A4:48:ILE:HG13	5:A4:49:ASN:H	1.85	0.42
8:A7:302:SER:O	8:A7:309:ILE:HA	2.20	0.42
11:AC:77:ARG:HG3	20:AL:127:ALA:HB2	2.01	0.42
11:AC:158:LEU:HD23	11:AC:180:VAL:HG21	2.01	0.42
12:AD:33:TRP:CD1	85:AA:1957:C:O4'	2.73	0.42
13:AE:39:LYS:HZ2	13:AE:41:HIS:CE1	2.38	0.42
13:AE:56:LEU:HA	85:AA:312:G:N9	2.35	0.42
13:AE:103:ARG:HG3	13:AE:120:HIS:HD2	1.84	0.42
13:AE:113:TYR:N	13:AE:113:TYR:CD2	2.88	0.42
13:AE:142:GLY:C	13:AE:153:TYR:CE2	2.98	0.42
17:AI:41:LYS:HE3	17:AI:44:VAL:HG11	2.02	0.42
20:AL:19:LYS:HZ3	31:AX:208:GLU:N	2.17	0.42
22:AO:28:PRO:CA	22:AO:32:VAL:H	2.31	0.42
22:AO:36:SER:HA	22:AO:39:PHE:CE2	2.55	0.42
23:AP:131:VAL:O	23:AP:134:ALA:HB3	2.20	0.42
25:AR:6:THR:C	25:AR:7:TYR:CG	2.97	0.42
25:AR:7:TYR:HA	25:AR:12:VAL:O	2.20	0.42
27:AT:47:ARG:HB3	27:AT:62:ILE:HG21	2.01	0.42
27:AT:54:TYR:O	27:AT:55:LYS:HG3	2.19	0.42
27:AT:80:GLY:O	27:AT:81:LEU:HD23	2.19	0.42
28:AU:43:GLN:H	28:AU:75:LEU:HG	1.84	0.42
31:AX:145:ARG:HG3	31:AX:146:ALA:N	2.35	0.42
34:BA:218:G:C2'	34:BA:219:U:H5'	2.50	0.42
34:BA:257:G:C2'	34:BA:258:C:H6	2.33	0.42
34:BA:262:A:C2	34:BA:280:A:N6	2.86	0.42
34:BA:329:G:C2	34:BA:382:G:N7	2.88	0.42
34:BA:405:C:C5	77:Br:196:ARG:CZ	3.02	0.42
34:BA:448:U:N3	34:BA:454:G:C6	2.87	0.42
34:BA:470:C:C2	36:BC:19:A:H2	2.38	0.42
34:BA:485:C:C2	34:BA:486:G:C6	3.08	0.42
34:BA:502:U:N3	34:BA:701:G:C6	2.88	0.42
34:BA:543:A:C2	34:BA:544:U:C2	3.05	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:545:U:C5	34:BA:546:U:C4	3.07	0.42
34:BA:580:U:N3	34:BA:582:U:N1	2.68	0.42
34:BA:603:U:C2	34:BA:680:C:C2'	2.99	0.42
34:BA:621:G:H8	34:BA:621:G:O5'	2.03	0.42
34:BA:742:C:N3	34:BA:894:G:N2	2.68	0.42
34:BA:765:U:C6	59:BZ:2:VAL:CG1	3.02	0.42
34:BA:800:G:C2'	34:BA:801:U:C6	3.02	0.42
34:BA:816:G:C2	34:BA:817:U:C6	3.07	0.42
34:BA:825:G:N1	34:BA:843:G:C5	2.88	0.42
34:BA:828:A:N3	34:BA:828:A:H2'	2.34	0.42
34:BA:911:G:C6	34:BA:912:G:N7	2.87	0.42
34:BA:911:G:H2'	34:BA:912:G:O4'	2.20	0.42
34:BA:1025:A:C4	34:BA:1026:C:C6	3.08	0.42
34:BA:1040:G:C4	34:BA:1041:U:N1	2.88	0.42
34:BA:1087:A:C2	34:BA:1213:A:N1	2.87	0.42
34:BA:1152:A:C5	44:BK:22:PHE:CE2	3.08	0.42
34:BA:1239:G:O6	34:BA:1246:G:C6	2.72	0.42
34:BA:1334:G:O6	34:BA:1335:A:C4	2.73	0.42
34:BA:1335:A:C4	34:BA:1336:U:C4	3.06	0.42
34:BA:1346:U:N3	34:BA:1400:A:N1	2.68	0.42
34:BA:1378:A:H2'	34:BA:1379:G:N3	2.34	0.42
34:BA:1413:G:H2'	34:BA:1413:G:N3	2.34	0.42
34:BA:1424:G:C5	48:BO:79:ARG:O	2.73	0.42
34:BA:1441:C:H4'	52:BS:5:HIS:NE2	2.35	0.42
34:BA:1464:C:H2'	34:BA:1465:C:H6	1.83	0.42
34:BA:1526:C:O4'	34:BA:1556:A:C2	2.72	0.42
34:BA:1599:A:N3	35:BB:623:A:C6	2.88	0.42
34:BA:1609:U:H3	34:BA:1640:G:H1	1.67	0.42
34:BA:1691:G:N3	34:BA:1825:U:C6	2.88	0.42
34:BA:1719:G:N3	34:BA:1720:U:C6	2.88	0.42
34:BA:1801:G:N1	34:BA:1802:C:C4	2.88	0.42
35:BB:78:C:N3	35:BB:79:U:C5	2.87	0.42
35:BB:95:A:C5	35:BB:96:A:N7	2.88	0.42
35:BB:398:A:C6	35:BB:590:G:C6	3.07	0.42
35:BB:447:C:H1'	64:Be:173:GLY:HA3	2.02	0.42
35:BB:530:C:C6	85:AA:2231:G:N3	2.87	0.42
35:BB:546:A:N7	35:BB:550:G:C2	2.88	0.42
35:BB:641:C:C4	35:BB:1399:A:C4	3.07	0.42
35:BB:673:C:H1'	35:BB:1277:A:N1	2.34	0.42
35:BB:780:U:C4'	35:BB:781:U:OP1	2.67	0.42
35:BB:817:C:N3	35:BB:823:G:N1	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:863:U:H3'	35:BB:864:U:H6	1.85	0.42
35:BB:886:G:C6	35:BB:887:G:C4	3.08	0.42
35:BB:893:U:C6	35:BB:893:U:H3'	2.55	0.42
35:BB:981:A:C4	83:Bx:51:ARG:NH1	2.88	0.42
35:BB:1079:G:H2'	35:BB:1080:U:O4'	2.19	0.42
35:BB:1110:G:N2	35:BB:1111:C:H1'	2.34	0.42
35:BB:1151:A:N7	35:BB:1153:G:C5	2.87	0.42
35:BB:1156:U:O5'	35:BB:1156:U:C6	2.67	0.42
35:BB:1186:A:N3	35:BB:1186:A:C2'	2.81	0.42
35:BB:1219:A:C4	79:Bt:16:ARG:NH2	2.88	0.42
35:BB:1415:G:C5	35:BB:1434:G:N1	2.88	0.42
35:BB:1453:G:N3	40:BG:172:C:C5	2.88	0.42
35:BB:1525:G:C4	35:BB:1526:C:C6	3.07	0.42
36:BC:41:A:C4	36:BC:42:G:C8	3.08	0.42
36:BC:92:C:C6	36:BC:93:C:C5	3.07	0.42
36:BC:119:G:C6	36:BC:145:G:O6	2.72	0.42
37:BD:23:A:H2'	37:BD:24:U:O4'	2.19	0.42
37:BD:79:G:C4	37:BD:98:G:N1	2.88	0.42
37:BD:118:C:C5	80:Bu:270:PRO:HB3	2.55	0.42
38:BE:1:U:H2'	38:BE:1:U:O2	2.20	0.42
38:BE:48:G:N1	38:BE:61:A:C6	2.87	0.42
38:BE:49:A:OP1	55:BV:110:LEU:HD22	2.19	0.42
38:BE:132:U:H2'	38:BE:133:C:C6	2.55	0.42
38:BE:159:A:C5	38:BE:160:C:O2'	2.60	0.42
38:BE:170:U:C2	38:BE:171:U:C6	3.08	0.42
38:BE:177:U:N3	38:BE:178:G:C5	2.88	0.42
39:BF:24:G:C5	48:BO:187:HIS:CD2	3.08	0.42
39:BF:62:U:H2'	39:BF:62:U:O5'	2.20	0.42
40:BG:33:G:N1	40:BG:169:A:C5'	2.81	0.42
40:BG:57:A:N7	40:BG:58:G:H1'	2.34	0.42
40:BG:94:G:H2'	40:BG:95:U:H6	1.85	0.42
40:BG:122:G:H2'	40:BG:123:C:C6	2.55	0.42
41:BH:49:C:H4'	41:BH:50:A:N7	2.34	0.42
41:BH:65:G:C6	41:BH:66:G:C5	3.07	0.42
41:BH:119:U:C4	41:BH:120:C:N4	2.87	0.42
42:BI:69:VAL:HG23	42:BI:72:ARG:NH2	2.34	0.42
42:BI:161:ALA:HB2	42:BI:171:PRO:HG3	2.02	0.42
42:BI:184:SER:HA	42:BI:187:ARG:HG2	2.01	0.42
47:BN:42:ARG:O	47:BN:46:LEU:HB3	2.18	0.42
47:BN:129:VAL:HG13	47:BN:148:VAL:HG11	2.02	0.42
50:BQ:49:HIS:CE1	83:Bx:71:MET:HB2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BR:125:VAL:HG23	51:BR:141:ARG:HB3	2.02	0.42
52:BS:14:ARG:NH1	52:BS:15:GLU:O	2.52	0.42
53:BT:116:ASP:O	53:BT:119:ILE:HG22	2.19	0.42
54:BU:52:MET:HE2	54:BU:95:HIS:CE1	2.54	0.42
54:BU:133:ARG:C	54:BU:134:ASN:CG	2.88	0.42
56:BW:76:LEU:C	56:BW:76:LEU:HD12	2.45	0.42
58:BY:83:GLU:OE1	85:AA:2160:U:C5'	2.68	0.42
59:BZ:64:GLU:HG2	59:BZ:65:GLY:N	2.34	0.42
62:Bc:86:VAL:C	62:Bc:87:LYS:HG3	2.44	0.42
64:Be:90:CYS:O	64:Be:93:LYS:HG3	2.20	0.42
64:Be:105:GLY:HA3	64:Be:160:SER:HB3	2.01	0.42
65:Bf:345:VAL:O	65:Bf:345:VAL:HG23	2.20	0.42
66:Bg:28:VAL:HG22	66:Bg:106:VAL:HG11	2.02	0.42
71:Bl:40:MET:N	71:Bl:40:MET:SD	2.92	0.42
71:Bl:145:TYR:C	71:Bl:145:TYR:CD1	2.98	0.42
83:Bx:203:ILE:HG13	83:Bx:205:ARG:H	1.84	0.42
84:By:21:ASP:C	84:By:23:ILE:H	2.28	0.42
85:AA:9:U:N3	85:AA:11:A:H5''	2.34	0.42
85:AA:27:U:C2'	85:AA:28:A:H5'	2.49	0.42
85:AA:33:U:C4	85:AA:538:A:N7	2.88	0.42
85:AA:41:G:C6	85:AA:537:G:N3	2.86	0.42
85:AA:90:A:C6	85:AA:463:G:C6	3.07	0.42
85:AA:107:A:O2'	85:AA:108:C:H5'	2.20	0.42
85:AA:156:G:C2	85:AA:157:G:H1'	2.55	0.42
85:AA:185:A:C2'	85:AA:186:U:C2	3.03	0.42
85:AA:282:C:N4	85:AA:288:G:H1	2.18	0.42
85:AA:332:A:N6	85:AA:356:U:H3	2.17	0.42
85:AA:338:G:C5	85:AA:352:G:C2	3.07	0.42
85:AA:341:C:N3	85:AA:342:C:C6	2.88	0.42
85:AA:491:G:C2	85:AA:492:C:C2	3.07	0.42
85:AA:654:A:C6	85:AA:657:C:C2	3.08	0.42
85:AA:684:G:H5'	85:AA:687:G:N2	2.34	0.42
85:AA:690:G:C1'	85:AA:695:A:C4	3.03	0.42
85:AA:761:G:OP2	85:AA:1035:C:H5'	2.20	0.42
85:AA:770:C:C5	85:AA:771:A:C8	3.07	0.42
85:AA:813:G:C5	85:AA:865:G:N1	2.88	0.42
85:AA:831:C:C6	85:AA:853:G:OP1	2.72	0.42
85:AA:869:A:N3	85:AA:869:A:H2'	2.34	0.42
85:AA:962:U:H1'	85:AA:992:G:N2	2.34	0.42
85:AA:1082:U:N3	85:AA:1083:C:C5	2.88	0.42
85:AA:1106:A:H2'	85:AA:1107:A:C5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1126:G:C2	85:AA:1127:G:N9	2.88	0.42
85:AA:1156:A:H3'	85:AA:1156:A:C8	2.54	0.42
85:AA:1157:U:C5	85:AA:1158:U:H6	2.38	0.42
85:AA:1182:A:C8	85:AA:1182:A:C3'	3.00	0.42
85:AA:1189:A:N6	85:AA:1190:G:C5	2.88	0.42
85:AA:1260:G:C2	85:AA:1261:U:C4	3.08	0.42
85:AA:1266:C:H2'	85:AA:1267:A:H8	1.85	0.42
85:AA:1288:A:H8	85:AA:1288:A:C5'	2.32	0.42
85:AA:1478:G:C6	85:AA:1479:U:O4	2.73	0.42
85:AA:1570:A:N9	85:AA:1659:C:H4'	2.35	0.42
85:AA:1686:G:C6	85:AA:1687:U:N3	2.88	0.42
85:AA:1848:G:C8	85:AA:1848:G:H3'	2.54	0.42
85:AA:1894:G:H2'	85:AA:1895:C:C6	2.55	0.42
85:AA:1903:G:C4	85:AA:1904:C:C6	3.08	0.42
85:AA:1923:A:N6	85:AA:1991:C:H41	2.18	0.42
85:AA:1976:G:N1	85:AA:1977:G:C5	2.88	0.42
85:AA:2007:G:N1	85:AA:2008:G:C2	2.88	0.42
85:AA:2037:A:H3'	85:AA:2038:C:C6	2.54	0.42
85:AA:2043:A:C5	85:AA:2044:A:H1'	2.54	0.42
85:AA:2105:G:H3'	85:AA:2105:G:C8	2.54	0.42
85:AA:2109:G:N1	85:AA:2110:U:C4	2.88	0.42
85:AA:2110:U:H2'	85:AA:2111:C:C6	2.55	0.42
85:AA:2162:G:C4	85:AA:2163:G:C8	3.08	0.42
85:AA:2170:G:C8	85:AA:2171:A:C8	3.07	0.42
85:AA:2171:A:H2'	85:AA:2172:A:OP2	2.19	0.42
86:AB:3:C:C4	86:AB:71:G:C6	3.07	0.42
2:A1:175:GLY:HA2	2:A1:192:ILE:O	2.19	0.42
2:A1:195:ILE:HA	2:A1:204:ILE:O	2.19	0.42
2:A1:246:VAL:HA	2:A1:249:GLU:HG2	2.02	0.42
3:A2:184:ARG:HH22	86:AB:41:C:C3'	2.16	0.42
4:A3:230:ARG:HD3	4:A3:231:HIS:CE1	2.55	0.42
5:A4:45:ARG:CZ	85:AA:1001:G:H5'	2.50	0.42
6:A5:14:THR:C	6:A5:16:GLY:H	2.27	0.42
7:A6:46:MET:O	7:A6:50:LYS:HG3	2.20	0.42
7:A6:65:HIS:CD2	7:A6:65:HIS:C	2.94	0.42
8:A7:195:HIS:CD2	8:A7:195:HIS:H	2.38	0.42
8:A7:252:MET:SD	8:A7:263:PHE:HB2	2.60	0.42
9:A8:21:HIS:O	9:A8:21:HIS:CD2	2.73	0.42
13:AE:105:ASN:HA	13:AE:120:HIS:HB2	2.02	0.42
13:AE:144:CYS:SG	13:AE:145:ARG:HG2	2.60	0.42
15:AG:52:MET:HE3	15:AG:55:ARG:HH22	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AJ:36:LYS:O	18:AJ:40:VAL:HG23	2.20	0.42
21:AM:28:PRO:HA	21:AM:41:PHE:CZ	2.55	0.42
22:AO:161:GLY:HA2	28:AU:100:CYS:HA	2.01	0.42
24:AQ:16:ARG:HA	24:AQ:88:LEU:O	2.19	0.42
27:AT:37:TRP:CD1	27:AT:38:CYS:CB	3.03	0.42
29:AV:37:SER:HB3	29:AV:78:CYS:SG	2.60	0.42
34:BA:20:A:OP2	34:BA:1716:A:C2	2.73	0.42
34:BA:21:C:C3'	34:BA:22:C:H6	2.33	0.42
34:BA:23:A:H2'	34:BA:24:C:H6	1.85	0.42
34:BA:27:G:C2	34:BA:52:G:C5	3.08	0.42
34:BA:60:A:C5	34:BA:61:G:C6	3.07	0.42
34:BA:64:A:C2	34:BA:364:C:O4'	2.73	0.42
34:BA:66:C:C4	34:BA:67:A:C8	3.08	0.42
34:BA:130:U:C4	34:BA:132:U:C5	3.07	0.42
34:BA:140:C:C5	34:BA:140:C:OP2	2.73	0.42
34:BA:155:U:C5	34:BA:156:U:H3'	2.55	0.42
34:BA:172:A:C6	34:BA:173:U:C4	3.08	0.42
34:BA:240:C:H2'	34:BA:241:U:C5'	2.49	0.42
34:BA:254:U:O4	34:BA:255:G:C5	2.73	0.42
34:BA:273:G:C4	34:BA:274:C:C5	3.08	0.42
34:BA:277:A:H5'	59:BZ:29:SER:HB3	2.02	0.42
34:BA:387:A:C2	34:BA:388:A:C2	3.07	0.42
34:BA:397:A:N6	36:BC:30:U:C4	2.87	0.42
34:BA:402:G:C6	36:BC:26:U:C2	3.08	0.42
34:BA:407:A:C8	34:BA:433:G:C6	3.07	0.42
34:BA:464:U:H5	51:BR:3:HIS:CD2	2.37	0.42
34:BA:470:C:C2	34:BA:471:U:C6	3.08	0.42
34:BA:503:C:C2	34:BA:700:G:N3	2.88	0.42
34:BA:503:C:H1'	34:BA:700:G:N2	2.35	0.42
34:BA:520:G:H2'	34:BA:521:C:H4'	2.01	0.42
34:BA:536:C:H6	34:BA:536:C:O5'	2.03	0.42
34:BA:550:U:H3	34:BA:555:C:H41	1.68	0.42
34:BA:584:A:C5'	77:Br:337:LYS:HD3	2.50	0.42
34:BA:612:U:O2	77:Br:353:HIS:CE1	2.73	0.42
34:BA:627:U:O2	34:BA:629:G:C6	2.73	0.42
34:BA:632:U:C4	34:BA:633:G:C5	3.08	0.42
34:BA:658:C:H2'	34:BA:658:C:O2	2.20	0.42
34:BA:660:C:H2'	34:BA:661:C:H6	1.85	0.42
34:BA:707:C:C2	34:BA:708:C:C5	3.07	0.42
34:BA:721:A:H2'	34:BA:722:A:H8	1.84	0.42
34:BA:723:C:N4	35:BB:642:G:H4'	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:741:A:C5	34:BA:742:C:H1'	2.54	0.42
34:BA:747:G:C8	34:BA:748:C:C5	3.07	0.42
34:BA:795:G:C5	34:BA:796:G:C5	3.07	0.42
34:BA:807:U:H2'	34:BA:809:U:O4	2.19	0.42
34:BA:825:G:C4	34:BA:843:G:C2	3.07	0.42
34:BA:854:A:H2'	34:BA:855:C:C6	2.55	0.42
34:BA:1122:G:N2	34:BA:1139:G:H1'	2.33	0.42
34:BA:1128:C:H3'	34:BA:1129:U:C5'	2.49	0.42
34:BA:1191:C:O2'	34:BA:1192:A:H5'	2.19	0.42
34:BA:1222:C:H2'	34:BA:1223:C:O4'	2.20	0.42
34:BA:1329:U:O5'	34:BA:1329:U:H6	2.03	0.42
34:BA:1344:G:H4'	40:BG:145:C:O4'	2.19	0.42
34:BA:1421:A:C4	35:BB:1345:A:N1	2.88	0.42
34:BA:1422:A:C5	35:BB:1397:G:O4'	2.72	0.42
34:BA:1443:U:H2'	34:BA:1454:G:C8	2.54	0.42
34:BA:1537:G:N2	34:BA:1538:G:C8	2.88	0.42
34:BA:1561:C:OP1	68:Bi:99:HIS:CB	2.67	0.42
34:BA:1587:C:C2	34:BA:1588:U:C6	3.07	0.42
34:BA:1600:G:C4	34:BA:1601:C:C5	3.08	0.42
34:BA:1658:G:N1	34:BA:1659:G:C4	2.88	0.42
34:BA:1667:G:H2'	34:BA:1668:C:H6	1.85	0.42
34:BA:1697:U:H6	34:BA:1697:U:P	2.43	0.42
34:BA:1724:G:H2'	34:BA:1725:U:O5'	2.20	0.42
35:BB:20:U:O4'	35:BB:25:A:C6	2.72	0.42
35:BB:56:U:OP1	53:BT:55:VAL:HB	2.20	0.42
35:BB:75:A:H5''	35:BB:76:C:OP1	2.19	0.42
35:BB:78:C:C4	35:BB:79:U:C5	3.08	0.42
35:BB:92:C:C2	35:BB:93:A:C8	3.08	0.42
35:BB:321:C:H2'	35:BB:322:G:H5''	2.02	0.42
35:BB:337:U:H2'	35:BB:338:C:C6	2.55	0.42
35:BB:369:A:C6	35:BB:370:A:C6	3.07	0.42
35:BB:561:C:N3	35:BB:564:U:C6	2.88	0.42
35:BB:637:G:O5'	35:BB:637:G:C8	2.73	0.42
35:BB:665:A:C6	35:BB:1404:A:C6	3.08	0.42
35:BB:712:U:C5	35:BB:713:U:C4	3.07	0.42
35:BB:826:G:N2	35:BB:827:U:C2	2.88	0.42
35:BB:1060:U:C2	35:BB:1262:A:N7	2.88	0.42
35:BB:1102:U:O4	35:BB:1160:U:C2	2.72	0.42
35:BB:1127:A:C4	45:BL:64:PHE:CD2	3.08	0.42
35:BB:1161:G:N2	35:BB:1199:A:C5	2.88	0.42
35:BB:1163:U:C6	35:BB:1164:U:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1183:U:O2	35:BB:1183:U:H2'	2.20	0.42
35:BB:1209:A:C8	35:BB:1258:G:N3	2.88	0.42
35:BB:1220:A:H2'	35:BB:1221:G:N9	2.35	0.42
35:BB:1339:C:C2	35:BB:1340:U:C5	3.08	0.42
35:BB:1353:G:N1	35:BB:1354:C:C5	2.87	0.42
35:BB:1384:A:C6	35:BB:1385:C:C4	3.08	0.42
35:BB:1444:U:C4	35:BB:1445:A:C5	3.08	0.42
36:BC:17:U:N3	36:BC:18:G:C6	2.87	0.42
36:BC:107:C:C4	36:BC:108:A:C8	3.08	0.42
36:BC:134:G:C5	36:BC:135:A:C8	3.08	0.42
36:BC:151:G:C6	36:BC:152:C:C4	3.07	0.42
37:BD:61:C:H5''	80:Bu:283:LEU:HG	2.02	0.42
38:BE:9:C:C4	38:BE:12:A:C2	3.07	0.42
38:BE:27:A:H5''	69:Bj:41:GLN:OE1	2.20	0.42
38:BE:79:G:H5'	38:BE:82:C:C6	2.55	0.42
39:BF:36:G:N1	39:BF:48:G:C6	2.88	0.42
40:BG:40:G:C2	40:BG:71:C:O2	2.72	0.42
40:BG:45:G:N2	40:BG:46:G:H1'	2.35	0.42
41:BH:34:G:C6	41:BH:121:A:N1	2.88	0.42
41:BH:35:G:N1	41:BH:120:C:C2	2.88	0.42
41:BH:58:C:N4	41:BH:59:G:C6	2.88	0.42
41:BH:68:G:C6	41:BH:69:C:C5	3.07	0.42
42:BI:79:LYS:CE	63:Bd:68:ALA:HB3	2.50	0.42
42:BI:185:LYS:HE2	42:BI:185:LYS:HA	2.00	0.42
47:BN:80:PHE:CG	47:BN:85:LEU:HD11	2.54	0.42
48:BO:120:LEU:HD12	48:BO:121:VAL:N	2.35	0.42
48:BO:201:ARG:HB3	49:BP:124:ALA:HB3	1.99	0.42
49:BP:19:PRO:HD2	49:BP:20:ARG:CZ	2.49	0.42
50:BQ:35:VAL:H	50:BQ:35:VAL:HG12	1.39	0.42
50:BQ:55:ARG:HA	50:BQ:79:PHE:CE1	2.54	0.42
50:BQ:78:VAL:C	50:BQ:79:PHE:CD2	2.98	0.42
50:BQ:112:ASN:OD1	50:BQ:112:ASN:N	2.53	0.42
51:BR:131:ARG:HB2	51:BR:135:ARG:HB3	2.01	0.42
56:BW:111:MET:SD	56:BW:111:MET:C	3.03	0.42
60:Ba:25:VAL:HG11	60:Ba:43:ALA:HB2	2.02	0.42
62:Bc:99:ARG:HE	62:Bc:101:ASP:CG	2.28	0.42
64:Be:216:HIS:CD2	64:Be:216:HIS:C	2.90	0.42
65:Bf:159:HIS:HE1	65:Bf:188:ALA:HB2	1.85	0.42
67:Bh:6:PHE:CD1	67:Bh:6:PHE:N	2.85	0.42
67:Bh:99:ARG:HB3	67:Bh:100:THR:HG22	2.01	0.42
67:Bh:112:ILE:O	67:Bh:116:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:Bh:153:ARG:HG3	67:Bh:166:PHE:CE1	2.55	0.42
77:Br:45:LYS:C	77:Br:46:ASN:HD22	2.27	0.42
79:Bt:11:HIS:HE1	79:Bt:13:PRO:HB3	1.85	0.42
80:Bu:78:ALA:O	80:Bu:79:TYR:CD1	2.73	0.42
82:Bw:103:ARG:N	82:Bw:128:ASN:O	2.52	0.42
82:Bw:235:HIS:HA	82:Bw:242:TYR:CA	2.49	0.42
82:Bw:252:PHE:O	82:Bw:256:MET:HG3	2.19	0.42
83:Bx:86:PRO:HD3	83:Bx:246:TRP:CE2	2.54	0.42
83:Bx:223:ALA:HA	83:Bx:226:ASN:ND2	2.35	0.42
85:AA:58:C:O2'	85:AA:517:A:H1'	2.19	0.42
85:AA:66:U:H5''	85:AA:81:A:H61	1.84	0.42
85:AA:68:A:C2	85:AA:81:A:H1'	2.54	0.42
85:AA:79:G:C6	85:AA:80:G:C4	3.08	0.42
85:AA:128:U:C1'	85:AA:180:A:H4'	2.49	0.42
85:AA:175:A:C2	85:AA:176:C:N1	2.88	0.42
85:AA:404:A:C5	85:AA:405:C:C5	3.08	0.42
85:AA:460:U:C4	85:AA:461:G:C5	3.08	0.42
85:AA:554:A:C2	85:AA:574:U:N3	2.88	0.42
85:AA:575:G:C2	85:AA:577:U:C5	3.08	0.42
85:AA:662:U:H2'	85:AA:663:C:O4'	2.20	0.42
85:AA:701:C:C5	85:AA:702:G:C5	3.08	0.42
85:AA:707:U:H2'	85:AA:708:G:O4'	2.20	0.42
85:AA:874:A:C2	85:AA:875:C:C2	3.07	0.42
85:AA:928:U:N3	85:AA:929:G:C4	2.88	0.42
85:AA:937:G:H3'	85:AA:937:G:H8	1.82	0.42
85:AA:938:A:C5	85:AA:939:A:C4	3.07	0.42
85:AA:1036:A:C5	85:AA:1037:U:C4	3.08	0.42
85:AA:1089:G:C6	85:AA:1090:A:C4	3.08	0.42
85:AA:1105:G:H2'	85:AA:1106:A:C2	2.55	0.42
85:AA:1120:G:C5	85:AA:1206:A:N1	2.88	0.42
85:AA:1167:G:C6	85:AA:1168:C:N4	2.88	0.42
85:AA:1251:G:C5	85:AA:1252:A:N7	2.87	0.42
85:AA:1345:C:O2'	85:AA:1426:G:C5'	2.68	0.42
85:AA:1366:A:H3'	85:AA:1366:A:H8	1.84	0.42
85:AA:1494:C:H4'	85:AA:1495:G:C5'	2.49	0.42
85:AA:1553:G:C6	85:AA:1903:G:C6	3.07	0.42
85:AA:1555:G:C5	85:AA:1556:G:C8	3.08	0.42
85:AA:1567:C:C4	85:AA:1571:A:C2	3.07	0.42
85:AA:1661:U:C6	85:AA:1663:U:C2	3.08	0.42
85:AA:1670:U:C4	85:AA:1671:G:N7	2.88	0.42
85:AA:1809:G:H3'	85:AA:1809:G:H8	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1894:G:C2	85:AA:1895:C:N3	2.88	0.42
85:AA:1966:C:C4	85:AA:1967:A:N7	2.88	0.42
85:AA:2046:G:C6	85:AA:2047:U:C4	3.07	0.42
85:AA:2057:G:N2	85:AA:2074:G:C4	2.87	0.42
85:AA:2061:C:O2'	85:AA:2062:U:C6	2.73	0.42
85:AA:2085:C:H1'	85:AA:2086:C:C6	2.55	0.42
85:AA:2105:G:C5	85:AA:2106:C:C4	3.08	0.42
86:AB:30:G:C6	86:AB:31:A:C6	3.07	0.42
86:AB:48:C:O2	86:AB:48:C:C2'	2.67	0.42
86:AB:50:U:H1'	86:AB:65:G:H22	1.85	0.42
1:A0:198:ARG:HH11	1:A0:198:ARG:HG3	1.84	0.42
2:A1:100:TYR:CE1	2:A1:106:PHE:CE2	3.07	0.42
5:A4:89:LYS:HA	85:AA:1024:G:H4'	2.02	0.42
6:A5:67:TRP:CD1	6:A5:70:GLU:H	2.38	0.42
19:AK:33:CYS:HA	85:AA:1792:C:C6	2.55	0.42
19:AK:129:ARG:HA	85:AA:2051:G:O2'	2.20	0.42
21:AM:41:PHE:CZ	21:AM:43:TYR:HA	2.55	0.42
23:AP:62:GLU:H	23:AP:62:GLU:HG2	1.48	0.42
23:AP:126:ARG:HD2	23:AP:126:ARG:HA	1.88	0.42
23:AP:133:LEU:HA	23:AP:136:ARG:CZ	2.50	0.42
23:AP:178:ARG:NH1	85:AA:1474:U:O2	2.52	0.42
23:AP:232:TYR:CE2	25:AR:19:PRO:HB3	2.55	0.42
26:AS:35:ALA:O	26:AS:39:ASN:HB2	2.20	0.42
27:AT:100:ARG:HH21	85:AA:596:A:P	2.42	0.42
31:AX:144:GLN:NE2	85:AA:653:A:H3'	2.30	0.42
31:AX:157:ILE:CG2	31:AX:163:HIS:HA	2.50	0.42
34:BA:14:G:N1	36:BC:154:A:C6	2.87	0.42
34:BA:36:A:C2	34:BA:42:A:N1	2.87	0.42
34:BA:38:G:C2	35:BB:1259:A:C5	3.08	0.42
34:BA:57:A:C8	34:BA:57:A:H3'	2.55	0.42
34:BA:152:C:N4	34:BA:327:G:H3'	2.29	0.42
34:BA:172:A:N6	34:BA:316:G:C6	2.88	0.42
34:BA:293:A:N7	34:BA:294:C:C5	2.88	0.42
34:BA:301:U:H3'	34:BA:301:U:C6	2.55	0.42
34:BA:365:A:C5	34:BA:377:G:N1	2.88	0.42
34:BA:375:C:C5	34:BA:375:C:OP2	2.73	0.42
34:BA:416:A:C8	34:BA:416:A:OP1	2.73	0.42
34:BA:457:A:H2'	34:BA:458:G:H8	1.85	0.42
34:BA:483:A:H1'	40:BG:17:A:C5'	2.50	0.42
34:BA:510:U:H3'	34:BA:511:U:C4	2.55	0.42
34:BA:575:U:H2'	34:BA:579:U:C2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:612:U:H6	34:BA:612:U:H5''	1.85	0.42
34:BA:725:C:H2'	34:BA:726:G:C8	2.54	0.42
34:BA:757:G:C2'	34:BA:758:G:OP2	2.62	0.42
34:BA:786:U:C6	34:BA:786:U:O5'	2.73	0.42
34:BA:851:C:N3	34:BA:852:C:C5	2.88	0.42
34:BA:913:U:C2	34:BA:914:G:C8	3.08	0.42
34:BA:923:C:C2	34:BA:1001:G:C2	3.08	0.42
34:BA:1007:G:C8	34:BA:1024:A:C5	3.08	0.42
34:BA:1049:G:C6	34:BA:1516:G:C4	3.07	0.42
34:BA:1081:U:C6	34:BA:1081:U:C3'	3.02	0.42
34:BA:1091:U:C4	34:BA:1092:U:C4	3.07	0.42
34:BA:1180:A:H3'	63:Bd:46:ARG:HH12	1.85	0.42
34:BA:1191:C:H2'	34:BA:1192:A:O4'	2.20	0.42
34:BA:1202:G:N1	34:BA:1203:G:C4	2.88	0.42
34:BA:1202:G:N2	34:BA:1203:G:H1'	2.34	0.42
34:BA:1210:A:C4'	54:BU:131:SER:HA	2.36	0.42
34:BA:1226:G:C4'	34:BA:1519:G:H4'	2.50	0.42
34:BA:1254:C:H2'	34:BA:1255:G:C5'	2.49	0.42
34:BA:1351:G:N3	34:BA:1374:G:C2	2.88	0.42
34:BA:1380:G:H2'	34:BA:1382:G:O4'	2.20	0.42
34:BA:1417:C:N3	34:BA:1418:G:C4	2.87	0.42
34:BA:1498:A:C6	34:BA:1499:A:C6	3.08	0.42
34:BA:1553:G:N3	34:BA:1557:G:C2	2.88	0.42
34:BA:1590:G:H2'	34:BA:1591:G:O4'	2.20	0.42
34:BA:1619:U:O2'	34:BA:1620:U:H5'	2.20	0.42
34:BA:1619:U:O4	67:Bh:163:ARG:HB3	2.19	0.42
34:BA:1657:A:C2	34:BA:1658:G:H1'	2.55	0.42
34:BA:1686:G:C6	34:BA:1687:A:C5	3.07	0.42
34:BA:1738:G:N2	34:BA:1787:U:C2	2.88	0.42
34:BA:1845:G:N2	35:BB:6:A:H1'	2.35	0.42
35:BB:18:A:C8	35:BB:19:C:C5	3.07	0.42
35:BB:73:G:H3'	35:BB:74:U:H6	1.85	0.42
35:BB:149:A:C8	35:BB:267:C:C5	3.08	0.42
35:BB:355:A:C6	35:BB:356:C:C4	3.08	0.42
35:BB:366:G:C6	35:BB:367:C:C4	3.08	0.42
35:BB:392:G:N1	35:BB:393:A:C4	2.88	0.42
35:BB:404:A:N3	35:BB:410:A:C5	2.88	0.42
35:BB:416:U:H5''	64:Be:196:TRP:CZ2	2.55	0.42
35:BB:467:G:N3	35:BB:467:G:H2'	2.35	0.42
35:BB:626:C:N3	35:BB:627:G:C5	2.88	0.42
35:BB:666:A:C8	35:BB:667:G:N7	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:744:U:C5	35:BB:745:C:C4	3.07	0.42
35:BB:781:U:OP1	35:BB:781:U:C6	2.69	0.42
35:BB:793:A:N1	35:BB:794:G:C4	2.88	0.42
35:BB:813:C:H2'	35:BB:814:A:O4'	2.19	0.42
35:BB:839:G:C4	35:BB:840:C:C6	3.07	0.42
35:BB:889:U:H1'	35:BB:894:A:C5	2.55	0.42
35:BB:996:G:N1	35:BB:997:G:C5	2.88	0.42
35:BB:997:G:N1	35:BB:998:G:C4	2.87	0.42
35:BB:1060:U:H3	35:BB:1262:A:N6	2.18	0.42
35:BB:1090:A:N6	35:BB:1092:G:C4	2.88	0.42
35:BB:1096:G:N1	35:BB:1097:U:C5	2.88	0.42
35:BB:1119:G:N1	35:BB:1120:A:C5	2.88	0.42
35:BB:1168:G:C2	35:BB:1185:G:C2	3.08	0.42
35:BB:1172:U:H2'	35:BB:1173:C:C6	2.55	0.42
35:BB:1315:C:OP2	35:BB:1315:C:C6	2.72	0.42
35:BB:1335:G:C5	35:BB:1336:G:N7	2.88	0.42
35:BB:1496:C:C2	35:BB:1510:G:C2	3.08	0.42
35:BB:1504:U:C5	49:BP:139:TRP:CD2	3.08	0.42
36:BC:23:G:C5	36:BC:24:G:N7	2.87	0.42
36:BC:135:A:N1	36:BC:136:G:C6	2.87	0.42
36:BC:161:U:C5	36:BC:162:C:C5	3.08	0.42
37:BD:1:G:N1	37:BD:2:G:C6	2.88	0.42
37:BD:54:A:C2	37:BD:55:A:H1'	2.55	0.42
37:BD:55:A:C5	37:BD:56:G:C8	3.07	0.42
37:BD:79:G:C6	37:BD:80:G:N7	2.88	0.42
37:BD:89:G:C8	37:BD:89:G:H3'	2.54	0.42
37:BD:89:G:N3	37:BD:90:A:C2	2.88	0.42
37:BD:98:G:C3'	37:BD:99:G:C8	3.02	0.42
38:BE:18:U:C2	38:BE:20:C:C6	3.08	0.42
38:BE:20:C:N4	38:BE:198:A:N6	2.67	0.42
38:BE:37:C:N4	38:BE:176:G:C6	2.88	0.42
38:BE:95:G:C2	38:BE:126:G:C4	3.08	0.42
38:BE:144:A:C5	38:BE:145:A:C8	3.08	0.42
38:BE:157:C:H3'	38:BE:158:U:C6	2.55	0.42
38:BE:172:U:H2'	38:BE:173:G:C8	2.55	0.42
39:BF:49:C:C2'	39:BF:50:C:H6	2.33	0.42
40:BG:3:G:N2	40:BG:4:A:H1'	2.35	0.42
40:BG:44:G:C4	40:BG:45:G:C8	3.08	0.42
40:BG:89:A:C2	40:BG:111:C:C2	3.08	0.42
40:BG:176:G:N1	40:BG:177:U:C4	2.88	0.42
41:BH:10:U:N3	41:BH:20:A:N1	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BH:56:C:C2	41:BH:57:A:C8	3.08	0.42
42:BI:119:ARG:HE	42:BI:119:ARG:HB3	1.68	0.42
44:BK:169:LYS:O	44:BK:177:LEU:HA	2.20	0.42
45:BL:169:TRP:CD2	45:BL:169:TRP:C	2.98	0.42
47:BN:52:PHE:HB3	47:BN:152:THR:OG1	2.20	0.42
47:BN:84:GLU:HG2	47:BN:114:MET:HA	2.01	0.42
47:BN:200:PHE:CE2	47:BN:207:ALA:HA	2.55	0.42
50:BQ:141:ASP:OD1	50:BQ:141:ASP:C	2.61	0.42
53:BT:63:TRP:CE3	53:BT:67:LYS:HE3	2.55	0.42
58:BY:82:ALA:HB1	85:AA:2159:C:O2	2.07	0.42
60:Ba:100:ASP:HB3	60:Ba:103:LYS:HB2	2.02	0.42
62:Bc:9:TRP:CD1	62:Bc:9:TRP:C	2.98	0.42
62:Bc:104:LYS:HA	62:Bc:107:TYR:CD2	2.55	0.42
64:Be:112:ILE:HG12	64:Be:133:TYR:CD2	2.55	0.42
67:Bh:51:LYS:HE3	67:Bh:75:LYS:O	2.20	0.42
73:Bn:34:CYS:HG	73:Bn:37:CYS:H	1.67	0.42
74:Bo:8:MET:SD	74:Bo:9:GLY:O	2.78	0.42
74:Bo:47:PHE:CE2	74:Bo:57:CYS:HB2	2.53	0.42
74:Bo:87:ARG:HB3	74:Bo:87:ARG:NH1	2.35	0.42
75:Bp:40:ARG:HE	75:Bp:41:HIS:CE1	2.38	0.42
77:Br:159:ALA:HA	77:Br:214:LYS:O	2.19	0.42
79:Bt:11:HIS:CE1	79:Bt:13:PRO:HB3	2.55	0.42
79:Bt:67:LYS:HB3	79:Bt:84:VAL:CG1	2.50	0.42
80:Bu:42:THR:C	80:Bu:44:PHE:H	2.28	0.42
81:Bv:101:GLU:HG3	81:Bv:102:ILE:H	1.85	0.42
84:By:10:THR:CG2	84:By:11:PHE:H	2.32	0.42
85:AA:41:G:C6	85:AA:537:G:C2	3.08	0.42
85:AA:71:G:C4	85:AA:78:A:C6	3.07	0.42
85:AA:71:G:C5	85:AA:78:A:N6	2.88	0.42
85:AA:119:G:H2'	85:AA:120:C:O2	2.20	0.42
85:AA:147:G:N2	85:AA:177:A:H1'	2.34	0.42
85:AA:270:A:H2'	85:AA:271:A:O5'	2.20	0.42
85:AA:287:G:C6	85:AA:288:G:C5	3.08	0.42
85:AA:343:U:C5	85:AA:345:U:OP2	2.73	0.42
85:AA:535:G:C2'	85:AA:536:C:H5'	2.50	0.42
85:AA:572:G:N2	85:AA:573:U:C2	2.88	0.42
85:AA:585:G:N2	85:AA:617:C:H1'	2.35	0.42
85:AA:669:G:H2'	85:AA:670:C:C6	2.55	0.42
85:AA:708:G:C2	85:AA:1215:A:C5	3.08	0.42
85:AA:749:C:H1'	85:AA:756:G:N2	2.35	0.42
85:AA:773:G:N3	85:AA:773:G:H2'	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:963:U:C6	85:AA:963:U:H3'	2.55	0.42
85:AA:1095:C:C2	85:AA:1096:G:C8	3.08	0.42
85:AA:1140:G:H2'	85:AA:1141:U:O4'	2.20	0.42
85:AA:1155:A:C6	85:AA:1156:A:C4	3.08	0.42
85:AA:1181:U:C5	85:AA:1181:U:OP1	2.72	0.42
85:AA:1188:A:C5	85:AA:1189:A:C5	3.07	0.42
85:AA:1209:U:OP2	85:AA:1209:U:C5	2.73	0.42
85:AA:1264:U:O5'	85:AA:1264:U:H6	2.03	0.42
85:AA:1378:U:H2'	85:AA:1379:A:C8	2.54	0.42
85:AA:1482:C:C6	85:AA:1482:C:H3'	2.54	0.42
85:AA:1493:A:N3	85:AA:1508:A:C6	2.88	0.42
85:AA:1546:G:O6	85:AA:2041:G:C8	2.73	0.42
85:AA:1567:C:C6	85:AA:1571:A:H1'	2.55	0.42
85:AA:1650:G:H1	85:AA:1875:A:N6	2.18	0.42
85:AA:1652:A:C5	85:AA:1653:U:C6	3.08	0.42
85:AA:1658:G:C2	85:AA:1867:G:C5	3.08	0.42
85:AA:1667:C:H5''	85:AA:1667:C:C6	2.55	0.42
85:AA:1713:A:C5	85:AA:1855:U:N3	2.88	0.42
85:AA:1984:A:H5'	85:AA:1984:A:C8	2.54	0.42
85:AA:2055:G:C6	85:AA:2056:C:C2	3.07	0.42
85:AA:2147:A:OP2	85:AA:2147:A:H8	2.03	0.42
85:AA:2214:A:N6	85:AA:2215:C:C4	2.88	0.42
86:AB:52:G:H5''	86:AB:52:G:C8	2.55	0.42
4:A3:123:PRO:HA	4:A3:128:THR:HG21	2.02	0.41
6:A5:117:TYR:CZ	6:A5:169:HIS:CE1	3.08	0.41
6:A5:130:THR:CG2	6:A5:158:LEU:HD22	2.50	0.41
6:A5:181:GLU:O	41:BH:93:G:C5'	2.51	0.41
7:A6:32:GLN:HB2	7:A6:33:TYR:CE2	2.55	0.41
13:AE:42:VAL:HG22	85:AA:970:U:C5'	2.50	0.41
15:AG:87:ASP:OD1	85:AA:1117:G:H1'	2.20	0.41
17:AI:86:HIS:HB2	85:AA:1892:G:H4'	2.01	0.41
19:AK:80:GLN:CD	19:AK:81:VAL:HG13	2.45	0.41
21:AM:31:LEU:HD12	21:AM:41:PHE:CE1	2.54	0.41
21:AM:84:PHE:O	21:AM:85:LEU:HB2	2.20	0.41
22:AO:72:ILE:O	22:AO:75:ALA:HB3	2.20	0.41
23:AP:69:MET:HE1	23:AP:249:PRO:HD2	2.02	0.41
23:AP:92:LEU:HB2	23:AP:111:PHE:CD1	2.54	0.41
23:AP:123:VAL:H	23:AP:145:SER:HB2	1.85	0.41
23:AP:154:TRP:CE2	23:AP:155:GLY:N	2.88	0.41
23:AP:162:HIS:CD2	23:AP:163:THR:OG1	2.72	0.41
24:AQ:12:GLN:HE22	24:AQ:91:PRO:N	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AQ:68:GLY:O	85:AA:1566:A:H1'	2.20	0.41
27:AT:7:LYS:HZ2	85:AA:605:A:C5'	2.33	0.41
28:AU:32:LYS:HB3	85:AA:2039:G:N7	2.35	0.41
32:AY:13:LYS:CE	85:AA:638:G:H5'	2.50	0.41
34:BA:1:C:H3'	34:BA:1:C:C6	2.54	0.41
34:BA:3:G:C5	36:BC:169:G:N2	2.88	0.41
34:BA:3:G:C5	36:BC:169:G:N1	2.88	0.41
34:BA:19:G:N2	34:BA:20:A:H1'	2.35	0.41
34:BA:89:G:H3'	34:BA:91:C:C5	2.54	0.41
34:BA:113:G:N2	34:BA:329:G:C4	2.88	0.41
34:BA:145:U:O4	83:Bx:148:GLY:HA2	2.20	0.41
34:BA:176:G:C6	34:BA:177:G:C5	3.08	0.41
34:BA:186:G:C6	34:BA:301:U:N3	2.87	0.41
34:BA:220:U:C2	34:BA:221:G:C8	3.07	0.41
34:BA:238:C:N3	40:BG:13:A:C2	2.88	0.41
34:BA:259:C:H2'	34:BA:260:A:C8	2.55	0.41
34:BA:304:G:C8	34:BA:304:G:C3'	3.03	0.41
34:BA:377:G:C5	34:BA:378:C:C5	3.08	0.41
34:BA:378:C:C4	34:BA:379:C:C4	3.07	0.41
34:BA:412:G:P	77:Br:58:GLY:H	2.43	0.41
34:BA:508:C:C2	34:BA:512:U:N3	2.88	0.41
34:BA:537:C:C4	34:BA:538:G:C5	3.08	0.41
34:BA:649:A:C2	34:BA:650:C:C1'	3.03	0.41
34:BA:714:G:C5	34:BA:715:U:C6	3.08	0.41
34:BA:731:A:C6	34:BA:1590:G:C2	3.08	0.41
34:BA:754:G:H2'	34:BA:755:G:C8	2.55	0.41
34:BA:755:G:N2	34:BA:757:G:OP2	2.53	0.41
34:BA:856:G:C6	34:BA:857:C:C2	3.07	0.41
34:BA:909:G:C2	34:BA:910:U:C5	3.07	0.41
34:BA:911:G:C6	34:BA:912:G:C4	3.07	0.41
34:BA:930:A:H3'	34:BA:930:A:C8	2.55	0.41
34:BA:939:C:N3	34:BA:953:G:C2	2.88	0.41
34:BA:962:U:H2'	34:BA:963:G:C5'	2.50	0.41
34:BA:1001:G:C5	34:BA:1002:U:C6	3.08	0.41
34:BA:1008:A:H2'	34:BA:1009:G:O4'	2.21	0.41
34:BA:1037:C:OP1	34:BA:1062:G:H5'	2.19	0.41
34:BA:1070:G:N1	34:BA:1071:G:C5	2.88	0.41
34:BA:1108:U:C6	34:BA:1108:U:O5'	2.71	0.41
34:BA:1155:U:C5	34:BA:1156:U:C5	3.07	0.41
34:BA:1170:A:C4	34:BA:1171:C:C5	3.08	0.41
34:BA:1276:G:C4	34:BA:1277:G:C8	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1302:C:N3	34:BA:1303:U:C5	2.88	0.41
34:BA:1310:C:N4	34:BA:1311:G:N1	2.68	0.41
34:BA:1336:U:C4	34:BA:1337:A:N7	2.88	0.41
34:BA:1355:G:P	34:BA:1381:A:H1'	2.60	0.41
34:BA:1362:A:C2	34:BA:1365:U:H2'	2.55	0.41
34:BA:1364:G:H4'	34:BA:1382:G:OP2	2.20	0.41
34:BA:1478:G:N7	82:Bw:30:ARG:NH2	2.67	0.41
34:BA:1527:G:H2'	34:BA:1528:U:H6	1.85	0.41
34:BA:1661:U:O2	34:BA:1663:U:C5	2.73	0.41
34:BA:1667:G:H2'	34:BA:1668:C:C6	2.55	0.41
34:BA:1686:G:C6	34:BA:1687:A:C6	3.08	0.41
34:BA:1735:G:O6	34:BA:1789:A:H2	2.03	0.41
34:BA:1791:C:H2'	34:BA:1792:U:C6	2.55	0.41
34:BA:1818:A:H4'	75:Bp:77:LYS:HE3	2.02	0.41
34:BA:1845:G:C6	35:BB:5:A:N6	2.88	0.41
35:BB:30:A:C4	51:BR:130:PHE:CD2	3.08	0.41
35:BB:38:C:H2'	35:BB:39:C:C6	2.55	0.41
35:BB:92:C:C4	35:BB:93:A:C5	3.07	0.41
35:BB:127:U:O2	35:BB:377:A:C2	2.72	0.41
35:BB:362:A:H2'	35:BB:363:A:O2'	2.20	0.41
35:BB:362:A:C3'	35:BB:363:A:H4'	2.49	0.41
35:BB:404:A:N3	35:BB:410:A:C6	2.88	0.41
35:BB:423:G:C2	35:BB:450:A:C2	3.07	0.41
35:BB:643:G:C6	35:BB:644:A:C6	3.08	0.41
35:BB:707:G:N1	35:BB:708:C:C2	2.88	0.41
35:BB:813:C:O5'	35:BB:813:C:H6	2.03	0.41
35:BB:870:C:C6	35:BB:870:C:C3'	3.03	0.41
35:BB:878:G:O2'	35:BB:879:G:C8	2.73	0.41
35:BB:972:C:OP1	35:BB:975:G:H8	2.04	0.41
35:BB:1045:G:H2'	35:BB:1046:C:C6	2.55	0.41
35:BB:1143:A:H2'	35:BB:1144:A:O4'	2.20	0.41
35:BB:1151:A:H8	35:BB:1151:A:H5'	1.85	0.41
35:BB:1163:U:C5	35:BB:1164:U:O4	2.73	0.41
35:BB:1221:G:C5'	35:BB:1222:A:OP1	2.68	0.41
35:BB:1226:G:C2	35:BB:1229:A:C2	3.08	0.41
35:BB:1272:G:C2	35:BB:1273:G:C4	3.08	0.41
35:BB:1346:A:H61	35:BB:1369:A:H5'	1.85	0.41
35:BB:1354:C:N3	35:BB:1363:A:C2	2.88	0.41
35:BB:1355:C:C2	35:BB:1363:A:C2	3.08	0.41
35:BB:1356:G:N7	78:Bs:49:LYS:NZ	2.68	0.41
35:BB:1369:A:H4'	35:BB:1370:G:N7	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1370:G:C6	40:BG:158:A:C6	3.07	0.41
35:BB:1477:C:C2	35:BB:1488:G:N1	2.88	0.41
35:BB:1479:C:N3	35:BB:1480:G:C5	2.88	0.41
35:BB:1482:A:H3'	35:BB:1482:A:C8	2.53	0.41
35:BB:1485:G:H8	35:BB:1485:G:O5'	2.02	0.41
35:BB:1491:G:N1	35:BB:1492:C:C2	2.88	0.41
36:BC:33:U:H1'	36:BC:34:U:O4'	2.20	0.41
37:BD:43:U:C5	37:BD:44:U:C4	3.07	0.41
37:BD:67:C:H42	37:BD:108:G:H1	1.68	0.41
37:BD:75:G:H2'	52:BS:48:ARG:O	2.19	0.41
38:BE:73:A:C2	38:BE:88:G:N3	2.88	0.41
38:BE:110:U:H5''	53:BT:103:ARG:NH2	2.35	0.41
38:BE:134:A:H5''	38:BE:136:G:C4'	2.50	0.41
38:BE:143:A:C4	75:Bp:72:ARG:HA	2.55	0.41
38:BE:193:A:N3	38:BE:194:A:C4	2.88	0.41
38:BE:200:A:N6	38:BE:201:A:C4	2.88	0.41
39:BF:24:G:H2'	39:BF:25:G:OP1	2.20	0.41
39:BF:42:G:H2'	39:BF:43:U:H3'	2.02	0.41
40:BG:57:A:C8	40:BG:58:G:H1'	2.55	0.41
40:BG:63:U:O5'	40:BG:63:U:H6	2.03	0.41
40:BG:165:C:H6	40:BG:165:C:O5'	2.02	0.41
40:BG:166:C:N3	40:BG:167:C:C5	2.89	0.41
40:BG:169:A:C2'	40:BG:173:C:C2	3.03	0.41
41:BH:20:A:C6	41:BH:21:G:N9	2.88	0.41
41:BH:59:G:N3	41:BH:63:G:C6	2.88	0.41
41:BH:131:A:C4	41:BH:132:C:C5	3.08	0.41
42:BI:108:CYS:C	42:BI:130:PHE:CE1	2.98	0.41
45:BL:29:CYS:HA	45:BL:73:ALA:HB2	2.02	0.41
47:BN:55:PRO:HA	47:BN:155:ARG:O	2.20	0.41
47:BN:151:ALA:HB1	70:Bk:124:ALA:HB2	2.02	0.41
48:BO:130:VAL:HA	48:BO:132:ARG:CZ	2.49	0.41
48:BO:150:ASN:O	48:BO:151:GLU:HG2	2.20	0.41
53:BT:30:VAL:HG13	53:BT:31:GLU:H	1.84	0.41
55:BV:110:LEU:HD13	55:BV:111:ALA:N	2.35	0.41
56:BW:93:THR:HA	58:BY:20:ARG:NH2	2.35	0.41
56:BW:135:ALA:HB3	56:BW:138:ILE:HG22	2.02	0.41
57:BX:100:GLU:OE1	57:BX:100:GLU:HA	2.19	0.41
65:Bf:187:PHE:CD1	65:Bf:190:THR:HB	2.55	0.41
65:Bf:287:LYS:O	65:Bf:326:HIS:CE1	2.73	0.41
67:Bh:74:PHE:CE1	67:Bh:81:PRO:HA	2.55	0.41
68:Bi:121:ILE:HG23	68:Bi:122:ASN:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
77:Br:53:VAL:HG13	77:Br:54:ASN:O	2.21	0.41
77:Br:145:ASN:CG	77:Br:174:GLY:HA2	2.45	0.41
77:Br:250:TRP:CD2	77:Br:255:PHE:HD1	2.38	0.41
82:Bw:137:PRO:C	82:Bw:140:ASN:H	2.27	0.41
83:Bx:180:PRO:HB3	83:Bx:190:TYR:CE2	2.55	0.41
83:Bx:216:VAL:HG22	83:Bx:217:ASN:H	1.85	0.41
85:AA:9:U:O2	85:AA:11:A:H5''	2.19	0.41
85:AA:12:U:C1'	85:AA:1677:A:H1'	2.50	0.41
85:AA:84:C:C6	85:AA:84:C:O5'	2.73	0.41
85:AA:129:U:C2	85:AA:130:G:C8	3.08	0.41
85:AA:415:G:C1'	85:AA:419:A:H1'	2.50	0.41
85:AA:460:U:H2'	85:AA:461:G:C8	2.54	0.41
85:AA:522:A:OP2	85:AA:522:A:C8	2.73	0.41
85:AA:690:G:O4'	85:AA:695:A:C4	2.72	0.41
85:AA:844:C:OP2	85:AA:845:A:C2	2.73	0.41
85:AA:885:A:H2'	85:AA:886:A:C8	2.55	0.41
85:AA:915:G:N3	85:AA:915:G:H2'	2.35	0.41
85:AA:1007:G:C2	85:AA:1096:G:C4	3.08	0.41
85:AA:1112:G:N7	85:AA:1114:A:C5	2.88	0.41
85:AA:1117:G:C4	85:AA:1118:U:C6	3.08	0.41
85:AA:1175:A:C5	85:AA:1176:C:C5	3.07	0.41
85:AA:1196:C:C2	85:AA:1197:U:C6	3.08	0.41
85:AA:1269:A:C6	85:AA:1270:C:C2	3.08	0.41
85:AA:1441:G:C6	85:AA:1442:U:C4	3.08	0.41
85:AA:1498:C:C4	85:AA:1499:G:C5	3.08	0.41
85:AA:1521:U:N3	85:AA:1522:U:C4	2.88	0.41
85:AA:1660:U:C2	85:AA:1864:G:N2	2.89	0.41
85:AA:1686:G:C4	85:AA:1687:U:C6	3.08	0.41
85:AA:1705:G:C2	85:AA:1706:A:C8	3.08	0.41
85:AA:1718:C:N3	85:AA:1720:C:C4	2.87	0.41
85:AA:1720:C:N3	85:AA:1821:C:N3	2.68	0.41
85:AA:1796:C:C4	85:AA:1797:U:C4	3.07	0.41
85:AA:1800:U:C5	85:AA:1801:U:C5	3.07	0.41
85:AA:1899:A:C8	85:AA:1899:A:C3'	3.03	0.41
85:AA:1963:G:C6	85:AA:1975:G:N1	2.87	0.41
85:AA:2029:G:H2'	85:AA:2030:U:C6	2.55	0.41
85:AA:2050:C:C4	85:AA:2052:U:O2	2.73	0.41
85:AA:2054:G:H2'	85:AA:2055:G:C8	2.55	0.41
85:AA:2088:U:N3	85:AA:2089:G:C5	2.88	0.41
85:AA:2155:U:H2'	85:AA:2156:C:C6	2.54	0.41
2:A1:70:ASP:CG	2:A1:161:VAL:HG12	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A1:170:ILE:O	2:A1:172:ILE:N	2.54	0.41
6:A5:3:ILE:O	6:A5:29:LEU:HA	2.20	0.41
7:A6:22:ARG:HA	7:A6:25:ARG:NE	2.34	0.41
7:A6:129:GLN:C	7:A6:131:ARG:H	2.26	0.41
8:A7:146:LEU:HB3	8:A7:181:TRP:CE3	2.55	0.41
11:AC:124:PHE:N	11:AC:124:PHE:CD1	2.84	0.41
12:AD:71:PHE:CB	12:AD:73:TRP:CE2	3.04	0.41
13:AE:55:GLY:CA	85:AA:313:A:H1'	2.49	0.41
13:AE:79:ASN:ND2	85:AA:315:U:C4	2.88	0.41
13:AE:126:HIS:HB2	13:AE:147:LEU:HD12	2.02	0.41
15:AG:20:ARG:HH12	85:AA:1110:A:H4'	1.85	0.41
19:AK:30:ALA:CB	19:AK:31:PRO:HD3	2.50	0.41
19:AK:58:VAL:HA	19:AK:66:PHE:CE1	2.55	0.41
20:AL:53:TYR:HA	20:AL:56:HIS:HB3	2.00	0.41
23:AP:154:TRP:CD1	23:AP:155:GLY:H	2.38	0.41
26:AS:4:THR:HG22	85:AA:1480:C:C5	2.55	0.41
29:AV:91:ARG:NH1	85:AA:2248:A:C5	2.88	0.41
34:BA:8:G:N1	34:BA:9:A:C5	2.89	0.41
34:BA:45:A:OP2	47:BN:16:HIS:CE1	2.73	0.41
34:BA:49:A:C5	34:BA:50:G:C8	3.09	0.41
34:BA:67:A:C5	34:BA:68:A:C6	3.08	0.41
34:BA:74:A:C6	34:BA:75:U:C2	3.08	0.41
34:BA:102:G:C2	34:BA:103:G:C1'	3.01	0.41
34:BA:209:A:N3	34:BA:209:A:H2'	2.35	0.41
34:BA:248:G:C5	34:BA:437:G:C2'	3.03	0.41
34:BA:249:A:H1'	34:BA:251:U:C5	2.55	0.41
34:BA:255:G:C6	34:BA:257:G:C5	3.08	0.41
34:BA:284:U:OP2	34:BA:287:U:C6	2.73	0.41
34:BA:340:U:N3	34:BA:341:U:C4	2.88	0.41
34:BA:378:C:O2	34:BA:378:C:H2'	2.20	0.41
34:BA:398:G:N3	34:BA:398:G:C2'	2.78	0.41
34:BA:435:U:C4	34:BA:436:U:C4	3.08	0.41
34:BA:523:A:C5	34:BA:524:G:C5	3.09	0.41
34:BA:536:C:H3'	34:BA:537:C:H6	1.85	0.41
34:BA:616:G:C8	34:BA:616:G:H3'	2.55	0.41
34:BA:627:U:N3	34:BA:628:U:C2	2.88	0.41
34:BA:669:U:C6	34:BA:669:U:H3'	2.55	0.41
34:BA:721:A:C2	35:BB:642:G:C2	3.08	0.41
34:BA:760:G:N2	34:BA:761:U:C2	2.88	0.41
34:BA:767:U:C2	34:BA:768:G:C5	3.08	0.41
34:BA:775:C:C6	34:BA:775:C:C3'	3.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:777:C:C5	34:BA:778:U:C5	3.08	0.41
34:BA:798:G:C6	61:Bb:114:HIS:CG	3.07	0.41
34:BA:836:U:C6	34:BA:837:U:C6	3.08	0.41
34:BA:843:G:O5'	34:BA:843:G:C8	2.73	0.41
34:BA:847:U:C2	34:BA:852:C:N4	2.88	0.41
34:BA:854:A:C4	34:BA:855:C:C5	3.08	0.41
34:BA:895:U:C2'	34:BA:896:U:H5'	2.49	0.41
34:BA:986:G:C4	34:BA:987:C:C6	3.08	0.41
34:BA:1065:U:H5'	61:Bb:44:ASN:HB2	2.00	0.41
34:BA:1095:G:C5	34:BA:1163:G:C5	3.08	0.41
34:BA:1236:U:C2	34:BA:1237:U:C5	3.08	0.41
34:BA:1241:U:P	44:BK:100:ASN:H	2.43	0.41
34:BA:1263:A:C4	34:BA:1264:U:C6	3.08	0.41
34:BA:1284:G:OP2	82:Bw:230:ARG:NH2	2.53	0.41
34:BA:1321:A:C2	34:BA:1322:A:H1'	2.54	0.41
34:BA:1341:A:C8	34:BA:1403:G:N2	2.88	0.41
34:BA:1404:A:N3	34:BA:1405:A:H1'	2.35	0.41
34:BA:1454:G:O2'	34:BA:1455:C:C5'	2.68	0.41
34:BA:1481:U:C6	82:Bw:30:ARG:HD2	2.56	0.41
34:BA:1573:C:H2'	34:BA:1574:C:C5	2.54	0.41
34:BA:1598:U:OP2	35:BB:622:G:N1	2.53	0.41
34:BA:1680:G:O2'	34:BA:1681:U:H5'	2.20	0.41
34:BA:1704:G:N3	34:BA:1704:G:H2'	2.34	0.41
34:BA:1732:A:O5'	34:BA:1732:A:C8	2.73	0.41
34:BA:1788:U:C4	34:BA:1789:A:C4	3.08	0.41
35:BB:6:A:C6	35:BB:7:C:N4	2.88	0.41
35:BB:377:A:C5	35:BB:378:C:C5	3.08	0.41
35:BB:520:G:C2	35:BB:521:U:C2	3.08	0.41
35:BB:546:A:C4	35:BB:550:G:C6	3.08	0.41
35:BB:587:A:C5	35:BB:588:A:N9	2.87	0.41
35:BB:633:C:C2	35:BB:634:A:C8	3.08	0.41
35:BB:810:G:N2	35:BB:811:C:C2	2.88	0.41
35:BB:851:U:H5'	69:Bj:121:ARG:CG	2.50	0.41
35:BB:857:G:C6	35:BB:858:U:C4	3.08	0.41
35:BB:1014:U:O2	35:BB:1014:U:H2'	2.19	0.41
35:BB:1100:C:O2	35:BB:1141:A:C6	2.73	0.41
35:BB:1274:G:HO2'	35:BB:1327:U:H6	1.59	0.41
35:BB:1277:A:C4	35:BB:1278:A:C8	3.08	0.41
35:BB:1298:C:C3'	35:BB:1299:G:C8	2.97	0.41
35:BB:1347:C:N3	35:BB:1394:A:C8	2.88	0.41
35:BB:1371:G:C6	35:BB:1372:G:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1524:G:C2	35:BB:1544:A:N3	2.88	0.41
35:BB:1524:G:C6	35:BB:1544:A:N1	2.88	0.41
36:BC:60:U:N3	70:Bk:60:THR:HA	2.35	0.41
36:BC:68:A:H1'	36:BC:91:G:N2	2.35	0.41
36:BC:71:A:H2'	59:BZ:48:ARG:CZ	2.50	0.41
36:BC:127:C:C4	36:BC:128:U:C5	3.08	0.41
36:BC:167:U:P	83:Bx:76:ARG:HE	2.43	0.41
37:BD:15:U:O5'	37:BD:15:U:H6	2.03	0.41
37:BD:36:C:H1'	37:BD:45:U:O2'	2.21	0.41
37:BD:56:G:C4	37:BD:57:C:C6	3.08	0.41
37:BD:71:G:C2	37:BD:105:G:N3	2.88	0.41
37:BD:85:C:C2	37:BD:93:G:N2	2.88	0.41
38:BE:13:A:N1	38:BE:14:C:C4	2.87	0.41
38:BE:17:U:O5'	38:BE:17:U:H6	2.03	0.41
38:BE:73:A:N1	38:BE:88:G:C6	2.88	0.41
38:BE:139:U:H4'	75:Bp:2:PRO:HG3	2.03	0.41
38:BE:150:G:C4	38:BE:163:A:C2	3.08	0.41
38:BE:160:C:C5	53:BT:43:LYS:HA	2.55	0.41
38:BE:204:U:C5	60:Ba:50:ARG:NH2	2.88	0.41
38:BE:207:G:C5	60:Ba:63:ARG:HG2	2.54	0.41
39:BF:73:U:C5	81:Bv:108:LYS:C	2.98	0.41
40:BG:4:A:C6	40:BG:5:G:C5	3.08	0.41
40:BG:29:U:C6	40:BG:29:U:O5'	2.66	0.41
40:BG:139:U:H3'	40:BG:140:G:H8	1.84	0.41
40:BG:162:A:N1	40:BG:163:G:C6	2.89	0.41
41:BH:10:U:O4	41:BH:20:A:C6	2.73	0.41
44:BK:182:GLU:CD	44:BK:185:ARG:HH22	2.28	0.41
44:BK:211:ILE:HB	44:BK:212:MET:CB	2.50	0.41
49:BP:17:ARG:HB3	49:BP:55:ASN:HD21	1.84	0.41
54:BU:22:HIS:CD2	54:BU:22:HIS:N	2.87	0.41
56:BW:87:TRP:N	56:BW:87:TRP:CD2	2.87	0.41
56:BW:132:SER:O	56:BW:135:ALA:HB3	2.20	0.41
57:BX:124:LEU:HB3	57:BX:125:TYR:CE2	2.55	0.41
58:BY:63:HIS:O	58:BY:63:HIS:CD2	2.73	0.41
61:Bb:49:HIS:O	61:Bb:50:PRO:C	2.63	0.41
62:Bc:71:ASN:CG	77:Br:149:VAL:H	2.28	0.41
65:Bf:92:PRO:HB2	65:Bf:250:LEU:HD13	2.02	0.41
67:Bh:148:ARG:HG2	67:Bh:178:PHE:CZ	2.55	0.41
68:Bi:61:ASP:OD1	68:Bi:61:ASP:C	2.62	0.41
77:Br:269:SER:C	77:Br:270:THR:HG23	2.46	0.41
78:Bs:14:ASN:CB	78:Bs:15:TRP:CE2	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:Bu:112:LYS:C	80:Bu:114:GLY:H	2.29	0.41
80:Bu:140:GLY:C	80:Bu:142:ASP:OD1	2.64	0.41
83:Bx:68:PHE:CE1	83:Bx:69:VAL:HG22	2.55	0.41
85:AA:42:G:O4'	85:AA:502:A:C4	2.73	0.41
85:AA:65:A:C4	85:AA:66:U:O2	2.73	0.41
85:AA:69:C:H2'	85:AA:70:U:O4'	2.20	0.41
85:AA:106:G:N9	85:AA:107:A:C8	2.87	0.41
85:AA:139:G:C2	85:AA:140:C:C2	3.07	0.41
85:AA:145:C:O2'	85:AA:146:U:H5'	2.20	0.41
85:AA:181:A:N6	85:AA:332:A:H4'	2.34	0.41
85:AA:319:U:H2'	85:AA:320:U:H6	1.86	0.41
85:AA:441:C:C4	85:AA:442:G:N7	2.88	0.41
85:AA:451:G:N1	85:AA:452:A:C6	2.88	0.41
85:AA:461:G:H2'	85:AA:463:G:OP2	2.20	0.41
85:AA:493:A:C6	85:AA:494:G:C5	3.09	0.41
85:AA:493:A:H2	85:AA:505:U:O2	2.03	0.41
85:AA:543:A:N1	85:AA:544:A:C4	2.88	0.41
85:AA:548:G:O6	85:AA:549:A:C6	2.73	0.41
85:AA:554:A:C2	85:AA:555:C:C2	3.08	0.41
85:AA:567:G:C5	85:AA:568:C:C5	3.07	0.41
85:AA:728:U:C5	85:AA:776:C:N3	2.88	0.41
85:AA:790:A:P	85:AA:792:A:H1'	2.61	0.41
85:AA:934:A:C8	85:AA:935:A:N7	2.88	0.41
85:AA:979:U:C4	85:AA:980:U:C4	3.08	0.41
85:AA:1002:G:H2'	85:AA:1003:G:C8	2.55	0.41
85:AA:1007:G:C2	85:AA:1008:C:C2	3.08	0.41
85:AA:1142:G:H2'	85:AA:1143:C:C6	2.55	0.41
85:AA:1210:U:H2'	85:AA:1210:U:O2	2.19	0.41
85:AA:1374:A:H2'	85:AA:1375:U:C6	2.55	0.41
85:AA:1434:U:C5	85:AA:1438:C:C5'	3.03	0.41
85:AA:1493:A:H2	85:AA:1508:A:C2	2.38	0.41
85:AA:1524:A:C6	85:AA:1525:C:C4	3.08	0.41
85:AA:1537:A:C2	85:AA:1538:C:C2	3.08	0.41
85:AA:1544:G:C5	85:AA:2046:G:O6	2.74	0.41
85:AA:1546:G:C2	85:AA:2044:A:N6	2.88	0.41
85:AA:1559:U:C3'	85:AA:1560:A:H5''	2.50	0.41
85:AA:1671:G:C6	85:AA:1672:G:N7	2.88	0.41
85:AA:1731:G:O6	85:AA:1808:G:C6	2.73	0.41
85:AA:1798:U:C2	85:AA:1808:G:C6	3.08	0.41
85:AA:1846:G:C6	85:AA:1847:U:C4	3.08	0.41
85:AA:1953:G:C4	85:AA:1954:C:C6	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1985:C:H5'	85:AA:1986:G:H5'	2.01	0.41
85:AA:2009:A:C5	85:AA:2036:A:N7	2.88	0.41
85:AA:2009:A:H1'	85:AA:2036:A:C6	2.55	0.41
85:AA:2014:G:C2	85:AA:2029:G:N2	2.88	0.41
85:AA:2026:U:C4	85:AA:2027:U:C4	3.08	0.41
85:AA:2204:A:H2'	85:AA:2205:A:C8	2.55	0.41
2:A1:51:TYR:CG	2:A1:52:ALA:N	2.89	0.41
2:A1:100:TYR:HB2	2:A1:179:MET:HE1	2.02	0.41
3:A2:43:GLN:O	85:AA:2082:C:N4	2.53	0.41
4:A3:7:TYR:CE1	4:A3:10:ASN:CG	2.99	0.41
4:A3:64:MET:HA	4:A3:101:ARG:O	2.20	0.41
4:A3:177:PRO:CB	85:AA:65:A:C5	3.04	0.41
4:A3:196:ARG:O	4:A3:199:ILE:HG12	2.20	0.41
4:A3:204:LYS:HA	4:A3:204:LYS:HD2	1.92	0.41
5:A4:145:TRP:CE2	5:A4:155:MET:HB3	2.56	0.41
5:A4:164:ARG:HD3	5:A4:190:PHE:CZ	2.54	0.41
8:A7:246:SER:HA	8:A7:293:TRP:CZ2	2.56	0.41
8:A7:278:HIS:CG	8:A7:279:GLN:N	2.84	0.41
11:AC:125:LYS:HB2	11:AC:238:PHE:CE1	2.55	0.41
11:AC:184:CYS:CB	11:AC:190:LEU:HD11	2.50	0.41
15:AG:120:SER:O	15:AG:123:HIS:HB2	2.20	0.41
15:AG:128:TYR:O	15:AG:131:ARG:HB3	2.20	0.41
17:AI:104:TYR:OH	85:AA:1588:A:C2	2.68	0.41
17:AI:133:VAL:CG1	85:AA:1897:A:C2	3.02	0.41
21:AM:13:ILE:HG23	21:AM:13:ILE:O	2.19	0.41
23:AP:172:CYS:HB2	23:AP:223:ALA:HB2	2.02	0.41
24:AQ:45:VAL:HG23	24:AQ:94:LEU:HD23	2.01	0.41
30:AW:37:LYS:HA	30:AW:44:ILE:HG22	2.03	0.41
33:AZ:63:LEU:HD12	33:AZ:74:ARG:HB3	2.02	0.41
34:BA:12:G:N1	36:BC:156:A:C6	2.88	0.41
34:BA:17:A:C6	36:BC:151:G:C6	3.09	0.41
34:BA:71:G:C6	34:BA:72:U:C4	3.08	0.41
34:BA:114:U:N3	34:BA:327:G:H2'	2.35	0.41
34:BA:115:U:H2'	34:BA:327:G:C5	2.55	0.41
34:BA:145:U:C6	83:Bx:150:GLN:NE2	2.88	0.41
34:BA:154:A:C2	34:BA:155:U:H1'	2.56	0.41
34:BA:197:A:C2	34:BA:280:A:C6	3.07	0.41
34:BA:200:C:C4	34:BA:257:G:N1	2.88	0.41
34:BA:212:A:C5	34:BA:213:A:N7	2.88	0.41
34:BA:259:C:C2	34:BA:273:G:N2	2.88	0.41
34:BA:292:C:H2'	34:BA:293:A:C5'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:351:A:H5'	50:BQ:112:ASN:O	2.20	0.41
34:BA:402:G:C2	36:BC:26:U:O2	2.73	0.41
34:BA:447:U:O5'	34:BA:447:U:H6	2.04	0.41
34:BA:448:U:H2'	34:BA:449:G:O4'	2.19	0.41
34:BA:482:C:C2	36:BC:6:G:N1	2.87	0.41
34:BA:518:C:C6	34:BA:518:C:H3'	2.55	0.41
34:BA:543:A:N1	34:BA:544:U:C4	2.88	0.41
34:BA:627:U:C6	34:BA:627:U:C3'	3.03	0.41
34:BA:631:G:C4	34:BA:632:U:C6	3.08	0.41
34:BA:652:C:C6	34:BA:652:C:H3'	2.56	0.41
34:BA:652:C:C4	34:BA:653:U:C5	3.08	0.41
34:BA:682:A:N3	34:BA:682:A:H2'	2.34	0.41
34:BA:687:G:H2'	34:BA:688:G:C8	2.55	0.41
34:BA:690:G:H1'	34:BA:691:A:N3	2.36	0.41
34:BA:723:C:C4	35:BB:642:G:O5'	2.72	0.41
34:BA:740:A:H2'	34:BA:741:A:O5'	2.19	0.41
34:BA:755:G:H5''	77:Br:115:ASN:ND2	2.35	0.41
34:BA:772:G:H4'	47:BN:37:LYS:HD3	2.01	0.41
34:BA:783:U:C4	34:BA:784:C:C4	3.09	0.41
34:BA:817:U:C2	34:BA:818:G:C8	3.08	0.41
34:BA:832:C:C2	34:BA:836:U:C4	3.08	0.41
34:BA:908:G:C6	34:BA:909:G:C8	3.07	0.41
34:BA:936:A:N6	34:BA:937:G:C6	2.87	0.41
34:BA:936:A:C4	34:BA:937:G:C8	3.09	0.41
34:BA:1012:A:H5''	34:BA:1013:A:OP1	2.20	0.41
34:BA:1029:C:H1'	73:Bn:49:TRP:HB3	2.02	0.41
34:BA:1064:A:C5	34:BA:1065:U:C6	3.09	0.41
34:BA:1068:C:N3	34:BA:1225:A:N6	2.68	0.41
34:BA:1084:A:C3'	34:BA:1085:G:C8	3.01	0.41
34:BA:1095:G:N3	34:BA:1095:G:H2'	2.36	0.41
34:BA:1110:A:N3	34:BA:1110:A:C2'	2.84	0.41
34:BA:1203:G:C8	34:BA:1203:G:C3'	3.03	0.41
34:BA:1275:G:C2	34:BA:1466:U:N3	2.88	0.41
34:BA:1325:G:C2	34:BA:1416:C:N3	2.88	0.41
34:BA:1377:A:H1'	34:BA:1399:A:C4'	2.51	0.41
34:BA:1400:A:C2	34:BA:1401:C:H1'	2.54	0.41
34:BA:1447:C:H3'	34:BA:1448:G:C5'	2.48	0.41
34:BA:1469:G:C4	34:BA:1470:G:C8	3.08	0.41
34:BA:1474:G:H5'	34:BA:1475:G:OP2	2.20	0.41
34:BA:1495:A:C5	34:BA:1498:A:C4	3.08	0.41
34:BA:1533:G:C6	34:BA:1534:U:N3	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1610:A:H2'	34:BA:1611:A:O4'	2.20	0.41
34:BA:1613:G:O5'	34:BA:1613:G:C8	2.72	0.41
34:BA:1732:A:C4	34:BA:1733:G:C8	3.08	0.41
34:BA:1802:C:N3	34:BA:1803:A:C8	2.89	0.41
34:BA:1820:G:C4	34:BA:1821:A:C5	3.08	0.41
35:BB:3:C:OP1	35:BB:3:C:C4'	2.68	0.41
35:BB:93:A:N1	35:BB:94:A:C2	2.88	0.41
35:BB:106:A:C6	35:BB:117:A:C2	3.07	0.41
35:BB:127:U:C2	35:BB:377:A:N1	2.88	0.41
35:BB:458:U:C2	35:BB:459:U:C6	3.09	0.41
35:BB:469:G:C6	35:BB:470:C:C4	3.08	0.41
35:BB:681:G:N7	35:BB:682:U:C5	2.88	0.41
35:BB:697:G:C6	35:BB:698:C:N4	2.88	0.41
35:BB:702:G:N3	35:BB:1039:A:C6	2.89	0.41
35:BB:802:G:C5'	35:BB:804:U:OP1	2.68	0.41
35:BB:808:U:C6	35:BB:808:U:H3'	2.56	0.41
35:BB:813:C:H2'	35:BB:814:A:C8	2.55	0.41
35:BB:817:C:C2	35:BB:818:U:C1'	3.04	0.41
35:BB:1017:U:N3	35:BB:1018:U:C5	2.88	0.41
35:BB:1065:G:H5''	44:BK:114:GLY:CA	2.50	0.41
35:BB:1232:A:C2	35:BB:1233:U:C4	3.08	0.41
35:BB:1280:U:N3	35:BB:1281:G:C4	2.88	0.41
35:BB:1293:C:O2'	35:BB:1294:C:H5'	2.21	0.41
35:BB:1296:A:H2'	35:BB:1297:G:O4'	2.21	0.41
35:BB:1299:G:C6	35:BB:1302:C:H2'	2.54	0.41
35:BB:1334:C:C4	35:BB:1410:G:C5	3.09	0.41
35:BB:1357:C:H1'	35:BB:1361:A:H61	1.84	0.41
35:BB:1384:A:N1	35:BB:1385:C:C2	2.89	0.41
35:BB:1426:G:N1	35:BB:1427:A:C4	2.88	0.41
35:BB:1456:G:N2	35:BB:1457:A:C5	2.87	0.41
35:BB:1471:A:OP2	35:BB:1471:A:C5	2.73	0.41
36:BC:124:A:N6	36:BC:140:U:N3	2.67	0.41
36:BC:135:A:C2	36:BC:136:G:C5	3.08	0.41
37:BD:4:U:C4	37:BD:5:A:N7	2.89	0.41
37:BD:95:G:C6	37:BD:96:C:N4	2.88	0.41
37:BD:106:G:N1	37:BD:107:G:C6	2.89	0.41
37:BD:111:U:H2'	37:BD:112:U:C6	2.55	0.41
38:BE:1:U:H3	38:BE:8:G:H1	1.65	0.41
38:BE:6:A:H5''	38:BE:7:U:P	2.60	0.41
38:BE:143:A:H62	75:Bp:73:SER:HB3	1.85	0.41
38:BE:144:A:C5	38:BE:145:A:N7	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BF:9:C:C2	39:BF:10:A:C2	3.08	0.41
39:BF:41:U:O4'	39:BF:42:G:C2	2.74	0.41
40:BG:5:G:N1	40:BG:6:A:C5	2.89	0.41
40:BG:34:A:C5	40:BG:35:G:C1'	3.03	0.41
40:BG:54:G:N3	40:BG:58:G:C2	2.89	0.41
40:BG:74:G:C5	40:BG:75:C:C6	3.08	0.41
40:BG:84:U:N3	67:Bh:98:LYS:O	2.53	0.41
41:BH:134:U:C5	41:BH:135:U:H5'	2.55	0.41
45:BL:132:MET:SD	45:BL:132:MET:N	2.94	0.41
45:BL:170:PHE:CE2	45:BL:176:GLY:HA2	2.54	0.41
48:BO:25:ILE:O	48:BO:52:THR:N	2.53	0.41
48:BO:214:GLU:CG	48:BO:216:LEU:HD13	2.48	0.41
49:BP:15:ILE:CG2	49:BP:21:GLN:HA	2.50	0.41
49:BP:151:ALA:O	49:BP:155:ASP:N	2.53	0.41
56:BW:104:ILE:HG23	56:BW:104:ILE:O	2.20	0.41
60:Ba:6:PRO:C	60:Ba:8:LYS:H	2.27	0.41
60:Ba:40:SER:N	60:Ba:76:HIS:CD2	2.89	0.41
64:Be:90:CYS:O	64:Be:93:LYS:CG	2.69	0.41
65:Bf:141:VAL:HA	65:Bf:154:GLY:O	2.20	0.41
71:Bl:145:TYR:HA	71:Bl:146:PRO:C	2.45	0.41
72:Bm:36:ASP:HA	72:Bm:38:TYR:HD1	1.85	0.41
72:Bm:38:TYR:O	72:Bm:38:TYR:CE1	2.74	0.41
77:Br:117:HIS:O	77:Br:121:PHE:HB2	2.20	0.41
80:Bu:209:HIS:CG	80:Bu:210:VAL:H	2.38	0.41
82:Bw:156:LEU:HD23	82:Bw:204:TYR:CE2	2.56	0.41
83:Bx:95:LEU:HD11	83:Bx:99:SER:CB	2.50	0.41
83:Bx:173:ILE:O	83:Bx:176:VAL:HG12	2.20	0.41
84:By:34:THR:HA	84:By:78:MET:SD	2.61	0.41
84:By:139:LYS:H	84:By:141:GLU:HB2	1.85	0.41
85:AA:9:U:C2	85:AA:12:U:OP2	2.73	0.41
85:AA:11:A:N1	85:AA:12:U:C2	2.88	0.41
85:AA:291:G:C6	85:AA:292:C:C4	3.09	0.41
85:AA:381:A:N3	85:AA:419:A:C5	2.88	0.41
85:AA:390:U:C4	85:AA:391:G:N7	2.88	0.41
85:AA:390:U:C6	85:AA:390:U:H3'	2.54	0.41
85:AA:527:A:C2'	85:AA:528:U:H5'	2.49	0.41
85:AA:681:G:O5'	85:AA:681:G:C8	2.73	0.41
85:AA:681:G:C6	85:AA:687:G:N7	2.88	0.41
85:AA:691:U:C4	85:AA:1470:A:C6	3.08	0.41
85:AA:709:A:C4	85:AA:710:A:N3	2.88	0.41
85:AA:749:C:N3	85:AA:756:G:C6	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:774:C:C4	85:AA:775:C:N3	2.88	0.41
85:AA:781:G:C6	85:AA:782:G:N7	2.88	0.41
85:AA:783:C:C2	85:AA:784:C:C5	3.09	0.41
85:AA:817:G:C6	85:AA:820:G:C8	3.09	0.41
85:AA:858:G:C8	85:AA:858:G:H3'	2.56	0.41
85:AA:880:A:H2'	85:AA:881:C:O4'	2.20	0.41
85:AA:882:C:H3'	85:AA:883:A:C8	2.54	0.41
85:AA:965:G:C8	85:AA:991:G:N7	2.88	0.41
85:AA:982:G:H2'	85:AA:983:A:O4'	2.20	0.41
85:AA:1006:C:H2'	85:AA:1007:G:C8	2.54	0.41
85:AA:1011:G:C4	85:AA:1063:U:H1'	2.55	0.41
85:AA:1070:G:C4	85:AA:1084:A:C2	3.09	0.41
85:AA:1140:G:N2	85:AA:1171:C:C2	2.88	0.41
85:AA:1146:C:O2	85:AA:1146:C:H2'	2.19	0.41
85:AA:1158:U:C5'	85:AA:1158:U:N1	2.84	0.41
85:AA:1158:U:C2	85:AA:1159:C:C5	3.08	0.41
85:AA:1195:U:O5'	85:AA:1195:U:H6	2.02	0.41
85:AA:1498:C:N3	85:AA:1499:G:C5	2.87	0.41
85:AA:1593:C:C2	85:AA:1883:C:N3	2.88	0.41
85:AA:1598:A:C6	85:AA:1640:G:C5	3.08	0.41
85:AA:1618:G:C6	85:AA:1619:A:C6	3.08	0.41
85:AA:1651:C:C6	85:AA:1866:A:N7	2.88	0.41
85:AA:1679:U:C2	85:AA:1680:U:C5	3.09	0.41
85:AA:1686:G:H3'	85:AA:1687:U:C6	2.56	0.41
85:AA:1709:U:H3	85:AA:1858:G:H1	1.67	0.41
85:AA:1730:C:O2	85:AA:1810:C:C5	2.73	0.41
85:AA:1928:A:N7	85:AA:1978:G:N1	2.68	0.41
85:AA:1961:U:H2'	85:AA:1962:U:H6	1.80	0.41
85:AA:2001:C:OP1	85:AA:2001:C:C4	2.73	0.41
85:AA:2003:C:C6	85:AA:2006:G:C5	3.07	0.41
85:AA:2095:U:O5'	85:AA:2095:U:C6	2.73	0.41
85:AA:2125:A:N6	85:AA:2194:U:H3	2.18	0.41
85:AA:2142:A:H2'	85:AA:2143:U:H6	1.85	0.41
85:AA:2164:G:C2	85:AA:2165:C:C6	3.08	0.41
85:AA:2188:C:C4	85:AA:2189:U:C4	3.08	0.41
85:AA:2221:A:C4	85:AA:2222:G:C8	3.08	0.41
85:AA:2225:G:N7	85:AA:2226:U:C4	2.88	0.41
3:A2:44:LYS:C	85:AA:2082:C:C6	2.98	0.41
4:A3:3:LEU:HD12	4:A3:3:LEU:N	2.35	0.41
5:A4:20:GLN:NE2	5:A4:20:GLN:H	2.18	0.41
5:A4:48:ILE:CG1	5:A4:49:ASN:H	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:146:ARG:HG2	5:A4:147:TYR:N	2.34	0.41
7:A6:84:PHE:HA	7:A6:106:ARG:HD2	2.02	0.41
8:A7:5:TYR:CB	8:A7:313:GLY:H	2.29	0.41
8:A7:304:TYR:CD1	8:A7:308:VAL:O	2.73	0.41
11:AC:153:MET:HE2	11:AC:153:MET:HB2	1.75	0.41
15:AG:113:PHE:CZ	85:AA:1188:A:C5	3.08	0.41
21:AM:83:TRP:CE3	21:AM:84:PHE:N	2.89	0.41
23:AP:45:PRO:HG2	23:AP:54:LYS:HB2	2.02	0.41
27:AT:93:GLU:HG2	27:AT:97:ARG:HB2	2.02	0.41
34:BA:32:A:C4'	34:BA:909:G:H4'	2.51	0.41
34:BA:50:G:N3	34:BA:50:G:H2'	2.36	0.41
34:BA:55:G:H8	34:BA:55:G:O5'	2.02	0.41
34:BA:71:G:N3	34:BA:72:U:C6	2.89	0.41
34:BA:147:U:O4	34:BA:148:G:C5	2.74	0.41
34:BA:174:A:C8	34:BA:174:A:H3'	2.55	0.41
34:BA:205:G:C4	34:BA:249:A:C2	3.09	0.41
34:BA:228:A:H62	34:BA:229:C:N4	2.19	0.41
34:BA:334:G:C5	34:BA:335:C:C5	3.08	0.41
34:BA:395:G:C6	34:BA:396:U:O4	2.74	0.41
34:BA:470:C:N3	36:BC:19:A:N1	2.68	0.41
34:BA:477:C:N3	36:BC:12:A:C2	2.88	0.41
34:BA:484:A:C2	36:BC:6:G:C5	3.09	0.41
34:BA:484:A:H5'	34:BA:484:A:H8	1.85	0.41
34:BA:504:A:C6	34:BA:505:U:C4	3.09	0.41
34:BA:540:G:C2	34:BA:541:C:N1	2.89	0.41
34:BA:563:A:N1	34:BA:564:C:C2	2.87	0.41
34:BA:568:G:C6	34:BA:569:C:C4	3.08	0.41
34:BA:615:A:N1	34:BA:616:G:C6	2.88	0.41
34:BA:633:G:C2	34:BA:649:A:C2	3.09	0.41
34:BA:711:C:C5	35:BB:645:C:O4'	2.73	0.41
34:BA:714:G:C5	34:BA:715:U:C4	3.07	0.41
34:BA:745:A:C2	34:BA:746:C:C2	3.08	0.41
34:BA:765:U:C5	59:BZ:2:VAL:CG1	3.03	0.41
34:BA:771:A:N7	34:BA:774:A:H1'	2.35	0.41
34:BA:789:U:C4	34:BA:790:G:N7	2.88	0.41
34:BA:811:C:C2	34:BA:812:A:C8	3.09	0.41
34:BA:853:A:C6	34:BA:854:A:C5	3.09	0.41
34:BA:861:C:N3	34:BA:862:C:C5	2.89	0.41
34:BA:895:U:H3'	47:BN:9:PRO:CA	2.50	0.41
34:BA:898:G:C2'	34:BA:900:A:C8	3.04	0.41
34:BA:1046:G:H5'	68:Bi:56:LYS:HB2	2.00	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1112:U:C2	34:BA:1147:C:C2	3.08	0.41
34:BA:1122:G:C4	34:BA:1123:G:C8	3.07	0.41
34:BA:1153:C:C2	34:BA:1154:U:C6	3.08	0.41
34:BA:1231:C:H2'	34:BA:1232:C:H6	1.85	0.41
34:BA:1260:G:N2	34:BA:1270:G:H1'	2.34	0.41
34:BA:1406:U:O5'	34:BA:1406:U:H6	2.01	0.41
34:BA:1456:C:H5''	71:Bl:116:HIS:ND1	2.35	0.41
34:BA:1460:U:C5	34:BA:1460:U:OP2	2.73	0.41
34:BA:1564:A:C8	34:BA:1564:A:C3'	3.03	0.41
34:BA:1607:U:O2	34:BA:1607:U:H2'	2.21	0.41
34:BA:1617:U:H5	34:BA:1633:C:O2	2.03	0.41
34:BA:1636:C:O2	34:BA:1676:A:C2	2.74	0.41
34:BA:1665:G:C6	34:BA:1666:U:N3	2.88	0.41
34:BA:1686:G:N2	34:BA:1687:A:H1'	2.35	0.41
34:BA:1699:A:N1	34:BA:1808:A:H2	2.17	0.41
34:BA:1814:U:P	69:Bj:9:ARG:HH22	2.44	0.41
34:BA:1833:G:N1	34:BA:1834:A:C5	2.88	0.41
35:BB:388:C:C6	35:BB:388:C:C5'	3.03	0.41
35:BB:438:G:N3	35:BB:438:G:H2'	2.36	0.41
35:BB:453:C:H2'	35:BB:454:U:H6	1.84	0.41
35:BB:460:C:C2	35:BB:583:G:C6	3.09	0.41
35:BB:478:G:C5	35:BB:503:G:C2	3.09	0.41
35:BB:493:U:C2'	35:BB:494:C:H5'	2.49	0.41
35:BB:546:A:O5'	35:BB:547:A:H5'	2.20	0.41
35:BB:561:C:C6	35:BB:563:A:N7	2.88	0.41
35:BB:568:A:C2	35:BB:569:G:C4	3.08	0.41
35:BB:628:A:C8	35:BB:629:C:C5	3.08	0.41
35:BB:696:G:C2	35:BB:1048:A:C4	3.08	0.41
35:BB:711:C:C4	35:BB:769:C:N4	2.88	0.41
35:BB:755:A:H2'	35:BB:755:A:N3	2.36	0.41
35:BB:792:G:H4'	83:Bx:62:PHE:CZ	2.55	0.41
35:BB:832:C:C5	35:BB:833:G:N7	2.88	0.41
35:BB:844:G:N2	35:BB:845:C:H1'	2.35	0.41
35:BB:857:G:C2	35:BB:866:A:N3	2.88	0.41
35:BB:955:U:C4	35:BB:956:G:C5	3.08	0.41
35:BB:1004:A:O5'	35:BB:1004:A:H8	2.03	0.41
35:BB:1017:U:C6	35:BB:1017:U:C3'	3.03	0.41
35:BB:1030:U:H5	83:Bx:253:LEU:CD2	2.33	0.41
35:BB:1102:U:C5	35:BB:1103:A:N6	2.89	0.41
35:BB:1104:A:C2	35:BB:1141:A:N9	2.88	0.41
35:BB:1211:C:H5''	61:Bb:54:GLY:HA2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1263:A:N6	35:BB:1264:U:C4	2.88	0.41
35:BB:1296:A:C5'	44:BK:71:GLN:HE22	2.33	0.41
35:BB:1469:A:N3	35:BB:1472:U:C4	2.89	0.41
35:BB:1487:G:C6	35:BB:1488:G:C6	3.09	0.41
35:BB:1522:G:N2	35:BB:1523:U:C2	2.89	0.41
36:BC:9:G:C4	36:BC:10:C:C6	3.07	0.41
36:BC:27:U:C2	36:BC:28:C:C4	3.09	0.41
36:BC:44:A:H2'	36:BC:45:C:O4'	2.19	0.41
36:BC:73:U:C6	36:BC:74:U:C5	3.00	0.41
36:BC:113:G:C2	36:BC:114:C:N1	2.89	0.41
36:BC:113:G:H2'	36:BC:114:C:O4'	2.21	0.41
37:BD:4:U:O2'	37:BD:5:A:H5'	2.20	0.41
37:BD:32:A:C2	37:BD:46:G:N1	2.89	0.41
37:BD:92:G:H2'	37:BD:93:G:O4'	2.19	0.41
38:BE:43:A:C2	38:BE:171:U:N3	2.86	0.41
38:BE:98:C:C2	38:BE:99:C:C6	3.08	0.41
38:BE:101:C:C4	38:BE:120:C:C4	3.09	0.41
38:BE:148:C:C4	38:BE:149:A:C5	3.09	0.41
38:BE:184:G:C6	38:BE:185:G:O6	2.74	0.41
39:BF:13:U:C6	39:BF:13:U:C3'	3.03	0.41
39:BF:48:G:C6	39:BF:49:C:C4	3.08	0.41
39:BF:48:G:H2'	39:BF:49:C:H6	1.85	0.41
40:BG:33:G:C5	40:BG:168:A:C6	3.08	0.41
40:BG:46:G:C4	40:BG:47:G:C8	3.09	0.41
40:BG:60:A:N6	40:BG:61:A:C5	2.89	0.41
40:BG:88:G:N1	40:BG:89:A:C5	2.88	0.41
40:BG:100:G:N7	40:BG:101:G:C5	2.88	0.41
41:BH:4:U:C6	41:BH:4:U:OP2	2.74	0.41
41:BH:43:G:C6	41:BH:111:U:H5'	2.55	0.41
41:BH:123:G:O6	41:BH:124:C:C4	2.73	0.41
41:BH:125:U:C2	41:BH:126:C:C6	3.09	0.41
41:BH:127:A:N1	41:BH:128:G:C6	2.88	0.41
47:BN:197:VAL:HA	72:Bm:19:PHE:CZ	2.55	0.41
48:BO:44:GLN:N	48:BO:44:GLN:CD	2.74	0.41
54:BU:22:HIS:CG	80:Bu:17:GLN:NE2	2.80	0.41
54:BU:143:VAL:HG22	54:BU:144:GLU:O	2.20	0.41
59:BZ:9:ARG:O	59:BZ:10:ARG:C	2.62	0.41
62:Bc:55:THR:O	62:Bc:56:LYS:C	2.64	0.41
62:Bc:72:LYS:O	62:Bc:77:TYR:CD2	2.74	0.41
65:Bf:372:TYR:CE2	65:Bf:391:ARG:HA	2.55	0.41
65:Bf:444:ASP:CA	65:Bf:448:ARG:HB3	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:Bh:38:TRP:HA	67:Bh:41:VAL:HB	2.02	0.41
67:Bh:98:LYS:O	67:Bh:99:ARG:C	2.63	0.41
71:Bl:46:GLY:O	71:Bl:59:ALA:HA	2.20	0.41
77:Br:327:LEU:HD23	77:Br:327:LEU:HA	1.95	0.41
81:Bv:74:ARG:HA	81:Bv:103:PHE:CE1	2.56	0.41
82:Bw:68:ARG:HA	82:Bw:71:ARG:HE	1.84	0.41
82:Bw:189:HIS:CD2	82:Bw:190:ASN:N	2.89	0.41
83:Bx:96:ASP:HA	83:Bx:100:ARG:NH1	2.36	0.41
85:AA:28:A:H2'	85:AA:29:U:H6	1.85	0.41
85:AA:42:G:H5''	85:AA:502:A:C8	2.55	0.41
85:AA:43:A:N7	85:AA:443:A:C2	2.87	0.41
85:AA:81:A:H2'	85:AA:82:A:O4'	2.20	0.41
85:AA:88:G:N7	85:AA:89:C:C5	2.88	0.41
85:AA:132:G:N3	85:AA:139:G:C2	2.88	0.41
85:AA:160:A:H2'	85:AA:161:A:C8	2.55	0.41
85:AA:188:G:C5	85:AA:189:G:C8	3.08	0.41
85:AA:231:G:C6	85:AA:232:U:C5	3.09	0.41
85:AA:269:G:N7	85:AA:270:A:H1'	2.35	0.41
85:AA:338:G:C4	85:AA:339:A:C8	3.09	0.41
85:AA:342:C:C6	85:AA:343:U:C6	3.09	0.41
85:AA:388:G:C6	85:AA:403:G:C2	3.09	0.41
85:AA:425:G:C8	85:AA:425:G:OP2	2.73	0.41
85:AA:429:G:O5'	85:AA:429:G:C8	2.73	0.41
85:AA:472:A:H2'	85:AA:473:C:H6	1.86	0.41
85:AA:539:A:N6	85:AA:540:A:C4	2.88	0.41
85:AA:595:A:H2'	85:AA:596:A:O4'	2.21	0.41
85:AA:681:G:C6	85:AA:687:G:C5	3.08	0.41
85:AA:684:G:H2'	85:AA:684:G:N3	2.35	0.41
85:AA:714:U:C2'	85:AA:715:G:H5'	2.46	0.41
85:AA:748:C:O2	85:AA:757:A:C2	2.73	0.41
85:AA:769:C:C6	85:AA:769:C:O5'	2.74	0.41
85:AA:777:U:C6	85:AA:778:C:C6	3.08	0.41
85:AA:806:G:OP2	85:AA:806:G:C8	2.73	0.41
85:AA:883:A:H2'	85:AA:883:A:N3	2.36	0.41
85:AA:939:A:H2'	85:AA:939:A:N3	2.34	0.41
85:AA:1241:A:C8	85:AA:1262:A:C6	3.08	0.41
85:AA:1284:A:C6	85:AA:1285:C:C4	3.08	0.41
85:AA:1421:U:H4'	85:AA:1422:A:N7	2.35	0.41
85:AA:1487:G:C2	85:AA:1513:U:O2	2.73	0.41
85:AA:1531:G:C2	85:AA:2092:A:C2	3.08	0.41
85:AA:1671:G:C2'	85:AA:1672:G:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1700:C:H2'	85:AA:1701:G:C1'	2.50	0.41
85:AA:1792:C:C6	85:AA:1792:C:H5''	2.55	0.41
85:AA:1895:C:OP2	85:AA:2024:U:C5	2.74	0.41
85:AA:1978:G:O2'	85:AA:1984:A:C5	2.73	0.41
85:AA:2083:G:C6	85:AA:2084:U:N3	2.89	0.41
85:AA:2139:G:O2'	85:AA:2140:U:C6	2.71	0.41
85:AA:2145:G:C2	85:AA:2146:G:C4	3.08	0.41
85:AA:2174:G:N1	85:AA:2175:U:C4	2.88	0.41
1:A0:147:LYS:HG2	1:A0:156:CYS:SG	2.61	0.41
1:A0:151:GLN:HG3	85:AA:1441:G:OP1	2.20	0.41
1:A0:228:GLN:CG	83:Bx:275:ALA:HB2	2.11	0.41
2:A1:89:ILE:HG23	2:A1:94:ASP:HB2	2.02	0.41
3:A2:152:LEU:HG	85:AA:1911:A:H5''	2.03	0.41
3:A2:153:LYS:O	3:A2:154:THR:HB	2.20	0.41
4:A3:117:GLU:OE1	4:A3:117:GLU:HA	2.20	0.41
4:A3:244:ASP:O	4:A3:247:LYS:HB3	2.20	0.41
5:A4:67:LEU:O	5:A4:68:TYR:CZ	2.74	0.41
6:A5:162:TRP:CZ3	6:A5:166:ARG:HG2	2.55	0.41
7:A6:16:ARG:HA	7:A6:17:PRO:HD3	1.82	0.41
7:A6:70:LEU:HD11	85:AA:916:A:C2	2.56	0.41
8:A7:34:THR:HG23	8:A7:73:VAL:CG1	2.50	0.41
8:A7:215:ASP:CG	8:A7:216:LYS:N	2.78	0.41
13:AE:19:GLN:HB2	13:AE:24:TYR:CZ	2.55	0.41
15:AG:73:ARG:NH1	85:AA:940:G:C5	2.88	0.41
16:AH:24:VAL:O	16:AH:24:VAL:HG13	2.20	0.41
18:AJ:55:ASP:CG	18:AJ:56:HIS:N	2.78	0.41
20:AL:41:ALA:HA	31:AX:204:ILE:HA	2.01	0.41
21:AM:13:ILE:CG2	45:BL:123:TYR:CD2	2.75	0.41
22:AO:118:HIS:HB3	22:AO:122:LYS:NZ	2.35	0.41
26:AS:116:PRO:HD2	32:AY:4:VAL:HG21	2.02	0.41
33:AZ:43:ILE:HG22	33:AZ:86:GLU:HA	2.02	0.41
34:BA:33:C:H2'	34:BA:34:U:H5'	2.03	0.41
34:BA:42:A:C4	34:BA:43:U:C6	3.09	0.41
34:BA:79:C:O2	34:BA:102:G:C2	2.72	0.41
34:BA:88:C:C4	34:BA:89:G:C5	3.08	0.41
34:BA:132:U:C2	34:BA:133:A:C6	3.08	0.41
34:BA:191:G:C2	34:BA:293:A:C4	3.09	0.41
34:BA:216:C:H3'	34:BA:216:C:H6	1.81	0.41
34:BA:225:A:C8	34:BA:225:A:O5'	2.73	0.41
34:BA:226:A:H5'	34:BA:227:C:H5'	2.03	0.41
34:BA:231:U:OP1	40:BG:12:A:N6	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:236:A:C1'	34:BA:239:C:H41	2.34	0.41
34:BA:291:C:C4	34:BA:292:C:C5	3.08	0.41
34:BA:330:A:C8	50:BQ:29:LYS:HE2	2.55	0.41
34:BA:331:G:H5'	50:BQ:137:TRP:CZ3	2.55	0.41
34:BA:362:G:H2'	34:BA:363:G:C8	2.54	0.41
34:BA:400:A:C6	36:BC:28:C:N3	2.89	0.41
34:BA:409:A:C5	34:BA:410:G:C4	3.09	0.41
34:BA:419:U:C2	34:BA:420:A:C8	3.08	0.41
34:BA:481:A:C2	36:BC:7:U:O2	2.73	0.41
34:BA:520:G:C8	34:BA:520:G:H3'	2.55	0.41
34:BA:542:A:N1	34:BA:543:A:C5	2.88	0.41
34:BA:565:U:C4	34:BA:566:G:C5	3.09	0.41
34:BA:577:U:H4'	34:BA:578:C:OP2	2.20	0.41
34:BA:585:G:C2	34:BA:587:U:C5	3.09	0.41
34:BA:603:U:H5	34:BA:680:C:N4	2.18	0.41
34:BA:692:U:H3	34:BA:696:A:H1'	1.85	0.41
34:BA:740:A:C6	34:BA:741:A:C6	3.08	0.41
34:BA:757:G:C4'	34:BA:758:G:C4	2.96	0.41
34:BA:802:G:C4	34:BA:803:U:C6	3.09	0.41
34:BA:808:U:H3'	34:BA:809:U:O4'	2.19	0.41
34:BA:886:G:H2'	34:BA:887:U:C6	2.55	0.41
34:BA:935:A:C4	34:BA:936:A:C8	3.08	0.41
34:BA:979:G:C8	34:BA:981:A:OP2	2.74	0.41
34:BA:1152:A:H2'	44:BK:22:PHE:CZ	2.55	0.41
34:BA:1158:A:C5	34:BA:1159:A:N7	2.88	0.41
34:BA:1159:A:H1'	37:BD:79:G:H1'	2.02	0.41
34:BA:1180:A:C5'	63:Bd:46:ARG:NH2	2.82	0.41
34:BA:1181:G:C4	34:BA:1192:A:C2	3.09	0.41
34:BA:1212:A:C2	82:Bw:141:MET:HE1	2.55	0.41
34:BA:1238:C:N3	34:BA:1247:G:C2	2.88	0.41
34:BA:1277:G:H2'	34:BA:1278:A:C8	2.56	0.41
34:BA:1334:G:N1	34:BA:1408:C:C4	2.89	0.41
34:BA:1367:G:C2	34:BA:1368:G:C8	3.08	0.41
34:BA:1409:A:C2	34:BA:1410:C:N1	2.87	0.41
34:BA:1463:U:N3	34:BA:1464:C:C4	2.89	0.41
34:BA:1480:C:C5	82:Bw:25:GLU:O	2.74	0.41
34:BA:1501:U:O2	34:BA:1502:G:C8	2.74	0.41
34:BA:1522:G:H2'	34:BA:1522:G:N3	2.35	0.41
34:BA:1613:G:N1	34:BA:1614:G:C5	2.88	0.41
34:BA:1613:G:N2	34:BA:1637:G:C6	2.89	0.41
34:BA:1708:A:N7	34:BA:1709:A:C4	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1709:A:C2	34:BA:1710:C:C6	3.09	0.41
35:BB:123:U:O2	53:BT:79:GLY:HA2	2.20	0.41
35:BB:366:G:H2'	35:BB:367:C:O4'	2.20	0.41
35:BB:482:A:C2	35:BB:697:G:O4'	2.73	0.41
35:BB:516:G:N1	35:BB:517:G:C4	2.88	0.41
35:BB:536:U:H1'	35:BB:539:G:C5	2.55	0.41
35:BB:569:G:O6	35:BB:570:A:C5	2.74	0.41
35:BB:653:G:H2'	35:BB:654:C:C5'	2.51	0.41
35:BB:808:U:C6	35:BB:809:U:C6	3.09	0.41
35:BB:810:G:C6	35:BB:830:G:C6	3.08	0.41
35:BB:1106:G:C6	35:BB:1107:C:N4	2.89	0.41
35:BB:1108:G:N1	35:BB:1157:G:C4	2.88	0.41
35:BB:1135:U:C4	80:Bu:17:GLN:O	2.74	0.41
35:BB:1136:G:C8	35:BB:1149:A:N6	2.89	0.41
35:BB:1292:G:C5	35:BB:1293:C:C4	3.07	0.41
35:BB:1375:G:C6	35:BB:1388:A:C6	3.08	0.41
35:BB:1519:U:C4	35:BB:1520:C:C4	3.08	0.41
36:BC:75:G:C4	36:BC:76:C:C6	3.08	0.41
36:BC:82:C:C5	36:BC:84:U:O4	2.73	0.41
36:BC:90:U:C6	36:BC:90:U:C3'	3.04	0.41
36:BC:113:G:P	36:BC:113:G:C8	3.13	0.41
36:BC:128:U:O2	36:BC:136:G:C2	2.74	0.41
37:BD:3:G:H2'	37:BD:4:U:O4'	2.20	0.41
37:BD:26:C:H5''	37:BD:27:A:OP2	2.21	0.41
37:BD:89:G:C6	37:BD:90:A:N6	2.88	0.41
38:BE:13:A:C6	38:BE:14:C:C5	3.09	0.41
38:BE:14:C:N3	38:BE:204:U:N3	2.69	0.41
38:BE:43:A:C2	38:BE:171:U:C2	3.08	0.41
38:BE:107:U:H4'	38:BE:121:G:H5''	2.02	0.41
38:BE:172:U:H2'	38:BE:172:U:O2	2.20	0.41
38:BE:200:A:H2'	38:BE:201:A:C5'	2.51	0.41
39:BF:22:U:C2	48:BO:136:ARG:NH1	2.88	0.41
39:BF:25:G:N3	39:BF:25:G:H2'	2.35	0.41
39:BF:72:A:C5'	81:Bv:42:ARG:HH22	2.34	0.41
40:BG:44:G:N1	40:BG:45:G:C5	2.88	0.41
40:BG:104:A:O5'	40:BG:104:A:C8	2.73	0.41
40:BG:131:U:H2'	40:BG:132:U:O4'	2.20	0.41
40:BG:164:U:C2	40:BG:165:C:C6	3.08	0.41
40:BG:175:G:C2	40:BG:176:G:C4	3.08	0.41
41:BH:7:C:O4'	41:BH:130:G:C2	2.73	0.41
41:BH:20:A:C6	41:BH:21:G:C8	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BH:21:G:C5	41:BH:22:A:N9	2.89	0.41
41:BH:39:G:N1	41:BH:40:C:C2	2.88	0.41
41:BH:42:U:O4'	41:BH:110:C:C2	2.74	0.41
41:BH:70:U:H3'	41:BH:71:C:H6	1.85	0.41
42:BI:48:ILE:HG22	42:BI:49:HIS:N	2.36	0.41
44:BK:47:PRO:O	44:BK:178:ARG:CD	2.69	0.41
44:BK:93:PRO:C	44:BK:94:PHE:CG	2.98	0.41
48:BO:109:TYR:CD1	48:BO:109:TYR:N	2.89	0.41
49:BP:15:ILE:HG22	49:BP:21:GLN:HA	2.03	0.41
51:BR:122:ALA:HB2	51:BR:145:HIS:CG	2.55	0.41
52:BS:42:ARG:O	52:BS:46:MET:SD	2.78	0.41
52:BS:69:ARG:HB2	52:BS:74:ARG:CZ	2.51	0.41
52:BS:121:HIS:H	52:BS:121:HIS:CE1	2.37	0.41
58:BY:14:HIS:HB2	58:BY:17:HIS:CD2	2.55	0.41
58:BY:83:GLU:HA	85:AA:2161:C:C4'	2.37	0.41
59:BZ:115:ILE:O	59:BZ:119:LYS:HG2	2.20	0.41
62:Bc:124:CYS:O	62:Bc:127:ARG:HB2	2.20	0.41
65:Bf:82:SER:C	65:Bf:83:PHE:CD2	2.99	0.41
65:Bf:91:LYS:HA	65:Bf:91:LYS:HE3	2.02	0.41
65:Bf:93:HIS:CE1	65:Bf:264:VAL:HG13	2.55	0.41
65:Bf:345:VAL:HA	65:Bf:351:GLN:CG	2.50	0.41
65:Bf:417:ILE:HG22	65:Bf:418:ASP:O	2.20	0.41
67:Bh:165:HIS:O	67:Bh:165:HIS:CG	2.73	0.41
77:Br:362:LYS:HA	77:Br:365:LYS:HE2	2.02	0.41
79:Bt:10:MET:SD	79:Bt:23:PHE:HB2	2.59	0.41
79:Bt:14:ASP:CG	79:Bt:77:CYS:SG	3.04	0.41
80:Bu:166:PHE:HB3	80:Bu:186:PHE:CD1	2.56	0.41
81:Bv:186:ALA:CB	81:Bv:188:HIS:CE1	3.04	0.41
82:Bw:90:TYR:CD2	82:Bw:90:TYR:N	2.88	0.41
82:Bw:236:PHE:HA	82:Bw:241:ASP:HA	2.03	0.41
83:Bx:269:ASN:HB2	83:Bx:272:ALA:H	1.85	0.41
85:AA:9:U:N3	85:AA:12:U:OP2	2.53	0.41
85:AA:9:U:C6	85:AA:9:U:H3'	2.55	0.41
85:AA:11:A:C2	85:AA:12:U:N1	2.89	0.41
85:AA:30:G:C2	85:AA:31:C:C2	3.08	0.41
85:AA:43:A:H2'	85:AA:44:C:C5'	2.50	0.41
85:AA:68:A:C4	85:AA:81:A:N3	2.88	0.41
85:AA:125:A:C5	85:AA:126:U:N3	2.89	0.41
85:AA:314:C:C5	85:AA:316:C:C4	3.08	0.41
85:AA:338:G:C2	85:AA:352:G:C4	3.09	0.41
85:AA:380:C:N3	85:AA:421:G:C6	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:629:A:C2	85:AA:630:A:C2	3.09	0.41
85:AA:687:G:OP2	85:AA:1476:C:C5	2.73	0.41
85:AA:704:A:N3	85:AA:704:A:C2'	2.82	0.41
85:AA:708:G:N1	85:AA:1215:A:C5	2.88	0.41
85:AA:711:C:O3'	85:AA:712:U:C6	2.74	0.41
85:AA:732:G:O6	85:AA:773:G:H1'	2.20	0.41
85:AA:750:A:C8	85:AA:750:A:C3'	3.02	0.41
85:AA:770:C:C2	85:AA:771:A:O4'	2.74	0.41
85:AA:959:C:H2'	85:AA:960:G:O4'	2.21	0.41
85:AA:1163:G:O5'	85:AA:1163:G:C8	2.74	0.41
85:AA:1187:G:C2	85:AA:1191:G:C5	3.07	0.41
85:AA:1196:C:C4	85:AA:1197:U:C4	3.08	0.41
85:AA:1203:G:C6	85:AA:1204:A:C5	3.09	0.41
85:AA:1218:C:C6	85:AA:1218:C:H3'	2.55	0.41
85:AA:1246:G:C6	85:AA:1247:A:C4	3.08	0.41
85:AA:1277:C:H1'	85:AA:1278:C:P	2.59	0.41
85:AA:1345:C:O2'	85:AA:1426:G:H5'	2.20	0.41
85:AA:1430:A:N1	85:AA:1431:U:H1'	2.36	0.41
85:AA:1492:U:C4	85:AA:1508:A:C8	3.09	0.41
85:AA:1498:C:H3'	85:AA:1499:G:H8	1.86	0.41
85:AA:1539:A:N3	85:AA:2083:G:C2	2.89	0.41
85:AA:1556:G:C5	85:AA:1557:U:N3	2.88	0.41
85:AA:1571:A:C8	85:AA:1572:C:C4	3.08	0.41
85:AA:1668:G:N1	85:AA:1702:G:C2	2.88	0.41
85:AA:1681:G:C4	85:AA:1682:U:C4	3.09	0.41
85:AA:1685:G:O6	85:AA:1686:G:C6	2.74	0.41
85:AA:2028:G:N3	85:AA:2028:G:H2'	2.36	0.41
85:AA:2130:G:C2	85:AA:2189:U:O2	2.73	0.41
85:AA:2169:C:C2	85:AA:2170:G:C8	3.08	0.41
85:AA:2216:A:N7	85:AA:2218:G:C2	2.89	0.41
85:AA:2222:G:C6	85:AA:2223:C:N3	2.88	0.41
86:AB:1:G:H2'	86:AB:2:C:C6	2.55	0.41
86:AB:30:G:H3'	86:AB:31:A:C8	2.55	0.41
86:AB:37:A:H3'	86:AB:38:A:H8	1.84	0.41
1:A0:39:GLU:HB3	1:A0:73:LEU:O	2.19	0.41
1:A0:83:TYR:CE2	1:A0:213:ARG:NH1	2.89	0.41
1:A0:186:ALA:O	1:A0:190:LEU:HG	2.21	0.41
2:A1:24:PHE:HB3	2:A1:25:ALA:O	2.21	0.41
2:A1:30:ALA:HB2	85:AA:364:C:H4'	2.01	0.41
2:A1:115:GLU:C	2:A1:117:SER:H	2.27	0.41
2:A1:132:ARG:HH21	4:A3:213:LEU:HD13	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A2:87:HIS:O	3:A2:91:ASP:HA	2.20	0.41
8:A7:34:THR:HG22	8:A7:40:LEU:HG	2.02	0.41
8:A7:73:VAL:HG22	8:A7:74:ALA:N	2.35	0.41
8:A7:195:HIS:CD2	8:A7:221:ARG:HH11	2.39	0.41
15:AG:91:LEU:HD21	85:AA:1117:G:H4'	2.01	0.41
18:AJ:107:SER:HA	85:AA:930:G:H5'	2.02	0.41
19:AK:128:ARG:HH11	19:AK:128:ARG:CB	2.30	0.41
21:AM:38:GLY:HA2	85:AA:2033:C:H4'	2.02	0.41
22:AO:19:LYS:HD3	85:AA:1795:C:H1'	2.03	0.41
22:AO:63:ALA:O	85:AA:1916:A:H4'	2.20	0.41
23:AP:51:ARG:HG3	23:AP:52:LEU:N	2.35	0.41
23:AP:59:THR:C	23:AP:80:LEU:HG	2.46	0.41
23:AP:74:HIS:CD2	23:AP:143:LYS:CD	3.02	0.41
23:AP:158:ILE:HA	25:AR:9:GLU:OE1	2.21	0.41
30:AW:31:SER:CB	30:AW:50:HIS:CD2	3.04	0.41
34:BA:38:G:C4	35:BB:1259:A:N1	2.89	0.41
34:BA:111:U:H3	34:BA:382:G:N2	2.18	0.41
34:BA:125:G:C5	34:BA:126:G:C8	3.08	0.41
34:BA:125:G:C2	34:BA:126:G:C4	3.08	0.41
34:BA:125:G:C2	34:BA:139:U:O2	2.73	0.41
34:BA:131:A:O3'	34:BA:132:U:C5	2.74	0.41
34:BA:161:U:N3	34:BA:165:C:N3	2.68	0.41
34:BA:183:G:C6	34:BA:184:C:C4	3.09	0.41
34:BA:186:G:N2	34:BA:187:G:C4	2.89	0.41
34:BA:219:U:O4	34:BA:220:U:C4	2.73	0.41
34:BA:226:A:H5'	34:BA:227:C:H6	1.86	0.41
34:BA:236:A:H1'	34:BA:239:C:H41	1.86	0.41
34:BA:252:A:C8	34:BA:252:A:C3'	3.04	0.41
34:BA:368:U:O4	35:BB:1243:A:H2	2.04	0.41
34:BA:412:G:C6	34:BA:413:A:C5	3.09	0.41
34:BA:458:G:N2	34:BA:459:U:C1'	2.83	0.41
34:BA:471:U:C4	34:BA:472:G:C4	3.08	0.41
34:BA:520:G:N1	34:BA:521:C:C2	2.89	0.41
34:BA:531:C:C6	34:BA:580:U:C2	3.09	0.41
34:BA:618:G:C6	34:BA:619:U:N3	2.89	0.41
34:BA:631:G:C2	34:BA:651:U:O2	2.74	0.41
34:BA:828:A:C4	34:BA:829:U:C5	3.08	0.41
34:BA:835:U:C4	34:BA:836:U:H1'	2.55	0.41
34:BA:862:C:N3	34:BA:875:G:C6	2.89	0.41
34:BA:981:A:C6	34:BA:984:U:C2	3.08	0.41
34:BA:993:C:C2	34:BA:994:G:O6	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1053:U:C6	34:BA:1053:U:C3'	3.04	0.41
34:BA:1146:U:O4'	44:BK:196:HIS:CE1	2.73	0.41
34:BA:1184:A:H5'	80:Bu:134:THR:HB	2.03	0.41
34:BA:1194:G:C2'	34:BA:1195:G:C8	3.03	0.41
34:BA:1211:G:H8	34:BA:1211:G:C5'	2.28	0.41
34:BA:1238:C:C4	34:BA:1247:G:C2	3.08	0.41
34:BA:1275:G:C5	34:BA:1276:G:C8	3.09	0.41
34:BA:1287:G:N1	34:BA:1288:U:N3	2.69	0.41
34:BA:1384:G:C6	34:BA:1394:U:C2	3.08	0.41
34:BA:1429:A:N1	34:BA:1430:C:C2	2.89	0.41
34:BA:1509:U:C2	34:BA:1510:C:C6	3.09	0.41
34:BA:1510:C:H2'	34:BA:1511:C:C6	2.55	0.41
34:BA:1542:A:C2	34:BA:1568:A:O4'	2.74	0.41
34:BA:1619:U:O5'	34:BA:1619:U:C6	2.74	0.41
35:BB:26:C:C2	35:BB:27:C:C6	3.09	0.41
35:BB:73:G:C5	35:BB:74:U:C4	3.09	0.41
35:BB:89:C:C4	35:BB:90:G:C8	3.09	0.41
35:BB:166:C:H2'	35:BB:167:U:C6	2.55	0.41
35:BB:375:G:C2	35:BB:376:A:C4	3.09	0.41
35:BB:481:A:C6	35:BB:499:A:C4	3.09	0.41
35:BB:489:A:C5	35:BB:490:G:C5	3.09	0.41
35:BB:517:G:N1	35:BB:534:C:N3	2.68	0.41
35:BB:545:C:C6	35:BB:572:G:O6	2.73	0.41
35:BB:650:A:H2'	35:BB:650:A:N3	2.35	0.41
35:BB:715:G:C2'	35:BB:716:G:C8	3.03	0.41
35:BB:758:A:H5'	43:BJ:204:LYS:HE2	2.02	0.41
35:BB:785:G:C2	35:BB:1036:G:N3	2.88	0.41
35:BB:797:C:H3'	35:BB:977:G:P	2.61	0.41
35:BB:798:A:C2	35:BB:799:A:N1	2.89	0.41
35:BB:851:U:HO2'	35:BB:853:U:H5''	1.84	0.41
35:BB:866:A:N6	35:BB:867:C:C4	2.89	0.41
35:BB:878:G:N1	35:BB:900:C:H1'	2.36	0.41
35:BB:1133:C:C4	35:BB:1134:G:C6	3.08	0.41
35:BB:1144:A:H2'	35:BB:1145:G:H8	1.84	0.41
35:BB:1159:U:H2'	35:BB:1160:U:C5	2.55	0.41
35:BB:1162:A:C5	79:Bt:4:TYR:OH	2.72	0.41
35:BB:1189:C:H5'	79:Bt:18:ASN:ND2	2.35	0.41
35:BB:1277:A:C2	35:BB:1278:A:N9	2.89	0.41
35:BB:1514:G:C4	35:BB:1515:C:C5	3.08	0.41
36:BC:16:A:C4	36:BC:17:U:C6	3.09	0.41
36:BC:67:U:H2'	36:BC:68:A:H8	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:99:U:C4	36:BC:100:U:C5	3.09	0.41
36:BC:108:A:C2	36:BC:111:C:C5	3.08	0.41
36:BC:112:G:O5'	76:Bq:7:LEU:HD12	2.20	0.41
36:BC:119:G:N1	36:BC:120:G:C5	2.89	0.41
36:BC:147:G:C6	36:BC:148:C:C2	3.08	0.41
37:BD:3:G:N2	37:BD:4:U:C2	2.89	0.41
37:BD:11:A:C4'	80:Bu:24:ARG:HH12	2.34	0.41
37:BD:71:G:C5	37:BD:105:G:N1	2.89	0.41
37:BD:116:C:C4	37:BD:117:U:C4	3.08	0.41
38:BE:10:G:C4	38:BE:11:A:C5	3.08	0.41
38:BE:25:U:O2	38:BE:25:U:H2'	2.21	0.41
38:BE:104:G:C4	38:BE:105:A:C4	3.08	0.41
38:BE:158:U:C4	38:BE:159:A:C5	3.08	0.41
38:BE:162:U:OP1	75:Bp:74:HIS:CE1	2.74	0.41
39:BF:40:U:OP2	39:BF:41:U:C4	2.74	0.41
40:BG:19:C:H2'	40:BG:20:U:O4'	2.20	0.41
40:BG:94:G:C2	40:BG:104:A:C6	3.09	0.41
40:BG:135:C:H2'	40:BG:136:G:O4'	2.20	0.41
41:BH:25:A:N9	41:BH:128:G:C6	2.88	0.41
41:BH:32:U:H5'	41:BH:33:G:OP2	2.21	0.41
41:BH:38:G:C5	41:BH:39:G:C8	3.08	0.41
42:BI:56:ARG:HG3	42:BI:57:ASN:N	2.36	0.41
44:BK:87:MET:HB2	44:BK:138:MET:SD	2.60	0.41
44:BK:177:LEU:O	44:BK:177:LEU:HG	2.21	0.41
48:BO:159:ASN:OD1	48:BO:159:ASN:N	2.50	0.41
49:BP:92:VAL:O	49:BP:95:PRO:HD2	2.20	0.41
49:BP:128:PHE:CD1	49:BP:132:ASP:CG	2.99	0.41
50:BQ:28:TRP:CD1	50:BQ:63:GLU:CD	2.98	0.41
53:BT:110:ARG:CZ	53:BT:120:TYR:CZ	3.04	0.41
54:BU:92:ARG:H	54:BU:92:ARG:HG2	1.60	0.41
54:BU:103:GLU:O	54:BU:107:GLN:HG2	2.20	0.41
57:BX:88:PRO:HA	57:BX:106:PHE:CG	2.55	0.41
57:BX:89:LEU:H	57:BX:106:PHE:HA	1.84	0.41
58:BY:22:VAL:HA	58:BY:32:VAL:HA	2.02	0.41
58:BY:41:PHE:O	58:BY:44:TYR:HB3	2.21	0.41
62:Bc:72:LYS:CA	77:Br:147:ALA:HA	2.50	0.41
65:Bf:173:TRP:CH2	65:Bf:178:GLN:NE2	2.88	0.41
67:Bh:184:LYS:CE	67:Bh:184:LYS:HA	2.50	0.41
69:Bj:70:ARG:O	69:Bj:73:LYS:C	2.64	0.41
72:Bm:77:ALA:HB1	72:Bm:81:CYS:SG	2.59	0.41
76:Bq:49:LEU:C	76:Bq:50:HIS:CG	2.96	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:Bu:8:LYS:HA	80:Bu:12:TYR:CB	2.51	0.41
83:Bx:171:ASP:HB2	83:Bx:172:PRO:HD3	2.02	0.41
84:By:130:VAL:HG12	84:By:142:LEU:HD11	2.03	0.41
85:AA:68:A:C6	85:AA:81:A:C4	3.09	0.41
85:AA:71:G:C6	85:AA:76:G:C5	3.09	0.41
85:AA:160:A:C5	85:AA:483:G:O6	2.74	0.41
85:AA:396:U:H2'	85:AA:396:U:O2	2.20	0.41
85:AA:408:C:C2	85:AA:409:C:C5	3.09	0.41
85:AA:416:U:H4'	85:AA:418:G:N7	2.35	0.41
85:AA:626:G:N2	85:AA:627:A:C2	2.88	0.41
85:AA:686:U:C4	85:AA:687:G:C6	3.09	0.41
85:AA:725:G:H1'	85:AA:777:U:C6	2.55	0.41
85:AA:746:G:C4	85:AA:759:G:C2	3.07	0.41
85:AA:786:G:C6	85:AA:787:U:O4	2.74	0.41
85:AA:801:U:H3'	85:AA:802:A:C8	2.56	0.41
85:AA:910:G:N2	85:AA:911:A:C5	2.89	0.41
85:AA:1065:G:C2	85:AA:1066:U:C2	3.08	0.41
85:AA:1091:C:C5	85:AA:1092:G:N7	2.89	0.41
85:AA:1116:G:C2	85:AA:1117:G:C4	3.08	0.41
85:AA:1144:G:C6	85:AA:1145:U:C5	3.08	0.41
85:AA:1234:G:N2	85:AA:1266:C:H1'	2.35	0.41
85:AA:1281:G:C2	85:AA:1282:A:C5	3.08	0.41
85:AA:1290:G:C6	85:AA:1292:A:N6	2.88	0.41
85:AA:1293:U:C2	85:AA:1294:U:C1'	3.04	0.41
85:AA:1508:A:C6	85:AA:1509:A:C6	3.09	0.41
85:AA:1520:A:C8	85:AA:1520:A:H5''	2.56	0.41
85:AA:1655:G:C6	85:AA:1656:C:C4	3.09	0.41
85:AA:1666:U:C4	85:AA:1667:C:C5	3.08	0.41
85:AA:1668:G:N3	85:AA:1669:G:C8	2.89	0.41
85:AA:2043:A:C4	85:AA:2044:A:H1'	2.56	0.41
85:AA:2100:A:H4'	85:AA:2101:C:O5'	2.20	0.41
85:AA:2119:C:N3	85:AA:2200:A:C2	2.89	0.41
85:AA:2158:U:O2'	85:AA:2159:C:C6	2.72	0.41
85:AA:2197:A:H8	85:AA:2197:A:OP2	2.04	0.41
85:AA:2200:A:C6	85:AA:2201:A:C4	3.09	0.41
85:AA:2226:U:H2'	85:AA:2227:A:C8	2.55	0.41
86:AB:5:G:C4	86:AB:69:G:N2	2.88	0.41
1:A0:69:ASN:HA	1:A0:85:LYS:HA	2.02	0.41
4:A3:178:LYS:CE	85:AA:65:A:H5'	2.51	0.41
8:A7:108:HIS:HE1	8:A7:126:SER:CB	2.33	0.41
8:A7:154:TRP:CZ3	8:A7:174:TRP:CD2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AC:184:CYS:SG	11:AC:197:ILE:C	3.04	0.41
13:AE:170:LYS:HA	85:AA:938:A:H61	1.85	0.41
15:AG:71:ILE:O	15:AG:75:LEU:HD13	2.21	0.41
18:AJ:7:LEU:HD13	18:AJ:34:VAL:HA	2.01	0.41
18:AJ:28:ARG:HH12	85:AA:1113:G:H3'	1.85	0.41
19:AK:67:SER:O	85:AA:1792:C:C5	2.72	0.41
20:AL:25:ASN:HB3	20:AL:27:ASP:H	1.86	0.41
27:AT:94:PRO:HD2	27:AT:97:ARG:HD2	2.03	0.41
28:AU:67:THR:H	28:AU:70:ILE:HG12	1.85	0.41
32:AY:13:LYS:CB	85:AA:641:A:H4'	2.50	0.41
34:BA:2:A:N1	36:BC:169:G:C5	2.89	0.41
34:BA:10:G:O5'	34:BA:10:G:C8	2.73	0.41
34:BA:25:C:OP1	34:BA:392:A:N6	2.53	0.41
34:BA:132:U:C2	34:BA:182:U:O2'	2.68	0.41
34:BA:133:A:C2	34:BA:308:C:O4'	2.74	0.41
34:BA:185:A:C2	34:BA:186:G:N9	2.89	0.41
34:BA:194:G:N9	34:BA:195:G:C8	2.89	0.41
34:BA:210:G:C2	34:BA:223:U:C2	3.09	0.41
34:BA:229:C:C6	34:BA:229:C:O5'	2.74	0.41
34:BA:327:G:H5'	72:Bm:42:HIS:CE1	2.55	0.41
34:BA:360:C:H2'	72:Bm:39:ALA:HB3	2.02	0.41
34:BA:387:A:C2	34:BA:388:A:C5	3.08	0.41
34:BA:392:A:N6	50:BQ:210:ARG:HH11	2.18	0.41
34:BA:403:A:C4	34:BA:1531:G:C1'	3.03	0.41
34:BA:423:G:C6	34:BA:427:G:C6	3.09	0.41
34:BA:427:G:C2	34:BA:428:C:N1	2.88	0.41
34:BA:490:A:C2	34:BA:491:U:O2	2.74	0.41
34:BA:525:A:H2	34:BA:587:U:H3	1.69	0.41
34:BA:542:A:N1	34:BA:566:G:C6	2.89	0.41
34:BA:543:A:N3	34:BA:544:U:C6	2.88	0.41
34:BA:630:U:H2'	34:BA:631:G:N9	2.35	0.41
34:BA:649:A:C2	34:BA:650:C:H1'	2.56	0.41
34:BA:733:G:H1	34:BA:1587:C:H42	1.68	0.41
34:BA:745:A:C2	34:BA:892:C:C2	3.08	0.41
34:BA:763:U:C5	34:BA:770:G:C1'	3.02	0.41
34:BA:764:G:C6	34:BA:769:U:C5	3.08	0.41
34:BA:787:A:C6	34:BA:797:A:C8	3.07	0.41
34:BA:812:A:C8	34:BA:812:A:O5'	2.74	0.41
34:BA:846:U:C4	42:BI:69:VAL:HG21	2.56	0.41
34:BA:915:A:C8	34:BA:1005:C:N3	2.89	0.41
34:BA:1008:A:C4	34:BA:1009:G:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1100:A:C2	34:BA:1158:A:C2	3.09	0.41
34:BA:1174:A:C6	34:BA:1175:G:C5	3.08	0.41
34:BA:1194:G:N3	63:Bd:47:VAL:HG21	2.36	0.41
34:BA:1208:U:C5	34:BA:1210:A:C2	3.09	0.41
34:BA:1241:U:C6	44:BK:4:ARG:NH2	2.89	0.41
34:BA:1284:G:N1	34:BA:1285:G:C8	2.89	0.41
34:BA:1300:G:C2	34:BA:1440:C:C2	3.09	0.41
34:BA:1304:C:C2	34:BA:1305:A:C6	3.08	0.41
34:BA:1378:A:C5	34:BA:1379:G:C6	3.08	0.41
34:BA:1411:C:N3	34:BA:1412:G:C5	2.89	0.41
34:BA:1446:G:C6	52:BS:2:VAL:O	2.74	0.41
34:BA:1504:A:C5	62:Bc:42:GLN:HA	2.55	0.41
34:BA:1513:G:C6	34:BA:1514:A:C6	3.09	0.41
34:BA:1524:G:N3	34:BA:1524:G:C2'	2.83	0.41
34:BA:1573:C:C2	34:BA:1574:C:C5	3.09	0.41
34:BA:1595:G:C4	34:BA:1596:C:C5	3.09	0.41
34:BA:1598:U:H4'	51:BR:66:LYS:HB3	2.02	0.41
34:BA:1726:U:O2	34:BA:1728:G:C8	2.74	0.41
34:BA:1731:A:H3'	34:BA:1732:A:N7	2.36	0.41
34:BA:1750:A:N1	34:BA:1774:G:C6	2.89	0.41
34:BA:1768:G:H2'	34:BA:1769:U:O4'	2.21	0.41
34:BA:1785:G:H2'	34:BA:1786:C:C6	2.55	0.41
34:BA:1845:G:C6	35:BB:6:A:N6	2.89	0.41
35:BB:14:C:C4	35:BB:15:C:N3	2.88	0.41
35:BB:62:C:N3	35:BB:63:A:N1	2.68	0.41
35:BB:72:G:H2'	35:BB:73:G:O4'	2.20	0.41
35:BB:78:C:C2	35:BB:79:U:C6	3.09	0.41
35:BB:272:C:H2'	35:BB:273:G:C8	2.56	0.41
35:BB:373:C:C2	35:BB:374:A:C8	3.08	0.41
35:BB:459:U:O2'	35:BB:460:C:H5'	2.21	0.41
35:BB:480:C:C2	35:BB:501:G:N1	2.89	0.41
35:BB:481:A:N1	35:BB:499:A:C2	2.88	0.41
35:BB:546:A:H2'	35:BB:555:G:O6	2.21	0.41
35:BB:562:A:H3'	35:BB:563:A:C8	2.55	0.41
35:BB:669:A:H5''	77:Br:69:GLY:HA2	2.02	0.41
35:BB:790:A:C8	83:Bx:64:ARG:HG3	2.55	0.41
35:BB:1120:A:H4'	45:BL:111:PHE:N	2.35	0.41
35:BB:1129:C:H2'	35:BB:1130:U:O4'	2.21	0.41
35:BB:1171:U:C2	35:BB:1182:A:C2	3.09	0.41
35:BB:1277:A:N6	35:BB:1278:A:C6	2.88	0.41
35:BB:1380:G:H5''	35:BB:1381:U:OP2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1426:G:OP2	64:Be:214:GLY:N	2.53	0.41
35:BB:1432:U:C2	35:BB:1433:U:C4	3.09	0.41
35:BB:1444:U:N3	35:BB:1445:A:C5	2.89	0.41
35:BB:1469:A:H2'	35:BB:1470:G:H8	1.86	0.41
36:BC:106:G:C4	36:BC:115:G:C2	3.08	0.41
36:BC:109:A:H1'	36:BC:111:C:C5	2.56	0.41
37:BD:5:A:N1	37:BD:115:A:C6	2.88	0.41
37:BD:7:G:C4	37:BD:113:G:N1	2.89	0.41
37:BD:54:A:C6	37:BD:55:A:C4	3.09	0.41
38:BE:17:U:C6	38:BE:17:U:C3'	3.03	0.41
38:BE:52:U:O2	40:BG:97:G:C6	2.74	0.41
38:BE:73:A:H3'	38:BE:73:A:C8	2.55	0.41
38:BE:85:G:H2'	38:BE:86:C:O2'	2.21	0.41
38:BE:94:U:H3	38:BE:126:G:H1	1.67	0.41
38:BE:120:C:C5	38:BE:121:G:C5	3.08	0.41
38:BE:164:C:C2	38:BE:165:U:C6	3.09	0.41
38:BE:180:G:C8	38:BE:180:G:H5''	2.55	0.41
38:BE:192:A:N1	38:BE:193:A:C6	2.89	0.41
38:BE:201:A:C5	38:BE:202:C:C5	3.09	0.41
38:BE:207:G:H8	60:Ba:62:THR:HG1	1.62	0.41
40:BG:30:C:N3	40:BG:176:G:N1	2.69	0.41
40:BG:31:G:OP1	65:Bf:77:ARG:NH2	2.53	0.41
40:BG:90:G:N1	40:BG:91:U:C4	2.88	0.41
40:BG:116:G:C2	40:BG:117:C:C2	3.09	0.41
40:BG:127:G:N2	40:BG:163:G:H2'	2.36	0.41
41:BH:7:C:C5	41:BH:8:C:C6	3.09	0.41
41:BH:13:C:H2'	41:BH:14:C:C5'	2.50	0.41
41:BH:15:A:C3'	41:BH:16:A:H8	2.34	0.41
41:BH:19:G:O2'	41:BH:20:A:H5'	2.21	0.41
41:BH:62:C:C5	41:BH:63:G:C4	3.09	0.41
41:BH:130:G:C4	41:BH:131:A:C8	3.08	0.41
43:BJ:57:ARG:HE	43:BJ:152:VAL:HG12	1.85	0.41
44:BK:134:ILE:CG2	44:BK:136:LEU:O	2.68	0.41
44:BK:184:LEU:HD12	44:BK:184:LEU:HA	1.98	0.41
44:BK:206:ILE:HA	44:BK:207:THR:OG1	2.20	0.41
51:BR:39:MET:HB3	51:BR:40:LYS:HB2	2.02	0.41
51:BR:56:ARG:HH11	51:BR:57:CYS:CB	2.33	0.41
52:BS:9:TYR:HA	52:BS:65:VAL:HA	2.03	0.41
52:BS:120:TYR:HB3	52:BS:121:HIS:CE1	2.55	0.41
52:BS:163:LYS:C	52:BS:165:ARG:H	2.29	0.41
56:BW:70:GLU:HG2	56:BW:71:LEU:HG	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BX:135:LEU:N	57:BX:135:LEU:HD23	2.36	0.41
58:BY:10:HIS:HB2	58:BY:57:ARG:CB	2.48	0.41
58:BY:37:ARG:HG2	58:BY:39:LYS:CB	2.50	0.41
60:Ba:9:VAL:CG2	60:Ba:86:MET:HG2	2.50	0.41
65:Bf:347:MET:HG3	65:Bf:349:PRO:C	2.46	0.41
67:Bh:56:VAL:HG13	67:Bh:57:GLY:H	1.84	0.41
68:Bi:106:ARG:O	68:Bi:110:VAL:HG23	2.21	0.41
69:Bj:89:ARG:O	69:Bj:93:VAL:HG23	2.21	0.41
72:Bm:2:ALA:N	72:Bm:38:TYR:CE1	2.88	0.41
76:Bq:43:HIS:CE1	76:Bq:46:ARG:H	2.37	0.41
78:Bs:23:CYS:SG	78:Bs:34:CYS:SG	3.14	0.41
82:Bw:21:VAL:HG12	82:Bw:23:ALA:N	2.35	0.41
82:Bw:197:GLU:O	82:Bw:201:ASN:HB3	2.21	0.41
82:Bw:224:PRO:HA	82:Bw:225:PRO:HD3	1.72	0.41
83:Bx:151:GLU:O	83:Bx:154:ARG:HG2	2.20	0.41
83:Bx:265:ARG:HA	83:Bx:269:ASN:C	2.45	0.41
84:By:23:ILE:HA	84:By:35:LYS:O	2.20	0.41
85:AA:9:U:N3	85:AA:11:A:C5'	2.84	0.41
85:AA:22:A:C6	85:AA:678:A:C2	3.08	0.41
85:AA:39:A:N6	85:AA:537:G:C4	2.89	0.41
85:AA:53:G:N3	85:AA:493:A:C2	2.89	0.41
85:AA:72:C:H1'	85:AA:76:G:N1	2.36	0.41
85:AA:111:A:N6	85:AA:311:U:C2	2.89	0.41
85:AA:135:C:N4	85:AA:138:C:H1'	2.36	0.41
85:AA:271:A:C2	85:AA:978:U:O2	2.74	0.41
85:AA:383:C:C5	85:AA:384:C:C5	3.09	0.41
85:AA:390:U:H2'	85:AA:391:G:O4'	2.21	0.41
85:AA:485:A:N1	85:AA:486:G:C5	2.89	0.41
85:AA:591:A:OP2	85:AA:591:A:H3'	2.20	0.41
85:AA:597:A:C6	85:AA:598:C:C6	3.08	0.41
85:AA:609:U:O4	85:AA:610:C:C2	2.74	0.41
85:AA:617:C:H4'	85:AA:618:A:OP2	2.21	0.41
85:AA:709:A:C2	85:AA:710:A:C4	3.09	0.41
85:AA:747:U:C2	85:AA:748:C:C6	3.08	0.41
85:AA:1092:G:C6	85:AA:1093:C:N3	2.89	0.41
85:AA:1126:G:C4	85:AA:1201:A:C2	3.09	0.41
85:AA:1264:U:C6	85:AA:1264:U:O5'	2.73	0.41
85:AA:1286:C:C2	85:AA:1287:C:C6	3.09	0.41
85:AA:1451:U:C5	85:AA:1452:C:C5	3.08	0.41
85:AA:1665:G:C6	85:AA:1705:G:C5	3.08	0.41
85:AA:1668:G:P	85:AA:1668:G:H8	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1671:G:C6	85:AA:1699:A:N6	2.89	0.41
85:AA:1719:C:N4	85:AA:1822:G:H21	2.18	0.41
85:AA:1993:C:C4	85:AA:1994:G:C5	3.09	0.41
85:AA:2067:A:C2	85:AA:2069:A:H1'	2.55	0.41
85:AA:2166:G:C6	85:AA:2167:A:C4	3.09	0.41
3:A2:44:LYS:HA	85:AA:2081:A:C6	2.56	0.41
4:A3:47:ARG:HH21	4:A3:121:GLU:CD	2.28	0.41
4:A3:58:ASP:OD2	4:A3:62:PHE:HB2	2.20	0.41
4:A3:167:LYS:CB	4:A3:170:LYS:HB2	2.48	0.41
7:A6:42:TRP:CD1	7:A6:42:TRP:N	2.87	0.41
8:A7:5:TYR:HB2	8:A7:312:TRP:HA	2.02	0.41
8:A7:15:TRP:HE1	8:A7:305:THR:HG22	1.85	0.41
8:A7:41:LEU:HD22	8:A7:43:TRP:CE2	2.55	0.41
9:A8:24:ILE:HB	9:A8:25:CYS:SG	2.61	0.41
15:AG:55:ARG:CZ	85:AA:1209:U:H5'	2.51	0.41
15:AG:78:LYS:NZ	85:AA:1104:G:OP2	2.50	0.41
16:AH:30:PHE:CE2	16:AH:102:GLY:HA2	2.55	0.41
17:AI:41:LYS:CE	17:AI:48:ALA:HB1	2.51	0.41
18:AJ:43:LYS:HB2	18:AJ:44:HIS:CD2	2.55	0.41
25:AR:22:CYS:O	25:AR:26:ASN:N	2.53	0.41
26:AS:105:PHE:CD2	26:AS:119:ARG:C	2.99	0.41
31:AX:174:CYS:HB3	31:AX:176:LEU:HD21	2.03	0.41
31:AX:193:MET:C	31:AX:196:GLU:O	2.64	0.41
34:BA:23:A:N1	34:BA:395:G:C6	2.88	0.41
34:BA:38:G:H2'	34:BA:39:C:H5'	2.03	0.41
34:BA:63:A:C2	47:BN:105:ARG:NH2	2.88	0.41
34:BA:162:G:C2	34:BA:320:G:N7	2.88	0.41
34:BA:173:U:H2'	34:BA:174:A:O4'	2.20	0.41
34:BA:178:C:OP1	47:BN:136:LYS:HG2	2.21	0.41
34:BA:206:C:N3	34:BA:228:A:C5	2.89	0.41
34:BA:209:A:N6	34:BA:223:U:H3	2.11	0.41
34:BA:210:G:C2	34:BA:211:C:C5	3.08	0.41
34:BA:212:A:C6	34:BA:221:G:N1	2.89	0.41
34:BA:322:U:O5'	34:BA:322:U:C6	2.74	0.41
34:BA:354:G:C5	34:BA:355:U:C6	3.08	0.41
34:BA:378:C:C2	34:BA:379:C:C6	3.09	0.41
34:BA:471:U:C4	34:BA:472:G:C5	3.08	0.41
34:BA:484:A:C5	36:BC:6:G:N2	2.88	0.41
34:BA:492:G:C2	34:BA:710:A:N3	2.88	0.41
34:BA:504:A:N1	34:BA:699:G:C2	2.89	0.41
34:BA:513:U:C4	34:BA:690:G:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:518:C:C6	34:BA:518:C:C3'	3.01	0.41
34:BA:526:C:C6	34:BA:526:C:C3'	3.04	0.41
34:BA:527:C:C2	34:BA:585:G:N1	2.88	0.41
34:BA:579:U:C6	34:BA:579:U:C3'	3.04	0.41
34:BA:657:C:H2'	34:BA:658:C:O4'	2.20	0.41
34:BA:733:G:N1	34:BA:734:G:C4	2.89	0.41
34:BA:804:G:H3'	34:BA:805:A:H8	1.77	0.41
34:BA:819:G:N2	34:BA:852:C:C2	2.88	0.41
34:BA:884:G:H3'	42:BI:66:ARG:NH2	2.36	0.41
34:BA:911:G:C2	34:BA:912:G:H1'	2.56	0.41
34:BA:976:C:C2	34:BA:977:G:C8	3.08	0.41
34:BA:979:G:C8	34:BA:981:A:N7	2.89	0.41
34:BA:1044:A:C2	34:BA:1045:C:C4	3.09	0.41
34:BA:1049:G:O5'	34:BA:1049:G:H8	2.04	0.41
34:BA:1195:G:C2	34:BA:1196:C:C2	3.08	0.41
34:BA:1228:G:H3'	34:BA:1229:G:C5'	2.50	0.41
34:BA:1473:A:C6	34:BA:1474:G:C8	3.08	0.41
34:BA:1480:C:C5	82:Bw:25:GLU:C	2.99	0.41
34:BA:1482:A:C2	34:BA:1483:U:C6	3.08	0.41
34:BA:1498:A:C8	34:BA:1498:A:H3'	2.56	0.41
34:BA:1521:C:C2	34:BA:1522:G:C8	3.08	0.41
34:BA:1527:G:H2'	34:BA:1528:U:C6	2.56	0.41
34:BA:1654:G:C6	35:BB:39:C:N4	2.89	0.41
34:BA:1728:G:O6	34:BA:1799:G:C4	2.74	0.41
34:BA:1750:A:H2'	34:BA:1751:C:C6	2.56	0.41
34:BA:1807:G:N3	34:BA:1808:A:C8	2.89	0.41
34:BA:1841:A:C5	34:BA:1842:U:O4	2.74	0.41
35:BB:22:A:C8	35:BB:22:A:C3'	3.01	0.41
35:BB:111:C:C5'	35:BB:112:G:C8	3.03	0.41
35:BB:385:C:C4	35:BB:386:G:H1'	2.55	0.41
35:BB:465:C:C5	35:BB:509:A:C5	3.08	0.41
35:BB:517:G:N3	35:BB:517:G:H2'	2.36	0.41
35:BB:545:C:C6	35:BB:572:G:C5	3.08	0.41
35:BB:594:U:HO2'	35:BB:595:U:H6	1.67	0.41
35:BB:640:A:H2	35:BB:1283:C:H5'	1.85	0.41
35:BB:666:A:N6	35:BB:667:G:C2	2.89	0.41
35:BB:701:U:C6	35:BB:1040:C:OP2	2.72	0.41
35:BB:702:G:C4	35:BB:1039:A:C6	3.09	0.41
35:BB:709:G:H1'	35:BB:773:G:C2	2.56	0.41
35:BB:735:A:N6	35:BB:755:A:C5	2.89	0.41
35:BB:736:G:C6	35:BB:744:U:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:824:C:C6	35:BB:824:C:C3'	3.03	0.41
35:BB:826:G:C6	35:BB:827:U:C4	3.08	0.41
35:BB:828:G:H2'	35:BB:829:C:O4'	2.20	0.41
35:BB:837:A:H2'	35:BB:838:G:N2	2.36	0.41
35:BB:847:U:O2	69:Bj:125:ARG:CZ	2.69	0.41
35:BB:892:U:H2'	35:BB:893:U:C5'	2.50	0.41
35:BB:953:G:C2	35:BB:954:G:C4	3.09	0.41
35:BB:1092:G:C4	35:BB:1093:C:C5	3.09	0.41
35:BB:1170:U:H1'	54:BU:90:CYS:SG	2.61	0.41
35:BB:1192:C:H2'	35:BB:1193:G:C8	2.56	0.41
35:BB:1196:A:N7	35:BB:1197:G:H1'	2.35	0.41
35:BB:1230:A:C2	47:BN:205:ARG:HB2	2.56	0.41
35:BB:1401:G:N7	65:Bf:53:SER:O	2.53	0.41
35:BB:1405:G:C8	65:Bf:306:ALA:O	2.74	0.41
35:BB:1406:C:C4	35:BB:1407:U:O4	2.74	0.41
35:BB:1406:C:N3	35:BB:1407:U:C4	2.89	0.41
35:BB:1442:C:H2'	35:BB:1443:C:C6	2.55	0.41
35:BB:1449:G:OP1	65:Bf:72:ARG:N	2.52	0.41
35:BB:1463:A:H4'	40:BG:23:C:C5	2.53	0.41
35:BB:1518:U:H2'	35:BB:1519:U:H5'	2.03	0.41
35:BB:1519:U:N3	35:BB:1520:C:C6	2.88	0.41
35:BB:1528:U:C2	35:BB:1529:G:N7	2.89	0.41
36:BC:19:A:N6	36:BC:20:C:C4	2.89	0.41
36:BC:24:G:C2	36:BC:25:C:C2	3.09	0.41
36:BC:44:A:C6	36:BC:45:C:N4	2.89	0.41
37:BD:13:A:C8	37:BD:110:G:C1'	3.03	0.41
38:BE:1:U:C4	38:BE:12:A:C1'	3.00	0.41
38:BE:58:U:C6	38:BE:58:U:C3'	3.04	0.41
38:BE:101:C:N3	38:BE:117:A:N1	2.69	0.41
38:BE:130:G:C8	38:BE:131:C:O4'	2.73	0.41
39:BF:3:A:N6	39:BF:4:A:C6	2.89	0.41
39:BF:25:G:C5'	48:BO:55:ARG:HH12	2.31	0.41
40:BG:3:G:H4'	40:BG:3:G:OP1	2.20	0.41
40:BG:6:A:C2	40:BG:19:C:C2	3.08	0.41
40:BG:8:U:O2	40:BG:9:G:C8	2.73	0.41
40:BG:63:U:H3'	40:BG:64:C:C6	2.55	0.41
40:BG:121:C:H3'	40:BG:121:C:P	2.61	0.41
40:BG:135:C:N4	40:BG:136:G:C6	2.88	0.41
40:BG:170:G:H2'	40:BG:172:C:H3'	2.01	0.41
40:BG:171:A:C8	40:BG:172:C:H5	2.39	0.41
40:BG:179:C:C2	40:BG:180:C:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BH:2:U:C4	41:BH:3:U:C2	3.09	0.41
41:BH:26:C:O2	41:BH:28:U:C1'	2.69	0.41
41:BH:66:G:N1	41:BH:67:G:C5	2.89	0.41
45:BL:57:ALA:O	45:BL:69:ASN:HA	2.21	0.41
45:BL:61:VAL:HG11	45:BL:64:PHE:CE2	2.56	0.41
47:BN:166:LEU:O	47:BN:167:VAL:HG13	2.20	0.41
47:BN:184:LYS:HE3	47:BN:186:MET:SD	2.61	0.41
47:BN:187:TYR:HB2	61:Bb:131:ASP:HB3	2.02	0.41
49:BP:40:ASN:CG	49:BP:41:PRO:HD2	2.46	0.41
49:BP:132:ASP:O	49:BP:140:HIS:CE1	2.73	0.41
50:BQ:135:SER:HB3	50:BQ:149:VAL:HG13	2.02	0.41
53:BT:78:THR:O	53:BT:81:ARG:HG2	2.20	0.41
59:BZ:29:SER:HA	59:BZ:46:PRO:HA	2.02	0.41
65:Bf:157:TRP:CE3	65:Bf:157:TRP:HA	2.55	0.41
65:Bf:342:GLY:HA3	65:Bf:379:TYR:CD1	2.56	0.41
66:Bg:58:ASN:ND2	66:Bg:84:ASN:HA	2.35	0.41
70:Bk:59:MET:SD	70:Bk:59:MET:C	3.04	0.41
75:Bp:66:LYS:C	75:Bp:66:LYS:HD2	2.46	0.41
76:Bq:26:TRP:CZ3	76:Bq:27:ILE:HG12	2.56	0.41
80:Bu:39:GLN:HG2	80:Bu:40:ASP:N	2.36	0.41
80:Bu:118:LYS:HB3	80:Bu:142:ASP:OD1	2.21	0.41
82:Bw:2:PHE:CZ	82:Bw:21:VAL:HA	2.56	0.41
82:Bw:197:GLU:N	82:Bw:197:GLU:CD	2.79	0.41
83:Bx:95:LEU:HG	83:Bx:99:SER:HB2	2.02	0.41
85:AA:23:G:C6	85:AA:24:U:O4	2.74	0.41
85:AA:44:C:N4	85:AA:501:A:C4	2.89	0.41
85:AA:84:C:C2'	85:AA:85:U:H5''	2.50	0.41
85:AA:133:G:N2	85:AA:134:U:H1'	2.36	0.41
85:AA:147:G:C6	85:AA:177:A:C6	3.08	0.41
85:AA:266:U:H3	85:AA:971:U:H3	1.68	0.41
85:AA:340:G:C2	85:AA:341:C:C2	3.08	0.41
85:AA:416:U:H1'	85:AA:418:G:C6	2.56	0.41
85:AA:484:G:N1	85:AA:485:A:C4	2.89	0.41
85:AA:504:U:H3	85:AA:534:A:N6	2.18	0.41
85:AA:536:C:C4	85:AA:537:G:C5	3.08	0.41
85:AA:619:A:C6	85:AA:667:A:C2	3.08	0.41
85:AA:680:U:C1'	85:AA:682:C:H3'	2.50	0.41
85:AA:694:A:C4	85:AA:695:A:C2	3.09	0.41
85:AA:741:G:O6	85:AA:764:U:C5	2.73	0.41
85:AA:817:G:C2'	85:AA:818:C:C5	3.03	0.41
85:AA:879:G:C6	85:AA:927:A:N6	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:892:C:C6	85:AA:900:G:N1	2.88	0.41
85:AA:962:U:H2'	85:AA:963:U:H5'	2.03	0.41
85:AA:1125:G:O6	85:AA:1193:A:C6	2.74	0.41
85:AA:1136:A:H2'	85:AA:1137:C:C6	2.56	0.41
85:AA:1158:U:O2	85:AA:1159:C:C6	2.73	0.41
85:AA:1203:G:C6	85:AA:1204:A:C6	3.09	0.41
85:AA:1221:G:H8	85:AA:1221:G:O5'	2.04	0.41
85:AA:1234:G:C6	85:AA:1235:G:N3	2.89	0.41
85:AA:1242:A:N6	85:AA:1243:G:C6	2.89	0.41
85:AA:1249:U:O2	85:AA:1252:A:C8	2.74	0.41
85:AA:1259:U:C6	85:AA:1260:G:C8	3.09	0.41
85:AA:1288:A:C4	85:AA:1289:U:C6	3.08	0.41
85:AA:1297:G:N1	85:AA:1446:U:N3	2.68	0.41
85:AA:1489:G:C6	85:AA:1490:A:C8	3.08	0.41
85:AA:1524:A:C5	85:AA:1525:C:C5	3.09	0.41
85:AA:1581:C:C6	85:AA:1582:U:C4	3.09	0.41
85:AA:1618:G:C2	85:AA:1619:A:C4	3.09	0.41
85:AA:1652:A:C6	85:AA:1653:U:C6	3.09	0.41
85:AA:1681:G:H8	85:AA:1682:U:H2'	1.86	0.41
85:AA:1793:A:O2'	85:AA:1794:U:C6	2.74	0.41
85:AA:1880:C:H3'	85:AA:1881:C:H5	1.86	0.41
85:AA:2003:C:C5	85:AA:2039:G:N1	2.86	0.41
85:AA:2098:A:N6	85:AA:2243:G:C2	2.89	0.41
85:AA:2197:A:C2	85:AA:2198:G:C5	3.09	0.41
85:AA:2201:A:C2	85:AA:2202:G:C4	3.08	0.41
86:AB:37:A:H3'	86:AB:38:A:C8	2.56	0.41
86:AB:53:G:C2	86:AB:62:C:C2	3.08	0.41
1:A0:21:GLN:NE2	1:A0:26:ARG:HA	2.35	0.41
2:A1:96:PHE:CB	2:A1:108:LEU:HG	2.51	0.41
3:A2:47:PHE:CE1	3:A2:48:ARG:HG2	2.56	0.41
4:A3:58:ASP:OD2	4:A3:101:ARG:NE	2.53	0.41
5:A4:2:SER:HB3	5:A4:3:ALA:H	1.66	0.41
5:A4:104:ILE:CG2	5:A4:105:THR:N	2.77	0.41
7:A6:35:LEU:O	32:AY:36:LYS:HB2	2.21	0.41
7:A6:84:PHE:CE1	7:A6:102:ASP:HB3	2.56	0.41
8:A7:150:ALA:HB1	8:A7:179:LYS:HE3	2.02	0.41
8:A7:252:MET:HB2	8:A7:265:LEU:HD21	2.03	0.41
10:A9:88:LYS:HZ3	85:AA:1591:U:H3'	1.86	0.41
10:A9:137:HIS:HE1	85:AA:1613:A:C2	2.38	0.41
11:AC:176:VAL:C	11:AC:177:ASN:CG	2.89	0.41
11:AC:237:LEU:H	11:AC:237:LEU:HD12	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AC:237:LEU:HD23	20:AL:82:MET:HB3	2.01	0.41
12:AD:54:ARG:HD2	85:AA:1596:A:H4'	2.03	0.41
13:AE:41:HIS:CD2	85:AA:971:U:C5'	3.00	0.41
13:AE:112:LYS:HE2	85:AA:439:U:OP1	2.21	0.41
13:AE:115:ARG:HH12	26:AS:6:GLY:HA2	1.86	0.41
13:AE:119:ARG:NH1	85:AA:374:C:OP2	2.51	0.41
15:AG:105:ASN:CG	15:AG:106:THR:N	2.79	0.41
16:AH:32:ASP:OD2	16:AH:52:GLY:HA3	2.20	0.41
17:AI:46:ALA:HB3	85:AA:2015:U:C5	2.56	0.41
21:AM:29:PHE:CE2	85:AA:2005:U:C5	3.09	0.41
21:AM:83:TRP:CE2	85:AA:1968:A:C4	3.09	0.41
23:AP:74:HIS:HD2	23:AP:75:GLN:HA	1.86	0.41
23:AP:109:LYS:HA	23:AP:127:VAL:HA	2.03	0.41
25:AR:38:GLN:HB2	25:AR:58:CYS:SG	2.60	0.41
26:AS:20:ASN:OD1	85:AA:1485:G:C5	2.74	0.41
26:AS:39:ASN:HA	26:AS:40:PRO:HD3	1.81	0.41
28:AU:85:GLY:HA2	28:AU:88:HIS:NE2	2.36	0.41
31:AX:76:PHE:O	31:AX:77:ASN:HB3	2.21	0.41
34:BA:12:G:O3'	57:BX:64:ALA:HA	2.20	0.41
34:BA:73:G:H1'	47:BN:105:ARG:HB3	2.03	0.41
34:BA:102:G:H3'	34:BA:102:G:C8	2.55	0.41
34:BA:107:C:C2	47:BN:54:ARG:CZ	3.03	0.41
34:BA:126:G:C4	34:BA:127:U:C5	3.08	0.41
34:BA:132:U:N3	34:BA:133:A:C6	2.89	0.41
34:BA:153:C:OP2	72:Bm:35:ASN:N	2.54	0.41
34:BA:157:U:C6	34:BA:157:U:OP1	2.74	0.41
34:BA:167:U:N3	34:BA:168:U:C4	2.89	0.41
34:BA:169:C:O2	34:BA:320:G:C6	2.73	0.41
34:BA:174:A:C6	34:BA:313:C:N3	2.89	0.41
34:BA:175:G:C6	34:BA:176:G:N7	2.89	0.41
34:BA:194:G:N7	34:BA:196:A:C8	2.89	0.41
34:BA:209:A:C2	34:BA:210:G:H1'	2.56	0.41
34:BA:212:A:N1	34:BA:213:A:C5	2.89	0.41
34:BA:230:A:N1	34:BA:246:G:C6	2.89	0.41
34:BA:254:U:C6	34:BA:254:U:H3'	2.56	0.41
34:BA:257:G:C2	34:BA:258:C:C5	3.08	0.41
34:BA:315:U:H6	34:BA:315:U:P	2.43	0.41
34:BA:341:U:C2	34:BA:349:G:C6	3.08	0.41
34:BA:351:A:N1	34:BA:352:G:C5	2.89	0.41
34:BA:387:A:C6	34:BA:388:A:N6	2.89	0.41
34:BA:396:U:H3	36:BC:31:A:N6	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:436:U:H2'	34:BA:439:A:OP2	2.21	0.41
34:BA:454:G:C2	34:BA:455:A:C4	3.09	0.41
34:BA:477:C:H2'	34:BA:478:G:H8	1.86	0.41
34:BA:484:A:N1	36:BC:5:U:C4	2.89	0.41
34:BA:487:A:O2'	34:BA:488:C:H3'	2.20	0.41
34:BA:493:G:C4	34:BA:494:A:C8	3.09	0.41
34:BA:513:U:C2	34:BA:691:A:C5	3.09	0.41
34:BA:528:C:H6	34:BA:528:C:O5'	2.04	0.41
34:BA:546:U:H6	34:BA:546:U:O5'	2.03	0.41
34:BA:562:C:C5	34:BA:563:A:C8	3.09	0.41
34:BA:579:U:H3'	34:BA:579:U:C6	2.56	0.41
34:BA:586:G:C2'	34:BA:587:U:H5''	2.51	0.41
34:BA:594:G:C2	34:BA:684:G:C4	3.08	0.41
34:BA:603:U:H2'	34:BA:680:C:C1'	2.45	0.41
34:BA:605:G:C5	34:BA:606:G:N7	2.89	0.41
34:BA:649:A:C5	34:BA:650:C:C5	3.09	0.41
34:BA:662:U:H2'	34:BA:663:U:H6	1.85	0.41
34:BA:682:A:C8	34:BA:682:A:O5'	2.74	0.41
34:BA:743:A:C5	47:BN:8:ILE:N	2.82	0.41
34:BA:745:A:H2'	34:BA:746:C:O4'	2.20	0.41
34:BA:764:G:O6	34:BA:765:U:C2	2.73	0.41
34:BA:765:U:OP1	77:Br:212:ASP:HB2	2.21	0.41
34:BA:797:A:OP2	61:Bb:110:LEU:HB3	2.20	0.41
34:BA:812:A:C6	34:BA:813:C:C4	3.09	0.41
34:BA:823:G:N2	42:BI:77:TRP:CZ2	2.89	0.41
34:BA:835:U:C5	34:BA:836:U:C5	3.09	0.41
34:BA:876:C:C2	34:BA:877:U:C6	3.09	0.41
34:BA:897:U:O5'	34:BA:897:U:C6	2.74	0.41
34:BA:907:A:N6	34:BA:1033:G:C4	2.89	0.41
34:BA:918:U:H2'	34:BA:919:A:C8	2.56	0.41
34:BA:940:C:H4'	53:BT:126:LYS:HG2	2.02	0.41
34:BA:943:G:C5	34:BA:944:G:N7	2.89	0.41
34:BA:971:G:C4	34:BA:972:C:C5	3.09	0.41
34:BA:1011:G:C2	34:BA:1016:A:N6	2.88	0.41
34:BA:1052:G:C6	34:BA:1230:G:C5	3.09	0.41
34:BA:1099:U:C6	35:BB:1084:A:O4'	2.73	0.41
34:BA:1108:U:C6	34:BA:1108:U:C3'	3.04	0.41
34:BA:1119:A:N6	34:BA:1122:G:OP1	2.54	0.41
34:BA:1160:U:O5'	34:BA:1160:U:C6	2.72	0.41
34:BA:1170:A:C2	34:BA:1171:C:C5	3.09	0.41
34:BA:1171:C:H4'	54:BU:110:LYS:HE3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1175:G:O2'	34:BA:1176:C:C6	2.70	0.41
34:BA:1180:A:H5'	63:Bd:46:ARG:CZ	2.51	0.41
34:BA:1184:A:H1'	80:Bu:147:PRO:HG3	2.02	0.41
34:BA:1252:G:C6	34:BA:1253:G:C4	3.09	0.41
34:BA:1266:A:C6	34:BA:1267:A:C6	3.09	0.41
34:BA:1282:G:C5	34:BA:1458:A:N7	2.89	0.41
34:BA:1320:A:C4	34:BA:1419:A:C6	3.08	0.41
34:BA:1322:A:C5	34:BA:1323:G:N9	2.89	0.41
34:BA:1322:A:H3'	34:BA:1323:G:H8	1.85	0.41
34:BA:1347:G:N3	34:BA:1399:A:C2	2.88	0.41
34:BA:1356:C:O2	34:BA:1356:C:H2'	2.20	0.41
34:BA:1358:A:C6	34:BA:1367:G:C6	3.09	0.41
34:BA:1379:G:N3	34:BA:1379:G:H3'	2.35	0.41
34:BA:1468:U:C2	34:BA:1514:A:C2	3.09	0.41
34:BA:1474:G:N1	34:BA:1509:U:C4	2.89	0.41
34:BA:1481:U:OP2	82:Bw:30:ARG:NH2	2.48	0.41
34:BA:1535:G:C8	34:BA:1536:A:H5'	2.56	0.41
34:BA:1543:A:C6	34:BA:1544:G:C5	3.09	0.41
34:BA:1572:G:C5	34:BA:1573:C:C4	3.09	0.41
34:BA:1575:U:C2	34:BA:1576:C:C5	3.09	0.41
34:BA:1590:G:C2	34:BA:1591:G:C4	3.09	0.41
34:BA:1603:A:C2'	34:BA:1604:A:H5'	2.51	0.41
34:BA:1613:G:N1	34:BA:1614:G:C6	2.89	0.41
34:BA:1614:G:N1	34:BA:1616:A:C6	2.88	0.41
34:BA:1632:G:N2	51:BR:92:LEU:HD22	2.36	0.41
34:BA:1658:G:C5	34:BA:1659:G:C8	3.09	0.41
34:BA:1692:U:C5	35:BB:12:G:C6	3.08	0.41
34:BA:1696:G:P	34:BA:1697:U:C4	3.14	0.41
34:BA:1724:G:N7	34:BA:1799:G:N1	2.69	0.41
34:BA:1730:A:C2	34:BA:1731:A:H1'	2.56	0.41
34:BA:1804:A:N7	34:BA:1807:G:C6	2.89	0.41
34:BA:1844:U:H2'	34:BA:1845:G:O4'	2.20	0.41
35:BB:14:C:H2'	35:BB:15:C:C6	2.56	0.41
35:BB:34:G:C2	35:BB:35:G:C4	3.09	0.41
35:BB:58:G:C5	35:BB:59:U:C6	3.09	0.41
35:BB:58:G:C6	35:BB:59:U:C6	3.08	0.41
35:BB:65:A:H2'	35:BB:66:G:H8	1.85	0.41
35:BB:85:A:N3	35:BB:87:G:C6	2.88	0.41
35:BB:102:G:N3	35:BB:121:A:C2	2.89	0.41
35:BB:133:G:C2	35:BB:134:G:N9	2.89	0.41
35:BB:328:G:C4	35:BB:355:A:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:416:U:H2'	35:BB:417:A:C4	2.53	0.41
35:BB:464:C:H4'	35:BB:538:A:O4'	2.21	0.41
35:BB:475:A:H3'	35:BB:476:A:N3	2.36	0.41
35:BB:478:G:N1	35:BB:479:U:C2	2.89	0.41
35:BB:489:A:H2'	35:BB:490:G:O4'	2.21	0.41
35:BB:543:G:N1	35:BB:544:C:C2	2.89	0.41
35:BB:567:G:N1	35:BB:568:A:C4	2.88	0.41
35:BB:623:A:H61	35:BB:1441:C:N4	2.18	0.41
35:BB:624:A:C6	35:BB:625:A:C5	3.09	0.41
35:BB:668:A:N1	35:BB:1330:A:C5	2.88	0.41
35:BB:669:A:C6	77:Br:74:ARG:NH2	2.89	0.41
35:BB:695:U:C2	35:BB:1049:G:C2	3.09	0.41
35:BB:700:C:C2	35:BB:1044:U:C4	3.09	0.41
35:BB:700:C:N3	35:BB:701:U:C5	2.88	0.41
35:BB:701:U:O5'	35:BB:701:U:H2'	2.21	0.41
35:BB:705:C:H6	35:BB:705:C:O5'	2.04	0.41
35:BB:725:U:OP1	35:BB:726:A:C8	2.73	0.41
35:BB:732:G:N2	35:BB:758:A:C5	2.88	0.41
35:BB:778:A:C4	35:BB:779:C:C5	3.08	0.41
35:BB:780:U:O4	35:BB:1038:G:C5	2.74	0.41
35:BB:797:C:C5	35:BB:978:C:C4	3.09	0.41
35:BB:797:C:N4	35:BB:798:A:N6	2.67	0.41
35:BB:805:G:N1	35:BB:834:U:O4	2.54	0.41
35:BB:812:G:H2'	35:BB:813:C:O4'	2.21	0.41
35:BB:869:G:C2'	35:BB:870:C:C6	3.04	0.41
35:BB:876:G:N2	35:BB:959:C:C2	2.89	0.41
35:BB:880:G:H2'	35:BB:881:G:C8	2.56	0.41
35:BB:882:U:C2	35:BB:896:C:C4	3.09	0.41
35:BB:964:G:H5'	35:BB:965:G:OP1	2.21	0.41
35:BB:977:G:H2'	35:BB:978:C:H5'	2.02	0.41
35:BB:979:G:N2	35:BB:1026:G:H1	2.18	0.41
35:BB:996:G:O6	35:BB:997:G:C6	2.74	0.41
35:BB:1051:U:H2'	35:BB:1052:G:C8	2.56	0.41
35:BB:1070:G:C6	35:BB:1071:G:C6	3.09	0.41
35:BB:1094:A:C6	35:BB:1095:G:N7	2.89	0.41
35:BB:1113:C:C4	35:BB:1134:G:C2	3.09	0.41
35:BB:1115:G:C6	35:BB:1134:G:N3	2.89	0.41
35:BB:1117:G:N2	35:BB:1118:G:C4	2.89	0.41
35:BB:1135:U:C5	80:Bu:16:PHE:CD1	3.09	0.41
35:BB:1203:C:C6	35:BB:1204:C:C5	3.09	0.41
35:BB:1221:G:C2	35:BB:1222:A:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1235:A:N6	61:Bb:60:HIS:HA	2.35	0.41
35:BB:1277:A:N1	35:BB:1278:A:C5	2.89	0.41
35:BB:1283:C:H2'	35:BB:1284:U:O4'	2.21	0.41
35:BB:1284:U:N3	35:BB:1285:U:C2	2.89	0.41
35:BB:1288:G:C5	35:BB:1289:G:N7	2.89	0.41
35:BB:1291:G:C2	35:BB:1292:G:C4	3.09	0.41
35:BB:1355:C:H2'	35:BB:1357:C:H5''	2.03	0.41
35:BB:1370:G:C6	35:BB:1371:G:N7	2.89	0.41
35:BB:1398:A:OP2	65:Bf:53:SER:N	2.54	0.41
35:BB:1407:U:OP1	65:Bf:299:HIS:HB2	2.21	0.41
35:BB:1448:U:C2	35:BB:1449:G:C8	3.09	0.41
35:BB:1459:U:OP1	71:Bl:85:HIS:CD2	2.73	0.41
35:BB:1467:A:C5	35:BB:1468:A:H5'	2.56	0.41
36:BC:26:U:H4'	77:Br:52:ALA:CB	2.38	0.41
36:BC:37:U:C6	36:BC:39:G:N1	2.89	0.41
36:BC:71:A:C6	36:BC:87:C:O4'	2.74	0.41
36:BC:76:C:C6	36:BC:76:C:H3'	2.56	0.41
36:BC:91:G:N7	36:BC:92:C:C5	2.89	0.41
36:BC:91:G:H2'	36:BC:92:C:C6	2.55	0.41
36:BC:119:G:C2	36:BC:145:G:C6	3.08	0.41
36:BC:126:G:C2	36:BC:127:C:C2	3.09	0.41
36:BC:140:U:OP2	36:BC:141:C:C5	2.74	0.41
36:BC:144:C:H2'	36:BC:145:G:H8	1.85	0.41
37:BD:3:G:C2	37:BD:4:U:N1	2.89	0.41
37:BD:7:G:C2	37:BD:8:A:C4	3.08	0.41
37:BD:17:G:C6	37:BD:62:A:C6	3.09	0.41
37:BD:17:G:H3'	37:BD:17:G:C8	2.55	0.41
37:BD:65:G:C5	37:BD:66:G:C8	3.09	0.41
37:BD:79:G:C2	37:BD:80:G:C8	3.09	0.41
37:BD:80:G:C6	37:BD:81:C:C5	3.09	0.41
37:BD:80:G:O2'	37:BD:81:C:H5'	2.20	0.41
37:BD:86:A:C4	37:BD:87:G:C8	3.08	0.41
37:BD:101:A:N3	37:BD:102:C:C6	2.89	0.41
37:BD:113:G:H2'	37:BD:114:U:C6	2.56	0.41
38:BE:25:U:O2	38:BE:25:U:C2'	2.66	0.41
38:BE:31:A:C5	38:BE:32:U:O4	2.74	0.41
38:BE:40:C:H2'	38:BE:41:C:C6	2.56	0.41
38:BE:41:C:N3	38:BE:42:C:C5	2.89	0.41
38:BE:42:C:O3'	53:BT:63:TRP:CZ3	2.74	0.41
38:BE:48:G:C2	38:BE:49:A:C4	3.09	0.41
38:BE:49:A:C2	38:BE:60:C:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:60:C:N3	38:BE:61:A:C5	2.88	0.41
38:BE:64:A:H2	38:BE:140:G:C5	2.39	0.41
38:BE:87:U:N3	38:BE:88:G:N7	2.69	0.41
38:BE:102:U:H3	38:BE:117:A:N6	2.18	0.41
38:BE:105:A:H2'	38:BE:106:C:O4'	2.20	0.41
38:BE:108:U:C6	38:BE:108:U:H3'	2.55	0.41
38:BE:136:G:H2'	38:BE:137:A:H8	1.85	0.41
38:BE:151:C:H2'	38:BE:152:U:O4'	2.20	0.41
38:BE:185:G:C5	38:BE:186:C:C4	3.09	0.41
39:BF:3:A:C5	39:BF:4:A:N7	2.88	0.41
39:BF:26:U:P	39:BF:26:U:C6	3.14	0.41
39:BF:32:G:N3	39:BF:32:G:C2'	2.83	0.41
39:BF:63:U:O3'	49:BP:115:VAL:HG13	2.21	0.41
40:BG:15:G:N1	40:BG:16:G:C5	2.88	0.41
40:BG:30:C:N3	40:BG:176:G:C6	2.89	0.41
40:BG:31:G:H4'	65:Bf:236:GLU:CD	2.45	0.41
40:BG:92:U:C4	40:BG:93:U:C4	3.08	0.41
40:BG:115:C:OP1	65:Bf:422:LYS:HD2	2.21	0.41
40:BG:179:C:N3	40:BG:180:C:C5	2.89	0.41
41:BH:13:C:H2'	41:BH:14:C:H5'	2.01	0.41
41:BH:16:A:H3'	41:BH:17:A:C2	2.55	0.41
41:BH:48:G:H5''	41:BH:49:C:P	2.61	0.41
41:BH:52:G:N2	41:BH:53:C:H1'	2.36	0.41
41:BH:67:G:C4	41:BH:68:G:C8	3.09	0.41
41:BH:81:U:OP1	41:BH:82:U:C6	2.74	0.41
41:BH:99:G:OP1	55:BV:57:LEU:CA	2.67	0.41
41:BH:100:A:H3'	41:BH:100:A:C8	2.56	0.41
41:BH:106:G:C5	41:BH:107:A:C6	3.08	0.41
41:BH:109:G:OP2	58:BY:65:LYS:NZ	2.54	0.41
42:BI:13:ARG:HG3	42:BI:16:ARG:HA	2.03	0.41
42:BI:135:MET:SD	42:BI:136:MET:HE2	2.61	0.41
44:BK:85:PHE:HD2	44:BK:138:MET:SD	2.44	0.41
44:BK:139:ARG:HG2	44:BK:173:PHE:CE2	2.56	0.41
47:BN:2:PRO:HG3	61:Bb:7:LYS:CB	2.50	0.41
47:BN:92:PRO:O	47:BN:95:ALA:HB3	2.20	0.41
47:BN:184:LYS:O	47:BN:186:MET:HE1	2.20	0.41
49:BP:109:GLU:H	49:BP:109:GLU:HG3	1.53	0.41
50:BQ:175:HIS:HB2	50:BQ:179:ARG:HH21	1.85	0.41
52:BS:26:VAL:HG12	54:BU:143:VAL:HG23	2.03	0.41
52:BS:120:TYR:CD1	52:BS:120:TYR:C	2.99	0.41
53:BT:41:VAL:HA	53:BT:44:LEU:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BT:63:TRP:HB2	53:BT:67:LYS:HE2	2.02	0.41
54:BU:77:ASN:HA	54:BU:85:VAL:O	2.20	0.41
56:BW:91:ASP:O	65:Bf:124:VAL:CG1	2.69	0.41
57:BX:60:TYR:O	57:BX:60:TYR:CD2	2.74	0.41
57:BX:156:ASP:CG	57:BX:157:THR:N	2.76	0.41
59:BZ:6:CYS:HA	59:BZ:7:ARG:HB3	2.03	0.41
59:BZ:10:ARG:HG2	77:Br:197:ASN:HD21	1.86	0.41
59:BZ:76:VAL:HG13	59:BZ:95:GLY:CA	2.50	0.41
62:Bc:23:ASN:CB	68:Bi:66:TYR:CZ	3.03	0.41
62:Bc:59:ARG:HH22	62:Bc:87:LYS:HG2	1.86	0.41
62:Bc:63:THR:HB	62:Bc:80:THR:CB	2.49	0.41
66:Bg:25:ILE:HA	66:Bg:28:VAL:HB	2.03	0.41
67:Bh:80:LYS:N	67:Bh:81:PRO:HD3	2.36	0.41
67:Bh:129:ALA:O	67:Bh:132:ASN:HB2	2.20	0.41
67:Bh:156:GLU:HG3	67:Bh:167:TYR:CG	2.55	0.41
67:Bh:172:HIS:O	67:Bh:173:ILE:HG23	2.21	0.41
71:Bl:94:ARG:HA	71:Bl:95:TRP:CE3	2.56	0.41
73:Bn:17:ILE:O	73:Bn:27:TYR:HB2	2.21	0.41
73:Bn:43:GLN:C	73:Bn:43:GLN:CD	2.88	0.41
77:Br:109:ARG:C	77:Br:111:HIS:N	2.79	0.41
77:Br:265:PHE:HA	77:Br:276:MET:SD	2.61	0.41
77:Br:318:ASN:HA	77:Br:326:ARG:HG3	2.03	0.41
80:Bu:6:VAL:HG13	80:Bu:8:LYS:HG3	2.03	0.41
80:Bu:249:TYR:O	80:Bu:253:HIS:CG	2.74	0.41
82:Bw:6:LEU:O	82:Bw:16:MET:HA	2.21	0.41
82:Bw:169:LEU:HD23	82:Bw:169:LEU:HA	1.81	0.41
82:Bw:184:ILE:O	82:Bw:188:TYR:N	2.54	0.41
85:AA:3:U:H2'	85:AA:4:C:H4'	2.03	0.41
85:AA:48:G:C6	85:AA:497:G:N3	2.88	0.41
85:AA:57:G:C4	85:AA:58:C:C6	3.09	0.41
85:AA:65:A:N9	85:AA:66:U:C2	2.88	0.41
85:AA:70:U:C4	85:AA:71:G:N7	2.89	0.41
85:AA:70:U:O2'	85:AA:71:G:H5'	2.21	0.41
85:AA:137:C:O2	85:AA:138:C:C6	2.74	0.41
85:AA:160:A:N6	85:AA:161:A:C5	2.88	0.41
85:AA:169:G:C5	85:AA:170:C:C5	3.09	0.41
85:AA:251:A:C8	85:AA:253:C:C4	3.09	0.41
85:AA:258:G:C4	85:AA:259:A:C8	3.08	0.41
85:AA:268:A:H8	85:AA:269:G:C5'	2.32	0.41
85:AA:285:C:C6	85:AA:285:C:H3'	2.56	0.41
85:AA:289:G:C6	85:AA:290:G:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:289:G:C8	85:AA:289:G:H3'	2.56	0.41
85:AA:306:C:H3'	85:AA:306:C:C6	2.55	0.41
85:AA:309:G:N1	85:AA:310:U:N3	2.68	0.41
85:AA:309:G:C4	85:AA:310:U:C5	3.08	0.41
85:AA:329:G:H1'	85:AA:330:C:OP2	2.21	0.41
85:AA:360:C:C4	85:AA:361:U:C5	3.09	0.41
85:AA:368:C:O2	85:AA:368:C:C2'	2.68	0.41
85:AA:386:G:C5	85:AA:387:U:H5'	2.56	0.41
85:AA:407:G:H2'	85:AA:408:C:H6	1.86	0.41
85:AA:446:C:H2'	85:AA:447:C:C6	2.55	0.41
85:AA:456:A:N3	85:AA:456:A:H2'	2.36	0.41
85:AA:474:C:H5'	85:AA:2183:U:O2'	2.21	0.41
85:AA:478:U:C2	85:AA:479:C:C5	3.09	0.41
85:AA:520:A:C5'	85:AA:521:A:C2'	2.99	0.41
85:AA:582:A:C6	85:AA:583:U:C2	3.09	0.41
85:AA:584:G:C6	85:AA:585:G:C5	3.08	0.41
85:AA:596:A:C5	85:AA:597:A:C5	3.08	0.41
85:AA:597:A:N7	85:AA:598:C:C5	2.88	0.41
85:AA:636:G:H2'	85:AA:637:U:O4'	2.21	0.41
85:AA:640:C:H2'	85:AA:641:A:O4'	2.21	0.41
85:AA:691:U:C2	85:AA:692:U:C5	3.08	0.41
85:AA:716:G:C6	85:AA:717:G:C5	3.09	0.41
85:AA:725:G:C5	85:AA:777:U:C2	3.08	0.41
85:AA:740:A:C6	85:AA:741:G:H5'	2.56	0.41
85:AA:749:C:H3'	85:AA:750:A:O4'	2.21	0.41
85:AA:792:A:N1	85:AA:800:A:H2'	2.35	0.41
85:AA:806:G:H2'	85:AA:807:A:O5'	2.20	0.41
85:AA:865:G:C2	85:AA:866:U:C1'	3.04	0.41
85:AA:879:G:N3	85:AA:927:A:C2	2.88	0.41
85:AA:890:U:O2	85:AA:917:A:N1	2.53	0.41
85:AA:902:A:OP2	85:AA:914:U:C2	2.74	0.41
85:AA:911:A:C5	85:AA:912:C:N4	2.89	0.41
85:AA:912:C:H3'	85:AA:913:U:C5	2.56	0.41
85:AA:988:C:C2	85:AA:989:U:N3	2.89	0.41
85:AA:1002:G:C4	85:AA:1003:G:C8	3.09	0.41
85:AA:1155:A:C6	85:AA:1156:A:C5	3.09	0.41
85:AA:1175:A:C2	85:AA:1176:C:C2	3.09	0.41
85:AA:1224:C:O2	85:AA:1224:C:H2'	2.21	0.41
85:AA:1229:G:N3	85:AA:1230:U:C6	2.89	0.41
85:AA:1242:A:C5	85:AA:1243:G:C8	3.09	0.41
85:AA:1297:G:C6	85:AA:1298:G:C6	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1299:A:C2	85:AA:1444:U:O2	2.73	0.41
85:AA:1434:U:C2	85:AA:1436:A:C8	3.08	0.41
85:AA:1451:U:H3'	85:AA:1452:C:C6	2.55	0.41
85:AA:1497:U:C2	85:AA:1505:G:N1	2.89	0.41
85:AA:1525:C:C4'	85:AA:2103:C:OP2	2.69	0.41
85:AA:1558:U:N3	85:AA:1562:U:C5	2.89	0.41
85:AA:1570:A:C8	85:AA:1659:C:H4'	2.56	0.41
85:AA:1669:G:N1	85:AA:1701:G:C2	2.89	0.41
85:AA:1679:U:O5'	85:AA:1679:U:H6	2.04	0.41
85:AA:1711:C:H2'	85:AA:1712:A:C8	2.56	0.41
85:AA:1713:A:C6	85:AA:1855:U:N3	2.89	0.41
85:AA:1729:C:O5'	85:AA:1729:C:C6	2.73	0.41
85:AA:1754:G:H2'	85:AA:1755:U:C5	2.56	0.41
85:AA:1831:U:O5'	85:AA:1831:U:H6	2.04	0.41
85:AA:1863:A:C6	85:AA:1864:G:C4	3.08	0.41
85:AA:1887:G:N2	85:AA:1888:U:H1'	2.35	0.41
85:AA:1901:G:N2	85:AA:1902:C:H1'	2.36	0.41
85:AA:1961:U:C2	85:AA:1962:U:C5	3.09	0.41
85:AA:2009:A:O5'	85:AA:2009:A:C8	2.74	0.41
85:AA:2050:C:C5	85:AA:2052:U:O2	2.74	0.41
85:AA:2083:G:C2	85:AA:2084:U:C2	3.09	0.41
85:AA:2092:A:C2	85:AA:2093:U:C2	3.08	0.41
85:AA:2109:G:C6	85:AA:2110:U:C5	3.09	0.41
85:AA:2118:U:N3	85:AA:2201:A:C2	2.89	0.41
85:AA:2133:A:C6	85:AA:2134:U:C4	3.09	0.41
85:AA:2133:A:H2'	85:AA:2134:U:C6	2.56	0.41
85:AA:2143:U:C2	85:AA:2176:U:O2	2.74	0.41
85:AA:2153:G:C6	85:AA:2166:G:C6	3.09	0.41
85:AA:2174:G:H2'	85:AA:2175:U:H6	1.84	0.41
85:AA:2215:C:C6	85:AA:2218:G:C5	3.08	0.41
86:AB:27:G:H2'	86:AB:28:G:C8	2.56	0.41
86:AB:29:G:C2	86:AB:42:C:O2	2.74	0.41
86:AB:46:G:C8	86:AB:46:G:OP1	2.74	0.41
86:AB:55:U:O4	86:AB:58:A:H2'	2.21	0.41
86:AB:64:A:N3	86:AB:65:G:C6	2.89	0.41
1:A0:165:TRP:CH2	1:A0:168:MET:CE	3.03	0.41
2:A1:90:PRO:HA	2:A1:93:GLY:HA2	2.02	0.41
3:A2:93:ASN:O	3:A2:96:GLN:HB3	2.21	0.41
3:A2:138:TYR:O	3:A2:141:CYS:SG	2.79	0.41
4:A3:15:GLN:HG2	85:AA:157:G:C5'	2.49	0.41
4:A3:61:GLY:HA3	85:AA:164:G:N2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:159:LEU:O	5:A4:190:PHE:HA	2.21	0.41
10:A9:93:HIS:CD2	85:AA:1622:G:N2	2.89	0.41
11:AC:76:GLY:HA3	11:AC:84:ILE:HG23	2.03	0.41
11:AC:176:VAL:O	11:AC:176:VAL:HG13	2.20	0.41
11:AC:205:HIS:O	11:AC:209:MET:HB2	2.21	0.41
11:AC:227:ARG:CZ	11:AC:228:SER:H	2.33	0.41
12:AD:65:GLN:HE22	31:AX:26:ARG:HB2	1.86	0.41
15:AG:25:TRP:CZ3	15:AG:26:LEU:CB	3.04	0.41
18:AJ:33:VAL:HB	18:AJ:34:VAL:HG13	2.03	0.41
18:AJ:111:MET:HE1	18:AJ:115:GLU:HG3	2.03	0.41
19:AK:21:ALA:HB1	19:AK:83:GLN:HB2	2.03	0.41
21:AM:41:PHE:CD2	21:AM:43:TYR:HA	2.56	0.41
22:AO:57:SER:CB	22:AO:113:SER:H	2.34	0.41
23:AP:137:ALA:O	23:AP:140:ILE:HG13	2.21	0.41
23:AP:182:ALA:CB	23:AP:207:TYR:CZ	3.04	0.41
23:AP:189:VAL:HB	23:AP:208:THR:HB	2.03	0.41
24:AQ:48:ARG:CZ	85:AA:1723:U:H5'	2.50	0.41
25:AR:31:SER:C	25:AR:32:PHE:CD2	2.99	0.41
27:AT:55:LYS:HE2	85:AA:909:C:C4	2.56	0.41
30:AW:26:VAL:HG12	30:AW:27:GLN:O	2.20	0.41
33:AZ:45:LYS:HB3	33:AZ:60:ARG:HB3	2.03	0.41
34:BA:8:G:N3	34:BA:9:A:C8	2.89	0.41
34:BA:27:G:N3	34:BA:52:G:C2	2.89	0.41
34:BA:74:A:P	47:BN:78:ARG:HE	2.44	0.41
34:BA:97:A:H2'	34:BA:98:A:H8	1.86	0.41
34:BA:108:A:C4	34:BA:386:A:C5	3.10	0.41
34:BA:114:U:H6	34:BA:114:U:O5'	2.03	0.41
34:BA:114:U:H5'	50:BQ:21:PHE:HB2	2.03	0.41
34:BA:125:G:C2	34:BA:139:U:C2	3.09	0.41
34:BA:168:U:C4	34:BA:169:C:C5	3.09	0.41
34:BA:179:U:C2'	34:BA:180:G:H5'	2.51	0.41
34:BA:236:A:O2'	34:BA:238:C:C5	2.74	0.41
34:BA:248:G:H2'	34:BA:248:G:N3	2.36	0.41
34:BA:368:U:C4	35:BB:1234:G:H1'	2.55	0.41
34:BA:375:C:C6	34:BA:375:C:O5'	2.74	0.41
34:BA:382:G:O2'	50:BQ:68:VAL:HG22	2.20	0.41
34:BA:386:A:C5	34:BA:387:A:C5	3.09	0.41
34:BA:417:A:C4	34:BA:419:U:C5	3.09	0.41
34:BA:425:G:C6	34:BA:426:A:N6	2.89	0.41
34:BA:440:A:N7	34:BA:442:G:C5	2.89	0.41
34:BA:526:C:C6	34:BA:526:C:H3'	2.57	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:526:C:O2	34:BA:587:U:C6	2.74	0.41
34:BA:579:U:H3'	34:BA:579:U:OP1	2.21	0.41
34:BA:615:A:C8	34:BA:615:A:H3'	2.55	0.41
34:BA:617:G:H2'	34:BA:618:G:N9	2.36	0.41
34:BA:772:G:H5''	47:BN:34:PRO:HA	2.03	0.41
34:BA:798:G:H1	61:Bb:114:HIS:HB3	1.85	0.41
34:BA:825:G:N3	34:BA:826:C:C6	2.89	0.41
34:BA:942:G:N2	34:BA:950:C:C2	2.89	0.41
34:BA:974:G:C6	34:BA:975:A:N7	2.89	0.41
34:BA:1099:U:O2	34:BA:1100:A:C8	2.74	0.41
34:BA:1114:G:N1	34:BA:1115:A:C5	2.89	0.41
34:BA:1122:G:C8	34:BA:1122:G:C3'	3.03	0.41
34:BA:1162:U:H4'	35:BB:1085:C:C2	2.56	0.41
34:BA:1174:A:O2'	34:BA:1175:G:H5'	2.22	0.41
34:BA:1262:A:C2	34:BA:1265:G:O6	2.75	0.41
34:BA:1307:U:H2'	34:BA:1309:U:H2'	2.03	0.41
34:BA:1335:A:C2	34:BA:1336:U:C2	3.09	0.41
34:BA:1454:G:C8	34:BA:1454:G:C3'	3.04	0.41
34:BA:1462:U:H5''	82:Bw:221:LYS:HD3	2.03	0.41
34:BA:1472:G:C2	34:BA:1511:C:N3	2.89	0.41
34:BA:1472:G:N3	34:BA:1472:G:C2'	2.80	0.41
34:BA:1519:G:C4	34:BA:1520:A:C8	3.09	0.41
34:BA:1533:G:H3'	77:Br:203:ARG:HH21	1.86	0.41
34:BA:1539:A:N1	34:BA:1568:A:C2	2.89	0.41
34:BA:1550:G:C2	34:BA:1551:G:C4	3.09	0.41
34:BA:1633:C:H5''	34:BA:1635:A:OP2	2.21	0.41
34:BA:1712:U:C4	34:BA:1714:A:H3'	2.56	0.41
34:BA:1767:G:C6	34:BA:1768:G:C5	3.09	0.41
34:BA:1783:C:C4'	38:BE:207:G:H22	2.34	0.41
34:BA:1784:G:C2	34:BA:1785:G:C4	3.09	0.41
34:BA:1808:A:H1'	38:BE:193:A:N1	2.36	0.41
34:BA:1812:C:O2	34:BA:1813:C:C5	2.73	0.41
35:BB:28:G:H3'	35:BB:32:C:N4	2.36	0.41
35:BB:69:A:C8	35:BB:69:A:O5'	2.73	0.41
35:BB:124:G:N1	35:BB:125:G:C4	2.89	0.41
35:BB:136:A:C2	35:BB:137:A:C4	3.09	0.41
35:BB:326:G:C2	35:BB:358:U:N3	2.89	0.41
35:BB:342:U:C4	35:BB:343:U:C4	3.09	0.41
35:BB:391:G:N2	35:BB:598:C:C2	2.88	0.41
35:BB:430:A:C8	35:BB:430:A:C3'	3.04	0.41
35:BB:507:G:C2	35:BB:508:U:H1'	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:610:U:H6	35:BB:610:U:O5'	2.04	0.41
35:BB:634:A:H2'	35:BB:635:A:O4'	2.20	0.41
35:BB:812:G:C2	35:BB:813:C:H1'	2.56	0.41
35:BB:844:G:C2	35:BB:845:C:N1	2.89	0.41
35:BB:848:A:C8	35:BB:849:A:N3	2.89	0.41
35:BB:1079:G:C5	35:BB:1080:U:C4	3.09	0.41
35:BB:1151:A:C8	35:BB:1151:A:H5'	2.55	0.41
35:BB:1223:A:H5'	35:BB:1227:G:N9	2.36	0.41
35:BB:1242:C:H2'	35:BB:1243:A:C8	2.56	0.41
35:BB:1313:C:OP2	44:BK:3:ARG:NH2	2.54	0.41
35:BB:1482:A:N1	35:BB:1483:A:C5	2.89	0.41
35:BB:1528:U:H2'	35:BB:1529:G:C8	2.56	0.41
36:BC:27:U:H4'	77:Br:49:GLN:HE22	1.86	0.41
36:BC:45:C:C2	36:BC:46:G:C8	3.09	0.41
36:BC:73:U:OP1	59:BZ:72:ARG:HB2	2.21	0.41
36:BC:77:A:N6	36:BC:78:G:C6	2.89	0.41
36:BC:139:A:C3'	36:BC:140:U:C5	3.04	0.41
36:BC:145:G:N2	36:BC:146:U:C2	2.89	0.41
36:BC:154:A:H5''	50:BQ:74:GLN:NE2	2.36	0.41
37:BD:9:C:C6	37:BD:10:C:C5	3.09	0.41
37:BD:22:A:C5	80:Bu:278:TYR:CE2	3.08	0.41
37:BD:68:C:C2	37:BD:108:G:N2	2.89	0.41
38:BE:23:G:O5'	69:Bj:46:PRO:HA	2.21	0.41
38:BE:102:U:H1'	66:Bg:94:ARG:NE	2.36	0.41
38:BE:144:A:C2	38:BE:145:A:C1'	3.04	0.41
40:BG:5:G:C6	40:BG:6:A:C5	3.09	0.41
40:BG:44:G:C5	40:BG:45:G:C8	3.09	0.41
40:BG:84:U:C5	67:Bh:101:PHE:CD1	3.09	0.41
40:BG:132:U:C6	40:BG:132:U:H3'	2.56	0.41
41:BH:39:G:C6	41:BH:40:C:N3	2.89	0.41
41:BH:63:G:C6	41:BH:64:U:C2	3.09	0.41
41:BH:119:U:C6	41:BH:120:C:C5	3.08	0.41
41:BH:120:C:OP1	65:Bf:373:GLY:O	2.38	0.41
44:BK:59:GLN:CD	44:BK:59:GLN:H	2.28	0.41
44:BK:61:SER:O	44:BK:65:LEU:HG	2.21	0.41
45:BL:60:THR:HG23	45:BL:67:ARG:HA	2.02	0.41
47:BN:17:TRP:HA	47:BN:24:LYS:HG3	2.03	0.41
47:BN:60:ARG:HA	47:BN:79:GLY:O	2.21	0.41
47:BN:130:LEU:HG	47:BN:143:ALA:CB	2.51	0.41
48:BO:193:VAL:HB	49:BP:135:ASN:CG	2.45	0.41
48:BO:201:ARG:HG3	48:BO:205:LEU:HD22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BP:128:PHE:HA	49:BP:132:ASP:OD1	2.20	0.41
52:BS:8:HIS:CG	52:BS:32:PHE:CE2	3.09	0.41
53:BT:99:LEU:O	53:BT:103:ARG:N	2.54	0.41
53:BT:167:GLU:OE2	85:AA:945:A:O3'	2.29	0.41
58:BY:53:ILE:O	58:BY:54:ALA:C	2.64	0.41
60:Ba:12:MET:N	60:Ba:20:LYS:O	2.51	0.41
65:Bf:81:ARG:O	65:Bf:82:SER:HB2	2.20	0.41
65:Bf:107:ILE:HG22	65:Bf:125:GLU:O	2.21	0.41
67:Bh:50:ARG:HA	67:Bh:53:TYR:CG	2.56	0.41
68:Bi:18:PHE:O	68:Bi:33:TRP:HB2	2.21	0.41
75:Bp:3:ARG:O	75:Bp:43:TYR:HA	2.20	0.41
77:Br:4:ARG:HH22	77:Br:23:LEU:HD23	1.86	0.41
77:Br:180:ASN:O	77:Br:184:ASP:HB2	2.21	0.41
79:Bt:91:PHE:CG	79:Bt:92:GLU:N	2.88	0.41
80:Bu:169:LEU:O	80:Bu:172:ALA:HB3	2.21	0.41
80:Bu:201:HIS:CD2	80:Bu:201:HIS:C	2.98	0.41
82:Bw:42:LYS:HG3	82:Bw:43:LYS:H	1.86	0.41
83:Bx:122:LEU:O	83:Bx:125:VAL:HG22	2.21	0.41
85:AA:59:C:H2'	85:AA:60:U:C5	2.56	0.41
85:AA:75:U:O5'	85:AA:75:U:C6	2.72	0.41
85:AA:116:G:N7	85:AA:117:C:C6	2.89	0.41
85:AA:125:A:H3'	85:AA:251:A:C6	2.56	0.41
85:AA:165:C:O2'	85:AA:166:C:H5'	2.22	0.41
85:AA:239:G:H5''	85:AA:239:G:N3	2.36	0.41
85:AA:254:G:H1'	85:AA:327:G:O6	2.20	0.41
85:AA:273:C:C2	85:AA:976:G:N2	2.89	0.41
85:AA:365:G:C6	85:AA:366:A:C6	3.09	0.41
85:AA:430:G:C6	85:AA:442:G:C2	3.09	0.41
85:AA:433:U:H2'	85:AA:434:U:C6	2.56	0.41
85:AA:434:U:N3	85:AA:438:G:C6	2.89	0.41
85:AA:438:G:C6	85:AA:439:U:C6	3.09	0.41
85:AA:456:A:C2	85:AA:472:A:N1	2.89	0.41
85:AA:507:C:H2'	85:AA:508:C:O4'	2.21	0.41
85:AA:620:U:C4	85:AA:621:U:C4	3.09	0.41
85:AA:635:G:C6	85:AA:636:G:N7	2.89	0.41
85:AA:642:G:C4	85:AA:643:C:C6	3.09	0.41
85:AA:648:G:C2	85:AA:649:C:C6	3.09	0.41
85:AA:664:C:H2'	85:AA:665:A:C8	2.56	0.41
85:AA:711:C:H2'	85:AA:712:U:C5	2.55	0.41
85:AA:736:U:H5''	85:AA:737:G:C8	2.56	0.41
85:AA:771:A:O2'	85:AA:772:C:C2	2.66	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:795:C:C6	85:AA:795:C:OP2	2.73	0.41
85:AA:817:G:C6	85:AA:817:G:OP2	2.74	0.41
85:AA:965:G:C8	85:AA:965:G:H5'	2.55	0.41
85:AA:1117:G:N2	85:AA:1210:U:C2	2.89	0.41
85:AA:1144:G:C2	85:AA:1145:U:C2	3.09	0.41
85:AA:1184:A:C2	85:AA:1185:G:N7	2.88	0.41
85:AA:1228:A:C6	85:AA:1229:G:C5	3.08	0.41
85:AA:1229:G:C2	85:AA:1230:U:C2	3.09	0.41
85:AA:1450:U:C3'	85:AA:1451:U:C6	3.01	0.41
85:AA:1463:A:C8	85:AA:1464:G:H1'	2.55	0.41
85:AA:1549:G:H2'	85:AA:1550:C:C6	2.56	0.41
85:AA:1618:G:C4	85:AA:1619:A:C5	3.09	0.41
85:AA:1659:C:H2'	85:AA:1660:U:C6	2.56	0.41
85:AA:1665:G:H5''	85:AA:1665:G:H8	1.84	0.41
85:AA:1713:A:C2	85:AA:1855:U:C2	3.09	0.41
85:AA:1821:C:H2'	85:AA:1822:G:O4'	2.21	0.41
85:AA:1893:G:C6	85:AA:1894:G:C6	3.08	0.41
85:AA:1975:G:C8	85:AA:1975:G:O5'	2.74	0.41
85:AA:2001:C:O2	85:AA:2001:C:H2'	2.21	0.41
85:AA:2127:G:C6	85:AA:2191:C:N3	2.89	0.41
85:AA:2129:U:C2	85:AA:2130:G:N9	2.89	0.41
85:AA:2132:A:N1	85:AA:2133:A:C4	2.89	0.41
85:AA:2145:G:H3'	85:AA:2146:G:C8	2.56	0.41
85:AA:2209:U:O5'	85:AA:2209:U:C6	2.73	0.41
86:AB:64:A:C2	86:AB:65:G:C6	3.09	0.41
1:A0:155:ASN:HB2	1:A0:157:TYR:OH	2.21	0.40
4:A3:150:LEU:HD22	4:A3:154:ASP:HB2	2.03	0.40
5:A4:3:ALA:HB1	5:A4:10:LEU:HA	2.03	0.40
6:A5:80:ASP:CG	6:A5:183:ARG:HH22	2.29	0.40
6:A5:114:ALA:HA	6:A5:119:ILE:N	2.36	0.40
6:A5:117:TYR:HB3	6:A5:165:ARG:CD	2.51	0.40
6:A5:194:GLN:HE22	85:AA:397:G:H3'	1.85	0.40
10:A9:101:LEU:HD22	10:A9:101:LEU:HA	1.91	0.40
11:AC:184:CYS:O	11:AC:199:CYS:N	2.54	0.40
18:AJ:34:VAL:O	18:AJ:37:PHE:HB3	2.21	0.40
19:AK:135:TRP:HB3	85:AA:2072:G:P	2.61	0.40
20:AL:42:ARG:HG3	20:AL:43:SER:N	2.36	0.40
23:AP:69:MET:HA	23:AP:70:PRO:HD3	1.91	0.40
25:AR:68:GLU:HB3	25:AR:72:ALA:HB2	2.02	0.40
29:AV:17:ARG:NE	85:AA:1184:A:C5	2.89	0.40
31:AX:158:LYS:HB3	85:AA:1861:A:H5''	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AY:34:ALA:CB	85:AA:546:U:C5	3.04	0.40
33:AZ:79:ASN:CG	33:AZ:99:ALA:HB3	2.46	0.40
34:BA:2:A:H2'	36:BC:169:G:H22	1.86	0.40
34:BA:15:G:H2'	34:BA:16:C:C6	2.55	0.40
34:BA:17:A:N1	36:BC:151:G:C6	2.89	0.40
34:BA:87:G:C6	34:BA:96:G:N3	2.89	0.40
34:BA:127:U:C4	34:BA:128:C:C4	3.09	0.40
34:BA:152:C:O2'	72:Bm:35:ASN:HA	2.21	0.40
34:BA:197:A:H61	34:BA:280:A:P	2.43	0.40
34:BA:212:A:C5	34:BA:213:A:C5	3.09	0.40
34:BA:213:A:N1	34:BA:217:C:C2	2.89	0.40
34:BA:289:A:N6	34:BA:290:G:N7	2.68	0.40
34:BA:327:G:C5'	72:Bm:42:HIS:CE1	3.03	0.40
34:BA:334:G:H2'	34:BA:335:C:C6	2.56	0.40
34:BA:471:U:C2	36:BC:17:U:N3	2.89	0.40
34:BA:520:G:O6	34:BA:684:G:N1	2.55	0.40
34:BA:526:C:H2'	34:BA:527:C:O5'	2.20	0.40
34:BA:538:G:H2'	34:BA:539:C:O4'	2.21	0.40
34:BA:602:G:C3'	34:BA:603:U:H5'	2.50	0.40
34:BA:668:G:C4	34:BA:669:U:C6	3.09	0.40
34:BA:673:U:OP2	81:Bv:13:ALA:N	2.53	0.40
34:BA:733:G:C6	34:BA:1588:U:O4	2.74	0.40
34:BA:772:G:H8	47:BN:34:PRO:N	2.19	0.40
34:BA:791:A:N7	34:BA:792:A:C8	2.89	0.40
34:BA:791:A:N1	35:BB:1232:A:H1'	2.35	0.40
34:BA:831:U:C2	34:BA:832:C:C6	3.08	0.40
34:BA:898:G:H3'	34:BA:898:G:H8	1.85	0.40
34:BA:907:A:C6	34:BA:1033:G:C6	3.09	0.40
34:BA:927:A:C6	34:BA:997:U:O4	2.73	0.40
34:BA:1044:A:N6	34:BA:1525:G:C5	2.89	0.40
34:BA:1051:A:H1'	34:BA:1227:U:O2'	2.22	0.40
34:BA:1053:U:O3'	63:Bd:7:HIS:CE1	2.74	0.40
34:BA:1082:U:O2'	34:BA:1206:C:C2	2.74	0.40
34:BA:1103:G:C6	34:BA:1104:C:N4	2.89	0.40
34:BA:1119:A:H4'	34:BA:1120:U:OP1	2.20	0.40
34:BA:1119:A:C5	34:BA:1140:A:N1	2.88	0.40
34:BA:1257:U:P	68:Bi:45:ARG:HH21	2.44	0.40
34:BA:1277:G:C2	34:BA:1464:C:O2	2.74	0.40
34:BA:1400:A:C6	34:BA:1401:C:C5	3.09	0.40
34:BA:1418:G:C8	34:BA:1418:G:OP2	2.73	0.40
34:BA:1428:G:N1	34:BA:1429:A:C5	2.88	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1542:A:H2'	34:BA:1543:A:O4'	2.21	0.40
34:BA:1545:C:H2'	34:BA:1546:C:C5	2.56	0.40
34:BA:1591:G:O2'	34:BA:1592:U:H5'	2.22	0.40
34:BA:1708:A:C5	34:BA:1709:A:N9	2.89	0.40
34:BA:1711:G:OP1	50:BQ:82:ARG:NH2	2.54	0.40
34:BA:1736:A:N6	34:BA:1789:A:C2	2.90	0.40
34:BA:1827:C:C5'	57:BX:101:ASN:CG	2.94	0.40
35:BB:114:A:O5'	35:BB:114:A:H8	2.04	0.40
35:BB:374:A:OP1	53:BT:85:ARG:NH2	2.55	0.40
35:BB:402:G:C6	35:BB:403:U:O4	2.74	0.40
35:BB:412:A:C2	35:BB:548:A:C5	3.09	0.40
35:BB:517:G:N1	35:BB:534:C:C2	2.89	0.40
35:BB:520:G:C5	35:BB:521:U:C5	3.08	0.40
35:BB:546:A:C5	35:BB:550:G:N1	2.89	0.40
35:BB:562:A:OP2	56:BW:73:ARG:NH1	2.54	0.40
35:BB:609:G:C6	35:BB:610:U:O4	2.75	0.40
35:BB:645:C:C2	35:BB:646:U:C5	3.08	0.40
35:BB:652:G:C6	40:BG:172:C:C2	3.09	0.40
35:BB:670:G:C2	35:BB:672:C:C4	3.08	0.40
35:BB:744:U:H2'	35:BB:745:C:O4'	2.21	0.40
35:BB:804:U:O4	35:BB:805:G:C5	2.74	0.40
35:BB:814:A:C2	35:BB:826:G:C2	3.09	0.40
35:BB:866:A:C6	35:BB:867:C:C5	3.09	0.40
35:BB:868:C:C4	35:BB:869:G:N7	2.89	0.40
35:BB:874:G:N2	35:BB:961:G:C4	2.89	0.40
35:BB:1039:A:O5'	35:BB:1040:C:C6	2.74	0.40
35:BB:1089:A:C2	35:BB:1090:A:C4	3.09	0.40
35:BB:1177:U:C2	35:BB:1178:A:O4'	2.74	0.40
35:BB:1203:C:H2'	35:BB:1204:C:C6	2.56	0.40
35:BB:1227:G:C5'	35:BB:1229:A:O2'	2.69	0.40
35:BB:1236:A:H2'	35:BB:1237:C:H5'	2.03	0.40
35:BB:1297:G:C6	35:BB:1308:G:C2	3.08	0.40
35:BB:1310:C:C4	35:BB:1311:G:C8	3.09	0.40
35:BB:1348:C:C4	35:BB:1372:G:N1	2.89	0.40
35:BB:1422:G:N3	35:BB:1426:G:C6	2.89	0.40
35:BB:1430:G:H2'	35:BB:1431:G:C8	2.56	0.40
35:BB:1506:C:C2	49:BP:171:ARG:NH1	2.89	0.40
35:BB:1510:G:N2	35:BB:1511:U:C2	2.89	0.40
36:BC:24:G:C4	36:BC:25:C:C5	3.09	0.40
36:BC:35:C:H2'	36:BC:36:G:H8	1.83	0.40
36:BC:53:A:C5	36:BC:54:G:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BC:60:U:O2	70:Bk:56:ALA:HA	2.21	0.40
36:BC:66:G:N1	36:BC:93:C:C2	2.89	0.40
37:BD:8:A:C4	37:BD:9:C:C6	3.09	0.40
37:BD:37:G:C6	37:BD:41:G:C6	3.09	0.40
37:BD:75:G:H5''	52:BS:49:GLU:HA	2.03	0.40
38:BE:142:A:C8	75:Bp:26:LYS:HE2	2.57	0.40
39:BF:64:U:C6	48:BO:204:ALA:O	2.74	0.40
40:BG:36:G:C5	40:BG:37:G:C8	3.09	0.40
40:BG:93:U:C5	40:BG:94:G:N7	2.89	0.40
41:BH:10:U:O2	41:BH:20:A:C2	2.74	0.40
41:BH:11:C:C2	41:BH:13:C:C4	3.09	0.40
41:BH:16:A:C5	41:BH:17:A:C4	3.09	0.40
41:BH:47:G:H3'	41:BH:47:G:C8	2.56	0.40
44:BK:35:ASP:OD2	44:BK:86:HIS:CE1	2.75	0.40
45:BL:92:LYS:HA	45:BL:96:PHE:CZ	2.56	0.40
47:BN:30:PHE:CD2	50:BQ:217:PHE:O	2.74	0.40
48:BO:91:HIS:CD2	48:BO:96:ASP:HB3	2.56	0.40
50:BQ:39:ILE:HG22	50:BQ:43:ARG:NE	2.36	0.40
50:BQ:52:THR:HG22	50:BQ:82:ARG:CZ	2.51	0.40
54:BU:74:VAL:O	54:BU:89:ILE:HG12	2.21	0.40
56:BW:87:TRP:N	56:BW:87:TRP:CE3	2.89	0.40
57:BX:130:VAL:HG11	57:BX:147:ARG:NH1	2.36	0.40
62:Bc:133:LYS:C	62:Bc:135:HIS:N	2.78	0.40
64:Be:75:LEU:HD22	64:Be:84:THR:HG21	2.03	0.40
64:Be:89:LEU:O	64:Be:94:ALA:HA	2.21	0.40
67:Bh:27:ALA:HB3	67:Bh:58:ASN:CG	2.46	0.40
67:Bh:154:LYS:HG3	67:Bh:167:TYR:O	2.21	0.40
67:Bh:166:PHE:C	67:Bh:167:TYR:HD1	2.29	0.40
71:Bl:75:TYR:CD1	71:Bl:75:TYR:N	2.89	0.40
72:Bm:17:ALA:O	72:Bm:18:GLY:C	2.64	0.40
73:Bn:34:CYS:SG	73:Bn:37:CYS:SG	3.18	0.40
74:Bo:35:ALA:HB3	74:Bo:37:HIS:NE2	2.33	0.40
76:Bq:30:ARG:CZ	76:Bq:30:ARG:CB	2.99	0.40
77:Br:59:MET:SD	77:Br:99:ARG:HG3	2.61	0.40
77:Br:65:SER:HA	77:Br:76:PRO:CA	2.43	0.40
77:Br:179:VAL:CG2	77:Br:225:LEU:HD21	2.51	0.40
77:Br:315:GLN:HB3	77:Br:322:ASN:HD22	1.86	0.40
77:Br:331:PRO:HD2	82:Bw:60:TYR:HA	2.02	0.40
80:Bu:197:ASN:HB3	80:Bu:200:VAL:HG12	2.03	0.40
82:Bw:151:TYR:CD1	82:Bw:151:TYR:N	2.87	0.40
84:By:23:ILE:HG13	84:By:36:ASP:HA	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:82:A:C8	85:AA:82:A:H3'	2.56	0.40
85:AA:105:A:N1	85:AA:373:G:C2	2.89	0.40
85:AA:160:A:N6	85:AA:161:A:C6	2.89	0.40
85:AA:317:A:C6	85:AA:318:A:C5	3.10	0.40
85:AA:412:G:C6	85:AA:413:G:C5	3.09	0.40
85:AA:438:G:C8	85:AA:438:G:C5'	3.01	0.40
85:AA:461:G:O5'	85:AA:461:G:H8	2.04	0.40
85:AA:474:C:C2	85:AA:475:A:N9	2.89	0.40
85:AA:480:U:C2'	85:AA:482:C:C6	3.03	0.40
85:AA:564:A:C6	85:AA:565:G:H1'	2.57	0.40
85:AA:584:G:C8	85:AA:584:G:H3'	2.56	0.40
85:AA:609:U:C4	85:AA:610:C:C6	3.09	0.40
85:AA:666:A:C6	85:AA:667:A:C5	3.09	0.40
85:AA:692:U:C5'	85:AA:1279:A:H8	2.34	0.40
85:AA:743:C:H2'	85:AA:744:C:H6	1.83	0.40
85:AA:804:A:H3'	85:AA:804:A:C8	2.57	0.40
85:AA:811:A:H1'	85:AA:867:G:N2	2.35	0.40
85:AA:867:G:N3	85:AA:868:A:C6	2.89	0.40
85:AA:921:C:C5	85:AA:922:A:H1'	2.55	0.40
85:AA:1101:C:C2	85:AA:1102:C:C6	3.09	0.40
85:AA:1257:A:C2	85:AA:1258:U:C6	3.09	0.40
85:AA:1264:U:H2'	85:AA:1265:C:C6	2.56	0.40
85:AA:1280:U:C4	85:AA:1470:A:C8	3.09	0.40
85:AA:1368:G:N2	85:AA:1441:G:H1'	2.36	0.40
85:AA:1654:G:N1	85:AA:1655:G:H1'	2.36	0.40
85:AA:1665:G:C6	85:AA:1705:G:C2	3.09	0.40
85:AA:1678:U:O5'	85:AA:1678:U:H6	2.03	0.40
85:AA:1712:A:N3	85:AA:1856:G:C2	2.89	0.40
85:AA:1720:C:O2	85:AA:1820:G:C2	2.74	0.40
85:AA:1731:G:C8	85:AA:1809:G:N3	2.89	0.40
85:AA:1795:C:O2'	85:AA:1796:C:H5'	2.21	0.40
85:AA:1835:U:H3'	85:AA:1836:U:H6	1.86	0.40
85:AA:1849:A:H2'	85:AA:1850:G:H5'	2.02	0.40
85:AA:1908:A:C2	85:AA:1909:C:C2	3.08	0.40
85:AA:2028:G:C4	85:AA:2029:G:C8	3.10	0.40
85:AA:2060:G:N1	85:AA:2061:C:C4	2.89	0.40
85:AA:2122:A:C2	85:AA:2123:U:C2	3.09	0.40
85:AA:2127:G:C5	85:AA:2192:A:N1	2.89	0.40
85:AA:2128:G:N2	85:AA:2191:C:H1'	2.35	0.40
85:AA:2139:G:H1	85:AA:2179:C:H42	1.69	0.40
86:AB:1:G:C6	86:AB:73:A:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A1:91:LYS:HE2	27:AT:22:LEU:HA	2.02	0.40
4:A3:21:GLU:CD	4:A3:22:VAL:H	2.29	0.40
4:A3:175:LYS:CD	85:AA:67:C:C6	3.05	0.40
5:A4:191:MET:HB3	85:AA:1356:U:OP1	2.21	0.40
6:A5:73:ALA:O	85:AA:323:U:C4'	2.69	0.40
17:AI:69:GLU:O	17:AI:72:LYS:HB3	2.22	0.40
18:AJ:73:GLY:O	18:AJ:127:GLY:HA3	2.21	0.40
20:AL:109:LEU:CD2	20:AL:118:ARG:HH12	2.34	0.40
22:AO:45:MET:CG	22:AO:127:LEU:HD11	2.51	0.40
24:AQ:19:VAL:O	24:AQ:85:LEU:HD22	2.21	0.40
27:AT:42:PRO:HA	85:AA:591:A:H5'	2.02	0.40
30:AW:36:VAL:O	30:AW:44:ILE:HB	2.21	0.40
31:AX:47:ILE:O	31:AX:85:LEU:HA	2.22	0.40
32:AY:30:PRO:C	32:AY:31:ARG:HG3	2.46	0.40
34:BA:8:G:C2	34:BA:9:A:C8	3.10	0.40
34:BA:9:A:H61	36:BC:162:C:N4	2.19	0.40
34:BA:27:G:C5	34:BA:52:G:C6	3.08	0.40
34:BA:33:C:C6	34:BA:33:C:H3'	2.56	0.40
34:BA:108:A:N6	34:BA:386:A:H1'	2.36	0.40
34:BA:149:G:H2'	34:BA:150:C:O4'	2.22	0.40
34:BA:196:A:C8	34:BA:196:A:H3'	2.55	0.40
34:BA:264:A:H2'	34:BA:265:A:C8	2.56	0.40
34:BA:329:G:C2	34:BA:382:G:C6	3.09	0.40
34:BA:369:A:N6	35:BB:1242:C:C2	2.89	0.40
34:BA:430:A:C5	34:BA:431:A:C5	3.09	0.40
34:BA:449:G:N2	34:BA:452:A:OP2	2.53	0.40
34:BA:474:A:C2	34:BA:475:A:N3	2.89	0.40
34:BA:487:A:N6	35:BB:651:G:C5	2.90	0.40
34:BA:495:A:N1	34:BA:496:G:C5	2.89	0.40
34:BA:540:G:C6	34:BA:541:C:C4	3.09	0.40
34:BA:566:G:N1	34:BA:567:U:C4	2.90	0.40
34:BA:609:G:C2	34:BA:610:A:N9	2.89	0.40
34:BA:716:C:N4	34:BA:720:A:H8	2.19	0.40
34:BA:778:U:OP1	77:Br:273:SER:N	2.55	0.40
34:BA:799:A:P	34:BA:800:G:H4'	2.61	0.40
34:BA:804:G:O6	34:BA:810:A:N6	2.55	0.40
34:BA:858:C:H2'	34:BA:859:G:C8	2.56	0.40
34:BA:982:A:O4'	51:BR:133:HIS:HA	2.21	0.40
34:BA:993:C:C6	34:BA:994:G:N7	2.89	0.40
34:BA:994:G:C4	34:BA:996:U:C5	3.09	0.40
34:BA:1026:C:C2	34:BA:1027:C:C5	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:1040:G:C5	34:BA:1041:U:C6	3.08	0.40
34:BA:1049:G:N7	34:BA:1516:G:C6	2.89	0.40
34:BA:1073:G:N3	34:BA:1221:A:C2	2.88	0.40
34:BA:1101:A:H4'	37:BD:78:C:H5'	2.03	0.40
34:BA:1109:G:C6	34:BA:1110:A:C8	3.08	0.40
34:BA:1136:A:N7	34:BA:1137:U:C5	2.90	0.40
34:BA:1163:G:O6	34:BA:1164:C:C4	2.75	0.40
34:BA:1192:A:H2'	34:BA:1193:A:O4'	2.21	0.40
34:BA:1260:G:C2	34:BA:1270:G:N3	2.89	0.40
34:BA:1310:C:C5	34:BA:1311:G:C6	3.08	0.40
34:BA:1331:G:N2	34:BA:1332:U:C2	2.90	0.40
34:BA:1364:G:OP2	46:BM:7:PRO:HD3	2.21	0.40
34:BA:1406:U:C2	34:BA:1407:C:C5	3.09	0.40
34:BA:1539:A:C6	34:BA:1568:A:N1	2.89	0.40
34:BA:1574:C:OP1	62:Bc:21:LYS:HD3	2.22	0.40
34:BA:1658:G:H2'	34:BA:1659:G:O4'	2.20	0.40
34:BA:1688:G:P	57:BX:91:THR:HG21	2.61	0.40
34:BA:1742:G:H2'	34:BA:1743:U:O4'	2.20	0.40
34:BA:1746:G:C5	34:BA:1747:C:C5	3.09	0.40
35:BB:6:A:OP2	35:BB:6:A:C8	2.75	0.40
35:BB:87:G:C5	35:BB:88:U:C4	3.09	0.40
35:BB:336:U:H2'	35:BB:337:U:C6	2.56	0.40
35:BB:361:A:C6	35:BB:362:A:C5	3.10	0.40
35:BB:431:U:H6	35:BB:431:U:O5'	2.04	0.40
35:BB:483:C:C3'	35:BB:483:C:C6	3.04	0.40
35:BB:525:U:C3'	35:BB:525:U:C6	3.04	0.40
35:BB:575:C:C4	35:BB:576:A:C4	3.08	0.40
35:BB:590:G:C6	35:BB:592:G:C6	3.10	0.40
35:BB:612:A:C4	35:BB:613:C:C5	3.10	0.40
35:BB:628:A:H2'	35:BB:629:C:H6	1.86	0.40
35:BB:633:C:H4'	65:Bf:315:ARG:HH11	1.86	0.40
35:BB:662:G:N1	35:BB:663:G:C5	2.89	0.40
35:BB:665:A:C5	35:BB:666:A:C5	3.10	0.40
35:BB:665:A:C2	35:BB:1404:A:N1	2.89	0.40
35:BB:739:C:H2'	35:BB:740:A:O4'	2.20	0.40
35:BB:794:G:H1	35:BB:1028:C:N4	2.18	0.40
35:BB:799:A:C2	35:BB:971:A:O3'	2.75	0.40
35:BB:810:G:N2	35:BB:830:G:H1'	2.36	0.40
35:BB:826:G:H8	35:BB:826:G:O5'	2.03	0.40
35:BB:869:G:OP2	35:BB:869:G:H8	2.04	0.40
35:BB:1071:G:C5	35:BB:1072:C:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:1106:G:C5	35:BB:1107:C:C5	3.09	0.40
35:BB:1110:G:H2'	35:BB:1111:C:H6	1.85	0.40
35:BB:1119:G:C2	35:BB:1120:A:C4	3.09	0.40
35:BB:1220:A:N6	35:BB:1221:G:O6	2.55	0.40
35:BB:1346:A:C5	35:BB:1369:A:C5	3.09	0.40
35:BB:1376:G:C4	35:BB:1377:A:C8	3.09	0.40
35:BB:1385:C:H2'	35:BB:1386:C:C5	2.56	0.40
35:BB:1405:G:C2	35:BB:1406:C:C6	3.09	0.40
35:BB:1407:U:C6	35:BB:1408:G:C5	3.09	0.40
35:BB:1431:G:H2'	35:BB:1432:U:C6	2.56	0.40
35:BB:1464:G:N7	40:BG:24:A:OP2	2.54	0.40
35:BB:1498:G:C2	35:BB:1508:G:C2	3.09	0.40
35:BB:1521:G:C5	35:BB:1522:G:N7	2.89	0.40
35:BB:1527:A:N6	35:BB:1541:G:C5	2.89	0.40
36:BC:73:U:H3'	36:BC:74:U:C5	2.55	0.40
36:BC:144:C:H4'	57:BX:78:LYS:HB2	2.03	0.40
37:BD:15:U:C4	37:BD:16:U:C6	3.09	0.40
37:BD:66:G:H2'	37:BD:67:C:H6	1.85	0.40
38:BE:24:G:C2	69:Bj:41:GLN:HG3	2.56	0.40
38:BE:64:A:C6	38:BE:141:A:C8	3.10	0.40
38:BE:121:G:C6	38:BE:122:G:C6	3.08	0.40
38:BE:145:A:C2	38:BE:146:U:N1	2.90	0.40
38:BE:199:A:O2'	38:BE:200:A:H5'	2.20	0.40
39:BF:60:C:OP1	39:BF:62:U:N3	2.54	0.40
40:BG:33:G:C2	40:BG:168:A:C2	3.10	0.40
40:BG:59:G:C8	40:BG:59:G:H3'	2.57	0.40
40:BG:127:G:N1	40:BG:163:G:C2	2.88	0.40
40:BG:152:G:N1	40:BG:153:C:C2	2.89	0.40
41:BH:3:U:C2'	41:BH:4:U:C5	3.04	0.40
41:BH:32:U:O4	41:BH:33:G:C2	2.73	0.40
41:BH:42:U:C6	41:BH:42:U:P	3.14	0.40
41:BH:61:C:C2	65:Bf:455:GLU:HG2	2.55	0.40
41:BH:63:G:C6	41:BH:64:U:C6	3.09	0.40
42:BI:156:VAL:HA	42:BI:159:PHE:CG	2.55	0.40
45:BL:39:ARG:HA	45:BL:42:LYS:HD2	2.02	0.40
48:BO:112:ARG:HA	48:BO:115:ARG:HG2	2.02	0.40
48:BO:140:PRO:HG2	52:BS:168:PHE:HA	2.03	0.40
49:BP:6:TYR:HB2	49:BP:8:ARG:NE	2.36	0.40
49:BP:164:VAL:O	49:BP:168:ARG:HG3	2.21	0.40
50:BQ:178:GLN:NE2	50:BQ:179:ARG:HG2	2.37	0.40
50:BQ:183:SER:O	50:BQ:187:LYS:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BR:25:HIS:CD2	51:BR:141:ARG:NH1	2.89	0.40
52:BS:136:VAL:HG11	52:BS:145:HIS:CE1	2.57	0.40
53:BT:4:LEU:HD23	53:BT:8:ALA:HB2	2.03	0.40
60:Ba:52:VAL:C	60:Ba:56:MET:SD	3.04	0.40
68:Bi:33:TRP:HA	68:Bi:33:TRP:CE3	2.55	0.40
71:Bl:112:ILE:HA	71:Bl:124:VAL:HA	2.03	0.40
71:Bl:116:HIS:CD2	71:Bl:121:THR:OG1	2.74	0.40
72:Bm:88:ILE:O	72:Bm:92:LYS:HG3	2.22	0.40
77:Br:102:ALA:N	77:Br:103:PRO:HD3	2.36	0.40
77:Br:332:PHE:CE2	77:Br:336:GLU:HG3	2.57	0.40
77:Br:345:ASN:O	77:Br:349:ARG:HD3	2.21	0.40
81:Bv:15:LYS:HB3	81:Bv:16:VAL:HA	2.02	0.40
83:Bx:217:ASN:HB3	83:Bx:219:GLU:CD	2.47	0.40
84:By:94:TYR:CD2	84:By:99:ILE:HB	2.56	0.40
85:AA:12:U:H1'	85:AA:1677:A:H1'	2.04	0.40
85:AA:15:U:O5'	85:AA:15:U:C6	2.74	0.40
85:AA:25:C:OP1	85:AA:26:A:C5'	2.69	0.40
85:AA:104:C:C6	85:AA:104:C:OP2	2.74	0.40
85:AA:129:U:H2'	85:AA:130:G:O4'	2.21	0.40
85:AA:147:G:C6	85:AA:177:A:C4	3.09	0.40
85:AA:178:U:H2'	85:AA:179:G:C4'	2.50	0.40
85:AA:245:A:N1	85:AA:246:C:N3	2.70	0.40
85:AA:269:G:C5	85:AA:980:U:O2	2.74	0.40
85:AA:307:G:C8	85:AA:307:G:C3'	3.03	0.40
85:AA:338:G:C6	85:AA:339:A:C4	3.09	0.40
85:AA:342:C:C5	85:AA:348:G:C6	3.09	0.40
85:AA:392:G:N2	85:AA:409:C:H1'	2.36	0.40
85:AA:575:G:C8	85:AA:575:G:O5'	2.74	0.40
85:AA:591:A:N1	85:AA:602:U:C6	2.89	0.40
85:AA:635:G:N1	85:AA:636:G:C8	2.89	0.40
85:AA:703:U:C2	85:AA:704:A:C8	3.09	0.40
85:AA:732:G:C8	85:AA:733:C:C5	3.10	0.40
85:AA:801:U:H6	85:AA:802:A:C5	2.39	0.40
85:AA:809:A:N6	85:AA:869:A:C2	2.90	0.40
85:AA:878:U:N3	85:AA:879:G:C8	2.90	0.40
85:AA:1007:G:H1'	85:AA:1096:G:N2	2.36	0.40
85:AA:1047:G:C6	85:AA:1048:C:C4	3.10	0.40
85:AA:1096:G:C2	85:AA:1097:G:C4	3.09	0.40
85:AA:1109:G:C6	85:AA:1110:A:C4	3.09	0.40
85:AA:1198:U:H2'	85:AA:1199:C:H6	1.84	0.40
85:AA:1229:G:C4	85:AA:1230:U:C6	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1291:A:C5	85:AA:1292:A:C4	3.10	0.40
85:AA:1292:A:N6	85:AA:1293:U:C4	2.89	0.40
85:AA:1300:A:C2	85:AA:1443:U:C2	3.09	0.40
85:AA:1469:G:N3	85:AA:1469:G:C5'	2.84	0.40
85:AA:1524:A:H2'	85:AA:1525:C:O4'	2.20	0.40
85:AA:1524:A:H5'	85:AA:2102:A:C6	2.57	0.40
85:AA:1564:U:H2'	85:AA:1565:G:H8	1.84	0.40
85:AA:1584:U:H4'	85:AA:1585:A:O5'	2.21	0.40
85:AA:1625:C:C2	85:AA:1626:U:C5	3.09	0.40
85:AA:1650:G:C8	85:AA:1870:C:C5	3.09	0.40
85:AA:1665:G:N7	85:AA:1691:U:C2	2.88	0.40
85:AA:1671:G:C2	85:AA:1699:A:C6	3.10	0.40
85:AA:1785:U:H3'	85:AA:1786:G:C8	2.56	0.40
85:AA:1799:C:C4	85:AA:1800:U:C2	3.09	0.40
85:AA:1825:A:C5	85:AA:1850:G:C4	3.09	0.40
85:AA:1825:A:H1'	85:AA:1851:A:C2	2.55	0.40
85:AA:1974:C:C4	85:AA:1975:G:N7	2.89	0.40
85:AA:2026:U:C4	85:AA:2027:U:C5	3.09	0.40
85:AA:2036:A:C5	85:AA:2037:A:N7	2.89	0.40
85:AA:2075:C:C5	85:AA:2076:C:C5	3.09	0.40
85:AA:2105:G:C2	85:AA:2106:C:C2	3.09	0.40
85:AA:2149:C:H2'	85:AA:2150:G:C8	2.56	0.40
85:AA:2196:G:C8	85:AA:2196:G:O5'	2.74	0.40
85:AA:2221:A:C5	85:AA:2244:G:C2	3.09	0.40
85:AA:2230:U:O5'	85:AA:2230:U:C6	2.74	0.40
86:AB:1:G:N1	86:AB:73:A:C5	2.89	0.40
86:AB:21:A:C6	86:AB:48:C:C5	3.09	0.40
1:A0:165:TRP:O	1:A0:169:ARG:HG2	2.21	0.40
1:A0:181:LEU:HD12	1:A0:182:ASP:H	1.86	0.40
2:A1:196:GLU:O	2:A1:203:ASP:HA	2.22	0.40
4:A3:49:TYR:CD1	4:A3:119:VAL:HA	2.56	0.40
5:A4:12:LYS:C	5:A4:15:ARG:H	2.28	0.40
5:A4:67:LEU:HB3	5:A4:101:GLN:HB3	2.02	0.40
6:A5:66:ALA:O	6:A5:201:ALA:HA	2.22	0.40
6:A5:111:LEU:O	6:A5:115:LYS:N	2.54	0.40
7:A6:11:TRP:CZ2	7:A6:42:TRP:HE3	2.38	0.40
7:A6:42:TRP:CH2	85:AA:667:A:OP1	2.74	0.40
7:A6:52:ARG:HE	7:A6:52:ARG:HB3	1.57	0.40
7:A6:157:PHE:CD1	7:A6:163:PHE:O	2.74	0.40
7:A6:158:ALA:O	7:A6:161:SER:HB3	2.21	0.40
11:AC:76:GLY:O	11:AC:83:ASN:HA	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AC:191:GLU:HB3	11:AC:192:PHE:CD2	2.57	0.40
15:AG:4:MET:SD	85:AA:1116:G:OP1	2.79	0.40
15:AG:90:CYS:SG	85:AA:1118:U:H5'	2.61	0.40
16:AH:83:ILE:HG22	16:AH:83:ILE:O	2.20	0.40
17:AI:61:PRO:O	17:AI:65:LYS:HG3	2.21	0.40
17:AI:107:ARG:N	85:AA:1560:A:C2	2.89	0.40
18:AJ:41:MET:SD	18:AJ:129:PHE:CD1	3.14	0.40
22:AO:19:LYS:HD3	85:AA:1734:A:C2	2.56	0.40
22:AO:45:MET:SD	22:AO:45:MET:C	3.05	0.40
23:AP:121:ILE:HG13	23:AP:122:GLY:H	1.85	0.40
23:AP:126:ARG:HB3	23:AP:137:ALA:HB3	2.02	0.40
23:AP:153:TYR:CD1	23:AP:153:TYR:N	2.88	0.40
24:AQ:114:PRO:C	24:AQ:115:HIS:CD2	3.00	0.40
25:AR:71:HIS:O	25:AR:71:HIS:CE1	2.74	0.40
26:AS:65:ALA:HB3	85:AA:642:G:N7	2.36	0.40
27:AT:111:ARG:HH21	85:AA:506:G:H3'	1.87	0.40
30:AW:75:VAL:O	30:AW:78:CYS:SG	2.78	0.40
31:AX:173:HIS:HE1	85:AA:1655:G:H5'	1.85	0.40
34:BA:2:A:C8	34:BA:2:A:C3'	3.02	0.40
34:BA:10:G:N3	34:BA:10:G:C2'	2.80	0.40
34:BA:56:G:OP2	70:Bk:94:ARG:NH2	2.54	0.40
34:BA:83:G:C2	34:BA:96:G:C6	3.10	0.40
34:BA:128:C:O2	34:BA:136:A:C2	2.75	0.40
34:BA:193:C:C3'	34:BA:194:G:H4'	2.51	0.40
34:BA:236:A:O2'	34:BA:238:C:H5	2.04	0.40
34:BA:250:G:C6	34:BA:268:U:C4	3.09	0.40
34:BA:256:A:H3'	34:BA:257:G:C5'	2.51	0.40
34:BA:261:A:H1'	77:Br:220:ARG:HH12	1.87	0.40
34:BA:281:C:N4	34:BA:288:U:C5	2.89	0.40
34:BA:286:C:H2'	34:BA:287:U:OP1	2.21	0.40
34:BA:325:A:H2'	34:BA:326:A:C5'	2.51	0.40
34:BA:333:A:C6	34:BA:357:A:C8	3.08	0.40
34:BA:334:G:H2'	34:BA:335:C:H6	1.86	0.40
34:BA:384:U:C2	34:BA:385:U:C6	3.09	0.40
34:BA:401:A:N1	36:BC:26:U:O2	2.54	0.40
34:BA:419:U:O4	34:BA:430:A:H8	2.04	0.40
34:BA:535:G:H1	34:BA:574:U:H3	1.70	0.40
34:BA:566:G:N1	34:BA:567:U:C5	2.90	0.40
34:BA:576:C:H5''	34:BA:579:U:OP2	2.21	0.40
34:BA:587:U:C2	34:BA:588:C:N4	2.90	0.40
34:BA:652:C:H2'	34:BA:653:U:C6	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:749:G:C2	34:BA:750:C:C2	3.09	0.40
34:BA:756:A:N7	34:BA:757:G:H1'	2.37	0.40
34:BA:840:U:O2	34:BA:840:U:H2'	2.20	0.40
34:BA:937:G:N2	34:BA:938:C:C2	2.90	0.40
34:BA:1003:A:C2	34:BA:1004:U:C4	3.09	0.40
34:BA:1033:G:O5'	34:BA:1033:G:C8	2.74	0.40
34:BA:1054:U:H3'	34:BA:1055:U:H5	1.84	0.40
34:BA:1110:A:C6	34:BA:1149:C:C4	3.10	0.40
34:BA:1112:U:H2'	34:BA:1113:A:H8	1.83	0.40
34:BA:1122:G:N2	34:BA:1123:G:H1'	2.37	0.40
34:BA:1144:A:C2	34:BA:1145:U:H1'	2.56	0.40
34:BA:1163:G:H5'	54:BU:60:ARG:NH1	2.36	0.40
34:BA:1193:A:N1	34:BA:1194:G:C6	2.89	0.40
34:BA:1219:G:N1	34:BA:1220:C:C2	2.90	0.40
34:BA:1257:U:H3'	68:Bi:45:ARG:CZ	2.51	0.40
34:BA:1317:U:C6	34:BA:1317:U:C3'	3.04	0.40
34:BA:1327:G:C5	34:BA:1415:C:C2	3.09	0.40
34:BA:1327:G:C2	34:BA:1328:U:C2	3.09	0.40
34:BA:1365:U:OP2	34:BA:1365:U:C5	2.75	0.40
34:BA:1418:G:H3'	34:BA:1419:A:H8	1.85	0.40
34:BA:1471:U:C4	42:Bi:11:LYS:HB3	2.56	0.40
34:BA:1517:U:C4	34:BA:1518:A:C4	3.09	0.40
34:BA:1626:U:O4	67:Bh:79:ARG:NH2	2.54	0.40
34:BA:1641:G:N2	34:BA:1642:A:C4	2.89	0.40
34:BA:1646:U:C4	34:BA:1647:G:C4	3.09	0.40
34:BA:1667:G:C6	34:BA:1668:C:C4	3.09	0.40
34:BA:1821:A:OP2	53:BT:38:ARG:NH1	2.54	0.40
34:BA:1837:U:C2	34:BA:1838:U:C5	3.09	0.40
35:BB:75:A:H5''	35:BB:76:C:P	2.61	0.40
35:BB:79:U:C4	35:BB:80:C:C5	3.09	0.40
35:BB:257:G:H2'	35:BB:258:C:C6	2.56	0.40
35:BB:363:A:N3	35:BB:363:A:H2'	2.35	0.40
35:BB:372:U:H2'	35:BB:373:C:O4'	2.22	0.40
35:BB:486:G:C8	72:Bm:76:ARG:CZ	3.04	0.40
35:BB:546:A:C6	35:BB:555:G:C2	3.10	0.40
35:BB:567:G:C6	35:BB:568:A:N7	2.89	0.40
35:BB:593:A:N6	35:BB:594:U:C4	2.89	0.40
35:BB:646:U:C4	35:BB:647:U:O4	2.74	0.40
35:BB:679:G:C2	35:BB:1269:A:C4	3.09	0.40
35:BB:736:G:C5	35:BB:744:U:N3	2.89	0.40
35:BB:799:A:C4	35:BB:972:C:OP1	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:799:A:N7	35:BB:976:U:OP2	2.55	0.40
35:BB:801:G:C5	35:BB:802:G:C8	3.08	0.40
35:BB:990:G:H5''	64:Be:69:TYR:CZ	2.56	0.40
35:BB:999:G:C8	35:BB:999:G:C3'	3.04	0.40
35:BB:999:G:N1	35:BB:1000:U:C6	2.89	0.40
35:BB:1030:U:C2	35:BB:1031:G:C6	3.09	0.40
35:BB:1066:G:O6	35:BB:1067:G:C6	2.74	0.40
35:BB:1070:G:C6	35:BB:1071:G:C4	3.10	0.40
35:BB:1110:G:C2	35:BB:1155:U:N3	2.89	0.40
35:BB:1147:G:H3'	35:BB:1148:U:C5	2.56	0.40
35:BB:1203:C:C6	35:BB:1203:C:H3'	2.56	0.40
35:BB:1231:U:H2'	35:BB:1232:A:C8	2.56	0.40
35:BB:1233:U:H2'	35:BB:1234:G:H8	1.86	0.40
35:BB:1335:G:N1	35:BB:1336:G:C4	2.89	0.40
35:BB:1343:C:C2	35:BB:1396:G:C2	3.08	0.40
35:BB:1343:C:N3	35:BB:1396:G:N1	2.69	0.40
35:BB:1344:U:C2	35:BB:1369:A:N1	2.90	0.40
35:BB:1359:G:C8	35:BB:1359:G:O5'	2.74	0.40
35:BB:1467:A:C8	35:BB:1467:A:C3'	3.02	0.40
36:BC:68:A:N3	36:BC:91:G:C2	2.89	0.40
36:BC:91:G:N2	36:BC:92:C:H1'	2.37	0.40
36:BC:164:G:N2	36:BC:166:G:C5	2.89	0.40
37:BD:3:G:C2	37:BD:117:U:O2	2.75	0.40
37:BD:95:G:H1'	82:Bw:238:GLU:HB2	2.03	0.40
38:BE:30:C:N4	38:BE:181:U:P	2.94	0.40
38:BE:48:G:N7	55:BV:87:LYS:HE3	2.36	0.40
38:BE:53:U:O5'	38:BE:53:U:C6	2.75	0.40
38:BE:72:C:H2'	38:BE:73:A:C8	2.57	0.40
38:BE:102:U:C4	38:BE:104:G:C2	3.09	0.40
38:BE:152:U:H5'	38:BE:153:C:OP2	2.21	0.40
38:BE:179:A:OP1	38:BE:182:U:N3	2.55	0.40
39:BF:9:C:H2'	39:BF:10:A:C4	2.56	0.40
39:BF:19:A:C2	39:BF:58:U:O4'	2.74	0.40
39:BF:22:U:H2'	39:BF:22:U:OP1	2.22	0.40
39:BF:69:A:C6	39:BF:70:A:N1	2.89	0.40
40:BG:3:G:OP1	40:BG:3:G:C4'	2.68	0.40
40:BG:6:A:N1	40:BG:7:U:C2	2.89	0.40
40:BG:64:C:H2'	40:BG:65:C:O4'	2.22	0.40
40:BG:65:C:C2	40:BG:66:C:C5	3.09	0.40
40:BG:101:G:C5	40:BG:102:G:N7	2.89	0.40
40:BG:140:G:H5''	84:By:74:HIS:ND1	2.32	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BG:142:A:C2	40:BG:143:C:C4	3.08	0.40
40:BG:164:U:O5'	40:BG:164:U:C6	2.64	0.40
41:BH:9:C:C2	41:BH:9:C:O5'	2.74	0.40
41:BH:22:A:H5''	65:Bf:167:ARG:NH2	2.36	0.40
41:BH:28:U:C6	41:BH:28:U:C3'	3.04	0.40
41:BH:38:G:N2	41:BH:114:G:H1'	2.37	0.40
41:BH:40:C:C5	41:BH:41:A:C5	3.09	0.40
44:BK:72:ALA:O	44:BK:73:ASN:C	2.65	0.40
47:BN:76:LEU:HD21	47:BN:164:GLY:CA	2.51	0.40
47:BN:149:LYS:HE3	70:Bk:126:LYS:HB2	2.04	0.40
48:BO:161:CYS:HA	48:BO:164:VAL:HG22	2.03	0.40
48:BO:177:ALA:HA	48:BO:180:ILE:HG12	2.03	0.40
49:BP:77:ALA:O	49:BP:81:LYS:HE3	2.22	0.40
49:BP:147:LEU:O	49:BP:151:ALA:N	2.54	0.40
51:BR:118:GLN:O	51:BR:147:GLN:NE2	2.53	0.40
52:BS:45:ARG:O	52:BS:48:ARG:HG3	2.21	0.40
52:BS:57:HIS:CD2	52:BS:57:HIS:C	2.95	0.40
53:BT:60:ARG:HB2	53:BT:64:ARG:HE	1.87	0.40
56:BW:116:ILE:CG2	56:BW:117:ALA:H	2.30	0.40
60:Ba:108:LYS:O	60:Ba:111:VAL:HB	2.21	0.40
64:Be:155:LYS:HD2	64:Be:155:LYS:C	2.46	0.40
64:Be:231:PRO:C	64:Be:233:GLN:H	2.29	0.40
65:Bf:440:PRO:C	65:Bf:441:LEU:HG	2.46	0.40
67:Bh:91:HIS:HA	67:Bh:146:ARG:HD2	2.03	0.40
71:Bl:96:SER:O	71:Bl:99:PRO:HA	2.21	0.40
72:Bm:40:LEU:HB3	72:Bm:41:PRO:HD2	2.04	0.40
73:Bn:28:HIS:ND1	73:Bn:31:TRP:CD1	2.89	0.40
74:Bo:33:GLN:CG	74:Bo:34:HIS:N	2.85	0.40
77:Br:33:HIS:O	77:Br:36:VAL:HB	2.21	0.40
77:Br:352:ARG:H	77:Br:352:ARG:HG2	1.47	0.40
78:Bs:24:TYR:N	78:Bs:24:TYR:CD1	2.90	0.40
79:Bt:17:CYS:SG	79:Bt:19:ALA:HB2	2.61	0.40
81:Bv:53:GLN:NE2	81:Bv:57:ASN:HA	2.36	0.40
81:Bv:53:GLN:HA	81:Bv:59:PRO:O	2.22	0.40
81:Bv:186:ALA:HA	81:Bv:187:PRO:HD3	1.92	0.40
82:Bw:100:VAL:HG12	82:Bw:152:GLY:O	2.21	0.40
83:Bx:189:PRO:CB	83:Bx:232:ASN:HD21	2.34	0.40
84:By:94:TYR:HB2	84:By:97:PHE:O	2.21	0.40
85:AA:16:G:H2'	85:AA:17:C:C5	2.56	0.40
85:AA:30:G:N1	85:AA:671:G:C5	2.89	0.40
85:AA:62:A:H1'	85:AA:336:C:H1'	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:63:G:C5	85:AA:85:U:O2	2.75	0.40
85:AA:104:C:C6	85:AA:104:C:H3'	2.56	0.40
85:AA:118:C:O2	85:AA:362:G:N2	2.54	0.40
85:AA:124:A:C8	85:AA:124:A:O5'	2.75	0.40
85:AA:154:U:C2	85:AA:155:U:C6	3.10	0.40
85:AA:185:A:C8	85:AA:186:U:C4	3.09	0.40
85:AA:264:A:OP1	85:AA:308:U:C5	2.74	0.40
85:AA:372:U:C4	85:AA:373:G:N7	2.90	0.40
85:AA:397:G:C6	85:AA:398:U:O4	2.74	0.40
85:AA:438:G:C2	85:AA:439:U:N1	2.89	0.40
85:AA:474:C:N3	85:AA:475:A:C4	2.90	0.40
85:AA:510:A:H3'	85:AA:511:A:C8	2.56	0.40
85:AA:569:A:C2	85:AA:570:U:C2	3.09	0.40
85:AA:662:U:C4	85:AA:663:C:C4	3.09	0.40
85:AA:691:U:O4'	85:AA:1280:U:C2	2.74	0.40
85:AA:709:A:C6	85:AA:710:A:C4	3.09	0.40
85:AA:716:G:C8	85:AA:716:G:H3'	2.57	0.40
85:AA:725:G:O6	85:AA:776:C:C5	2.73	0.40
85:AA:732:G:N3	85:AA:732:G:H2'	2.36	0.40
85:AA:750:A:H2'	85:AA:751:C:C1'	2.50	0.40
85:AA:764:U:N3	85:AA:766:G:O6	2.54	0.40
85:AA:780:U:H6	85:AA:780:U:O5'	2.03	0.40
85:AA:818:C:C4	85:AA:863:C:H1'	2.57	0.40
85:AA:992:G:H2'	85:AA:993:G:O4'	2.21	0.40
85:AA:997:U:C2'	85:AA:998:U:H5'	2.51	0.40
85:AA:1019:U:C5	85:AA:1051:A:C8	3.09	0.40
85:AA:1101:C:H2'	85:AA:1102:C:C6	2.56	0.40
85:AA:1126:G:N1	85:AA:1127:G:C5	2.88	0.40
85:AA:1147:A:C4	85:AA:1148:G:H1'	2.56	0.40
85:AA:1175:A:C6	85:AA:1176:C:C4	3.09	0.40
85:AA:1175:A:C4	85:AA:1176:C:C6	3.10	0.40
85:AA:1455:C:O2'	85:AA:1456:A:H5'	2.22	0.40
85:AA:1483:A:O2'	85:AA:1484:G:H5'	2.21	0.40
85:AA:1549:G:H4'	85:AA:2036:A:H2	1.85	0.40
85:AA:1599:G:N1	85:AA:1600:G:C5	2.90	0.40
85:AA:1731:G:H2'	85:AA:1732:G:O4'	2.21	0.40
85:AA:1760:C:C2	85:AA:1761:C:C5	3.08	0.40
85:AA:1823:G:C5	85:AA:1824:G:C5	3.09	0.40
85:AA:1827:U:HO2'	85:AA:1828:C:H5	1.66	0.40
85:AA:1830:U:C6	85:AA:1831:U:C5	3.09	0.40
85:AA:1906:C:C4	85:AA:1907:U:C5	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1917:G:C2	85:AA:1996:A:C2	3.09	0.40
85:AA:2001:C:OP1	85:AA:2001:C:C6	2.74	0.40
85:AA:2032:G:C5	85:AA:2033:C:C6	3.08	0.40
85:AA:2147:A:C5	85:AA:2172:A:N7	2.89	0.40
85:AA:2147:A:N7	85:AA:2148:C:C4	2.89	0.40
85:AA:2162:G:N1	85:AA:2163:G:C4	2.90	0.40
85:AA:2186:U:C6	85:AA:2186:U:H3'	2.56	0.40
85:AA:2222:G:C5	85:AA:2223:C:C6	3.09	0.40
85:AA:2239:A:C2	85:AA:2240:G:H1'	2.56	0.40
1:A0:67:GLU:HA	1:A0:86:VAL:O	2.22	0.40
1:A0:115:LEU:CD1	1:A0:213:ARG:HH22	2.34	0.40
1:A0:133:ASP:OD1	1:A0:183:ILE:HG23	2.21	0.40
2:A1:72:LYS:C	2:A1:74:ARG:N	2.78	0.40
5:A4:46:PHE:O	5:A4:47:HIS:CG	2.75	0.40
7:A6:80:HIS:HE1	7:A6:87:GLU:HG3	1.84	0.40
7:A6:119:LYS:NZ	85:AA:549:A:H5''	2.36	0.40
11:AC:192:PHE:HA	25:AR:64:ARG:HB3	2.03	0.40
12:AD:67:ALA:HB2	31:AX:23:PHE:HA	2.03	0.40
14:AF:119:LEU:HD21	85:AA:1603:G:C5	2.56	0.40
17:AI:35:LEU:HD13	17:AI:40:PHE:HA	2.02	0.40
17:AI:147:ARG:NH1	85:AA:1564:U:OP2	2.53	0.40
20:AL:53:TYR:O	20:AL:56:HIS:HB3	2.21	0.40
22:AO:115:GLY:HA3	85:AA:1969:A:OP1	2.22	0.40
23:AP:158:ILE:CG2	23:AP:159:GLY:H	2.21	0.40
25:AR:21:LYS:C	25:AR:29:ILE:HG13	2.46	0.40
26:AS:20:ASN:O	26:AS:23:ALA:HB3	2.21	0.40
26:AS:69:CYS:SG	26:AS:118:VAL:HG11	2.61	0.40
27:AT:10:VAL:HG13	27:AT:34:HIS:CB	2.51	0.40
27:AT:67:PHE:CZ	85:AA:592:C:O2	2.75	0.40
31:AX:145:ARG:HG3	31:AX:146:ALA:H	1.87	0.40
31:AX:180:THR:HB	85:AA:1654:G:H1'	2.03	0.40
34:BA:15:G:O6	34:BA:16:C:C4	2.74	0.40
34:BA:42:A:C6	34:BA:43:U:C4	3.10	0.40
34:BA:82:A:C1'	34:BA:84:U:C5	3.05	0.40
34:BA:82:A:H1'	34:BA:84:U:C5	2.57	0.40
34:BA:131:A:C2	34:BA:183:G:O3'	2.75	0.40
34:BA:172:A:N6	34:BA:316:G:C5	2.89	0.40
34:BA:234:A:C2	34:BA:242:U:O2	2.74	0.40
34:BA:240:C:H2'	34:BA:241:U:H5'	2.04	0.40
34:BA:295:G:H5''	73:Bn:79:LYS:CA	2.52	0.40
34:BA:435:U:C6	34:BA:469:C:N4	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:440:A:C2	34:BA:441:A:C5	3.09	0.40
34:BA:516:U:O2	34:BA:517:A:C8	2.74	0.40
34:BA:593:G:N3	34:BA:594:G:C4	2.90	0.40
34:BA:608:G:O4'	34:BA:608:G:P	2.80	0.40
34:BA:625:U:N3	34:BA:626:G:C5	2.90	0.40
34:BA:656:U:H2'	34:BA:658:C:H41	1.86	0.40
34:BA:681:G:C6	81:Bv:16:VAL:HG11	2.56	0.40
34:BA:745:A:N7	34:BA:746:C:C5	2.90	0.40
34:BA:764:G:N1	34:BA:765:U:C2	2.90	0.40
34:BA:794:G:H2'	34:BA:795:G:C8	2.56	0.40
34:BA:799:A:H8	34:BA:857:C:OP1	2.05	0.40
34:BA:834:C:C4	34:BA:835:U:C6	3.09	0.40
34:BA:835:U:H2'	34:BA:836:U:H5'	2.02	0.40
34:BA:846:U:H6	34:BA:846:U:H3'	1.87	0.40
34:BA:898:G:H2'	34:BA:900:A:C8	2.56	0.40
34:BA:914:G:C6	34:BA:1005:C:C6	3.10	0.40
34:BA:917:C:C2	34:BA:918:U:C6	3.10	0.40
34:BA:937:G:N7	74:Bo:4:ARG:NH2	2.70	0.40
34:BA:955:G:H4'	38:BE:111:C:O2'	2.20	0.40
34:BA:1057:C:HO2'	61:Bb:39:HIS:CG	2.40	0.40
34:BA:1076:U:C4	34:BA:1077:G:C5	3.08	0.40
34:BA:1102:A:H4'	37:BD:100:A:N1	2.37	0.40
34:BA:1153:C:C4	34:BA:1154:U:O4	2.75	0.40
34:BA:1174:A:C2	34:BA:1201:G:C2	3.09	0.40
34:BA:1335:A:C6	34:BA:1336:U:O4	2.74	0.40
34:BA:1341:A:C5	34:BA:1404:A:C5	3.09	0.40
34:BA:1435:A:N6	34:BA:1437:G:C4	2.89	0.40
34:BA:1520:A:C4'	47:BN:3:LYS:HZ3	2.35	0.40
34:BA:1534:U:H5''	77:Br:181:ARG:HH12	1.85	0.40
34:BA:1653:G:C6	34:BA:1654:G:C8	3.09	0.40
34:BA:1785:G:C6	34:BA:1786:C:C4	3.10	0.40
34:BA:1818:A:H2	34:BA:1823:A:H62	1.67	0.40
35:BB:15:C:C6	35:BB:15:C:C3'	3.05	0.40
35:BB:62:C:C6	35:BB:63:A:C4	3.10	0.40
35:BB:119:G:C4	35:BB:120:C:C6	3.09	0.40
35:BB:125:G:C2'	35:BB:126:C:H6	2.33	0.40
35:BB:131:A:C4	35:BB:132:G:C8	3.10	0.40
35:BB:134:G:C8	35:BB:134:G:H3'	2.56	0.40
35:BB:386:G:C5	35:BB:387:G:C8	3.10	0.40
35:BB:390:G:N1	35:BB:391:G:C4	2.89	0.40
35:BB:587:A:C8	35:BB:587:A:C3'	3.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:636:G:N1	35:BB:637:G:C5	2.89	0.40
35:BB:691:A:C4	35:BB:1054:G:N2	2.89	0.40
35:BB:692:G:H2'	35:BB:692:G:N3	2.35	0.40
35:BB:709:G:H2'	35:BB:710:A:H5'	2.04	0.40
35:BB:773:G:N1	35:BB:774:C:N3	2.68	0.40
35:BB:785:G:N1	35:BB:1036:G:C4	2.89	0.40
35:BB:847:U:C2'	35:BB:848:A:H5''	2.52	0.40
35:BB:889:U:C2	35:BB:894:A:C6	3.09	0.40
35:BB:991:C:H5''	60:Ba:132:ARG:HD3	2.04	0.40
35:BB:1027:U:O4	35:BB:1028:C:C4	2.75	0.40
35:BB:1034:U:C4	35:BB:1035:C:C5	3.10	0.40
35:BB:1128:U:H6	35:BB:1128:U:P	2.45	0.40
35:BB:1224:C:C4	35:BB:1225:A:H2'	2.56	0.40
35:BB:1224:C:O2	35:BB:1225:A:C6	2.74	0.40
35:BB:1226:G:C8	47:BN:192:LYS:HE2	2.56	0.40
35:BB:1239:A:C6	35:BB:1240:A:N7	2.89	0.40
35:BB:1260:A:O4'	79:Bt:56:PRO:HA	2.20	0.40
35:BB:1267:C:C4	35:BB:1268:C:H1'	2.56	0.40
35:BB:1294:C:H2'	35:BB:1295:A:O4'	2.22	0.40
35:BB:1313:C:N3	35:BB:1314:G:C8	2.90	0.40
35:BB:1334:C:C2	35:BB:1410:G:C4	3.09	0.40
35:BB:1346:A:H61	35:BB:1369:A:C5'	2.34	0.40
35:BB:1351:G:C2	35:BB:1352:C:C6	3.10	0.40
35:BB:1405:G:H2'	35:BB:1406:C:H6	1.86	0.40
35:BB:1478:G:N3	35:BB:1487:G:C2	2.89	0.40
35:BB:1485:G:H2'	35:BB:1486:C:C6	2.56	0.40
35:BB:1486:C:H2'	35:BB:1487:G:H8	1.85	0.40
35:BB:1494:G:N2	35:BB:1513:U:C2	2.90	0.40
35:BB:1497:C:C2	35:BB:1498:G:C8	3.09	0.40
35:BB:1508:G:N1	35:BB:1509:G:C5	2.89	0.40
35:BB:1511:U:C4	35:BB:1512:C:C4	3.10	0.40
35:BB:1542:C:N3	35:BB:1543:C:C4	2.89	0.40
36:BC:39:G:N2	36:BC:104:A:C4	2.90	0.40
36:BC:60:U:H3	70:Bk:60:THR:CA	2.34	0.40
36:BC:66:G:C6	36:BC:67:U:N3	2.89	0.40
36:BC:66:G:H2'	36:BC:67:U:O4'	2.22	0.40
36:BC:136:G:N2	36:BC:137:C:C2	2.90	0.40
36:BC:157:U:O2'	36:BC:158:U:H3'	2.22	0.40
38:BE:23:G:C6	38:BE:25:U:C5	3.10	0.40
38:BE:45:G:N1	38:BE:169:C:N3	2.69	0.40
38:BE:115:U:C4	38:BE:116:U:O4	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BE:186:C:C4	38:BE:189:A:C5	3.10	0.40
39:BF:7:G:OP1	39:BF:8:C:C5	2.75	0.40
39:BF:18:U:C6	39:BF:18:U:OP2	2.74	0.40
40:BG:40:G:C5	40:BG:41:U:C6	3.10	0.40
40:BG:50:G:N2	40:BG:59:G:C4	2.90	0.40
41:BH:10:U:C2	41:BH:20:A:N1	2.89	0.40
41:BH:49:C:H5''	41:BH:50:A:N9	2.36	0.40
42:BI:26:ILE:O	42:BI:29:LEU:HB2	2.22	0.40
42:BI:187:ARG:NE	61:Bb:56:CYS:SG	2.94	0.40
44:BK:86:HIS:CD2	44:BK:139:ARG:NE	2.86	0.40
45:BL:24:LEU:C	45:BL:24:LEU:CD2	2.95	0.40
45:BL:53:VAL:HG13	45:BL:75:HIS:CG	2.56	0.40
47:BN:33:GLN:HA	47:BN:36:GLN:CB	2.50	0.40
47:BN:139:GLN:C	47:BN:142:ASP:H	2.29	0.40
49:BP:110:ARG:NH1	81:Bv:192:TRP:CD1	2.89	0.40
52:BS:46:MET:HE2	52:BS:46:MET:HB2	1.96	0.40
52:BS:49:GLU:C	52:BS:52:LYS:H	2.29	0.40
52:BS:151:PHE:CD1	52:BS:151:PHE:C	3.00	0.40
54:BU:93:PHE:CD2	54:BU:94:GLU:OE2	2.74	0.40
57:BX:53:GLN:HA	57:BX:53:GLN:OE1	2.20	0.40
58:BY:45:MET:C	58:BY:47:LYS:H	2.30	0.40
59:BZ:51:ASP:HB3	59:BZ:105:LYS:O	2.20	0.40
62:Bc:23:ASN:CB	68:Bi:66:TYR:CE1	3.04	0.40
62:Bc:23:ASN:HB3	68:Bi:66:TYR:CZ	2.56	0.40
65:Bf:93:HIS:CE1	65:Bf:264:VAL:HA	2.57	0.40
67:Bh:83:ASN:HA	67:Bh:153:ARG:O	2.21	0.40
70:Bk:49:ARG:O	70:Bk:53:LYS:HG2	2.22	0.40
70:Bk:111:GLN:O	70:Bk:114:MET:HB3	2.22	0.40
73:Bn:10:GLN:O	73:Bn:12:HIS:CE1	2.74	0.40
76:Bq:26:TRP:HA	76:Bq:29:LEU:CD1	2.50	0.40
77:Br:320:ILE:O	77:Br:323:ARG:CZ	2.69	0.40
79:Bt:63:LYS:HB2	79:Bt:64:THR:H	1.70	0.40
80:Bu:169:LEU:C	80:Bu:169:LEU:CD2	2.95	0.40
82:Bw:182:GLN:O	82:Bw:186:ASP:CG	2.64	0.40
83:Bx:152:VAL:O	83:Bx:155:THR:HB	2.21	0.40
84:By:11:PHE:HA	84:By:12:PRO:HD3	1.88	0.40
85:AA:11:A:C2	85:AA:1521:U:O2	2.75	0.40
85:AA:43:A:C2	85:AA:443:A:C4	3.10	0.40
85:AA:111:A:N1	85:AA:313:A:H2'	2.36	0.40
85:AA:126:U:C5	85:AA:182:C:H5''	2.55	0.40
85:AA:146:U:C5	85:AA:333:A:C2'	3.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:156:G:C6	85:AA:167:A:N1	2.90	0.40
85:AA:178:U:C2'	85:AA:179:G:H4'	2.51	0.40
85:AA:210:G:C4	85:AA:243:A:N6	2.90	0.40
85:AA:258:G:C2	85:AA:259:A:C4	3.09	0.40
85:AA:263:A:C2'	85:AA:264:A:O5'	2.69	0.40
85:AA:267:U:C5	85:AA:268:A:OP2	2.74	0.40
85:AA:270:A:N1	85:AA:271:A:C5	2.88	0.40
85:AA:346:U:C5	85:AA:347:U:C6	3.09	0.40
85:AA:382:G:C6	85:AA:415:G:N1	2.90	0.40
85:AA:480:U:C2	85:AA:482:C:N1	2.90	0.40
85:AA:555:C:C2'	85:AA:556:C:C6	3.02	0.40
85:AA:590:U:O2'	85:AA:592:C:C4	2.72	0.40
85:AA:596:A:C2	85:AA:597:A:C4	3.10	0.40
85:AA:605:A:H8	85:AA:607:U:OP1	2.05	0.40
85:AA:678:A:N1	85:AA:679:A:C4	2.90	0.40
85:AA:715:G:C4	85:AA:716:G:C8	3.10	0.40
85:AA:717:G:C2	85:AA:718:C:C2	3.09	0.40
85:AA:858:G:C2	85:AA:859:G:C1'	3.04	0.40
85:AA:883:A:C5	85:AA:884:A:N6	2.89	0.40
85:AA:887:A:N6	85:AA:919:U:H5	2.19	0.40
85:AA:959:C:C2	85:AA:960:G:C1'	3.04	0.40
85:AA:1007:G:C4	85:AA:1008:C:C5	3.10	0.40
85:AA:1115:G:C4	85:AA:1214:C:N4	2.90	0.40
85:AA:1125:G:N2	85:AA:1192:C:C4	2.89	0.40
85:AA:1126:G:C5	85:AA:1201:A:C2	3.09	0.40
85:AA:1174:G:C4'	85:AA:1236:G:H5''	2.51	0.40
85:AA:1250:A:C4	85:AA:1251:G:C8	3.10	0.40
85:AA:1300:A:C5	85:AA:1443:U:N3	2.89	0.40
85:AA:1455:C:O2	85:AA:1456:A:C8	2.74	0.40
85:AA:1458:G:H2'	85:AA:1459:C:O4'	2.21	0.40
85:AA:1459:C:N4	85:AA:1460:G:C5	2.89	0.40
85:AA:1462:A:H8	85:AA:1462:A:O5'	2.04	0.40
85:AA:1491:G:H2'	85:AA:1507:G:H1	1.86	0.40
85:AA:1501:A:N6	85:AA:1502:A:C6	2.89	0.40
85:AA:1529:A:H3'	85:AA:1530:U:H6	1.86	0.40
85:AA:1531:G:H2'	85:AA:1532:G:O4'	2.22	0.40
85:AA:1540:A:C6	85:AA:1541:G:C4	3.10	0.40
85:AA:1556:G:C2	85:AA:1557:U:C2	3.10	0.40
85:AA:1560:A:N7	85:AA:1561:A:C2	2.89	0.40
85:AA:1845:G:C6	85:AA:1846:G:N7	2.89	0.40
85:AA:1955:U:C6	85:AA:1955:U:H3'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:1964:A:C6	85:AA:1965:U:C4	3.10	0.40
85:AA:2019:G:N2	85:AA:2022:A:C8	2.89	0.40
85:AA:2039:G:H5''	85:AA:2041:G:N2	2.36	0.40
85:AA:2147:A:N6	85:AA:2148:C:C2	2.88	0.40
85:AA:2172:A:C6	85:AA:2173:A:C8	3.09	0.40
85:AA:2213:A:N6	85:AA:2214:A:C5	2.90	0.40
85:AA:2223:C:H2'	85:AA:2224:U:C5	2.56	0.40
1:A0:199:LEU:HD22	1:A0:212:LEU:HD11	2.04	0.40
2:A1:9:LEU:HD21	2:A1:11:ALA:HB3	2.03	0.40
2:A1:44:ILE:HA	2:A1:48:ARG:HG2	2.04	0.40
2:A1:100:TYR:CE1	2:A1:106:PHE:CD2	3.09	0.40
2:A1:195:ILE:HB	2:A1:203:ASP:HB3	2.02	0.40
3:A2:66:GLY:HA2	85:AA:1544:G:H5'	2.04	0.40
4:A3:112:LEU:HD23	4:A3:112:LEU:HA	1.95	0.40
4:A3:188:ARG:HH12	4:A3:191:ARG:HH11	1.70	0.40
5:A4:108:PRO:HG3	5:A4:116:GLN:HA	2.02	0.40
12:AD:38:GLY:O	12:AD:45:PRO:HA	2.21	0.40
13:AE:172:SER:C	85:AA:941:C:C6	2.99	0.40
15:AG:18:TYR:CD2	15:AG:18:TYR:C	2.99	0.40
18:AJ:12:ARG:NH2	85:AA:1472:G:C8	2.90	0.40
19:AK:88:ARG:NE	19:AK:120:LYS:HB2	2.37	0.40
21:AM:142:ARG:NE	85:AA:1550:C:C5	2.89	0.40
23:AP:92:LEU:HB3	23:AP:111:PHE:CD1	2.57	0.40
23:AP:229:ARG:C	23:AP:231:THR:H	2.30	0.40
27:AT:128:ALA:C	27:AT:132:MET:SD	3.04	0.40
29:AV:100:TYR:CG	85:AA:2249:U:C5'	3.04	0.40
34:BA:53:G:N2	34:BA:54:A:C8	2.90	0.40
34:BA:60:A:C4	34:BA:61:G:C5	3.09	0.40
34:BA:83:G:N2	34:BA:96:G:H3'	2.37	0.40
34:BA:99:G:C6	34:BA:100:A:N6	2.90	0.40
34:BA:136:A:C6	34:BA:137:C:C4	3.10	0.40
34:BA:182:U:H3	34:BA:306:G:H1	1.69	0.40
34:BA:253:U:O4	34:BA:254:U:C4	2.74	0.40
34:BA:265:A:N1	34:BA:278:U:C2	2.89	0.40
34:BA:266:G:N1	34:BA:267:G:C4	2.89	0.40
34:BA:346:A:C8	79:Bt:41:ARG:NH1	2.89	0.40
34:BA:373:G:C2	35:BB:1238:A:C5	3.09	0.40
34:BA:397:A:N1	36:BC:30:U:C2	2.89	0.40
34:BA:409:A:H2'	34:BA:410:G:C8	2.57	0.40
34:BA:415:C:N3	34:BA:432:A:C5	2.89	0.40
34:BA:451:A:H2'	34:BA:452:A:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BA:455:A:N1	34:BA:456:G:C4	2.89	0.40
34:BA:459:U:H2'	34:BA:460:G:O4'	2.21	0.40
34:BA:500:C:C2	34:BA:702:G:N1	2.89	0.40
34:BA:598:G:O2'	34:BA:599:U:C6	2.68	0.40
34:BA:610:A:C2	34:BA:611:A:N9	2.89	0.40
34:BA:622:G:C2	34:BA:661:C:C2	3.09	0.40
34:BA:690:G:OP2	39:BF:1:C:C5	2.75	0.40
34:BA:747:G:H4'	42:BI:21:SER:HA	2.04	0.40
34:BA:758:G:C8	34:BA:758:G:C3'	3.03	0.40
34:BA:802:G:N1	34:BA:803:U:C2	2.89	0.40
34:BA:816:G:C5	34:BA:817:U:C5	3.09	0.40
34:BA:971:G:C5	34:BA:972:C:C5	3.09	0.40
34:BA:1113:A:H2'	34:BA:1114:G:C8	2.57	0.40
34:BA:1114:G:N2	44:BK:196:HIS:NE2	2.68	0.40
34:BA:1134:A:C5	34:BA:1135:U:C4	3.09	0.40
34:BA:1180:A:N3	63:Bd:46:ARG:NH1	2.36	0.40
34:BA:1200:U:C6	34:BA:1202:G:N7	2.90	0.40
34:BA:1213:A:C2	34:BA:1214:U:C2	3.10	0.40
34:BA:1357:C:O2	34:BA:1358:A:C8	2.75	0.40
34:BA:1357:C:H5''	46:BM:77:VAL:HG21	2.03	0.40
34:BA:1407:C:H2'	34:BA:1408:C:H6	1.85	0.40
34:BA:1439:C:H5''	52:BS:119:ARG:HH22	1.87	0.40
34:BA:1454:G:O2'	34:BA:1455:C:H5'	2.22	0.40
34:BA:1525:G:C6	34:BA:1526:C:C5	3.09	0.40
34:BA:1724:G:C4	34:BA:1799:G:O6	2.75	0.40
34:BA:1828:A:OP1	57:BX:101:ASN:ND2	2.54	0.40
34:BA:1840:C:H2'	34:BA:1841:A:H8	1.84	0.40
35:BB:27:C:C6	35:BB:27:C:C3'	3.04	0.40
35:BB:70:A:H2'	35:BB:71:A:H8	1.87	0.40
35:BB:92:C:H2'	35:BB:93:A:O4'	2.22	0.40
35:BB:126:C:OP1	53:BT:74:ARG:NH1	2.55	0.40
35:BB:133:G:N3	35:BB:369:A:C2	2.89	0.40
35:BB:349:U:H2'	35:BB:350:U:C6	2.57	0.40
35:BB:412:A:OP1	35:BB:590:G:N2	2.55	0.40
35:BB:474:G:C5	35:BB:475:A:C4	3.10	0.40
35:BB:491:A:C2'	35:BB:492:U:H5'	2.51	0.40
35:BB:521:U:H2'	35:BB:528:G:C2	2.56	0.40
35:BB:574:G:C4	35:BB:577:U:C4	3.09	0.40
35:BB:666:A:C2'	35:BB:667:G:C8	3.04	0.40
35:BB:700:C:C2	35:BB:1044:U:N3	2.89	0.40
35:BB:710:A:C5	35:BB:711:C:C5	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BB:846:A:N3	35:BB:967:G:C2	2.90	0.40
35:BB:867:C:C4	35:BB:868:C:C5	3.09	0.40
35:BB:880:G:H8	35:BB:880:G:O5'	2.05	0.40
35:BB:889:U:C2'	35:BB:891:U:C5	3.03	0.40
35:BB:995:C:N4	35:BB:1024:G:H1	2.19	0.40
35:BB:1144:A:C6	35:BB:1145:G:O6	2.74	0.40
35:BB:1195:A:C8	35:BB:1195:A:O5'	2.75	0.40
35:BB:1214:U:H4'	79:Bt:32:LYS:HA	2.04	0.40
35:BB:1220:A:O3'	35:BB:1221:G:C8	2.75	0.40
35:BB:1236:A:C2	35:BB:1237:C:N1	2.89	0.40
35:BB:1239:A:C5	35:BB:1240:A:N7	2.89	0.40
35:BB:1286:G:H3'	35:BB:1287:U:C5	2.56	0.40
35:BB:1363:A:N1	35:BB:1364:C:C4	2.90	0.40
35:BB:1430:G:C2	35:BB:1431:G:C4	3.10	0.40
35:BB:1458:U:O2	39:BF:14:C:C5	2.74	0.40
35:BB:1483:A:C5	35:BB:1484:A:C4	3.09	0.40
35:BB:1546:C:C2'	35:BB:1547:U:H5'	2.52	0.40
36:BC:23:G:C4	36:BC:24:G:C8	3.09	0.40
36:BC:68:A:C5	36:BC:91:G:N1	2.89	0.40
36:BC:92:C:C4	36:BC:93:C:C5	3.09	0.40
36:BC:102:G:C2	36:BC:104:A:N6	2.89	0.40
36:BC:133:C:C5	36:BC:134:G:C1'	3.03	0.40
37:BD:68:C:N3	37:BD:69:U:C5	2.89	0.40
37:BD:108:G:O5'	37:BD:108:G:H8	2.05	0.40
38:BE:49:A:OP1	55:BV:110:LEU:HA	2.21	0.40
38:BE:95:G:C2	38:BE:126:G:C5	3.09	0.40
38:BE:149:A:P	38:BE:149:A:H8	2.44	0.40
38:BE:158:U:N3	38:BE:159:A:C5	2.89	0.40
39:BF:11:C:OP1	39:BF:13:U:H5'	2.20	0.40
39:BF:60:C:H3'	39:BF:62:U:O4	2.22	0.40
39:BF:66:C:N4	39:BF:67:A:C4	2.90	0.40
39:BF:73:U:C4	81:Bv:143:VAL:HB	2.57	0.40
40:BG:53:C:C2	40:BG:54:G:C8	3.09	0.40
40:BG:167:C:C6	40:BG:167:C:C5'	3.05	0.40
41:BH:21:G:H2'	41:BH:22:A:O4'	2.22	0.40
41:BH:39:G:N2	41:BH:40:C:H1'	2.37	0.40
41:BH:98:U:OP2	55:BV:59:GLY:HA3	2.22	0.40
41:BH:101:A:C5	41:BH:102:C:C5	3.10	0.40
42:BI:69:VAL:HG22	42:BI:70:CYS:N	2.35	0.40
42:BI:157:LYS:HB3	42:BI:158:HIS:CE1	2.57	0.40
45:BL:25:CYS:SG	45:BL:137:VAL:HG12	2.62	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BL:170:PHE:C	45:BL:176:GLY:H	2.30	0.40
47:BN:120:ARG:HH11	47:BN:120:ARG:HG2	1.86	0.40
48:BO:54:VAL:HA	48:BO:56:CYS:SG	2.62	0.40
48:BO:80:LYS:H	48:BO:84:PRO:HA	1.84	0.40
49:BP:14:ARG:O	49:BP:56:VAL:HA	2.21	0.40
49:BP:123:TRP:C	49:BP:127:ILE:HB	2.45	0.40
50:BQ:40:GLN:CD	50:BQ:40:GLN:C	2.89	0.40
50:BQ:70:TYR:CZ	50:BQ:72:THR:N	2.89	0.40
51:BR:26:TYR:CD2	51:BR:121:GLN:CG	3.04	0.40
51:BR:112:MET:HE3	51:BR:150:MET:SD	2.62	0.40
56:BW:89:ARG:NH2	56:BW:93:THR:HG21	2.37	0.40
56:BW:111:MET:H	56:BW:130:LYS:HD2	1.87	0.40
59:BZ:108:LEU:HA	59:BZ:112:ARG:CB	2.52	0.40
60:Ba:53:VAL:HG22	60:Ba:56:MET:CE	2.51	0.40
60:Ba:67:VAL:O	60:Ba:67:VAL:HG12	2.22	0.40
61:Bb:16:PHE:CZ	61:Bb:21:ARG:HB3	2.57	0.40
62:Bc:97:ASP:CB	62:Bc:98:ILE:HA	2.52	0.40
65:Bf:200:THR:HB	65:Bf:204:PHE:CZ	2.56	0.40
66:Bg:68:GLU:O	66:Bg:72:THR:HG23	2.22	0.40
70:Bk:66:GLU:O	70:Bk:69:ASN:HB2	2.22	0.40
75:Bp:21:ARG:H	75:Bp:21:ARG:HG3	1.58	0.40
77:Br:50:PRO:HB3	77:Br:110:TRP:CE3	2.56	0.40
83:Bx:183:CYS:SG	83:Bx:190:TYR:HB3	2.61	0.40
85:AA:25:C:OP1	85:AA:26:A:H5''	2.20	0.40
85:AA:33:U:N3	85:AA:538:A:N6	2.70	0.40
85:AA:42:G:C5	85:AA:502:A:C2	3.09	0.40
85:AA:46:U:H4'	85:AA:47:A:H5'	2.03	0.40
85:AA:47:A:C2	85:AA:97:A:N3	2.90	0.40
85:AA:113:U:H1'	85:AA:399:A:H2	1.86	0.40
85:AA:119:G:C5	85:AA:120:C:C4	3.10	0.40
85:AA:185:A:H2'	85:AA:186:U:C2	2.56	0.40
85:AA:205:A:H5''	85:AA:301:U:C4	2.56	0.40
85:AA:260:A:C2	85:AA:261:U:H1'	2.57	0.40
85:AA:265:A:H62	85:AA:869:A:H4'	1.87	0.40
85:AA:390:U:H2'	85:AA:391:G:C8	2.56	0.40
85:AA:494:G:H2'	85:AA:495:G:H5''	2.04	0.40
85:AA:497:G:C2	85:AA:498:C:C2	3.09	0.40
85:AA:497:G:C5	85:AA:498:C:C4	3.09	0.40
85:AA:512:U:C2	85:AA:513:G:C8	3.10	0.40
85:AA:532:G:C6	85:AA:533:C:C5	3.10	0.40
85:AA:661:C:H2'	85:AA:662:U:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:AA:666:A:H2'	85:AA:667:A:C8	2.57	0.40
85:AA:681:G:C4	85:AA:687:G:C5	3.09	0.40
85:AA:710:A:C8	85:AA:711:C:C2	3.09	0.40
85:AA:733:C:H2'	85:AA:734:C:C6	2.57	0.40
85:AA:741:G:H1'	85:AA:742:U:C5	2.56	0.40
85:AA:771:A:N3	85:AA:772:C:C4	2.90	0.40
85:AA:806:G:C8	85:AA:806:G:H3'	2.57	0.40
85:AA:968:U:H2'	85:AA:969:U:C5	2.57	0.40
85:AA:987:C:H6	85:AA:987:C:H5''	1.85	0.40
85:AA:1142:G:H2'	85:AA:1143:C:O4'	2.20	0.40
85:AA:1147:A:C8	85:AA:1161:U:O4	2.75	0.40
85:AA:1290:G:N2	85:AA:1453:U:C2	2.89	0.40
85:AA:1290:G:H1	85:AA:1451:U:H3	1.67	0.40
85:AA:1453:U:N3	85:AA:1454:U:H1'	2.37	0.40
85:AA:1457:C:C5	85:AA:1458:G:N9	2.90	0.40
85:AA:1548:A:N1	85:AA:1549:G:C6	2.90	0.40
85:AA:1595:G:C4	85:AA:1883:C:N4	2.90	0.40
85:AA:1618:G:O5'	85:AA:1618:G:C8	2.75	0.40
85:AA:1644:G:C2	85:AA:1885:A:H2	2.39	0.40
85:AA:1960:C:H5'	85:AA:1960:C:C6	2.51	0.40
85:AA:2057:G:C2	85:AA:2058:C:C5	3.09	0.40
85:AA:2127:G:C2	85:AA:2192:A:N3	2.90	0.40
85:AA:2211:G:N3	85:AA:2211:G:H2'	2.36	0.40
85:AA:2227:A:O2'	85:AA:2228:G:H5'	2.22	0.40
86:AB:47:U:C6	86:AB:47:U:H5''	2.57	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A0	217/256 (85%)	180 (83%)	22 (10%)	15 (7%)	1 11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	A1	246/273 (90%)	189 (77%)	38 (15%)	19 (8%)	1	9
3	A2	185/190 (97%)	159 (86%)	17 (9%)	9 (5%)	1	15
4	A3	248/250 (99%)	204 (82%)	24 (10%)	20 (8%)	1	9
5	A4	190/202 (94%)	148 (78%)	24 (13%)	18 (10%)	0	8
6	A5	191/220 (87%)	158 (83%)	18 (9%)	15 (8%)	1	9
7	A6	185/190 (97%)	135 (73%)	30 (16%)	20 (11%)	0	6
8	A7	313/318 (98%)	256 (82%)	39 (12%)	18 (6%)	1	13
9	A8	40/57 (70%)	34 (85%)	3 (8%)	3 (8%)	1	10
10	A9	64/153 (42%)	50 (78%)	9 (14%)	5 (8%)	1	9
11	AC	202/277 (73%)	162 (80%)	25 (12%)	15 (7%)	1	10
12	AD	102/172 (59%)	79 (78%)	9 (9%)	14 (14%)	0	3
13	AE	158/174 (91%)	126 (80%)	12 (8%)	20 (13%)	0	4
14	AF	119/144 (83%)	105 (88%)	11 (9%)	3 (2%)	4	25
15	AG	139/151 (92%)	120 (86%)	12 (9%)	7 (5%)	1	15
16	AH	124/144 (86%)	99 (80%)	14 (11%)	11 (9%)	0	8
17	AI	132/152 (87%)	100 (76%)	21 (16%)	11 (8%)	0	9
18	AJ	127/130 (98%)	114 (90%)	7 (6%)	6 (5%)	2	16
19	AK	146/149 (98%)	118 (81%)	18 (12%)	10 (7%)	1	11
20	AL	125/142 (88%)	94 (75%)	19 (15%)	12 (10%)	0	7
21	AM	151/153 (99%)	114 (76%)	16 (11%)	21 (14%)	0	3
22	AO	147/167 (88%)	128 (87%)	10 (7%)	9 (6%)	1	12
23	AP	222/266 (84%)	171 (77%)	29 (13%)	22 (10%)	0	7
24	AQ	103/117 (88%)	86 (84%)	10 (10%)	7 (7%)	1	11
25	AR	79/194 (41%)	59 (75%)	12 (15%)	8 (10%)	0	7
26	AS	140/143 (98%)	111 (79%)	18 (13%)	11 (8%)	1	9
27	AT	129/137 (94%)	100 (78%)	15 (12%)	14 (11%)	0	5
28	AU	84/113 (74%)	66 (79%)	12 (14%)	6 (7%)	1	10
29	AV	99/111 (89%)	64 (65%)	20 (20%)	15 (15%)	0	3
30	AW	81/86 (94%)	61 (75%)	11 (14%)	9 (11%)	0	5
31	AX	204/214 (95%)	176 (86%)	17 (8%)	11 (5%)	1	14
32	AY	63/66 (96%)	46 (73%)	8 (13%)	9 (14%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	AZ	66/103 (64%)	56 (85%)	7 (11%)	3 (4%)	2	16
42	BI	190/193 (98%)	126 (66%)	37 (20%)	27 (14%)	0	3
43	BJ	212/214 (99%)	186 (88%)	20 (9%)	6 (3%)	4	24
44	BK	210/213 (99%)	161 (77%)	26 (12%)	23 (11%)	0	5
45	BL	168/194 (87%)	134 (80%)	21 (12%)	13 (8%)	1	9
46	BM	137/164 (84%)	103 (75%)	25 (18%)	9 (7%)	1	11
47	BN	214/218 (98%)	158 (74%)	20 (9%)	36 (17%)	0	2
48	BO	199/222 (90%)	164 (82%)	21 (11%)	14 (7%)	1	10
49	BP	182/189 (96%)	149 (82%)	19 (10%)	14 (8%)	1	9
50	BQ	201/221 (91%)	160 (80%)	21 (10%)	20 (10%)	0	7
51	BR	153/166 (92%)	121 (79%)	21 (14%)	11 (7%)	1	10
52	BS	177/179 (99%)	133 (75%)	15 (8%)	29 (16%)	0	2
53	BT	198/260 (76%)	168 (85%)	20 (10%)	10 (5%)	1	14
54	BU	156/159 (98%)	118 (76%)	19 (12%)	19 (12%)	0	4
55	BV	102/130 (78%)	84 (82%)	13 (13%)	5 (5%)	1	15
56	BW	136/139 (98%)	103 (76%)	18 (13%)	15 (11%)	0	5
57	BX	119/164 (73%)	97 (82%)	9 (8%)	13 (11%)	0	5
58	BY	98/125 (78%)	81 (83%)	9 (9%)	8 (8%)	0	9
59	BZ	123/143 (86%)	104 (85%)	12 (10%)	7 (6%)	1	13
60	Ba	130/133 (98%)	93 (72%)	21 (16%)	16 (12%)	0	4
61	Bb	142/145 (98%)	108 (76%)	19 (13%)	15 (11%)	0	6
62	Bc	139/146 (95%)	103 (74%)	18 (13%)	18 (13%)	0	4
63	Bd	68/71 (96%)	50 (74%)	8 (12%)	10 (15%)	0	3
64	Be	184/260 (71%)	135 (73%)	32 (17%)	17 (9%)	0	8
65	Bf	412/429 (96%)	296 (72%)	66 (16%)	50 (12%)	0	4
66	Bg	94/105 (90%)	88 (94%)	5 (5%)	1 (1%)	11	45
67	Bh	186/188 (99%)	155 (83%)	13 (7%)	18 (10%)	0	7
68	Bi	127/132 (96%)	98 (77%)	18 (14%)	11 (9%)	0	8
69	Bj	160/170 (94%)	123 (77%)	22 (14%)	15 (9%)	0	8
70	Bk	82/127 (65%)	56 (68%)	14 (17%)	12 (15%)	0	3
71	Bl	114/149 (76%)	84 (74%)	10 (9%)	20 (18%)	0	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
72	Bm	105/109 (96%)	79 (75%)	8 (8%)	18 (17%)	0	2
73	Bn	81/84 (96%)	56 (69%)	15 (18%)	10 (12%)	0	4
74	Bo	90/93 (97%)	71 (79%)	6 (7%)	13 (14%)	0	3
75	Bp	79/82 (96%)	59 (75%)	10 (13%)	10 (13%)	0	4
76	Bq	48/51 (94%)	34 (71%)	6 (12%)	8 (17%)	0	2
77	Br	366/374 (98%)	274 (75%)	56 (15%)	36 (10%)	0	7
78	Bs	50/128 (39%)	44 (88%)	4 (8%)	2 (4%)	2	18
79	Bt	103/106 (97%)	75 (73%)	16 (16%)	12 (12%)	0	4
80	Bu	297/308 (96%)	216 (73%)	46 (16%)	35 (12%)	0	4
81	Bv	154/192 (80%)	114 (74%)	25 (16%)	15 (10%)	0	7
82	Bw	255/257 (99%)	200 (78%)	33 (13%)	22 (9%)	0	8
83	Bx	238/276 (86%)	188 (79%)	26 (11%)	24 (10%)	0	7
84	By	187/189 (99%)	155 (83%)	15 (8%)	17 (9%)	0	8
All	All	11687/13211 (88%)	9172 (78%)	1415 (12%)	1100 (9%)	1	8

All (1100) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A0	37	ASN
1	A0	119	TRP
1	A0	145	THR
1	A0	212	LEU
1	A0	225	PHE
2	A1	65	GLY
2	A1	66	LEU
2	A1	171	LYS
2	A1	172	ILE
2	A1	174	ASN
3	A2	39	ALA
3	A2	43	GLN
3	A2	149	PHE
4	A3	44	GLU
4	A3	71	PRO
4	A3	72	SER
4	A3	108	ASP
4	A3	161	ILE
4	A3	171	LYS

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Mol	Chain	Res	Type
4	A3	177	PRO
4	A3	178	LYS
5	A4	3	ALA
5	A4	36	HIS
5	A4	80	GLN
5	A4	114	LEU
5	A4	191	MET
6	A5	23	LYS
6	A5	25	MET
6	A5	36	THR
6	A5	41	ARG
6	A5	173	LYS
7	A6	14	PRO
7	A6	35	LEU
7	A6	64	ASN
7	A6	131	ARG
7	A6	139	ILE
7	A6	148	ARG
7	A6	149	VAL
7	A6	155	ILE
7	A6	157	PHE
7	A6	168	PRO
7	A6	176	ARG
8	A7	6	GLU
8	A7	30	LYS
8	A7	47	PRO
8	A7	51	SER
8	A7	89	HIS
8	A7	131	ASN
8	A7	215	ASP
9	A8	34	LYS
10	A9	100	ALA
10	A9	125	ASN
11	AC	132	THR
11	AC	232	GLU
11	AC	239	PHE
11	AC	241	ARG
12	AD	6	PRO
13	AE	18	VAL
13	AE	21	GLU
13	AE	29	ALA
13	AE	58	PHE

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Mol	Chain	Res	Type
13	AE	60	THR
13	AE	166	LYS
13	AE	172	SER
15	AG	5	HIS
15	AG	23	PRO
15	AG	25	TRP
15	AG	62	GLN
16	AH	13	SER
16	AH	60	ASP
16	AH	61	GLU
17	AI	56	ALA
17	AI	148	PHE
18	AJ	29	PRO
18	AJ	30	SER
19	AK	10	LYS
19	AK	31	PRO
19	AK	131	GLU
20	AL	23	LYS
20	AL	41	ALA
20	AL	83	ASP
21	AM	27	VAL
21	AM	34	VAL
21	AM	35	LYS
21	AM	39	ILE
21	AM	43	TYR
21	AM	90	ASP
21	AM	91	PRO
21	AM	119	ARG
21	AM	143	ARG
21	AM	146	THR
22	AO	52	GLU
23	AP	87	ARG
23	AP	102	ALA
23	AP	118	ASN
23	AP	162	HIS
23	AP	184	ARG
24	AQ	64	LYS
24	AQ	67	CYS
24	AQ	68	GLY
25	AR	23	HIS
25	AR	30	THR
26	AS	61	GLN

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Mol	Chain	Res	Type
26	AS	65	ALA
26	AS	87	ASN
26	AS	107	ARG
26	AS	136	GLN
27	AT	35	PRO
27	AT	42	PRO
27	AT	73	GLY
27	AT	75	LYS
27	AT	127	LYS
28	AU	47	MET
28	AU	103	LYS
29	AV	17	ARG
29	AV	26	PHE
29	AV	47	LEU
29	AV	91	ARG
29	AV	93	VAL
30	AW	6	SER
30	AW	7	ASP
30	AW	21	LYS
30	AW	60	CYS
30	AW	61	ALA
31	AX	64	ARG
31	AX	80	GLU
31	AX	192	SER
31	AX	205	THR
32	AY	4	VAL
32	AY	62	PRO
32	AY	64	LYS
33	AZ	84	CYS
42	BI	4	ASP
42	BI	12	LYS
42	BI	19	THR
42	BI	20	TYR
42	BI	21	SER
42	BI	41	ASN
42	BI	85	PRO
42	BI	97	VAL
42	BI	104	ALA
42	BI	150	LYS
42	BI	178	LYS
42	BI	179	GLU
42	BI	192	HIS

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Mol	Chain	Res	Type
43	BJ	58	PRO
44	BK	31	ILE
44	BK	81	ASN
44	BK	93	PRO
44	BK	102	MET
44	BK	119	TYR
44	BK	132	GLY
44	BK	172	GLY
44	BK	176	ILE
45	BL	16	MET
45	BL	18	GLU
45	BL	32	GLU
45	BL	59	LEU
45	BL	71	LYS
45	BL	95	GLU
46	BM	11	ILE
47	BN	6	ASN
47	BN	9	PRO
47	BN	11	VAL
47	BN	14	ARG
47	BN	19	PRO
47	BN	20	CYS
47	BN	23	GLN
47	BN	66	PRO
47	BN	67	THR
47	BN	81	SER
47	BN	90	VAL
47	BN	155	ARG
47	BN	174	PRO
47	BN	176	LYS
47	BN	201	ARG
48	BO	88	PRO
48	BO	136	ARG
48	BO	140	PRO
48	BO	151	GLU
48	BO	203	GLU
49	BP	6	TYR
49	BP	32	ASP
49	BP	47	TRP
50	BQ	58	ARG
50	BQ	104	ALA
50	BQ	111	LEU

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Mol	Chain	Res	Type
50	BQ	175	HIS
50	BQ	199	SER
51	BR	40	LYS
51	BR	54	LYS
52	BS	2	VAL
52	BS	3	ARG
52	BS	5	HIS
52	BS	6	LEU
52	BS	15	GLU
52	BS	71	LEU
52	BS	118	ALA
52	BS	155	GLN
52	BS	157	ARG
52	BS	158	VAL
52	BS	161	PRO
52	BS	166	VAL
52	BS	167	ILE
52	BS	169	VAL
52	BS	173	SER
53	BT	5	LYS
53	BT	75	HIS
53	BT	130	ASN
53	BT	134	ASN
53	BT	179	LYS
53	BT	191	ASP
54	BU	19	PHE
54	BU	46	ALA
54	BU	47	ALA
54	BU	56	TYR
54	BU	99	SER
54	BU	126	PRO
54	BU	149	ARG
54	BU	150	THR
56	BW	7	ASN
56	BW	11	CYS
56	BW	91	ASP
56	BW	114	SER
56	BW	120	VAL
57	BX	60	TYR
57	BX	69	SER
57	BX	72	VAL
57	BX	75	ILE

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Mol	Chain	Res	Type
58	BY	68	THR
58	BY	99	ALA
59	BZ	47	VAL
59	BZ	48	ARG
59	BZ	51	ASP
60	Ba	14	SER
60	Ba	53	VAL
60	Ba	56	MET
60	Ba	67	VAL
60	Ba	96	ILE
60	Ba	101	ALA
60	Ba	121	ALA
60	Ba	126	TRP
61	Bb	35	ALA
61	Bb	50	PRO
61	Bb	71	PRO
61	Bb	107	SER
61	Bb	111	GLY
62	Bc	16	SER
62	Bc	17	LYS
62	Bc	41	ARG
62	Bc	66	SER
62	Bc	84	PRO
62	Bc	95	VAL
62	Bc	134	MET
63	Bd	5	LYS
63	Bd	21	ILE
63	Bd	26	PRO
63	Bd	33	LYS
63	Bd	50	ASN
64	Be	70	ARG
64	Be	84	THR
64	Be	96	LEU
64	Be	217	GLN
65	Bf	61	ARG
65	Bf	76	ILE
65	Bf	81	ARG
65	Bf	86	ASP
65	Bf	133	PRO
65	Bf	134	PRO
65	Bf	225	ASN
65	Bf	232	ALA

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Mol	Chain	Res	Type
65	Bf	243	THR
65	Bf	323	ALA
65	Bf	348	GLU
65	Bf	349	PRO
65	Bf	360	ALA
65	Bf	387	ALA
65	Bf	405	SER
65	Bf	427	ARG
66	Bg	108	ASP
67	Bh	7	LYS
67	Bh	97	LYS
67	Bh	100	THR
67	Bh	122	THR
67	Bh	140	VAL
67	Bh	159	GLU
67	Bh	174	PRO
67	Bh	175	VAL
68	Bi	12	LYS
68	Bi	50	GLN
68	Bi	87	LEU
69	Bj	4	PRO
69	Bj	5	ARG
69	Bj	14	TYR
69	Bj	16	THR
69	Bj	43	PRO
69	Bj	47	TRP
69	Bj	85	HIS
70	Bk	75	SER
70	Bk	80	ARG
70	Bk	89	ALA
70	Bk	92	THR
70	Bk	97	LEU
70	Bk	104	LYS
70	Bk	122	ILE
71	Bl	36	PRO
71	Bl	89	ILE
71	Bl	91	ARG
71	Bl	93	VAL
71	Bl	94	ARG
71	Bl	96	SER
71	Bl	99	PRO
71	Bl	102	ARG

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Mol	Chain	Res	Type
71	Bl	130	SER
71	Bl	132	PRO
71	Bl	146	PRO
72	Bm	16	ILE
72	Bm	17	ALA
72	Bm	27	ARG
72	Bm	29	ALA
72	Bm	33	SER
72	Bm	39	ALA
72	Bm	43	LYS
72	Bm	87	SER
73	Bn	15	THR
73	Bn	36	ALA
73	Bn	40	PRO
73	Bn	77	HIS
74	Bo	19	GLY
74	Bo	68	ALA
75	Bp	20	ALA
75	Bp	63	SER
75	Bp	71	SER
75	Bp	76	ASN
76	Bq	6	PRO
76	Bq	35	ILE
76	Bq	38	ASN
76	Bq	39	GLU
76	Bq	40	LYS
77	Br	13	SER
77	Br	59	MET
77	Br	93	ASN
77	Br	94	MET
77	Br	143	ILE
77	Br	206	PRO
77	Br	216	THR
77	Br	228	ALA
77	Br	230	VAL
77	Br	278	PRO
77	Br	293	SER
77	Br	300	LEU
77	Br	304	LYS
77	Br	308	LYS
77	Br	344	GLN
77	Br	366	ASN

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Mol	Chain	Res	Type
78	Bs	3	GLU
79	Bt	5	PRO
79	Bt	14	ASP
79	Bt	17	CYS
79	Bt	33	ALA
79	Bt	48	SER
79	Bt	62	ALA
79	Bt	92	GLU
80	Bu	57	ASN
80	Bu	58	ARG
80	Bu	121	GLY
80	Bu	142	ASP
80	Bu	146	PHE
80	Bu	227	GLU
80	Bu	229	THR
80	Bu	239	LYS
80	Bu	264	ARG
80	Bu	269	ARG
80	Bu	299	VAL
81	Bv	10	GLU
81	Bv	18	ARG
81	Bv	59	PRO
81	Bv	170	GLU
81	Bv	177	SER
81	Bv	179	PHE
81	Bv	185	ASP
82	Bw	4	THR
82	Bw	15	VAL
82	Bw	19	LYS
82	Bw	22	PRO
82	Bw	29	LYS
82	Bw	225	PRO
82	Bw	235	HIS
82	Bw	242	TYR
83	Bx	44	PRO
83	Bx	47	PHE
83	Bx	49	ILE
83	Bx	52	ASP
83	Bx	56	ALA
83	Bx	90	GLN
83	Bx	195	ASP
83	Bx	216	VAL

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Mol	Chain	Res	Type
83	Bx	271	ALA
83	Bx	272	ALA
84	By	7	ASP
84	By	8	GLN
84	By	12	PRO
84	By	19	VAL
84	By	43	ASP
84	By	57	ARG
84	By	59	PHE
1	A0	53	GLY
1	A0	108	THR
2	A1	32	PRO
2	A1	33	HIS
2	A1	134	PRO
2	A1	151	THR
2	A1	245	ASN
3	A2	38	SER
3	A2	54	ILE
3	A2	150	ARG
4	A3	29	GLY
4	A3	45	ALA
4	A3	123	PRO
4	A3	136	LEU
4	A3	151	GLY
4	A3	155	ASP
5	A4	47	HIS
5	A4	61	LYS
5	A4	105	THR
6	A5	9	HIS
6	A5	13	ILE
6	A5	16	GLY
6	A5	22	ARG
6	A5	168	HIS
7	A6	17	PRO
7	A6	97	SER
7	A6	135	VAL
7	A6	145	PHE
7	A6	186	GLY
8	A7	50	HIS
8	A7	55	SER
8	A7	154	TRP
9	A8	22	CYS

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Mol	Chain	Res	Type
10	A9	129	GLY
11	AC	43	VAL
11	AC	79	SER
11	AC	176	VAL
11	AC	203	GLY
12	AD	88	TYR
12	AD	92	ASP
12	AD	95	PRO
12	AD	103	LYS
13	AE	24	TYR
13	AE	55	GLY
13	AE	75	PRO
13	AE	173	LYS
16	AH	41	SER
17	AI	55	HIS
17	AI	74	VAL
17	AI	81	LYS
18	AJ	82	THR
18	AJ	98	GLN
19	AK	30	ALA
19	AK	49	THR
20	AL	99	ILE
20	AL	122	PRO
21	AM	85	LEU
21	AM	120	ALA
21	AM	133	ARG
21	AM	145	LYS
21	AM	149	VAL
22	AO	57	SER
22	AO	64	PRO
22	AO	159	LYS
22	AO	164	THR
23	AP	68	SER
23	AP	82	ARG
23	AP	117	GLY
23	AP	188	ILE
23	AP	215	ARG
24	AQ	65	THR
25	AR	12	VAL
25	AR	81	GLY
26	AS	37	LYS
26	AS	105	PHE

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Mol	Chain	Res	Type
26	AS	126	SER
27	AT	10	VAL
27	AT	115	LYS
28	AU	33	TRP
28	AU	75	LEU
28	AU	101	SER
29	AV	6	ARG
29	AV	28	CYS
29	AV	49	GLN
29	AV	64	SER
29	AV	88	VAL
30	AW	52	THR
31	AX	93	ARG
31	AX	194	ILE
33	AZ	82	GLY
42	BI	10	LYS
42	BI	99	MET
42	BI	168	HIS
44	BK	10	ARG
44	BK	14	ASN
44	BK	57	LEU
44	BK	108	ALA
44	BK	115	MET
44	BK	160	PRO
45	BL	154	ARG
45	BL	159	HIS
46	BM	40	LYS
47	BN	78	ARG
47	BN	130	LEU
47	BN	139	GLN
47	BN	156	SER
47	BN	172	GLU
47	BN	202	ALA
48	BO	85	LYS
48	BO	91	HIS
48	BO	142	ALA
48	BO	210	GLN
49	BP	33	ALA
49	BP	92	VAL
49	BP	159	ALA
49	BP	184	VAL
50	BQ	51	HIS

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Mol	Chain	Res	Type
50	BQ	72	THR
50	BQ	99	GLY
50	BQ	108	GLY
50	BQ	130	LEU
50	BQ	154	PRO
50	BQ	174	LYS
50	BQ	214	ARG
51	BR	8	PRO
51	BR	41	LEU
51	BR	65	GLY
52	BS	26	VAL
52	BS	138	ARG
52	BS	178	VAL
53	BT	55	VAL
53	BT	74	ARG
53	BT	77	GLY
54	BU	18	LYS
54	BU	131	SER
54	BU	141	LYS
54	BU	145	VAL
54	BU	157	ILE
55	BV	44	LEU
55	BV	61	LYS
56	BW	4	ASP
56	BW	8	VAL
56	BW	18	ALA
56	BW	72	ARG
56	BW	118	GLY
56	BW	136	PRO
57	BX	47	LYS
59	BZ	7	ARG
59	BZ	50	ASP
60	Ba	3	PHE
60	Ba	18	ALA
60	Ba	34	GLU
60	Ba	54	ARG
60	Ba	60	SER
61	Bb	15	THR
61	Bb	32	ARG
61	Bb	51	GLY
61	Bb	65	LYS
61	Bb	113	GLY

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Mol	Chain	Res	Type
62	Bc	39	THR
62	Bc	59	ARG
62	Bc	97	ASP
63	Bd	23	PRO
63	Bd	24	PRO
63	Bd	29	MET
64	Be	117	GLU
64	Be	118	ALA
64	Be	162	CYS
64	Be	173	GLY
64	Be	180	LEU
64	Be	216	HIS
65	Bf	242	GLY
65	Bf	268	SER
65	Bf	295	PRO
65	Bf	304	LYS
65	Bf	315	ARG
65	Bf	420	SER
65	Bf	444	ASP
67	Bh	3	ARG
67	Bh	44	LYS
67	Bh	56	VAL
67	Bh	99	ARG
67	Bh	124	ASP
67	Bh	160	GLY
67	Bh	162	LYS
69	Bj	48	VAL
69	Bj	56	GLY
69	Bj	115	GLN
70	Bk	103	GLU
70	Bk	126	LYS
71	Bl	103	SER
72	Bm	8	ALA
72	Bm	22	GLY
72	Bm	25	THR
72	Bm	34	SER
72	Bm	40	LEU
72	Bm	78	LEU
73	Bn	41	ARG
73	Bn	81	ASP
74	Bo	5	THR
74	Bo	8	MET

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Mol	Chain	Res	Type
74	Bo	40	SER
74	Bo	72	SER
74	Bo	92	SER
75	Bp	18	LYS
75	Bp	60	ILE
75	Bp	72	ARG
76	Bq	22	PRO
76	Bq	47	THR
77	Br	14	GLU
77	Br	63	ALA
77	Br	217	ARG
77	Br	232	SER
77	Br	269	SER
77	Br	314	ARG
78	Bs	34	CYS
79	Bt	75	SER
79	Bt	103	ASP
79	Bt	104	PRO
80	Bu	8	LYS
80	Bu	115	LEU
80	Bu	132	VAL
80	Bu	139	GLN
80	Bu	154	VAL
80	Bu	160	THR
80	Bu	194	ASP
80	Bu	298	ALA
81	Bv	41	GLY
82	Bw	6	LEU
82	Bw	94	ALA
82	Bw	97	LYS
82	Bw	174	GLN
82	Bw	234	ARG
82	Bw	240	GLY
82	Bw	241	ASP
83	Bx	42	ALA
83	Bx	95	LEU
83	Bx	136	THR
83	Bx	139	THR
83	Bx	246	TRP
83	Bx	263	ARG
83	Bx	267	ALA
84	By	5	SER

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Mol	Chain	Res	Type
84	By	21	ASP
84	By	45	ARG
84	By	105	ASN
84	By	168	LYS
1	A0	34	ALA
1	A0	36	LYS
1	A0	78	ASN
1	A0	206	ILE
1	A0	226	ASP
2	A1	19	LYS
3	A2	36	PRO
3	A2	173	SER
5	A4	100	ALA
5	A4	120	SER
6	A5	33	PRO
6	A5	38	LEU
6	A5	156	SER
7	A6	117	LEU
8	A7	11	GLY
8	A7	28	ALA
8	A7	65	GLY
8	A7	239	PRO
8	A7	276	PRO
9	A8	35	TYR
10	A9	92	ARG
10	A9	124	PRO
11	AC	58	HIS
11	AC	102	ALA
11	AC	140	ILE
11	AC	164	ARG
12	AD	29	PRO
12	AD	31	GLY
12	AD	35	GLY
12	AD	45	PRO
12	AD	67	ALA
13	AE	38	SER
13	AE	69	TYR
13	AE	164	ALA
14	AF	76	TYR
16	AH	29	SER
16	AH	40	MET
16	AH	59	ARG

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Mol	Chain	Res	Type
16	AH	92	ALA
16	AH	131	ASP
17	AI	78	GLU
18	AJ	59	GLY
19	AK	5	LYS
20	AL	6	THR
20	AL	65	PRO
20	AL	92	ASP
21	AM	28	PRO
22	AO	163	GLU
23	AP	70	PRO
23	AP	185	GLY
23	AP	240	TRP
23	AP	248	ASP
25	AR	15	ASP
26	AS	135	ARG
27	AT	65	PHE
27	AT	103	MET
27	AT	107	LYS
29	AV	5	ARG
29	AV	100	TYR
30	AW	53	SER
30	AW	83	LYS
31	AX	61	LYS
32	AY	10	ARG
42	BI	5	LEU
42	BI	8	VAL
42	BI	61	PRO
42	BI	149	ARG
42	BI	152	GLY
43	BJ	11	GLU
43	BJ	27	GLU
43	BJ	45	ARG
43	BJ	146	LEU
44	BK	100	ASN
44	BK	169	LYS
45	BL	17	ARG
45	BL	115	GLU
45	BL	147	HIS
46	BM	60	CYS
47	BN	104	ARG
47	BN	175	ARG

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Mol	Chain	Res	Type
47	BN	180	GLU
48	BO	132	ARG
48	BO	166	TRP
48	BO	199	ASN
48	BO	205	LEU
48	BO	209	PRO
49	BP	17	ARG
50	BQ	74	GLN
50	BQ	129	ASN
50	BQ	203	PRO
51	BR	5	SER
52	BS	68	ASP
52	BS	84	SER
53	BT	133	ARG
54	BU	22	HIS
54	BU	32	THR
54	BU	124	PRO
56	BW	138	ILE
57	BX	57	PRO
57	BX	63	PRO
57	BX	66	VAL
57	BX	102	ASN
58	BY	10	HIS
58	BY	64	ARG
58	BY	71	VAL
61	Bb	116	GLN
62	Bc	65	LYS
62	Bc	67	GLY
62	Bc	87	LYS
62	Bc	103	ALA
63	Bd	25	LEU
63	Bd	35	GLY
64	Be	77	VAL
64	Be	212	GLY
65	Bf	65	LEU
65	Bf	82	SER
65	Bf	314	SER
65	Bf	353	THR
65	Bf	443	LYS
67	Bh	27	ALA
68	Bi	14	ARG
68	Bi	20	ARG

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Mol	Chain	Res	Type
68	Bi	25	LEU
68	Bi	49	GLY
68	Bi	59	GLY
68	Bi	126	LYS
69	Bj	7	GLN
70	Bk	77	LYS
71	Bl	97	LYS
72	Bm	7	GLU
72	Bm	23	TYR
72	Bm	77	ALA
73	Bn	32	GLU
74	Bo	51	ALA
77	Br	91	PHE
77	Br	110	TRP
77	Br	146	VAL
77	Br	220	ARG
77	Br	233	LEU
77	Br	309	ARG
79	Bt	6	LYS
79	Bt	58	PHE
80	Bu	92	LEU
80	Bu	120	VAL
80	Bu	131	ALA
80	Bu	144	SER
80	Bu	163	ALA
80	Bu	222	SER
80	Bu	262	LYS
80	Bu	283	LEU
81	Bv	28	LYS
82	Bw	111	PRO
82	Bw	233	ARG
83	Bx	114	THR
84	By	13	GLU
84	By	175	ASP
1	A0	79	GLU
1	A0	208	PRO
2	A1	51	TYR
2	A1	139	HIS
2	A1	147	PRO
4	A3	20	ASP
4	A3	90	GLY
4	A3	153	THR

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Mol	Chain	Res	Type
5	A4	113	LYS
7	A6	16	ARG
7	A6	133	ILE
8	A7	194	GLY
12	AD	2	THR
12	AD	44	LEU
12	AD	102	HIS
13	AE	19	GLN
13	AE	70	ILE
13	AE	80	VAL
15	AG	26	LEU
15	AG	107	LYS
17	AI	132	PRO
17	AI	133	VAL
18	AJ	3	MET
19	AK	32	GLN
19	AK	133	LYS
19	AK	148	TYR
20	AL	24	LEU
21	AM	129	GLY
21	AM	134	GLY
21	AM	142	ARG
22	AO	98	SER
23	AP	183	PRO
23	AP	234	PHE
24	AQ	49	GLY
24	AQ	66	PRO
25	AR	47	ASN
25	AR	85	ILE
26	AS	110	HIS
27	AT	37	TRP
27	AT	110	ALA
27	AT	131	LYS
28	AU	80	ALA
30	AW	3	PHE
31	AX	58	LEU
32	AY	22	SER
32	AY	46	ALA
42	BI	134	ALA
44	BK	13	LYS
44	BK	206	ILE
45	BL	70	GLU

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Mol	Chain	Res	Type
46	BM	90	ARG
46	BM	93	LYS
46	BM	141	CYS
47	BN	8	ILE
47	BN	13	GLN
47	BN	16	HIS
47	BN	28	LYS
47	BN	188	LYS
49	BP	136	PRO
50	BQ	31	LYS
50	BQ	143	THR
50	BQ	176	ARG
52	BS	146	PRO
52	BS	162	ARG
52	BS	176	ALA
54	BU	81	ARG
55	BV	45	SER
55	BV	60	ARG
55	BV	115	ASP
56	BW	44	TYR
56	BW	93	THR
58	BY	17	HIS
58	BY	87	VAL
59	BZ	56	LYS
60	Ba	57	SER
60	Ba	91	GLU
62	Bc	40	LYS
62	Bc	42	GLN
62	Bc	74	LYS
64	Be	83	PHE
64	Be	120	VAL
64	Be	229	ALA
65	Bf	60	PRO
65	Bf	66	GLY
65	Bf	148	VAL
65	Bf	174	LYS
65	Bf	322	ARG
65	Bf	347	MET
65	Bf	350	ASN
65	Bf	351	GLN
65	Bf	354	THR
65	Bf	390	ARG

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Mol	Chain	Res	Type
67	Bh	161	GLY
68	Bi	10	ILE
68	Bi	100	THR
70	Bk	107	LYS
71	Bl	51	LEU
71	Bl	87	TYR
71	Bl	88	LYS
71	Bl	119	SER
73	Bn	20	ARG
74	Bo	46	ALA
75	Bp	30	LYS
77	Br	147	ALA
77	Br	174	GLY
77	Br	176	ILE
80	Bu	5	LYS
80	Bu	260	PRO
81	Bv	7	LYS
82	Bw	43	LYS
83	Bx	249	LEU
84	By	22	ARG
2	A1	74	ARG
2	A1	92	THR
2	A1	238	LYS
5	A4	37	LYS
5	A4	48	ILE
5	A4	104	ILE
5	A4	108	PRO
6	A5	35	ASN
8	A7	45	PRO
11	AC	109	ASP
11	AC	141	PRO
11	AC	195	ILE
14	AF	121	CYS
16	AH	121	ARG
17	AI	25	ARG
19	AK	142	THR
20	AL	66	VAL
20	AL	67	ARG
20	AL	85	VAL
22	AO	54	VAL
22	AO	63	ALA
23	AP	190	ALA

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Mol	Chain	Res	Type
23	AP	257	LEU
24	AQ	42	ASN
25	AR	17	TYR
27	AT	9	GLU
29	AV	90	ALA
31	AX	77	ASN
42	BI	15	VAL
42	BI	105	LEU
42	BI	139	THR
43	BJ	40	PRO
44	BK	15	LYS
44	BK	110	ARG
44	BK	131	ILE
47	BN	80	PHE
47	BN	103	ASP
47	BN	167	VAL
49	BP	152	LYS
49	BP	157	THR
49	BP	158	PRO
50	BQ	218	LEU
51	BR	10	VAL
51	BR	61	LYS
51	BR	78	GLN
52	BS	136	VAL
52	BS	137	ARG
52	BS	165	ARG
52	BS	168	PHE
54	BU	54	HIS
54	BU	142	LYS
56	BW	116	ILE
58	BY	37	ARG
59	BZ	57	ARG
61	Bb	70	LYS
61	Bb	91	LYS
61	Bb	115	LEU
64	Be	87	SER
64	Be	109	GLU
65	Bf	59	HIS
65	Bf	224	ASN
65	Bf	266	GLN
65	Bf	377	ASN
65	Bf	423	ILE

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Mol	Chain	Res	Type
65	Bf	430	THR
69	Bj	6	VAL
69	Bj	79	TYR
70	Bk	102	ASN
71	Bl	76	VAL
71	Bl	131	VAL
73	Bn	63	ARG
74	Bo	60	CYS
74	Bo	70	THR
75	Bp	48	ALA
75	Bp	80	PRO
77	Br	270	THR
80	Bu	38	LEU
80	Bu	245	MET
80	Bu	270	PRO
81	Bv	58	GLY
81	Bv	186	ALA
82	Bw	230	ARG
83	Bx	48	GLY
83	Bx	128	GLU
83	Bx	148	GLY
84	By	116	GLU
1	A0	223	PRO
2	A1	34	LYS
3	A2	172	ASN
4	A3	91	TYR
4	A3	135	ARG
6	A5	59	ARG
12	AD	30	LEU
16	AH	12	SER
17	AI	60	ALA
23	AP	230	LYS
32	AY	27	LYS
32	AY	61	PRO
42	BI	100	THR
47	BN	164	GLY
47	BN	165	GLY
49	BP	4	ALA
51	BR	68	GLY
57	BX	45	LYS
57	BX	54	PHE
57	BX	67	LYS

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Mol	Chain	Res	Type
61	Bb	118	PRO
62	Bc	37	ASN
65	Bf	298	THR
65	Bf	344	ALA
65	Bf	369	PHE
65	Bf	425	HIS
77	Br	98	GLY
77	Br	271	VAL
77	Br	310	PRO
81	Bv	187	PRO
82	Bw	227	GLY
83	Bx	273	ALA
84	By	112	ASN
2	A1	131	GLY
5	A4	18	PRO
5	A4	44	PRO
8	A7	138	VAL
13	AE	30	VAL
21	AM	13	ILE
23	AP	237	PRO
31	AX	59	GLY
31	AX	201	PRO
32	AY	21	VAL
42	BI	137	ALA
44	BK	204	GLY
46	BM	14	VAL
47	BN	29	VAL
69	Bj	37	GLY
69	Bj	162	ALA
71	Bl	66	VAL
73	Bn	62	GLY
74	Bo	52	VAL
76	Bq	24	PRO
77	Br	75	ILE
13	AE	34	ILE
26	AS	40	PRO
29	AV	79	ILE
44	BK	29	PRO
45	BL	15	PRO
46	BM	88	PRO
47	BN	53	PRO
52	BS	4	PRO

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Mol	Chain	Res	Type
52	BS	152	PRO
57	BX	62	ARG
60	Ba	61	ILE
65	Bf	229	VAL
65	Bf	305	VAL
72	Bm	41	PRO
74	Bo	67	GLY
80	Bu	207	GLY
81	Bv	16	VAL
82	Bw	45	ILE
83	Bx	94	VAL
7	A6	174	VAL
23	AP	45	PRO
33	AZ	83	PRO
51	BR	38	GLY
80	Bu	70	VAL
80	Bu	162	GLY
5	A4	99	VAL
13	AE	46	GLY
14	AF	105	GLY
15	AG	17	PRO
17	AI	61	PRO
21	AM	132	VAL
29	AV	92	PRO
49	BP	154	VAL
67	Bh	176	PRO
82	Bw	104	ILE
4	A3	179	ILE
23	AP	71	ILE
46	BM	104	ILE
81	Bv	54	LEU

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A0	189/218 (87%)	158 (84%)	31 (16%)	2	11
2	A1	209/231 (90%)	167 (80%)	42 (20%)	1	8
3	A2	158/160 (99%)	132 (84%)	26 (16%)	2	11
4	A3	207/207 (100%)	174 (84%)	33 (16%)	2	12
5	A4	176/187 (94%)	145 (82%)	31 (18%)	2	10
6	A5	158/180 (88%)	135 (85%)	23 (15%)	3	13
7	A6	162/166 (98%)	137 (85%)	25 (15%)	2	12
8	A7	264/267 (99%)	231 (88%)	33 (12%)	4	17
9	A8	36/49 (74%)	31 (86%)	5 (14%)	3	14
10	A9	57/126 (45%)	52 (91%)	5 (9%)	9	28
11	AC	179/243 (74%)	145 (81%)	34 (19%)	1	8
12	AD	92/131 (70%)	80 (87%)	12 (13%)	4	16
13	AE	143/156 (92%)	121 (85%)	22 (15%)	2	12
14	AF	102/120 (85%)	98 (96%)	4 (4%)	28	49
15	AG	124/131 (95%)	107 (86%)	17 (14%)	3	14
16	AH	95/112 (85%)	82 (86%)	13 (14%)	3	14
17	AI	110/128 (86%)	102 (93%)	8 (7%)	13	34
18	AJ	108/109 (99%)	87 (81%)	21 (19%)	1	8
19	AK	123/124 (99%)	106 (86%)	17 (14%)	3	14
20	AL	111/122 (91%)	98 (88%)	13 (12%)	5	18
21	AM	133/133 (100%)	115 (86%)	18 (14%)	4	15
22	AO	123/137 (90%)	107 (87%)	16 (13%)	4	16
23	AP	185/204 (91%)	154 (83%)	31 (17%)	2	10
24	AQ	94/104 (90%)	80 (85%)	14 (15%)	3	13
25	AR	66/150 (44%)	52 (79%)	14 (21%)	1	6
26	AS	117/118 (99%)	101 (86%)	16 (14%)	3	14
27	AT	110/116 (95%)	83 (76%)	27 (24%)	1	4
28	AU	73/94 (78%)	62 (85%)	11 (15%)	3	13
29	AV	87/97 (90%)	74 (85%)	13 (15%)	3	13
30	AW	71/75 (95%)	57 (80%)	14 (20%)	1	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	AX	173/180 (96%)	152 (88%)	21 (12%)	5	17
32	AY	52/53 (98%)	41 (79%)	11 (21%)	1	6
33	AZ	57/84 (68%)	53 (93%)	4 (7%)	14	35
42	BI	164/165 (99%)	143 (87%)	21 (13%)	4	16
43	BJ	201/201 (100%)	192 (96%)	9 (4%)	24	46
44	BK	184/185 (100%)	155 (84%)	29 (16%)	2	12
45	BL	146/167 (87%)	118 (81%)	28 (19%)	1	8
46	BM	114/137 (83%)	109 (96%)	5 (4%)	25	47
47	BN	185/188 (98%)	147 (80%)	38 (20%)	1	7
48	BO	175/195 (90%)	148 (85%)	27 (15%)	2	12
49	BP	156/160 (98%)	140 (90%)	16 (10%)	7	23
50	BQ	176/193 (91%)	145 (82%)	31 (18%)	2	10
51	BR	132/144 (92%)	107 (81%)	25 (19%)	1	8
52	BS	160/160 (100%)	129 (81%)	31 (19%)	1	8
53	BT	170/198 (86%)	142 (84%)	28 (16%)	2	11
54	BU	133/134 (99%)	114 (86%)	19 (14%)	3	13
55	BV	95/116 (82%)	88 (93%)	7 (7%)	13	33
56	BW	107/108 (99%)	85 (79%)	22 (21%)	1	7
57	BX	108/136 (79%)	90 (83%)	18 (17%)	2	11
58	BY	85/102 (83%)	78 (92%)	7 (8%)	10	30
59	BZ	110/125 (88%)	94 (86%)	16 (14%)	3	13
60	Ba	116/117 (99%)	97 (84%)	19 (16%)	2	11
61	Bb	115/116 (99%)	96 (84%)	19 (16%)	2	11
62	Bc	124/130 (95%)	93 (75%)	31 (25%)	0	4
63	Bd	58/59 (98%)	50 (86%)	8 (14%)	3	14
64	Be	145/204 (71%)	121 (83%)	24 (17%)	2	11
65	Bf	349/360 (97%)	299 (86%)	50 (14%)	3	13
66	Bg	84/92 (91%)	69 (82%)	15 (18%)	2	9
67	Bh	162/162 (100%)	133 (82%)	29 (18%)	2	9
68	Bi	113/117 (97%)	97 (86%)	16 (14%)	3	14
69	Bj	130/137 (95%)	109 (84%)	21 (16%)	2	11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
70	Bk	75/114 (66%)	61 (81%)	14 (19%)	1	9
71	Bl	97/126 (77%)	78 (80%)	19 (20%)	1	8
72	Bm	87/90 (97%)	73 (84%)	14 (16%)	2	11
73	Bn	70/71 (99%)	56 (80%)	14 (20%)	1	7
74	Bo	74/76 (97%)	64 (86%)	10 (14%)	4	15
75	Bp	76/77 (99%)	67 (88%)	9 (12%)	5	18
76	Bq	46/47 (98%)	37 (80%)	9 (20%)	1	8
77	Br	304/310 (98%)	252 (83%)	52 (17%)	2	10
78	Bs	46/111 (41%)	40 (87%)	6 (13%)	4	16
79	Bt	94/95 (99%)	81 (86%)	13 (14%)	3	14
80	Bu	238/247 (96%)	196 (82%)	42 (18%)	2	10
81	Bv	132/160 (82%)	110 (83%)	22 (17%)	2	11
82	Bw	213/213 (100%)	182 (85%)	31 (15%)	3	13
83	Bx	203/229 (89%)	172 (85%)	31 (15%)	3	12
84	By	172/172 (100%)	138 (80%)	34 (20%)	1	8
All	All	10068/11158 (90%)	8514 (85%)	1554 (15%)	5	12

All (1554) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A0	24	MET
1	A0	33	VAL
1	A0	65	VAL
1	A0	75	LYS
1	A0	79	GLU
1	A0	83	TYR
1	A0	98	LEU
1	A0	106	ASP
1	A0	110	ASP
1	A0	116	LEU
1	A0	118	LYS
1	A0	121	THR
1	A0	127	VAL
1	A0	133	ASP
1	A0	142	ILE
1	A0	145	THR
1	A0	150	ASN

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Mol	Chain	Res	Type
1	A0	152	LEU
1	A0	153	SER
1	A0	159	LYS
1	A0	165	TRP
1	A0	168	MET
1	A0	196	ARG
1	A0	198	ARG
1	A0	201	LYS
1	A0	207	ILE
1	A0	210	ARG
1	A0	211	ASP
1	A0	215	ARG
1	A0	221	ARG
1	A0	231	ILE
2	A1	17	LEU
2	A1	21	THR
2	A1	23	VAL
2	A1	27	ARG
2	A1	35	LEU
2	A1	39	LEU
2	A1	43	ILE
2	A1	45	ILE
2	A1	50	LYS
2	A1	51	TYR
2	A1	56	LEU
2	A1	63	ARG
2	A1	66	LEU
2	A1	67	VAL
2	A1	68	CYS
2	A1	89	ILE
2	A1	96	PHE
2	A1	99	LEU
2	A1	101	ASP
2	A1	103	LYS
2	A1	111	VAL
2	A1	112	SER
2	A1	120	MET
2	A1	121	MET
2	A1	127	TYR
2	A1	128	THR
2	A1	135	VAL
2	A1	157	LEU

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Mol	Chain	Res	Type
2	A1	161	VAL
2	A1	162	LYS
2	A1	168	ASP
2	A1	204	ILE
2	A1	211	SER
2	A1	214	GLU
2	A1	229	MET
2	A1	238	LYS
2	A1	242	LEU
2	A1	245	ASN
2	A1	246	VAL
2	A1	247	ILE
2	A1	252	GLU
2	A1	253	LYS
3	A2	9	PHE
3	A2	20	THR
3	A2	27	TYR
3	A2	28	ILE
3	A2	30	ARG
3	A2	35	VAL
3	A2	37	HIS
3	A2	52	ILE
3	A2	56	GLU
3	A2	72	LYS
3	A2	73	LEU
3	A2	76	VAL
3	A2	82	THR
3	A2	84	GLU
3	A2	86	ILE
3	A2	94	PRO
3	A2	114	VAL
3	A2	120	VAL
3	A2	128	SER
3	A2	130	MET
3	A2	139	LEU
3	A2	152	LEU
3	A2	153	LYS
3	A2	174	TYR
3	A2	187	LYS
3	A2	190	ARG
4	A3	5	VAL
4	A3	15	GLN

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Mol	Chain	Res	Type
4	A3	19	THR
4	A3	21	GLU
4	A3	26	VAL
4	A3	32	ARG
4	A3	33	LEU
4	A3	54	ARG
4	A3	57	SER
4	A3	59	LYS
4	A3	66	GLN
4	A3	80	ARG
4	A3	88	PHE
4	A3	105	LEU
4	A3	115	THR
4	A3	116	VAL
4	A3	121	GLU
4	A3	124	ILE
4	A3	127	VAL
4	A3	134	ARG
4	A3	140	ARG
4	A3	152	ARG
4	A3	161	ILE
4	A3	165	VAL
4	A3	173	ARG
4	A3	177	PRO
4	A3	180	GLN
4	A3	194	LYS
4	A3	196	ARG
4	A3	210	ARG
4	A3	215	LEU
4	A3	237	ASN
4	A3	239	GLN
5	A4	2	SER
5	A4	6	HIS
5	A4	10	LEU
5	A4	13	LEU
5	A4	14	LYS
5	A4	29	LEU
5	A4	30	PHE
5	A4	32	LEU
5	A4	49	ASN
5	A4	50	THR
5	A4	62	THR

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Mol	Chain	Res	Type
5	A4	66	ILE
5	A4	71	ARG
5	A4	74	MET
5	A4	79	ILE
5	A4	90	ARG
5	A4	97	VAL
5	A4	98	LEU
5	A4	102	ARG
5	A4	105	THR
5	A4	112	TYR
5	A4	114	LEU
5	A4	116	GLN
5	A4	121	ARG
5	A4	130	ILE
5	A4	135	ILE
5	A4	138	CYS
5	A4	143	ARG
5	A4	165	LYS
5	A4	178	TYR
5	A4	183	HIS
6	A5	13	ILE
6	A5	19	LYS
6	A5	24	ARG
6	A5	28	GLU
6	A5	29	LEU
6	A5	33	PRO
6	A5	35	ASN
6	A5	38	LEU
6	A5	56	ARG
6	A5	61	ASP
6	A5	69	THR
6	A5	70	GLU
6	A5	77	ARG
6	A5	81	VAL
6	A5	82	VAL
6	A5	88	ASN
6	A5	90	LEU
6	A5	91	VAL
6	A5	127	LYS
6	A5	172	GLU
6	A5	202	LEU
6	A5	204	GLU

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Mol	Chain	Res	Type
6	A5	207	GLU
7	A6	2	ARG
7	A6	4	TYR
7	A6	14	PRO
7	A6	19	GLU
7	A6	36	ARG
7	A6	48	LEU
7	A6	52	ARG
7	A6	59	LEU
7	A6	60	THR
7	A6	69	LEU
7	A6	86	ASP
7	A6	99	THR
7	A6	101	PRO
7	A6	104	LEU
7	A6	105	GLU
7	A6	122	HIS
7	A6	125	ARG
7	A6	133	ILE
7	A6	139	ILE
7	A6	144	SER
7	A6	147	VAL
7	A6	148	ARG
7	A6	149	VAL
7	A6	173	ARG
7	A6	175	LYS
8	A7	10	THR
8	A7	13	ARG
8	A7	19	LEU
8	A7	34	THR
8	A7	56	TYR
8	A7	69	PHE
8	A7	70	VAL
8	A7	75	LEU
8	A7	88	ASP
8	A7	91	LEU
8	A7	100	GLN
8	A7	102	GLN
8	A7	104	LYS
8	A7	122	ARG
8	A7	135	VAL
8	A7	141	GLU

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Mol	Chain	Res	Type
8	A7	146	LEU
8	A7	158	VAL
8	A7	159	ARG
8	A7	160	PHE
8	A7	168	VAL
8	A7	174	TRP
8	A7	198	TYR
8	A7	202	VAL
8	A7	211	CYS
8	A7	239	PRO
8	A7	252	MET
8	A7	253	CYS
8	A7	276	PRO
8	A7	277	GLU
8	A7	278	HIS
8	A7	279	GLN
8	A7	300	LEU
9	A8	23	VAL
9	A8	27	ASN
9	A8	28	GLN
9	A8	39	VAL
9	A8	57	ARG
10	A9	91	HIS
10	A9	97	LYS
10	A9	101	LEU
10	A9	132	VAL
10	A9	152	MET
11	AC	46	MET
11	AC	49	SER
11	AC	57	MET
11	AC	63	THR
11	AC	65	ASN
11	AC	71	LYS
11	AC	74	ILE
11	AC	77	ARG
11	AC	84	ILE
11	AC	91	TRP
11	AC	95	ILE
11	AC	96	LEU
11	AC	104	VAL
11	AC	108	GLN
11	AC	116	ARG

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Mol	Chain	Res	Type
11	AC	129	LEU
11	AC	145	THR
11	AC	147	GLN
11	AC	160	VAL
11	AC	177	ASN
11	AC	178	ILE
11	AC	194	ASP
11	AC	205	HIS
11	AC	207	ILE
11	AC	211	TYR
11	AC	214	LEU
11	AC	217	GLU
11	AC	218	VAL
11	AC	221	LEU
11	AC	227	ARG
11	AC	237	LEU
11	AC	238	PHE
11	AC	241	ARG
11	AC	242	ASP
12	AD	11	ASP
12	AD	22	VAL
12	AD	33	TRP
12	AD	36	THR
12	AD	41	THR
12	AD	47	LEU
12	AD	65	GLN
12	AD	68	TRP
12	AD	76	ASN
12	AD	80	ILE
12	AD	95	PRO
12	AD	102	HIS
13	AE	18	VAL
13	AE	25	GLN
13	AE	27	GLN
13	AE	39	LYS
13	AE	42	VAL
13	AE	58	PHE
13	AE	65	ILE
13	AE	70	ILE
13	AE	80	VAL
13	AE	83	ARG
13	AE	85	ARG

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Mol	Chain	Res	Type
13	AE	96	MET
13	AE	117	GLN
13	AE	135	PRO
13	AE	138	GLU
13	AE	140	VAL
13	AE	143	GLN
13	AE	145	ARG
13	AE	153	TYR
13	AE	154	ASN
13	AE	172	SER
13	AE	173	LYS
14	AF	72	GLU
14	AF	77	LYS
14	AF	117	LYS
14	AF	123	CYS
15	AG	2	VAL
15	AG	16	LEU
15	AG	23	PRO
15	AG	33	VAL
15	AG	46	SER
15	AG	52	MET
15	AG	53	GLN
15	AG	58	MET
15	AG	64	LYS
15	AG	65	ASN
15	AG	71	ILE
15	AG	75	LEU
15	AG	92	ILE
15	AG	93	LYS
15	AG	97	GLN
15	AG	115	LEU
15	AG	131	ARG
16	AH	18	GLN
16	AH	23	VAL
16	AH	32	ASP
16	AH	43	ARG
16	AH	56	LYS
16	AH	59	ARG
16	AH	68	MET
16	AH	69	MET
16	AH	73	ASP
16	AH	75	VAL

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Mol	Chain	Res	Type
16	AH	123	GLU
16	AH	126	THR
16	AH	130	THR
17	AI	17	ARG
17	AI	55	HIS
17	AI	63	LEU
17	AI	97	VAL
17	AI	107	ARG
17	AI	119	ILE
17	AI	130	TYR
17	AI	131	LYS
18	AJ	20	ARG
18	AJ	23	ARG
18	AJ	39	GLN
18	AJ	41	MET
18	AJ	49	GLU
18	AJ	52	ILE
18	AJ	54	ASP
18	AJ	57	ARG
18	AJ	60	LYS
18	AJ	62	VAL
18	AJ	65	LEU
18	AJ	81	CYS
18	AJ	85	ASP
18	AJ	93	ILE
18	AJ	98	GLN
18	AJ	104	LEU
18	AJ	106	THR
18	AJ	108	LEU
18	AJ	110	ILE
18	AJ	111	MET
18	AJ	112	ASP
19	AK	5	LYS
19	AK	12	VAL
19	AK	28	THR
19	AK	40	VAL
19	AK	49	THR
19	AK	58	VAL
19	AK	61	VAL
19	AK	74	ARG
19	AK	78	SER
19	AK	80	GLN

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Mol	Chain	Res	Type
19	AK	81	VAL
19	AK	89	GLN
19	AK	115	TYR
19	AK	121	PHE
19	AK	124	ILE
19	AK	129	ARG
19	AK	141	ARG
20	AL	5	ARG
20	AL	17	VAL
20	AL	21	PHE
20	AL	29	TYR
20	AL	55	THR
20	AL	71	LEU
20	AL	73	LEU
20	AL	75	GLU
20	AL	88	VAL
20	AL	92	ASP
20	AL	95	ILE
20	AL	100	ARG
20	AL	114	THR
21	AM	16	LEU
21	AM	28	PRO
21	AM	31	LEU
21	AM	40	ARG
21	AM	51	VAL
21	AM	60	LEU
21	AM	88	GLN
21	AM	98	HIS
21	AM	104	VAL
21	AM	107	ARG
21	AM	115	LEU
21	AM	121	HIS
21	AM	122	ARG
21	AM	126	HIS
21	AM	132	VAL
21	AM	133	ARG
21	AM	139	THR
21	AM	140	SER
22	AO	37	GLN
22	AO	46	MET
22	AO	52	GLU
22	AO	62	ARG

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Mol	Chain	Res	Type
22	AO	73	ARG
22	AO	74	CYS
22	AO	81	VAL
22	AO	87	VAL
22	AO	106	PRO
22	AO	108	ILE
22	AO	125	THR
22	AO	140	VAL
22	AO	143	LEU
22	AO	160	MET
22	AO	163	GLU
22	AO	167	LYS
23	AP	43	TRP
23	AP	44	VAL
23	AP	62	GLU
23	AP	69	MET
23	AP	74	HIS
23	AP	75	GLN
23	AP	77	VAL
23	AP	78	ASP
23	AP	83	GLU
23	AP	90	MET
23	AP	97	GLN
23	AP	105	ARG
23	AP	127	VAL
23	AP	133	LEU
23	AP	139	MET
23	AP	147	VAL
23	AP	160	GLU
23	AP	168	VAL
23	AP	178	ARG
23	AP	183	PRO
23	AP	193	VAL
23	AP	203	VAL
23	AP	206	VAL
23	AP	210	SER
23	AP	236	THR
23	AP	238	ASP
23	AP	239	LEU
23	AP	245	VAL
23	AP	247	ARG
23	AP	256	PHE

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Mol	Chain	Res	Type
23	AP	259	MET
24	AQ	16	ARG
24	AQ	21	MET
24	AQ	24	ARG
24	AQ	31	ASN
24	AQ	37	LEU
24	AQ	38	LEU
24	AQ	46	VAL
24	AQ	47	LEU
24	AQ	48	ARG
24	AQ	52	ARG
24	AQ	62	THR
24	AQ	76	THR
24	AQ	103	ILE
24	AQ	114	PRO
25	AR	15	ASP
25	AR	29	ILE
25	AR	32	PHE
25	AR	37	VAL
25	AR	39	ILE
25	AR	46	PRO
25	AR	49	VAL
25	AR	51	ASP
25	AR	55	THR
25	AR	59	ILE
25	AR	65	CYS
25	AR	73	ILE
25	AR	78	ILE
25	AR	85	ILE
26	AS	4	THR
26	AS	20	ASN
26	AS	39	ASN
26	AS	48	LYS
26	AS	55	ILE
26	AS	57	VAL
26	AS	66	ILE
26	AS	72	VAL
26	AS	88	ASP
26	AS	101	LEU
26	AS	112	VAL
26	AS	115	ILE
26	AS	120	PHE

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Mol	Chain	Res	Type
26	AS	123	VAL
26	AS	134	TYR
26	AS	139	GLU
27	AT	7	LYS
27	AT	9	GLU
27	AT	11	THR
27	AT	12	VAL
27	AT	13	ARG
27	AT	15	SER
27	AT	20	ASN
27	AT	25	ARG
27	AT	26	LYS
27	AT	29	VAL
27	AT	30	VAL
27	AT	31	GLU
27	AT	34	HIS
27	AT	35	PRO
27	AT	37	TRP
27	AT	38	CYS
27	AT	40	THR
27	AT	42	PRO
27	AT	50	LEU
27	AT	59	GLU
27	AT	65	PHE
27	AT	76	THR
27	AT	103	MET
27	AT	129	LYS
27	AT	132	MET
27	AT	133	GLN
27	AT	134	THR
28	AU	34	SER
28	AU	64	LYS
28	AU	66	ILE
28	AU	72	SER
28	AU	75	LEU
28	AU	81	LEU
28	AU	95	ILE
28	AU	97	LEU
28	AU	105	ARG
28	AU	106	VAL
28	AU	108	THR
29	AV	5	ARG

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Mol	Chain	Res	Type
29	AV	12	LYS
29	AV	17	ARG
29	AV	19	ARG
29	AV	24	HIS
29	AV	28	CYS
29	AV	43	VAL
29	AV	44	ARG
29	AV	61	ILE
29	AV	66	PHE
29	AV	74	LYS
29	AV	78	CYS
29	AV	94	GLU
30	AW	3	PHE
30	AW	4	PHE
30	AW	11	PRO
30	AW	14	ARG
30	AW	20	HIS
30	AW	23	ARG
30	AW	25	LEU
30	AW	30	ASN
30	AW	35	ASP
30	AW	48	TYR
30	AW	56	LYS
30	AW	57	CYS
30	AW	66	ARG
30	AW	83	LYS
31	AX	10	MET
31	AX	22	GLU
31	AX	36	VAL
31	AX	37	GLU
31	AX	43	THR
31	AX	49	ILE
31	AX	51	SER
31	AX	53	LYS
31	AX	54	THR
31	AX	72	LEU
31	AX	75	ARG
31	AX	90	VAL
31	AX	100	GLN
31	AX	108	LEU
31	AX	136	THR
31	AX	144	GLN

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Mol	Chain	Res	Type
31	AX	147	LYS
31	AX	152	ARG
31	AX	156	MET
31	AX	161	THR
31	AX	201	PRO
32	AY	4	VAL
32	AY	18	THR
32	AY	25	GLU
32	AY	31	ARG
32	AY	38	LEU
32	AY	41	THR
32	AY	48	THR
32	AY	49	LEU
32	AY	57	MET
32	AY	59	LYS
32	AY	60	GLN
33	AZ	57	THR
33	AZ	64	MET
33	AZ	86	GLU
33	AZ	97	ARG
42	BI	13	ARG
42	BI	32	LEU
42	BI	48	ILE
42	BI	57	ASN
42	BI	69	VAL
42	BI	70	CYS
42	BI	72	ARG
42	BI	75	THR
42	BI	80	LYS
42	BI	96	ASP
42	BI	101	ARG
42	BI	108	CYS
42	BI	112	PHE
42	BI	115	SER
42	BI	119	ARG
42	BI	143	THR
42	BI	147	ARG
42	BI	151	SER
42	BI	171	PRO
42	BI	179	GLU
42	BI	193	LYS
43	BJ	30	ASP

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Mol	Chain	Res	Type
43	BJ	41	GLN
43	BJ	78	ASP
43	BJ	92	LYS
43	BJ	93	ASN
43	BJ	94	LYS
43	BJ	95	LYS
43	BJ	159	VAL
43	BJ	188	VAL
44	BK	14	ASN
44	BK	24	ARG
44	BK	40	ARG
44	BK	49	CYS
44	BK	53	VAL
44	BK	54	SER
44	BK	56	GLU
44	BK	59	GLN
44	BK	69	ARG
44	BK	86	HIS
44	BK	87	MET
44	BK	88	ARG
44	BK	99	ILE
44	BK	101	LYS
44	BK	102	MET
44	BK	111	LEU
44	BK	115	MET
44	BK	121	LYS
44	BK	128	ARG
44	BK	138	MET
44	BK	142	ASP
44	BK	143	THR
44	BK	151	SER
44	BK	153	ARG
44	BK	157	MET
44	BK	177	LEU
44	BK	185	ARG
44	BK	191	GLN
44	BK	200	ILE
45	BL	17	ARG
45	BL	19	ILE
45	BL	21	VAL
45	BL	24	LEU
45	BL	25	CYS

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Mol	Chain	Res	Type
45	BL	51	THR
45	BL	53	VAL
45	BL	66	ILE
45	BL	67	ARG
45	BL	74	VAL
45	BL	77	THR
45	BL	81	LYS
45	BL	87	LEU
45	BL	88	GLU
45	BL	113	ILE
45	BL	117	ILE
45	BL	129	ILE
45	BL	132	MET
45	BL	133	ASP
45	BL	140	ARG
45	BL	141	ARG
45	BL	148	ARG
45	BL	151	ARG
45	BL	153	SER
45	BL	159	HIS
45	BL	167	MET
45	BL	175	ASP
45	BL	180	GLN
46	BM	9	GLN
46	BM	12	THR
46	BM	87	GLU
46	BM	99	LYS
46	BM	139	ILE
47	BN	6	ASN
47	BN	10	HIS
47	BN	11	VAL
47	BN	14	ARG
47	BN	16	HIS
47	BN	23	GLN
47	BN	28	LYS
47	BN	32	ASN
47	BN	52	PHE
47	BN	65	CYS
47	BN	66	PRO
47	BN	71	ASN
47	BN	74	ARG
47	BN	78	ARG

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Mol	Chain	Res	Type
47	BN	83	GLU
47	BN	84	GLU
47	BN	91	LYS
47	BN	93	ARG
47	BN	96	ARG
47	BN	103	ASP
47	BN	105	ARG
47	BN	111	GLU
47	BN	112	GLU
47	BN	114	MET
47	BN	116	ILE
47	BN	119	GLN
47	BN	126	SER
47	BN	135	ARG
47	BN	149	LYS
47	BN	158	TYR
47	BN	167	VAL
47	BN	171	ARG
47	BN	177	VAL
47	BN	192	LYS
47	BN	193	ASN
47	BN	194	HIS
47	BN	210	LYS
47	BN	214	GLU
48	BO	23	ASP
48	BO	25	ILE
48	BO	33	VAL
48	BO	34	LEU
48	BO	52	THR
48	BO	56	CYS
48	BO	97	VAL
48	BO	99	ILE
48	BO	103	ARG
48	BO	112	ARG
48	BO	132	ARG
48	BO	137	VAL
48	BO	140	PRO
48	BO	144	ARG
48	BO	155	THR
48	BO	162	LYS
48	BO	172	VAL
48	BO	176	GLU

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Mol	Chain	Res	Type
48	BO	179	ARG
48	BO	189	LYS
48	BO	193	VAL
48	BO	197	TRP
48	BO	201	ARG
48	BO	206	LYS
48	BO	207	LYS
48	BO	208	MET
48	BO	213	VAL
49	BP	8	ARG
49	BP	13	VAL
49	BP	17	ARG
49	BP	19	PRO
49	BP	20	ARG
49	BP	38	VAL
49	BP	59	LEU
49	BP	62	CYS
49	BP	66	SER
49	BP	69	CYS
49	BP	74	LEU
49	BP	112	GLN
49	BP	120	ARG
49	BP	140	HIS
49	BP	144	LEU
49	BP	183	LYS
50	BQ	20	SER
50	BQ	24	LEU
50	BQ	35	VAL
50	BQ	48	ARG
50	BQ	63	GLU
50	BQ	64	LYS
50	BQ	66	ARG
50	BQ	67	MET
50	BQ	68	VAL
50	BQ	72	THR
50	BQ	77	VAL
50	BQ	88	ARG
50	BQ	92	VAL
50	BQ	94	LYS
50	BQ	96	ILE
50	BQ	101	PRO
50	BQ	102	ASN

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Mol	Chain	Res	Type
50	BQ	106	VAL
50	BQ	112	ASN
50	BQ	137	TRP
50	BQ	145	LEU
50	BQ	153	ASP
50	BQ	172	VAL
50	BQ	178	GLN
50	BQ	188	HIS
50	BQ	189	ARG
50	BQ	192	ARG
50	BQ	211	ARG
50	BQ	219	ARG
50	BQ	220	LYS
50	BQ	221	ARG
51	BR	8	PRO
51	BR	9	GLN
51	BR	13	LYS
51	BR	14	THR
51	BR	28	ASN
51	BR	41	LEU
51	BR	49	ARG
51	BR	55	THR
51	BR	56	ARG
51	BR	59	PRO
51	BR	61	LYS
51	BR	66	LYS
51	BR	69	ASN
51	BR	75	GLU
51	BR	78	GLN
51	BR	79	THR
51	BR	103	ILE
51	BR	112	MET
51	BR	125	VAL
51	BR	127	ARG
51	BR	139	TYR
51	BR	141	ARG
51	BR	144	CYS
51	BR	147	GLN
51	BR	149	PHE
52	BS	2	VAL
52	BS	3	ARG
52	BS	6	LEU

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Mol	Chain	Res	Type
52	BS	11	VAL
52	BS	14	ARG
52	BS	16	THR
52	BS	38	VAL
52	BS	40	LYS
52	BS	42	ARG
52	BS	46	MET
52	BS	48	ARG
52	BS	53	VAL
52	BS	57	HIS
52	BS	64	LYS
52	BS	66	VAL
52	BS	67	LYS
52	BS	70	LYS
52	BS	71	LEU
52	BS	82	TYR
52	BS	86	ARG
52	BS	89	TYR
52	BS	90	THR
52	BS	110	ASN
52	BS	121	HIS
52	BS	136	VAL
52	BS	137	ARG
52	BS	145	HIS
52	BS	151	PHE
52	BS	158	VAL
52	BS	162	ARG
52	BS	175	ARG
53	BT	4	LEU
53	BT	6	LEU
53	BT	7	GLN
53	BT	21	ARG
53	BT	26	PRO
53	BT	37	SER
53	BT	39	LYS
53	BT	42	ARG
53	BT	43	LYS
53	BT	57	VAL
53	BT	63	TRP
53	BT	74	ARG
53	BT	78	THR
53	BT	81	ARG

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Mol	Chain	Res	Type
53	BT	89	MET
53	BT	90	PRO
53	BT	95	TRP
53	BT	99	LEU
53	BT	102	LEU
53	BT	110	ARG
53	BT	113	LYS
53	BT	116	ASP
53	BT	137	ASN
53	BT	144	LYS
53	BT	154	GLN
53	BT	175	LYS
53	BT	182	GLU
53	BT	185	ARG
54	BU	7	TYR
54	BU	12	ARG
54	BU	13	HIS
54	BU	19	PHE
54	BU	30	ILE
54	BU	38	ASP
54	BU	61	THR
54	BU	65	TRP
54	BU	69	PRO
54	BU	75	ILE
54	BU	86	ARG
54	BU	87	LYS
54	BU	88	ARG
54	BU	97	ARG
54	BU	109	LEU
54	BU	113	GLU
54	BU	115	PHE
54	BU	127	PRO
54	BU	149	ARG
55	BV	23	LYS
55	BV	31	SER
55	BV	48	GLN
55	BV	55	VAL
55	BV	87	LYS
55	BV	93	LEU
55	BV	110	LEU
56	BW	9	LYS
56	BW	14	ARG

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Mol	Chain	Res	Type
56	BW	15	VAL
56	BW	16	SER
56	BW	39	ILE
56	BW	47	ARG
56	BW	50	ARG
56	BW	56	LEU
56	BW	59	MET
56	BW	73	ARG
56	BW	75	VAL
56	BW	77	ASN
56	BW	81	ILE
56	BW	84	ARG
56	BW	94	VAL
56	BW	105	VAL
56	BW	106	ASN
56	BW	127	LEU
56	BW	129	PRO
56	BW	131	ILE
56	BW	133	THR
56	BW	136	PRO
57	BX	62	ARG
57	BX	63	PRO
57	BX	71	ASN
57	BX	72	VAL
57	BX	84	ILE
57	BX	85	ILE
57	BX	95	MET
57	BX	100	GLU
57	BX	108	VAL
57	BX	109	ASP
57	BX	117	ILE
57	BX	121	ILE
57	BX	134	THR
57	BX	135	LEU
57	BX	136	ILE
57	BX	143	LYS
57	BX	156	ASP
57	BX	160	LYS
58	BY	17	HIS
58	BY	22	VAL
58	BY	37	ARG
58	BY	45	MET

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Mol	Chain	Res	Type
58	BY	60	ARG
58	BY	64	ARG
58	BY	67	THR
59	BZ	4	ILE
59	BZ	13	ARG
59	BZ	22	HIS
59	BZ	33	SER
59	BZ	39	LYS
59	BZ	47	VAL
59	BZ	53	VAL
59	BZ	57	ARG
59	BZ	63	ARG
59	BZ	76	VAL
59	BZ	84	CYS
59	BZ	92	VAL
59	BZ	97	HIS
59	BZ	105	LYS
59	BZ	110	THR
59	BZ	116	LEU
60	Ba	8	LYS
60	Ba	30	THR
60	Ba	31	ARG
60	Ba	52	VAL
60	Ba	53	VAL
60	Ba	62	THR
60	Ba	63	ARG
60	Ba	73	VAL
60	Ba	80	LEU
60	Ba	82	THR
60	Ba	85	ASN
60	Ba	88	LEU
60	Ba	89	SER
60	Ba	92	LEU
60	Ba	96	ILE
60	Ba	100	ASP
60	Ba	111	VAL
60	Ba	116	GLN
60	Ba	132	ARG
61	Bb	4	ARG
61	Bb	7	LYS
61	Bb	11	GLN
61	Bb	16	PHE

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Mol	Chain	Res	Type
61	Bb	22	VAL
61	Bb	25	HIS
61	Bb	26	ARG
61	Bb	40	HIS
61	Bb	49	HIS
61	Bb	58	MET
61	Bb	77	ASN
61	Bb	96	LEU
61	Bb	102	LEU
61	Bb	114	HIS
61	Bb	116	GLN
61	Bb	124	ARG
61	Bb	128	LYS
61	Bb	135	ARG
61	Bb	141	VAL
62	Bc	8	GLN
62	Bc	10	LEU
62	Bc	12	VAL
62	Bc	13	ARG
62	Bc	21	LYS
62	Bc	25	ILE
62	Bc	28	SER
62	Bc	30	ASP
62	Bc	33	ASN
62	Bc	40	LYS
62	Bc	45	PHE
62	Bc	52	VAL
62	Bc	55	THR
62	Bc	58	ASP
62	Bc	65	LYS
62	Bc	66	SER
62	Bc	69	THR
62	Bc	76	MET
62	Bc	77	TYR
62	Bc	79	LYS
62	Bc	83	GLU
62	Bc	89	SER
62	Bc	93	ARG
62	Bc	99	ARG
62	Bc	101	ASP
62	Bc	109	ARG
62	Bc	113	MET

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Mol	Chain	Res	Type
62	Bc	117	ILE
62	Bc	122	LYS
62	Bc	132	SER
62	Bc	135	HIS
63	Bd	3	LYS
63	Bd	10	HIS
63	Bd	24	PRO
63	Bd	25	LEU
63	Bd	26	PRO
63	Bd	28	TYR
63	Bd	53	LYS
63	Bd	59	ARG
64	Be	71	ARG
64	Be	76	MET
64	Be	77	VAL
64	Be	80	GLU
64	Be	83	PHE
64	Be	84	THR
64	Be	88	MET
64	Be	96	LEU
64	Be	98	ILE
64	Be	100	ASN
64	Be	123	ARG
64	Be	132	ASP
64	Be	135	ILE
64	Be	140	ASN
64	Be	146	THR
64	Be	148	LEU
64	Be	155	LYS
64	Be	192	LYS
64	Be	205	ASN
64	Be	207	VAL
64	Be	234	LYS
64	Be	241	ARG
64	Be	242	ARG
64	Be	246	ILE
65	Bf	56	LYS
65	Bf	58	GLU
65	Bf	73	SER
65	Bf	79	ARG
65	Bf	90	GLN
65	Bf	91	LYS

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Mol	Chain	Res	Type
65	Bf	106	HIS
65	Bf	107	ILE
65	Bf	108	VAL
65	Bf	112	ASP
65	Bf	123	VAL
65	Bf	125	GLU
65	Bf	141	VAL
65	Bf	144	ARG
65	Bf	146	THR
65	Bf	147	PRO
65	Bf	152	THR
65	Bf	153	ILE
65	Bf	162	SER
65	Bf	164	GLU
65	Bf	165	PHE
65	Bf	168	ARG
65	Bf	169	PHE
65	Bf	210	ILE
65	Bf	213	VAL
65	Bf	222	LEU
65	Bf	238	GLN
65	Bf	240	ASN
65	Bf	250	LEU
65	Bf	257	LYS
65	Bf	258	GLU
65	Bf	267	GLN
65	Bf	277	THR
65	Bf	286	VAL
65	Bf	298	THR
65	Bf	308	ILE
65	Bf	315	ARG
65	Bf	348	GLU
65	Bf	351	GLN
65	Bf	354	THR
65	Bf	363	ILE
65	Bf	364	THR
65	Bf	366	MET
65	Bf	377	ASN
65	Bf	383	LYS
65	Bf	386	VAL
65	Bf	392	ARG
65	Bf	394	ILE

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Mol	Chain	Res	Type
65	Bf	403	GLN
65	Bf	432	LYS
66	Bg	22	ASN
66	Bg	25	ILE
66	Bg	36	LEU
66	Bg	45	LEU
66	Bg	52	LEU
66	Bg	58	ASN
66	Bg	62	ILE
66	Bg	77	PRO
66	Bg	81	TYR
66	Bg	88	LEU
66	Bg	96	PHE
66	Bg	97	ARG
66	Bg	102	SER
66	Bg	103	ILE
66	Bg	112	THR
67	Bh	15	LYS
67	Bh	25	LYS
67	Bh	28	GLU
67	Bh	35	ASP
67	Bh	41	VAL
67	Bh	53	TYR
67	Bh	59	THR
67	Bh	64	ARG
67	Bh	79	ARG
67	Bh	81	PRO
67	Bh	85	VAL
67	Bh	90	ILE
67	Bh	95	LEU
67	Bh	109	ILE
67	Bh	122	THR
67	Bh	126	ARG
67	Bh	131	LEU
67	Bh	133	THR
67	Bh	148	ARG
67	Bh	154	LYS
67	Bh	159	GLU
67	Bh	162	LYS
67	Bh	163	ARG
67	Bh	169	VAL
67	Bh	171	SER

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Mol	Chain	Res	Type
67	Bh	174	PRO
67	Bh	176	PRO
67	Bh	180	ASN
67	Bh	184	LYS
68	Bi	4	PRO
68	Bi	5	PHE
68	Bi	9	ASN
68	Bi	15	THR
68	Bi	24	GLU
68	Bi	34	ARG
68	Bi	61	ASP
68	Bi	63	ARG
68	Bi	69	PRO
68	Bi	77	VAL
68	Bi	83	LEU
68	Bi	85	MET
68	Bi	88	MET
68	Bi	100	THR
68	Bi	101	VAL
68	Bi	122	ASN
69	Bj	3	CYS
69	Bj	10	ARG
69	Bj	17	ARG
69	Bj	20	ARG
69	Bj	27	PRO
69	Bj	30	ARG
69	Bj	40	SER
69	Bj	43	PRO
69	Bj	44	HIS
69	Bj	54	LEU
69	Bj	58	LYS
69	Bj	63	THR
69	Bj	66	ARG
69	Bj	69	PRO
69	Bj	71	HIS
69	Bj	74	THR
69	Bj	77	ARG
69	Bj	85	HIS
69	Bj	87	GLN
69	Bj	114	VAL
69	Bj	125	ARG
70	Bk	47	ARG

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Mol	Chain	Res	Type
70	Bk	49	ARG
70	Bk	58	ILE
70	Bk	59	MET
70	Bk	60	THR
70	Bk	62	LEU
70	Bk	68	GLU
70	Bk	73	PHE
70	Bk	74	TYR
70	Bk	83	LYS
70	Bk	92	THR
70	Bk	93	HIS
70	Bk	111	GLN
70	Bk	116	HIS
71	Bl	37	ARG
71	Bl	56	LYS
71	Bl	61	VAL
71	Bl	69	THR
71	Bl	89	ILE
71	Bl	96	SER
71	Bl	99	PRO
71	Bl	103	SER
71	Bl	108	ILE
71	Bl	112	ILE
71	Bl	114	ARG
71	Bl	115	PRO
71	Bl	118	THR
71	Bl	119	SER
71	Bl	121	THR
71	Bl	124	VAL
71	Bl	132	PRO
71	Bl	134	SER
71	Bl	147	SER
72	Bm	20	ASN
72	Bm	26	THR
72	Bm	36	ASP
72	Bm	37	ARG
72	Bm	51	ILE
72	Bm	71	VAL
72	Bm	78	LEU
72	Bm	85	LEU
72	Bm	87	SER
72	Bm	99	GLU

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Mol	Chain	Res	Type
72	Bm	100	GLU
72	Bm	105	GLN
72	Bm	106	THR
72	Bm	107	LYS
73	Bn	2	THR
73	Bn	12	HIS
73	Bn	17	ILE
73	Bn	19	CYS
73	Bn	33	ARG
73	Bn	43	GLN
73	Bn	45	ARG
73	Bn	46	ARG
73	Bn	47	TYR
73	Bn	49	TRP
73	Bn	58	ARG
73	Bn	66	TYR
73	Bn	77	HIS
73	Bn	80	THR
74	Bo	11	MET
74	Bo	30	GLU
74	Bo	41	PHE
74	Bo	42	CYS
74	Bo	54	ILE
74	Bo	72	SER
74	Bo	73	THR
74	Bo	74	PRO
74	Bo	90	LYS
74	Bo	91	GLN
75	Bp	8	LEU
75	Bp	9	LYS
75	Bp	10	GLU
75	Bp	28	ASN
75	Bp	38	CYS
75	Bp	47	MET
75	Bp	51	LYS
75	Bp	58	ARG
75	Bp	73	SER
76	Bq	3	ARG
76	Bq	6	PRO
76	Bq	11	LYS
76	Bq	16	LYS
76	Bq	22	PRO

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Mol	Chain	Res	Type
76	Bq	23	VAL
76	Bq	25	TYR
76	Bq	27	ILE
76	Bq	42	ARG
77	Br	8	SER
77	Br	16	LYS
77	Br	22	SER
77	Br	23	LEU
77	Br	26	VAL
77	Br	31	ILE
77	Br	32	ARG
77	Br	34	ASP
77	Br	35	VAL
77	Br	40	HIS
77	Br	51	TYR
77	Br	55	ARG
77	Br	60	LYS
77	Br	70	ARG
77	Br	76	PRO
77	Br	93	ASN
77	Br	94	MET
77	Br	96	ARG
77	Br	100	MET
77	Br	103	PRO
77	Br	107	PHE
77	Br	110	TRP
77	Br	116	LEU
77	Br	124	VAL
77	Br	135	LEU
77	Br	137	MET
77	Br	144	GLU
77	Br	151	LEU
77	Br	155	ASP
77	Br	158	ARG
77	Br	161	GLU
77	Br	162	LYS
77	Br	165	GLU
77	Br	169	PHE
77	Br	173	VAL
77	Br	176	ILE
77	Br	179	VAL
77	Br	188	ILE

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Mol	Chain	Res	Type
77	Br	194	LYS
77	Br	195	MET
77	Br	203	ARG
77	Br	206	PRO
77	Br	214	LYS
77	Br	222	ILE
77	Br	227	LEU
77	Br	246	ARG
77	Br	252	LYS
77	Br	271	VAL
77	Br	320	ILE
77	Br	323	ARG
77	Br	334	LYS
77	Br	343	MET
78	Bs	2	MET
78	Bs	12	LYS
78	Bs	24	TYR
78	Bs	29	VAL
78	Bs	46	ARG
78	Bs	51	LEU
79	Bt	4	TYR
79	Bt	9	LYS
79	Bt	10	MET
79	Bt	15	GLU
79	Bt	32	LYS
79	Bt	34	ARG
79	Bt	56	PRO
79	Bt	63	LYS
79	Bt	73	GLN
79	Bt	76	ASN
79	Bt	81	ILE
79	Bt	84	VAL
79	Bt	97	LYS
80	Bu	6	VAL
80	Bu	7	VAL
80	Bu	13	TYR
80	Bu	30	TYR
80	Bu	40	ASP
80	Bu	46	THR
80	Bu	56	THR
80	Bu	64	ILE
80	Bu	65	VAL

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Mol	Chain	Res	Type
80	Bu	68	LYS
80	Bu	73	GLU
80	Bu	79	TYR
80	Bu	84	PRO
80	Bu	90	HIS
80	Bu	92	LEU
80	Bu	99	TYR
80	Bu	107	ARG
80	Bu	117	GLU
80	Bu	142	ASP
80	Bu	143	GLU
80	Bu	145	ARG
80	Bu	156	LEU
80	Bu	164	ARG
80	Bu	169	LEU
80	Bu	170	LYS
80	Bu	187	PRO
80	Bu	192	GLU
80	Bu	202	ARG
80	Bu	210	VAL
80	Bu	214	LEU
80	Bu	220	GLU
80	Bu	231	GLN
80	Bu	243	ASP
80	Bu	248	MET
80	Bu	257	ARG
80	Bu	264	ARG
80	Bu	270	PRO
80	Bu	272	GLU
80	Bu	276	LYS
80	Bu	278	TYR
80	Bu	282	LYS
80	Bu	283	LEU
81	Bv	6	LYS
81	Bv	10	GLU
81	Bv	12	LYS
81	Bv	14	LYS
81	Bv	15	LYS
81	Bv	16	VAL
81	Bv	24	SER
81	Bv	27	ARG
81	Bv	30	CYS

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Mol	Chain	Res	Type
81	Bv	31	LYS
81	Bv	38	ILE
81	Bv	53	GLN
81	Bv	55	PRO
81	Bv	62	ILE
81	Bv	66	MET
81	Bv	81	ILE
81	Bv	86	THR
81	Bv	167	LEU
81	Bv	174	TYR
81	Bv	188	HIS
81	Bv	189	ARG
81	Bv	190	LEU
82	Bw	3	MET
82	Bw	7	ILE
82	Bw	11	LYS
82	Bw	28	ILE
82	Bw	30	ARG
82	Bw	34	LYS
82	Bw	73	THR
82	Bw	82	ARG
82	Bw	98	VAL
82	Bw	105	ARG
82	Bw	107	ILE
82	Bw	114	GLN
82	Bw	132	VAL
82	Bw	133	ARG
82	Bw	135	ASN
82	Bw	141	MET
82	Bw	156	LEU
82	Bw	163	VAL
82	Bw	176	VAL
82	Bw	179	THR
82	Bw	201	ASN
82	Bw	204	TYR
82	Bw	209	HIS
82	Bw	221	LYS
82	Bw	224	PRO
82	Bw	225	PRO
82	Bw	230	ARG
82	Bw	235	HIS
82	Bw	237	VAL

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Mol	Chain	Res	Type
82	Bw	238	GLU
82	Bw	241	ASP
83	Bx	37	PRO
83	Bx	46	ASP
83	Bx	53	VAL
83	Bx	54	PRO
83	Bx	78	LEU
83	Bx	84	VAL
83	Bx	85	PRO
83	Bx	97	ARG
83	Bx	107	VAL
83	Bx	116	LYS
83	Bx	119	ARG
83	Bx	120	ASP
83	Bx	137	VAL
83	Bx	150	GLN
83	Bx	160	THR
83	Bx	175	LEU
83	Bx	177	LEU
83	Bx	181	THR
83	Bx	184	ARG
83	Bx	193	VAL
83	Bx	206	LYS
83	Bx	207	THR
83	Bx	209	THR
83	Bx	215	ASP
83	Bx	224	LEU
83	Bx	240	ASP
83	Bx	243	ARG
83	Bx	253	LEU
83	Bx	259	LEU
83	Bx	260	ARG
83	Bx	262	LYS
84	By	7	ASP
84	By	8	GLN
84	By	10	THR
84	By	13	GLU
84	By	16	THR
84	By	19	VAL
84	By	45	ARG
84	By	52	THR
84	By	54	THR

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Mol	Chain	Res	Type
84	By	58	TRP
84	By	64	ASN
84	By	82	VAL
84	By	92	PHE
84	By	98	PRO
84	By	105	ASN
84	By	106	GLN
84	By	108	VAL
84	By	119	VAL
84	By	120	ARG
84	By	121	ARG
84	By	128	VAL
84	By	131	TYR
84	By	133	THR
84	By	134	ASP
84	By	145	GLU
84	By	150	GLU
84	By	154	ARG
84	By	158	VAL
84	By	159	MET
84	By	160	HIS
84	By	165	VAL
84	By	170	ILE
84	By	172	LYS
84	By	181	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (205) such sidechains are listed below:

Mol	Chain	Res	Type
1	A0	150	ASN
1	A0	155	ASN
2	A1	33	HIS
2	A1	59	GLN
2	A1	198	HIS
3	A2	43	GLN
3	A2	60	ASN
3	A2	81	HIS
3	A2	93	ASN
4	A3	27	ASN
4	A3	66	GLN
4	A3	122	GLN
4	A3	231	HIS

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Mol	Chain	Res	Type
4	A3	232	HIS
5	A4	6	HIS
5	A4	20	GLN
5	A4	36	HIS
5	A4	59	HIS
5	A4	183	HIS
6	A5	35	ASN
6	A5	52	ASN
6	A5	74	GLN
6	A5	88	ASN
6	A5	169	HIS
7	A6	3	ASN
8	A7	23	GLN
8	A7	46	ASN
8	A7	50	HIS
8	A7	77	ASN
8	A7	89	HIS
8	A7	100	GLN
8	A7	108	HIS
8	A7	121	ASN
8	A7	123	GLN
8	A7	197	ASN
8	A7	278	HIS
8	A7	307	ASN
9	A8	21	HIS
9	A8	47	ASN
10	A9	147	HIS
11	AC	83	ASN
11	AC	201	ASN
13	AE	19	GLN
13	AE	33	ASN
13	AE	41	HIS
13	AE	79	ASN
13	AE	120	HIS
13	AE	122	ASN
14	AF	63	HIS
14	AF	86	GLN
15	AG	77	HIS
16	AH	36	HIS
16	AH	87	HIS
18	AJ	9	ASN
18	AJ	44	HIS

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Mol	Chain	Res	Type
19	AK	32	GLN
19	AK	34	ASN
20	AL	30	GLN
20	AL	74	GLN
20	AL	90	HIS
21	AM	98	HIS
22	AO	138	HIS
23	AP	120	HIS
24	AQ	12	GLN
24	AQ	115	HIS
25	AR	75	HIS
26	AS	7	GLN
26	AS	8	HIS
26	AS	110	HIS
27	AT	16	GLN
27	AT	121	ASN
28	AU	88	HIS
29	AV	7	ASN
30	AW	20	HIS
31	AX	163	HIS
32	AY	5	HIS
32	AY	60	GLN
33	AZ	37	GLN
33	AZ	55	ASN
33	AZ	73	ASN
42	BI	17	HIS
42	BI	18	HIS
42	BI	57	ASN
42	BI	132	GLN
42	BI	142	ASN
42	BI	172	HIS
42	BI	188	HIS
43	BJ	54	HIS
43	BJ	102	ASN
43	BJ	149	GLN
44	BK	86	HIS
44	BK	175	ASN
45	BL	75	HIS
45	BL	147	HIS
46	BM	61	GLN
47	BN	6	ASN
47	BN	10	HIS

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Mol	Chain	Res	Type
47	BN	215	ASN
48	BO	91	HIS
48	BO	129	ASN
48	BO	163	HIS
49	BP	51	GLN
49	BP	96	HIS
49	BP	140	HIS
50	BQ	49	HIS
50	BQ	156	HIS
50	BQ	170	ASN
50	BQ	196	HIS
50	BQ	213	ASN
51	BR	3	HIS
51	BR	9	GLN
51	BR	46	GLN
51	BR	69	ASN
51	BR	97	ASN
51	BR	121	GLN
51	BR	154	GLN
52	BS	57	HIS
52	BS	85	GLN
52	BS	121	HIS
52	BS	145	HIS
53	BT	58	HIS
53	BT	75	HIS
53	BT	143	HIS
54	BU	3	HIS
54	BU	22	HIS
54	BU	58	HIS
55	BV	123	ASN
57	BX	101	ASN
57	BX	133	ASN
58	BY	10	HIS
58	BY	17	HIS
59	BZ	97	HIS
60	Ba	120	ASN
61	Bb	28	HIS
61	Bb	44	ASN
61	Bb	60	HIS
62	Bc	135	HIS
62	Bc	137	HIS
63	Bd	31	ASN

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Mol	Chain	Res	Type
63	Bd	43	ASN
64	Be	115	ASN
64	Be	154	GLN
64	Be	205	ASN
64	Be	216	HIS
65	Bf	62	HIS
65	Bf	90	GLN
65	Bf	159	HIS
65	Bf	160	HIS
65	Bf	218	GLN
65	Bf	326	HIS
65	Bf	335	ASN
66	Bg	39	GLN
66	Bg	79	HIS
66	Bg	95	HIS
67	Bh	54	HIS
67	Bh	132	ASN
68	Bi	21	HIS
68	Bi	28	GLN
69	Bj	44	HIS
69	Bj	62	HIS
69	Bj	101	GLN
70	Bk	69	ASN
71	Bl	54	GLN
71	Bl	67	ASN
71	Bl	85	HIS
72	Bm	42	HIS
73	Bn	30	GLN
74	Bo	34	HIS
74	Bo	91	GLN
75	Bp	61	HIS
75	Bp	74	HIS
76	Bq	50	HIS
77	Br	37	GLN
77	Br	49	GLN
77	Br	111	HIS
77	Br	145	ASN
77	Br	187	GLN
77	Br	197	ASN
77	Br	237	HIS
77	Br	333	GLN
77	Br	353	HIS

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Mol	Chain	Res	Type
79	Bt	18	ASN
79	Bt	20	HIS
79	Bt	47	GLN
79	Bt	83	ASN
80	Bu	39	GLN
80	Bu	57	ASN
80	Bu	90	HIS
80	Bu	139	GLN
80	Bu	209	HIS
80	Bu	253	HIS
81	Bv	176	HIS
81	Bv	188	HIS
82	Bw	87	HIS
82	Bw	189	HIS
82	Bw	190	ASN
82	Bw	209	HIS
83	Bx	72	GLN
83	Bx	150	GLN
84	By	8	GLN
84	By	39	HIS
84	By	74	HIS
84	By	77	ASN
84	By	105	ASN
84	By	151	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
34	BA	1846/1847 (99%)	629 (34%)	225 (12%)
35	BB	1464/1465 (99%)	464 (31%)	143 (9%)
36	BC	169/169 (100%)	48 (28%)	20 (11%)
37	BD	118/119 (99%)	31 (26%)	9 (7%)
38	BE	209/210 (99%)	81 (38%)	27 (12%)
39	BF	73/73 (100%)	49 (67%)	23 (31%)
40	BG	181/182 (99%)	40 (22%)	8 (4%)
41	BH	134/135 (99%)	51 (38%)	16 (11%)
85	AA	2226/2251 (98%)	781 (35%)	312 (14%)
86	AB	72/73 (98%)	30 (41%)	7 (9%)
All	All	6492/6524 (99%)	2204 (33%)	790 (12%)

All (2204) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
34	BA	11	U
34	BA	13	U
34	BA	22	C
34	BA	23	A
34	BA	37	A
34	BA	39	C
34	BA	46	C
34	BA	56	G
34	BA	57	A
34	BA	62	A
34	BA	63	A
34	BA	70	C
34	BA	71	G
34	BA	72	U
34	BA	73	G
34	BA	80	U
34	BA	85	C
34	BA	90	G
34	BA	91	C
34	BA	97	A
34	BA	107	C
34	BA	108	A
34	BA	109	A
34	BA	112	C
34	BA	115	U
34	BA	116	G
34	BA	117	C
34	BA	119	G
34	BA	120	A
34	BA	121	A
34	BA	130	U
34	BA	131	A
34	BA	132	U
34	BA	134	U
34	BA	141	G
34	BA	144	C
34	BA	145	U
34	BA	147	U
34	BA	148	G
34	BA	149	G
34	BA	151	A
34	BA	152	C
34	BA	153	C

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Mol	Chain	Res	Type
34	BA	154	A
34	BA	156	U
34	BA	157	U
34	BA	159	U
34	BA	160	G
34	BA	161	U
34	BA	163	G
34	BA	165	C
34	BA	166	G
34	BA	175	G
34	BA	178	C
34	BA	179	U
34	BA	180	G
34	BA	185	A
34	BA	188	C
34	BA	189	G
34	BA	194	G
34	BA	195	G
34	BA	197	A
34	BA	201	A
34	BA	202	A
34	BA	206	C
34	BA	207	A
34	BA	208	A
34	BA	209	A
34	BA	214	A
34	BA	215	C
34	BA	216	C
34	BA	217	C
34	BA	218	G
34	BA	219	U
34	BA	224	G
34	BA	225	A
34	BA	226	A
34	BA	227	C
34	BA	248	G
34	BA	249	A
34	BA	250	G
34	BA	256	A
34	BA	257	G
34	BA	261	A
34	BA	262	A

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Mol	Chain	Res	Type
34	BA	265	A
34	BA	269	G
34	BA	270	U
34	BA	271	C
34	BA	279	U
34	BA	280	A
34	BA	282	A
34	BA	285	C
34	BA	287	U
34	BA	288	U
34	BA	290	G
34	BA	295	G
34	BA	296	G
34	BA	297	A
34	BA	298	G
34	BA	299	C
34	BA	302	A
34	BA	303	C
34	BA	304	G
34	BA	314	A
34	BA	315	U
34	BA	316	G
34	BA	317	U
34	BA	318	U
34	BA	324	C
34	BA	325	A
34	BA	326	A
34	BA	328	A
34	BA	331	G
34	BA	332	U
34	BA	344	G
34	BA	345	G
34	BA	347	A
34	BA	348	U
34	BA	357	A
34	BA	358	A
34	BA	359	G
34	BA	360	C
34	BA	361	C
34	BA	368	U
34	BA	370	U
34	BA	386	A

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Mol	Chain	Res	Type
34	BA	392	A
34	BA	393	G
34	BA	394	A
34	BA	395	G
34	BA	396	U
34	BA	397	A
34	BA	403	A
34	BA	404	C
34	BA	405	C
34	BA	411	C
34	BA	412	G
34	BA	413	A
34	BA	415	C
34	BA	416	A
34	BA	417	A
34	BA	435	U
34	BA	437	G
34	BA	438	A
34	BA	439	A
34	BA	442	G
34	BA	461	A
34	BA	463	A
34	BA	464	U
34	BA	465	A
34	BA	467	A
34	BA	469	C
34	BA	483	A
34	BA	484	A
34	BA	487	A
34	BA	488	C
34	BA	489	A
34	BA	490	A
34	BA	492	G
34	BA	501	U
34	BA	502	U
34	BA	509	U
34	BA	510	U
34	BA	511	U
34	BA	512	U
34	BA	519	G
34	BA	520	G
34	BA	521	C

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Mol	Chain	Res	Type
34	BA	523	A
34	BA	524	G
34	BA	526	C
34	BA	527	C
34	BA	529	A
34	BA	531	C
34	BA	532	C
34	BA	533	U
34	BA	534	C
34	BA	536	C
34	BA	539	C
34	BA	547	C
34	BA	548	G
34	BA	551	U
34	BA	553	A
34	BA	555	C
34	BA	557	U
34	BA	559	C
34	BA	560	U
34	BA	562	C
34	BA	569	C
34	BA	571	G
34	BA	573	U
34	BA	575	U
34	BA	576	C
34	BA	577	U
34	BA	578	C
34	BA	579	U
34	BA	581	U
34	BA	584	A
34	BA	586	G
34	BA	587	U
34	BA	588	C
34	BA	589	A
34	BA	591	G
34	BA	592	G
34	BA	593	G
34	BA	594	G
34	BA	595	U
34	BA	596	G
34	BA	597	C
34	BA	599	U

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Mol	Chain	Res	Type
34	BA	600	G
34	BA	603	U
34	BA	604	G
34	BA	605	G
34	BA	607	C
34	BA	608	G
34	BA	612	U
34	BA	617	G
34	BA	623	U
34	BA	624	G
34	BA	626	G
34	BA	628	U
34	BA	629	G
34	BA	630	U
34	BA	634	U
34	BA	635	G
34	BA	638	U
34	BA	639	U
34	BA	647	U
34	BA	648	C
34	BA	651	U
34	BA	656	U
34	BA	657	C
34	BA	659	U
34	BA	660	C
34	BA	666	C
34	BA	668	G
34	BA	673	U
34	BA	674	G
34	BA	675	C
34	BA	678	C
34	BA	680	C
34	BA	681	G
34	BA	682	A
34	BA	683	C
34	BA	684	G
34	BA	685	C
34	BA	686	U
34	BA	688	G
34	BA	690	G
34	BA	691	A
34	BA	692	U

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Mol	Chain	Res	Type
34	BA	693	G
34	BA	694	G
34	BA	695	A
34	BA	700	G
34	BA	711	C
34	BA	712	C
34	BA	713	C
34	BA	720	A
34	BA	721	A
34	BA	722	A
34	BA	723	C
34	BA	724	A
34	BA	731	A
34	BA	735	A
34	BA	738	C
34	BA	739	A
34	BA	751	A
34	BA	752	A
34	BA	753	G
34	BA	756	A
34	BA	757	G
34	BA	758	G
34	BA	764	G
34	BA	765	U
34	BA	766	A
34	BA	769	U
34	BA	770	G
34	BA	771	A
34	BA	772	G
34	BA	773	A
34	BA	774	A
34	BA	776	U
34	BA	781	U
34	BA	786	U
34	BA	787	A
34	BA	790	G
34	BA	794	G
34	BA	797	A
34	BA	798	G
34	BA	799	A
34	BA	800	G
34	BA	805	A

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Mol	Chain	Res	Type
34	BA	806	U
34	BA	807	U
34	BA	808	U
34	BA	814	C
34	BA	815	C
34	BA	816	G
34	BA	821	G
34	BA	823	G
34	BA	828	A
34	BA	834	C
34	BA	836	U
34	BA	845	U
34	BA	846	U
34	BA	847	U
34	BA	848	U
34	BA	849	G
34	BA	850	C
34	BA	863	G
34	BA	864	G
34	BA	865	C
34	BA	874	G
34	BA	876	C
34	BA	879	C
34	BA	883	C
34	BA	884	G
34	BA	885	A
34	BA	895	U
34	BA	896	U
34	BA	898	G
34	BA	899	G
34	BA	900	A
34	BA	905	A
34	BA	906	A
34	BA	916	A
34	BA	929	A
34	BA	936	A
34	BA	945	A
34	BA	946	A
34	BA	948	C
34	BA	958	G
34	BA	960	C
34	BA	970	U

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Mol	Chain	Res	Type
34	BA	973	U
34	BA	978	U
34	BA	982	A
34	BA	983	A
34	BA	993	C
34	BA	995	A
34	BA	996	U
34	BA	1006	G
34	BA	1007	G
34	BA	1008	A
34	BA	1012	A
34	BA	1013	A
34	BA	1015	G
34	BA	1019	C
34	BA	1020	A
34	BA	1022	C
34	BA	1023	G
34	BA	1024	A
34	BA	1035	A
34	BA	1036	G
34	BA	1037	C
34	BA	1043	C
34	BA	1046	G
34	BA	1058	C
34	BA	1059	U
34	BA	1080	U
34	BA	1081	U
34	BA	1082	U
34	BA	1083	A
34	BA	1084	A
34	BA	1085	G
34	BA	1086	A
34	BA	1093	G
34	BA	1097	G
34	BA	1098	G
34	BA	1105	A
34	BA	1106	A
34	BA	1107	A
34	BA	1110	A
34	BA	1114	G
34	BA	1118	C
34	BA	1119	A

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Mol	Chain	Res	Type
34	BA	1120	U
34	BA	1121	U
34	BA	1122	G
34	BA	1124	U
34	BA	1125	G
34	BA	1128	C
34	BA	1130	U
34	BA	1132	U
34	BA	1133	A
34	BA	1136	A
34	BA	1140	A
34	BA	1141	C
34	BA	1151	A
34	BA	1153	C
34	BA	1155	U
34	BA	1156	U
34	BA	1161	G
34	BA	1168	C
34	BA	1169	A
34	BA	1175	G
34	BA	1176	C
34	BA	1180	A
34	BA	1181	G
34	BA	1183	U
34	BA	1184	A
34	BA	1186	U
34	BA	1187	U
34	BA	1188	U
34	BA	1189	A
34	BA	1196	C
34	BA	1198	U
34	BA	1199	U
34	BA	1200	U
34	BA	1201	G
34	BA	1205	A
34	BA	1206	C
34	BA	1207	A
34	BA	1208	U
34	BA	1209	A
34	BA	1210	A
34	BA	1211	G
34	BA	1216	G

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Mol	Chain	Res	Type
34	BA	1217	A
34	BA	1229	G
34	BA	1230	G
34	BA	1244	G
34	BA	1257	U
34	BA	1263	A
34	BA	1264	U
34	BA	1266	A
34	BA	1272	U
34	BA	1273	U
34	BA	1293	A
34	BA	1294	C
34	BA	1295	U
34	BA	1296	U
34	BA	1297	G
34	BA	1298	U
34	BA	1306	U
34	BA	1307	U
34	BA	1308	C
34	BA	1309	U
34	BA	1310	C
34	BA	1313	U
34	BA	1314	A
34	BA	1318	G
34	BA	1320	A
34	BA	1327	G
34	BA	1331	G
34	BA	1334	G
34	BA	1336	U
34	BA	1338	G
34	BA	1339	G
34	BA	1340	G
34	BA	1341	A
34	BA	1342	C
34	BA	1343	A
34	BA	1345	U
34	BA	1350	C
34	BA	1351	G
34	BA	1352	G
34	BA	1353	U
34	BA	1354	G
34	BA	1355	G

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Mol	Chain	Res	Type
34	BA	1356	C
34	BA	1357	C
34	BA	1359	U
34	BA	1360	G
34	BA	1361	G
34	BA	1362	A
34	BA	1363	A
34	BA	1364	G
34	BA	1365	U
34	BA	1366	C
34	BA	1367	G
34	BA	1369	C
34	BA	1376	U
34	BA	1380	G
34	BA	1381	A
34	BA	1382	G
34	BA	1383	U
34	BA	1384	G
34	BA	1385	U
34	BA	1389	A
34	BA	1391	A
34	BA	1395	C
34	BA	1396	A
34	BA	1397	C
34	BA	1398	C
34	BA	1399	A
34	BA	1403	G
34	BA	1405	A
34	BA	1410	C
34	BA	1423	U
34	BA	1425	G
34	BA	1426	A
34	BA	1427	U
34	BA	1430	C
34	BA	1431	G
34	BA	1434	U
34	BA	1444	G
34	BA	1445	U
34	BA	1446	G
34	BA	1447	C
34	BA	1448	G
34	BA	1449	U

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Mol	Chain	Res	Type
34	BA	1450	G
34	BA	1452	U
34	BA	1453	U
34	BA	1454	G
34	BA	1455	C
34	BA	1457	C
34	BA	1458	A
34	BA	1459	U
34	BA	1460	U
34	BA	1471	U
34	BA	1472	G
34	BA	1474	G
34	BA	1476	G
34	BA	1477	C
34	BA	1478	G
34	BA	1481	U
34	BA	1482	A
34	BA	1486	U
34	BA	1490	U
34	BA	1491	U
34	BA	1494	G
34	BA	1495	A
34	BA	1496	G
34	BA	1497	A
34	BA	1498	A
34	BA	1504	A
34	BA	1506	C
34	BA	1510	C
34	BA	1515	U
34	BA	1516	G
34	BA	1524	G
34	BA	1525	G
34	BA	1536	A
34	BA	1541	G
34	BA	1548	A
34	BA	1549	U
34	BA	1550	G
34	BA	1563	G
34	BA	1564	A
34	BA	1565	U
34	BA	1568	A
34	BA	1569	C

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Mol	Chain	Res	Type
34	BA	1578	A
34	BA	1584	G
34	BA	1587	C
34	BA	1593	U
34	BA	1596	C
34	BA	1598	U
34	BA	1599	A
34	BA	1600	G
34	BA	1605	G
34	BA	1615	A
34	BA	1616	A
34	BA	1617	U
34	BA	1622	U
34	BA	1623	U
34	BA	1624	U
34	BA	1625	C
34	BA	1626	U
34	BA	1629	A
34	BA	1632	G
34	BA	1634	A
34	BA	1645	C
34	BA	1648	G
34	BA	1649	A
34	BA	1651	C
34	BA	1652	G
34	BA	1655	G
34	BA	1660	A
34	BA	1661	U
34	BA	1674	G
34	BA	1675	C
34	BA	1678	U
34	BA	1679	C
34	BA	1688	G
34	BA	1689	U
34	BA	1693	U
34	BA	1695	G
34	BA	1696	G
34	BA	1697	U
34	BA	1698	C
34	BA	1706	A
34	BA	1713	U
34	BA	1714	A

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Mol	Chain	Res	Type
34	BA	1715	C
34	BA	1716	A
34	BA	1717	C
34	BA	1718	C
34	BA	1725	U
34	BA	1726	U
34	BA	1727	A
34	BA	1729	G
34	BA	1730	A
34	BA	1732	A
34	BA	1735	G
34	BA	1737	A
34	BA	1776	G
34	BA	1777	U
34	BA	1788	U
34	BA	1789	A
34	BA	1793	G
34	BA	1794	A
34	BA	1795	A
34	BA	1796	A
34	BA	1797	A
34	BA	1798	G
34	BA	1799	G
34	BA	1804	A
34	BA	1805	C
34	BA	1806	A
34	BA	1810	A
34	BA	1811	A
34	BA	1817	G
34	BA	1818	A
34	BA	1819	U
34	BA	1820	G
34	BA	1825	U
34	BA	1826	C
34	BA	1828	A
34	BA	1830	A
34	BA	1831	A
34	BA	1832	A
34	BA	1842	U
34	BA	1847	G
35	BB	2	C
35	BB	3	C

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Mol	Chain	Res	Type
35	BB	4	C
35	BB	13	A
35	BB	17	U
35	BB	18	A
35	BB	19	C
35	BB	22	A
35	BB	23	U
35	BB	24	C
35	BB	25	A
35	BB	28	G
35	BB	29	C
35	BB	30	A
35	BB	31	U
35	BB	32	C
35	BB	33	A
35	BB	38	C
35	BB	47	C
35	BB	48	G
35	BB	49	A
35	BB	50	A
35	BB	59	U
35	BB	60	A
35	BB	61	A
35	BB	62	C
35	BB	63	A
35	BB	64	U
35	BB	69	A
35	BB	70	A
35	BB	76	C
35	BB	77	A
35	BB	81	A
35	BB	90	G
35	BB	91	G
35	BB	97	U
35	BB	98	A
35	BB	111	C
35	BB	136	A
35	BB	137	A
35	BB	139	G
35	BB	144	G
35	BB	146	U
35	BB	147	C

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Mol	Chain	Res	Type
35	BB	148	C
35	BB	149	A
35	BB	152	G
35	BB	157	G
35	BB	158	C
35	BB	159	C
35	BB	161	G
35	BB	162	U
35	BB	168	U
35	BB	169	U
35	BB	253	G
35	BB	254	A
35	BB	255	A
35	BB	262	C
35	BB	264	U
35	BB	265	C
35	BB	267	C
35	BB	268	G
35	BB	282	A
35	BB	283	A
35	BB	287	C
35	BB	289	U
35	BB	290	U
35	BB	291	C
35	BB	296	G
35	BB	312	U
35	BB	315	C
35	BB	319	C
35	BB	322	G
35	BB	323	C
35	BB	324	A
35	BB	325	G
35	BB	329	U
35	BB	330	U
35	BB	331	U
35	BB	333	C
35	BB	337	U
35	BB	340	U
35	BB	344	U
35	BB	346	U
35	BB	354	C
35	BB	357	C

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Mol	Chain	Res	Type
35	BB	358	U
35	BB	359	A
35	BB	360	C
35	BB	361	A
35	BB	362	A
35	BB	363	A
35	BB	364	U
35	BB	371	C
35	BB	372	U
35	BB	381	C
35	BB	382	U
35	BB	383	U
35	BB	384	A
35	BB	385	C
35	BB	388	C
35	BB	389	G
35	BB	390	G
35	BB	399	A
35	BB	407	A
35	BB	408	U
35	BB	416	U
35	BB	426	A
35	BB	431	U
35	BB	437	U
35	BB	438	G
35	BB	444	U
35	BB	447	C
35	BB	448	G
35	BB	455	G
35	BB	456	A
35	BB	461	U
35	BB	469	G
35	BB	473	U
35	BB	474	G
35	BB	475	A
35	BB	476	A
35	BB	477	U
35	BB	478	G
35	BB	481	A
35	BB	484	G
35	BB	488	G
35	BB	489	A

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Mol	Chain	Res	Type
35	BB	490	G
35	BB	492	U
35	BB	495	A
35	BB	511	A
35	BB	516	G
35	BB	517	G
35	BB	519	A
35	BB	520	G
35	BB	522	A
35	BB	523	A
35	BB	524	C
35	BB	526	A
35	BB	530	C
35	BB	539	G
35	BB	540	G
35	BB	547	A
35	BB	548	A
35	BB	549	U
35	BB	555	G
35	BB	561	C
35	BB	562	A
35	BB	563	A
35	BB	565	U
35	BB	566	A
35	BB	571	C
35	BB	573	C
35	BB	574	G
35	BB	575	C
35	BB	577	U
35	BB	580	A
35	BB	581	U
35	BB	582	G
35	BB	586	U
35	BB	597	C
35	BB	602	G
35	BB	603	U
35	BB	627	G
35	BB	639	A
35	BB	640	A
35	BB	641	C
35	BB	642	G
35	BB	650	A

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Mol	Chain	Res	Type
35	BB	651	G
35	BB	652	G
35	BB	655	U
35	BB	660	G
35	BB	664	A
35	BB	665	A
35	BB	668	A
35	BB	669	A
35	BB	670	G
35	BB	671	A
35	BB	672	C
35	BB	673	C
35	BB	678	U
35	BB	685	G
35	BB	702	G
35	BB	704	G
35	BB	710	A
35	BB	712	U
35	BB	713	U
35	BB	714	U
35	BB	715	G
35	BB	716	G
35	BB	717	A
35	BB	718	G
35	BB	719	G
35	BB	720	U
35	BB	721	G
35	BB	722	U
35	BB	725	U
35	BB	726	A
35	BB	727	U
35	BB	728	A
35	BB	730	G
35	BB	735	A
35	BB	736	G
35	BB	746	A
35	BB	747	A
35	BB	748	A
35	BB	751	A
35	BB	752	A
35	BB	753	A
35	BB	754	U

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Mol	Chain	Res	Type
35	BB	755	A
35	BB	758	A
35	BB	759	C
35	BB	760	C
35	BB	766	G
35	BB	767	A
35	BB	768	A
35	BB	769	C
35	BB	770	G
35	BB	772	U
35	BB	774	C
35	BB	778	A
35	BB	780	U
35	BB	781	U
35	BB	782	A
35	BB	789	G
35	BB	790	A
35	BB	791	A
35	BB	792	G
35	BB	793	A
35	BB	796	C
35	BB	797	C
35	BB	800	U
35	BB	803	U
35	BB	804	U
35	BB	805	G
35	BB	806	U
35	BB	818	U
35	BB	819	U
35	BB	820	C
35	BB	823	G
35	BB	834	U
35	BB	838	G
35	BB	839	G
35	BB	840	C
35	BB	841	U
35	BB	846	A
35	BB	847	U
35	BB	849	A
35	BB	850	U
35	BB	851	U
35	BB	852	G

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Mol	Chain	Res	Type
35	BB	853	U
35	BB	854	G
35	BB	860	U
35	BB	861	C
35	BB	862	U
35	BB	863	U
35	BB	869	G
35	BB	870	C
35	BB	877	A
35	BB	878	G
35	BB	879	G
35	BB	882	U
35	BB	884	U
35	BB	885	U
35	BB	890	U
35	BB	892	U
35	BB	893	U
35	BB	894	A
35	BB	895	U
35	BB	897	C
35	BB	900	C
35	BB	901	U
35	BB	906	G
35	BB	913	C
35	BB	914	U
35	BB	926	C
35	BB	928	C
35	BB	929	C
35	BB	932	U
35	BB	933	U
35	BB	934	U
35	BB	943	U
35	BB	955	U
35	BB	965	G
35	BB	966	C
35	BB	971	A
35	BB	972	C
35	BB	973	G
35	BB	974	C
35	BB	975	G
35	BB	977	G
35	BB	978	C

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Mol	Chain	Res	Type
35	BB	979	G
35	BB	980	G
35	BB	982	A
35	BB	983	C
35	BB	984	U
35	BB	985	A
35	BB	986	C
35	BB	987	U
35	BB	988	G
35	BB	989	C
35	BB	990	G
35	BB	991	C
35	BB	992	C
35	BB	993	A
35	BB	995	C
35	BB	996	G
35	BB	1023	G
35	BB	1025	A
35	BB	1026	G
35	BB	1027	U
35	BB	1030	U
35	BB	1031	G
35	BB	1032	U
35	BB	1033	U
35	BB	1040	C
35	BB	1043	C
35	BB	1044	U
35	BB	1045	G
35	BB	1053	G
35	BB	1054	G
35	BB	1061	G
35	BB	1066	G
35	BB	1073	A
35	BB	1084	A
35	BB	1099	U
35	BB	1103	A
35	BB	1119	G
35	BB	1121	A
35	BB	1124	G
35	BB	1125	A
35	BB	1126	A
35	BB	1128	U

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Mol	Chain	Res	Type
35	BB	1135	U
35	BB	1136	G
35	BB	1137	G
35	BB	1138	A
35	BB	1140	C
35	BB	1141	A
35	BB	1143	A
35	BB	1146	C
35	BB	1150	A
35	BB	1151	A
35	BB	1152	U
35	BB	1155	U
35	BB	1156	U
35	BB	1161	G
35	BB	1166	A
35	BB	1167	C
35	BB	1176	G
35	BB	1177	U
35	BB	1200	A
35	BB	1201	G
35	BB	1202	G
35	BB	1209	A
35	BB	1218	G
35	BB	1220	A
35	BB	1221	G
35	BB	1222	A
35	BB	1224	C
35	BB	1225	A
35	BB	1226	G
35	BB	1227	G
35	BB	1228	A
35	BB	1229	A
35	BB	1230	A
35	BB	1231	U
35	BB	1235	A
35	BB	1236	A
35	BB	1237	C
35	BB	1254	G
35	BB	1257	A
35	BB	1258	G
35	BB	1259	A
35	BB	1260	A

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Mol	Chain	Res	Type
35	BB	1268	C
35	BB	1274	G
35	BB	1275	A
35	BB	1276	U
35	BB	1277	A
35	BB	1287	U
35	BB	1300	U
35	BB	1301	U
35	BB	1302	C
35	BB	1303	A
35	BB	1307	C
35	BB	1318	U
35	BB	1325	C
35	BB	1329	G
35	BB	1331	U
35	BB	1333	U
35	BB	1336	G
35	BB	1337	C
35	BB	1340	U
35	BB	1345	A
35	BB	1346	A
35	BB	1347	C
35	BB	1354	C
35	BB	1355	C
35	BB	1356	G
35	BB	1357	C
35	BB	1358	A
35	BB	1372	G
35	BB	1381	U
35	BB	1385	C
35	BB	1393	C
35	BB	1394	A
35	BB	1395	G
35	BB	1400	C
35	BB	1403	G
35	BB	1405	G
35	BB	1409	G
35	BB	1412	U
35	BB	1413	U
35	BB	1415	G
35	BB	1429	A
35	BB	1436	U

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Mol	Chain	Res	Type
35	BB	1437	U
35	BB	1440	A
35	BB	1441	C
35	BB	1448	U
35	BB	1450	G
35	BB	1453	G
35	BB	1454	G
35	BB	1455	A
35	BB	1456	G
35	BB	1459	U
35	BB	1460	G
35	BB	1461	C
35	BB	1462	G
35	BB	1464	G
35	BB	1465	U
35	BB	1468	A
35	BB	1469	A
35	BB	1471	A
35	BB	1472	U
35	BB	1473	U
35	BB	1474	A
35	BB	1475	U
35	BB	1481	C
35	BB	1482	A
35	BB	1490	G
35	BB	1495	U
35	BB	1499	U
35	BB	1501	U
35	BB	1502	U
35	BB	1503	U
35	BB	1504	U
35	BB	1505	U
35	BB	1506	C
35	BB	1507	U
35	BB	1512	C
35	BB	1517	G
35	BB	1518	U
35	BB	1521	G
35	BB	1533	U
35	BB	1535	G
35	BB	1536	G
35	BB	1541	G

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Mol	Chain	Res	Type
36	BC	2	A
36	BC	3	C
36	BC	22	U
36	BC	23	G
36	BC	32	U
36	BC	33	U
36	BC	34	U
36	BC	35	C
36	BC	47	C
36	BC	48	A
36	BC	51	A
36	BC	59	A
36	BC	61	A
36	BC	62	A
36	BC	63	G
36	BC	74	U
36	BC	75	G
36	BC	80	A
36	BC	81	U
36	BC	82	C
36	BC	83	A
36	BC	84	U
36	BC	85	U
36	BC	86	U
36	BC	89	U
36	BC	91	G
36	BC	92	C
36	BC	94	C
36	BC	98	C
36	BC	99	U
36	BC	103	A
36	BC	104	A
36	BC	105	C
36	BC	110	A
36	BC	111	C
36	BC	117	A
36	BC	124	A
36	BC	130	U
36	BC	131	C
36	BC	132	U
36	BC	147	G
36	BC	149	A

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Mol	Chain	Res	Type
36	BC	157	U
36	BC	158	U
36	BC	159	U
36	BC	160	C
36	BC	165	U
36	BC	169	G
37	BD	7	G
37	BD	11	A
37	BD	12	U
37	BD	13	A
37	BD	14	C
37	BD	21	G
37	BD	22	A
37	BD	26	C
37	BD	39	C
37	BD	40	C
37	BD	41	G
37	BD	42	A
37	BD	48	G
37	BD	50	A
37	BD	52	U
37	BD	53	U
37	BD	63	C
37	BD	64	A
37	BD	72	U
37	BD	74	A
37	BD	83	A
37	BD	84	U
37	BD	88	U
37	BD	89	G
37	BD	90	A
37	BD	99	G
37	BD	100	A
37	BD	101	A
37	BD	108	G
37	BD	110	G
37	BD	113	G
38	BE	2	G
38	BE	4	A
38	BE	11	A
38	BE	12	A
38	BE	13	A

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Mol	Chain	Res	Type
38	BE	19	G
38	BE	20	C
38	BE	22	A
38	BE	23	G
38	BE	24	G
38	BE	25	U
38	BE	26	G
38	BE	27	A
38	BE	28	C
38	BE	53	U
38	BE	55	C
38	BE	56	U
38	BE	57	U
38	BE	71	A
38	BE	72	C
38	BE	78	C
38	BE	80	G
38	BE	81	C
38	BE	82	C
38	BE	83	U
38	BE	84	U
38	BE	86	C
38	BE	89	G
38	BE	92	C
38	BE	102	U
38	BE	103	C
38	BE	104	G
38	BE	108	U
38	BE	109	C
38	BE	112	G
38	BE	113	C
38	BE	114	G
38	BE	118	C
38	BE	119	U
38	BE	125	C
38	BE	129	G
38	BE	130	G
38	BE	131	C
38	BE	134	A
38	BE	135	A
38	BE	136	G
38	BE	137	A

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Mol	Chain	Res	Type
38	BE	141	A
38	BE	142	A
38	BE	143	A
38	BE	144	A
38	BE	152	U
38	BE	153	C
38	BE	155	C
38	BE	156	C
38	BE	157	C
38	BE	159	A
38	BE	160	C
38	BE	161	G
38	BE	162	U
38	BE	165	U
38	BE	172	U
38	BE	173	G
38	BE	174	U
38	BE	175	U
38	BE	176	G
38	BE	179	A
38	BE	180	G
38	BE	181	U
38	BE	182	U
38	BE	186	C
38	BE	187	G
38	BE	189	A
38	BE	191	U
38	BE	203	C
38	BE	204	U
38	BE	206	G
38	BE	207	G
38	BE	208	G
38	BE	209	U
38	BE	210	G
39	BF	2	G
39	BF	3	A
39	BF	6	C
39	BF	7	G
39	BF	8	C
39	BF	10	A
39	BF	11	C
39	BF	12	U

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Mol	Chain	Res	Type
39	BF	13	U
39	BF	14	C
39	BF	15	U
39	BF	16	C
39	BF	17	U
39	BF	18	U
39	BF	19	A
39	BF	20	U
39	BF	21	C
39	BF	22	U
39	BF	23	G
39	BF	24	G
39	BF	25	G
39	BF	26	U
39	BF	29	U
39	BF	31	U
39	BF	33	C
39	BF	34	C
39	BF	40	U
39	BF	41	U
39	BF	42	G
39	BF	43	U
39	BF	44	C
39	BF	45	G
39	BF	52	A
39	BF	53	G
39	BF	54	U
39	BF	57	C
39	BF	59	U
39	BF	60	C
39	BF	61	A
39	BF	62	U
39	BF	63	U
39	BF	64	U
39	BF	66	C
39	BF	67	A
39	BF	68	C
39	BF	69	A
39	BF	71	G
39	BF	72	A
39	BF	73	U
40	BG	2	U

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Mol	Chain	Res	Type
40	BG	3	G
40	BG	11	G
40	BG	12	A
40	BG	13	A
40	BG	14	G
40	BG	15	G
40	BG	21	C
40	BG	22	G
40	BG	23	C
40	BG	24	A
40	BG	25	G
40	BG	34	A
40	BG	40	G
40	BG	84	U
40	BG	85	C
40	BG	86	U
40	BG	87	G
40	BG	99	A
40	BG	106	G
40	BG	107	U
40	BG	108	G
40	BG	114	A
40	BG	120	U
40	BG	121	C
40	BG	141	A
40	BG	147	U
40	BG	150	A
40	BG	156	G
40	BG	158	A
40	BG	159	A
40	BG	166	C
40	BG	167	C
40	BG	169	A
40	BG	170	G
40	BG	171	A
40	BG	172	C
40	BG	173	C
40	BG	180	C
40	BG	181	C
41	BH	2	U
41	BH	3	U
41	BH	11	C

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Mol	Chain	Res	Type
41	BH	12	U
41	BH	15	A
41	BH	21	G
41	BH	24	U
41	BH	25	A
41	BH	26	C
41	BH	27	A
41	BH	28	U
41	BH	30	C
41	BH	31	A
41	BH	34	G
41	BH	38	G
41	BH	39	G
41	BH	40	C
41	BH	41	A
41	BH	42	U
41	BH	43	G
41	BH	44	A
41	BH	49	C
41	BH	50	A
41	BH	51	C
41	BH	60	A
41	BH	61	C
41	BH	62	C
41	BH	72	G
41	BH	73	A
41	BH	74	G
41	BH	77	G
41	BH	79	A
41	BH	80	C
41	BH	81	U
41	BH	82	U
41	BH	84	A
41	BH	86	G
41	BH	88	C
41	BH	89	C
41	BH	90	C
41	BH	93	G
41	BH	101	A
41	BH	102	C
41	BH	103	C
41	BH	115	A

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Mol	Chain	Res	Type
41	BH	117	U
41	BH	118	U
41	BH	122	U
41	BH	123	G
41	BH	129	G
41	BH	135	U
85	AA	2	A
85	AA	3	U
85	AA	4	C
85	AA	9	U
85	AA	25	C
85	AA	26	A
85	AA	28	A
85	AA	29	U
85	AA	34	G
85	AA	39	A
85	AA	40	A
85	AA	42	G
85	AA	43	A
85	AA	44	C
85	AA	45	U
85	AA	46	U
85	AA	47	A
85	AA	48	G
85	AA	51	A
85	AA	56	U
85	AA	57	G
85	AA	59	C
85	AA	60	U
85	AA	61	C
85	AA	66	U
85	AA	67	C
85	AA	68	A
85	AA	73	A
85	AA	74	U
85	AA	77	C
85	AA	82	A
85	AA	85	U
85	AA	86	G
85	AA	90	A
85	AA	91	U
85	AA	92	G

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Mol	Chain	Res	Type
85	AA	96	C
85	AA	97	A
85	AA	99	U
85	AA	101	C
85	AA	102	A
85	AA	103	U
85	AA	104	C
85	AA	107	A
85	AA	111	A
85	AA	112	A
85	AA	116	G
85	AA	121	C
85	AA	123	A
85	AA	124	A
85	AA	125	A
85	AA	126	U
85	AA	127	U
85	AA	128	U
85	AA	129	U
85	AA	136	U
85	AA	137	C
85	AA	142	U
85	AA	143	U
85	AA	144	A
85	AA	145	C
85	AA	146	U
85	AA	162	A
85	AA	171	U
85	AA	174	U
85	AA	175	A
85	AA	179	G
85	AA	180	A
85	AA	181	A
85	AA	182	C
85	AA	183	C
85	AA	184	A
85	AA	185	A
85	AA	193	C
85	AA	197	C
85	AA	198	U
85	AA	200	U
85	AA	202	U

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Mol	Chain	Res	Type
85	AA	205	A
85	AA	207	G
85	AA	208	U
85	AA	209	C
85	AA	210	G
85	AA	211	C
85	AA	212	G
85	AA	222	U
85	AA	224	C
85	AA	225	G
85	AA	230	U
85	AA	236	G
85	AA	237	G
85	AA	239	G
85	AA	240	A
85	AA	241	U
85	AA	242	G
85	AA	243	A
85	AA	244	G
85	AA	246	C
85	AA	251	A
85	AA	253	C
85	AA	254	G
85	AA	263	A
85	AA	264	A
85	AA	265	A
85	AA	266	U
85	AA	267	U
85	AA	269	G
85	AA	280	U
85	AA	282	C
85	AA	284	C
85	AA	290	G
85	AA	294	G
85	AA	295	U
85	AA	296	A
85	AA	298	C
85	AA	299	A
85	AA	300	C
85	AA	301	U
85	AA	302	C
85	AA	303	A

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Mol	Chain	Res	Type
85	AA	304	G
85	AA	305	A
85	AA	307	G
85	AA	308	U
85	AA	311	U
85	AA	312	G
85	AA	313	A
85	AA	315	U
85	AA	316	C
85	AA	318	A
85	AA	326	C
85	AA	327	G
85	AA	328	U
85	AA	329	G
85	AA	330	C
85	AA	331	G
85	AA	332	A
85	AA	333	A
85	AA	334	A
85	AA	338	G
85	AA	344	U
85	AA	345	U
85	AA	356	U
85	AA	357	C
85	AA	358	U
85	AA	363	A
85	AA	375	C
85	AA	378	A
85	AA	379	U
85	AA	380	C
85	AA	382	G
85	AA	385	A
85	AA	386	G
85	AA	387	U
85	AA	388	G
85	AA	389	A
85	AA	390	U
85	AA	394	C
85	AA	395	G
85	AA	404	A
85	AA	412	G
85	AA	417	U

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Mol	Chain	Res	Type
85	AA	418	G
85	AA	419	A
85	AA	425	G
85	AA	435	A
85	AA	436	G
85	AA	442	G
85	AA	443	A
85	AA	444	U
85	AA	445	U
85	AA	446	C
85	AA	453	G
85	AA	455	G
85	AA	463	G
85	AA	464	A
85	AA	465	A
85	AA	466	A
85	AA	467	U
85	AA	468	A
85	AA	469	G
85	AA	482	C
85	AA	483	G
85	AA	487	G
85	AA	489	C
85	AA	495	G
85	AA	504	U
85	AA	505	U
85	AA	510	A
85	AA	518	A
85	AA	519	A
85	AA	520	A
85	AA	521	A
85	AA	522	A
85	AA	524	A
85	AA	526	G
85	AA	529	G
85	AA	530	A
85	AA	533	C
85	AA	538	A
85	AA	557	G
85	AA	571	G
85	AA	576	U
85	AA	578	U

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Mol	Chain	Res	Type
85	AA	580	C
85	AA	582	A
85	AA	589	A
85	AA	590	U
85	AA	591	A
85	AA	603	C
85	AA	604	C
85	AA	605	A
85	AA	606	A
85	AA	607	U
85	AA	608	A
85	AA	612	A
85	AA	615	A
85	AA	616	A
85	AA	618	A
85	AA	619	A
85	AA	620	U
85	AA	625	G
85	AA	628	C
85	AA	629	A
85	AA	633	C
85	AA	634	U
85	AA	639	C
85	AA	640	C
85	AA	648	G
85	AA	652	U
85	AA	653	A
85	AA	654	A
85	AA	655	U
85	AA	657	C
85	AA	660	G
85	AA	668	A
85	AA	669	G
85	AA	681	G
85	AA	682	C
85	AA	683	U
85	AA	684	G
85	AA	685	U
85	AA	687	G
85	AA	688	C
85	AA	693	A
85	AA	694	A

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Mol	Chain	Res	Type
85	AA	696	G
85	AA	697	G
85	AA	698	G
85	AA	709	A
85	AA	711	C
85	AA	712	U
85	AA	713	G
85	AA	714	U
85	AA	715	G
85	AA	724	A
85	AA	725	G
85	AA	726	U
85	AA	727	U
85	AA	728	U
85	AA	736	U
85	AA	737	G
85	AA	738	C
85	AA	739	C
85	AA	740	A
85	AA	741	G
85	AA	742	U
85	AA	744	C
85	AA	749	C
85	AA	750	A
85	AA	752	C
85	AA	753	U
85	AA	754	C
85	AA	756	G
85	AA	760	U
85	AA	761	G
85	AA	762	U
85	AA	763	U
85	AA	764	U
85	AA	765	U
85	AA	766	G
85	AA	767	A
85	AA	770	C
85	AA	771	A
85	AA	772	C
85	AA	776	C
85	AA	777	U
85	AA	779	G

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Mol	Chain	Res	Type
85	AA	786	G
85	AA	787	U
85	AA	789	A
85	AA	790	A
85	AA	791	C
85	AA	792	A
85	AA	793	C
85	AA	795	C
85	AA	797	C
85	AA	798	A
85	AA	799	G
85	AA	801	U
85	AA	803	C
85	AA	804	A
85	AA	805	A
85	AA	806	G
85	AA	809	A
85	AA	810	C
85	AA	815	G
85	AA	816	A
85	AA	818	C
85	AA	825	U
85	AA	826	C
85	AA	828	U
85	AA	829	C
85	AA	830	A
85	AA	831	C
85	AA	832	U
85	AA	833	U
85	AA	834	U
85	AA	836	A
85	AA	837	C
85	AA	838	G
85	AA	845	A
85	AA	846	U
85	AA	847	G
85	AA	853	G
85	AA	854	A
85	AA	855	G
85	AA	856	G
85	AA	861	G
85	AA	862	U

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Mol	Chain	Res	Type
85	AA	868	A
85	AA	869	A
85	AA	873	U
85	AA	874	A
85	AA	875	C
85	AA	883	A
85	AA	884	A
85	AA	885	A
85	AA	886	A
85	AA	887	A
85	AA	888	A
85	AA	889	G
85	AA	890	U
85	AA	891	G
85	AA	892	C
85	AA	893	G
85	AA	895	C
85	AA	899	A
85	AA	901	C
85	AA	902	A
85	AA	903	G
85	AA	904	U
85	AA	906	U
85	AA	907	G
85	AA	908	C
85	AA	909	C
85	AA	910	G
85	AA	914	U
85	AA	919	U
85	AA	923	A
85	AA	924	A
85	AA	927	A
85	AA	931	G
85	AA	934	A
85	AA	935	A
85	AA	937	G
85	AA	938	A
85	AA	940	G
85	AA	941	C
85	AA	942	A
85	AA	943	U
85	AA	945	A

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Mol	Chain	Res	Type
85	AA	957	A
85	AA	961	U
85	AA	964	C
85	AA	965	G
85	AA	974	U
85	AA	988	C
85	AA	989	U
85	AA	990	U
85	AA	998	U
85	AA	999	A
85	AA	1000	U
85	AA	1005	C
85	AA	1010	U
85	AA	1012	C
85	AA	1013	C
85	AA	1014	U
85	AA	1017	G
85	AA	1020	C
85	AA	1022	G
85	AA	1023	U
85	AA	1026	U
85	AA	1030	U
85	AA	1034	U
85	AA	1037	U
85	AA	1040	U
85	AA	1043	U
85	AA	1051	A
85	AA	1052	C
85	AA	1054	U
85	AA	1055	U
85	AA	1058	G
85	AA	1060	U
85	AA	1061	C
85	AA	1062	U
85	AA	1063	U
85	AA	1068	A
85	AA	1073	U
85	AA	1075	U
85	AA	1076	U
85	AA	1077	U
85	AA	1078	A
85	AA	1079	C

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Mol	Chain	Res	Type
85	AA	1080	A
85	AA	1086	U
85	AA	1091	C
85	AA	1098	C
85	AA	1103	A
85	AA	1104	G
85	AA	1106	A
85	AA	1107	A
85	AA	1108	U
85	AA	1109	G
85	AA	1111	A
85	AA	1112	G
85	AA	1113	G
85	AA	1114	A
85	AA	1121	U
85	AA	1125	G
85	AA	1130	G
85	AA	1136	A
85	AA	1138	U
85	AA	1140	G
85	AA	1143	C
85	AA	1145	U
85	AA	1148	G
85	AA	1153	G
85	AA	1154	A
85	AA	1157	U
85	AA	1158	U
85	AA	1159	C
85	AA	1161	U
85	AA	1162	A
85	AA	1163	G
85	AA	1177	G
85	AA	1179	A
85	AA	1183	C
85	AA	1184	A
85	AA	1191	G
85	AA	1193	A
85	AA	1208	C
85	AA	1209	U
85	AA	1212	C
85	AA	1213	U
85	AA	1214	C

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Mol	Chain	Res	Type
85	AA	1215	A
85	AA	1219	A
85	AA	1236	G
85	AA	1237	A
85	AA	1238	U
85	AA	1241	A
85	AA	1242	A
85	AA	1246	G
85	AA	1249	U
85	AA	1250	A
85	AA	1253	G
85	AA	1264	U
85	AA	1265	C
85	AA	1272	G
85	AA	1275	A
85	AA	1276	A
85	AA	1278	C
85	AA	1279	A
85	AA	1280	U
85	AA	1281	G
85	AA	1287	C
85	AA	1288	A
85	AA	1290	G
85	AA	1291	A
85	AA	1292	A
85	AA	1293	U
85	AA	1294	U
85	AA	1299	A
85	AA	1300	A
85	AA	1302	A
85	AA	1303	U
85	AA	1310	G
85	AA	1311	U
85	AA	1315	C
85	AA	1319	U
85	AA	1321	G
85	AA	1330	U
85	AA	1331	G
85	AA	1352	U
85	AA	1353	U
85	AA	1354	A
85	AA	1357	U

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Mol	Chain	Res	Type
85	AA	1358	A
85	AA	1359	U
85	AA	1360	C
85	AA	1368	G
85	AA	1372	C
85	AA	1373	U
85	AA	1379	A
85	AA	1381	C
85	AA	1383	C
85	AA	1391	U
85	AA	1393	C
85	AA	1397	U
85	AA	1399	U
85	AA	1400	U
85	AA	1406	U
85	AA	1407	C
85	AA	1416	U
85	AA	1417	U
85	AA	1420	U
85	AA	1422	A
85	AA	1423	C
85	AA	1424	G
85	AA	1425	G
85	AA	1430	A
85	AA	1433	C
85	AA	1434	U
85	AA	1436	A
85	AA	1437	G
85	AA	1441	G
85	AA	1446	U
85	AA	1449	C
85	AA	1450	U
85	AA	1457	C
85	AA	1458	G
85	AA	1459	C
85	AA	1466	U
85	AA	1467	U
85	AA	1468	G
85	AA	1469	G
85	AA	1470	A
85	AA	1471	G
85	AA	1474	U

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Mol	Chain	Res	Type
85	AA	1475	A
85	AA	1476	C
85	AA	1477	A
85	AA	1478	G
85	AA	1486	G
85	AA	1490	A
85	AA	1491	G
85	AA	1492	U
85	AA	1493	A
85	AA	1494	C
85	AA	1495	G
85	AA	1515	A
85	AA	1527	G
85	AA	1528	A
85	AA	1532	G
85	AA	1535	C
85	AA	1536	C
85	AA	1537	A
85	AA	1547	G
85	AA	1560	A
85	AA	1561	A
85	AA	1563	U
85	AA	1567	C
85	AA	1570	A
85	AA	1571	A
85	AA	1572	C
85	AA	1573	A
85	AA	1574	C
85	AA	1576	G
85	AA	1577	G
85	AA	1578	G
85	AA	1579	A
85	AA	1580	A
85	AA	1584	U
85	AA	1585	A
85	AA	1594	G
85	AA	1595	G
85	AA	1596	A
85	AA	1597	C
85	AA	1605	G
85	AA	1606	G
85	AA	1614	G

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Mol	Chain	Res	Type
85	AA	1616	U
85	AA	1618	G
85	AA	1620	G
85	AA	1621	U
85	AA	1622	G
85	AA	1623	U
85	AA	1633	A
85	AA	1634	U
85	AA	1635	C
85	AA	1638	C
85	AA	1643	U
85	AA	1646	U
85	AA	1647	G
85	AA	1650	G
85	AA	1651	C
85	AA	1661	U
85	AA	1662	U
85	AA	1663	U
85	AA	1664	G
85	AA	1665	G
85	AA	1683	U
85	AA	1684	U
85	AA	1689	G
85	AA	1691	U
85	AA	1692	U
85	AA	1698	A
85	AA	1699	A
85	AA	1702	G
85	AA	1706	A
85	AA	1717	G
85	AA	1718	C
85	AA	1719	C
85	AA	1722	G
85	AA	1724	A
85	AA	1725	G
85	AA	1726	G
85	AA	1729	C
85	AA	1731	G
85	AA	1736	U
85	AA	1752	C
85	AA	1753	A
85	AA	1754	G

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Mol	Chain	Res	Type
85	AA	1756	C
85	AA	1758	C
85	AA	1759	U
85	AA	1760	C
85	AA	1770	U
85	AA	1772	U
85	AA	1773	U
85	AA	1774	U
85	AA	1785	U
85	AA	1788	U
85	AA	1789	C
85	AA	1791	U
85	AA	1792	C
85	AA	1793	A
85	AA	1798	U
85	AA	1800	U
85	AA	1803	U
85	AA	1804	U
85	AA	1808	G
85	AA	1809	G
85	AA	1810	C
85	AA	1812	C
85	AA	1813	C
85	AA	1814	U
85	AA	1815	U
85	AA	1817	U
85	AA	1820	G
85	AA	1826	U
85	AA	1827	U
85	AA	1833	C
85	AA	1834	U
85	AA	1836	U
85	AA	1837	U
85	AA	1839	G
85	AA	1841	G
85	AA	1849	A
85	AA	1851	A
85	AA	1852	U
85	AA	1853	U
85	AA	1854	U
85	AA	1860	A
85	AA	1861	A

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Mol	Chain	Res	Type
85	AA	1866	A
85	AA	1869	U
85	AA	1870	C
85	AA	1872	G
85	AA	1874	G
85	AA	1875	A
85	AA	1884	A
85	AA	1885	A
85	AA	1887	G
85	AA	1897	A
85	AA	1898	C
85	AA	1899	A
85	AA	1911	A
85	AA	1912	U
85	AA	1913	G
85	AA	1920	A
85	AA	1921	G
85	AA	1922	A
85	AA	1923	A
85	AA	1924	C
85	AA	1925	A
85	AA	1926	A
85	AA	1929	G
85	AA	1931	C
85	AA	1932	C
85	AA	1933	G
85	AA	1934	A
85	AA	1943	U
85	AA	1945	A
85	AA	1947	A
85	AA	1957	C
85	AA	1958	C
85	AA	1959	G
85	AA	1960	C
85	AA	1964	A
85	AA	1973	G
85	AA	1974	C
85	AA	1979	A
85	AA	1980	A
85	AA	1981	A
85	AA	1982	C
85	AA	1983	C

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Mol	Chain	Res	Type
85	AA	1984	A
85	AA	1986	G
85	AA	1987	G
85	AA	1988	A
85	AA	1989	A
85	AA	1990	U
85	AA	1993	C
85	AA	2000	C
85	AA	2001	C
85	AA	2003	C
85	AA	2004	U
85	AA	2005	U
85	AA	2006	G
85	AA	2008	G
85	AA	2009	A
85	AA	2010	C
85	AA	2020	C
85	AA	2023	U
85	AA	2024	U
85	AA	2025	A
85	AA	2026	U
85	AA	2034	G
85	AA	2035	C
85	AA	2040	A
85	AA	2041	G
85	AA	2050	C
85	AA	2051	G
85	AA	2057	G
85	AA	2062	U
85	AA	2063	C
85	AA	2068	A
85	AA	2069	A
85	AA	2081	A
85	AA	2086	C
85	AA	2098	A
85	AA	2099	C
85	AA	2101	C
85	AA	2102	A
85	AA	2103	C
85	AA	2104	C
85	AA	2105	G
85	AA	2125	A

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Mol	Chain	Res	Type
85	AA	2133	A
85	AA	2144	C
85	AA	2146	G
85	AA	2147	A
85	AA	2159	C
85	AA	2160	U
85	AA	2161	C
85	AA	2172	A
85	AA	2197	A
85	AA	2208	G
85	AA	2211	G
85	AA	2212	U
85	AA	2213	A
85	AA	2215	C
85	AA	2216	A
85	AA	2218	G
85	AA	2219	G
85	AA	2220	U
85	AA	2222	G
85	AA	2230	U
85	AA	2231	G
85	AA	2234	C
85	AA	2243	G
85	AA	2244	G
85	AA	2245	A
85	AA	2246	U
85	AA	2247	C
85	AA	2248	A
85	AA	2249	U
85	AA	2250	U
85	AA	2251	U
86	AB	2	C
86	AB	3	C
86	AB	4	C
86	AB	8	U
86	AB	9	A
86	AB	15	G
86	AB	17	C
86	AB	18	G
86	AB	19	G
86	AB	20	U
86	AB	23	A

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Mol	Chain	Res	Type
86	AB	27	G
86	AB	35	A
86	AB	37	A
86	AB	43	C
86	AB	46	G
86	AB	47	U
86	AB	48	C
86	AB	50	U
86	AB	55	U
86	AB	57	G
86	AB	58	A
86	AB	59	U
86	AB	60	U
86	AB	65	G
86	AB	66	U
86	AB	70	G
86	AB	71	G
86	AB	72	C
86	AB	73	A

All (790) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
34	BA	13	U
34	BA	21	C
34	BA	62	A
34	BA	70	C
34	BA	84	U
34	BA	91	C
34	BA	114	U
34	BA	116	G
34	BA	120	A
34	BA	131	A
34	BA	140	C
34	BA	148	G
34	BA	156	U
34	BA	160	G
34	BA	165	C
34	BA	174	A
34	BA	177	G
34	BA	179	U
34	BA	187	G

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Mol	Chain	Res	Type
34	BA	188	C
34	BA	215	C
34	BA	217	C
34	BA	218	G
34	BA	224	G
34	BA	225	A
34	BA	226	A
34	BA	247	U
34	BA	261	A
34	BA	270	U
34	BA	279	U
34	BA	281	C
34	BA	283	U
34	BA	289	A
34	BA	294	C
34	BA	298	G
34	BA	301	U
34	BA	302	A
34	BA	303	C
34	BA	316	G
34	BA	317	U
34	BA	323	C
34	BA	344	G
34	BA	347	A
34	BA	360	C
34	BA	367	G
34	BA	368	U
34	BA	392	A
34	BA	394	A
34	BA	404	C
34	BA	411	C
34	BA	415	C
34	BA	463	A
34	BA	464	U
34	BA	469	C
34	BA	482	C
34	BA	487	A
34	BA	488	C
34	BA	508	C
34	BA	510	U
34	BA	511	U
34	BA	518	C

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Mol	Chain	Res	Type
34	BA	519	G
34	BA	521	C
34	BA	525	A
34	BA	526	C
34	BA	530	A
34	BA	531	C
34	BA	538	G
34	BA	547	C
34	BA	561	U
34	BA	570	G
34	BA	574	U
34	BA	575	U
34	BA	577	U
34	BA	578	C
34	BA	579	U
34	BA	581	U
34	BA	588	C
34	BA	592	G
34	BA	595	U
34	BA	596	G
34	BA	599	U
34	BA	607	C
34	BA	611	A
34	BA	625	U
34	BA	628	U
34	BA	629	G
34	BA	647	U
34	BA	650	C
34	BA	667	U
34	BA	672	G
34	BA	674	G
34	BA	680	C
34	BA	683	C
34	BA	687	G
34	BA	690	G
34	BA	712	C
34	BA	720	A
34	BA	722	A
34	BA	738	C
34	BA	739	A
34	BA	751	A
34	BA	752	A

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Mol	Chain	Res	Type
34	BA	764	G
34	BA	769	U
34	BA	770	G
34	BA	771	A
34	BA	772	G
34	BA	785	G
34	BA	786	U
34	BA	787	A
34	BA	797	A
34	BA	799	A
34	BA	805	A
34	BA	807	U
34	BA	813	C
34	BA	827	A
34	BA	833	U
34	BA	845	U
34	BA	847	U
34	BA	848	U
34	BA	849	G
34	BA	863	G
34	BA	875	G
34	BA	885	A
34	BA	895	U
34	BA	897	U
34	BA	915	A
34	BA	953	G
34	BA	972	C
34	BA	982	A
34	BA	995	A
34	BA	1007	G
34	BA	1023	G
34	BA	1035	A
34	BA	1036	G
34	BA	1042	U
34	BA	1079	C
34	BA	1080	U
34	BA	1083	A
34	BA	1085	G
34	BA	1097	G
34	BA	1120	U
34	BA	1121	U
34	BA	1131	G

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Mol	Chain	Res	Type
34	BA	1168	C
34	BA	1179	U
34	BA	1180	A
34	BA	1187	U
34	BA	1188	U
34	BA	1197	U
34	BA	1198	U
34	BA	1199	U
34	BA	1200	U
34	BA	1216	G
34	BA	1262	A
34	BA	1267	A
34	BA	1293	A
34	BA	1295	U
34	BA	1296	U
34	BA	1297	G
34	BA	1305	A
34	BA	1306	U
34	BA	1307	U
34	BA	1309	U
34	BA	1313	U
34	BA	1319	A
34	BA	1326	U
34	BA	1331	G
34	BA	1340	G
34	BA	1341	A
34	BA	1355	G
34	BA	1359	U
34	BA	1363	A
34	BA	1381	A
34	BA	1421	A
34	BA	1422	A
34	BA	1425	G
34	BA	1443	U
34	BA	1447	C
34	BA	1452	U
34	BA	1453	U
34	BA	1454	G
34	BA	1457	C
34	BA	1459	U
34	BA	1470	G
34	BA	1471	U

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Mol	Chain	Res	Type
34	BA	1475	G
34	BA	1477	C
34	BA	1490	U
34	BA	1494	G
34	BA	1495	A
34	BA	1496	G
34	BA	1497	A
34	BA	1505	G
34	BA	1509	U
34	BA	1515	U
34	BA	1563	G
34	BA	1615	A
34	BA	1616	A
34	BA	1622	U
34	BA	1625	C
34	BA	1628	A
34	BA	1635	A
34	BA	1648	G
34	BA	1651	C
34	BA	1660	A
34	BA	1674	G
34	BA	1678	U
34	BA	1697	U
34	BA	1713	U
34	BA	1716	A
34	BA	1725	U
34	BA	1775	U
34	BA	1793	G
34	BA	1794	A
34	BA	1795	A
34	BA	1796	A
34	BA	1797	A
34	BA	1805	C
34	BA	1806	A
34	BA	1809	G
34	BA	1816	G
34	BA	1825	U
34	BA	1831	A
35	BB	3	C
35	BB	28	G
35	BB	29	C
35	BB	30	A

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Mol	Chain	Res	Type
35	BB	31	U
35	BB	32	C
35	BB	48	G
35	BB	49	A
35	BB	60	A
35	BB	61	A
35	BB	62	C
35	BB	69	A
35	BB	97	U
35	BB	98	A
35	BB	116	G
35	BB	145	G
35	BB	147	C
35	BB	148	C
35	BB	261	C
35	BB	267	C
35	BB	295	U
35	BB	353	G
35	BB	361	A
35	BB	371	C
35	BB	380	G
35	BB	381	C
35	BB	383	U
35	BB	388	C
35	BB	443	A
35	BB	447	C
35	BB	475	A
35	BB	477	U
35	BB	488	G
35	BB	494	C
35	BB	516	G
35	BB	523	A
35	BB	524	C
35	BB	548	A
35	BB	561	C
35	BB	602	G
35	BB	639	A
35	BB	641	C
35	BB	650	A
35	BB	659	C
35	BB	667	G
35	BB	671	A

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Mol	Chain	Res	Type
35	BB	713	U
35	BB	715	G
35	BB	735	A
35	BB	747	A
35	BB	754	U
35	BB	780	U
35	BB	792	G
35	BB	795	A
35	BB	796	C
35	BB	797	C
35	BB	799	A
35	BB	803	U
35	BB	833	G
35	BB	838	G
35	BB	845	C
35	BB	848	A
35	BB	850	U
35	BB	851	U
35	BB	853	U
35	BB	860	U
35	BB	861	C
35	BB	863	U
35	BB	877	A
35	BB	878	G
35	BB	883	G
35	BB	884	U
35	BB	885	U
35	BB	892	U
35	BB	894	A
35	BB	896	C
35	BB	912	C
35	BB	942	G
35	BB	970	C
35	BB	971	A
35	BB	972	C
35	BB	974	C
35	BB	976	U
35	BB	981	A
35	BB	985	A
35	BB	986	C
35	BB	990	G
35	BB	991	C

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Mol	Chain	Res	Type
35	BB	992	C
35	BB	1024	G
35	BB	1026	G
35	BB	1029	U
35	BB	1030	U
35	BB	1031	G
35	BB	1032	U
35	BB	1039	A
35	BB	1044	U
35	BB	1063	C
35	BB	1098	G
35	BB	1124	G
35	BB	1126	A
35	BB	1136	G
35	BB	1151	A
35	BB	1165	A
35	BB	1166	A
35	BB	1167	C
35	BB	1178	A
35	BB	1200	A
35	BB	1219	A
35	BB	1220	A
35	BB	1221	G
35	BB	1225	A
35	BB	1227	G
35	BB	1230	A
35	BB	1235	A
35	BB	1258	G
35	BB	1259	A
35	BB	1275	A
35	BB	1276	U
35	BB	1300	U
35	BB	1325	C
35	BB	1354	C
35	BB	1436	U
35	BB	1437	U
35	BB	1454	G
35	BB	1459	U
35	BB	1460	G
35	BB	1461	C
35	BB	1464	G
35	BB	1468	A

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Mol	Chain	Res	Type
35	BB	1472	U
35	BB	1474	A
35	BB	1482	A
35	BB	1489	A
35	BB	1498	G
35	BB	1502	U
35	BB	1503	U
35	BB	1504	U
35	BB	1505	U
35	BB	1506	C
35	BB	1517	G
35	BB	1520	C
35	BB	1535	G
36	BC	1	A
36	BC	2	A
36	BC	22	U
36	BC	31	A
36	BC	32	U
36	BC	33	U
36	BC	34	U
36	BC	60	U
36	BC	61	A
36	BC	74	U
36	BC	80	A
36	BC	81	U
36	BC	84	U
36	BC	98	C
36	BC	110	A
36	BC	123	G
36	BC	156	A
36	BC	157	U
36	BC	158	U
36	BC	159	U
37	BD	12	U
37	BD	13	A
37	BD	24	U
37	BD	47	U
37	BD	51	G
37	BD	71	G
37	BD	83	A
37	BD	88	U
37	BD	98	G

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Mol	Chain	Res	Type
38	BE	18	U
38	BE	19	G
38	BE	21	C
38	BE	22	A
38	BE	26	G
38	BE	32	U
38	BE	52	U
38	BE	70	C
38	BE	80	G
38	BE	82	C
38	BE	88	G
38	BE	102	U
38	BE	111	C
38	BE	117	A
38	BE	118	C
38	BE	129	G
38	BE	133	C
38	BE	134	A
38	BE	135	A
38	BE	136	G
38	BE	141	A
38	BE	142	A
38	BE	155	C
38	BE	175	U
38	BE	181	U
38	BE	186	C
38	BE	208	G
39	BF	1	C
39	BF	2	G
39	BF	5	U
39	BF	6	C
39	BF	7	G
39	BF	8	C
39	BF	9	C
39	BF	11	C
39	BF	18	U
39	BF	20	U
39	BF	23	G
39	BF	25	G
39	BF	32	G
39	BF	40	U
39	BF	41	U

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Mol	Chain	Res	Type
39	BF	43	U
39	BF	51	C
39	BF	53	G
39	BF	60	C
39	BF	62	U
39	BF	63	U
39	BF	66	C
39	BF	71	G
40	BG	12	A
40	BG	14	G
40	BG	21	C
40	BG	84	U
40	BG	106	G
40	BG	107	U
40	BG	149	U
40	BG	168	A
41	BH	24	U
41	BH	26	C
41	BH	27	A
41	BH	30	C
41	BH	33	G
41	BH	38	G
41	BH	41	A
41	BH	42	U
41	BH	62	C
41	BH	71	C
41	BH	72	G
41	BH	81	U
41	BH	85	C
41	BH	116	A
41	BH	117	U
41	BH	118	U
85	AA	1	G
85	AA	3	U
85	AA	8	U
85	AA	25	C
85	AA	28	A
85	AA	33	U
85	AA	39	A
85	AA	42	G
85	AA	44	C
85	AA	45	U

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Mol	Chain	Res	Type
85	AA	46	U
85	AA	47	A
85	AA	56	U
85	AA	67	C
85	AA	82	A
85	AA	90	A
85	AA	96	C
85	AA	100	A
85	AA	101	C
85	AA	111	A
85	AA	123	A
85	AA	125	A
85	AA	127	U
85	AA	143	U
85	AA	144	A
85	AA	145	C
85	AA	157	G
85	AA	174	U
85	AA	183	C
85	AA	192	G
85	AA	197	C
85	AA	206	U
85	AA	240	A
85	AA	243	A
85	AA	245	A
85	AA	262	G
85	AA	265	A
85	AA	266	U
85	AA	284	C
85	AA	293	A
85	AA	294	G
85	AA	295	U
85	AA	300	C
85	AA	303	A
85	AA	304	G
85	AA	312	G
85	AA	314	C
85	AA	315	U
85	AA	325	C
85	AA	326	C
85	AA	327	G
85	AA	329	G

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Mol	Chain	Res	Type
85	AA	332	A
85	AA	333	A
85	AA	344	U
85	AA	357	C
85	AA	378	A
85	AA	385	A
85	AA	387	U
85	AA	388	G
85	AA	394	C
85	AA	403	G
85	AA	411	U
85	AA	416	U
85	AA	418	G
85	AA	425	G
85	AA	435	A
85	AA	445	U
85	AA	452	A
85	AA	454	G
85	AA	463	G
85	AA	465	A
85	AA	467	U
85	AA	482	C
85	AA	486	G
85	AA	488	G
85	AA	503	A
85	AA	504	U
85	AA	505	U
85	AA	509	C
85	AA	519	A
85	AA	520	A
85	AA	521	A
85	AA	523	U
85	AA	529	G
85	AA	575	G
85	AA	589	A
85	AA	590	U
85	AA	591	A
85	AA	603	C
85	AA	604	C
85	AA	606	A
85	AA	617	C
85	AA	619	A

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Mol	Chain	Res	Type
85	AA	628	C
85	AA	632	U
85	AA	639	C
85	AA	652	U
85	AA	653	A
85	AA	656	U
85	AA	668	A
85	AA	682	C
85	AA	687	G
85	AA	696	G
85	AA	708	G
85	AA	711	C
85	AA	714	U
85	AA	725	G
85	AA	727	U
85	AA	735	G
85	AA	743	C
85	AA	752	C
85	AA	753	U
85	AA	759	G
85	AA	761	G
85	AA	764	U
85	AA	765	U
85	AA	775	C
85	AA	785	C
85	AA	789	A
85	AA	791	C
85	AA	808	A
85	AA	809	A
85	AA	824	C
85	AA	829	C
85	AA	830	A
85	AA	837	C
85	AA	845	A
85	AA	846	U
85	AA	852	C
85	AA	854	A
85	AA	860	C
85	AA	861	G
85	AA	867	G
85	AA	873	U
85	AA	882	C

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Mol	Chain	Res	Type
85	AA	884	A
85	AA	886	A
85	AA	888	A
85	AA	891	G
85	AA	895	C
85	AA	900	G
85	AA	901	C
85	AA	906	U
85	AA	907	G
85	AA	909	C
85	AA	923	A
85	AA	926	C
85	AA	930	G
85	AA	936	C
85	AA	940	G
85	AA	941	C
85	AA	942	A
85	AA	960	G
85	AA	964	C
85	AA	990	U
85	AA	998	U
85	AA	1009	G
85	AA	1012	C
85	AA	1016	G
85	AA	1022	G
85	AA	1032	U
85	AA	1035	C
85	AA	1051	A
85	AA	1053	A
85	AA	1057	G
85	AA	1061	C
85	AA	1062	U
85	AA	1067	G
85	AA	1074	U
85	AA	1076	U
85	AA	1090	A
85	AA	1103	A
85	AA	1105	G
85	AA	1106	A
85	AA	1110	A
85	AA	1111	A
85	AA	1112	G

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Mol	Chain	Res	Type
85	AA	1147	A
85	AA	1153	G
85	AA	1158	U
85	AA	1180	C
85	AA	1182	A
85	AA	1183	C
85	AA	1208	C
85	AA	1212	C
85	AA	1213	U
85	AA	1237	A
85	AA	1252	A
85	AA	1264	U
85	AA	1275	A
85	AA	1277	C
85	AA	1279	A
85	AA	1280	U
85	AA	1291	A
85	AA	1301	C
85	AA	1302	A
85	AA	1310	G
85	AA	1314	C
85	AA	1329	U
85	AA	1351	U
85	AA	1353	U
85	AA	1357	U
85	AA	1358	A
85	AA	1371	C
85	AA	1378	U
85	AA	1396	C
85	AA	1399	U
85	AA	1416	U
85	AA	1421	U
85	AA	1424	G
85	AA	1449	C
85	AA	1468	G
85	AA	1469	G
85	AA	1470	A
85	AA	1473	U
85	AA	1474	U
85	AA	1475	A
85	AA	1485	G
85	AA	1490	A

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Mol	Chain	Res	Type
85	AA	1491	G
85	AA	1493	A
85	AA	1494	C
85	AA	1514	A
85	AA	1535	C
85	AA	1560	A
85	AA	1562	U
85	AA	1570	A
85	AA	1576	G
85	AA	1577	G
85	AA	1578	G
85	AA	1579	A
85	AA	1584	U
85	AA	1593	C
85	AA	1604	A
85	AA	1605	G
85	AA	1622	G
85	AA	1632	G
85	AA	1633	A
85	AA	1646	U
85	AA	1650	G
85	AA	1661	U
85	AA	1662	U
85	AA	1664	G
85	AA	1682	U
85	AA	1683	U
85	AA	1690	A
85	AA	1691	U
85	AA	1698	A
85	AA	1716	U
85	AA	1718	C
85	AA	1725	G
85	AA	1728	G
85	AA	1730	C
85	AA	1735	U
85	AA	1751	G
85	AA	1752	C
85	AA	1753	A
85	AA	1784	G
85	AA	1787	G
85	AA	1791	U
85	AA	1803	U

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Mol	Chain	Res	Type
85	AA	1807	A
85	AA	1810	C
85	AA	1825	A
85	AA	1835	U
85	AA	1852	U
85	AA	1853	U
85	AA	1860	A
85	AA	1874	G
85	AA	1884	A
85	AA	1886	U
85	AA	1896	G
85	AA	1898	C
85	AA	1911	A
85	AA	1912	U
85	AA	1920	A
85	AA	1923	A
85	AA	1928	A
85	AA	1930	U
85	AA	1946	C
85	AA	1964	A
85	AA	1973	G
85	AA	1978	G
85	AA	1980	A
85	AA	1982	C
85	AA	1989	A
85	AA	2000	C
85	AA	2003	C
85	AA	2004	U
85	AA	2005	U
85	AA	2024	U
85	AA	2040	A
85	AA	2051	G
85	AA	2062	U
85	AA	2068	A
85	AA	2082	C
85	AA	2085	C
85	AA	2098	A
85	AA	2100	A
85	AA	2103	C
85	AA	2104	C
85	AA	2125	A
85	AA	2132	A

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Mol	Chain	Res	Type
85	AA	2215	C
85	AA	2216	A
85	AA	2218	G
85	AA	2219	G
85	AA	2242	U
85	AA	2244	G
85	AA	2245	A
85	AA	2249	U
86	AB	3	C
86	AB	8	U
86	AB	20	U
86	AB	54	U
86	AB	56	C
86	AB	65	G
86	AB	70	G

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
34	BA	3
40	BG	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BA	546:U	O3'	547:C	P	2.11
1	BA	557:U	O3'	558:C	P	1.87
1	BA	547:C	O3'	548:G	P	1.78
1	BG	24:A	O3'	25:G	P	1.39
1	BG	9:G	O3'	10:U	P	1.37

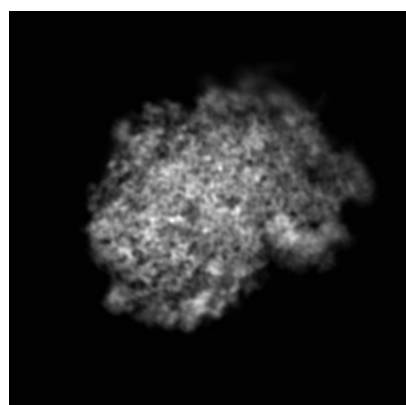
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-2239. These allow visual inspection of the internal detail of the map and identification of artifacts.

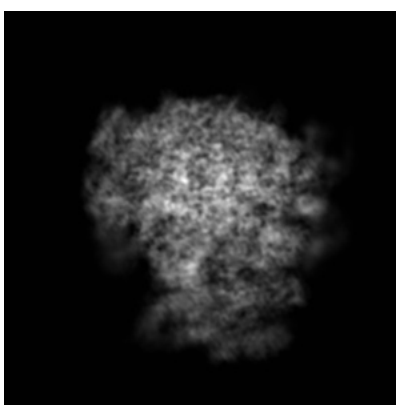
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

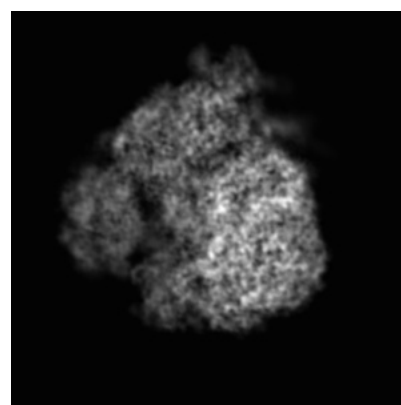
6.1.1 Primary map



X



Y

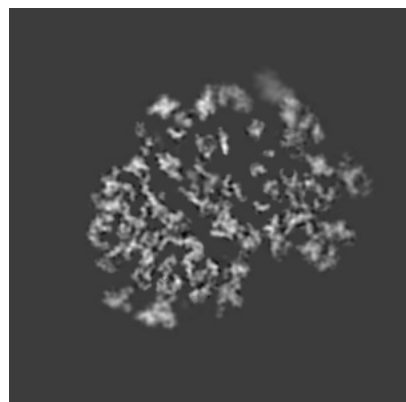


Z

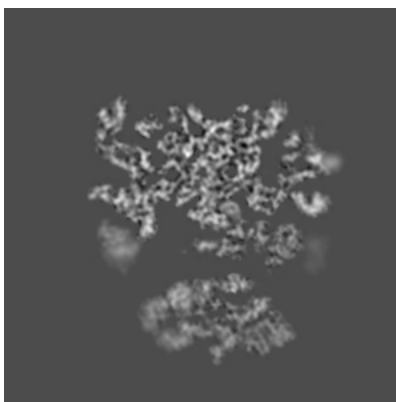
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

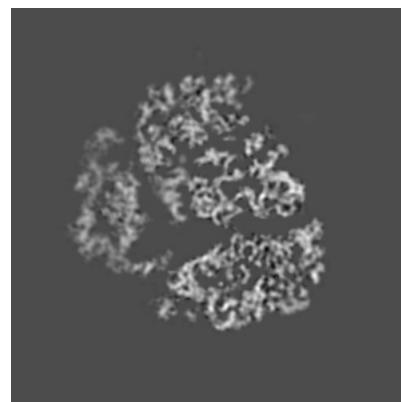
6.2.1 Primary map



X Index: 179



Y Index: 179

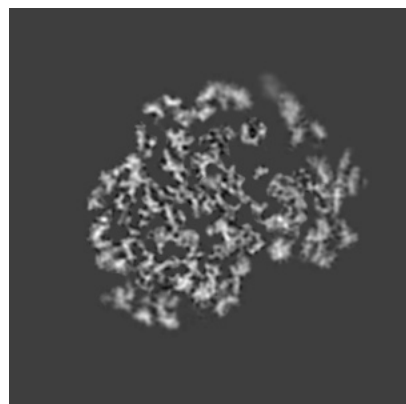


Z Index: 179

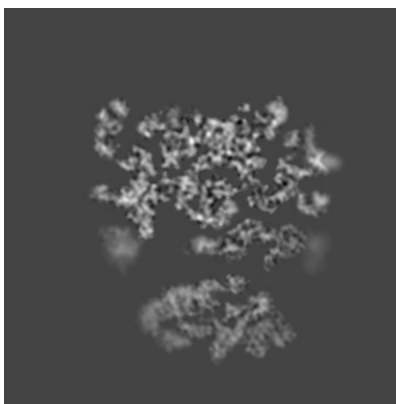
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

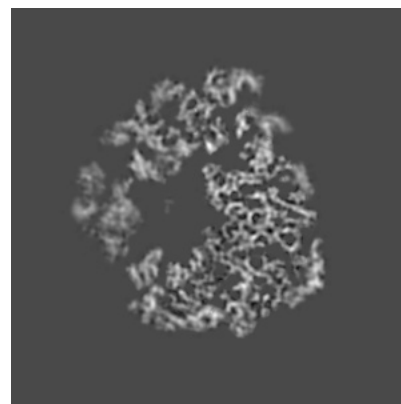
6.3.1 Primary map



X Index: 184



Y Index: 182

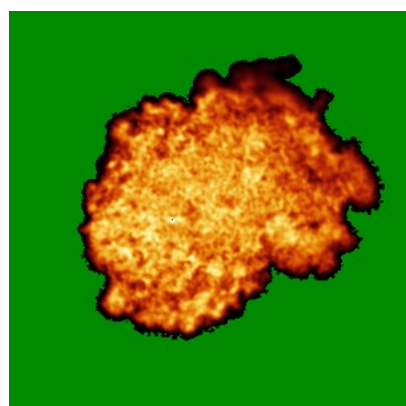


Z Index: 161

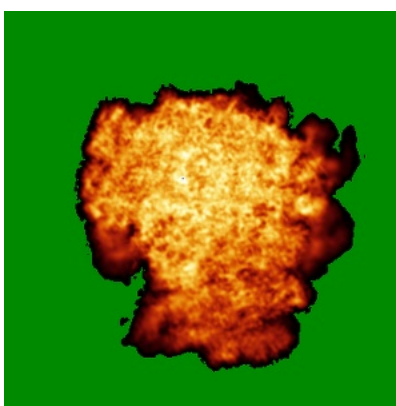
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

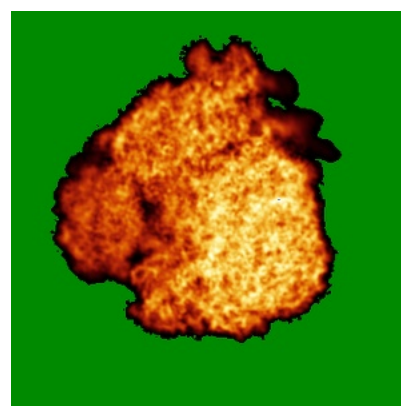
6.4.1 Primary map



X



Y

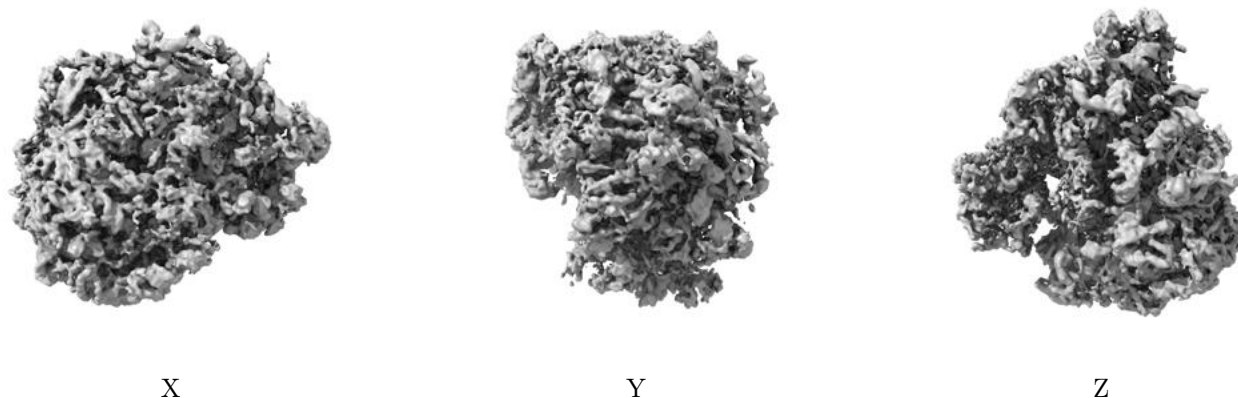


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 108000.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

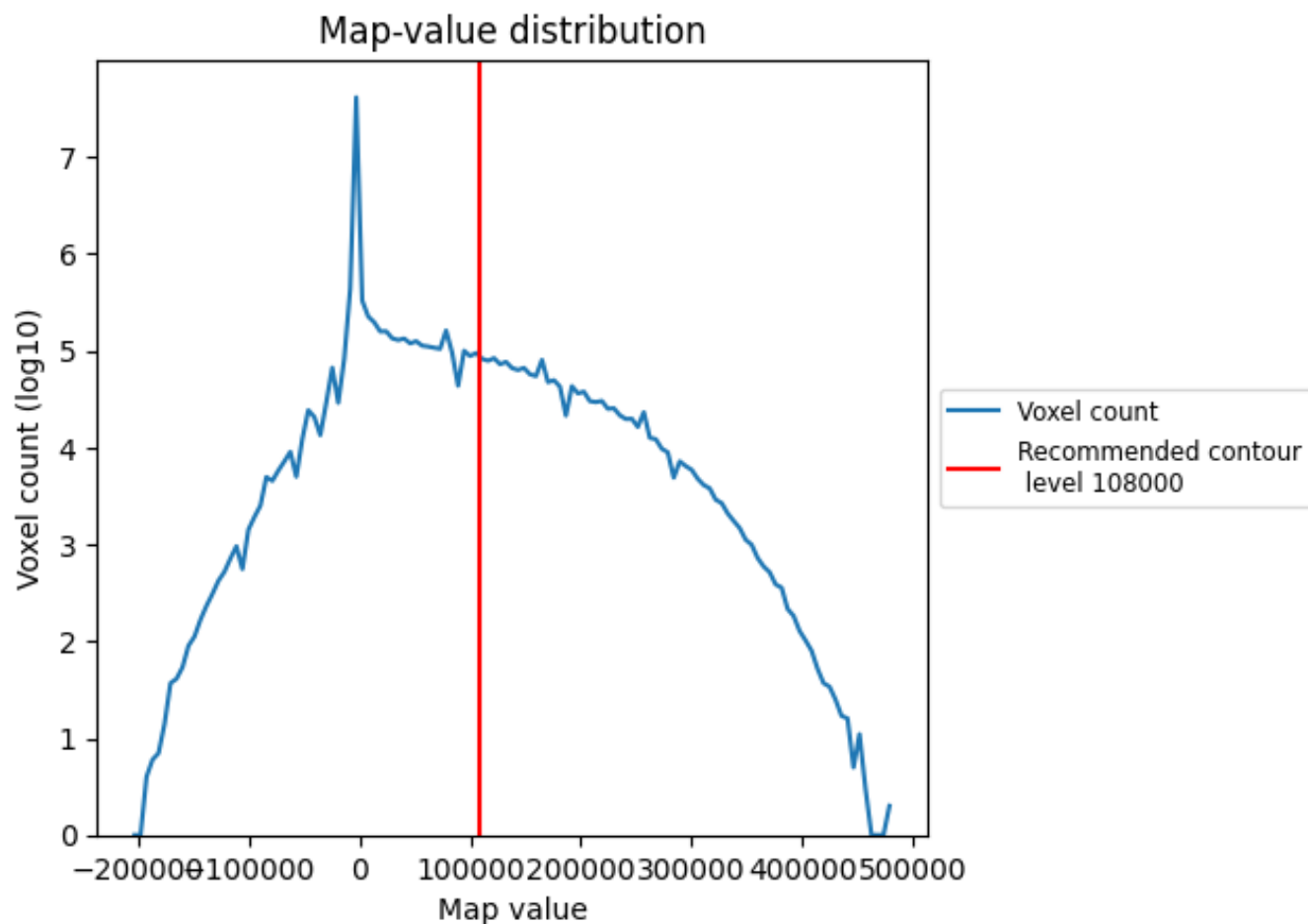
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

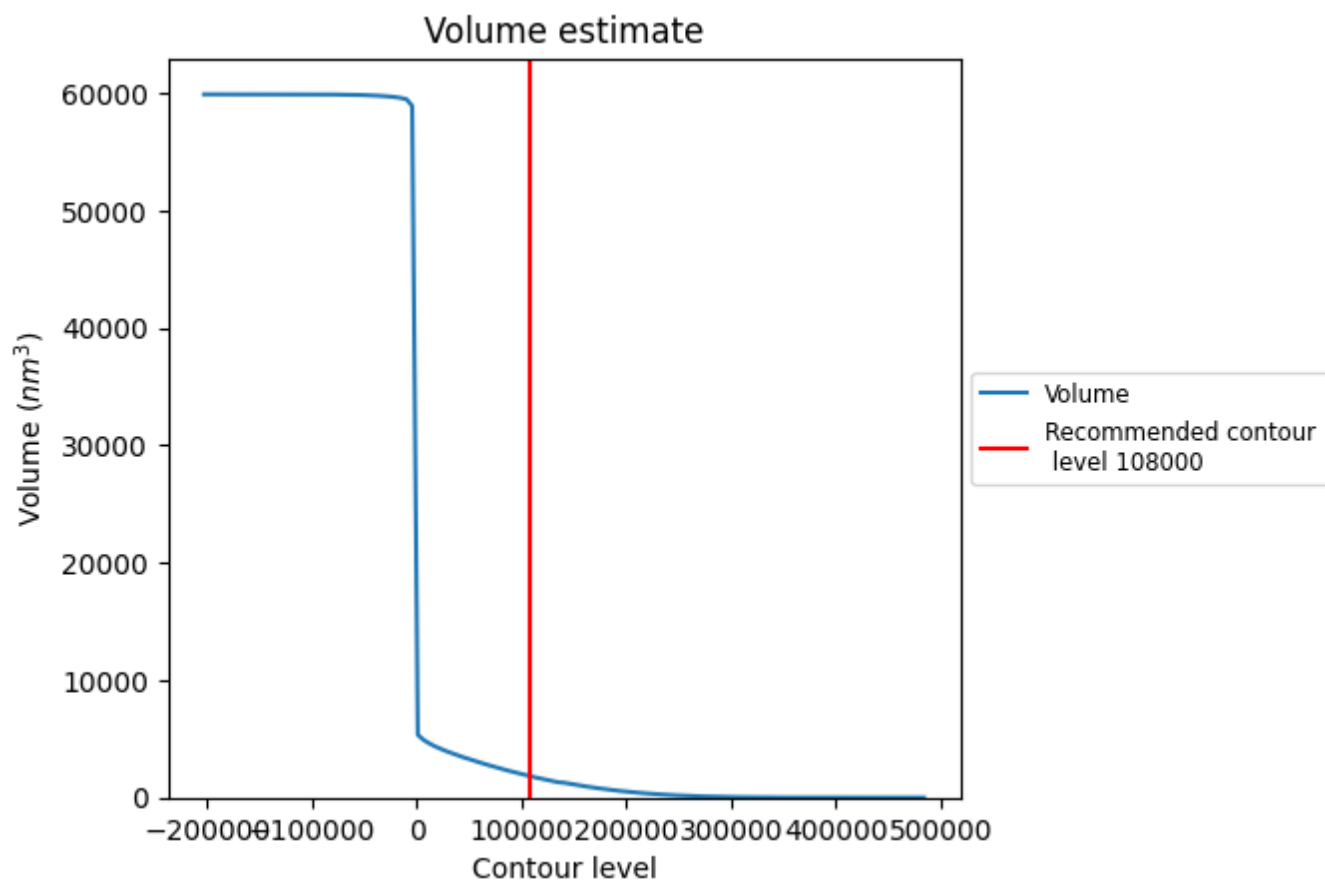
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

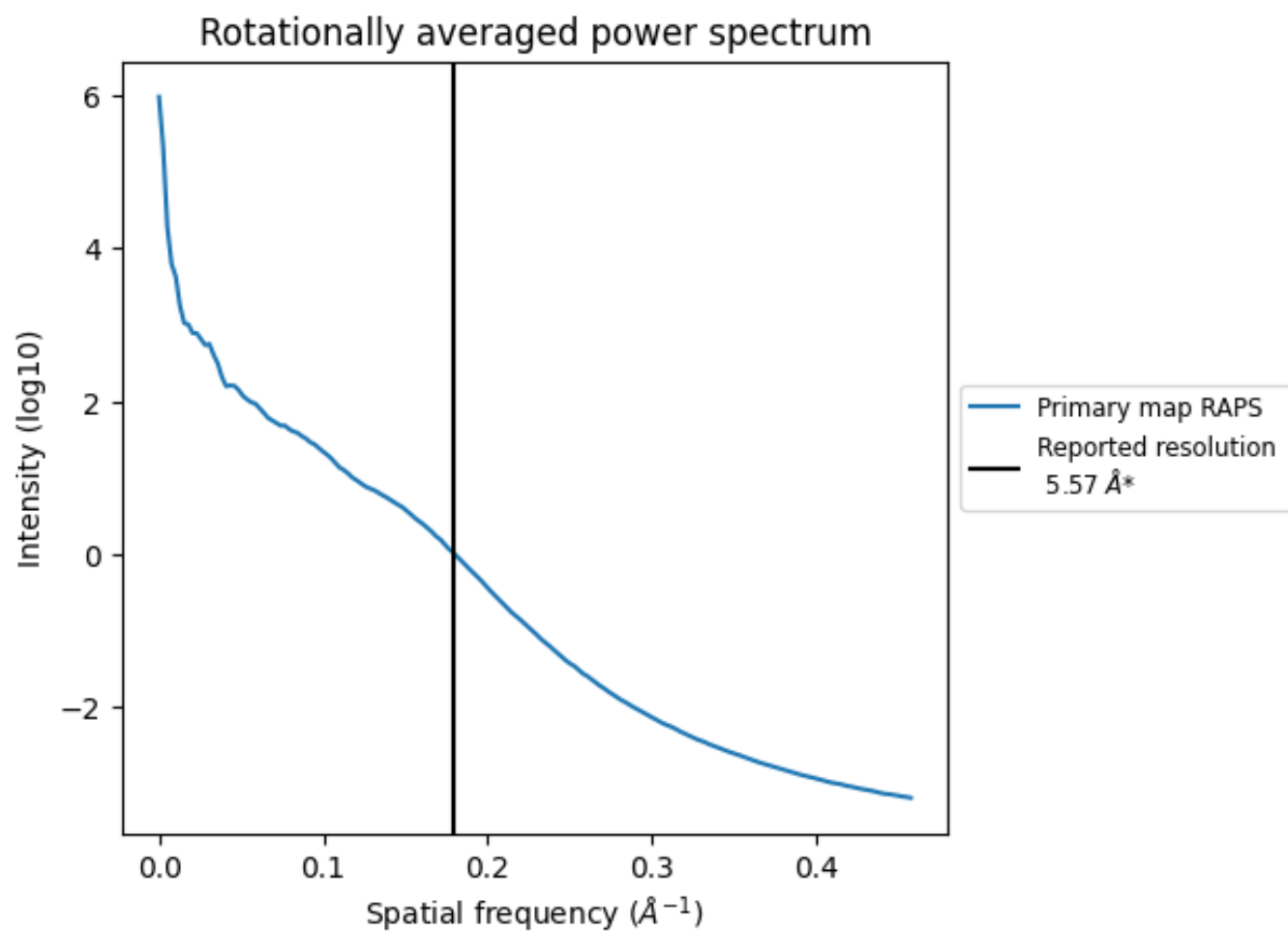
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1820 nm³; this corresponds to an approximate mass of 1644 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ

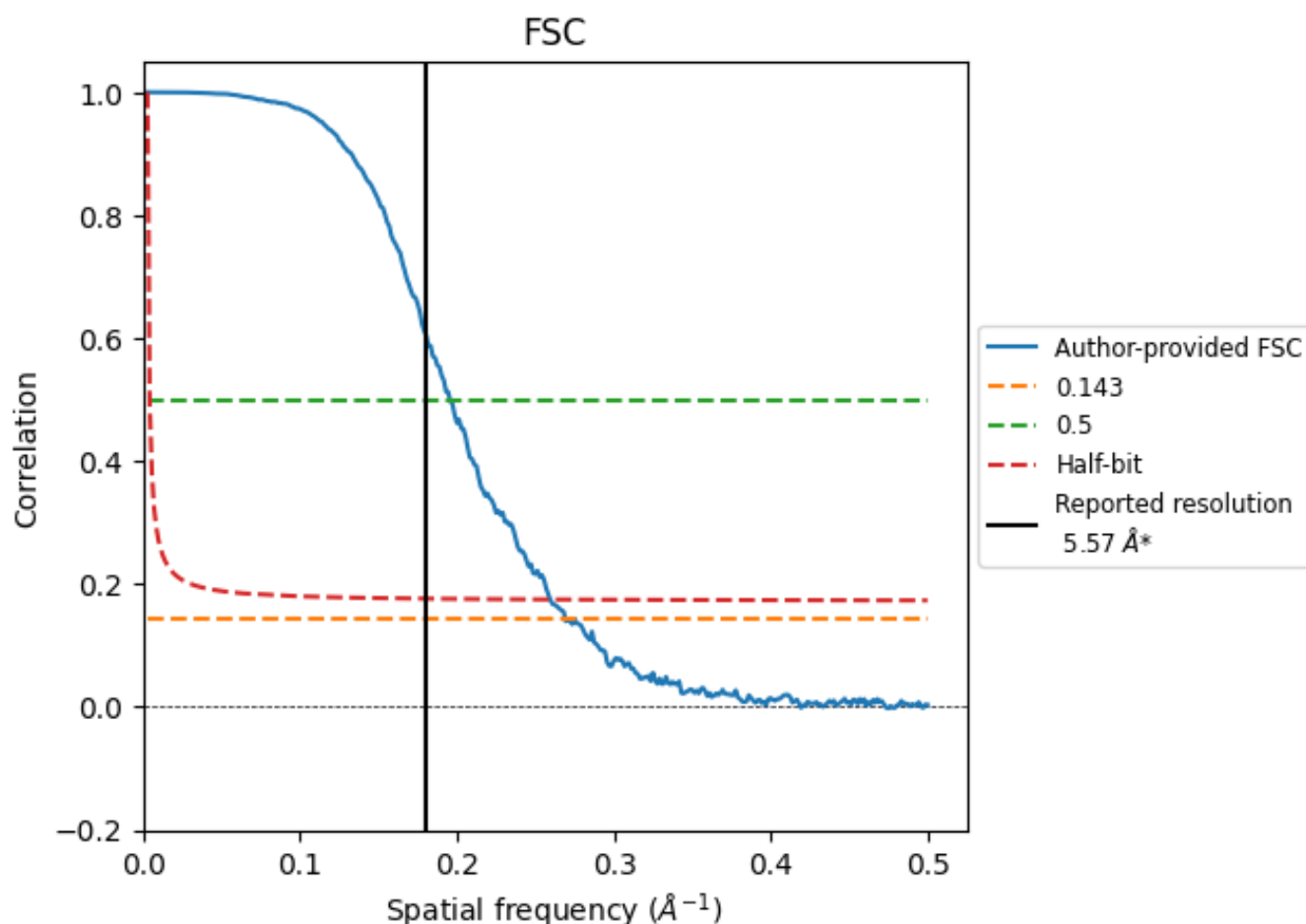


*Reported resolution corresponds to spatial frequency of 0.180 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.180 Å⁻¹

8.2 Resolution estimates [i](#)

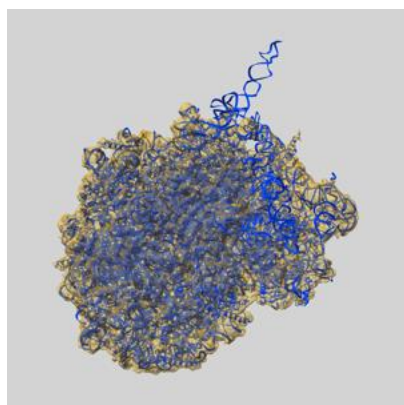
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	-	-	-
Author-provided FSC curve	3.72	5.11	3.85
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

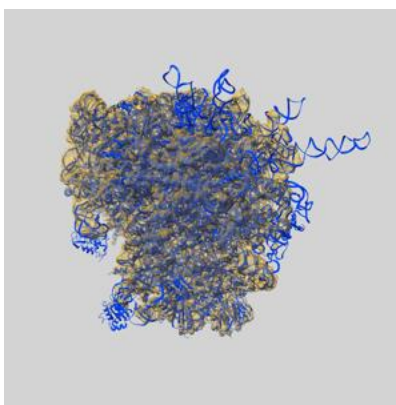
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-2239 and PDB model 4V8M. Per-residue inclusion information can be found in section 3 on page 21.

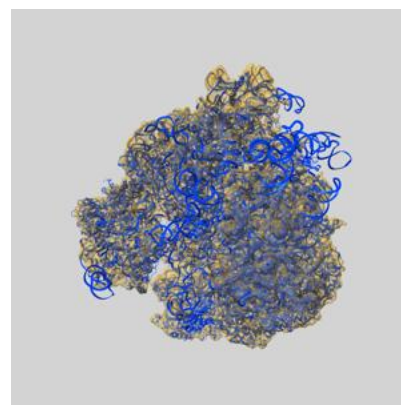
9.1 Map-model overlay [i](#)



X



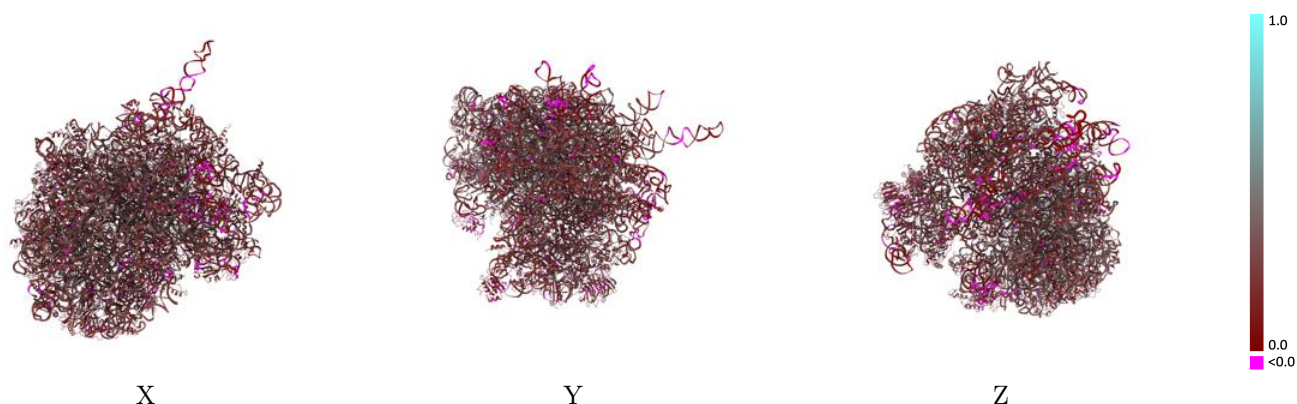
Y



Z

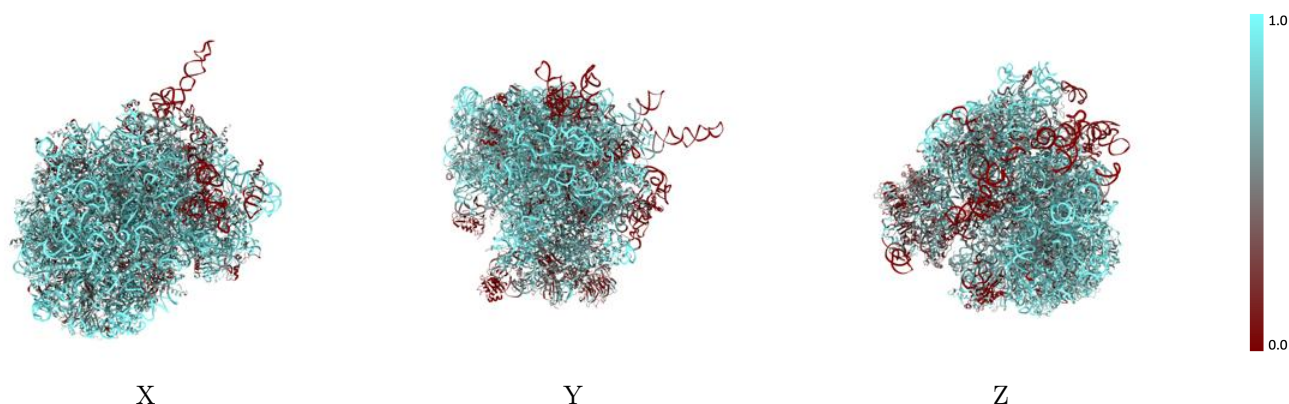
The images above show the 3D surface view of the map at the recommended contour level 108000.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



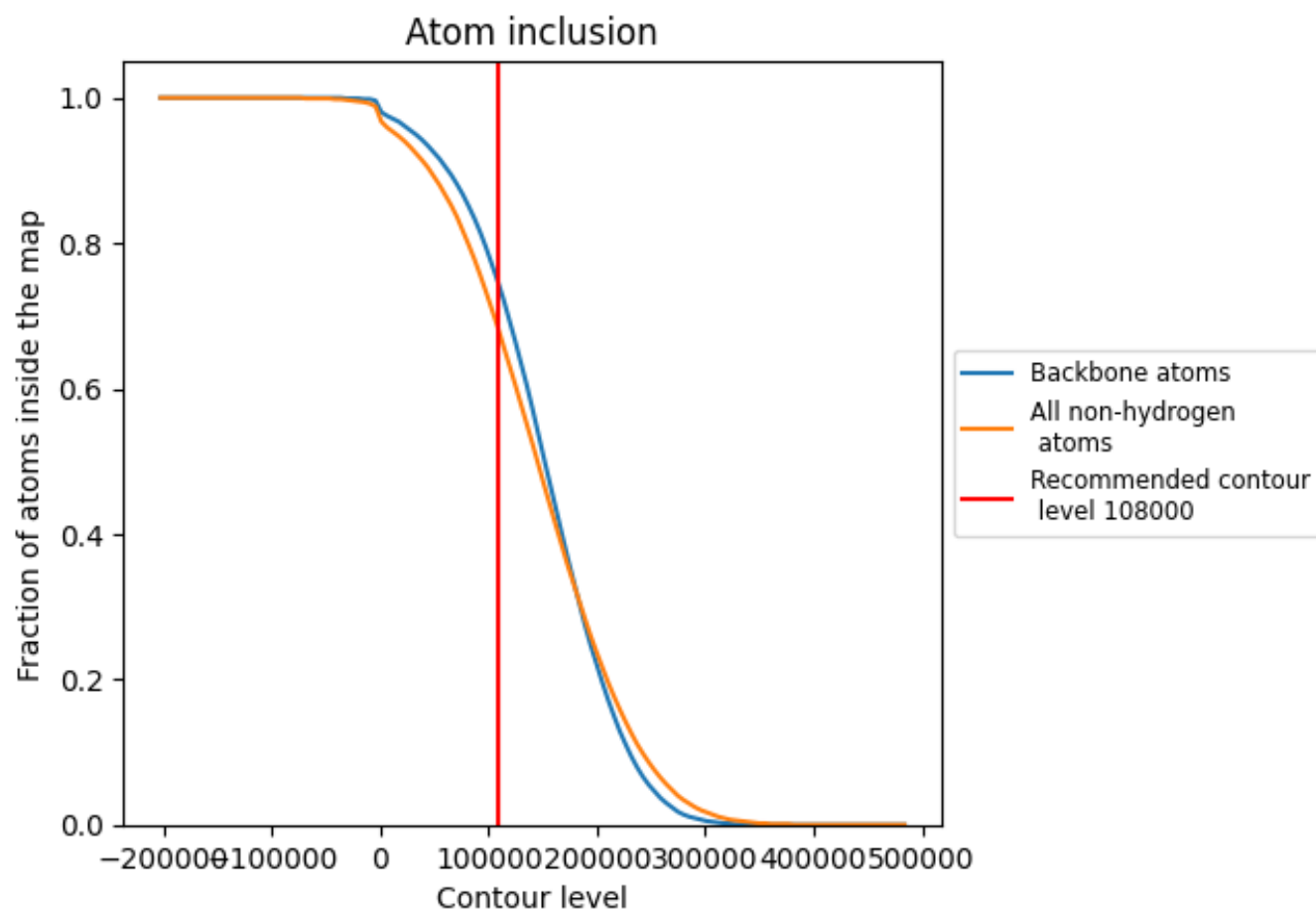
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (108000).

9.4 Atom inclusion [i](#)



At the recommended contour level, 75% of all backbone atoms, 69% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (108000) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6860	 0.2390
A0	 0.5170	 0.2360
A1	 0.5980	 0.2390
A2	 0.3430	 0.1910
A3	 0.6080	 0.2070
A4	 0.6130	 0.2320
A5	 0.4740	 0.2180
A6	 0.6720	 0.2270
A7	 0.3000	 0.1870
A8	 0.1980	 0.1170
A9	 0.1860	 0.1310
AA	 0.7340	 0.2390
AB	 0.4690	 0.1630
AC	 0.6380	 0.2440
AD	 0.3260	 0.1670
AE	 0.3730	 0.2080
AF	 0.0100	 0.1110
AG	 0.5170	 0.2330
AH	 0.3730	 0.1990
AI	 0.2750	 0.1480
AJ	 0.4700	 0.2300
AK	 0.3240	 0.2000
AL	 0.5290	 0.2220
AM	 0.2880	 0.1420
AO	 0.4990	 0.1980
AP	 0.6320	 0.2360
AQ	 0.3770	 0.1720
AR	 0.6530	 0.2550
AS	 0.4020	 0.1980
AT	 0.6470	 0.2000
AU	 0.3200	 0.1280
AV	 0.2260	 0.2090
AW	 0.6460	 0.2790
AX	 0.3660	 0.1860
AY	 0.5460	 0.1940



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Chain	Atom inclusion	Q-score
AZ	 0.4490	 0.2050
BA	 0.8610	 0.2760
BB	 0.7680	 0.2580
BC	 0.9190	 0.3090
BD	 0.9510	 0.2740
BE	 0.8330	 0.2680
BF	 0.8680	 0.2620
BG	 0.9360	 0.2990
BH	 0.7890	 0.2190
BI	 0.5580	 0.2150
BJ	 0.0020	 0.0510
BK	 0.6170	 0.2440
BL	 0.7250	 0.2310
BM	 0.0060	 0.0470
BN	 0.6690	 0.2310
BO	 0.5960	 0.2140
BP	 0.7160	 0.2300
BQ	 0.5560	 0.2370
BR	 0.5830	 0.2270
BS	 0.5430	 0.2280
BT	 0.6370	 0.2260
BU	 0.5080	 0.2240
BV	 0.0750	 0.0940
BW	 0.6440	 0.2610
BX	 0.6060	 0.2500
BY	 0.3600	 0.1320
BZ	 0.6920	 0.2300
Ba	 0.5800	 0.2450
Bb	 0.5890	 0.2360
Bc	 0.7570	 0.2500
Bd	 0.5270	 0.1590
Be	 0.4990	 0.2320
Bf	 0.5470	 0.2240
Bg	 0.7180	 0.2600
Bh	 0.5850	 0.2040
Bi	 0.4600	 0.2010
Bj	 0.4200	 0.1440
Bk	 0.6270	 0.2390
Bl	 0.5120	 0.2040
Bm	 0.6440	 0.2360
Bn	 0.6380	 0.2130
Bo	 0.5410	 0.2050

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Chain	Atom inclusion	Q-score
Bp	 0.7110	 0.2480
Bq	 0.5520	 0.2310
Br	 0.6450	 0.2410
Bs	 0.6410	 0.2440
Bt	 0.6610	 0.2570
Bu	 0.6820	 0.2240
Bv	 0.6580	 0.2470
Bw	 0.5990	 0.2310
Bx	 0.6090	 0.2340
By	 0.7460	 0.2370