Full wwPDB EM Validation Report ⓘ

Mar 28, 2026 – 09:02 PM UTC

PDB ID	:	4V6W / pdb_00004v6w
EMDB ID	:	EMD-5591
Title	:	Structure of the D. melanogaster 80S ribosome
Authors	:	Anger, A.M.; Armache, J.-P.; Berninghausen, O.; Habeck, M.; Subklewe, M.; Wilson, D.N.; Beckmann, R.
Deposited on	:	2013-02-27
Resolution	:	6.00 Å(reported)

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:

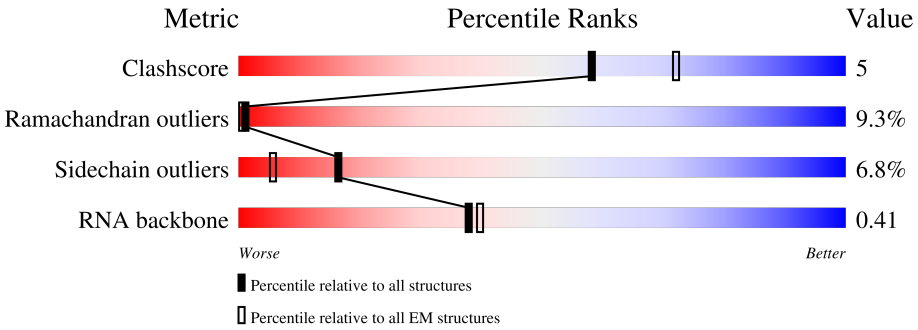
EMDB validation analysis	:	0.0.1.dev132
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh &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

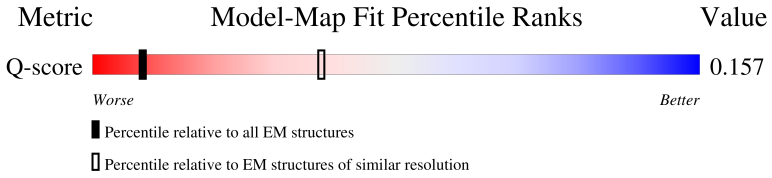
1 Overall quality at a glance

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

The reported resolution of this entry is 6.00 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	525 (5.50 - 6.50)

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 <=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	Az	844	43% 53% 31% 11%
2	Ag	318	29% 75% 22%
3	AU	120	24% 59% 18% 5% 15%

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Mol	Chain	Length	Quality of chain
4	AK	163	34% 16% 7% 42%
5	AO	151	28% 52% 26% 7% 11%
6	AX	143	24% 67% 25% 6%
7	AM	139	14% 47% 28% 5% 5% 14%
8	AS	152	22% 56% 25% 7% 10%
9	Ad	56	20% 41% 39% 9% 7%
10	AN	151	30% 67% 29%
11	AL	155	39% 62% 30% 6%
12	AR	131	42% 60% 27% 8%
13	AP	148	44% 49% 26% 7% 16%
14	AT	156	31% 68% 21% 8%
15	AB	268	25% 54% 19% 6% 18%
16	AA	313	14% 46% 17% 6% 30%
17	AV	83	29% 64% 24% 8%
18	AY	131	38% 57% 25% 12%
19	AZ	117	15% 32% 20% 8% 37%
20	Aa	114	22% 51% 33% 8% 6%
21	Ab	84	26% 57% 32% 10%
22	Ac	65	18% 63% 25% 8% 5%
23	AD	246	37% 64% 21% 5% 8%
24	Ae	132	23% 27% 13% 56%
25	Af	80	36% 45% 36% 14% 5%
26	AJ	195	12% 56% 29% 5% 7%
27	AE	261	21% 68% 25% 5%
28	AC	267	23% 50% 27% 6% 15%

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Mol	Chain	Length	Quality of chain
29	AG	248	36% 60% 25% 5% 7%
30	AF	228	25% 54% 24% 5% 17%
31	AH	194	26% 60% 29% 7%
32	AW	130	16% 68% 27%
33	AI	208	43% 65% 26% 5%
34	AQ	148	30% 61% 24% 10% 5%
35	Ah	121	23% 24% 15% 7% 52%
36	B2	1995	8% 19% 46% 27% 6%
37	BC	75	8% 13% 63% 17% 7%
38	Cz	218	58% 68% 27%
39	Cq	223	32% 67% 23% 7%
40	CK	165	36% 51% 29% 12%
41	CO	205	14% 62% 31%
42	CL	218	27% 48% 29% 14% 6%
43	CV	140	45% 69% 27%
44	CM	166	16% 46% 36% 11%
45	Ca	149	14% 56% 33% 9%
46	CN	204	59% 31% 7%
47	CI	218	35% 64% 26% 7%
48	CD	299	17% 64% 25% 6%
49	CQ	188	6% 61% 29% 5%
50	CR	203	24% 75% 22%
51	CA	256	12% 58% 31% 8%
52	CS	177	28% 47% 32% 11% 7%
53	CT	159	21% 64% 26% 6%

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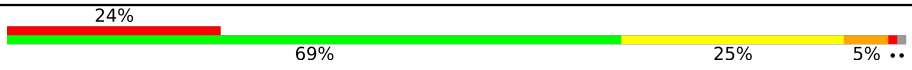
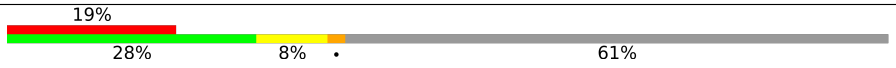
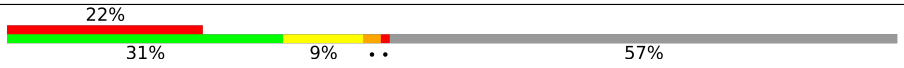
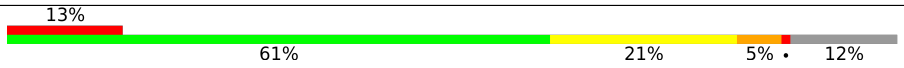
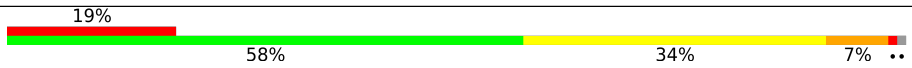
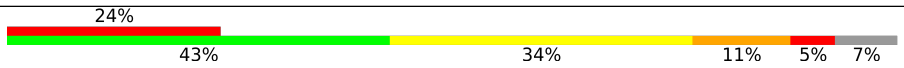
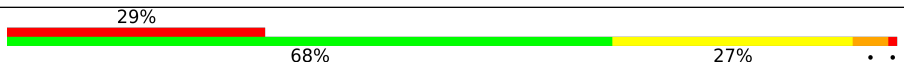
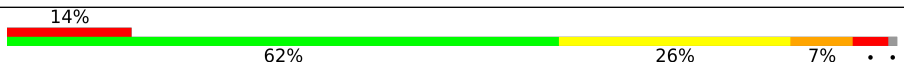
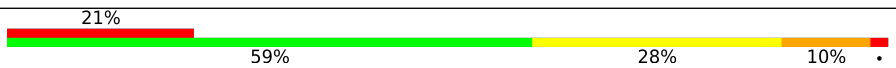
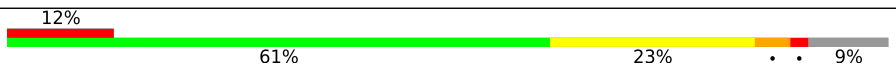
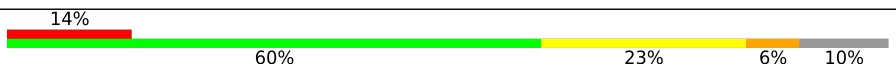
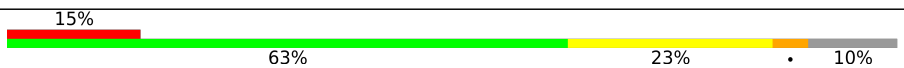
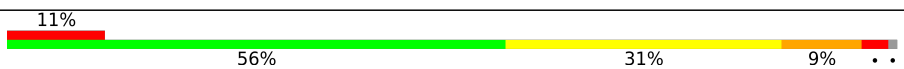
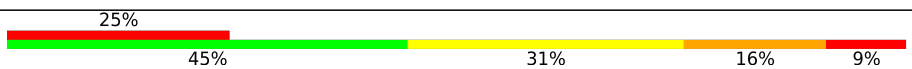
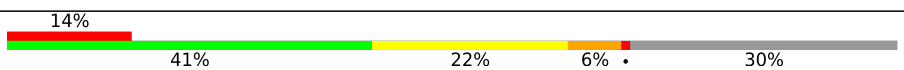
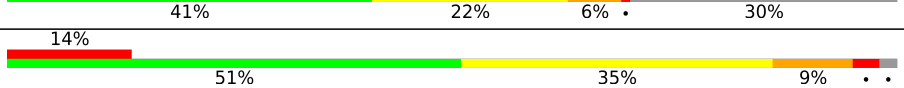
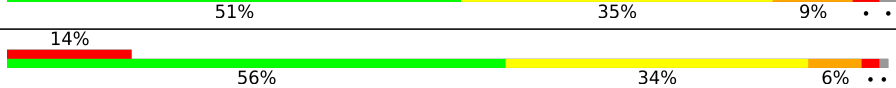
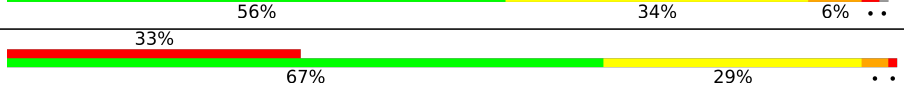
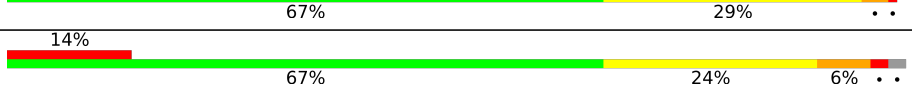
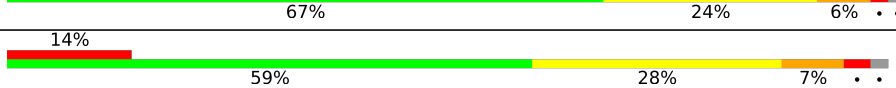
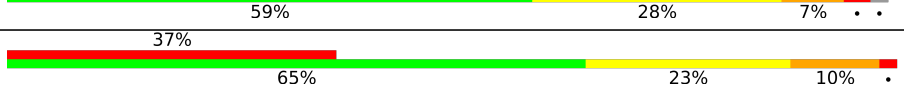
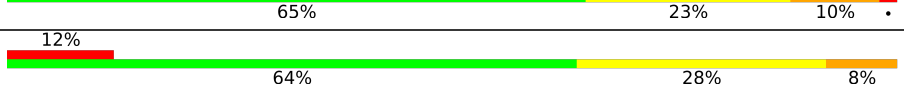
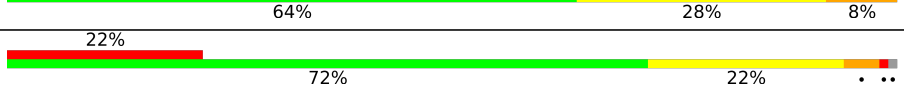
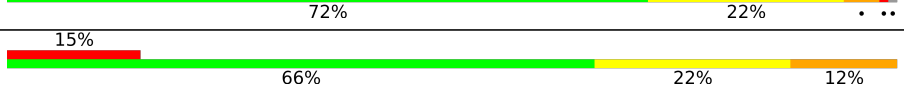
Mol	Chain	Length	Quality of chain
54	CP	186	
55	CU	299	
56	CX	277	
57	CY	149	
58	CW	155	
59	CZ	135	
60	Cr	144	
61	Ch	123	
62	Cb	76	
63	CB	416	
64	CF	252	
65	Cc	111	
66	Cd	124	
67	Ce	134	
68	Cf	157	
69	Cg	162	
70	Ci	115	
71	Cj	93	
72	Ck	70	
73	Cl	51	
74	CC	401	
75	Cm	52	
76	Cn	25	
77	Cp	92	
78	Co	104	

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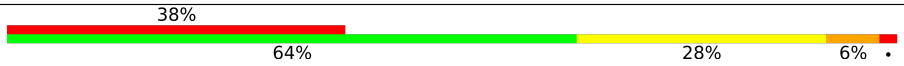
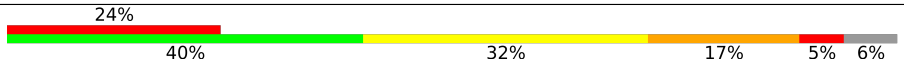
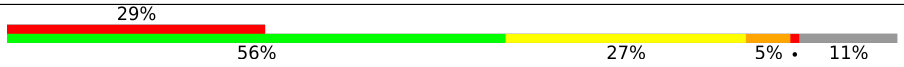
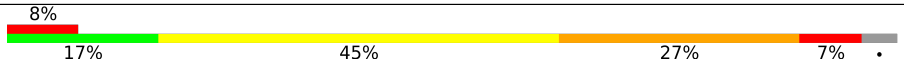
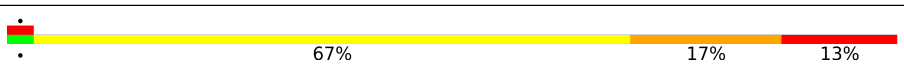
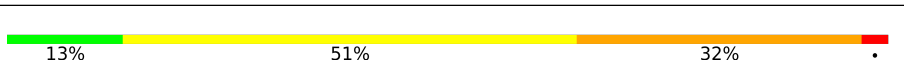
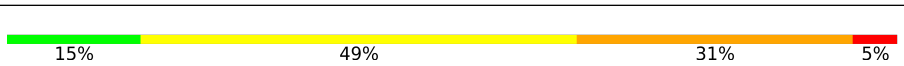
Mol	Chain	Length	Quality of chain
79	CJ	184	
80	CH	190	
81	CE	243	
82	CG	271	
83	A5	3970	
84	A9	30	
85	A7	120	
86	A8	123	

2 Entry composition (i)

There are 86 unique types of molecules in this entry. The entry contains 230721 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 Elongation factor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	Az	837	6574	4170	1123	1235	46	0	0

- Molecule 2 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	Ag	318	2511	1577	444	480	10	0	0

- Molecule 3 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	AU	102	815	505	161	145	4	0	0

- Molecule 4 is a protein called 40S ribosomal protein S10a.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	AK	95	797	522	136	137	2	0	0

- Molecule 5 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	AO	134	1003	616	196	187	4	0	0

- Molecule 6 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	AX	143	1131	712	226	191	2	0	0

- Molecule 7 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AM	119	Total	C	N	O	S	0	0
			924	582	165	171	6		

- Molecule 8 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AS	137	Total	C	N	O	S	0	0
			1128	707	220	198	3		

- Molecule 9 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	Ad	52	Total	C	N	O	S	0	0
			433	269	87	72	5		

- Molecule 10 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AN	150	Total	C	N	O	S	0	0
			1202	767	229	203	3		

- Molecule 11 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AL	155	Total	C	N	O	S	0	0
			1274	803	254	211	6		

- Molecule 12 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AR	120	Total	C	N	O	S	0	0
			981	618	183	176	4		

- Molecule 13 is a protein called 40S ribosomal protein S15, isoform A.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AP	124	Total	C	N	O	S	0	0
			1016	652	189	169	6		

- Molecule 14 is a protein called 40S ribosomal protein S19a.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AT	154	Total	C	N	O	S	0	0
			1203	762	230	207	4		

- Molecule 15 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AB	220	Total	C	N	O	S	0	0
			1798	1138	328	324	8		

- Molecule 16 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AA	218	Total	C	N	O	S	0	0
			1737	1113	298	321	5		

- Molecule 17 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AV	82	Total	C	N	O	S	0	0
			617	373	114	125	5		

There are 13 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AV	2	GLN	GLU	conflict	UNP O76927
AV	8	PHE	ASN	conflict	UNP O76927
AV	25	GLY	HIS	conflict	UNP O76927
AV	32	ILE	VAL	conflict	UNP O76927
AV	34	MET	LEU	conflict	UNP O76927
AV	35	ASN	SER	conflict	UNP O76927
AV	36	VAL	ILE	conflict	UNP O76927
AV	58	ALA	GLU	conflict	UNP O76927
AV	68	SER	CYS	conflict	UNP O76927
AV	70	LEU	VAL	conflict	UNP O76927
AV	75	ALA	LYS	conflict	UNP O76927
AV	79	VAL	ILE	conflict	UNP O76927
AV	80	SER	THR	conflict	UNP O76927

- Molecule 18 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AY	126	Total	C	N	O	S	0	0
			1016	644	196	171	5		

- Molecule 19 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms				AltConf	Trace
19	AZ	74	Total	C	N	O	0	0
			608	390	112	106		

- Molecule 20 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	Aa	107	Total	C	N	O	S	0	0
			867	539	182	140	6		

- Molecule 21 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	Ab	84	Total	C	N	O	S	0	0
			653	412	123	110	8		

- Molecule 22 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	Ac	62	Total	C	N	O	S	0	0
			498	307	100	89	2		

- Molecule 23 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AD	227	Total	C	N	O	S	0	0
			1782	1127	319	326	10		

- Molecule 24 is a protein called 40S ribosomal protein S30, isoform A.

Mol	Chain	Residues	Atoms				AltConf	Trace
24	Ae	58	Total	C	N	O	0	0
			469	289	105	75		

- Molecule 25 is a protein called 40S ribosomal protein S27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Af	80	Total	C	N	O	S	0	0
			659	417	128	109	5		

- Molecule 26 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AJ	181	Total	C	N	O	S	0	0
			1503	957	298	247	1		

- Molecule 27 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	AE	261	Total	C	N	O	S	0	0
			2054	1314	380	353	7		

- Molecule 28 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	AC	227	Total	C	N	O	S	0	0
			1746	1126	302	311	7		

- Molecule 29 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AG	231	Total	C	N	O	S	0	0
			1866	1172	372	315	7		

- Molecule 30 is a protein called 40S ribosomal protein S5a.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	AF	190	Total	C	N	O	S	0	0
			1497	934	285	269	9		

- Molecule 31 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	AH	194	Total	C	N	O	S	0	0
			1566	1006	278	281	1		

- Molecule 32 is a protein called 40S ribosomal protein S15Aa.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	AW	129	Total	C	N	O	S	0	0
			1028	656	189	176	7		

- Molecule 33 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	AI	207	Total	C	N	O	S	0	0
			1665	1037	329	296	3		

- Molecule 34 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	AQ	148	Total	C	N	O	S	0	0
			1183	753	223	204	3		

- Molecule 35 is a protein called Vig2, isoform B.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Ah	58	Total	C	N	O	S	0	0
			486	298	93	94	1		

There are 7 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Ah	212	LYS	GLU	conflict	UNP Q9VBX3
Ah	213	GLU	ASP	conflict	UNP Q9VBX3
Ah	215	PRO	SER	conflict	UNP Q9VBX3
Ah	217	GLU	GLN	conflict	UNP Q9VBX3
Ah	226	ILE	LEU	conflict	UNP Q9VBX3
Ah	227	GLN	ARG	conflict	UNP Q9VBX3
Ah	228	ASN	ASP	conflict	UNP Q9VBX3

- Molecule 36 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	B2	1957	Total	C	N	O	P	0	0
			39523	17589	6780	13198	1956		

- Molecule 37 is a RNA chain called E-tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BC	75	Total	C	N	O	P	0	0
			1605	717	296	518	74		

- Molecule 38 is a protein called 60S ribosomal protein L10a-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Cz	217	Total	C	N	O	S	0	0
			1702	1084	303	305	10		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Cz	72A	SER	-	expression tag	UNP Q9VTP4

- Molecule 39 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Cq	223	Total	C	N	O	S	0	0
			1710	1089	297	314	10		

- Molecule 40 is a protein called 60S ribosomal protein L12.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	CK	158	Total	C	N	O	S	0	0
			1180	739	213	222	6		

- Molecule 41 is a protein called 60S ribosomal protein L13a.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	CO	205	Total	C	N	O	S	0	0
			1668	1063	331	268	6		

- Molecule 42 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	CL	210	Total	C	N	O	S	0	0
			1695	1066	342	284	3		

- Molecule 43 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	CV	134	Total	C	N	O	S	0	0
			998	629	190	173	6		

- Molecule 44 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	CM	159	Total	C	N	O	S	0	0
			1302	826	256	218	2		

- Molecule 45 is a protein called 60S ribosomal protein L27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Ca	149	Total	C	N	O	S	0	0
			1204	769	242	189	4		

- Molecule 46 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	CN	203	Total	C	N	O	S	0	0
			1710	1072	362	271	5		

- Molecule 47 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	CI	217	Total	C	N	O	S	0	0
			1785	1125	343	304	13		

- Molecule 48 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	CD	290	Total	C	N	O	S	0	0
			2334	1471	434	423	6		

- Molecule 49 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	CQ	187	Total	C	N	O	S	0	0
			1518	957	306	251	4		

- Molecule 50 is a protein called 60S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	CR	203	Total	C	N	O	S	0	0
			1683	1047	350	277	9		

- Molecule 51 is a protein called 60S ribosomal protein L8.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	CA	253	Total	C	N	O	S	0	0
			1935	1206	395	326	8		

- Molecule 52 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	CS	173	Total	C	N	O	S	0	0
			1454	935	275	240	4		

- Molecule 53 is a protein called 60S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	CT	158	Total	C	N	O	S	0	0
			1297	829	253	212	3		

- Molecule 54 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	CP	185	Total	C	N	O	S	0	0
			1505	928	305	263	9		

- Molecule 55 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	CU	116	Total	C	N	O	S	0	0
			961	607	167	185	2		

- Molecule 56 is a protein called 60S ribosomal protein L23A.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	CX	120	Total	C	N	O	S	0	0
			984	625	192	165	2		

- Molecule 57 is a protein called 60S ribosomal protein L26.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	CY	131	Total	C	N	O	S	0	0
			1078	676	224	176	2		

- Molecule 58 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	CW	130	Total	C	N	O	S	0	0
			1047	662	207	172	6		

- Molecule 59 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	CZ	134	Total	C	N	O	S	0	0
			1115	723	209	180	3		

- Molecule 60 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms				AltConf	Trace
60	Cr	134	Total	C	N	O	0	0
			1051	670	205	176		

- Molecule 61 is a protein called 60S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Ch	123	Total	C	N	O	S	0	0
			1015	646	202	164	3		

- Molecule 62 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	Cb	75	Total	C	N	O	S	0	0
			619	378	133	107	1		

- Molecule 63 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	CB	414	Total	C	N	O	S	0	0
			3287	2083	621	565	18		

- Molecule 64 is a protein called 60S ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	CF	229	Total	C	N	O	S	0	0
			1921	1234	372	312	3		

- Molecule 65 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	Cc	100	Total	C	N	O	S	0	0
			770	486	132	147	5		

- Molecule 66 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Cd	111	Total	C	N	O	S	0	0
			924	573	180	169	2		

- Molecule 67 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Ce	132	Total	C	N	O	S	0	0
			1110	698	230	177	5		

- Molecule 68 is a protein called 60S ribosomal protein L35A.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Cf	157	Total	C	N	O	S	0	0
			1244	781	255	203	5		

- Molecule 69 is a protein called 60S ribosomal protein L34a.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	Cg	113	Total	C	N	O	S	0	0
			926	575	193	152	6		

- Molecule 70 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Ci	113	Total	C	N	O	S	0	0
			934	585	193	153	3		

- Molecule 71 is a protein called 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	Cj	92	Total	C	N	O	S	0	0
			737	450	160	122	5		

- Molecule 72 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	Ck	70	Total	C	N	O	S	0	0
			576	366	108	100	2		

- Molecule 73 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms				AltConf	Trace
73	Cl	50	Total	C	N	O	0	0
			437	276	98	63		

- Molecule 74 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	CC	392	Total	C	N	O	S	0	0
			3109	1959	622	522	6		

- Molecule 75 is a protein called 60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	Cm	52	Total	C	N	O	S	0	0
			429	267	89	67	6		

- Molecule 76 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Cn	25	Total	C	N	O	S	0	0
			236	143	63	27	3		

- Molecule 77 is a protein called 60S ribosomal protein L37a.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Cp	91	Total	C	N	O	S	0	0
			710	441	140	122	7		

- Molecule 78 is a protein called 60S ribosomal protein L36A.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Co	104	Total	C	N	O	S	0	0
			874	548	180	138	8		

- Molecule 79 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	CJ	182	Total	C	N	O	S	0	0
			1468	926	278	258	6		

- Molecule 80 is a protein called 60S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	CH	190	Total	C	N	O	S	0	0
			1499	947	265	278	9		

- Molecule 81 is a protein called 60S ribosomal protein L6, isoform A.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	CE	228	Total	C	N	O	S	0	0
			1845	1185	351	305	4		

- Molecule 82 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	CG	241	Total	C	N	O	S	0	0
			1936	1237	368	327	4		

- Molecule 83 is a RNA chain called 28S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	A5	3806	Total	C	N	O	P	0	0
			77967	34770	13566	25827	3804		

- Molecule 84 is a RNA chain called 2S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	A9	30	Total	C	N	O	P	0	0
			639	286	111	213	29		

- Molecule 85 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	A7	120	Total	C	N	O	P	0	0
			2554	1141	456	838	119		

- Molecule 86 is a RNA chain called 5.8S ribosomal RNA.

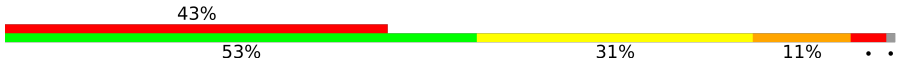
Mol	Chain	Residues	Atoms					AltConf	Trace
86	A8	123	Total	C	N	O	P	0	0
			2621	1173	474	852	122		

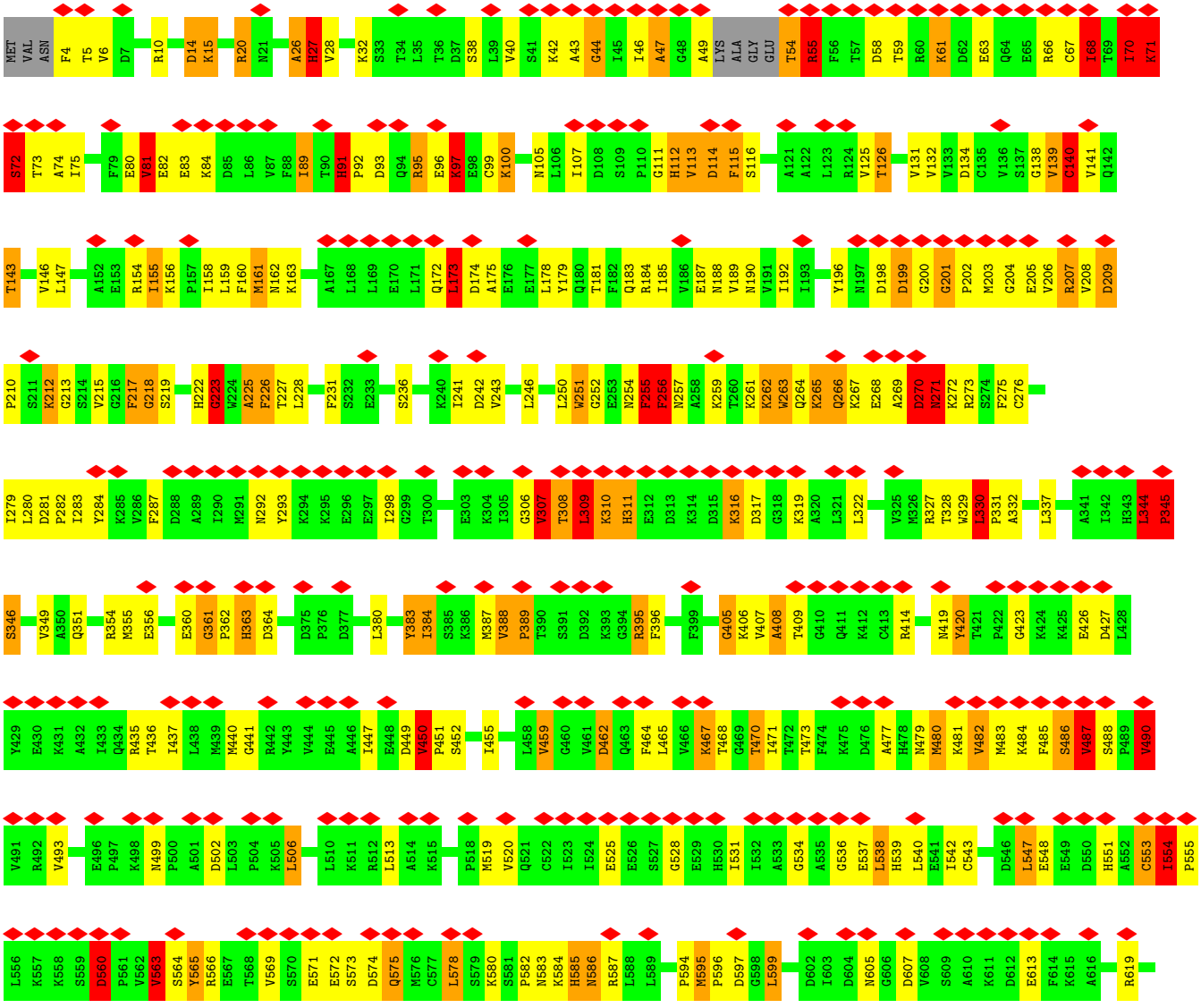
3 Residue-property plots (i)

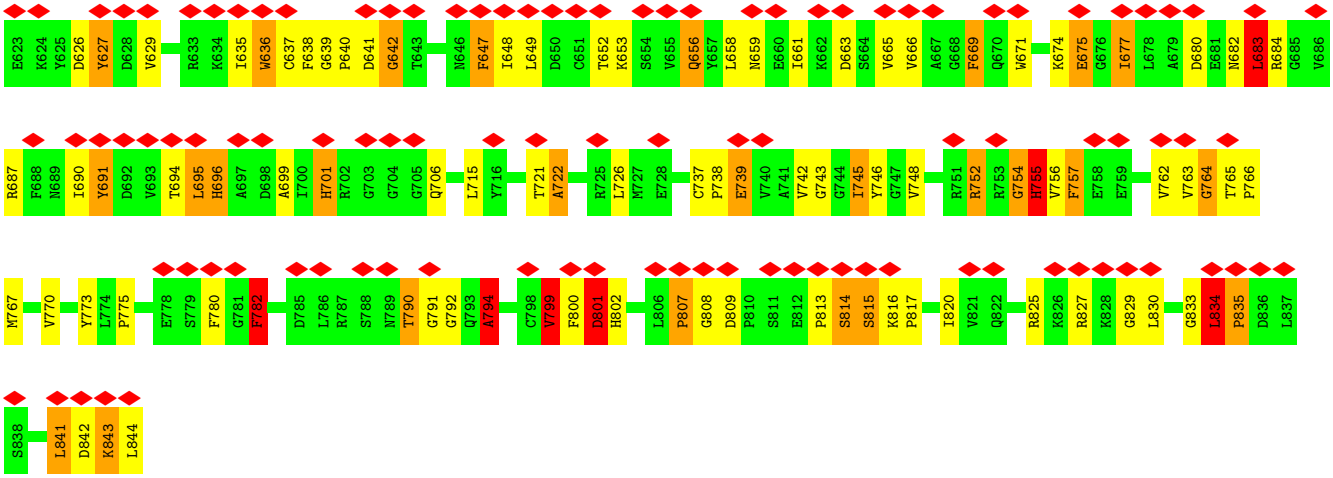
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: Elongation factor 2

Chain Az:

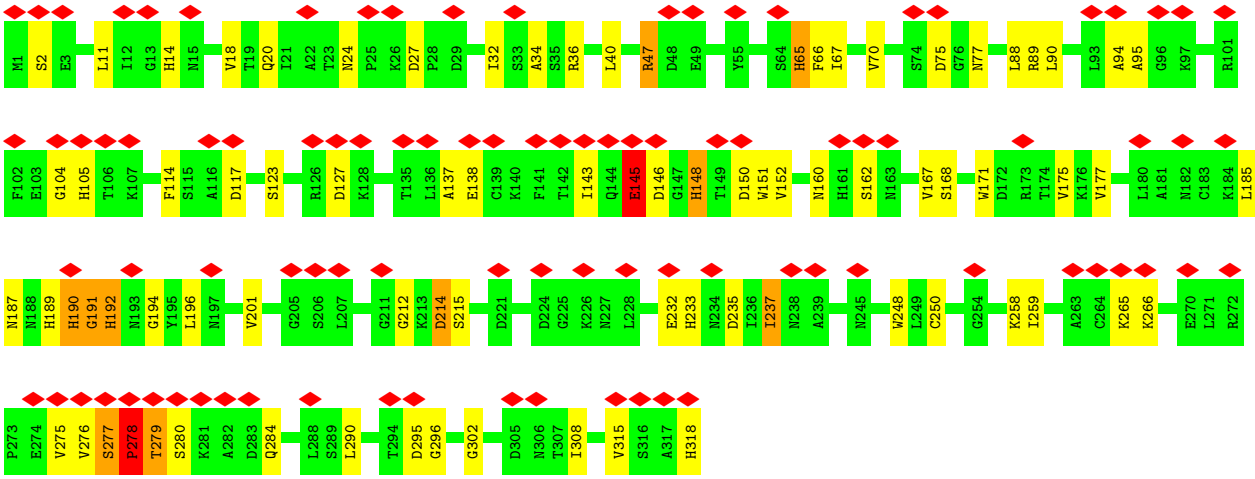






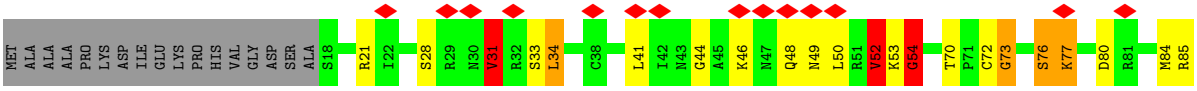
• Molecule 2: Guanine nucleotide-binding protein subunit beta-like protein

Chain Ag:



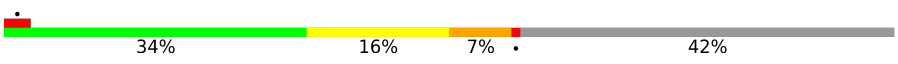
• Molecule 3: 40S ribosomal protein S20

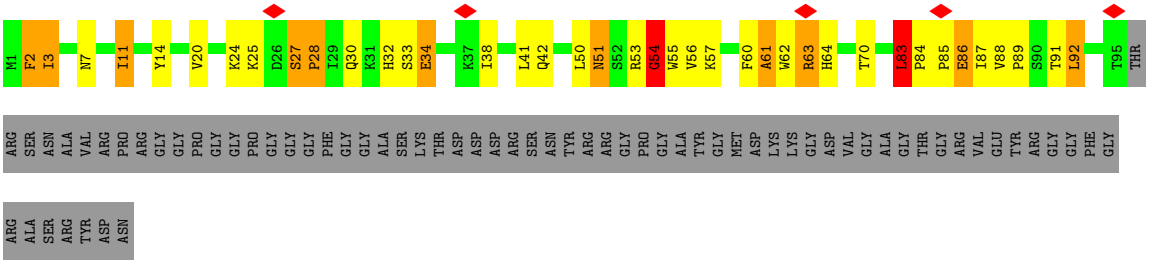
Chain AU:



• Molecule 4: 40S ribosomal protein S10a

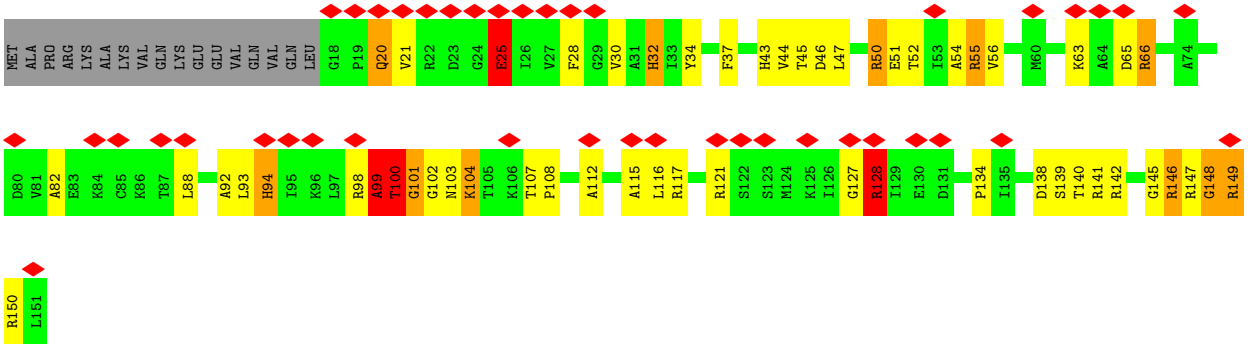
Chain AK:





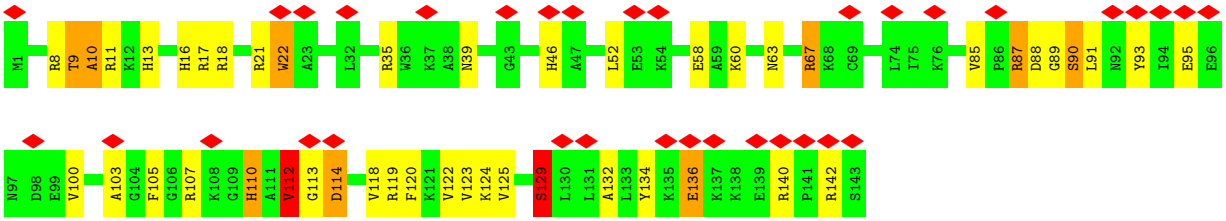
• Molecule 5: 40S ribosomal protein S14

Chain AO:



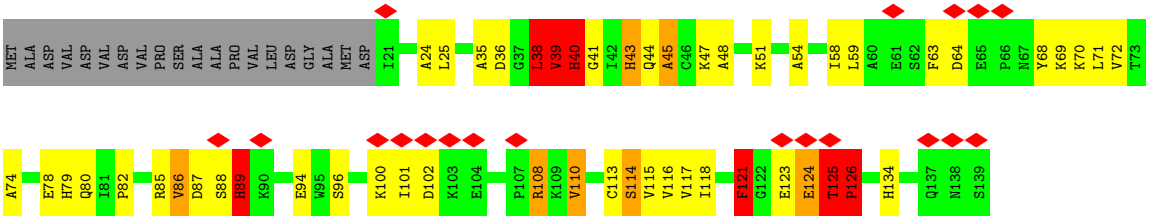
• Molecule 6: 40S ribosomal protein S23

Chain AX:



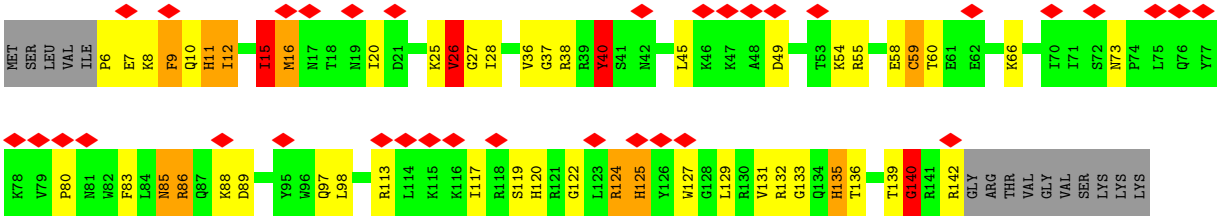
• Molecule 7: 40S ribosomal protein S12

Chain AM:

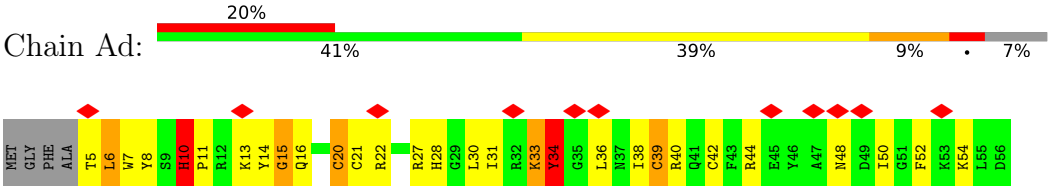


• Molecule 8: 40S ribosomal protein S18

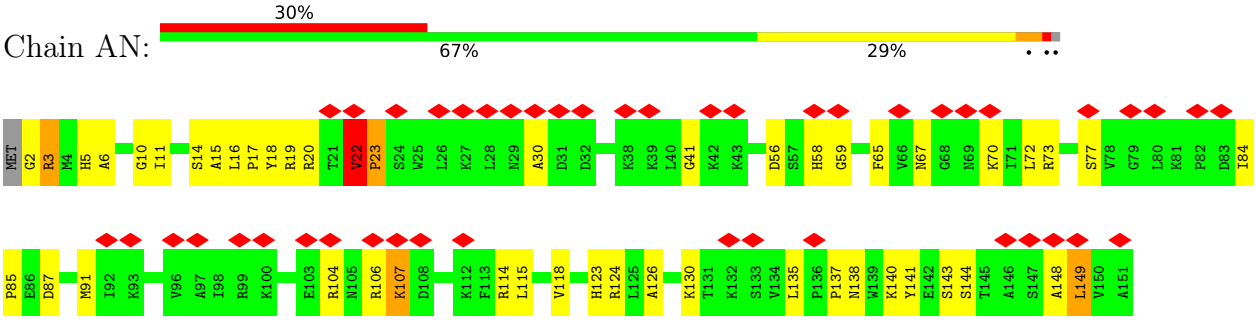
Chain AS:



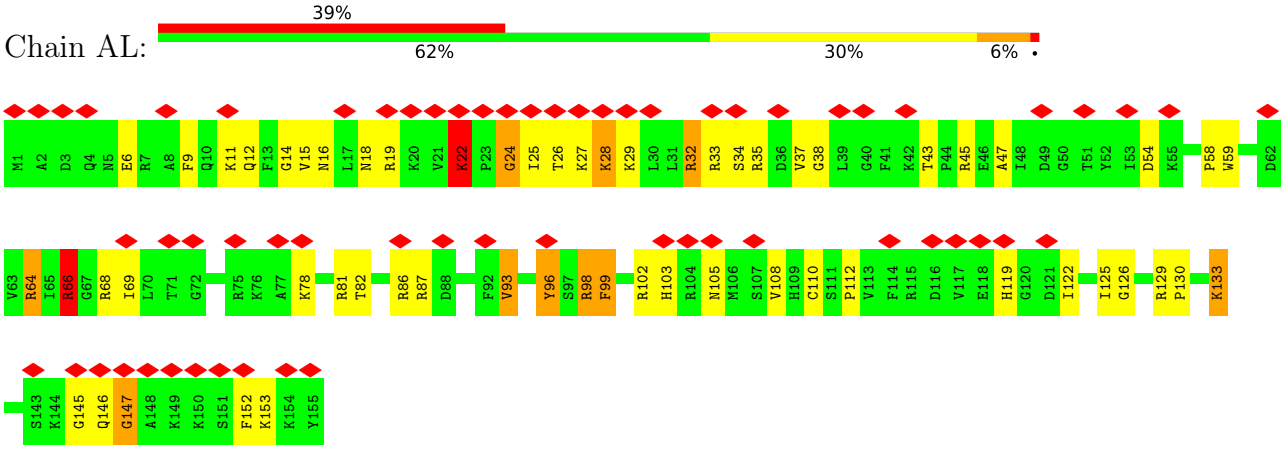
• Molecule 9: 40S ribosomal protein S29



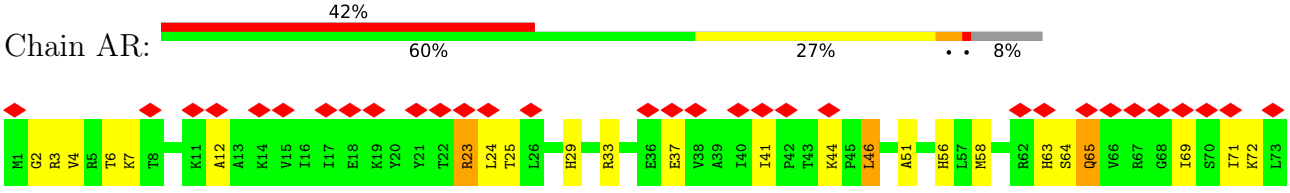
• Molecule 10: 40S ribosomal protein S13

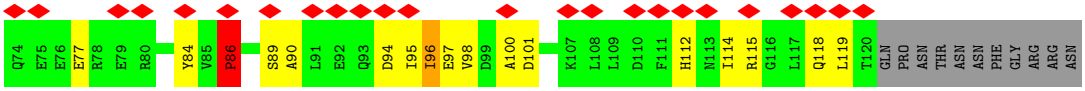


• Molecule 11: 40S ribosomal protein S11



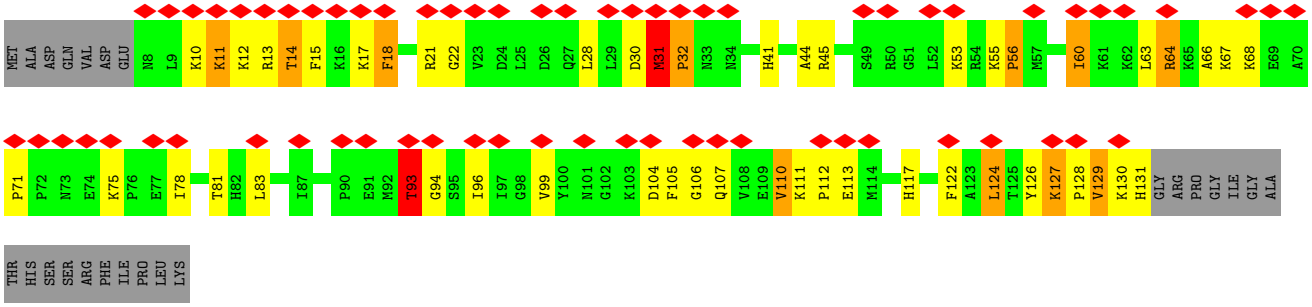
• Molecule 12: 40S ribosomal protein S17





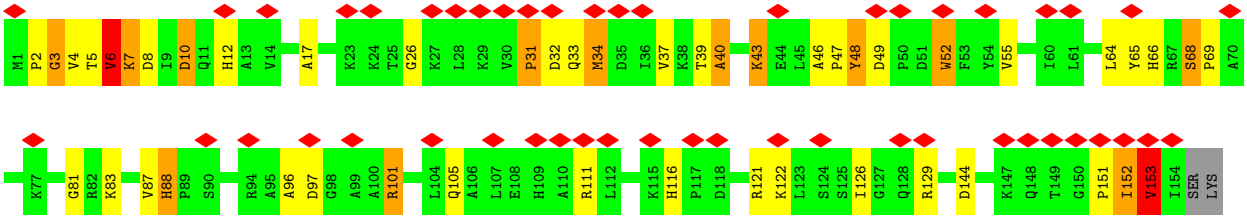
• Molecule 13: 40S ribosomal protein S15, isoform A

Chain AP:



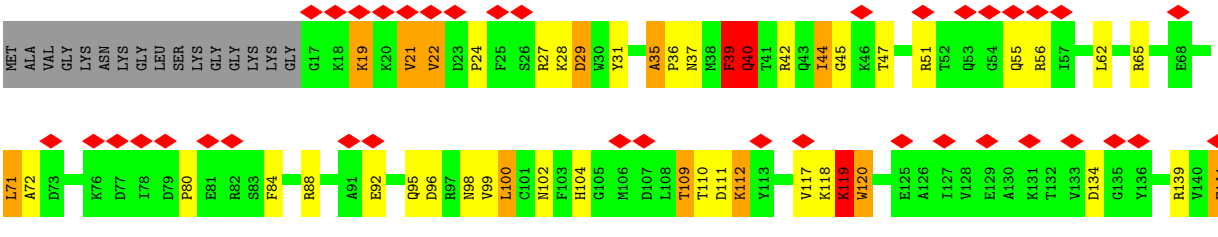
• Molecule 14: 40S ribosomal protein S19a

Chain AT:



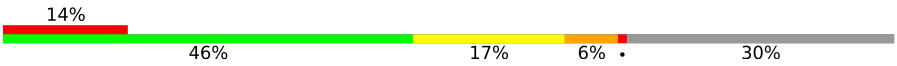
• Molecule 15: 40S ribosomal protein S3a

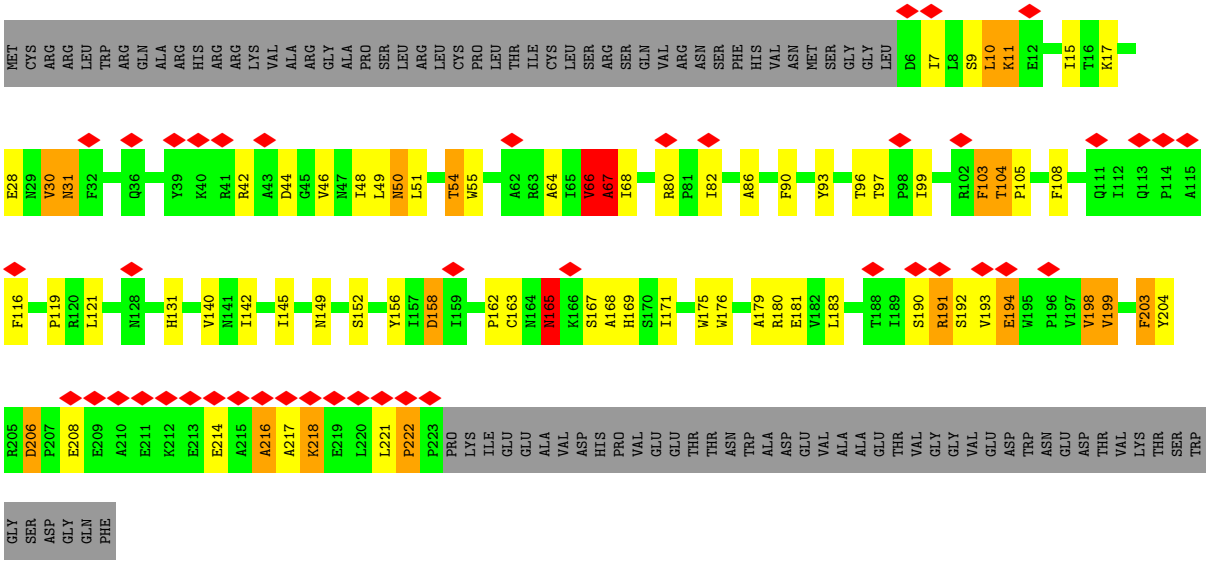
Chain AB:



• Molecule 16: 40S ribosomal protein SA

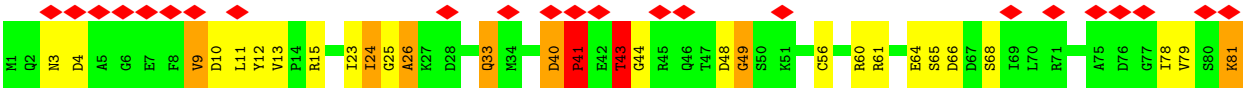
Chain AA:





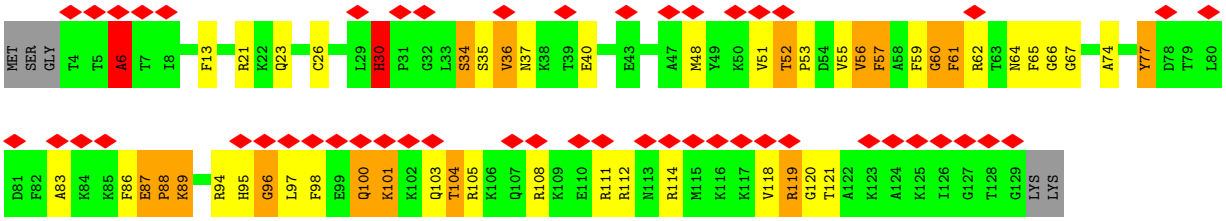
• Molecule 17: 40S ribosomal protein S21

Chain AV:



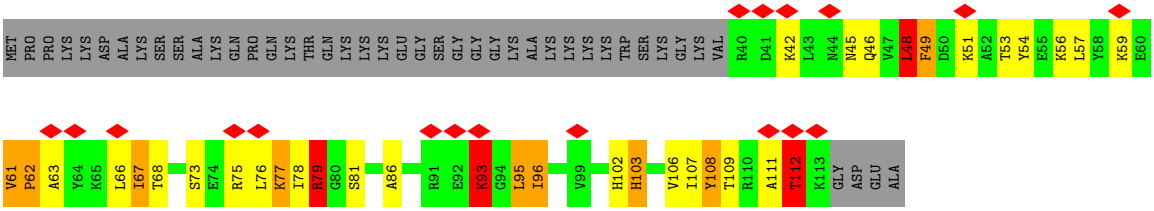
• Molecule 18: 40S ribosomal protein S24

Chain AY:



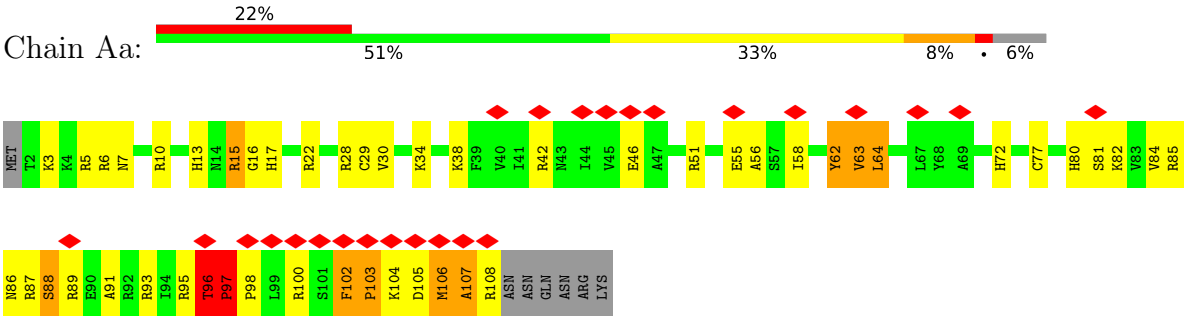
• Molecule 19: 40S ribosomal protein S25

Chain AZ:



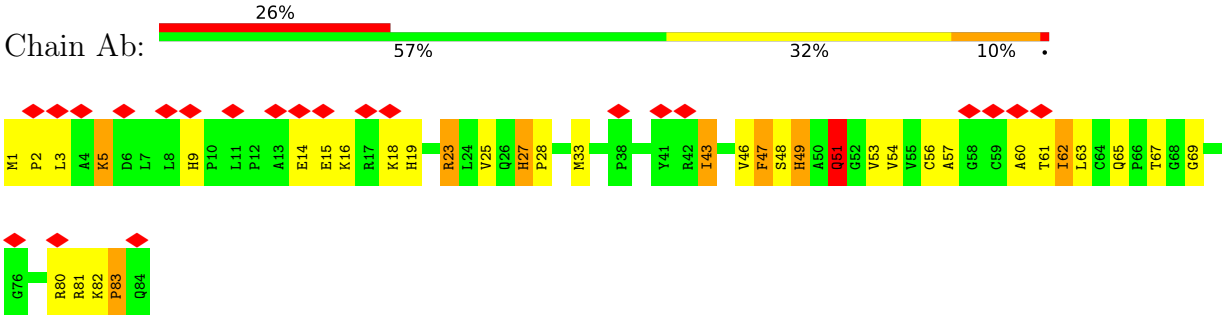
• Molecule 20: 40S ribosomal protein S26

Chain Aa:



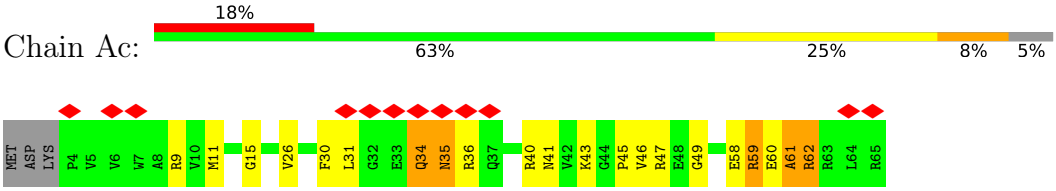
• Molecule 21: 40S ribosomal protein S27

Chain Ab:



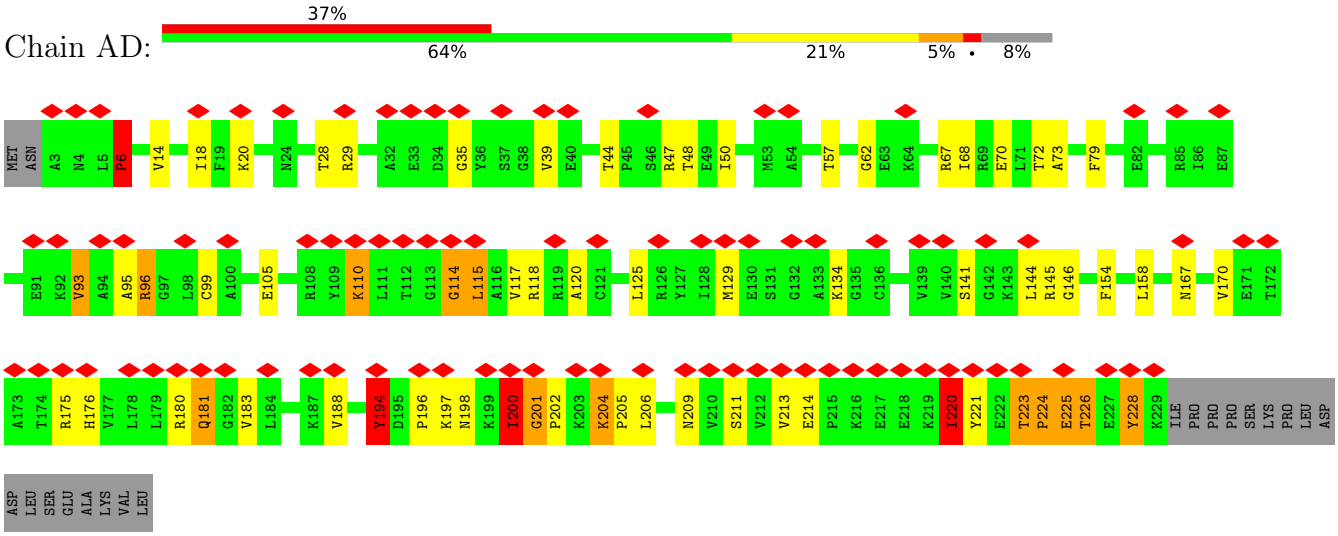
• Molecule 22: 40S ribosomal protein S28

Chain Ac:



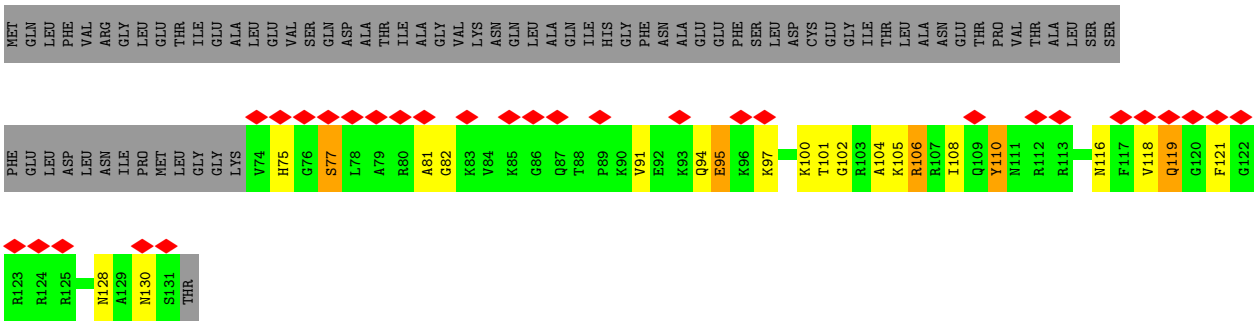
• Molecule 23: 40S ribosomal protein S3

Chain AD:



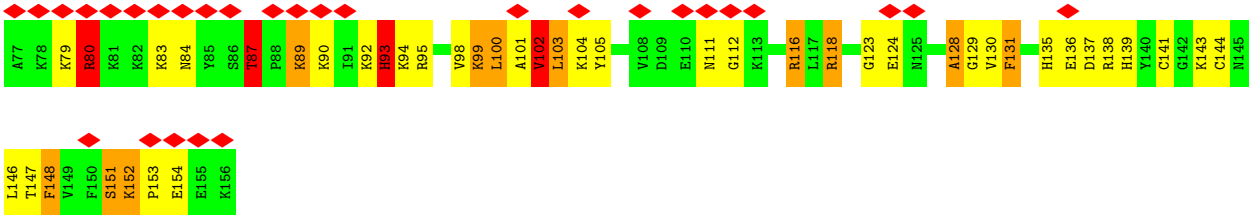
• Molecule 24: 40S ribosomal protein S30, isoform A

Chain Ae:



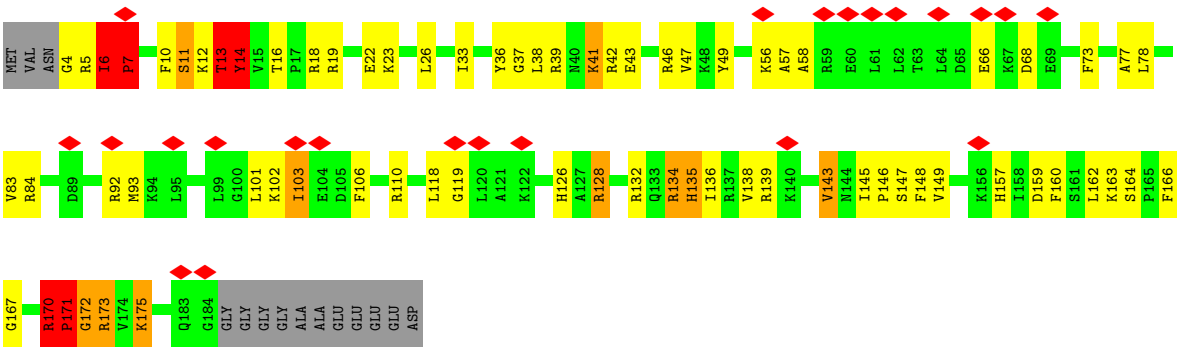
• Molecule 25: 40S ribosomal protein S27a

Chain Af:



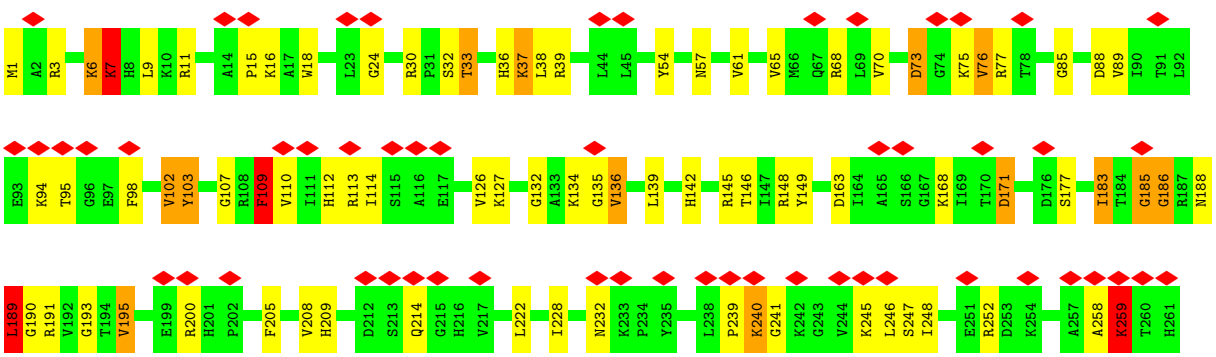
• Molecule 26: 40S ribosomal protein S9

Chain AJ:



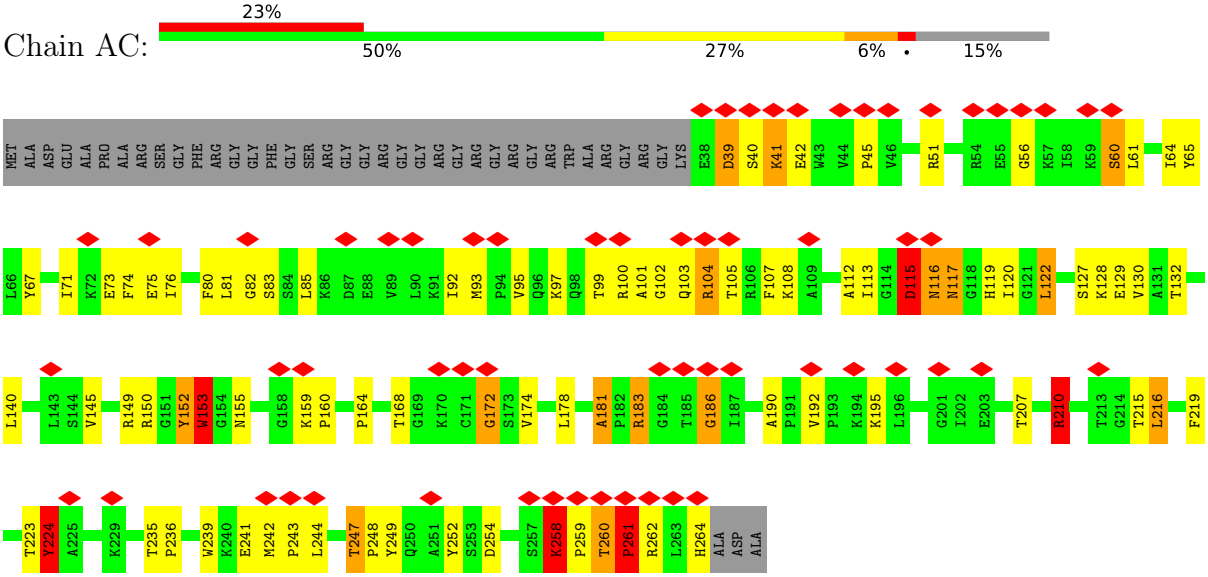
• Molecule 27: 40S ribosomal protein S4

Chain AE:



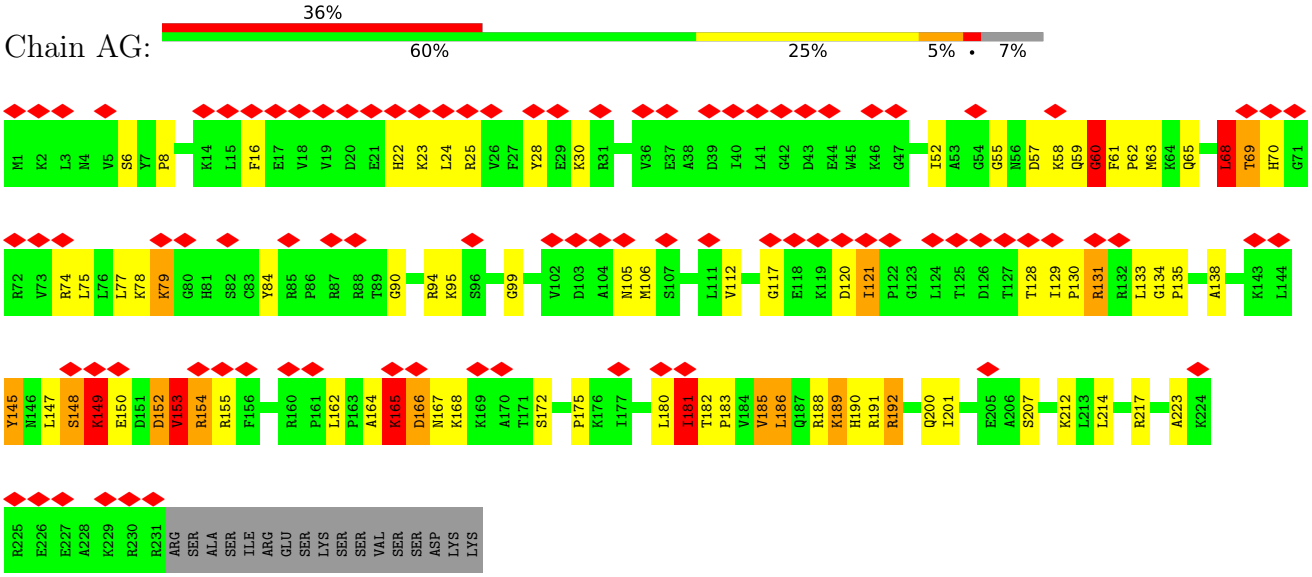
• Molecule 28: 40S ribosomal protein S2

Chain AC:



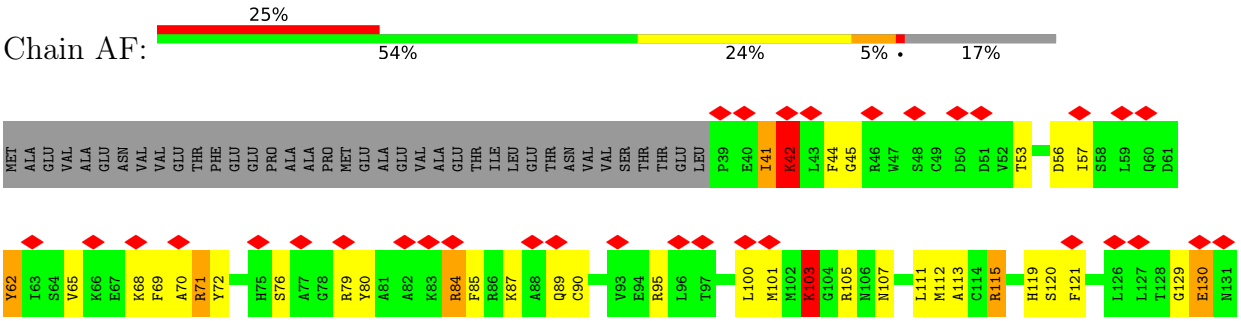
• Molecule 29: 40S ribosomal protein S6

Chain AG:



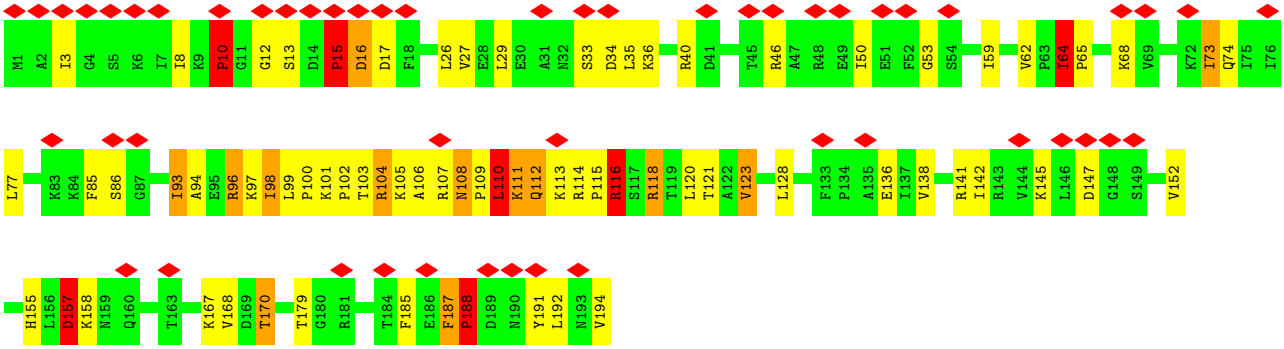
• Molecule 30: 40S ribosomal protein S5a

Chain AF:



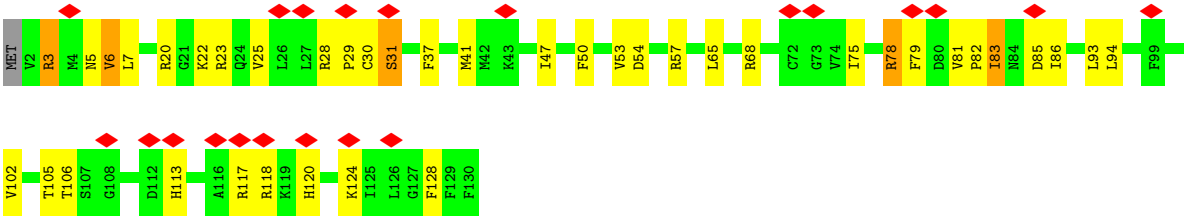
• Molecule 31: 40S ribosomal protein S7

Chain AH:



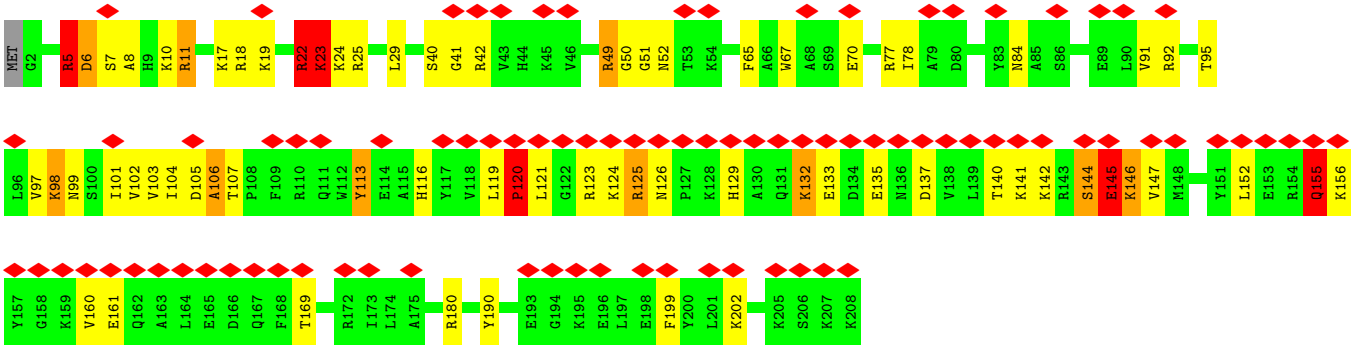
• Molecule 32: 40S ribosomal protein S15Aa

Chain AW:

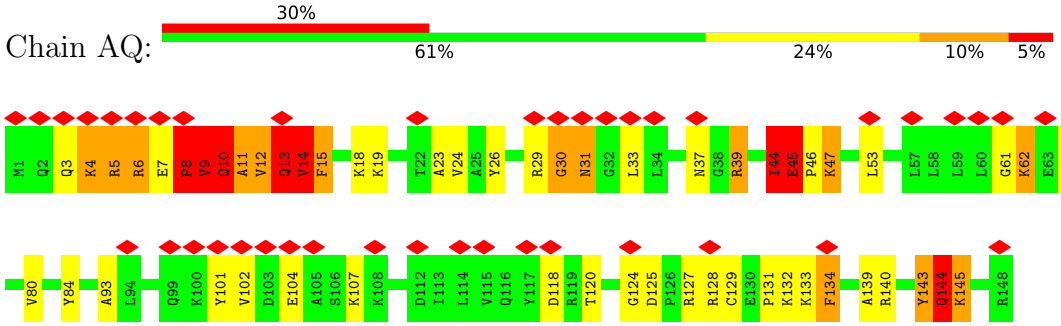


• Molecule 33: 40S ribosomal protein S8

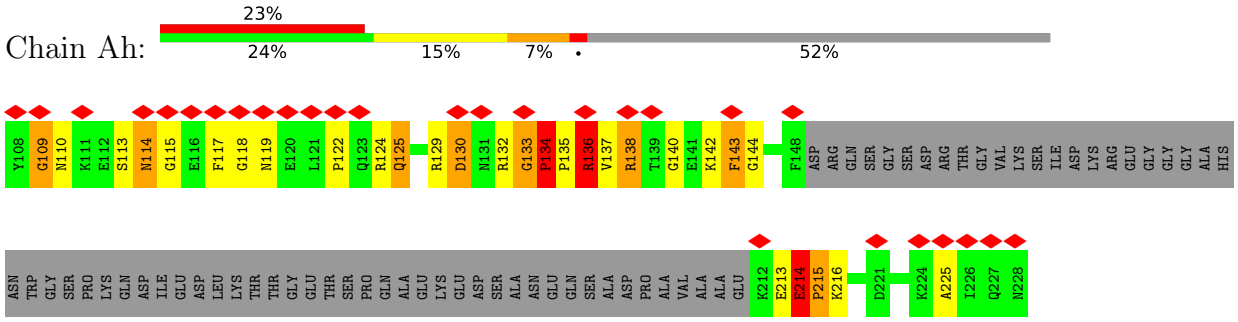
Chain AI:



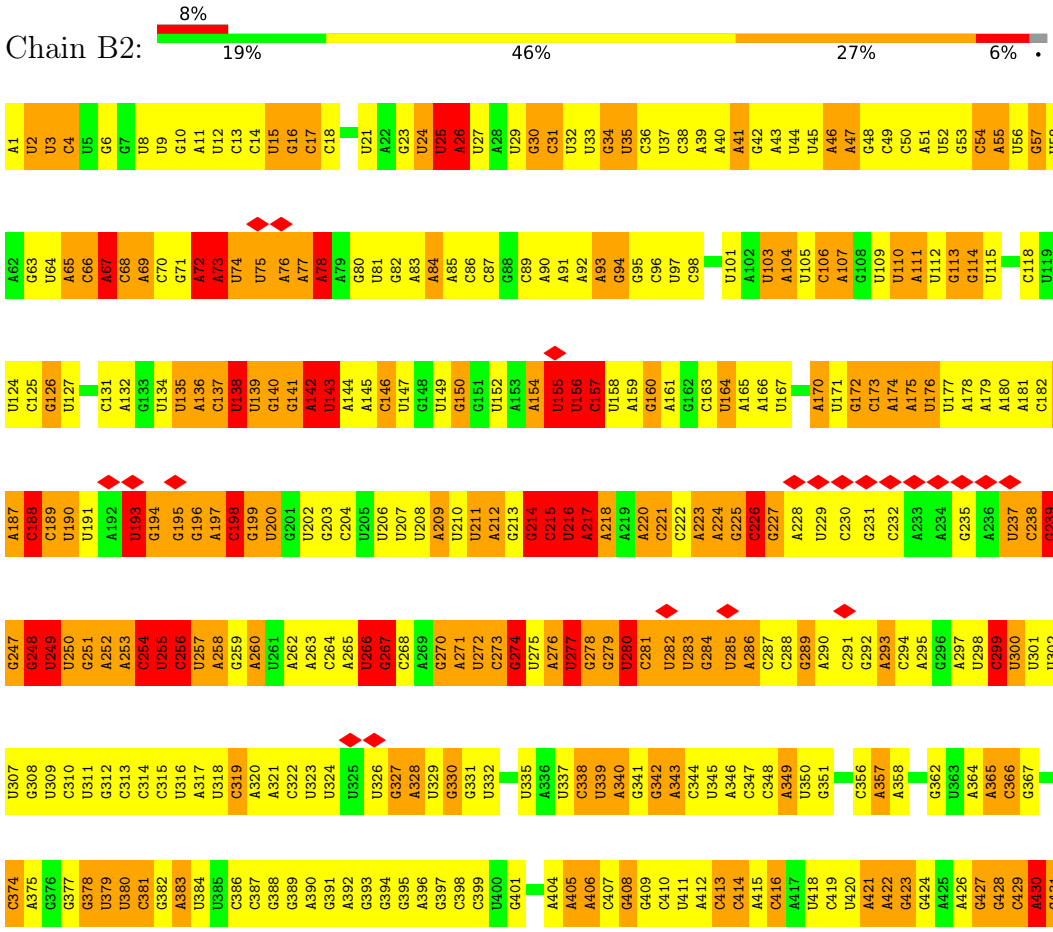
• Molecule 34: 40S ribosomal protein S16

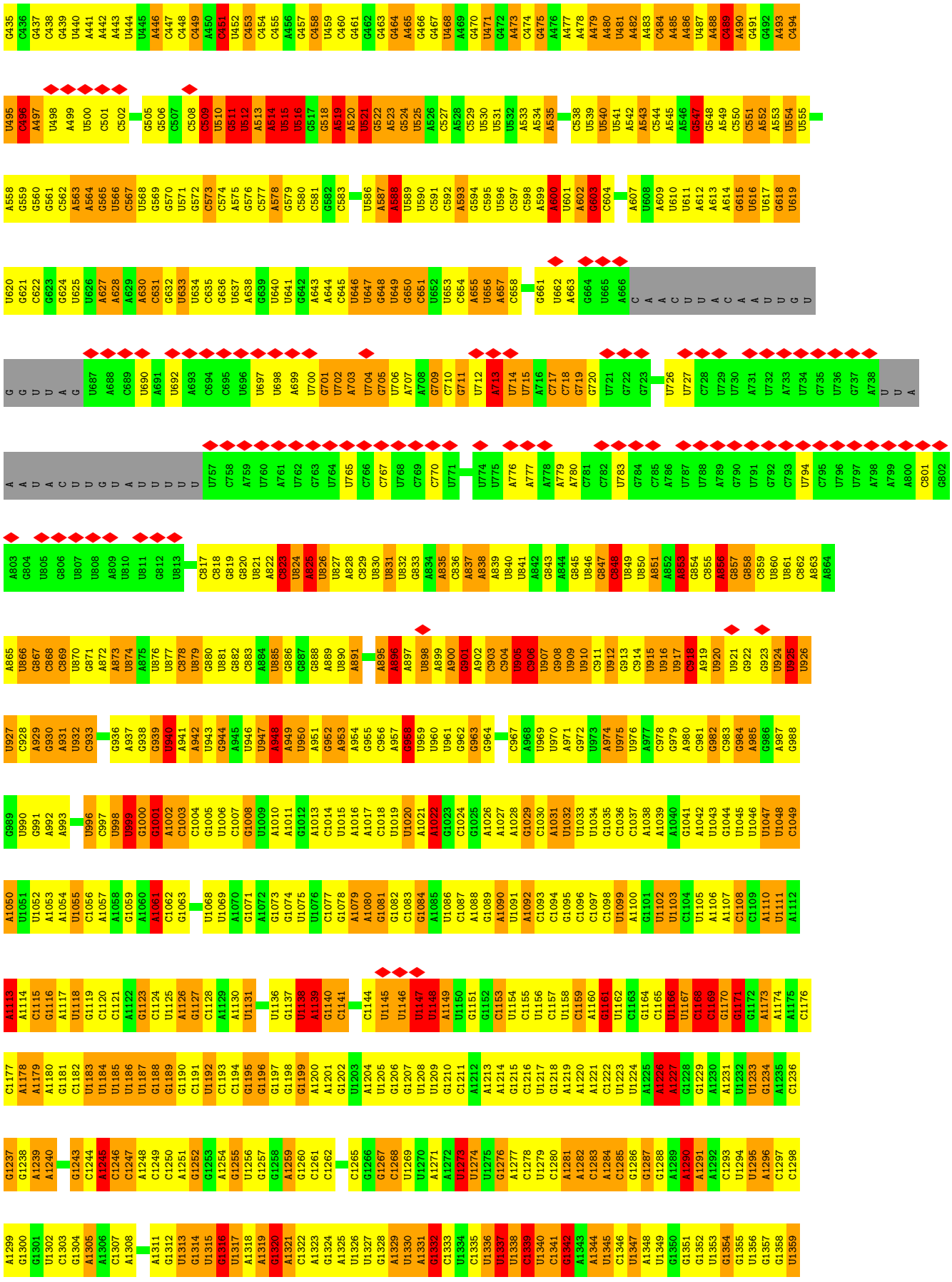


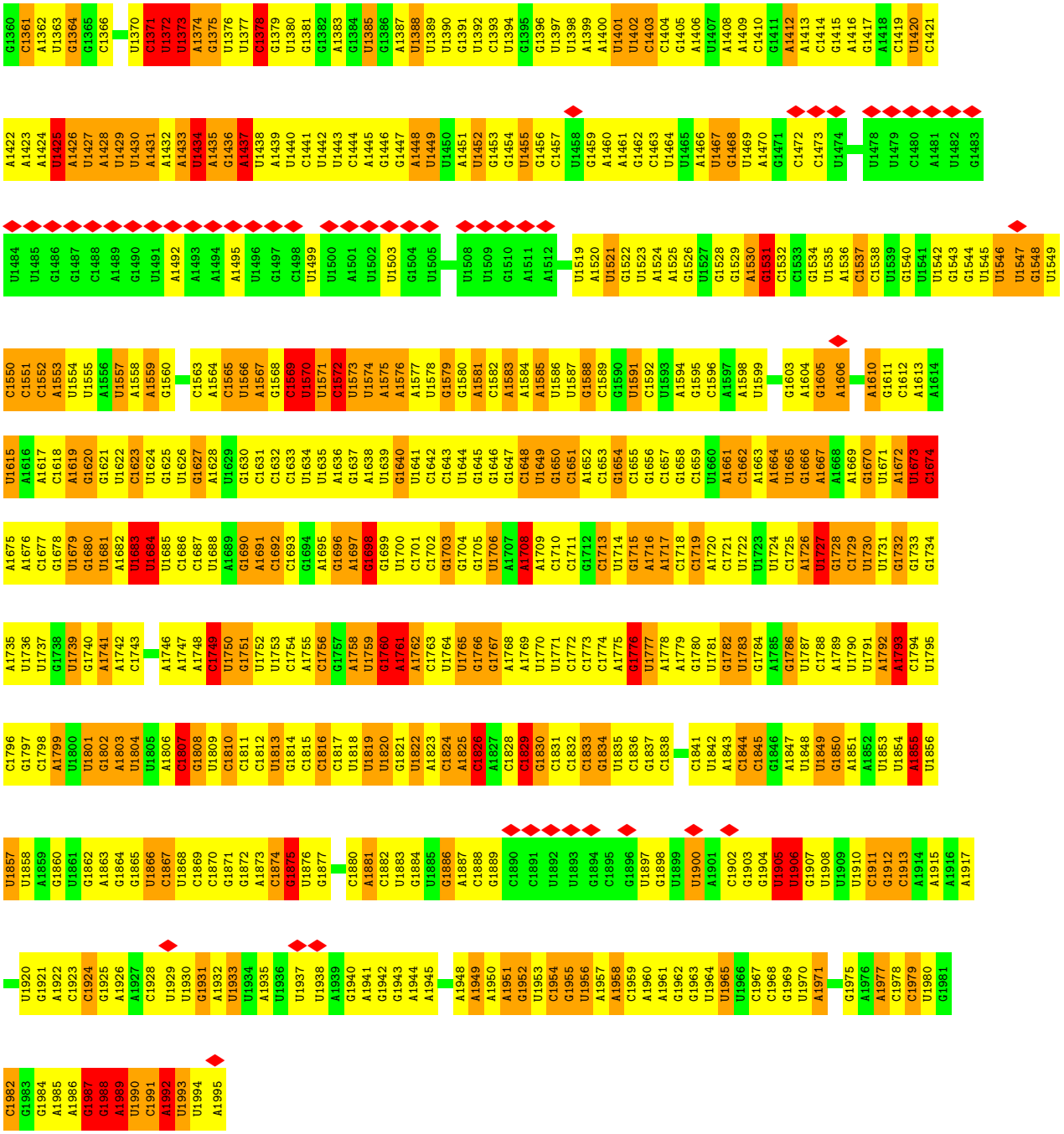
• Molecule 35: Vig2, isoform B



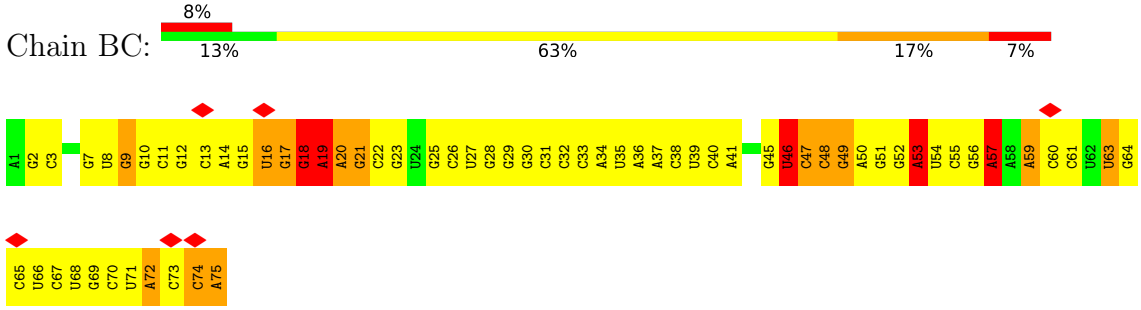
• Molecule 36: 18S ribosomal RNA





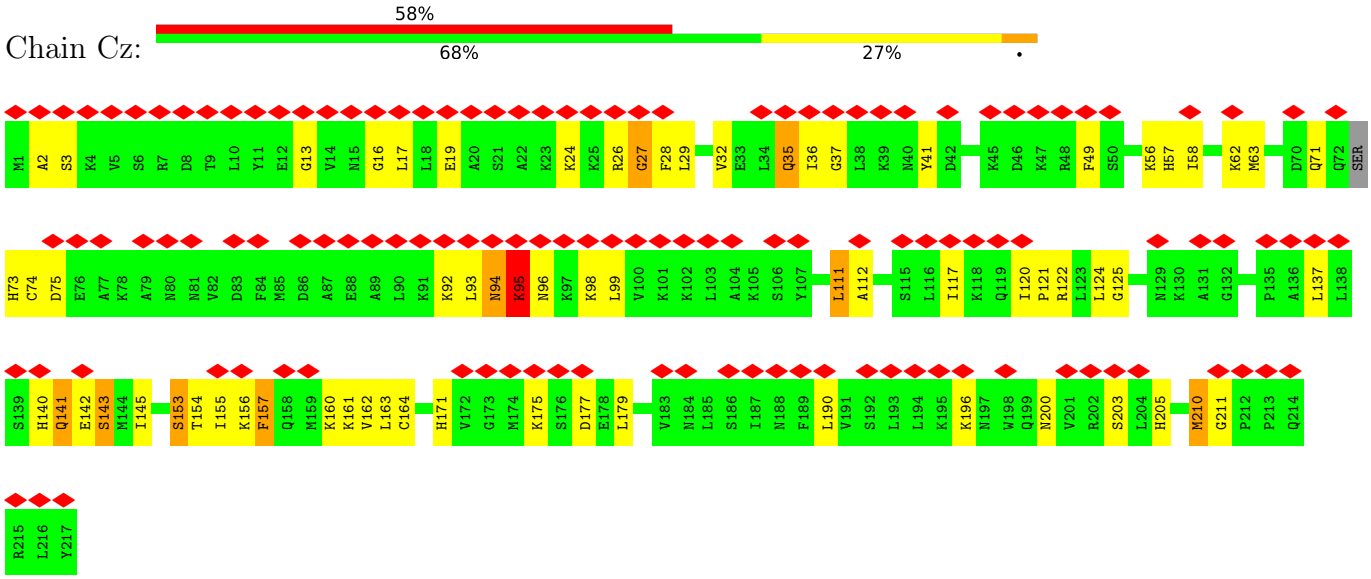


• Molecule 37: E-tRNA



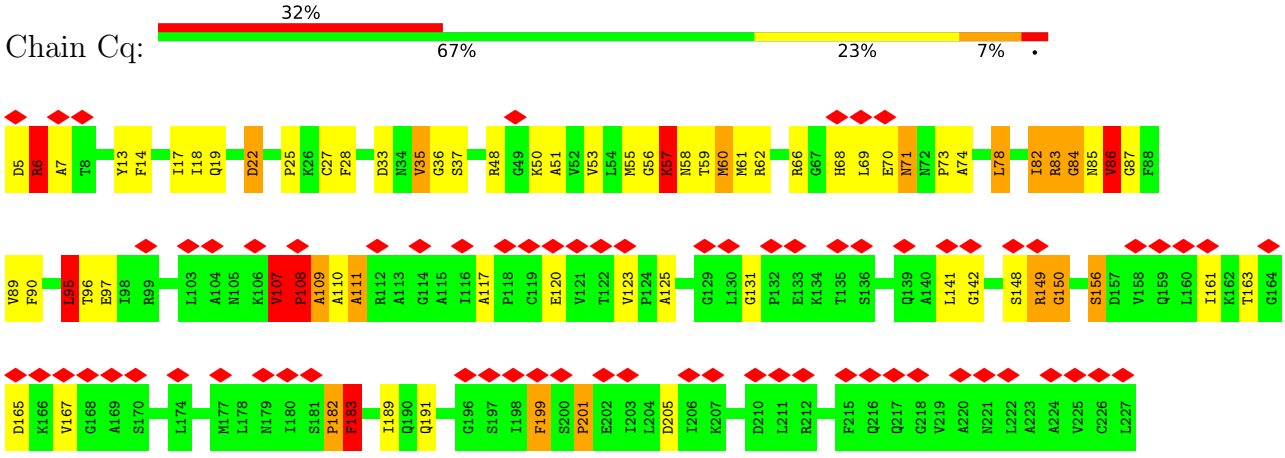
• Molecule 38: 60S ribosomal protein L10a-2

Chain Cz:



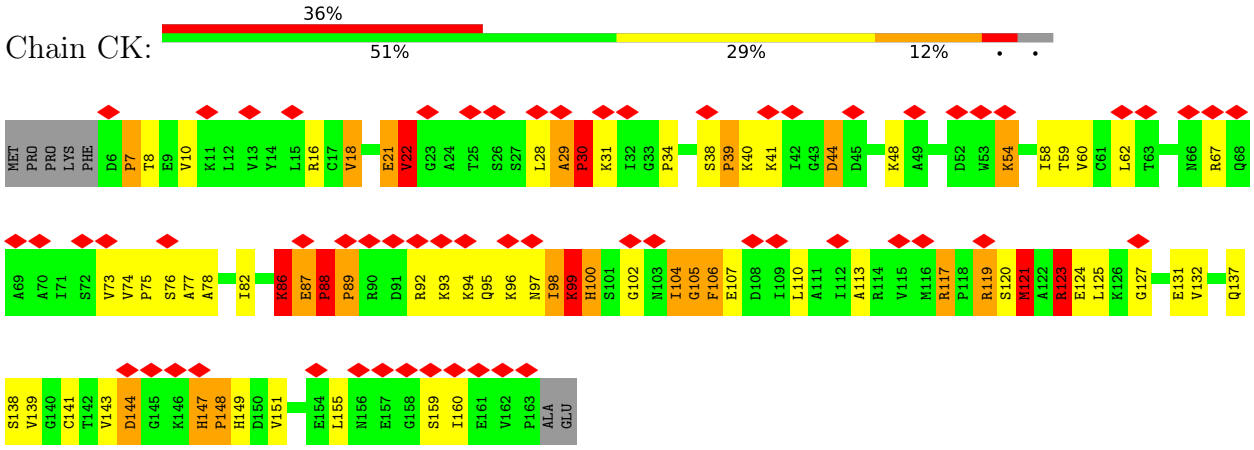
• Molecule 39: 60S acidic ribosomal protein P0

Chain Cq:



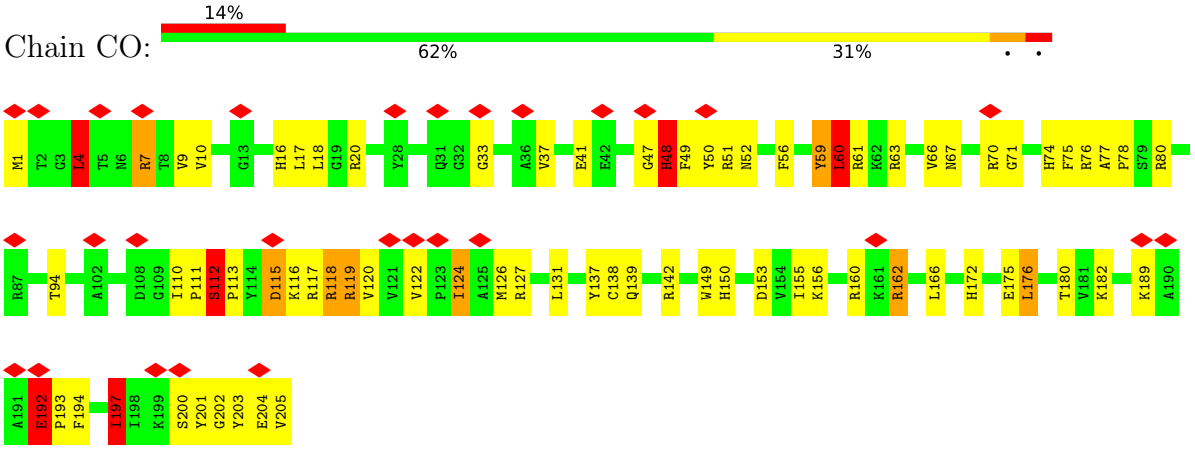
• Molecule 40: 60S ribosomal protein L12

Chain CK:



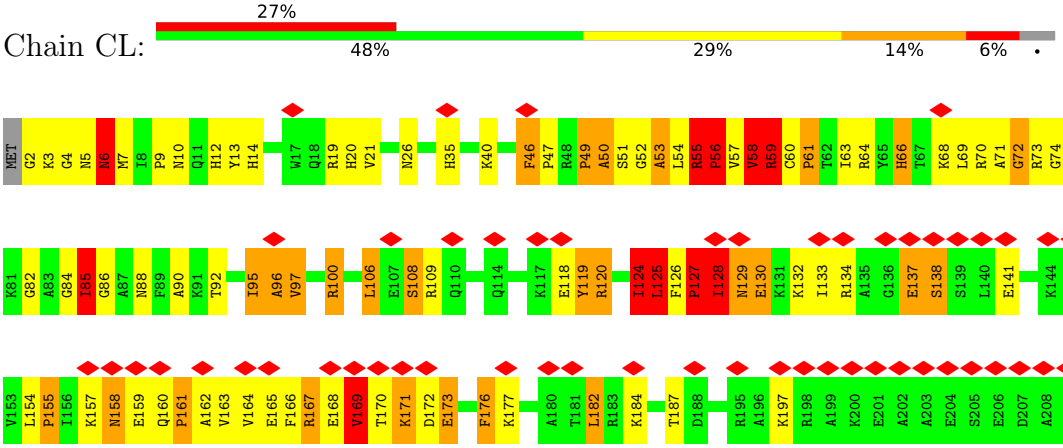
• Molecule 41: 60S ribosomal protein L13a

Chain CO:



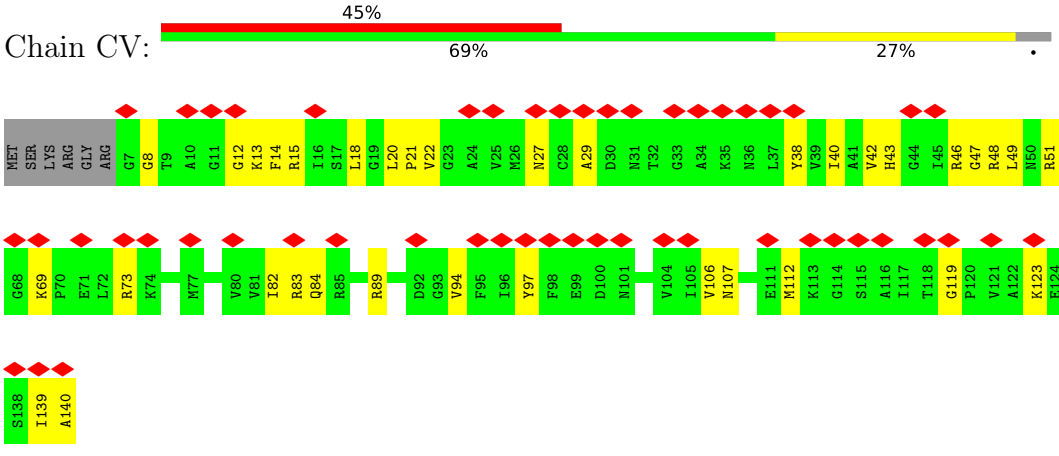
• Molecule 42: 60S ribosomal protein L13

Chain CL:



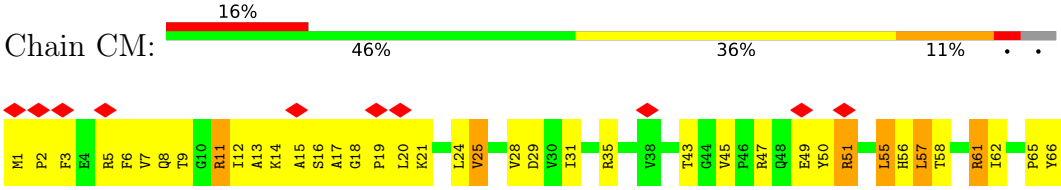
• Molecule 43: 60S ribosomal protein L23

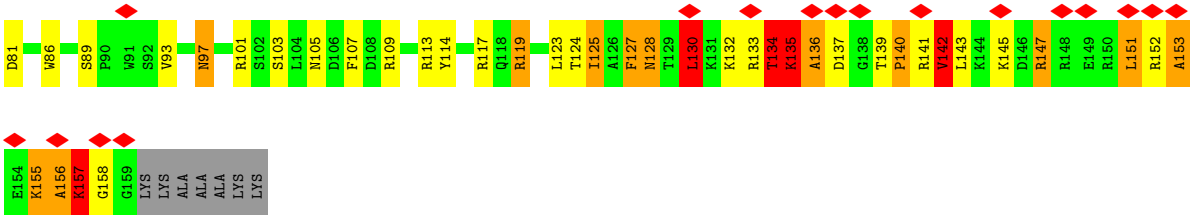
Chain CV:



• Molecule 44: 60S ribosomal protein L14

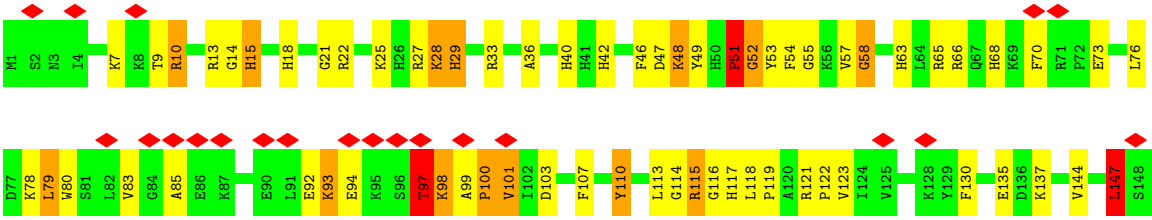
Chain CM:





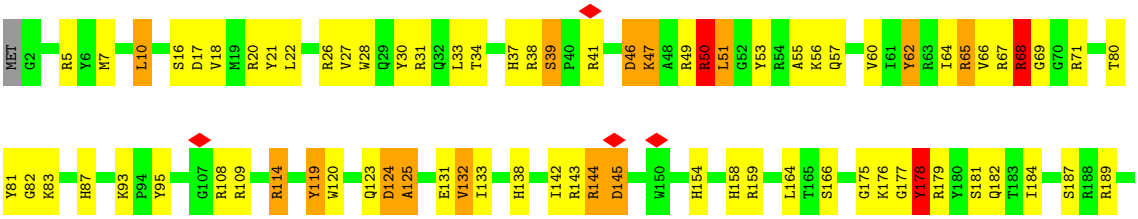
• Molecule 45: 60S ribosomal protein L27a

Chain Ca:



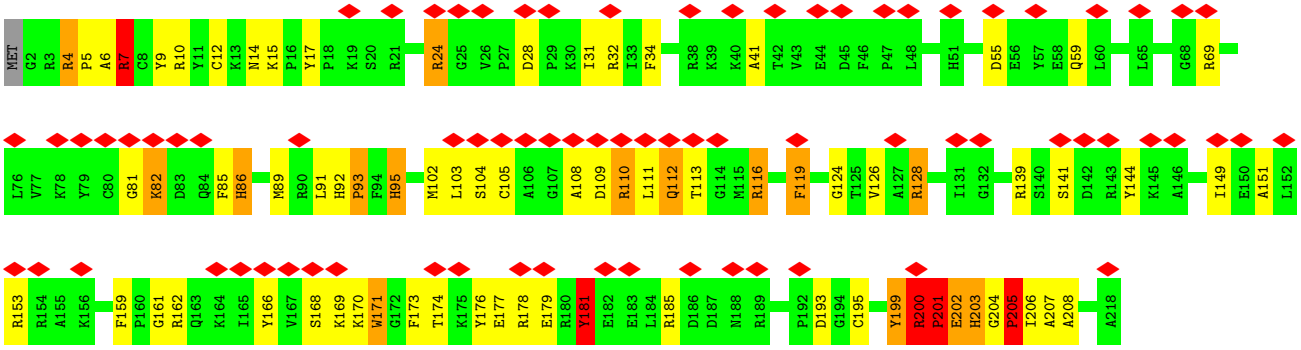
• Molecule 46: 60S ribosomal protein L15

Chain CN:



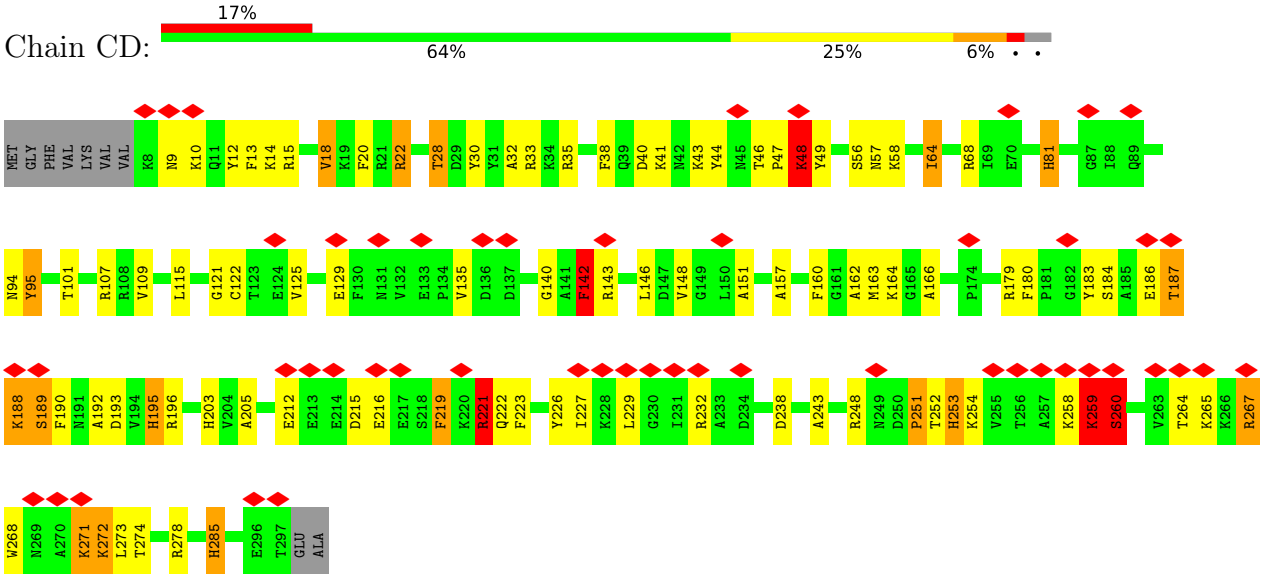
• Molecule 47: 60S ribosomal protein L10

Chain CI:



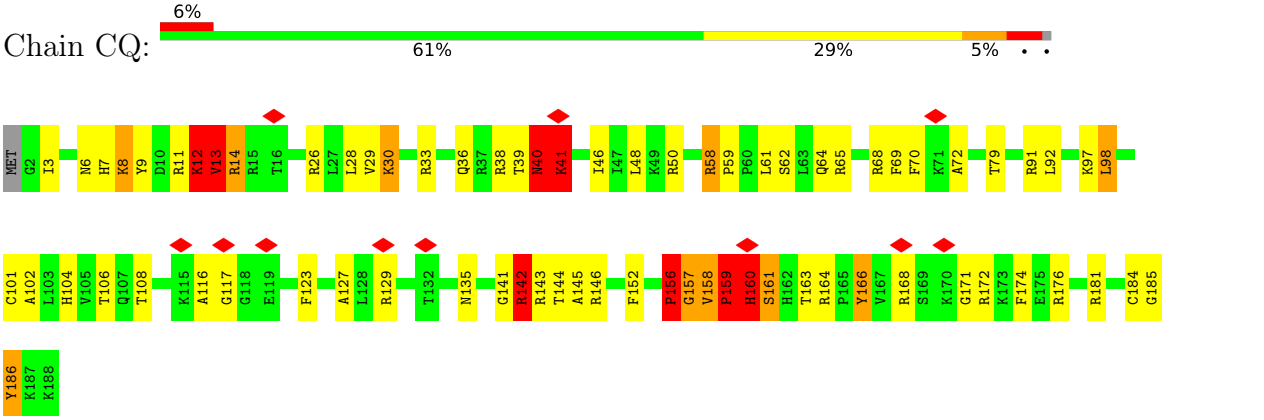
• Molecule 48: 60S ribosomal protein L5

Chain CD:



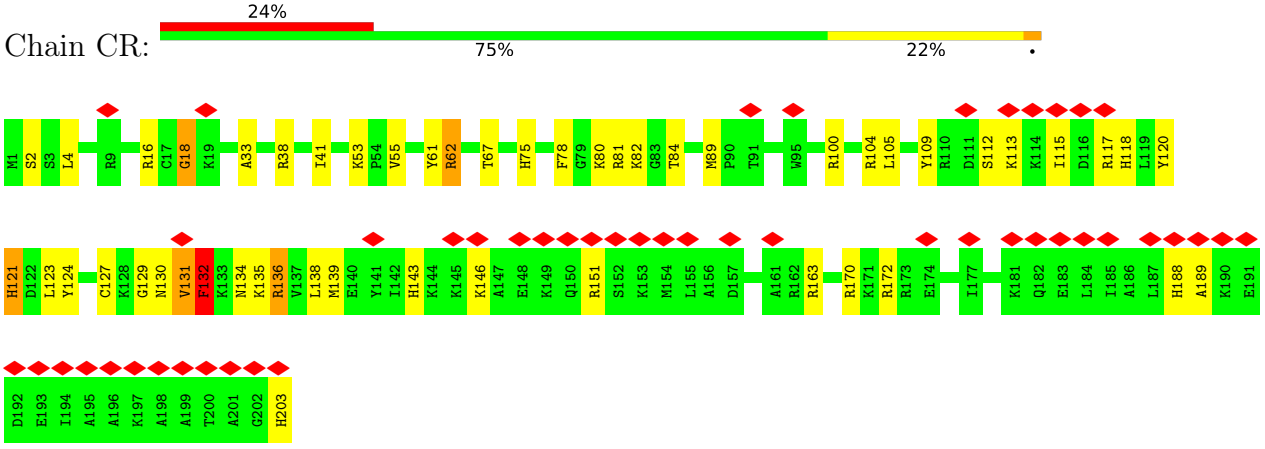
• Molecule 49: 60S ribosomal protein L18

Chain CQ:



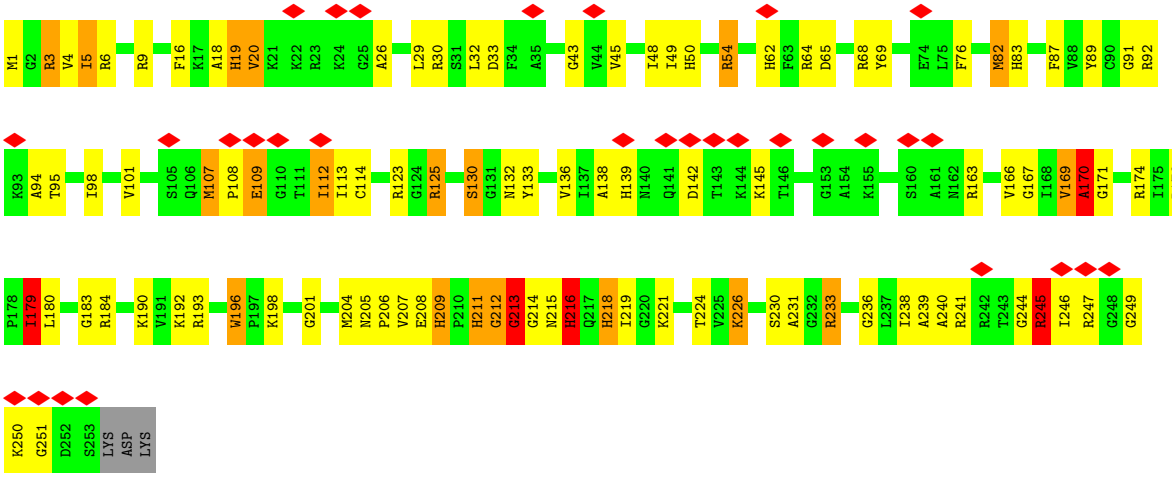
• Molecule 50: 60S ribosomal protein L19

Chain CR:



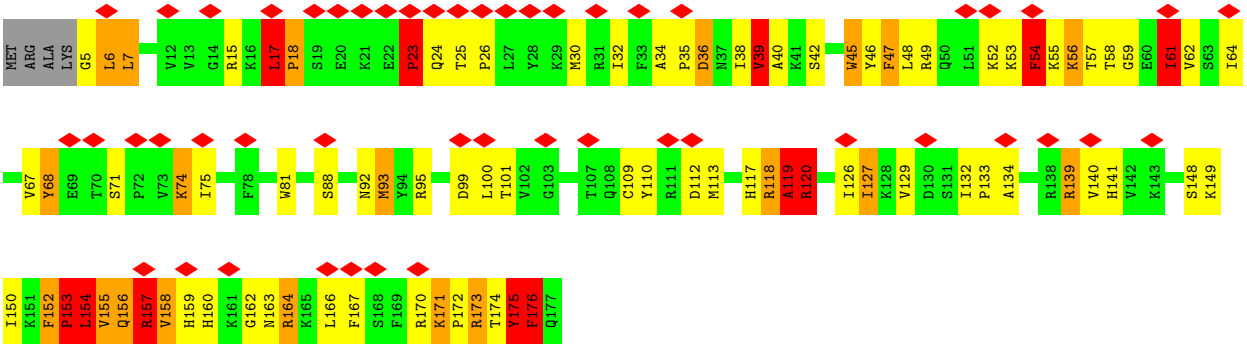
• Molecule 51: 60S ribosomal protein L8

Chain CA:



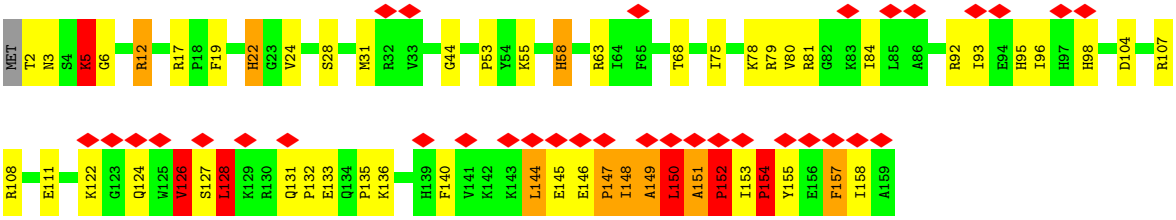
• Molecule 52: 60S ribosomal protein L18a

Chain CS:



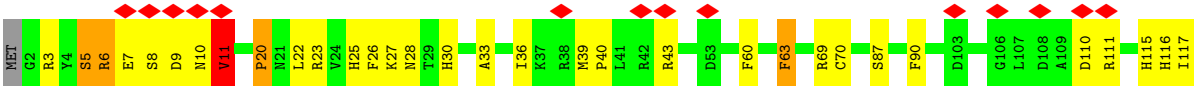
• Molecule 53: 60S ribosomal protein L21

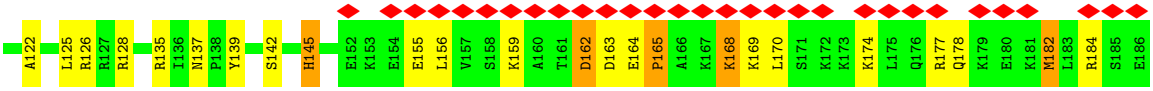
Chain CT:



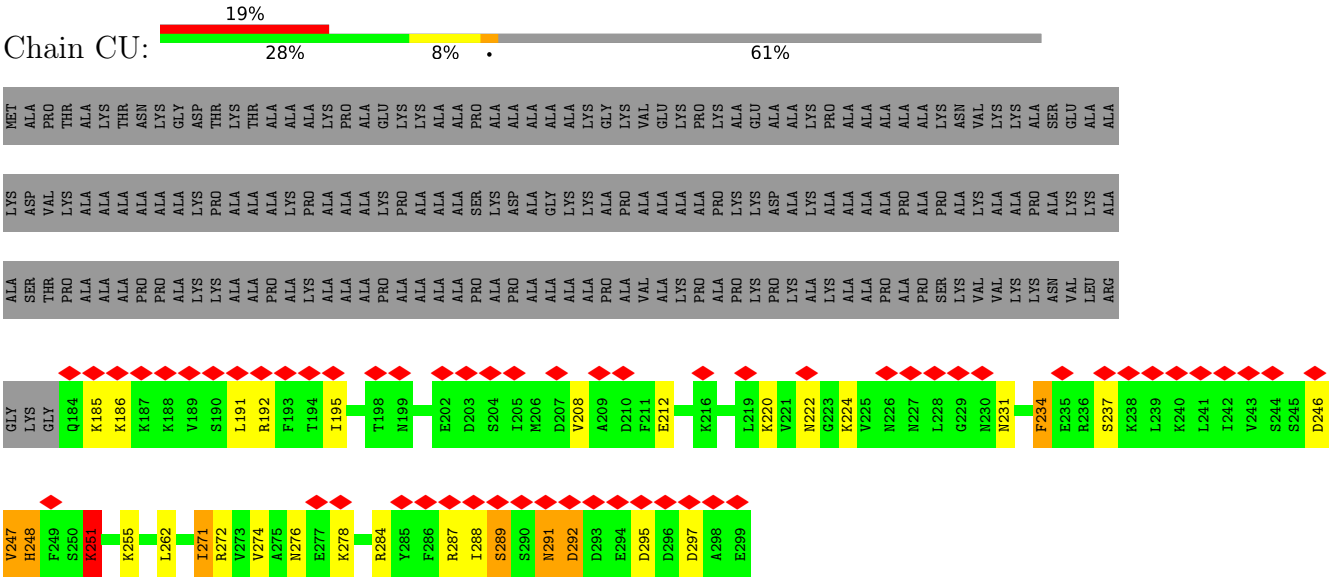
• Molecule 54: 60S ribosomal protein L17

Chain CP:

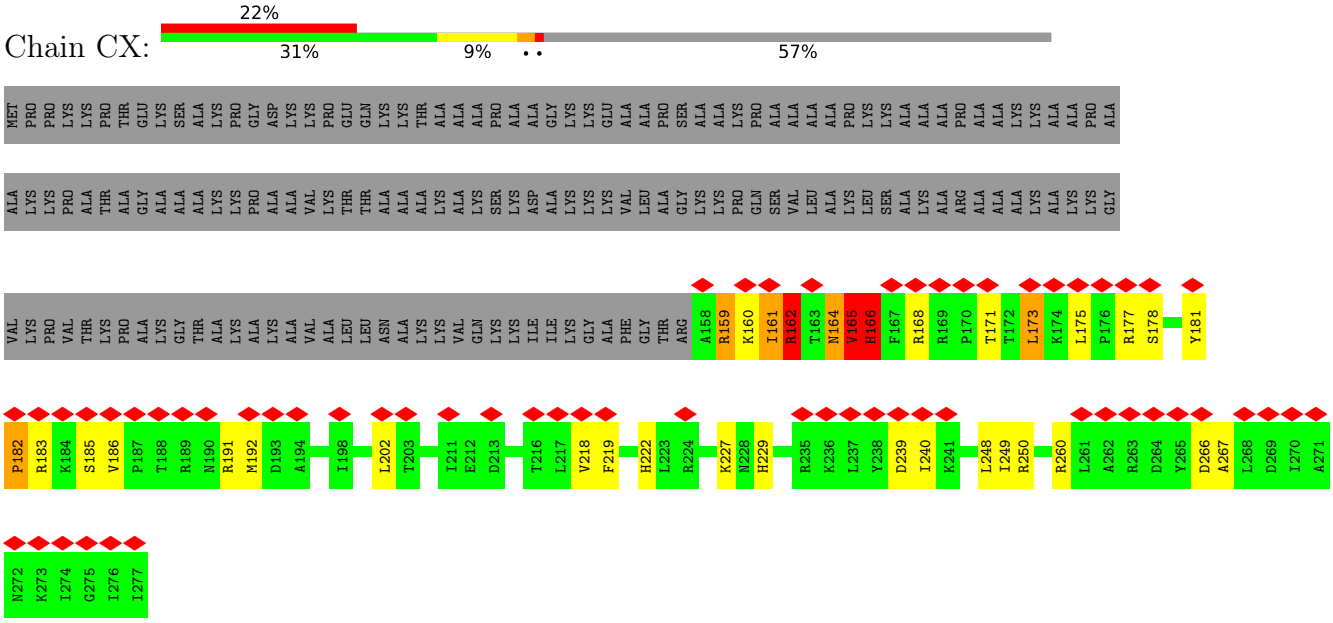




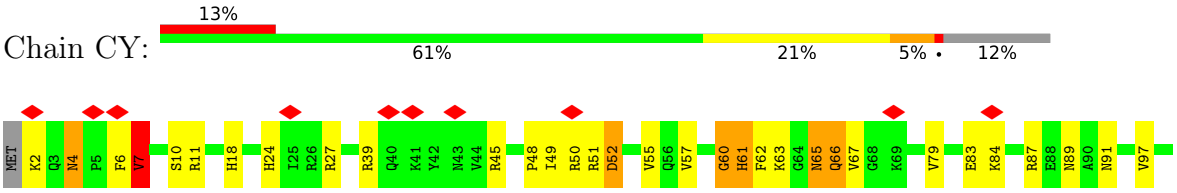
• Molecule 55: 60S ribosomal protein L22

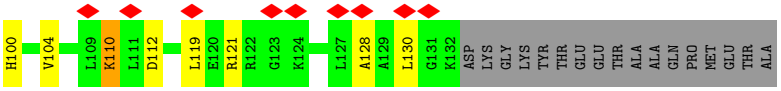


• Molecule 56: 60S ribosomal protein L23A



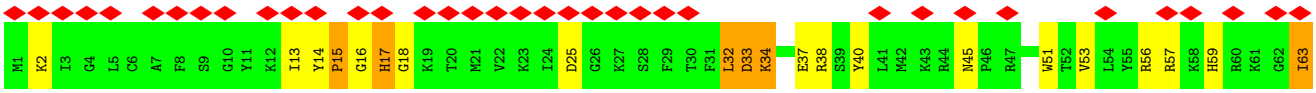
• Molecule 57: 60S ribosomal protein L26

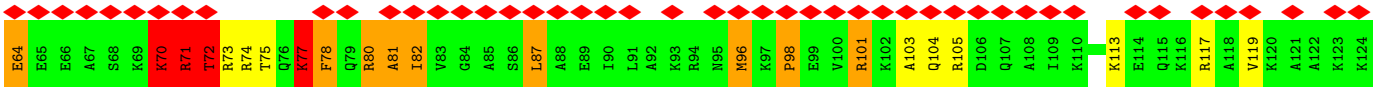


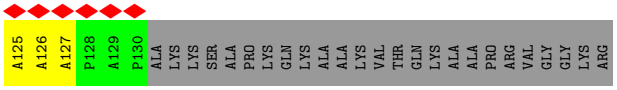


• Molecule 58: 60S ribosomal protein L24

Chain CW:

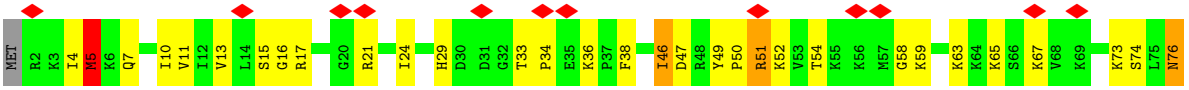


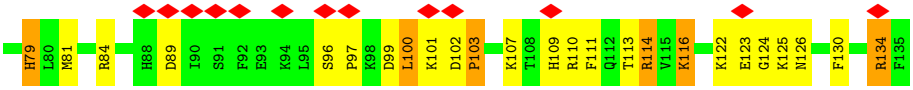




• Molecule 59: 60S ribosomal protein L27

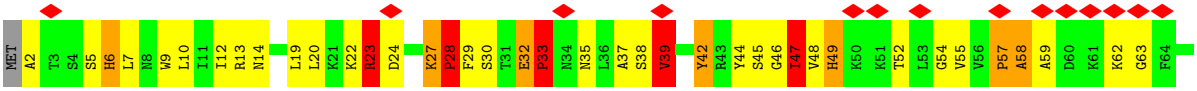
Chain CZ:

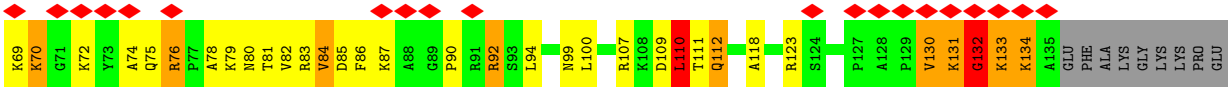




• Molecule 60: 60S ribosomal protein L28

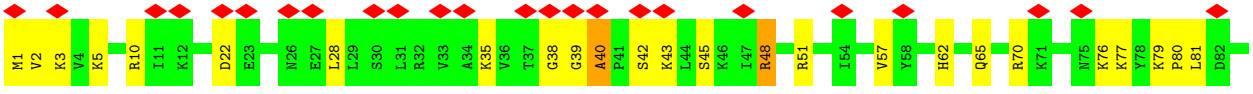
Chain Cr:

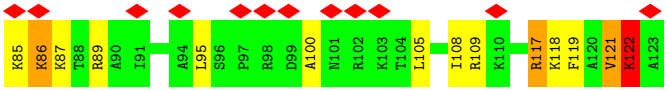




• Molecule 61: 60S ribosomal protein L35

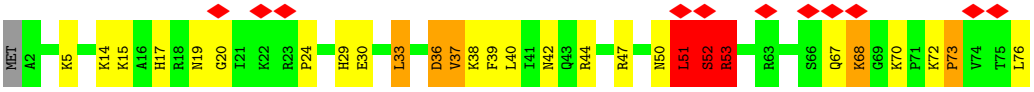
Chain Ch:





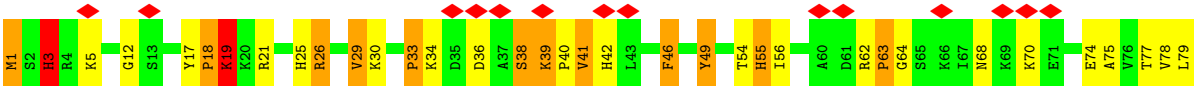
• Molecule 62: 60S ribosomal protein L29

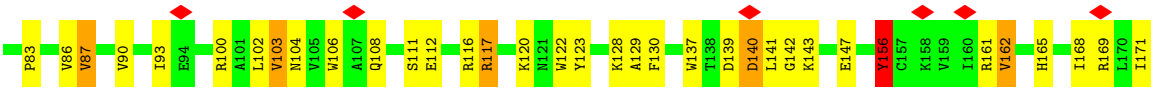
Chain Cb:

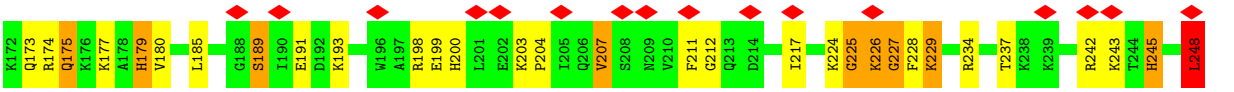


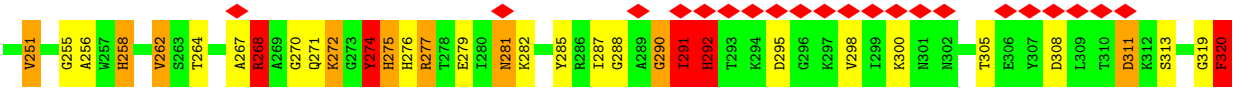
• Molecule 63: 60S ribosomal protein L3

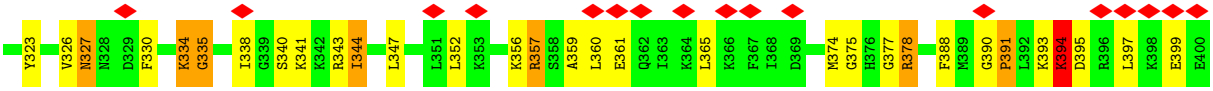
Chain CB:

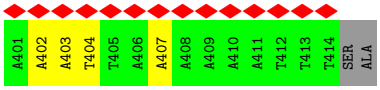






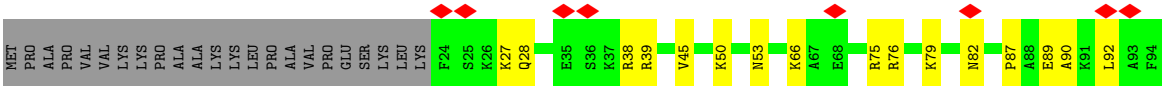


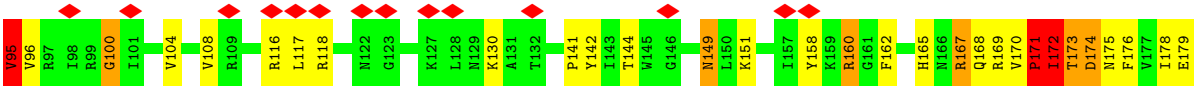


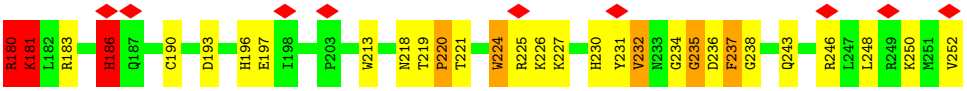


• Molecule 64: 60S ribosomal protein L7

Chain CF:

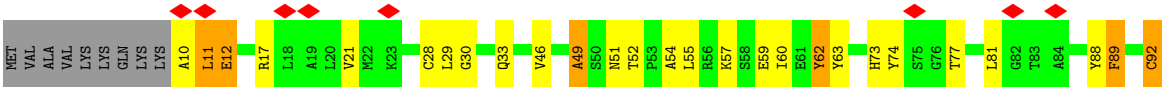






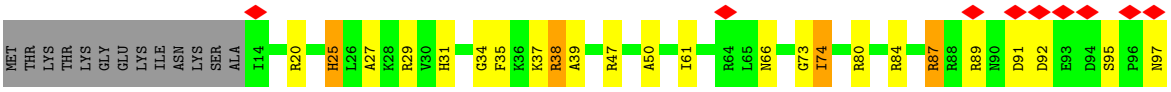
• Molecule 65: 60S ribosomal protein L30

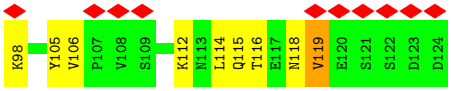
Chain Cc:



• Molecule 66: 60S ribosomal protein L31

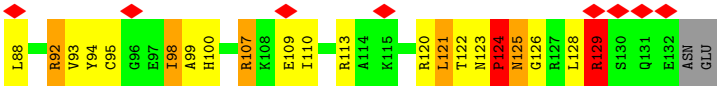
Chain Cd:





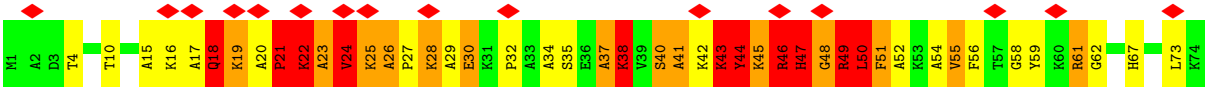
• Molecule 67: 60S ribosomal protein L32

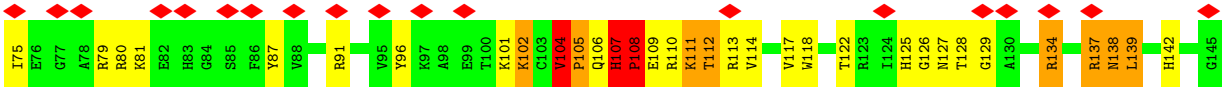
Chain Ce:

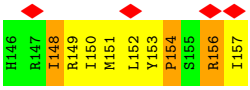


• Molecule 68: 60S ribosomal protein L35A

Chain Cf:

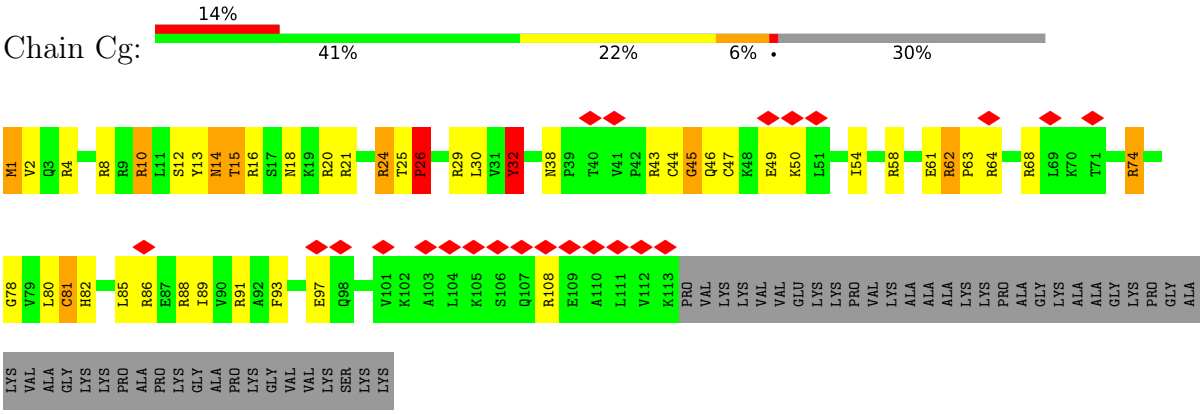






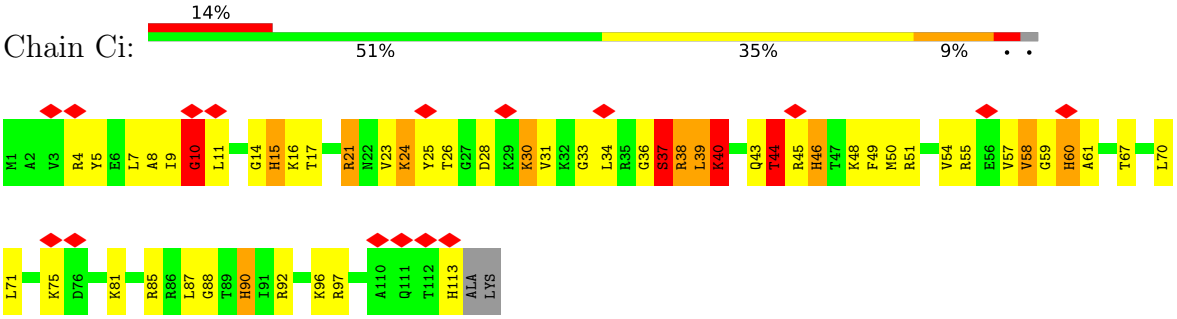
• Molecule 69: 60S ribosomal protein L34a

Chain Cg:



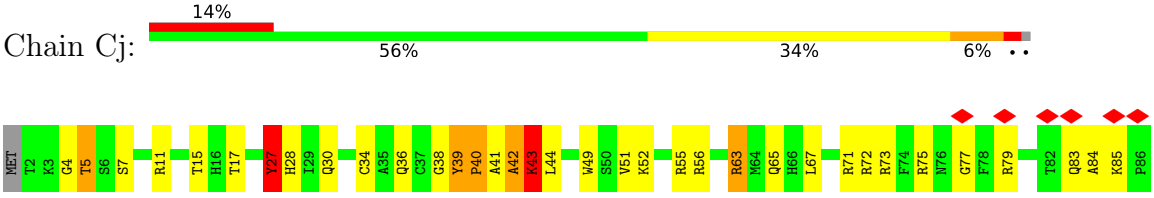
• Molecule 70: 60S ribosomal protein L36

Chain Ci:



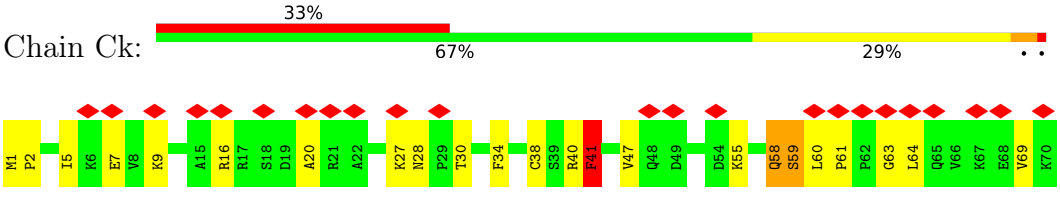
• Molecule 71: 60S ribosomal protein L37-A

Chain Cj:



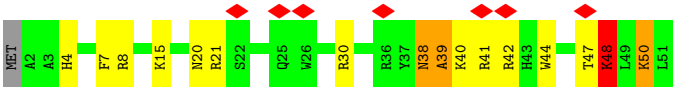
• Molecule 72: 60S ribosomal protein L38

Chain Ck:

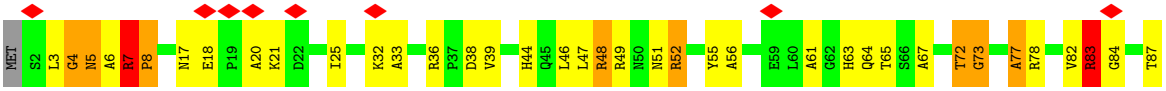


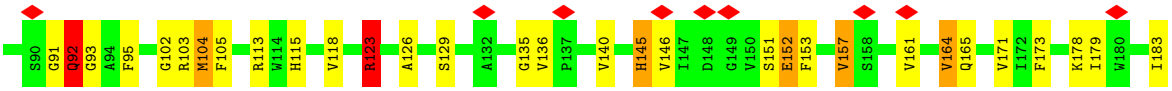
• Molecule 73: 60S ribosomal protein L39

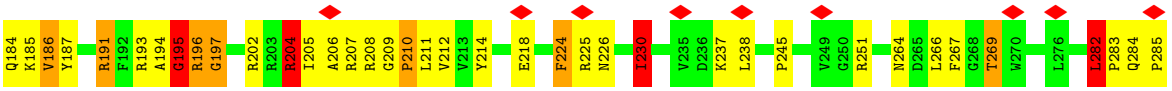
Chain Cl:

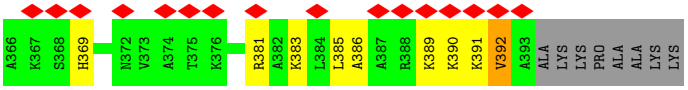


• Molecule 74: 60S ribosomal protein L4

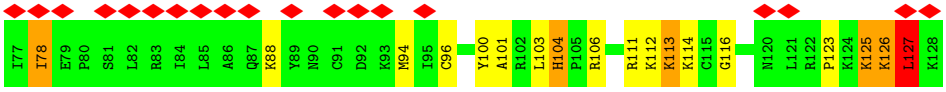




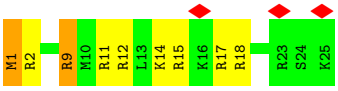




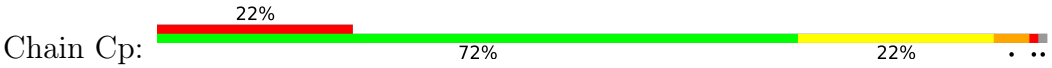
• Molecule 75: 60S ribosomal protein L40

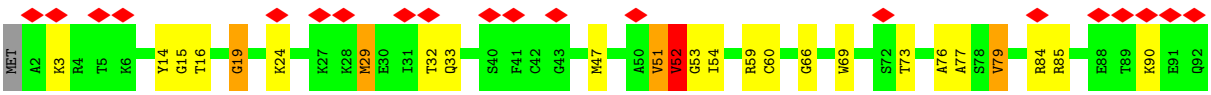


• Molecule 76: 60S ribosomal protein L41



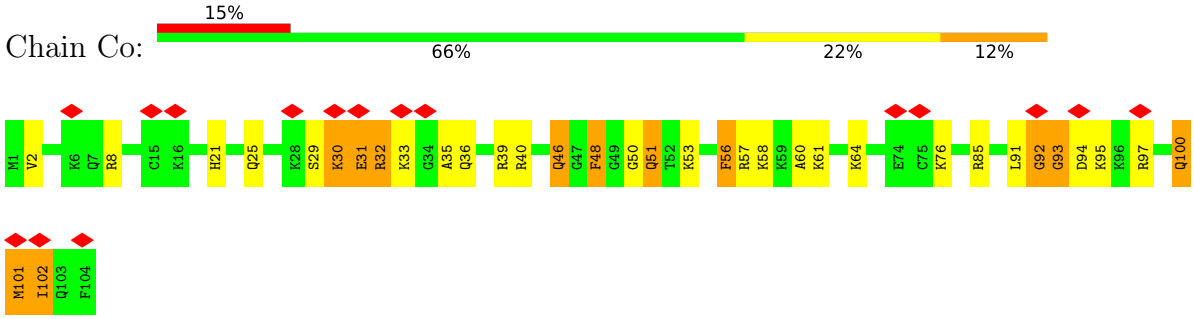
• Molecule 77: 60S ribosomal protein L37a





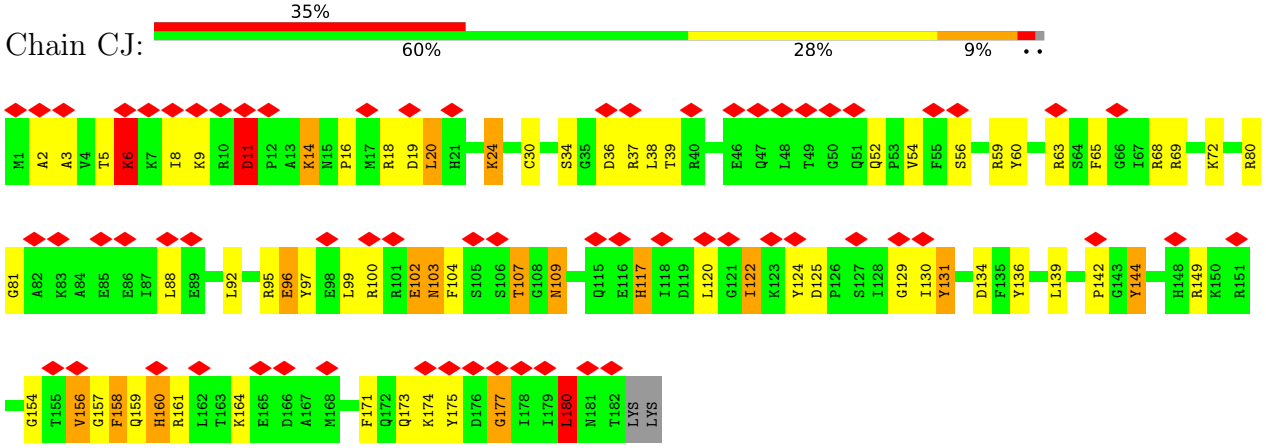
• Molecule 78: 60S ribosomal protein L36A

Chain Co:



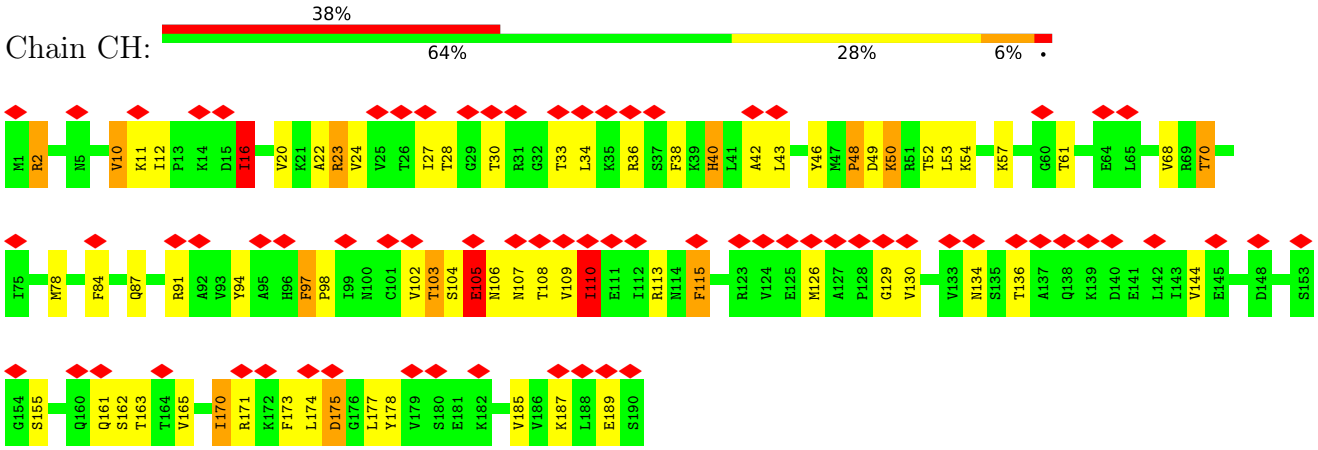
• Molecule 79: 60S ribosomal protein L11

Chain CJ:



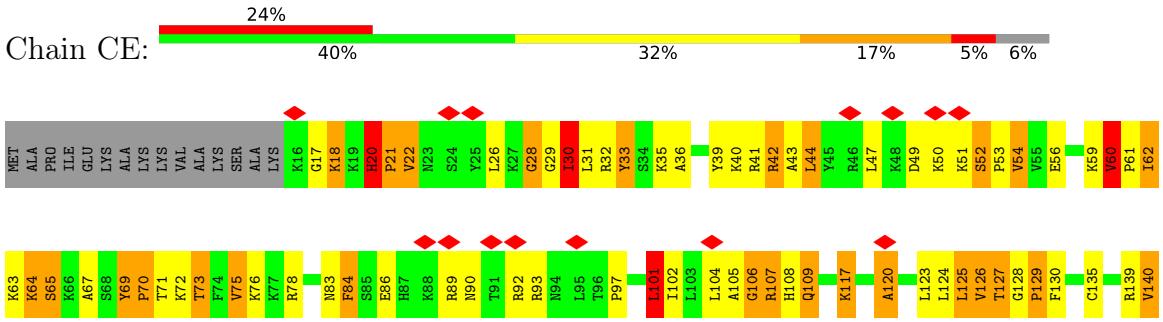
• Molecule 80: 60S ribosomal protein L9

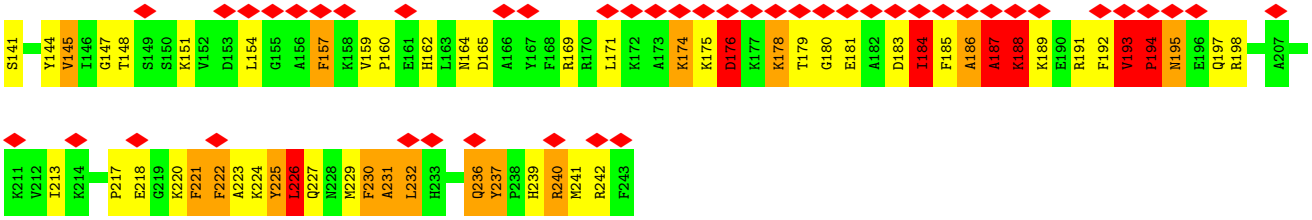
Chain CH:



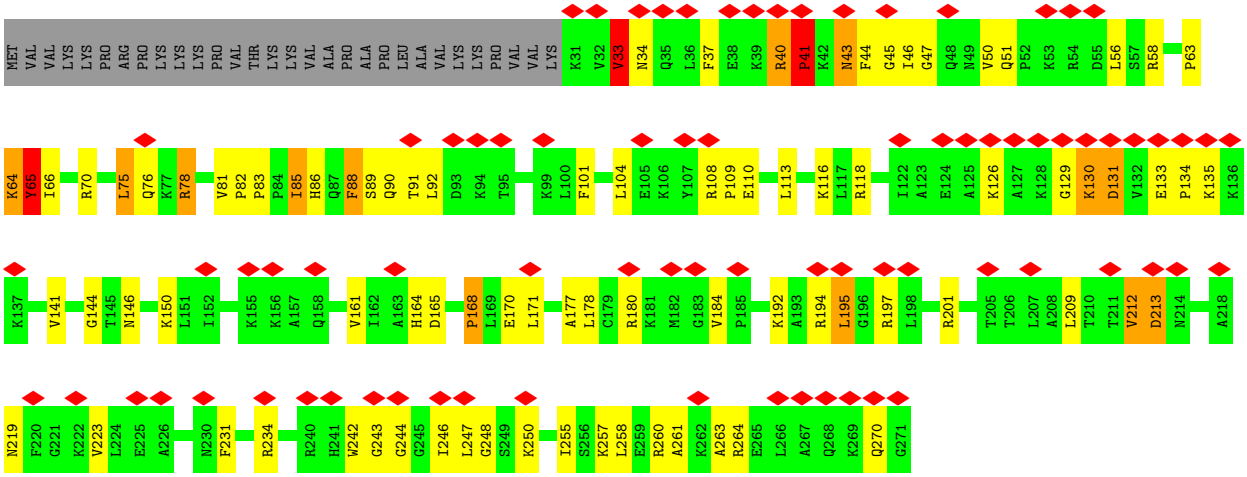
• Molecule 81: 60S ribosomal protein L6, isoform A

Chain CE:

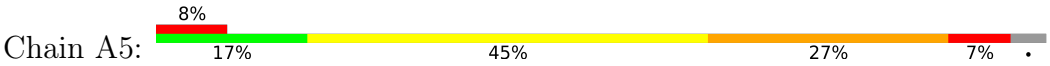


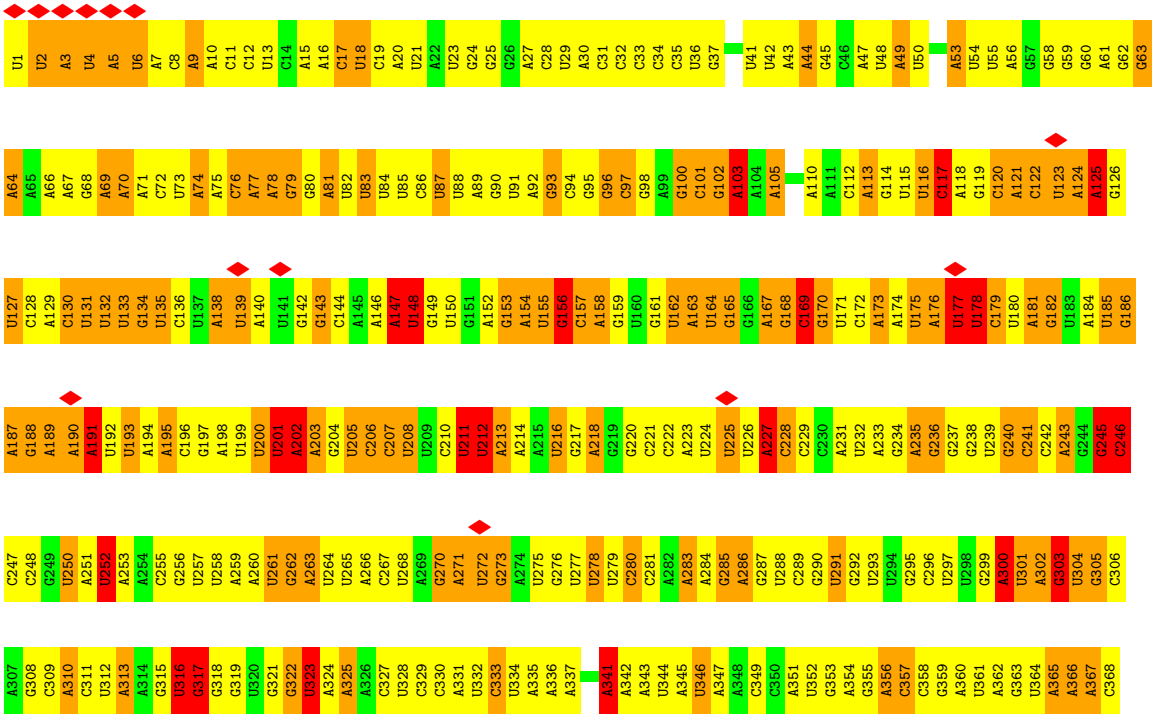


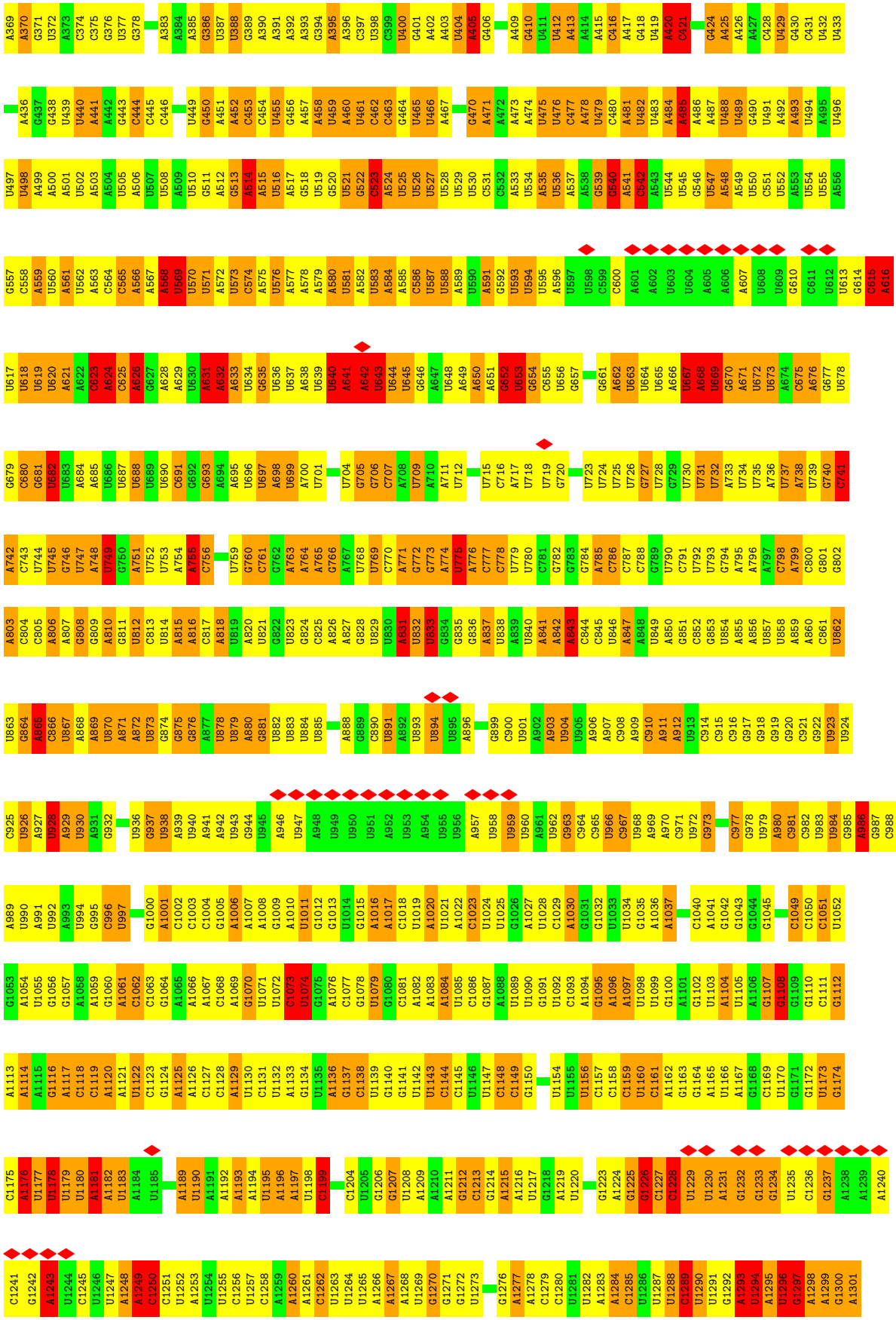
• Molecule 82: 60S ribosomal protein L7a

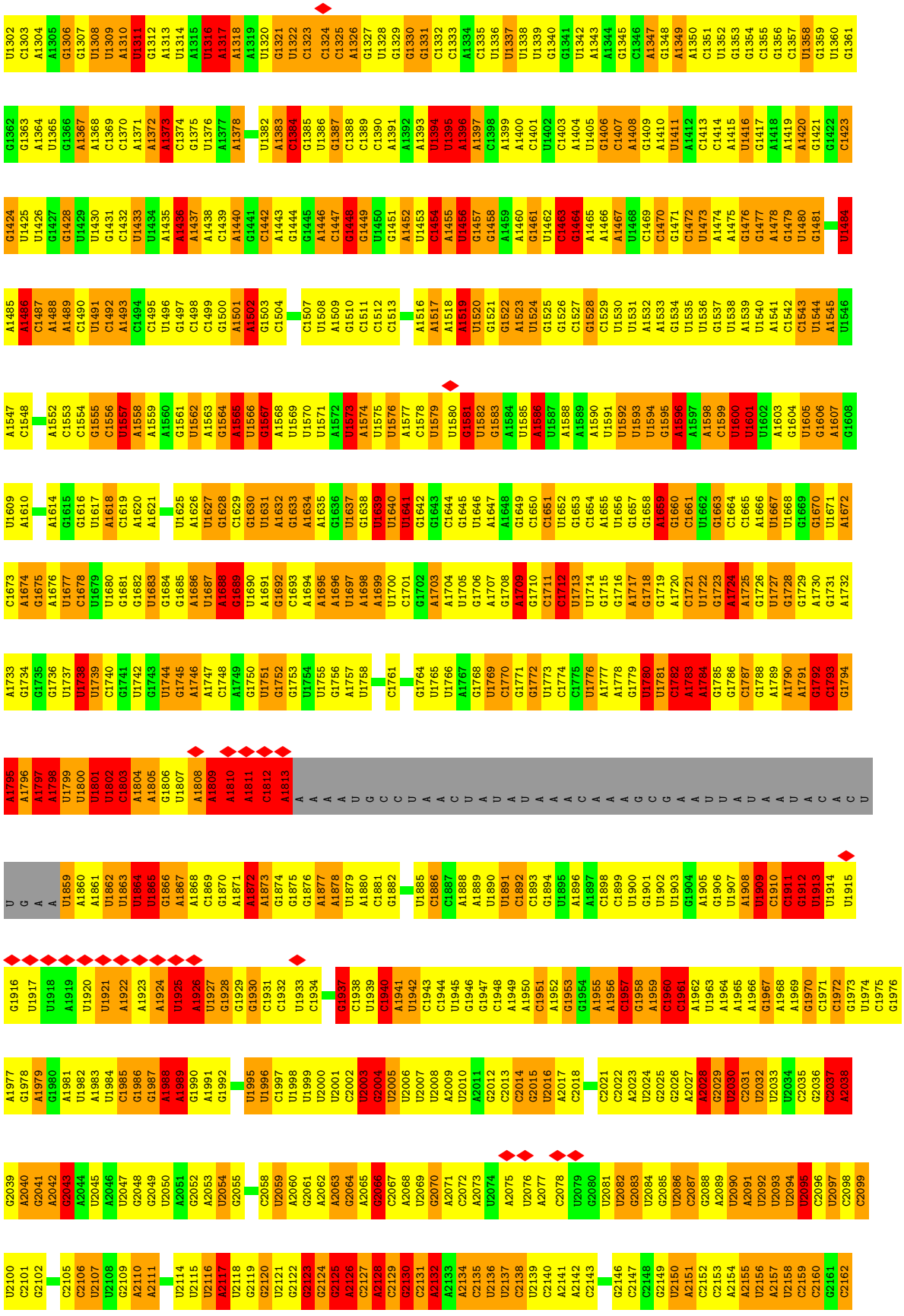


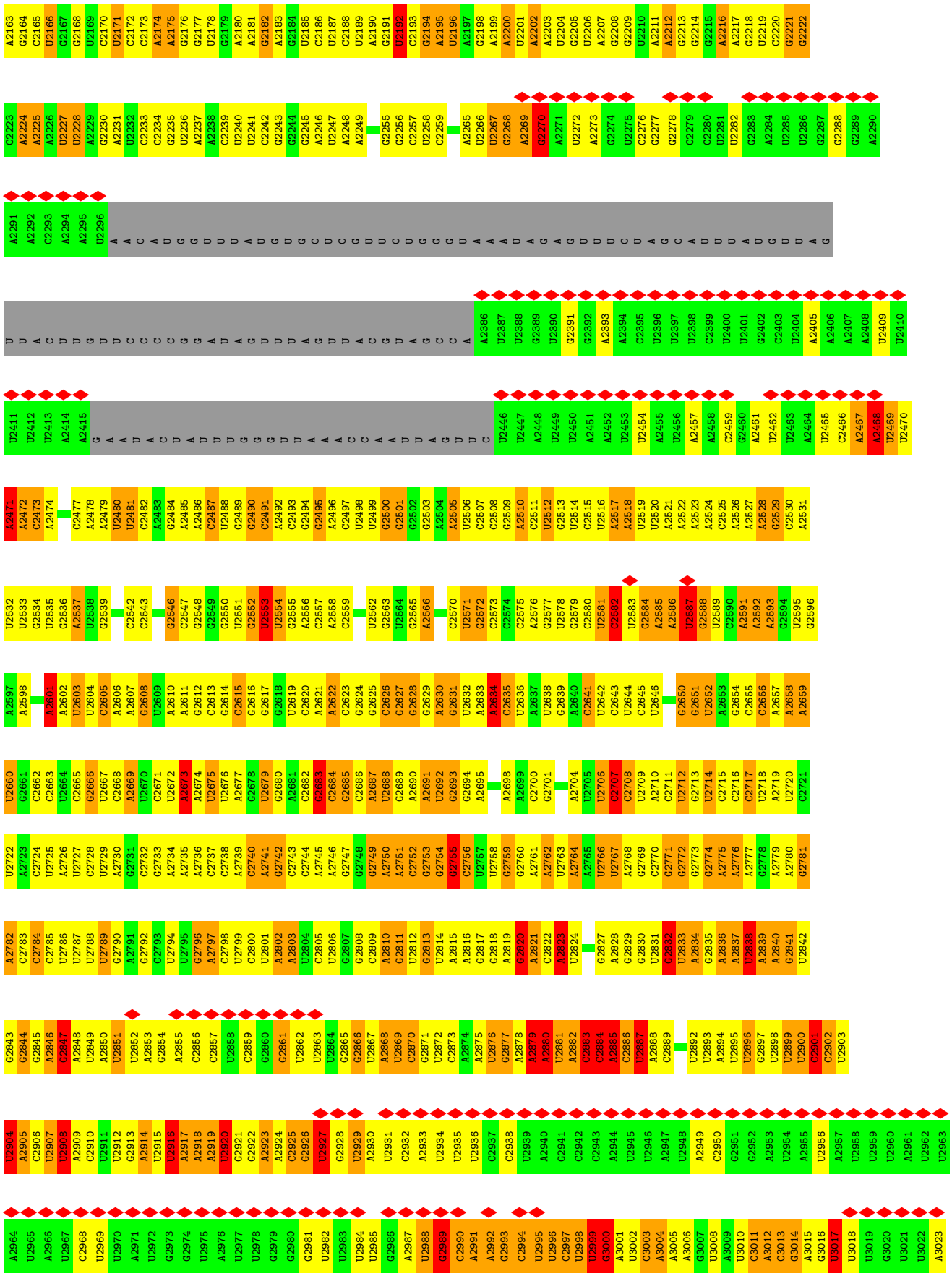
• Molecule 83: 28S ribosomal RNA

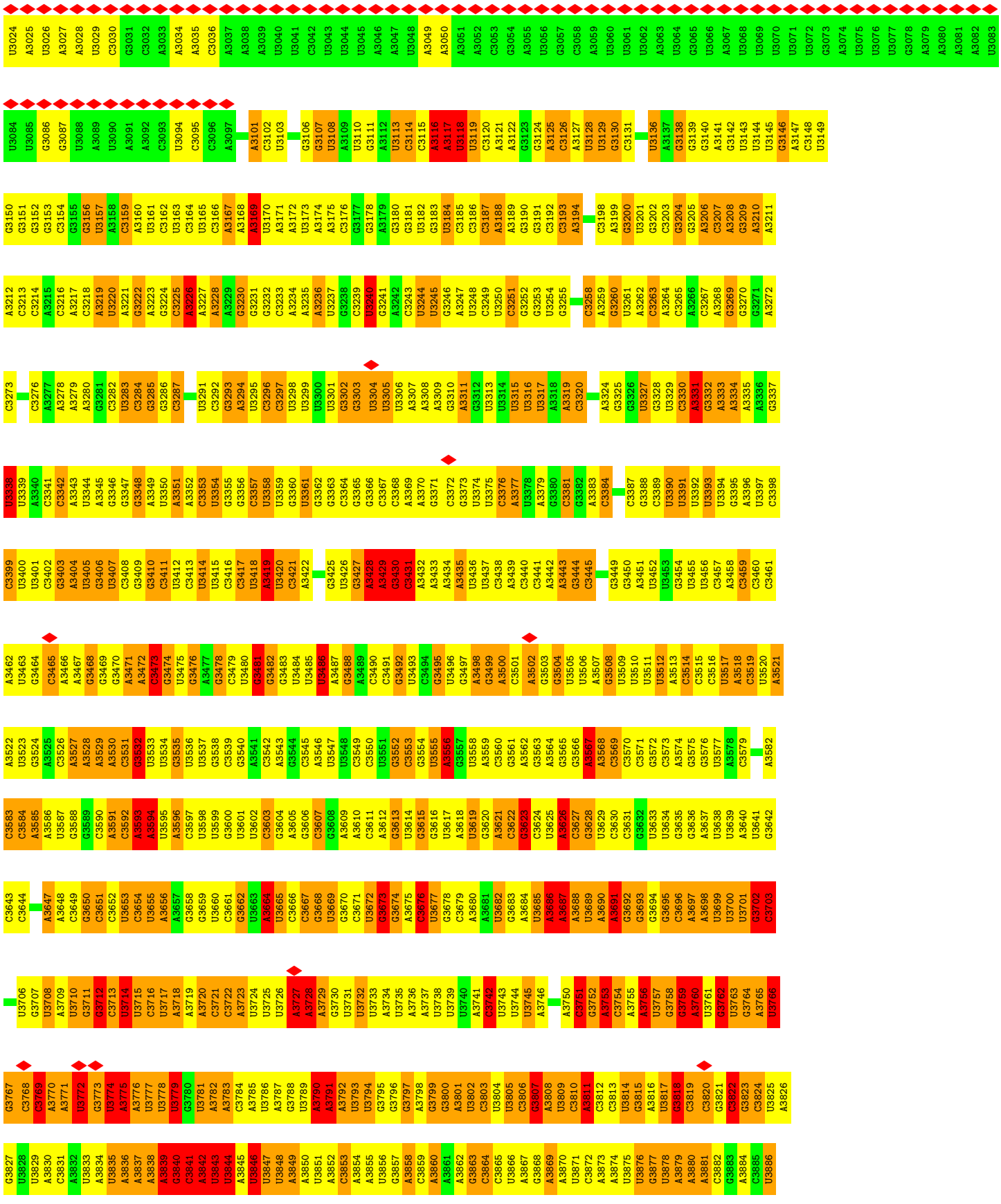






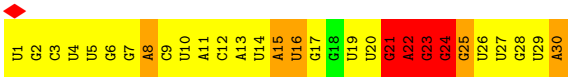






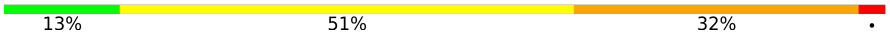
• Molecule 84: 2S ribosomal RNA

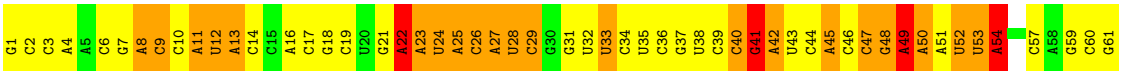
Chain A9:



• Molecule 85: 5S ribosomal RNA

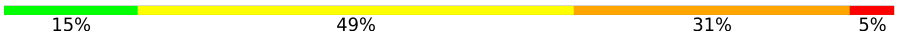
Chain A7:

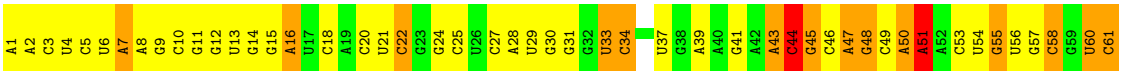




• Molecule 86: 5.8S ribosomal RNA

Chain A8:





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	134500	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	each subvolume	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	20	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	90000	Depositor
Image detector	FEI EAGLE (4k x 4k)	Depositor
Maximum map value	1.943	Depositor
Minimum map value	-0.877	Depositor
Average map value	0.003	Depositor
Map value standard deviation	0.168	Depositor
Recommended contour level	0.49	Depositor
Map size (Å)	455.4, 455.4, 455.4	wwPDB
Map dimensions	368, 368, 368	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.2375, 1.2375, 1.2375	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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	Az	1.61	28/6704 (0.4%)	2.30	405/9051 (4.5%)
2	Ag	1.60	9/2574 (0.3%)	1.86	61/3506 (1.7%)
3	AU	1.73	5/825 (0.6%)	2.01	33/1111 (3.0%)
4	AK	1.57	1/819 (0.1%)	2.05	32/1110 (2.9%)
5	AO	1.67	10/1016 (1.0%)	2.15	44/1364 (3.2%)
6	AX	1.70	5/1152 (0.4%)	2.05	42/1540 (2.7%)
7	AM	1.60	6/937 (0.6%)	2.26	37/1260 (2.9%)
8	AS	1.66	7/1146 (0.6%)	2.14	39/1535 (2.5%)
9	Ad	1.71	4/443 (0.9%)	2.13	22/589 (3.7%)
10	AN	1.64	7/1225 (0.6%)	2.14	42/1641 (2.6%)
11	AL	1.73	13/1296 (1.0%)	1.96	31/1725 (1.8%)
12	AR	1.69	5/993 (0.5%)	2.05	34/1333 (2.6%)
13	AP	1.59	5/1036 (0.5%)	2.07	48/1383 (3.5%)
14	AT	1.70	9/1228 (0.7%)	2.19	44/1653 (2.7%)
15	AB	1.61	8/1825 (0.4%)	2.03	70/2448 (2.9%)
16	AA	1.61	8/1777 (0.5%)	2.16	80/2422 (3.3%)
17	AV	1.71	4/622 (0.6%)	2.02	22/835 (2.6%)
18	AY	2.04	12/1032 (1.2%)	2.05	45/1373 (3.3%)
19	AZ	1.66	3/616 (0.5%)	2.23	33/826 (4.0%)
20	Aa	1.74	8/883 (0.9%)	2.20	42/1184 (3.5%)
21	Ab	1.73	6/668 (0.9%)	2.11	30/898 (3.3%)
22	Ac	1.88	6/502 (1.2%)	1.96	14/670 (2.1%)
23	AD	1.65	10/1808 (0.6%)	2.02	54/2427 (2.2%)
24	Ae	1.68	3/475 (0.6%)	2.06	20/625 (3.2%)
25	Af	1.70	7/672 (1.0%)	2.22	32/887 (3.6%)
26	AJ	1.70	10/1526 (0.7%)	2.20	64/2037 (3.1%)
27	AE	1.65	18/2096 (0.9%)	1.99	58/2819 (2.1%)
28	AC	1.62	6/1785 (0.3%)	2.11	81/2415 (3.4%)
29	AG	1.71	19/1891 (1.0%)	2.11	77/2519 (3.1%)
30	AF	1.66	10/1518 (0.7%)	2.14	52/2037 (2.6%)
31	AH	1.64	4/1593 (0.3%)	2.15	75/2145 (3.5%)
32	AW	1.67	7/1046 (0.7%)	1.98	18/1402 (1.3%)
33	AI	1.64	8/1689 (0.5%)	2.07	58/2250 (2.6%)
34	AQ	1.67	6/1202 (0.5%)	2.35	61/1608 (3.8%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
35	Ah	1.62	3/495 (0.6%)	2.17	19/658 (2.9%)
36	B2	1.85	1372/44058 (3.1%)	1.82	1875/68404 (2.7%)
37	BC	1.81	52/1796 (2.9%)	1.68	62/2800 (2.2%)
38	Cz	1.57	7/1727 (0.4%)	2.00	48/2308 (2.1%)
39	Cq	1.59	6/1736 (0.3%)	2.07	61/2342 (2.6%)
40	CK	1.64	5/1196 (0.4%)	2.17	60/1614 (3.7%)
41	CO	1.70	15/1700 (0.9%)	2.04	66/2277 (2.9%)
42	CL	1.74	16/1726 (0.9%)	2.43	128/2308 (5.5%)
43	CV	1.65	5/1014 (0.5%)	2.03	36/1362 (2.6%)
44	CM	1.72	10/1326 (0.8%)	2.13	59/1780 (3.3%)
45	Ca	1.66	5/1235 (0.4%)	2.27	58/1640 (3.5%)
46	CN	1.82	24/1750 (1.4%)	2.10	68/2335 (2.9%)
47	CI	1.65	11/1827 (0.6%)	1.96	64/2447 (2.6%)
48	CD	1.67	11/2379 (0.5%)	2.01	75/3196 (2.3%)
49	CQ	1.70	13/1544 (0.8%)	2.10	71/2069 (3.4%)
50	CR	1.65	7/1703 (0.4%)	2.08	52/2255 (2.3%)
51	CA	1.77	23/1970 (1.2%)	2.13	75/2635 (2.8%)
52	CS	1.66	7/1491 (0.5%)	2.19	79/1998 (4.0%)
53	CT	1.66	8/1326 (0.6%)	2.09	48/1773 (2.7%)
54	CP	1.70	14/1529 (0.9%)	1.99	41/2042 (2.0%)
55	CU	1.56	2/974 (0.2%)	1.87	24/1302 (1.8%)
56	CX	1.69	9/1001 (0.9%)	2.10	34/1348 (2.5%)
57	CY	1.75	6/1094 (0.5%)	2.05	33/1456 (2.3%)
58	CW	1.69	9/1063 (0.8%)	2.17	56/1410 (4.0%)
59	CZ	1.65	6/1141 (0.5%)	2.04	37/1517 (2.4%)
60	Cr	1.69	8/1069 (0.7%)	2.31	63/1432 (4.4%)
61	Ch	1.64	5/1024 (0.5%)	2.04	29/1353 (2.1%)
62	Cb	1.67	1/628 (0.2%)	2.20	30/832 (3.6%)
63	CB	1.67	22/3356 (0.7%)	2.13	145/4494 (3.2%)
64	CF	1.70	14/1958 (0.7%)	2.11	72/2622 (2.7%)
65	Cc	1.56	4/779 (0.5%)	1.99	23/1048 (2.2%)
66	Cd	1.70	4/939 (0.4%)	2.03	28/1262 (2.2%)
67	Ce	1.70	10/1132 (0.9%)	2.14	50/1508 (3.3%)
68	Cf	1.81	11/1270 (0.9%)	2.29	80/1696 (4.7%)
69	Cg	1.86	14/938 (1.5%)	2.16	40/1252 (3.2%)
70	Ci	1.67	6/944 (0.6%)	2.22	45/1250 (3.6%)
71	Cj	1.80	8/750 (1.1%)	2.06	30/993 (3.0%)
72	Ck	1.69	2/583 (0.3%)	2.32	19/774 (2.5%)
73	Cl	1.76	4/445 (0.9%)	2.04	10/589 (1.7%)
74	CC	1.70	18/3163 (0.6%)	2.14	119/4253 (2.8%)
75	Cm	1.60	1/435 (0.2%)	2.05	15/575 (2.6%)
76	Cn	1.91	4/237 (1.7%)	1.91	2/300 (0.7%)
77	Cp	1.66	2/719 (0.3%)	2.00	19/954 (2.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\|>5$	RMSZ	$\#\|Z\|>5$
78	Co	1.69	5/887 (0.6%)	2.11	40/1162 (3.4%)
79	CJ	1.69	10/1494 (0.7%)	2.05	47/2001 (2.3%)
80	CH	1.60	9/1519 (0.6%)	1.99	47/2042 (2.3%)
81	CE	1.66	13/1883 (0.7%)	2.36	125/2514 (5.0%)
82	CG	1.63	12/1968 (0.6%)	2.14	94/2637 (3.6%)
83	A5	1.86	2670/87035 (3.1%)	1.86	3981/135254 (2.9%)
84	A9	1.81	27/714 (3.8%)	1.99	33/1112 (3.0%)
85	A7	1.87	95/2854 (3.3%)	1.89	129/4447 (2.9%)
86	A8	1.82	88/2932 (3.0%)	1.86	126/4568 (2.8%)
All	All	1.78	4990/247076 (2.0%)	1.96	10570/360828 (2.9%)

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	Az	105	86
2	Ag	0	4
3	AU	0	3
4	AK	0	8
5	AO	2	1
6	AX	0	3
7	AM	1	7
8	AS	0	6
9	Ad	0	4
10	AN	0	6
11	AL	0	9
12	AR	0	5
13	AP	1	4
14	AT	2	11
15	AB	0	4
16	AA	0	6
17	AV	0	2
18	AY	0	11
19	AZ	1	2
20	Aa	1	6
21	Ab	0	4
22	Ac	0	3
23	AD	1	10
24	Ae	0	2
25	Af	0	10

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Mol	Chain	#Chirality outliers	#Planarity outliers
26	AJ	0	7
27	AE	0	13
28	AC	0	14
29	AG	0	11
30	AF	0	7
31	AH	2	8
32	AW	0	2
33	AI	0	12
34	AQ	0	12
35	Ah	0	6
36	B2	1	0
38	Cz	1	2
39	Cq	1	16
40	CK	0	13
41	CO	0	9
42	CL	29	21
43	CV	0	4
44	CM	2	15
45	Ca	1	12
46	CN	1	13
47	CI	0	11
48	CD	1	8
49	CQ	0	7
50	CR	0	5
51	CA	0	8
52	CS	28	22
53	CT	1	12
54	CP	1	4
55	CU	0	4
56	CX	1	4
57	CY	0	4
58	CW	0	10
59	CZ	0	6
60	Cr	0	14
61	Ch	0	3
62	Cb	0	4
63	CB	1	24
64	CF	1	7
65	Cc	0	5
66	Cd	1	3
67	Ce	0	8
68	Cf	7	22

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Mol	Chain	#Chirality outliers	#Planarity outliers
69	Cg	0	7
70	Ci	0	5
71	Cj	0	3
72	Ck	0	2
73	Cl	0	4
74	CC	1	21
75	Cm	0	2
76	Cn	0	2
77	Cp	0	2
78	Co	0	5
79	CJ	1	10
80	CH	1	11
81	CE	3	26
82	CG	1	7
83	A5	7	0
All	All	208	716

All (4990) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1668	U	C2'-C1'	-22.84	1.19	1.53
36	B2	1320	G	C2'-C1'	-22.10	1.20	1.53
83	A5	973	G	C2'-C1'	-20.15	1.23	1.53
83	A5	2767	U	C2'-C1'	-18.93	1.25	1.53
83	A5	3474	G	C2'-C1'	-18.53	1.25	1.53
83	A5	874	G	C2'-C1'	-18.23	1.26	1.53
83	A5	973	G	O4'-C1'	18.11	1.68	1.41
83	A5	1689	G	C2'-C1'	-17.59	1.26	1.53
36	B2	1821	G	C2'-C1'	-17.55	1.27	1.53
83	A5	3670	G	C2'-C1'	-17.52	1.27	1.53
83	A5	1368	A	O4'-C1'	-17.50	1.15	1.42
83	A5	542	C	O4'-C1'	17.25	1.67	1.41
83	A5	1417	G	C2'-C1'	-17.14	1.27	1.53
83	A5	2085	G	C2'-C1'	-17.11	1.27	1.53
18	AY	77	TYR	CG-CD1	16.95	1.75	1.39
83	A5	1948	C	C2'-C1'	-16.93	1.27	1.53
18	AY	77	TYR	CG-CD2	16.59	1.74	1.39
83	A5	2767	U	O4'-C1'	16.54	1.66	1.41
36	B2	1342	G	O4'-C1'	-16.49	1.17	1.42
83	A5	775	U	C2'-C1'	-16.46	1.28	1.53
18	AY	77	TYR	CE1-CZ	16.44	1.77	1.38
83	A5	1564	G	C2'-C1'	-16.41	1.28	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1250	C	C2'-C1'	-16.41	1.28	1.53
36	B2	1620	G	C2'-C1'	-16.35	1.28	1.53
36	B2	1569	C	O4'-C1'	16.30	1.66	1.41
83	A5	24	G	C2'-C1'	-16.26	1.28	1.53
36	B2	717	C	C2'-C1'	-16.22	1.29	1.53
36	B2	430	A	C2'-C1'	-16.11	1.29	1.53
83	A5	2673	A	C2'-C1'	-16.02	1.29	1.53
36	B2	1089	G	C2'-C1'	-16.00	1.29	1.53
83	A5	801	G	C2'-C1'	-15.98	1.29	1.53
83	A5	118	A	C2'-C1'	-15.91	1.29	1.53
83	A5	1503	G	C2'-C1'	-15.83	1.29	1.53
18	AY	77	TYR	CE2-CZ	15.77	1.76	1.38
83	A5	1534	G	C2'-C1'	-15.71	1.29	1.53
83	A5	3190	G	C2'-C1'	-15.65	1.29	1.53
83	A5	117	C	O4'-C1'	15.62	1.65	1.41
83	A5	761	C	C2'-C1'	-15.54	1.30	1.53
83	A5	3759	G	C2'-C1'	-15.52	1.30	1.53
83	A5	3906	U	C2'-C1'	-15.49	1.30	1.53
36	B2	267	G	C2'-C1'	-15.32	1.30	1.53
83	A5	1181	A	C2'-C1'	-15.16	1.30	1.53
36	B2	1674	C	O4'-C1'	15.15	1.64	1.41
83	A5	2737	C	C2'-C1'	-15.15	1.30	1.53
83	A5	959	U	O4'-C1'	15.11	1.64	1.41
83	A5	864	G	O4'-C1'	15.05	1.64	1.41
83	A5	3586	A	C2'-C1'	-15.04	1.30	1.53
36	B2	1833	C	O4'-C1'	15.03	1.64	1.41
83	A5	623	C	O4'-C1'	15.01	1.64	1.41
83	A5	1689	G	O4'-C1'	14.86	1.64	1.41
36	B2	458	C	O4'-C1'	14.84	1.64	1.41
36	B2	1596	C	C2'-C1'	-14.79	1.31	1.53
83	A5	1599	C	C2'-C1'	-14.76	1.31	1.53
83	A5	1940	C	O4'-C1'	14.74	1.63	1.41
83	A5	1886	C	O4'-C1'	14.74	1.63	1.41
83	A5	2066	G	O4'-C1'	14.73	1.63	1.41
83	A5	2487	C	O4'-C1'	14.72	1.63	1.41
83	A5	3807	G	C2'-C1'	-14.72	1.31	1.53
83	A5	932	G	C2'-C1'	-14.71	1.31	1.53
83	A5	3357	C	O4'-C1'	14.66	1.63	1.41
83	A5	815	A	C2'-C1'	-14.65	1.31	1.53
36	B2	651	C	O4'-C1'	14.62	1.63	1.41
83	A5	2122	G	C2'-C1'	-14.61	1.31	1.53
83	A5	3384	C	O4'-C1'	14.58	1.63	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1803	C	O4'-C1'	14.55	1.63	1.41
83	A5	300	A	O4'-C1'	14.49	1.63	1.41
83	A5	3515	C	O4'-C1'	14.49	1.63	1.41
83	A5	1770	C	O4'-C1'	14.45	1.63	1.41
83	A5	3807	G	O4'-C1'	14.45	1.63	1.41
83	A5	33	C	O4'-C1'	14.40	1.63	1.41
83	A5	2078	C	O4'-C1'	14.40	1.63	1.41
36	B2	249	U	C2'-C1'	-14.38	1.31	1.53
36	B2	284	G	O4'-C1'	14.36	1.63	1.41
36	B2	1320	G	O4'-C1'	14.32	1.63	1.41
83	A5	875	G	C2'-C1'	-14.32	1.31	1.53
36	B2	1030	C	O4'-C1'	14.32	1.63	1.41
36	B2	1243	G	C2'-C1'	-14.32	1.31	1.53
36	B2	1402	U	C2'-C1'	-14.31	1.31	1.53
36	B2	1650	G	C2'-C1'	-14.30	1.31	1.53
83	A5	2138	C	O4'-C1'	14.29	1.63	1.41
36	B2	1127	G	C2'-C1'	-14.27	1.31	1.53
83	A5	3514	C	O4'-C1'	-14.22	1.20	1.41
83	A5	3843	U	C2'-C1'	14.19	1.74	1.53
83	A5	801	G	O4'-C1'	14.18	1.62	1.41
83	A5	1757	A	C2'-C1'	-14.17	1.31	1.53
83	A5	220	G	C2'-C1'	-14.17	1.32	1.53
83	A5	3237	U	O4'-C1'	14.15	1.63	1.42
83	A5	3690	A	O4'-C1'	14.13	1.62	1.41
83	A5	117	C	C2'-C1'	-14.12	1.32	1.53
83	A5	3820	C	O4'-C1'	14.10	1.62	1.41
83	A5	3563	G	C2'-C1'	-14.08	1.32	1.53
83	A5	3784	C	C2'-C1'	-14.06	1.32	1.53
83	A5	3683	G	C2'-C1'	-14.01	1.32	1.53
83	A5	920	G	O4'-C1'	14.00	1.62	1.41
83	A5	3628	G	O4'-C1'	13.95	1.62	1.41
83	A5	2740	C	O4'-C1'	13.94	1.62	1.41
83	A5	3151	G	C2'-C1'	-13.90	1.32	1.53
83	A5	2131	C	O4'-C1'	13.89	1.62	1.41
36	B2	1359	U	C2'-C1'	-13.89	1.32	1.53
36	B2	1087	C	O4'-C1'	-13.84	1.20	1.41
36	B2	163	C	O4'-C1'	13.83	1.62	1.41
83	A5	1873	A	C2'-C1'	-13.81	1.32	1.53
36	B2	1695	A	O4'-C1'	-13.80	1.21	1.41
83	A5	1404	A	O4'-C1'	13.78	1.62	1.41
83	A5	1160	U	O4'-C1'	13.72	1.62	1.41
83	A5	3812	C	O4'-C1'	13.69	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1701	C	O4'-C1'	13.68	1.62	1.41
83	A5	1015	G	C2'-C1'	-13.65	1.32	1.53
83	A5	12	C	C2'-C1'	-13.63	1.32	1.53
83	A5	2794	U	C2'-C1'	-13.61	1.32	1.53
83	A5	1195	U	C2'-C1'	-13.58	1.32	1.53
36	B2	1701	C	O4'-C1'	13.58	1.62	1.41
83	A5	761	C	O4'-C1'	13.58	1.62	1.41
83	A5	1132	U	C2'-C1'	-13.55	1.32	1.53
83	A5	1948	C	O4'-C1'	13.53	1.61	1.41
36	B2	1271	A	O4'-C1'	13.48	1.61	1.41
83	A5	2828	A	O4'-C1'	13.46	1.61	1.41
83	A5	1029	C	C2'-C1'	-13.46	1.33	1.53
83	A5	2557	C	O4'-C1'	13.45	1.62	1.42
83	A5	3584	C	O4'-C1'	13.45	1.62	1.42
36	B2	272	U	O4'-C1'	13.44	1.61	1.41
83	A5	677	G	C2'-C1'	-13.45	1.33	1.53
83	A5	625	C	O4'-C1'	13.44	1.61	1.41
36	B2	416	C	O4'-C1'	13.42	1.61	1.41
83	A5	1144	C	O4'-C1'	13.42	1.61	1.41
83	A5	2710	A	O4'-C1'	13.38	1.61	1.41
36	B2	1290	A	O4'-C1'	13.36	1.61	1.41
36	B2	157	C	O4'-C1'	13.36	1.61	1.41
36	B2	817	C	C2'-C1'	-13.35	1.33	1.53
36	B2	1024	C	O4'-C1'	13.32	1.61	1.41
36	B2	1036	C	O4'-C1'	13.31	1.61	1.41
86	A8	70	A	C2'-C1'	-13.31	1.33	1.53
36	B2	657	A	O4'-C1'	13.29	1.61	1.41
36	B2	1246	C	O4'-C1'	13.29	1.61	1.42
36	B2	1077	C	O4'-C1'	13.29	1.61	1.41
83	A5	2138	C	C2'-C1'	-13.28	1.33	1.53
83	A5	2613	C	O4'-C1'	13.24	1.61	1.41
83	A5	260	A	C2'-C1'	-13.23	1.33	1.53
36	B2	1687	C	O4'-C1'	13.22	1.61	1.41
36	B2	264	C	O4'-C1'	13.20	1.61	1.41
83	A5	1132	U	O4'-C1'	13.19	1.61	1.42
36	B2	1788	C	O4'-C1'	-13.16	1.22	1.41
83	A5	11	C	C2'-C1'	-13.16	1.33	1.53
83	A5	3389	C	C2'-C1'	-13.13	1.33	1.53
83	A5	1554	C	O4'-C1'	13.10	1.61	1.41
83	A5	1748	C	O4'-C1'	13.10	1.61	1.41
83	A5	2680	G	C2'-C1'	-13.09	1.33	1.53
36	B2	1796	C	O4'-C1'	13.09	1.61	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3206	A	O4'-C1'	13.08	1.61	1.41
83	A5	1404	A	C2'-C1'	-13.05	1.33	1.53
83	A5	3569	C	O4'-C1'	13.05	1.61	1.41
36	B2	1096	C	O4'-C1'	13.03	1.61	1.41
83	A5	2014	C	C2'-C1'	-13.03	1.33	1.53
36	B2	650	G	C2'-C1'	-13.02	1.33	1.53
83	A5	2572	G	C2'-C1'	-13.01	1.33	1.53
83	A5	3249	C	C2'-C1'	-12.98	1.33	1.53
36	B2	248	G	O4'-C1'	12.98	1.61	1.41
36	B2	1290	A	C2'-C1'	-12.97	1.33	1.53
83	A5	1159	C	O4'-C1'	12.97	1.61	1.41
83	A5	2151	A	O4'-C1'	12.96	1.61	1.41
83	A5	2753	G	C2'-C1'	-12.96	1.33	1.53
83	A5	3395	G	C2'-C1'	-12.94	1.33	1.53
83	A5	3273	C	O4'-C1'	12.94	1.61	1.41
83	A5	937	G	C2'-C1'	-12.93	1.33	1.53
36	B2	574	C	O4'-C1'	12.93	1.61	1.41
86	A8	74	G	O4'-C1'	12.93	1.61	1.41
36	B2	867	G	C2'-C1'	-12.92	1.33	1.53
83	A5	3590	C	O4'-C1'	12.91	1.61	1.41
83	A5	3569	C	C2'-C1'	-12.91	1.33	1.53
36	B2	474	C	O4'-C1'	12.91	1.61	1.41
83	A5	3952	C	C2'-C1'	-12.91	1.33	1.53
83	A5	3727	A	O4'-C1'	-12.90	1.22	1.42
83	A5	1661	C	O4'-C1'	12.89	1.60	1.41
36	B2	106	C	O4'-C1'	12.88	1.60	1.41
36	B2	1218	G	C2'-C1'	-12.88	1.34	1.53
83	A5	1556	C	C2'-C1'	-12.88	1.34	1.53
83	A5	2686	C	O4'-C1'	12.87	1.60	1.41
83	A5	1003	C	C2'-C1'	-12.85	1.34	1.53
36	B2	1123	G	C2'-C1'	-12.85	1.34	1.53
36	B2	230	C	O4'-C1'	12.84	1.60	1.41
83	A5	2481	U	C2'-C1'	-12.84	1.34	1.53
83	A5	1873	A	O4'-C1'	12.84	1.61	1.42
36	B2	419	C	C2'-C1'	-12.83	1.34	1.53
36	B2	96	C	O4'-C1'	12.83	1.60	1.41
83	A5	488	U	C2'-C1'	-12.82	1.34	1.53
83	A5	3803	C	O4'-C1'	12.81	1.61	1.42
83	A5	3952	C	O4'-C1'	12.81	1.60	1.41
36	B2	429	C	C2'-C1'	-12.80	1.34	1.53
83	A5	3166	C	O4'-C1'	12.79	1.60	1.41
36	B2	1965	U	C2'-C1'	-12.78	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A8	74	G	C2'-C1'	-12.78	1.34	1.53
83	A5	615	C	O4'-C1'	12.77	1.60	1.41
36	B2	573	C	O4'-C1'	12.76	1.61	1.42
83	A5	2520	U	O4'-C1'	12.76	1.60	1.41
83	A5	12	C	O4'-C1'	12.75	1.60	1.41
83	A5	691	C	C2'-C1'	-12.75	1.34	1.53
83	A5	2497	C	O4'-C1'	12.75	1.60	1.41
83	A5	309	C	O4'-C1'	12.74	1.60	1.41
83	A5	2030	U	C2'-C1'	-12.74	1.34	1.53
36	B2	394	G	C2'-C1'	-12.72	1.34	1.53
83	A5	155	U	C2'-C1'	-12.72	1.33	1.53
83	A5	327	C	O4'-C1'	12.72	1.60	1.41
36	B2	817	C	O4'-C1'	12.71	1.60	1.41
83	A5	280	C	O4'-C1'	12.71	1.60	1.41
83	A5	1511	C	O4'-C1'	12.71	1.60	1.41
36	B2	1960	A	C2'-C1'	-12.70	1.33	1.53
83	A5	462	C	O4'-C1'	12.70	1.60	1.41
36	B2	1211	C	O4'-C1'	12.70	1.60	1.41
83	A5	3925	G	C2'-C1'	-12.67	1.34	1.53
83	A5	1077	C	C2'-C1'	-12.67	1.34	1.53
83	A5	1199	C	O4'-C1'	12.67	1.60	1.41
83	A5	1036	A	O4'-C1'	12.67	1.60	1.41
36	B2	1584	A	O4'-C1'	12.64	1.60	1.41
36	B2	654	C	C2'-C1'	-12.62	1.34	1.53
83	A5	3571	C	O4'-C1'	12.62	1.60	1.41
83	A5	3626	A	O4'-C1'	12.62	1.60	1.41
83	A5	2459	C	O4'-C1'	12.61	1.60	1.41
36	B2	1912	G	C2'-C1'	-12.60	1.34	1.53
83	A5	1641	U	O4'-C1'	12.60	1.60	1.41
37	BC	33	C	C2'-C1'	-12.59	1.34	1.53
83	A5	1002	C	O4'-C1'	12.58	1.60	1.41
83	A5	3810	C	O4'-C1'	12.57	1.60	1.41
36	B2	718	C	O4'-C1'	12.57	1.60	1.41
36	B2	1763	C	O4'-C1'	12.57	1.60	1.41
36	B2	386	C	O4'-C1'	12.56	1.60	1.41
36	B2	1925	G	C2'-C1'	-12.55	1.34	1.53
36	B2	706	U	O4'-C1'	12.55	1.60	1.41
86	A8	49	C	O4'-C1'	12.54	1.60	1.41
36	B2	654	C	O4'-C1'	12.53	1.60	1.41
83	A5	2558	A	C2'-C1'	-12.53	1.34	1.53
83	A5	1752	G	C2'-C1'	-12.53	1.34	1.53
83	A5	3583	C	C2'-C1'	-12.53	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	169	C	O4'-C1'	12.51	1.60	1.41
83	A5	922	G	C2'-C1'	-12.50	1.34	1.53
83	A5	2013	C	O4'-C1'	12.50	1.60	1.41
36	B2	431	G	C2'-C1'	-12.47	1.34	1.53
36	B2	1339	C	O4'-C1'	12.47	1.60	1.41
83	A5	1756	G	O4'-C1'	12.47	1.60	1.41
83	A5	1668	U	O4'-C1'	12.47	1.60	1.41
83	A5	3796	G	C2'-C1'	-12.46	1.34	1.53
83	A5	2018	C	O4'-C1'	12.46	1.60	1.41
36	B2	38	C	O4'-C1'	12.46	1.60	1.41
83	A5	2663	C	O4'-C1'	12.46	1.60	1.41
36	B2	94	G	C2'-C1'	-12.46	1.34	1.53
83	A5	3368	C	O4'-C1'	-12.43	1.23	1.41
83	A5	1077	C	O4'-C1'	12.41	1.60	1.41
83	A5	1527	C	O4'-C1'	12.41	1.60	1.41
83	A5	2996	U	C2'-C1'	-12.40	1.34	1.53
83	A5	3224	G	C2'-C1'	-12.40	1.34	1.53
83	A5	1976	G	C2'-C1'	-12.40	1.34	1.53
83	A5	2844	G	C2'-C1'	-12.39	1.34	1.53
36	B2	1378	C	O4'-C1'	12.39	1.60	1.41
83	A5	397	C	O4'-C1'	12.38	1.60	1.41
83	A5	3906	U	O4'-C1'	12.33	1.60	1.41
36	B2	36	C	O4'-C1'	12.31	1.60	1.41
83	A5	1013	G	C2'-C1'	-12.30	1.34	1.53
36	B2	621	G	C2'-C1'	-12.29	1.34	1.53
83	A5	3696	C	O4'-C1'	12.29	1.60	1.41
83	A5	2109	G	O4'-C1'	12.28	1.60	1.41
83	A5	2770	C	O4'-C1'	12.28	1.60	1.41
83	A5	3160	A	C2'-C1'	-12.27	1.34	1.53
36	B2	458	C	C2'-C1'	-12.25	1.34	1.53
36	B2	1243	G	O4'-C1'	12.24	1.60	1.41
83	A5	475	U	O4'-C1'	12.24	1.60	1.41
36	B2	1298	C	C2'-C1'	-12.24	1.34	1.53
83	A5	1931	C	O4'-C1'	12.23	1.59	1.41
83	A5	1869	C	O4'-C1'	12.23	1.59	1.41
83	A5	3624	C	O4'-C1'	12.22	1.59	1.41
83	A5	2031	C	O4'-C1'	12.22	1.59	1.41
83	A5	793	U	O4'-C1'	12.22	1.59	1.41
36	B2	1003	C	O4'-C1'	12.20	1.59	1.41
36	B2	1877	G	C2'-C1'	-12.20	1.35	1.53
36	B2	1642	C	O4'-C1'	12.19	1.59	1.41
83	A5	3890	G	O4'-C1'	12.19	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	538	C	O4'-C1'	12.18	1.59	1.41
36	B2	17	C	O4'-C1'	12.16	1.59	1.41
36	B2	1305	A	O4'-C1'	-12.13	1.23	1.42
83	A5	3687	A	C2'-C1'	-12.13	1.34	1.53
36	B2	1173	A	C2'-C1'	-12.13	1.35	1.53
83	A5	102	G	O4'-C1'	12.12	1.59	1.41
83	A5	2756	C	O4'-C1'	12.10	1.59	1.41
83	A5	156	G	C2'-C1'	-12.08	1.35	1.53
36	B2	903	C	O4'-C1'	12.05	1.59	1.41
83	A5	3811	A	C2'-C1'	-12.05	1.35	1.53
36	B2	717	C	O4'-C1'	12.04	1.59	1.41
83	A5	3552	G	C2'-C1'	-12.03	1.35	1.53
36	B2	1792	A	C2'-C1'	-12.03	1.35	1.53
83	A5	2000	U	O4'-C1'	12.02	1.59	1.41
83	A5	1708	G	O4'-C1'	12.02	1.59	1.41
36	B2	438	C	O4'-C1'	12.01	1.59	1.41
83	A5	746	G	C2'-C1'	-12.01	1.35	1.53
36	B2	591	C	C2'-C1'	-12.00	1.35	1.53
83	A5	238	G	C2'-C1'	-12.00	1.35	1.53
36	B2	1711	C	O4'-C1'	11.99	1.59	1.41
83	A5	2798	C	C2'-C1'	-11.97	1.35	1.53
85	A7	94	C	O4'-C1'	11.96	1.59	1.41
83	A5	2727	U	C2'-C1'	-11.94	1.35	1.53
36	B2	604	C	O4'-C1'	11.93	1.59	1.41
83	A5	1330	G	O4'-C1'	11.92	1.59	1.42
36	B2	574	C	C2'-C1'	-11.91	1.35	1.53
83	A5	533	A	C2'-C1'	-11.89	1.35	1.53
36	B2	705	G	C2'-C1'	-11.89	1.35	1.53
83	A5	3775	A	O4'-C1'	11.89	1.59	1.42
83	A5	3367	C	O4'-C1'	11.87	1.59	1.41
36	B2	460	C	O4'-C1'	11.87	1.59	1.42
36	B2	1954	C	O4'-C1'	11.87	1.59	1.41
83	A5	1499	C	O4'-C1'	11.87	1.59	1.41
36	B2	183	A	O4'-C1'	11.85	1.59	1.41
83	A5	3198	C	O4'-C1'	11.85	1.59	1.41
83	A5	3419	A	C2'-C1'	-11.85	1.35	1.53
36	B2	1206	G	C2'-C1'	-11.84	1.35	1.53
83	A5	3654	C	O4'-C1'	11.84	1.59	1.41
83	A5	775	U	O4'-C1'	11.83	1.59	1.41
83	A5	3398	C	O4'-C1'	11.83	1.59	1.42
36	B2	43	A	O4'-C1'	11.81	1.59	1.41
36	B2	1018	C	O4'-C1'	11.80	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	AY	77	TYR	CD2-CE2	11.80	1.74	1.38
83	A5	3441	C	O4'-C1'	11.80	1.59	1.41
36	B2	895	A	O4'-C1'	11.78	1.59	1.42
36	B2	106	C	C2'-C1'	-11.78	1.35	1.53
36	B2	1871	G	O4'-C1'	11.77	1.59	1.41
83	A5	3124	G	C2'-C1'	-11.77	1.35	1.53
36	B2	314	C	O4'-C1'	11.76	1.59	1.41
36	B2	562	C	O4'-C1'	11.76	1.59	1.42
83	A5	531	C	O4'-C1'	11.76	1.59	1.41
36	B2	204	C	O4'-C1'	11.76	1.59	1.41
83	A5	1941	A	C2'-C1'	-11.75	1.35	1.53
83	A5	2615	C	O4'-C1'	11.75	1.59	1.41
36	B2	598	C	C2'-C1'	-11.75	1.35	1.53
85	A7	43	U	C2'-C1'	-11.75	1.35	1.53
83	A5	3905	U	C2'-C1'	-11.74	1.35	1.53
85	A7	49	A	O4'-C1'	11.74	1.59	1.41
83	A5	426	A	O4'-C1'	11.74	1.59	1.41
83	A5	2926	G	C2'-C1'	-11.74	1.35	1.53
83	A5	1554	C	C2'-C1'	-11.74	1.35	1.53
37	BC	23	G	O4'-C1'	11.73	1.59	1.41
83	A5	1687	U	C2'-C1'	-11.73	1.35	1.53
36	B2	146	C	O4'-C1'	11.73	1.59	1.41
83	A5	2813	G	O4'-C1'	11.70	1.59	1.41
83	A5	2196	U	C2'-C1'	11.70	1.70	1.53
83	A5	1574	A	C2'-C1'	-11.70	1.35	1.53
83	A5	2052	G	O4'-C1'	11.69	1.59	1.41
85	A7	99	G	O4'-C1'	11.68	1.59	1.41
83	A5	1722	U	C2'-C1'	-11.68	1.35	1.53
36	B2	1651	C	O4'-C1'	11.68	1.59	1.42
83	A5	985	G	O4'-C1'	-11.67	1.24	1.41
83	A5	2516	U	O4'-C1'	11.67	1.59	1.41
83	A5	1095	G	C2'-C1'	-11.67	1.35	1.53
83	A5	3603	C	O4'-C1'	11.67	1.59	1.41
83	A5	2087	C	O4'-C1'	11.66	1.59	1.41
36	B2	520	A	O4'-C1'	11.66	1.59	1.41
83	A5	2155	A	O4'-C1'	11.66	1.59	1.42
36	B2	1658	G	C2'-C1'	-11.63	1.35	1.53
36	B2	399	C	O4'-C1'	11.63	1.59	1.41
83	A5	2882	A	O4'-C1'	11.62	1.59	1.41
36	B2	243	U	O4'-C1'	11.62	1.59	1.41
83	A5	626	A	C2'-C1'	-11.62	1.35	1.53
83	A5	2573	C	O4'-C1'	11.61	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1184	U	O4'-C1'	11.61	1.59	1.41
83	A5	1024	U	C2'-C1'	-11.60	1.35	1.53
36	B2	948	A	C2'-C1'	-11.60	1.35	1.53
83	A5	206	C	O4'-C1'	11.59	1.59	1.41
83	A5	1157	C	O4'-C1'	11.59	1.59	1.41
86	A8	116	C	O4'-C1'	11.59	1.59	1.41
36	B2	1975	G	C2'-C1'	-11.57	1.35	1.53
83	A5	3695	G	C2'-C1'	-11.55	1.35	1.53
36	B2	848	C	O4'-C1'	11.54	1.58	1.41
83	A5	1665	C	O4'-C1'	11.54	1.58	1.41
83	A5	213	A	O4'-C1'	11.53	1.58	1.41
83	A5	1971	C	O4'-C1'	11.52	1.58	1.41
83	A5	1607	A	O4'-C1'	11.52	1.58	1.41
83	A5	3852	A	C2'-C1'	-11.52	1.36	1.53
83	A5	1204	C	O4'-C1'	11.51	1.58	1.41
83	A5	2245	G	O4'-C1'	11.51	1.58	1.41
83	A5	1068	C	O4'-C1'	11.51	1.58	1.41
36	B2	869	C	O4'-C1'	11.51	1.58	1.41
83	A5	1647	A	C2'-C1'	-11.50	1.36	1.53
83	A5	463	C	O4'-C1'	11.50	1.58	1.41
83	A5	2152	C	C2'-C1'	-11.49	1.36	1.53
85	A7	99	G	C2'-C1'	-11.49	1.36	1.53
83	A5	2882	A	C2'-C1'	-11.49	1.36	1.53
86	A8	39	A	O4'-C1'	11.49	1.58	1.41
83	A5	557	G	C2'-C1'	-11.48	1.36	1.53
83	A5	1466	A	O4'-C1'	11.48	1.58	1.41
83	A5	3642	G	C2'-C1'	-11.48	1.36	1.53
83	A5	1469	C	O4'-C1'	11.48	1.58	1.41
36	B2	1945	A	O4'-C1'	11.46	1.58	1.41
83	A5	2503	G	C2'-C1'	-11.46	1.36	1.53
36	B2	1430	U	C2'-C1'	-11.46	1.36	1.53
83	A5	3593	A	O4'-C1'	-11.46	1.24	1.41
83	A5	2717	C	O4'-C1'	11.46	1.59	1.42
36	B2	1298	C	O4'-C1'	11.45	1.58	1.41
83	A5	3263	C	O4'-C1'	11.45	1.58	1.41
36	B2	635	C	O4'-C1'	11.44	1.58	1.41
36	B2	857	G	C2'-C1'	-11.44	1.36	1.53
83	A5	1774	C	O4'-C1'	11.43	1.58	1.41
83	A5	527	U	O4'-C1'	11.43	1.58	1.41
83	A5	1303	C	O4'-C1'	11.43	1.58	1.41
36	B2	419	C	O4'-C1'	11.42	1.58	1.41
83	A5	641	A	O4'-C1'	11.41	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1447	G	C2'-C1'	-11.40	1.36	1.53
36	B2	595	C	O4'-C1'	11.39	1.58	1.41
36	B2	1886	G	C2'-C1'	-11.39	1.36	1.53
83	A5	3754	C	O4'-C1'	11.39	1.58	1.41
83	A5	1279	C	O4'-C1'	11.38	1.58	1.41
83	A5	2675	U	O4'-C1'	11.38	1.58	1.41
83	A5	2792	G	C2'-C1'	-11.38	1.36	1.53
83	A5	2756	C	C2'-C1'	-11.38	1.36	1.53
83	A5	3309	A	C2'-C1'	-11.37	1.35	1.53
83	A5	2625	G	C2'-C1'	-11.37	1.36	1.53
83	A5	2155	A	C2'-C1'	-11.36	1.36	1.53
36	B2	455	C	O4'-C1'	11.35	1.58	1.41
36	B2	1089	G	O4'-C1'	11.35	1.58	1.41
83	A5	1893	C	O4'-C1'	11.35	1.58	1.41
83	A5	458	A	O4'-C1'	11.34	1.58	1.41
83	A5	1174	G	C2'-C1'	-11.34	1.36	1.53
83	A5	2884	C	O4'-C1'	11.34	1.58	1.41
83	A5	3233	C	C2'-C1'	-11.33	1.36	1.53
36	B2	1029	G	C2'-C1'	-11.33	1.36	1.53
85	A7	1	G	C2'-C1'	-11.31	1.36	1.53
36	B2	838	A	O4'-C1'	11.30	1.58	1.41
36	B2	1766	G	O4'-C1'	11.31	1.58	1.41
37	BC	22	C	O4'-C1'	11.30	1.58	1.41
86	A8	68	U	C2'-C1'	-11.30	1.36	1.53
36	B2	565	G	C2'-C1'	-11.30	1.36	1.53
36	B2	1419	C	O4'-C1'	11.29	1.58	1.41
36	B2	1678	G	O4'-C1'	-11.29	1.24	1.41
83	A5	2072	C	O4'-C1'	11.29	1.58	1.41
83	A5	3013	C	O4'-C1'	11.29	1.58	1.41
36	B2	96	C	C2'-C1'	-11.29	1.36	1.53
83	A5	743	C	C2'-C1'	-11.29	1.36	1.53
83	A5	317	G	C2'-C1'	-11.28	1.36	1.53
83	A5	1616	G	C2'-C1'	-11.28	1.36	1.53
83	A5	1502	A	O4'-C1'	11.28	1.58	1.41
83	A5	3675	A	O4'-C1'	11.28	1.58	1.42
83	A5	1324	C	O4'-C1'	11.27	1.58	1.42
83	A5	3445	C	O4'-C1'	11.27	1.58	1.41
36	B2	1756	C	O4'-C1'	11.27	1.58	1.41
83	A5	2887	U	C2'-C1'	-11.26	1.36	1.53
36	B2	399	C	C2'-C1'	-11.26	1.36	1.53
83	A5	1487	C	O4'-C1'	11.26	1.58	1.41
83	A5	1992	G	C2'-C1'	-11.26	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3154	C	O4'-C1'	11.26	1.58	1.41
36	B2	1098	C	O4'-C1'	11.25	1.58	1.41
83	A5	3381	C	O4'-C1'	11.24	1.58	1.41
83	A5	503	A	C2'-C1'	-11.23	1.36	1.53
83	A5	2547	C	O4'-C1'	11.22	1.58	1.41
83	A5	2662	C	O4'-C1'	11.21	1.58	1.41
83	A5	2180	A	O4'-C1'	11.20	1.58	1.41
83	A5	400	U	O4'-C1'	11.19	1.58	1.41
83	A5	3292	C	O4'-C1'	11.19	1.58	1.41
86	A8	5	C	O4'-C1'	11.18	1.58	1.41
36	B2	218	A	O4'-C1'	11.17	1.58	1.41
83	A5	3784	C	O4'-C1'	11.17	1.58	1.41
83	A5	15	A	C2'-C1'	-11.16	1.36	1.53
83	A5	2142	A	O4'-C1'	11.16	1.58	1.41
83	A5	1355	C	C2'-C1'	-11.16	1.36	1.53
83	A5	2220	C	O4'-C1'	11.15	1.58	1.41
83	A5	3295	U	O4'-C1'	11.15	1.58	1.41
85	A7	44	C	O4'-C1'	11.15	1.58	1.41
83	A5	3473	C	O4'-C1'	11.13	1.58	1.41
83	A5	2857	C	O4'-C1'	11.13	1.58	1.41
83	A5	3931	C	O4'-C1'	11.13	1.58	1.41
83	A5	188	G	C2'-C1'	-11.12	1.36	1.53
83	A5	3228	A	O4'-C1'	11.12	1.58	1.41
83	A5	6	U	C2'-C1'	-11.11	1.36	1.53
83	A5	549	A	O4'-C1'	11.12	1.58	1.41
36	B2	137	C	O4'-C1'	11.11	1.58	1.42
83	A5	2061	G	C2'-C1'	-11.11	1.36	1.53
83	A5	1470	C	C2'-C1'	-11.11	1.36	1.53
83	A5	3721	C	O4'-C1'	11.11	1.58	1.41
83	A5	161	G	O4'-C1'	11.10	1.58	1.41
83	A5	349	C	O4'-C1'	11.10	1.58	1.41
36	B2	375	A	C2'-C1'	-11.10	1.36	1.53
36	B2	1416	A	O4'-C1'	11.10	1.58	1.41
83	A5	397	C	C2'-C1'	-11.09	1.36	1.53
83	A5	1547	A	O4'-C1'	11.07	1.58	1.41
36	B2	454	C	O4'-C1'	11.07	1.58	1.41
83	A5	2601	A	O4'-C1'	11.07	1.58	1.41
83	A5	1657	G	O4'-C1'	11.06	1.58	1.41
83	A5	3131	C	O4'-C1'	11.06	1.58	1.41
83	A5	3806	C	O4'-C1'	11.05	1.58	1.42
83	A5	2235	G	O4'-C1'	11.05	1.58	1.41
83	A5	3570	C	O4'-C1'	11.05	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1603	G	C2'-C1'	-11.04	1.36	1.53
83	A5	3676	C	C2'-C1'	11.03	1.70	1.53
83	A5	965	C	O4'-C1'	11.03	1.58	1.41
36	B2	303	C	O4'-C1'	11.03	1.58	1.41
36	B2	1402	U	O4'-C1'	11.03	1.58	1.41
36	B2	1079	A	O4'-C1'	-11.02	1.25	1.41
36	B2	438	C	C2'-C1'	-11.02	1.36	1.53
83	A5	856	A	O4'-C1'	11.01	1.58	1.41
83	A5	1062	C	O4'-C1'	11.01	1.58	1.41
36	B2	883	C	O4'-C1'	10.99	1.58	1.41
83	A5	2582	C	O4'-C1'	10.99	1.58	1.41
36	B2	1276	G	C2'-C1'	-10.99	1.36	1.53
83	A5	1892	C	O4'-C1'	10.99	1.58	1.41
83	A5	3933	G	C2'-C1'	-10.98	1.36	1.53
83	A5	2101	C	O4'-C1'	10.97	1.58	1.41
83	A5	446	C	O4'-C1'	10.96	1.58	1.41
83	A5	35	C	O4'-C1'	10.96	1.58	1.41
83	A5	2798	C	O4'-C1'	10.96	1.58	1.41
83	A5	1701	C	C2'-C1'	-10.96	1.36	1.53
83	A5	874	G	O4'-C1'	10.96	1.58	1.41
83	A5	2106	C	O4'-C1'	10.96	1.58	1.42
83	A5	3362	G	O4'-C1'	10.95	1.58	1.41
83	A5	2105	C	O4'-C1'	10.95	1.58	1.41
83	A5	255	C	O4'-C1'	10.94	1.58	1.41
36	B2	635	C	C2'-C1'	-10.93	1.36	1.53
83	A5	97	C	O4'-C1'	10.93	1.58	1.42
83	A5	31	C	C2'-C1'	-10.93	1.36	1.53
36	B2	1807	C	O4'-C1'	10.93	1.58	1.41
85	A7	2	C	O4'-C1'	10.91	1.58	1.41
83	A5	3188	A	C2'-C1'	-10.91	1.36	1.53
85	A7	107	C	O4'-C1'	10.90	1.58	1.41
36	B2	1871	G	C2'-C1'	-10.90	1.37	1.53
83	A5	169	C	C2'-C1'	-10.90	1.37	1.53
83	A5	1285	C	O4'-C1'	10.89	1.57	1.41
83	A5	2802	A	O4'-C1'	10.89	1.57	1.41
83	A5	1471	G	C2'-C1'	-10.89	1.37	1.53
36	B2	591	C	O4'-C1'	10.89	1.57	1.41
83	A5	2887	U	O4'-C1'	10.88	1.57	1.41
83	A5	299	G	C2'-C1'	-10.88	1.37	1.53
36	B2	1799	A	C2'-C1'	-10.88	1.37	1.53
83	A5	707	C	O4'-C1'	10.87	1.57	1.41
83	A5	3383	A	C2'-C1'	-10.86	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	188	C	O4'-C1'	10.86	1.57	1.41
83	A5	3478	G	C2'-C1'	-10.86	1.37	1.53
83	A5	2194	G	C2'-C1'	-10.86	1.37	1.53
84	A9	2	G	C2'-C1'	-10.86	1.37	1.53
37	BC	13	C	O4'-C1'	10.86	1.57	1.41
83	A5	3812	C	C2'-C1'	-10.85	1.37	1.53
83	A5	691	C	O4'-C1'	10.85	1.57	1.41
83	A5	1369	C	O4'-C1'	10.84	1.57	1.41
83	A5	2487	C	C2'-C1'	-10.84	1.37	1.53
36	B2	429	C	O4'-C1'	10.84	1.57	1.41
83	A5	1599	C	O4'-C1'	10.84	1.57	1.41
83	A5	2166	U	O4'-C1'	10.83	1.58	1.42
83	A5	390	A	O4'-C1'	10.83	1.57	1.41
36	B2	862	C	O4'-C1'	10.82	1.57	1.41
83	A5	3457	C	O4'-C1'	10.82	1.57	1.41
83	A5	242	C	C2'-C1'	-10.81	1.36	1.53
36	B2	1807	C	C2'-C1'	-10.80	1.37	1.53
85	A7	94	C	C2'-C1'	-10.80	1.37	1.53
83	A5	3654	C	C2'-C1'	-10.79	1.37	1.53
83	A5	32	C	O4'-C1'	10.79	1.57	1.41
83	A5	3575	G	C2'-C1'	-10.79	1.37	1.53
83	A5	2992	A	O4'-C1'	10.79	1.57	1.41
36	B2	13	C	O4'-C1'	10.78	1.57	1.41
36	B2	592	C	C2'-C1'	-10.78	1.37	1.53
83	A5	1325	C	O4'-C1'	10.78	1.57	1.41
83	A5	778	C	O4'-C1'	10.77	1.57	1.41
36	B2	55	A	C2'-C1'	-10.77	1.37	1.53
36	B2	1662	C	C2'-C1'	-10.76	1.37	1.53
83	A5	1139	U	C2'-C1'	-10.76	1.37	1.53
83	A5	1583	G	C2'-C1'	-10.75	1.37	1.53
36	B2	567	C	O4'-C1'	10.75	1.57	1.41
36	B2	1314	G	C2'-C1'	-10.74	1.36	1.53
83	A5	1327	G	C2'-C1'	-10.74	1.37	1.53
36	B2	543	A	C2'-C1'	-10.74	1.37	1.53
85	A7	43	U	O4'-C1'	10.74	1.57	1.41
83	A5	260	A	O4'-C1'	10.74	1.57	1.41
83	A5	3585	A	O4'-C1'	10.72	1.57	1.41
83	A5	1138	C	O4'-C1'	10.71	1.57	1.41
36	B2	706	U	C2'-C1'	-10.71	1.37	1.53
83	A5	3757	U	C2'-C1'	-10.71	1.37	1.53
36	B2	1168	C	O4'-C1'	10.70	1.58	1.42
83	A5	626	A	O4'-C1'	10.70	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1988	G	O4'-C1'	10.70	1.57	1.42
83	A5	2201	U	O4'-C1'	10.69	1.57	1.42
83	A5	3711	G	C2'-C1'	10.69	1.69	1.53
83	A5	1782	C	O4'-C1'	10.68	1.57	1.41
36	B2	829	C	O4'-C1'	10.68	1.57	1.41
83	A5	3813	C	O4'-C1'	10.68	1.57	1.41
83	A5	1596	A	O4'-C1'	10.67	1.57	1.41
83	A5	3669	U	O4'-C1'	10.67	1.57	1.41
83	A5	770	C	O4'-C1'	10.66	1.57	1.41
83	A5	3915	U	O4'-C1'	10.65	1.57	1.42
83	A5	1051	C	O4'-C1'	10.65	1.57	1.41
83	A5	428	C	O4'-C1'	10.65	1.57	1.41
83	A5	1280	C	O4'-C1'	10.65	1.57	1.41
83	A5	122	C	O4'-C1'	10.64	1.57	1.41
83	A5	3351	A	O4'-C1'	10.64	1.57	1.41
36	B2	31	C	O4'-C1'	10.63	1.57	1.41
83	A5	3876	U	C2'-C1'	-10.64	1.37	1.53
85	A7	4	A	C2'-C1'	-10.63	1.37	1.53
36	B2	1378	C	C2'-C1'	-10.63	1.37	1.53
36	B2	1817	C	O4'-C1'	10.63	1.57	1.41
83	A5	1938	C	C2'-C1'	-10.63	1.37	1.53
36	B2	1055	U	O4'-C1'	10.63	1.57	1.41
37	BC	60	C	O4'-C1'	10.63	1.57	1.41
83	A5	143	G	C2'-C1'	-10.63	1.37	1.53
36	B2	1434	U	O4'-C1'	10.62	1.57	1.41
36	B2	1696	G	C2'-C1'	-10.61	1.37	1.53
83	A5	210	C	O4'-C1'	10.60	1.57	1.41
36	B2	213	G	O4'-C1'	10.60	1.57	1.41
36	B2	544	C	O4'-C1'	10.60	1.57	1.41
83	A5	331	A	C2'-C1'	-10.60	1.37	1.53
83	A5	2772	G	C2'-C1'	-10.59	1.37	1.53
36	B2	494	C	O4'-C1'	10.58	1.57	1.41
83	A5	617	U	O4'-C1'	10.58	1.57	1.41
83	A5	996	C	O4'-C1'	10.58	1.57	1.41
36	B2	1713	C	O4'-C1'	10.58	1.57	1.42
86	A8	91	C	O4'-C1'	10.58	1.57	1.41
83	A5	2624	G	C2'-C1'	-10.57	1.37	1.53
83	A5	3577	U	C2'-C1'	-10.57	1.37	1.53
36	B2	293	A	C2'-C1'	-10.57	1.37	1.53
36	B2	1756	C	C2'-C1'	-10.56	1.37	1.53
83	A5	2645	C	O4'-C1'	10.56	1.57	1.41
36	B2	173	C	C2'-C1'	-10.54	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3353	C	O4'-C1'	10.54	1.57	1.41
83	A5	3722	C	O4'-C1'	10.54	1.57	1.41
83	A5	2616	G	C2'-C1'	-10.53	1.37	1.53
37	BC	48	C	O4'-C1'	10.53	1.57	1.41
83	A5	3938	C	O4'-C1'	10.53	1.57	1.41
83	A5	11	C	O4'-C1'	10.52	1.57	1.41
83	A5	1773	U	O4'-C1'	10.52	1.57	1.41
83	A5	3604	G	C2'-C1'	-10.52	1.37	1.53
83	A5	1457	G	C2'-C1'	-10.52	1.37	1.53
36	B2	1817	C	C2'-C1'	-10.52	1.37	1.53
83	A5	2494	G	C2'-C1'	-10.52	1.37	1.53
36	B2	865	A	O4'-C1'	10.52	1.57	1.41
83	A5	1719	G	C2'-C1'	-10.52	1.37	1.53
36	B2	1990	U	C2'-C1'	-10.52	1.37	1.53
83	A5	992	U	O4'-C1'	10.51	1.57	1.41
83	A5	2525	C	O4'-C1'	10.51	1.57	1.41
36	B2	1610	A	O4'-C1'	10.50	1.57	1.41
83	A5	329	C	O4'-C1'	10.50	1.57	1.41
86	A8	121	C	O4'-C1'	10.49	1.57	1.41
83	A5	3680	A	O4'-C1'	10.48	1.57	1.41
83	A5	3953	C	O4'-C1'	10.48	1.57	1.41
83	A5	3516	C	C2'-C1'	-10.48	1.37	1.53
83	A5	3666	C	O4'-C1'	10.47	1.57	1.41
83	A5	3267	C	O4'-C1'	10.47	1.57	1.41
36	B2	955	G	C2'-C1'	-10.46	1.37	1.53
83	A5	1556	C	O4'-C1'	10.46	1.57	1.41
83	A5	98	G	C2'-C1'	-10.46	1.37	1.53
36	B2	1404	C	O4'-C1'	10.45	1.57	1.41
83	A5	2473	C	O4'-C1'	10.45	1.57	1.41
36	B2	1037	C	O4'-C1'	10.45	1.57	1.41
83	A5	3187	C	O4'-C1'	10.45	1.57	1.42
83	A5	1020	A	O4'-C1'	10.45	1.57	1.41
83	A5	1250	C	O4'-C1'	10.45	1.57	1.41
83	A5	1800	U	O4'-C1'	10.45	1.57	1.41
83	A5	2841	G	C2'-C1'	-10.44	1.37	1.53
36	B2	1261	C	C2'-C1'	-10.43	1.37	1.53
83	A5	436	A	O4'-C1'	10.42	1.57	1.41
83	A5	1409	G	C2'-C1'	-10.42	1.37	1.53
36	B2	902	A	O4'-C1'	10.42	1.57	1.41
83	A5	2122	G	O4'-C1'	10.42	1.57	1.41
86	A8	10	C	O4'-C1'	10.42	1.57	1.41
83	A5	2856	C	O4'-C1'	10.41	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BC	33	C	O4'-C1'	10.41	1.57	1.41
83	A5	2507	C	O4'-C1'	10.40	1.57	1.41
83	A5	1413	C	O4'-C1'	10.39	1.57	1.41
36	B2	251	G	O4'-C1'	10.38	1.57	1.41
83	A5	3567	A	O4'-C1'	10.38	1.57	1.41
83	A5	1432	C	O4'-C1'	10.37	1.57	1.41
36	B2	49	C	O4'-C1'	10.37	1.57	1.41
83	A5	3890	G	C2'-C1'	-10.37	1.37	1.53
18	AY	77	TYR	CD1-CE1	10.37	1.69	1.38
83	A5	3272	A	C2'-C1'	-10.37	1.37	1.53
36	B2	1659	C	O4'-C1'	10.36	1.57	1.41
83	A5	2797	A	O4'-C1'	10.36	1.57	1.41
83	A5	785	A	O4'-C1'	10.36	1.57	1.41
83	A5	1670	G	O4'-C1'	10.35	1.57	1.42
83	A5	3676	C	O4'-C1'	-10.35	1.26	1.41
83	A5	4	U	C2'-C1'	10.35	1.68	1.53
86	A8	27	C	O4'-C1'	10.35	1.57	1.41
36	B2	298	U	C2'-C1'	-10.34	1.37	1.53
83	A5	446	C	C2'-C1'	-10.34	1.37	1.53
83	A5	2769	G	C2'-C1'	-10.34	1.37	1.53
36	B2	1962	G	C2'-C1'	-10.33	1.37	1.53
83	A5	179	C	O4'-C1'	10.33	1.57	1.41
36	B2	1419	C	C2'-C1'	-10.33	1.37	1.53
36	B2	1267	G	C2'-C1'	-10.32	1.37	1.53
36	B2	1850	G	C2'-C1'	-10.32	1.37	1.53
36	B2	1824	C	O4'-C1'	10.32	1.57	1.41
83	A5	3559	A	O4'-C1'	10.32	1.57	1.41
36	B2	1640	G	C2'-C1'	-10.31	1.37	1.53
36	B2	867	G	O4'-C1'	10.31	1.57	1.41
83	A5	3282	C	O4'-C1'	10.31	1.57	1.41
83	A5	1225	G	C2'-C1'	-10.30	1.37	1.53
36	B2	193	U	O4'-C1'	10.29	1.57	1.41
36	B2	1630	G	C2'-C1'	-10.30	1.38	1.53
83	A5	3943	G	C2'-C1'	-10.30	1.38	1.53
83	A5	358	C	O4'-C1'	10.29	1.57	1.41
36	B2	1099	U	C2'-C1'	-10.28	1.38	1.53
36	B2	1359	U	O4'-C1'	10.28	1.57	1.41
37	BC	70	C	C2'-C1'	-10.28	1.38	1.53
36	B2	590	U	O4'-C1'	10.27	1.57	1.42
36	B2	1773	C	O4'-C1'	10.27	1.57	1.41
86	A8	49	C	C2'-C1'	-10.27	1.38	1.53
83	A5	1598	A	C2'-C1'	-10.27	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	522	G	C2'-C1'	-10.26	1.38	1.53
36	B2	1188	G	O4'-C1'	10.26	1.57	1.42
36	B2	1413	A	O4'-C1'	10.25	1.57	1.41
83	A5	1145	C	C2'-C1'	-10.25	1.38	1.53
83	A5	1160	U	C2'-C1'	-10.25	1.38	1.53
36	B2	916	U	O4'-C1'	10.25	1.57	1.41
83	A5	44	A	C2'-C1'	-10.25	1.37	1.53
83	A5	3515	C	C2'-C1'	-10.25	1.38	1.53
36	B2	1251	A	O4'-C1'	10.24	1.57	1.41
83	A5	1351	C	O4'-C1'	10.24	1.57	1.41
36	B2	1701	C	C2'-C1'	-10.24	1.38	1.53
83	A5	2233	C	O4'-C1'	10.24	1.57	1.41
36	B2	1250	C	O4'-C1'	10.23	1.57	1.41
83	A5	1209	A	C2'-C1'	-10.23	1.38	1.53
83	A5	1367	A	C2'-C1'	-10.23	1.38	1.53
83	A5	1567	G	C2'-C1'	-10.23	1.38	1.53
83	A5	2234	C	O4'-C1'	10.23	1.56	1.41
83	A5	3518	A	O4'-C1'	10.22	1.56	1.41
36	B2	1631	C	O4'-C1'	10.22	1.56	1.41
36	B2	1761	A	O4'-C1'	10.22	1.56	1.41
83	A5	1793	C	O4'-C1'	10.22	1.57	1.42
83	A5	2018	C	C2'-C1'	-10.22	1.38	1.53
36	B2	1719	C	O4'-C1'	10.20	1.56	1.41
83	A5	3216	C	O4'-C1'	10.20	1.56	1.41
83	A5	2582	C	C2'-C1'	-10.20	1.38	1.53
83	A5	1663	G	C2'-C1'	-10.19	1.38	1.53
36	B2	4	C	O4'-C1'	10.19	1.56	1.41
83	A5	2466	C	O4'-C1'	10.19	1.56	1.41
37	BC	73	C	O4'-C1'	10.18	1.56	1.41
36	B2	1005	G	C2'-C1'	-10.18	1.38	1.53
36	B2	871	G	C2'-C1'	-10.18	1.38	1.53
83	A5	3769	C	O4'-C1'	10.18	1.56	1.41
36	B2	388	G	C2'-C1'	-10.17	1.38	1.53
83	A5	3644	C	O4'-C1'	10.17	1.56	1.41
83	A5	445	C	O4'-C1'	10.17	1.56	1.41
83	A5	667	U	C2'-C1'	-10.17	1.37	1.53
83	A5	228	C	O4'-C1'	10.16	1.56	1.41
36	B2	1177	C	O4'-C1'	10.16	1.56	1.41
83	A5	2530	C	O4'-C1'	10.16	1.56	1.41
83	A5	3703	C	C2'-C1'	-10.16	1.38	1.53
83	A5	1266	A	O4'-C1'	10.16	1.56	1.41
83	A5	1898	C	O4'-C1'	10.16	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1670	G	C2'-C1'	-10.16	1.37	1.53
36	B2	163	C	C2'-C1'	-10.15	1.38	1.53
83	A5	1634	A	O4'-C1'	10.15	1.56	1.41
36	B2	1115	C	O4'-C1'	10.15	1.57	1.42
37	BC	74	C	O4'-C1'	10.15	1.56	1.41
83	A5	3636	G	C2'-C1'	-10.14	1.38	1.53
72	Ck	40	ARG	CA-CB	10.14	1.60	1.53
83	A5	3652	C	O4'-C1'	10.14	1.56	1.41
83	A5	2812	U	O4'-C1'	-10.14	1.26	1.42
85	A7	6	C	O4'-C1'	10.14	1.56	1.41
83	A5	1095	G	O4'-C1'	10.13	1.57	1.42
83	A5	1782	C	C2'-C1'	-10.13	1.38	1.53
83	A5	116	U	C2'-C1'	10.13	1.68	1.53
83	A5	185	U	O4'-C1'	10.12	1.56	1.41
83	A5	3621	A	O4'-C1'	10.12	1.56	1.41
83	A5	3405	U	C2'-C1'	-10.12	1.37	1.53
86	A8	103	C	O4'-C1'	10.12	1.57	1.42
36	B2	1003	C	C2'-C1'	-10.12	1.38	1.53
83	A5	717	A	O4'-C1'	10.12	1.57	1.42
36	B2	848	C	C2'-C1'	-10.12	1.38	1.53
83	A5	499	A	O4'-C1'	10.12	1.56	1.41
36	B2	1119	G	C2'-C1'	-10.11	1.38	1.53
36	B2	980	A	O4'-C1'	10.11	1.56	1.41
36	B2	1780	G	C2'-C1'	-10.11	1.38	1.53
83	A5	2805	C	O4'-C1'	10.10	1.56	1.41
83	A5	2172	C	O4'-C1'	10.10	1.56	1.41
83	A5	390	A	C2'-C1'	-10.10	1.38	1.53
36	B2	828	A	C2'-C1'	-10.09	1.38	1.53
83	A5	885	U	C2'-C1'	-10.09	1.38	1.53
83	A5	1245	C	C2'-C1'	-10.09	1.38	1.53
83	A5	1960	C	O4'-C1'	10.09	1.56	1.41
83	A5	2028	A	C2'-C1'	-10.08	1.38	1.53
36	B2	1793	A	O4'-C1'	10.07	1.57	1.42
83	A5	547	U	O4'-C1'	10.07	1.56	1.41
83	A5	2507	C	C2'-C1'	-10.07	1.38	1.53
83	A5	3166	C	C2'-C1'	-10.07	1.38	1.53
86	A8	73	U	O4'-C1'	10.07	1.56	1.41
36	B2	1844	C	O4'-C1'	10.07	1.56	1.41
83	A5	1175	C	O4'-C1'	10.07	1.56	1.41
83	A5	3272	A	O4'-C1'	10.07	1.56	1.41
83	A5	1547	A	C2'-C1'	-10.06	1.38	1.53
83	A5	67	A	C2'-C1'	-10.06	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	964	C	O4'-C1'	10.06	1.56	1.41
36	B2	715	U	O4'-C1'	10.05	1.56	1.41
83	A5	2220	C	C2'-C1'	-10.04	1.38	1.53
83	A5	3014	G	O4'-C1'	10.04	1.56	1.41
83	A5	863	U	C2'-C1'	-10.03	1.38	1.53
83	A5	1040	C	O4'-C1'	10.03	1.56	1.41
36	B2	1297	C	O4'-C1'	10.02	1.56	1.41
83	A5	2491	C	O4'-C1'	-10.02	1.26	1.42
36	B2	1659	C	C2'-C1'	-10.02	1.38	1.53
83	A5	2230	G	C2'-C1'	-10.01	1.38	1.53
83	A5	2929	U	O4'-C1'	10.01	1.56	1.41
83	A5	503	A	O4'-C1'	10.01	1.56	1.41
83	A5	263	A	O4'-C1'	10.01	1.56	1.41
83	A5	982	C	C2'-C1'	-10.01	1.38	1.53
83	A5	3193	C	O4'-C1'	-10.00	1.26	1.41
36	B2	87	C	O4'-C1'	10.00	1.56	1.41
83	A5	1256	C	C2'-C1'	-10.00	1.38	1.53
83	A5	3550	C	O4'-C1'	10.00	1.56	1.41
36	B2	829	C	C2'-C1'	-9.99	1.38	1.53
37	BC	70	C	O4'-C1'	9.98	1.56	1.41
83	A5	305	G	C2'-C1'	-9.98	1.38	1.53
83	A5	1869	C	C2'-C1'	-9.98	1.38	1.53
36	B2	1569	C	C2'-C1'	-9.98	1.38	1.53
36	B2	1582	C	O4'-C1'	-9.98	1.26	1.41
83	A5	2676	U	C2'-C1'	-9.97	1.38	1.53
36	B2	880	G	O4'-C1'	-9.97	1.26	1.41
36	B2	1314	G	O4'-C1'	9.97	1.56	1.42
83	A5	2000	U	C2'-C1'	-9.96	1.38	1.53
36	B2	906	C	O4'-C1'	9.96	1.56	1.41
83	A5	1003	C	O4'-C1'	9.96	1.56	1.41
83	A5	1888	A	C2'-C1'	-9.95	1.38	1.53
83	A5	2078	C	C2'-C1'	-9.95	1.38	1.53
86	A8	116	C	C2'-C1'	-9.95	1.38	1.53
36	B2	1257	G	O4'-C1'	9.94	1.56	1.41
83	A5	3356	G	O4'-C1'	9.94	1.56	1.41
36	B2	516	U	C2'-C1'	-9.94	1.38	1.53
83	A5	1357	C	O4'-C1'	9.93	1.56	1.42
83	A5	2002	C	O4'-C1'	9.93	1.56	1.41
36	B2	1550	C	O4'-C1'	9.93	1.56	1.41
83	A5	3768	C	O4'-C1'	9.93	1.56	1.42
36	B2	899	A	C2'-C1'	-9.92	1.38	1.53
83	A5	2146	G	O4'-C1'	9.92	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	533	A	C2'-C1'	-9.92	1.38	1.53
36	B2	869	C	C2'-C1'	-9.91	1.38	1.53
36	B2	651	C	C2'-C1'	-9.91	1.38	1.53
86	A8	117	C	O4'-C1'	9.91	1.56	1.41
83	A5	2743	C	O4'-C1'	9.91	1.56	1.41
83	A5	1256	C	O4'-C1'	9.90	1.56	1.41
85	A7	46	C	O4'-C1'	9.90	1.56	1.41
85	A7	118	C	O4'-C1'	9.90	1.56	1.41
85	A7	104	C	O4'-C1'	9.89	1.56	1.41
83	A5	247	C	O4'-C1'	9.89	1.56	1.41
83	A5	937	G	O4'-C1'	9.89	1.56	1.41
83	A5	2901	C	C2'-C1'	-9.89	1.38	1.53
37	BC	61	C	O4'-C1'	9.88	1.56	1.41
83	A5	1361	G	C2'-C1'	-9.87	1.38	1.53
83	A5	2228	U	C2'-C1'	-9.87	1.38	1.53
83	A5	1606	G	O4'-C1'	9.86	1.56	1.42
83	A5	3111	G	C2'-C1'	-9.86	1.38	1.53
36	B2	936	G	C2'-C1'	-9.86	1.38	1.53
83	A5	1708	G	C2'-C1'	-9.86	1.38	1.53
36	B2	1237	G	C2'-C1'	-9.85	1.38	1.53
83	A5	941	A	O4'-C1'	9.85	1.56	1.41
85	A7	105	C	O4'-C1'	9.85	1.56	1.41
36	B2	577	C	O4'-C1'	9.84	1.56	1.41
36	B2	73	A	O4'-C1'	-9.83	1.27	1.42
83	A5	551	C	O4'-C1'	9.83	1.56	1.41
83	A5	872	A	O4'-C1'	-9.83	1.27	1.42
36	B2	947	U	C2'-C1'	-9.83	1.38	1.53
83	A5	900	C	O4'-C1'	9.83	1.56	1.41
36	B2	92	A	C2'-C1'	-9.83	1.38	1.53
36	B2	615	G	C2'-C1'	-9.83	1.38	1.53
85	A7	76	U	O4'-C1'	9.82	1.56	1.41
83	A5	788	C	C2'-C1'	-9.82	1.38	1.53
83	A5	3666	C	C2'-C1'	-9.82	1.38	1.53
36	B2	1913	C	O4'-C1'	9.81	1.56	1.41
36	B2	1124	C	O4'-C1'	9.81	1.56	1.41
36	B2	906	C	C2'-C1'	-9.81	1.38	1.53
36	B2	1789	A	C2'-C1'	-9.81	1.38	1.53
83	A5	292	G	C2'-C1'	-9.81	1.38	1.53
83	A5	1486	A	O4'-C1'	9.80	1.56	1.41
83	A5	2622	A	O4'-C1'	9.79	1.56	1.41
83	A5	3130	G	C2'-C1'	-9.79	1.38	1.53
36	B2	1943	G	C2'-C1'	-9.79	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1460	A	O4'-C1'	9.78	1.56	1.41
83	A5	2224	A	O4'-C1'	9.78	1.56	1.41
83	A5	214	A	O4'-C1'	9.78	1.56	1.41
36	B2	1440	U	O4'-C1'	9.78	1.56	1.41
83	A5	178	U	O4'-C1'	9.78	1.56	1.41
83	A5	439	U	O4'-C1'	9.78	1.56	1.41
36	B2	1434	U	C2'-C1'	-9.78	1.38	1.53
36	B2	613	A	O4'-C1'	9.77	1.56	1.41
83	A5	1291	U	O4'-C1'	9.77	1.56	1.41
83	A5	1542	C	O4'-C1'	9.77	1.56	1.41
83	A5	1009	G	C2'-C1'	-9.76	1.38	1.53
83	A5	786	C	O4'-C1'	9.76	1.56	1.42
83	A5	2588	G	O4'-C1'	9.75	1.56	1.41
83	A5	1182	A	C2'-C1'	-9.74	1.38	1.53
83	A5	1258	C	C2'-C1'	-9.74	1.38	1.53
83	A5	2031	C	C2'-C1'	-9.74	1.38	1.53
83	A5	3507	A	C2'-C1'	-9.74	1.38	1.53
36	B2	474	C	C2'-C1'	-9.74	1.38	1.53
83	A5	323	U	O4'-C1'	9.73	1.56	1.42
83	A5	3661	C	C2'-C1'	-9.73	1.38	1.53
83	A5	3539	C	C2'-C1'	-9.73	1.38	1.53
36	B2	590	U	C2'-C1'	-9.73	1.38	1.53
83	A5	2265	A	C2'-C1'	-9.73	1.38	1.53
36	B2	343	A	O4'-C1'	9.72	1.56	1.41
83	A5	1646	U	O4'-C1'	9.72	1.56	1.41
36	B2	31	C	C2'-C1'	-9.72	1.38	1.53
36	B2	1677	C	O4'-C1'	9.72	1.56	1.41
85	A7	8	A	C2'-C1'	-9.72	1.38	1.53
36	B2	1824	C	C2'-C1'	-9.71	1.38	1.53
83	A5	49	A	O4'-C1'	9.71	1.56	1.41
83	A5	1050	C	O4'-C1'	9.71	1.56	1.41
86	A8	3	C	C2'-C1'	-9.71	1.38	1.53
83	A5	3182	U	O4'-C1'	9.71	1.56	1.41
83	A5	3192	C	O4'-C1'	9.71	1.56	1.41
83	A5	1737	U	C2'-C1'	-9.70	1.38	1.53
36	B2	637	U	C2'-C1'	-9.70	1.38	1.53
36	B2	1207	G	C2'-C1'	-9.70	1.38	1.53
36	B2	1798	C	O4'-C1'	9.70	1.56	1.41
36	B2	1417	G	C2'-C1'	-9.70	1.38	1.53
37	BC	32	C	O4'-C1'	9.70	1.56	1.41
83	A5	1251	C	O4'-C1'	9.70	1.56	1.41
86	A8	44	C	O4'-C1'	9.69	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1111	C	C2'-C1'	-9.69	1.38	1.53
36	B2	16	G	O4'-C1'	9.69	1.56	1.41
83	A5	463	C	C2'-C1'	-9.69	1.38	1.53
83	A5	522	G	O4'-C1'	9.69	1.56	1.41
83	A5	1138	C	C2'-C1'	-9.69	1.38	1.53
83	A5	2626	C	O4'-C1'	9.68	1.56	1.41
36	B2	340	A	C2'-C1'	-9.68	1.38	1.53
83	A5	1126	A	C2'-C1'	-9.68	1.38	1.53
83	A5	2127	C	O4'-C1'	9.68	1.56	1.41
83	A5	116	U	O4'-C1'	-9.68	1.27	1.41
36	B2	315	C	C2'-C1'	-9.67	1.38	1.53
83	A5	2153	C	O4'-C1'	9.67	1.56	1.41
36	B2	1128	C	O4'-C1'	9.67	1.56	1.41
83	A5	589	A	O4'-C1'	9.67	1.56	1.41
83	A5	2237	A	O4'-C1'	9.67	1.56	1.41
36	B2	1062	C	C2'-C1'	-9.66	1.38	1.53
83	A5	3626	A	C2'-C1'	-9.66	1.38	1.53
83	A5	1001	A	O4'-C1'	9.66	1.56	1.42
36	B2	1198	G	O4'-C1'	9.65	1.56	1.41
83	A5	17	C	O4'-C1'	9.65	1.56	1.41
83	A5	1159	C	C2'-C1'	-9.65	1.38	1.53
83	A5	805	C	O4'-C1'	9.65	1.56	1.41
83	A5	926	U	C2'-C1'	-9.65	1.38	1.53
83	A5	2526	A	C2'-C1'	-9.65	1.38	1.53
83	A5	189	A	O4'-C1'	-9.64	1.27	1.42
83	A5	1478	A	C2'-C1'	-9.64	1.38	1.53
83	A5	1409	G	O4'-C1'	9.64	1.56	1.41
83	A5	1984	U	C2'-C1'	-9.64	1.38	1.53
36	B2	1430	U	O4'-C1'	9.64	1.56	1.41
36	B2	550	C	O4'-C1'	-9.64	1.27	1.41
36	B2	527	C	O4'-C1'	9.63	1.56	1.41
83	A5	1335	C	O4'-C1'	9.63	1.56	1.41
83	A5	1131	C	O4'-C1'	9.62	1.56	1.41
83	A5	3824	C	O4'-C1'	9.62	1.56	1.41
36	B2	967	C	O4'-C1'	9.62	1.56	1.41
83	A5	2688	U	O4'-C1'	9.62	1.56	1.41
83	A5	1886	C	C2'-C1'	-9.61	1.39	1.53
83	A5	3479	C	O4'-C1'	9.61	1.56	1.41
83	A5	3217	A	O4'-C1'	9.61	1.56	1.41
83	A5	1535	U	O4'-C1'	9.61	1.56	1.41
36	B2	46	A	O4'-C1'	9.61	1.56	1.42
36	B2	1278	C	O4'-C1'	9.61	1.56	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	642	A	O4'-C1'	9.61	1.56	1.41
83	A5	3788	G	O4'-C1'	-9.60	1.27	1.41
86	A8	25	C	O4'-C1'	9.60	1.56	1.41
36	B2	990	U	O4'-C1'	9.60	1.56	1.41
36	B2	1303	C	O4'-C1'	9.60	1.56	1.41
83	A5	48	U	O4'-C1'	9.60	1.56	1.41
83	A5	2906	C	O4'-C1'	9.60	1.56	1.41
36	B2	1404	C	C2'-C1'	-9.60	1.39	1.53
83	A5	2131	C	C2'-C1'	-9.60	1.39	1.53
83	A5	273	G	O4'-C1'	9.59	1.56	1.41
83	A5	1303	C	C2'-C1'	-9.59	1.39	1.53
83	A5	3342	C	O4'-C1'	9.59	1.56	1.41
36	B2	956	C	C2'-C1'	-9.58	1.39	1.53
83	A5	1015	G	O4'-C1'	9.57	1.56	1.41
85	A7	117	G	C2'-C1'	-9.56	1.39	1.53
83	A5	1894	G	C2'-C1'	-9.56	1.39	1.53
36	B2	435	G	C2'-C1'	-9.55	1.39	1.53
36	B2	991	G	C2'-C1'	-9.56	1.39	1.53
83	A5	3239	C	O4'-C1'	9.55	1.55	1.41
83	A5	3287	C	O4'-C1'	9.55	1.55	1.41
83	A5	31	C	O4'-C1'	9.54	1.55	1.41
83	A5	2925	C	O4'-C1'	9.54	1.55	1.41
83	A5	2174	A	O4'-C1'	-9.54	1.27	1.42
36	B2	1596	C	O4'-C1'	9.53	1.55	1.41
83	A5	2580	C	O4'-C1'	9.53	1.55	1.41
36	B2	975	U	O4'-C1'	9.52	1.55	1.41
83	A5	2716	C	C2'-C1'	-9.52	1.39	1.53
83	A5	2543	C	O4'-C1'	9.51	1.55	1.41
36	B2	1850	G	O4'-C1'	9.51	1.55	1.41
83	A5	206	C	C2'-C1'	-9.51	1.39	1.53
83	A5	95	G	C2'-C1'	-9.51	1.39	1.53
83	A5	2241	U	O4'-C1'	9.51	1.56	1.42
83	A5	3693	G	C2'-C1'	-9.51	1.39	1.53
83	A5	1023	C	O4'-C1'	9.50	1.55	1.41
36	B2	113	G	O4'-C1'	9.50	1.56	1.42
83	A5	1716	G	C2'-C1'	-9.50	1.39	1.53
86	A8	99	U	C2'-C1'	-9.50	1.39	1.53
36	B2	1420	U	O4'-C1'	9.50	1.55	1.41
83	A5	3440	C	O4'-C1'	9.49	1.55	1.41
36	B2	107	A	O4'-C1'	9.49	1.55	1.41
86	A8	100	G	C2'-C1'	-9.49	1.39	1.53
83	A5	3502	A	O4'-C1'	-9.49	1.27	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A7	91	C	O4'-C1'	9.49	1.55	1.41
83	A5	2584	G	O4'-C1'	9.48	1.55	1.41
36	B2	1083	C	O4'-C1'	9.47	1.55	1.41
83	A5	1293	A	C2'-C1'	9.46	1.67	1.53
83	A5	3399	C	O4'-C1'	9.46	1.55	1.41
83	A5	1876	G	C2'-C1'	-9.46	1.38	1.53
83	A5	3389	C	O4'-C1'	9.46	1.55	1.41
36	B2	1662	C	O4'-C1'	9.46	1.55	1.41
83	A5	1619	C	O4'-C1'	9.45	1.55	1.41
83	A5	3562	A	O4'-C1'	9.45	1.55	1.41
36	B2	164	U	C2'-C1'	-9.45	1.39	1.53
83	A5	2038	A	O4'-C1'	9.45	1.55	1.41
36	B2	1969	G	C2'-C1'	-9.45	1.39	1.53
36	B2	1304	G	C2'-C1'	-9.44	1.38	1.53
85	A7	37	G	O4'-C1'	9.44	1.55	1.41
83	A5	1081	C	C2'-C1'	-9.44	1.39	1.53
83	A5	1541	A	C2'-C1'	-9.44	1.39	1.53
83	A5	784	G	C2'-C1'	-9.43	1.39	1.53
83	A5	2496	A	C2'-C1'	-9.43	1.39	1.53
36	B2	295	A	O4'-C1'	9.42	1.55	1.41
83	A5	1029	C	O4'-C1'	9.42	1.55	1.41
36	B2	1762	A	O4'-C1'	9.41	1.55	1.41
83	A5	3539	C	O4'-C1'	9.41	1.55	1.41
36	B2	552	A	O4'-C1'	9.41	1.55	1.41
36	B2	559	G	C2'-C1'	-9.41	1.39	1.53
36	B2	598	C	O4'-C1'	9.41	1.55	1.41
83	A5	1568	A	C2'-C1'	-9.41	1.39	1.53
83	A5	3526	C	O4'-C1'	9.41	1.55	1.41
36	B2	1218	G	O4'-C1'	9.40	1.55	1.41
37	BC	16	U	O4'-C1'	-9.40	1.27	1.42
83	A5	1166	U	O4'-C1'	9.40	1.55	1.41
83	A5	3430	G	C2'-C1'	-9.40	1.39	1.53
83	A5	2707	C	O4'-C1'	9.40	1.55	1.41
83	A5	421	C	O4'-C1'	9.39	1.55	1.41
83	A5	693	G	C2'-C1'	-9.39	1.39	1.53
83	A5	1672	A	O4'-C1'	9.39	1.56	1.42
83	A5	1349	A	C2'-C1'	-9.39	1.39	1.53
83	A5	2834	A	O4'-C1'	9.39	1.55	1.41
37	BC	10	G	O4'-C1'	9.39	1.55	1.41
83	A5	81	A	O4'-C1'	9.39	1.55	1.41
36	B2	264	C	C2'-C1'	-9.39	1.39	1.53
36	B2	1048	U	O4'-C1'	9.39	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2625	G	O4'-C1'	9.38	1.55	1.41
83	A5	2641	C	O4'-C1'	9.38	1.55	1.41
36	B2	645	C	O4'-C1'	9.38	1.55	1.41
36	B2	1923	C	O4'-C1'	9.38	1.55	1.41
83	A5	1288	U	O4'-C1'	9.38	1.56	1.42
83	A5	2631	G	C2'-C1'	-9.38	1.39	1.53
83	A5	1707	A	C2'-C1'	-9.38	1.39	1.53
83	A5	3532	G	C2'-C1'	-9.38	1.39	1.53
36	B2	1357	G	C2'-C1'	-9.38	1.39	1.53
83	A5	3259	A	O4'-C1'	9.38	1.55	1.41
83	A5	2083	G	O4'-C1'	9.37	1.55	1.41
85	A7	57	C	C2'-C1'	-9.37	1.39	1.53
83	A5	2183	A	O4'-C1'	9.37	1.55	1.41
36	B2	1928	C	O4'-C1'	9.36	1.55	1.41
36	B2	249	U	O4'-C1'	9.35	1.55	1.41
83	A5	1634	A	C2'-C1'	-9.35	1.39	1.53
83	A5	388	U	C2'-C1'	-9.35	1.39	1.53
83	A5	1052	U	C2'-C1'	-9.35	1.39	1.53
36	B2	961	U	O4'-C1'	9.34	1.55	1.41
83	A5	1747	A	O4'-C1'	9.34	1.55	1.41
83	A5	2132	A	C2'-C1'	-9.33	1.39	1.53
36	B2	40	A	O4'-C1'	9.32	1.55	1.41
36	B2	1924	C	O4'-C1'	9.32	1.55	1.41
83	A5	3459	C	O4'-C1'	9.32	1.55	1.41
83	A5	2737	C	O4'-C1'	9.32	1.55	1.41
83	A5	2924	A	O4'-C1'	9.32	1.55	1.41
83	A5	3251	C	O4'-C1'	9.31	1.55	1.41
83	A5	3875	U	O4'-C1'	9.31	1.55	1.41
83	A5	1018	C	O4'-C1'	9.29	1.55	1.41
83	A5	2673	A	O4'-C1'	9.29	1.55	1.41
36	B2	597	C	O4'-C1'	9.29	1.55	1.41
83	A5	1885	U	O4'-C1'	9.29	1.55	1.41
83	A5	3119	U	O4'-C1'	9.28	1.55	1.41
36	B2	648	G	O4'-C1'	9.28	1.55	1.41
36	B2	1746	A	C2'-C1'	-9.28	1.39	1.53
83	A5	119	G	O4'-C1'	9.28	1.55	1.41
83	A5	3574	A	C2'-C1'	-9.27	1.39	1.53
83	A5	1145	C	O4'-C1'	9.27	1.55	1.41
85	A7	96	U	O4'-C1'	9.27	1.55	1.41
83	A5	2747	G	C2'-C1'	-9.26	1.39	1.53
83	A5	2916	U	O4'-C1'	9.26	1.55	1.42
83	A5	1489	A	O4'-C1'	9.26	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	592	C	O4'-C1'	9.26	1.55	1.41
36	B2	543	A	O4'-C1'	9.26	1.55	1.41
83	A5	1724	A	C2'-C1'	-9.25	1.39	1.53
83	A5	3881	A	O4'-C1'	9.25	1.55	1.41
83	A5	3911	G	C2'-C1'	-9.24	1.39	1.53
36	B2	120	U	C2'-C1'	-9.24	1.39	1.53
83	A5	1678	C	C2'-C1'	-9.24	1.39	1.53
83	A5	2009	A	C2'-C1'	-9.24	1.39	1.53
83	A5	3713	C	C2'-C1'	9.24	1.67	1.53
36	B2	618	G	O4'-C1'	-9.23	1.27	1.41
83	A5	1204	C	C2'-C1'	-9.23	1.39	1.53
83	A5	271	A	C2'-C1'	-9.23	1.39	1.53
83	A5	824	G	C2'-C1'	-9.23	1.39	1.53
83	A5	2708	C	O4'-C1'	9.23	1.55	1.41
83	A5	1081	C	O4'-C1'	9.23	1.55	1.41
36	B2	1361	C	O4'-C1'	-9.23	1.28	1.42
85	A7	9	C	O4'-C1'	9.23	1.55	1.41
86	A8	64	C	O4'-C1'	9.22	1.55	1.41
36	B2	1732	G	C2'-C1'	-9.22	1.39	1.53
83	A5	1959	A	O4'-C1'	9.22	1.55	1.41
83	A5	6	U	O4'-C1'	9.22	1.55	1.41
83	A5	342	A	O4'-C1'	9.22	1.55	1.41
83	A5	2159	C	C2'-C1'	-9.21	1.39	1.53
36	B2	247	G	C2'-C1'	-9.21	1.39	1.53
36	B2	347	C	O4'-C1'	9.21	1.55	1.41
36	B2	1940	G	C2'-C1'	-9.21	1.39	1.53
83	A5	1355	C	O4'-C1'	9.21	1.55	1.41
83	A5	1892	C	C2'-C1'	-9.21	1.39	1.53
83	A5	3500	A	C2'-C1'	-9.20	1.39	1.53
83	A5	310	A	O4'-C1'	9.20	1.55	1.41
36	B2	1651	C	C2'-C1'	-9.20	1.39	1.53
36	B2	1924	C	C2'-C1'	-9.19	1.39	1.53
83	A5	375	C	C2'-C1'	-9.19	1.39	1.53
83	A5	2070	G	C2'-C1'	-9.19	1.39	1.53
36	B2	1339	C	C2'-C1'	-9.18	1.39	1.53
83	A5	2514	U	O4'-C1'	9.18	1.55	1.41
83	A5	3919	G	C2'-C1'	-9.18	1.39	1.53
36	B2	1017	A	O4'-C1'	9.18	1.55	1.41
83	A5	2894	A	O4'-C1'	9.17	1.55	1.41
86	A8	120	G	C2'-C1'	-9.17	1.39	1.53
83	A5	375	C	O4'-C1'	9.17	1.55	1.41
37	BC	22	C	C2'-C1'	-9.16	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	237	G	O4'-C1'	9.16	1.55	1.41
83	A5	2738	C	O4'-C1'	9.16	1.55	1.41
83	A5	3388	G	C2'-C1'	-9.16	1.39	1.53
83	A5	673	U	O4'-C1'	9.15	1.55	1.41
36	B2	1802	G	O4'-C1'	9.14	1.55	1.41
83	A5	3345	A	C2'-C1'	-9.14	1.39	1.53
83	A5	2497	C	C2'-C1'	-9.14	1.39	1.53
83	A5	2884	C	C2'-C1'	-9.13	1.39	1.53
36	B2	175	A	O4'-C1'	9.13	1.55	1.41
83	A5	1512	C	O4'-C1'	9.13	1.55	1.41
83	A5	1270	G	O4'-C1'	9.13	1.55	1.41
83	A5	430	G	C2'-C1'	-9.13	1.39	1.53
83	A5	2902	C	O4'-C1'	9.13	1.55	1.41
83	A5	1128	C	O4'-C1'	9.13	1.55	1.41
36	B2	453	C	C2'-C1'	-9.12	1.39	1.53
83	A5	2	U	O4'-C1'	9.12	1.55	1.41
83	A5	327	C	C2'-C1'	-9.12	1.39	1.53
36	B2	855	C	O4'-C1'	9.12	1.55	1.42
36	B2	1191	C	O4'-C1'	9.12	1.55	1.41
36	B2	1670	G	C2'-C1'	-9.10	1.39	1.53
83	A5	349	C	C2'-C1'	-9.10	1.39	1.53
83	A5	2055	G	C2'-C1'	-9.10	1.39	1.53
83	A5	3839	A	O4'-C1'	-9.10	1.28	1.41
83	A5	661	G	C2'-C1'	-9.10	1.39	1.53
83	A5	3249	C	O4'-C1'	9.10	1.55	1.41
36	B2	622	C	O4'-C1'	9.09	1.55	1.41
83	A5	217	G	C2'-C1'	-9.09	1.39	1.53
83	A5	2160	C	C2'-C1'	-9.09	1.39	1.53
83	A5	3011	C	O4'-C1'	9.09	1.55	1.41
36	B2	1293	C	O4'-C1'	9.09	1.55	1.41
83	A5	67	A	O4'-C1'	9.09	1.55	1.41
83	A5	2257	C	C2'-C1'	-9.09	1.39	1.53
83	A5	2900	U	O4'-C1'	9.09	1.55	1.41
83	A5	756	C	O4'-C1'	9.09	1.55	1.41
83	A5	2479	A	O4'-C1'	-9.09	1.28	1.41
83	A5	717	A	C2'-C1'	-9.08	1.39	1.53
83	A5	1292	G	O4'-C1'	-9.08	1.28	1.41
36	B2	253	A	C2'-C1'	-9.08	1.39	1.53
36	B2	291	C	O4'-C1'	9.08	1.55	1.41
83	A5	3492	G	O4'-C1'	9.07	1.55	1.41
36	B2	268	C	O4'-C1'	9.06	1.55	1.41
83	A5	2896	U	C2'-C1'	-9.06	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1565	C	O4'-C1'	9.06	1.55	1.41
36	B2	1650	G	O4'-C1'	9.06	1.55	1.41
36	B2	1870	C	O4'-C1'	9.06	1.55	1.41
36	B2	1816	C	O4'-C1'	9.05	1.55	1.41
36	B2	1059	G	C2'-C1'	-9.05	1.39	1.53
83	A5	1233	G	C2'-C1'	-9.05	1.39	1.53
36	B2	707	A	O4'-C1'	9.05	1.55	1.41
36	B2	1	A	O4'-C1'	9.05	1.55	1.42
36	B2	594	G	C2'-C1'	-9.05	1.39	1.53
83	A5	2928	G	C2'-C1'	-9.05	1.39	1.53
36	B2	68	C	O4'-C1'	-9.04	1.28	1.42
36	B2	1020	U	C2'-C1'	-9.04	1.39	1.53
36	B2	1921	G	C2'-C1'	-9.04	1.39	1.53
83	A5	3501	C	O4'-C1'	9.04	1.55	1.41
83	A5	1169	C	O4'-C1'	9.03	1.55	1.41
83	A5	506	A	C2'-C1'	-9.03	1.39	1.53
36	B2	603	G	C2'-C1'	-9.03	1.39	1.53
36	B2	1968	C	O4'-C1'	9.03	1.55	1.41
83	A5	63	G	O4'-C1'	9.03	1.55	1.42
36	B2	1261	C	O4'-C1'	9.02	1.55	1.41
36	B2	1647	G	C2'-C1'	-9.02	1.39	1.53
83	A5	1104	A	C2'-C1'	-9.01	1.39	1.53
83	A5	3443	A	O4'-C1'	-9.01	1.28	1.42
83	A5	1728	G	C2'-C1'	-9.01	1.39	1.53
83	A5	3760	A	O4'-C1'	9.00	1.55	1.41
83	A5	3627	C	O4'-C1'	9.00	1.55	1.42
83	A5	1126	A	O4'-C1'	8.99	1.55	1.41
83	A5	1087	G	C2'-C1'	-8.99	1.39	1.53
83	A5	3928	A	O4'-C1'	-8.99	1.28	1.41
36	B2	6	G	C2'-C1'	-8.98	1.39	1.53
36	B2	1071	G	C2'-C1'	-8.98	1.39	1.53
83	A5	3248	U	O4'-C1'	8.97	1.55	1.41
83	A5	49	A	C2'-C1'	-8.97	1.40	1.53
83	A5	677	G	O4'-C1'	8.96	1.55	1.41
83	A5	459	U	C2'-C1'	8.96	1.66	1.53
83	A5	306	C	O4'-C1'	8.95	1.55	1.41
83	A5	2686	C	C2'-C1'	-8.95	1.40	1.53
83	A5	3191	G	C2'-C1'	-8.95	1.40	1.53
83	A5	563	A	C2'-C1'	-8.95	1.40	1.53
83	A5	3173	U	C2'-C1'	-8.95	1.40	1.53
36	B2	1366	C	O4'-C1'	8.94	1.55	1.41
83	A5	879	U	O4'-C1'	8.94	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	558	A	C2'-C1'	-8.94	1.40	1.53
83	A5	1788	G	O4'-C1'	8.94	1.55	1.41
85	A7	119	C	O4'-C1'	8.93	1.55	1.41
83	A5	2231	A	O4'-C1'	8.93	1.55	1.41
36	B2	1836	C	C2'-C1'	-8.92	1.40	1.53
83	A5	1321	G	C2'-C1'	-8.92	1.40	1.53
83	A5	3647	A	O4'-C1'	8.92	1.55	1.41
83	A5	755	A	O4'-C1'	8.92	1.55	1.41
83	A5	1447	C	C2'-C1'	-8.92	1.40	1.53
83	A5	2776	A	O4'-C1'	8.92	1.55	1.41
83	A5	815	A	O4'-C1'	8.92	1.55	1.41
83	A5	3218	C	O4'-C1'	8.92	1.55	1.41
83	A5	523	C	O4'-C1'	8.91	1.55	1.41
83	A5	1397	A	C2'-C1'	-8.91	1.40	1.53
83	A5	3376	C	O4'-C1'	8.91	1.55	1.41
83	A5	3835	U	O4'-C1'	8.91	1.55	1.41
83	A5	3920	C	O4'-C1'	8.91	1.55	1.41
83	A5	3616	G	C2'-C1'	-8.91	1.40	1.53
36	B2	75	U	C2'-C1'	8.91	1.66	1.53
36	B2	1086	U	C2'-C1'	-8.90	1.40	1.53
68	Cf	126	GLY	CA-C	-8.90	1.46	1.52
83	A5	3909	A	O4'-C1'	8.90	1.55	1.41
83	A5	3473	C	C2'-C1'	-8.90	1.40	1.53
36	B2	1826	C	O4'-C1'	8.90	1.55	1.42
36	B2	1193	C	O4'-C1'	8.90	1.54	1.41
83	A5	652	G	C2'-C1'	-8.89	1.39	1.53
83	A5	2172	C	C2'-C1'	-8.89	1.40	1.53
83	A5	1016	A	O4'-C1'	-8.89	1.28	1.42
36	B2	1108	C	O4'-C1'	8.88	1.54	1.41
83	A5	804	C	O4'-C1'	8.88	1.54	1.41
83	A5	208	U	O4'-C1'	8.88	1.54	1.41
83	A5	3198	C	C2'-C1'	-8.88	1.40	1.53
83	A5	568	A	C2'-C1'	-8.88	1.40	1.53
83	A5	3512	U	O4'-C1'	8.88	1.54	1.41
36	B2	1332	G	O4'-C1'	-8.87	1.28	1.42
36	B2	1144	C	O4'-C1'	8.86	1.55	1.42
83	A5	2626	C	C2'-C1'	-8.86	1.40	1.53
83	A5	2668	C	O4'-C1'	8.86	1.54	1.41
83	A5	147	A	O4'-C1'	8.86	1.54	1.41
86	A8	27	C	C2'-C1'	-8.86	1.40	1.53
83	A5	439	U	C2'-C1'	-8.85	1.40	1.53
83	A5	3504	G	C2'-C1'	-8.85	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1907	U	O4'-C1'	8.85	1.54	1.41
36	B2	1537	C	O4'-C1'	8.84	1.54	1.41
83	A5	113	A	O4'-C1'	8.84	1.55	1.42
83	A5	1000	G	O4'-C1'	8.84	1.55	1.42
83	A5	2682	C	O4'-C1'	8.83	1.54	1.41
83	A5	2739	A	C2'-C1'	-8.83	1.40	1.53
83	A5	2837	A	C2'-C1'	-8.83	1.40	1.53
83	A5	3407	U	O4'-C1'	8.83	1.54	1.41
83	A5	1232	G	C2'-C1'	-8.82	1.40	1.53
83	A5	3827	G	O4'-C1'	8.82	1.54	1.41
36	B2	1958	A	C2'-C1'	-8.82	1.40	1.53
36	B2	1812	C	O4'-C1'	8.82	1.54	1.41
83	A5	3183	G	O4'-C1'	-8.82	1.28	1.42
36	B2	1262	C	C2'-C1'	-8.81	1.40	1.53
36	B2	34	G	C2'-C1'	-8.81	1.40	1.53
83	A5	1647	A	O4'-C1'	8.81	1.54	1.41
36	B2	196	G	O4'-C1'	8.80	1.54	1.41
36	B2	918	C	O4'-C1'	8.80	1.54	1.41
83	A5	1440	A	O4'-C1'	8.80	1.54	1.41
83	A5	3207	C	O4'-C1'	8.80	1.54	1.41
86	A8	105	C	O4'-C1'	8.80	1.54	1.41
83	A5	3516	C	O4'-C1'	8.80	1.54	1.41
36	B2	1725	C	O4'-C1'	8.79	1.54	1.41
36	B2	449	C	O4'-C1'	8.79	1.55	1.42
36	B2	1925	G	O4'-C1'	8.79	1.54	1.41
83	A5	2822	C	O4'-C1'	8.79	1.54	1.41
83	A5	2830	G	O4'-C1'	8.79	1.55	1.42
83	A5	2058	C	O4'-C1'	8.79	1.54	1.41
84	A9	29	U	C2'-C1'	-8.79	1.40	1.53
83	A5	3233	C	O4'-C1'	8.78	1.54	1.41
83	A5	3276	C	O4'-C1'	8.78	1.54	1.41
37	BC	60	C	C2'-C1'	-8.78	1.40	1.53
83	A5	680	C	O4'-C1'	8.77	1.54	1.41
36	B2	287	C	O4'-C1'	8.77	1.54	1.41
36	B2	327	G	O4'-C1'	8.77	1.55	1.42
37	BC	65	C	O4'-C1'	8.77	1.54	1.41
83	A5	1370	C	O4'-C1'	8.77	1.54	1.41
36	B2	387	C	O4'-C1'	8.76	1.54	1.41
36	B2	920	U	C2'-C1'	-8.76	1.40	1.53
83	A5	3168	A	C2'-C1'	-8.76	1.40	1.53
83	A5	3804	U	O4'-C1'	8.76	1.54	1.41
36	B2	272	U	C2'-C1'	-8.76	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	636	G	O4'-C1'	8.76	1.54	1.41
36	B2	292	G	O4'-C1'	-8.76	1.28	1.42
83	A5	1100	G	C2'-C1'	-8.76	1.40	1.53
83	A5	2014	C	O4'-C1'	8.76	1.54	1.41
86	A8	121	C	C2'-C1'	-8.76	1.40	1.53
36	B2	1410	C	O4'-C1'	8.75	1.54	1.41
86	A8	112	C	O4'-C1'	8.74	1.54	1.41
83	A5	3520	U	O4'-C1'	8.74	1.54	1.41
83	A5	53	A	C2'-C1'	-8.74	1.40	1.53
83	A5	2596	G	C2'-C1'	-8.73	1.40	1.53
83	A5	102	G	C2'-C1'	-8.73	1.40	1.53
83	A5	2775	A	C2'-C1'	-8.73	1.40	1.53
36	B2	1748	A	C2'-C1'	-8.73	1.40	1.53
86	A8	105	C	C2'-C1'	-8.73	1.40	1.53
36	B2	164	U	O4'-C1'	8.73	1.54	1.41
36	B2	1204	A	C2'-C1'	-8.73	1.40	1.53
36	B2	1869	C	C2'-C1'	-8.73	1.40	1.53
36	B2	1526	G	C2'-C1'	-8.72	1.40	1.53
83	A5	1793	C	C2'-C1'	-8.72	1.40	1.53
36	B2	1464	U	O4'-C1'	8.72	1.54	1.41
83	A5	2213	G	C2'-C1'	-8.72	1.40	1.53
36	B2	1036	C	C2'-C1'	-8.72	1.40	1.53
86	A8	94	C	C2'-C1'	-8.72	1.40	1.53
36	B2	578	A	O4'-C1'	8.71	1.54	1.41
83	A5	445	C	C2'-C1'	-8.72	1.40	1.53
36	B2	593	A	C2'-C1'	-8.71	1.40	1.53
83	A5	3254	U	O4'-C1'	8.71	1.54	1.41
83	A5	649	A	O4'-C1'	8.71	1.54	1.41
83	A5	3156	G	C2'-C1'	-8.71	1.40	1.53
36	B2	634	U	O4'-C1'	8.71	1.54	1.41
36	B2	1965	U	O4'-C1'	8.71	1.54	1.41
36	B2	104	A	O4'-C1'	8.71	1.54	1.41
83	A5	50	U	C2'-C1'	-8.71	1.40	1.53
83	A5	196	C	O4'-C1'	8.71	1.54	1.41
36	B2	1639	U	O4'-C1'	8.70	1.55	1.42
37	BC	67	C	O4'-C1'	8.70	1.54	1.41
85	A7	98	G	C2'-C1'	-8.70	1.40	1.53
86	A8	94	C	O4'-C1'	8.70	1.54	1.41
36	B2	34	G	O4'-C1'	8.69	1.54	1.41
36	B2	294	C	O4'-C1'	8.70	1.54	1.41
36	B2	1335	C	O4'-C1'	8.69	1.54	1.41
83	A5	16	A	C2'-C1'	-8.69	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2620	C	O4'-C1'	8.69	1.54	1.41
36	B2	1463	C	O4'-C1'	8.69	1.54	1.41
83	A5	35	C	C2'-C1'	-8.69	1.40	1.53
85	A7	8	A	O4'-C1'	8.69	1.54	1.41
83	A5	113	A	C2'-C1'	-8.68	1.40	1.53
36	B2	1836	C	O4'-C1'	8.68	1.54	1.41
83	A5	391	A	O4'-C1'	8.68	1.54	1.41
83	A5	3127	A	O4'-C1'	-8.68	1.28	1.41
36	B2	890	U	C2'-C1'	-8.68	1.40	1.53
36	B2	327	G	C2'-C1'	-8.68	1.40	1.53
36	B2	988	G	O4'-C1'	-8.68	1.28	1.41
37	BC	49	G	C2'-C1'	-8.68	1.40	1.53
83	A5	1640	U	O4'-C1'	8.68	1.54	1.41
36	B2	440	U	C2'-C1'	-8.67	1.40	1.53
83	A5	3454	G	C2'-C1'	-8.67	1.40	1.53
83	A5	790	U	C2'-C1'	-8.67	1.40	1.53
83	A5	3759	G	O4'-C1'	8.67	1.54	1.41
83	A5	2198	G	C2'-C1'	-8.67	1.40	1.53
36	B2	75	U	O4'-C1'	-8.66	1.28	1.41
36	B2	1673	U	O4'-C1'	8.66	1.54	1.41
83	A5	2168	G	C2'-C1'	-8.66	1.40	1.53
83	A5	1466	A	C2'-C1'	-8.66	1.40	1.53
83	A5	227	A	O4'-C1'	8.65	1.54	1.41
83	A5	1986	G	C2'-C1'	-8.65	1.40	1.53
83	A5	1644	C	O4'-C1'	8.65	1.54	1.41
83	A5	3260	G	C2'-C1'	-8.65	1.40	1.53
36	B2	449	C	C2'-C1'	-8.65	1.40	1.53
83	A5	2481	U	O4'-C1'	8.65	1.54	1.41
84	A9	23	G	O4'-C1'	8.64	1.54	1.41
36	B2	1952	G	C2'-C1'	-8.64	1.40	1.53
83	A5	3474	G	O4'-C1'	8.64	1.54	1.41
36	B2	1544	G	C2'-C1'	-8.63	1.40	1.53
83	A5	248	C	O4'-C1'	8.63	1.54	1.41
83	A5	2693	G	C2'-C1'	-8.63	1.40	1.53
36	B2	366	C	O4'-C1'	8.63	1.54	1.41
83	A5	428	C	C2'-C1'	-8.63	1.40	1.53
83	A5	2570	C	O4'-C1'	8.63	1.54	1.41
83	A5	2873	C	O4'-C1'	8.63	1.54	1.41
36	B2	30	G	C2'-C1'	-8.63	1.40	1.53
36	B2	956	C	O4'-C1'	8.62	1.54	1.41
83	A5	3167	A	C2'-C1'	-8.62	1.40	1.53
36	B2	1283	C	O4'-C1'	8.62	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1677	C	C2'-C1'	-8.62	1.40	1.53
83	A5	3296	C	O4'-C1'	8.62	1.54	1.41
36	B2	1953	U	O4'-C1'	8.62	1.54	1.41
86	A8	102	A	C2'-C1'	-8.62	1.40	1.53
36	B2	1771	U	C2'-C1'	-8.61	1.40	1.53
83	A5	139	U	O4'-C1'	8.62	1.54	1.42
83	A5	1512	C	C2'-C1'	-8.61	1.40	1.53
83	A5	2021	C	O4'-C1'	8.61	1.54	1.41
83	A5	2690	A	O4'-C1'	8.61	1.54	1.41
36	B2	1224	U	C2'-C1'	-8.61	1.40	1.53
36	B2	1355	G	C2'-C1'	-8.61	1.40	1.53
83	A5	1959	A	C2'-C1'	-8.61	1.40	1.53
83	A5	3851	U	O4'-C1'	8.61	1.54	1.41
83	A5	1343	A	C2'-C1'	-8.61	1.40	1.53
83	A5	1783	A	O4'-C1'	8.60	1.54	1.41
85	A7	27	A	O4'-C1'	8.60	1.54	1.41
83	A5	3114	C	O4'-C1'	8.60	1.54	1.41
83	A5	3119	U	C2'-C1'	-8.60	1.40	1.53
83	A5	1433	U	O4'-C1'	8.60	1.54	1.41
83	A5	3927	C	O4'-C1'	8.60	1.54	1.41
83	A5	420	A	O4'-C1'	-8.60	1.28	1.41
83	A5	1673	C	O4'-C1'	8.59	1.54	1.42
83	A5	1692	G	C2'-C1'	-8.59	1.40	1.53
83	A5	1646	U	C2'-C1'	-8.59	1.40	1.53
83	A5	2783	C	O4'-C1'	8.59	1.54	1.41
83	A5	358	C	C2'-C1'	-8.59	1.40	1.53
83	A5	3758	G	C2'-C1'	8.59	1.66	1.53
83	A5	2508	C	O4'-C1'	8.58	1.54	1.41
36	B2	1580	G	O4'-C1'	8.58	1.54	1.41
83	A5	2201	U	C2'-C1'	-8.58	1.40	1.53
36	B2	1020	U	O4'-C1'	8.57	1.54	1.42
83	A5	793	U	C2'-C1'	-8.57	1.40	1.53
83	A5	3519	C	O4'-C1'	8.57	1.54	1.41
83	A5	1131	C	C2'-C1'	-8.57	1.40	1.53
83	A5	1707	A	O4'-C1'	8.56	1.54	1.41
83	A5	3710	U	C2'-C1'	8.56	1.66	1.53
36	B2	1743	C	O4'-C1'	8.56	1.54	1.41
86	A8	93	A	C2'-C1'	-8.56	1.40	1.53
36	B2	1358	G	C2'-C1'	-8.55	1.40	1.53
36	B2	1926	A	O4'-C1'	8.55	1.54	1.41
83	A5	2160	C	O4'-C1'	8.55	1.54	1.41
83	A5	1504	C	O4'-C1'	8.55	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1222	C	O4'-C1'	8.55	1.54	1.41
83	A5	919	G	O4'-C1'	-8.55	1.28	1.41
86	A8	46	C	O4'-C1'	8.55	1.54	1.41
86	A8	30	G	C2'-C1'	-8.55	1.40	1.53
83	A5	1340	G	C2'-C1'	-8.54	1.40	1.53
36	B2	636	G	C2'-C1'	-8.54	1.40	1.53
36	B2	1374	A	C2'-C1'	-8.54	1.40	1.53
83	A5	3671	C	O4'-C1'	8.53	1.54	1.41
36	B2	173	C	O4'-C1'	8.53	1.54	1.41
36	B2	1641	U	C2'-C1'	-8.53	1.40	1.53
36	B2	621	G	O4'-C1'	8.52	1.54	1.42
36	B2	1910	U	O4'-C1'	8.52	1.54	1.41
83	A5	1654	C	O4'-C1'	8.52	1.54	1.41
83	A5	1951	C	O4'-C1'	8.52	1.54	1.41
83	A5	3162	C	O4'-C1'	8.52	1.54	1.41
36	B2	933	C	C2'-C1'	-8.51	1.40	1.53
86	A8	51	A	O4'-C1'	8.51	1.54	1.41
83	A5	400	U	C2'-C1'	-8.51	1.40	1.53
83	A5	455	U	O4'-C1'	8.51	1.54	1.41
83	A5	1407	C	O4'-C1'	8.51	1.54	1.41
36	B2	59	C	O4'-C1'	8.50	1.54	1.42
36	B2	413	C	O4'-C1'	8.50	1.54	1.41
38	Cz	37	GLY	CA-C	-8.50	1.46	1.52
83	A5	788	C	O4'-C1'	8.50	1.54	1.41
83	A5	2493	C	O4'-C1'	8.50	1.54	1.41
36	B2	179	A	C2'-C1'	-8.50	1.40	1.53
83	A5	3496	U	O4'-C1'	8.50	1.54	1.41
36	B2	56	U	O4'-C1'	8.50	1.54	1.42
36	B2	432	C	O4'-C1'	8.50	1.54	1.41
36	B2	1792	A	O4'-C1'	8.50	1.54	1.42
83	A5	2635	C	O4'-C1'	8.49	1.54	1.41
36	B2	1153	C	O4'-C1'	8.49	1.54	1.41
83	A5	3016	G	C2'-C1'	-8.49	1.40	1.53
83	A5	1543	C	C2'-C1'	-8.49	1.40	1.53
83	A5	2728	C	C2'-C1'	-8.49	1.40	1.53
83	A5	3161	U	C2'-C1'	-8.49	1.40	1.53
83	A5	3691	A	O4'-C1'	8.49	1.54	1.41
36	B2	1001	G	O4'-C1'	8.48	1.54	1.42
36	B2	1524	A	C2'-C1'	-8.48	1.40	1.53
83	A5	1898	C	C2'-C1'	-8.48	1.40	1.53
85	A7	60	C	O4'-C1'	8.48	1.54	1.41
36	B2	1042	A	O4'-C1'	8.48	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3970	A	C2'-C1'	8.48	1.66	1.53
83	A5	1034	U	C2'-C1'	-8.48	1.40	1.53
83	A5	3405	U	O4'-C1'	8.48	1.54	1.42
83	A5	3691	A	C2'-C1'	-8.48	1.40	1.53
36	B2	430	A	O4'-C1'	8.47	1.54	1.41
36	B2	1929	U	O4'-C1'	8.47	1.54	1.41
83	A5	1442	C	O4'-C1'	8.47	1.54	1.41
83	A5	1691	A	O4'-C1'	8.47	1.54	1.41
83	A5	1472	C	O4'-C1'	8.46	1.54	1.41
83	A5	1609	U	O4'-C1'	8.46	1.54	1.41
83	A5	3263	C	C2'-C1'	-8.46	1.40	1.53
83	A5	985	G	C2'-C1'	8.46	1.66	1.53
83	A5	3757	U	O4'-C1'	8.46	1.54	1.41
83	A5	2012	G	O4'-C1'	8.46	1.54	1.41
83	A5	1564	G	O4'-C1'	8.45	1.54	1.41
86	A8	28	A	C2'-C1'	-8.46	1.40	1.53
83	A5	1501	A	O4'-C1'	8.45	1.54	1.42
83	A5	1350	A	C2'-C1'	-8.44	1.40	1.53
36	B2	50	C	O4'-C1'	8.44	1.54	1.41
83	A5	204	G	O4'-C1'	8.44	1.54	1.42
83	A5	3185	C	O4'-C1'	8.44	1.54	1.41
83	A5	1111	C	O4'-C1'	8.44	1.54	1.41
83	A5	3172	A	O4'-C1'	8.44	1.54	1.41
83	A5	1518	A	O4'-C1'	-8.43	1.29	1.42
83	A5	2735	A	O4'-C1'	8.43	1.54	1.41
83	A5	3396	A	O4'-C1'	8.43	1.54	1.41
36	B2	1008	G	C2'-C1'	-8.42	1.40	1.53
83	A5	466	U	C2'-C1'	-8.42	1.40	1.53
83	A5	1732	A	C2'-C1'	-8.42	1.40	1.53
83	A5	1997	C	O4'-C1'	8.42	1.54	1.41
83	A5	2787	U	O4'-C1'	8.42	1.54	1.42
83	A5	2925	C	C2'-C1'	-8.42	1.40	1.53
83	A5	1713	U	C2'-C1'	-8.41	1.40	1.53
36	B2	440	U	O4'-C1'	8.41	1.54	1.41
83	A5	3733	U	O4'-C1'	8.41	1.54	1.41
83	A5	330	C	O4'-C1'	8.40	1.54	1.41
36	B2	1537	C	C2'-C1'	-8.40	1.40	1.53
83	A5	1332	C	O4'-C1'	8.40	1.54	1.41
83	A5	1555	G	C2'-C1'	-8.40	1.40	1.53
83	A5	34	C	O4'-C1'	8.40	1.54	1.41
36	B2	975	U	C2'-C1'	-8.39	1.40	1.53
83	A5	531	C	C2'-C1'	-8.39	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2024	U	O4'-C1'	8.39	1.54	1.41
83	A5	2066	G	C2'-C1'	-8.39	1.40	1.53
83	A5	1687	U	O4'-C1'	8.39	1.54	1.42
37	BC	21	G	C2'-C1'	-8.38	1.40	1.53
36	B2	459	U	O4'-C1'	8.38	1.54	1.42
36	B2	501	C	O4'-C1'	8.38	1.54	1.41
83	A5	3656	A	C2'-C1'	-8.37	1.40	1.53
36	B2	1010	A	O4'-C1'	8.37	1.54	1.41
83	A5	3583	C	O4'-C1'	8.37	1.54	1.41
37	BC	31	C	O4'-C1'	8.37	1.54	1.41
36	B2	1271	A	C2'-C1'	-8.36	1.40	1.53
36	B2	1643	C	O4'-C1'	8.36	1.54	1.41
36	B2	1222	C	C2'-C1'	-8.36	1.40	1.53
83	A5	1349	A	O4'-C1'	8.36	1.54	1.41
83	A5	3504	G	O4'-C1'	8.36	1.54	1.41
83	A5	3953	C	C2'-C1'	-8.36	1.40	1.53
83	A5	926	U	O4'-C1'	8.36	1.54	1.41
86	A8	3	C	O4'-C1'	8.36	1.54	1.41
36	B2	1581	A	O4'-C1'	8.36	1.54	1.42
36	B2	1799	A	O4'-C1'	8.36	1.54	1.41
36	B2	1829	C	O4'-C1'	8.36	1.54	1.42
83	A5	289	C	O4'-C1'	8.36	1.54	1.41
83	A5	1084	A	C2'-C1'	8.35	1.65	1.53
83	A5	3765	A	O4'-C1'	-8.35	1.29	1.42
83	A5	2841	G	O4'-C1'	8.35	1.54	1.41
36	B2	86	C	O4'-C1'	8.35	1.54	1.41
83	A5	1574	A	O4'-C1'	8.35	1.54	1.41
36	B2	67	A	O4'-C1'	8.35	1.54	1.42
36	B2	1293	C	C2'-C1'	-8.35	1.40	1.53
83	A5	477	C	O4'-C1'	8.34	1.54	1.41
83	A5	1973	G	C2'-C1'	-8.34	1.40	1.53
86	A8	87	A	O4'-C1'	8.34	1.54	1.41
36	B2	254	C	O4'-C1'	8.34	1.54	1.41
83	A5	3779	U	O4'-C1'	8.34	1.54	1.41
83	A5	1360	U	O4'-C1'	8.34	1.54	1.41
83	A5	2623	C	O4'-C1'	8.34	1.54	1.41
36	B2	1667	A	C2'-C1'	-8.34	1.40	1.53
83	A5	3923	C	O4'-C1'	8.34	1.54	1.41
83	A5	803	A	O4'-C1'	8.33	1.54	1.41
83	A5	1461	G	C2'-C1'	-8.33	1.40	1.53
83	A5	1864	U	O4'-C1'	8.33	1.54	1.42
83	A5	1216	A	O4'-C1'	8.33	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1626	A	O4'-C1'	8.33	1.54	1.41
83	A5	100	G	C2'-C1'	-8.32	1.40	1.53
83	A5	571	U	O4'-C1'	8.32	1.54	1.41
83	A5	3125	A	O4'-C1'	8.32	1.54	1.42
36	B2	1364	G	C2'-C1'	-8.32	1.40	1.53
36	B2	1648	C	O4'-C1'	-8.32	1.29	1.41
83	A5	3891	U	O4'-C1'	-8.32	1.29	1.42
83	A5	3115	C	O4'-C1'	8.31	1.54	1.41
83	A5	966	U	O4'-C1'	8.31	1.54	1.41
36	B2	331	G	C2'-C1'	-8.31	1.40	1.53
83	A5	959	U	C2'-C1'	-8.31	1.40	1.53
83	A5	3427	G	O4'-C1'	8.31	1.54	1.41
83	A5	2547	C	C2'-C1'	-8.31	1.40	1.53
83	A5	3297	C	O4'-C1'	8.31	1.54	1.41
36	B2	1755	A	C2'-C1'	-8.30	1.40	1.53
83	A5	1391	A	O4'-C1'	8.30	1.54	1.41
83	A5	1424	G	C2'-C1'	-8.30	1.40	1.53
83	A5	2883	C	O4'-C1'	8.30	1.54	1.41
83	A5	317	G	O4'-C1'	8.30	1.54	1.41
83	A5	1691	A	C2'-C1'	-8.30	1.40	1.53
83	A5	688	U	O4'-C1'	8.30	1.54	1.41
36	B2	1231	A	O4'-C1'	8.29	1.54	1.41
83	A5	144	C	O4'-C1'	8.29	1.54	1.41
83	A5	221	C	O4'-C1'	8.29	1.54	1.41
36	B2	508	C	O4'-C1'	8.29	1.54	1.41
83	A5	773	G	O4'-C1'	8.29	1.54	1.41
83	A5	2593	A	O4'-C1'	8.29	1.54	1.41
83	A5	2728	C	O4'-C1'	8.28	1.54	1.41
83	A5	3341	C	C2'-C1'	-8.28	1.41	1.53
83	A5	3357	C	C2'-C1'	-8.29	1.41	1.53
36	B2	1985	A	C2'-C1'	-8.28	1.41	1.53
36	B2	1048	U	C2'-C1'	-8.28	1.41	1.53
83	A5	71	A	C2'-C1'	-8.28	1.41	1.53
83	A5	3320	C	C2'-C1'	-8.28	1.41	1.53
83	A5	1086	C	O4'-C1'	8.27	1.54	1.41
83	A5	3482	G	O4'-C1'	8.27	1.54	1.41
83	A5	64	A	O4'-C1'	8.27	1.54	1.41
83	A5	86	C	C2'-C1'	-8.26	1.41	1.53
83	A5	354	A	C2'-C1'	-8.26	1.41	1.53
36	B2	92	A	O4'-C1'	8.26	1.54	1.42
36	B2	1444	C	O4'-C1'	8.26	1.54	1.41
83	A5	3607	C	O4'-C1'	8.26	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A7	57	C	O4'-C1'	8.26	1.54	1.41
36	B2	1815	C	O4'-C1'	8.26	1.54	1.41
36	B2	304	A	O4'-C1'	8.25	1.54	1.41
36	B2	657	A	C2'-C1'	-8.25	1.41	1.53
36	B2	1780	G	O4'-C1'	8.25	1.54	1.41
83	A5	1655	A	C2'-C1'	-8.25	1.41	1.53
83	A5	2243	G	O4'-C1'	-8.25	1.29	1.41
83	A5	2734	A	O4'-C1'	8.25	1.54	1.41
36	B2	221	C	O4'-C1'	8.25	1.54	1.41
36	B2	1696	G	O4'-C1'	8.24	1.54	1.41
36	B2	1090	A	C2'-C1'	-8.24	1.40	1.53
83	A5	3320	C	O4'-C1'	8.24	1.54	1.41
36	B2	67	A	C2'-C1'	-8.24	1.40	1.53
83	A5	3151	G	O4'-C1'	8.24	1.54	1.41
83	A5	3460	C	O4'-C1'	8.24	1.54	1.41
83	A5	1697	U	O4'-C1'	-8.24	1.29	1.42
36	B2	1917	A	O4'-C1'	8.23	1.54	1.41
83	A5	2724	C	O4'-C1'	8.23	1.53	1.41
36	B2	10	G	O4'-C1'	8.22	1.53	1.41
83	A5	3607	C	C2'-C1'	-8.22	1.41	1.53
83	A5	558	C	C2'-C1'	-8.22	1.41	1.53
83	A5	1630	G	C2'-C1'	-8.22	1.41	1.53
83	A5	2792	G	O4'-C1'	8.22	1.53	1.41
83	A5	2231	A	C2'-C1'	-8.22	1.41	1.53
36	B2	883	C	C2'-C1'	-8.21	1.41	1.53
36	B2	1049	C	O4'-C1'	8.21	1.53	1.41
83	A5	3270	G	C2'-C1'	-8.21	1.41	1.53
83	A5	3630	C	O4'-C1'	8.21	1.53	1.41
83	A5	2230	G	O4'-C1'	8.21	1.53	1.41
83	A5	3772	U	O4'-C1'	8.21	1.53	1.41
36	B2	1283	C	C2'-C1'	-8.21	1.41	1.53
36	B2	486	A	C2'-C1'	-8.21	1.41	1.53
83	A5	766	G	C2'-C1'	-8.21	1.41	1.53
83	A5	1957	C	O4'-C1'	8.20	1.53	1.41
83	A5	28	C	O4'-C1'	8.20	1.53	1.41
1	Az	536	GLY	CA-C	-8.19	1.44	1.52
83	A5	1724	A	O4'-C1'	8.19	1.53	1.41
83	A5	42	U	O4'-C1'	8.19	1.53	1.41
83	A5	825	C	O4'-C1'	8.19	1.53	1.41
83	A5	2753	G	O4'-C1'	8.19	1.54	1.42
83	A5	2245	G	C2'-C1'	-8.19	1.41	1.53
85	A7	67	G	C2'-C1'	-8.18	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A8	53	C	O4'-C1'	8.18	1.53	1.41
86	A8	68	U	O4'-C1'	8.18	1.53	1.41
36	B2	423	G	C2'-C1'	-8.18	1.41	1.53
36	B2	882	G	C2'-C1'	-8.18	1.41	1.53
83	A5	90	G	O4'-C1'	8.18	1.54	1.42
83	A5	1486	A	C2'-C1'	-8.18	1.41	1.53
85	A7	106	G	C2'-C1'	-8.18	1.41	1.53
83	A5	1262	C	O4'-C1'	8.17	1.53	1.41
36	B2	1956	U	O4'-C1'	8.17	1.54	1.42
83	A5	1860	A	C2'-C1'	8.17	1.65	1.53
83	A5	2722	U	O4'-C1'	8.17	1.53	1.41
83	A5	2730	A	O4'-C1'	8.17	1.53	1.41
83	A5	2913	G	C2'-C1'	-8.17	1.41	1.53
36	B2	283	U	O4'-C1'	-8.16	1.29	1.42
83	A5	1148	C	O4'-C1'	8.16	1.53	1.41
83	A5	2740	C	C2'-C1'	-8.16	1.41	1.53
36	B2	18	C	O4'-C1'	8.16	1.53	1.41
36	B2	1811	C	O4'-C1'	8.16	1.53	1.41
83	A5	2147	C	O4'-C1'	8.16	1.53	1.41
36	B2	1877	G	O4'-C1'	8.15	1.53	1.41
36	B2	581	C	O4'-C1'	8.15	1.53	1.41
83	A5	818	A	O4'-C1'	8.15	1.53	1.41
83	A5	2109	G	C2'-C1'	-8.15	1.41	1.53
83	A5	3416	C	O4'-C1'	8.15	1.53	1.41
83	A5	741	C	C2'-C1'	-8.15	1.41	1.53
83	A5	2554	U	O4'-C1'	8.15	1.53	1.41
83	A5	989	A	O4'-C1'	8.14	1.53	1.41
83	A5	2856	C	C2'-C1'	-8.14	1.41	1.53
84	A9	9	C	O4'-C1'	8.14	1.53	1.41
36	B2	260	A	O4'-C1'	8.14	1.53	1.41
83	A5	3611	C	O4'-C1'	8.14	1.53	1.41
83	A5	1049	C	C2'-C1'	-8.14	1.41	1.53
83	A5	3577	U	O4'-C1'	8.13	1.53	1.41
36	B2	298	U	O4'-C1'	8.13	1.53	1.41
83	A5	1543	C	O4'-C1'	8.13	1.53	1.41
36	B2	146	C	C2'-C1'	-8.13	1.41	1.53
83	A5	3365	G	C2'-C1'	-8.13	1.41	1.53
83	A5	1686	A	O4'-C1'	8.12	1.53	1.41
83	A5	2654	G	C2'-C1'	-8.12	1.41	1.53
83	A5	2992	A	C2'-C1'	-8.12	1.41	1.53
83	A5	845	C	O4'-C1'	8.11	1.53	1.41
83	A5	1958	G	C2'-C1'	-8.11	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3794	U	C2'-C1'	-8.11	1.41	1.53
22	Ac	58	GLU	CA-C	8.11	1.56	1.52
36	B2	1268	C	O4'-C1'	8.11	1.53	1.41
83	A5	1388	C	O4'-C1'	8.11	1.53	1.41
36	B2	1969	G	O4'-C1'	8.10	1.53	1.41
83	A5	223	A	O4'-C1'	8.10	1.53	1.41
83	A5	2989	G	O4'-C1'	8.10	1.53	1.41
36	B2	1864	G	C2'-C1'	-8.10	1.41	1.53
83	A5	916	C	O4'-C1'	8.10	1.53	1.41
36	B2	523	A	O4'-C1'	8.09	1.53	1.41
36	B2	1041	G	C2'-C1'	-8.09	1.41	1.53
83	A5	1713	U	O4'-C1'	8.09	1.53	1.41
83	A5	2591	A	O4'-C1'	8.08	1.53	1.41
83	A5	3822	C	O4'-C1'	8.08	1.53	1.41
36	B2	633	U	C2'-C1'	-8.08	1.41	1.53
83	A5	3764	G	O4'-C1'	-8.08	1.29	1.41
36	B2	10	G	C2'-C1'	-8.08	1.41	1.53
36	B2	1971	A	C2'-C1'	-8.08	1.41	1.53
83	A5	1356	G	O4'-C1'	8.08	1.53	1.41
83	A5	2613	C	C2'-C1'	-8.08	1.41	1.53
83	A5	1985	C	O4'-C1'	8.07	1.53	1.41
36	B2	489	C	O4'-C1'	8.07	1.53	1.41
37	BC	26	C	O4'-C1'	8.07	1.53	1.41
83	A5	2901	C	O4'-C1'	8.07	1.53	1.41
83	A5	2902	C	C2'-C1'	-8.06	1.41	1.53
36	B2	497	A	O4'-C1'	8.06	1.53	1.41
36	B2	496	C	O4'-C1'	8.06	1.53	1.41
36	B2	1958	A	O4'-C1'	8.06	1.53	1.41
36	B2	111	A	C2'-C1'	-8.05	1.41	1.53
36	B2	1524	A	O4'-C1'	8.06	1.53	1.41
85	A7	19	C	C2'-C1'	-8.05	1.41	1.53
36	B2	377	G	O4'-C1'	8.05	1.53	1.41
36	B2	1623	C	O4'-C1'	8.05	1.54	1.42
83	A5	837	A	O4'-C1'	8.05	1.53	1.41
83	A5	2152	C	O4'-C1'	8.05	1.53	1.41
83	A5	2526	A	O4'-C1'	8.05	1.53	1.41
83	A5	3293	G	C2'-C1'	8.05	1.65	1.53
83	A5	3404	A	O4'-C1'	-8.05	1.29	1.42
83	A5	3687	A	O4'-C1'	8.05	1.54	1.42
83	A5	1880	A	C2'-C1'	-8.05	1.41	1.53
83	A5	2685	G	C2'-C1'	-8.05	1.41	1.53
36	B2	1880	C	O4'-C1'	8.04	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3876	U	O4'-C1'	8.04	1.53	1.41
36	B2	579	G	O4'-C1'	8.04	1.53	1.41
36	B2	90	A	O4'-C1'	8.04	1.53	1.41
36	B2	182	C	O4'-C1'	8.04	1.53	1.41
83	A5	1318	A	O4'-C1'	8.04	1.53	1.41
83	A5	1657	G	C2'-C1'	-8.04	1.41	1.53
85	A7	2	C	C2'-C1'	-8.04	1.41	1.53
36	B2	1186	U	C2'-C1'	-8.04	1.41	1.53
36	B2	1721	C	O4'-C1'	8.03	1.53	1.41
83	A5	1073	C	O4'-C1'	8.04	1.53	1.41
83	A5	813	C	O4'-C1'	8.03	1.53	1.41
83	A5	2164	G	O4'-C1'	8.03	1.53	1.42
83	A5	60	G	C2'-C1'	-8.03	1.41	1.53
83	A5	851	G	O4'-C1'	8.03	1.53	1.41
36	B2	647	U	C2'-C1'	8.02	1.65	1.53
83	A5	345	A	O4'-C1'	8.02	1.53	1.41
83	A5	2069	U	O4'-C1'	8.02	1.53	1.41
68	Cf	125	HIS	ND1-CE1	8.02	1.40	1.32
36	B2	889	A	O4'-C1'	8.02	1.53	1.41
83	A5	2083	G	C2'-C1'	-8.02	1.41	1.53
83	A5	3490	C	O4'-C1'	8.02	1.53	1.41
83	A5	3500	A	O4'-C1'	8.02	1.53	1.41
36	B2	1099	U	O4'-C1'	8.02	1.53	1.41
37	BC	36	A	O4'-C1'	8.02	1.53	1.41
83	A5	3372	C	O4'-C1'	8.02	1.53	1.41
36	B2	391	G	O4'-C1'	8.01	1.53	1.41
36	B2	1394	U	O4'-C1'	-8.01	1.29	1.41
36	B2	1140	G	O4'-C1'	8.01	1.53	1.41
36	B2	1630	G	O4'-C1'	8.01	1.53	1.41
83	A5	311	C	O4'-C1'	8.01	1.53	1.41
83	A5	1102	G	C2'-C1'	-8.01	1.41	1.53
83	A5	3864	C	C2'-C1'	-8.01	1.41	1.53
36	B2	1867	C	O4'-C1'	8.01	1.53	1.41
83	A5	1671	U	C2'-C1'	-8.01	1.41	1.53
36	B2	1633	C	O4'-C1'	8.00	1.53	1.41
36	B2	1097	C	O4'-C1'	8.00	1.53	1.41
36	B2	547	G	C2'-C1'	-8.00	1.41	1.53
83	A5	3852	A	O4'-C1'	8.00	1.53	1.41
36	B2	1247	C	O4'-C1'	8.00	1.53	1.41
37	BC	25	G	C2'-C1'	-7.99	1.41	1.53
83	A5	3966	U	C2'-C1'	-7.99	1.41	1.53
36	B2	1759	U	O4'-C1'	7.99	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	312	U	C2'-C1'	-7.99	1.41	1.53
36	B2	1168	C	C2'-C1'	-7.99	1.41	1.53
83	A5	275	U	O4'-C1'	7.99	1.53	1.41
83	A5	1956	A	C2'-C1'	-7.99	1.41	1.53
36	B2	1249	C	C2'-C1'	-7.98	1.41	1.53
83	A5	1139	U	O4'-C1'	7.98	1.53	1.41
37	BC	29	G	C2'-C1'	-7.98	1.41	1.53
83	A5	844	C	O4'-C1'	7.98	1.53	1.41
36	B2	1093	C	O4'-C1'	7.98	1.53	1.41
36	B2	1657	C	O4'-C1'	7.98	1.53	1.41
83	A5	3194	A	O4'-C1'	7.98	1.53	1.41
83	A5	1129	A	C2'-C1'	-7.97	1.41	1.53
83	A5	1915	U	O4'-C1'	7.97	1.53	1.41
36	B2	275	U	O4'-C1'	7.97	1.53	1.41
36	B2	1312	G	O4'-C1'	7.97	1.53	1.41
36	B2	1186	U	O4'-C1'	7.97	1.53	1.42
83	A5	3262	A	O4'-C1'	7.97	1.53	1.41
83	A5	831	A	O4'-C1'	7.97	1.53	1.41
36	B2	646	U	C2'-C1'	-7.96	1.41	1.53
83	A5	859	A	O4'-C1'	7.96	1.53	1.41
83	A5	2907	U	C2'-C1'	7.96	1.65	1.53
83	A5	1002	C	C2'-C1'	-7.96	1.41	1.53
83	A5	3904	G	C2'-C1'	-7.96	1.41	1.53
36	B2	1813	U	C2'-C1'	-7.95	1.41	1.53
83	A5	3716	C	C2'-C1'	-7.95	1.41	1.53
83	A5	3865	C	O4'-C1'	7.95	1.53	1.41
83	A5	2741	A	O4'-C1'	7.94	1.53	1.41
83	A5	922	G	O4'-C1'	7.94	1.53	1.41
83	A5	3408	C	O4'-C1'	7.94	1.53	1.41
63	CB	288	GLY	CA-C	-7.94	1.46	1.52
83	A5	2239	C	C2'-C1'	-7.93	1.41	1.53
36	B2	4	C	C2'-C1'	-7.93	1.41	1.53
36	B2	509	C	O4'-C1'	7.93	1.53	1.41
36	B2	953	A	C2'-C1'	-7.93	1.41	1.53
36	B2	1655	C	O4'-C1'	7.93	1.53	1.41
83	A5	586	C	O4'-C1'	7.93	1.53	1.41
83	A5	812	U	O4'-C1'	7.93	1.53	1.41
83	A5	879	U	C2'-C1'	-7.93	1.41	1.53
83	A5	1578	C	O4'-C1'	7.93	1.53	1.41
83	A5	280	C	C2'-C1'	-7.93	1.41	1.53
83	A5	3387	C	O4'-C1'	7.92	1.53	1.41
83	A5	1899	C	O4'-C1'	7.92	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3945	A	O4'-C1'	7.92	1.53	1.41
83	A5	2622	A	C2'-C1'	-7.92	1.41	1.53
83	A5	3594	A	O4'-C1'	7.92	1.53	1.41
85	A7	19	C	O4'-C1'	7.92	1.53	1.41
85	A7	93	G	C2'-C1'	-7.92	1.41	1.53
83	A5	1370	C	C2'-C1'	-7.91	1.41	1.53
83	A5	673	U	C2'-C1'	-7.91	1.41	1.53
83	A5	1650	C	O4'-C1'	7.91	1.53	1.41
84	A9	5	U	C2'-C1'	-7.91	1.41	1.53
83	A5	3128	U	O4'-C1'	7.91	1.53	1.41
36	B2	230	C	C2'-C1'	-7.90	1.41	1.53
83	A5	754	A	O4'-C1'	7.90	1.53	1.41
83	A5	3469	G	O4'-C1'	7.90	1.53	1.41
36	B2	853	A	C2'-C1'	-7.90	1.41	1.53
83	A5	180	U	O4'-C1'	7.89	1.53	1.41
83	A5	2063	A	O4'-C1'	-7.89	1.30	1.42
83	A5	2170	C	O4'-C1'	7.89	1.53	1.41
83	A5	2247	U	O4'-C1'	7.89	1.53	1.42
83	A5	1761	C	O4'-C1'	7.89	1.53	1.41
83	A5	416	C	O4'-C1'	7.89	1.53	1.42
83	A5	869	A	O4'-C1'	-7.89	1.29	1.41
83	A5	991	A	O4'-C1'	7.89	1.53	1.41
36	B2	1176	C	C2'-C1'	-7.88	1.41	1.53
83	A5	3475	U	O4'-C1'	7.88	1.53	1.41
36	B2	1762	A	C2'-C1'	-7.88	1.41	1.53
36	B2	1268	C	C2'-C1'	-7.88	1.41	1.53
83	A5	158	A	C2'-C1'	-7.88	1.41	1.53
83	A5	3110	U	C2'-C1'	-7.88	1.41	1.53
83	A5	1110	G	C2'-C1'	-7.88	1.41	1.53
83	A5	1324	C	C2'-C1'	-7.88	1.41	1.53
83	A5	2276	C	O4'-C1'	7.88	1.53	1.41
83	A5	2588	G	C2'-C1'	-7.88	1.41	1.53
36	B2	1599	U	O4'-C1'	7.88	1.53	1.41
36	B2	1640	G	O4'-C1'	7.88	1.53	1.41
83	A5	55	U	O4'-C1'	7.88	1.53	1.41
83	A5	1414	C	O4'-C1'	7.88	1.53	1.42
83	A5	971	C	O4'-C1'	7.87	1.53	1.41
36	B2	518	G	C2'-C1'	-7.87	1.41	1.53
86	A8	81	A	O4'-C1'	7.87	1.53	1.41
83	A5	918	G	C2'-C1'	-7.87	1.41	1.53
83	A5	3510	U	O4'-C1'	7.87	1.53	1.42
37	BC	23	G	C2'-C1'	-7.87	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3591	A	O4'-C1'	-7.87	1.30	1.42
83	A5	1725	A	O4'-C1'	-7.86	1.30	1.42
36	B2	1124	C	C2'-C1'	-7.86	1.41	1.53
36	B2	252	A	C2'-C1'	-7.86	1.41	1.53
83	A5	1463	C	O4'-C1'	7.86	1.53	1.41
83	A5	95	G	O4'-C1'	7.85	1.53	1.41
36	B2	709	G	C2'-C1'	-7.85	1.41	1.53
83	A5	818	A	C2'-C1'	-7.85	1.41	1.53
83	A5	3576	G	C2'-C1'	-7.85	1.41	1.53
85	A7	34	C	C2'-C1'	-7.85	1.41	1.53
83	A5	2140	C	O4'-C1'	7.84	1.53	1.41
36	B2	926	U	O4'-C1'	7.84	1.53	1.41
83	A5	1207	G	O4'-C1'	7.84	1.53	1.42
83	A5	2178	U	O4'-C1'	7.84	1.53	1.41
68	Cf	43	LYS	C-N	7.84	1.40	1.32
36	B2	901	G	C2'-C1'	-7.83	1.41	1.53
83	A5	3772	U	C2'-C1'	-7.83	1.41	1.53
36	B2	933	C	O4'-C1'	7.83	1.53	1.41
83	A5	324	A	O4'-C1'	7.83	1.53	1.41
36	B2	1772	C	O4'-C1'	7.83	1.53	1.41
84	A9	12	C	O4'-C1'	7.83	1.53	1.41
36	B2	260	A	C2'-C1'	-7.83	1.41	1.53
36	B2	1549	U	O4'-C1'	7.83	1.53	1.41
83	A5	500	A	O4'-C1'	7.83	1.53	1.41
83	A5	1325	C	C2'-C1'	-7.82	1.41	1.53
83	A5	2868	A	C2'-C1'	-7.82	1.41	1.53
85	A7	36	C	C2'-C1'	-7.82	1.41	1.53
83	A5	1695	A	C2'-C1'	-7.82	1.41	1.53
36	B2	86	C	C2'-C1'	-7.82	1.41	1.53
36	B2	284	G	C2'-C1'	-7.82	1.41	1.53
37	BC	57	A	O4'-C1'	7.82	1.53	1.42
83	A5	555	U	C2'-C1'	-7.82	1.41	1.53
86	A8	39	A	C2'-C1'	-7.81	1.41	1.53
83	A5	2689	G	C2'-C1'	-7.81	1.41	1.53
83	A5	2813	G	C2'-C1'	-7.81	1.41	1.53
36	B2	1446	G	C2'-C1'	-7.80	1.41	1.53
36	B2	1714	U	O4'-C1'	7.80	1.53	1.42
36	B2	1931	G	C2'-C1'	-7.80	1.41	1.53
83	A5	3804	U	C2'-C1'	-7.80	1.41	1.53
36	B2	1187	U	O4'-C1'	-7.80	1.30	1.42
83	A5	188	G	O4'-C1'	7.80	1.53	1.41
36	B2	593	A	O4'-C1'	7.80	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2258	U	O4'-C1'	7.80	1.53	1.41
83	A5	1455	A	O4'-C1'	7.79	1.53	1.41
83	A5	2135	C	O4'-C1'	7.79	1.53	1.41
36	B2	1280	C	O4'-C1'	7.79	1.53	1.41
36	B2	1370	U	O4'-C1'	7.79	1.53	1.41
83	A5	172	C	O4'-C1'	7.79	1.53	1.41
83	A5	2558	A	O4'-C1'	7.79	1.53	1.41
83	A5	34	C	C2'-C1'	-7.79	1.41	1.53
83	A5	1413	C	C2'-C1'	-7.79	1.41	1.53
86	A8	88	C	O4'-C1'	7.79	1.53	1.41
36	B2	54	C	O4'-C1'	7.79	1.53	1.41
36	B2	287	C	C2'-C1'	-7.79	1.41	1.53
36	B2	1869	C	O4'-C1'	7.79	1.53	1.41
36	B2	310	C	C2'-C1'	-7.78	1.41	1.53
83	A5	3148	C	O4'-C1'	7.78	1.53	1.41
83	A5	3894	C	O4'-C1'	7.78	1.53	1.41
36	B2	497	A	C2'-C1'	-7.78	1.41	1.53
83	A5	185	U	C2'-C1'	-7.78	1.41	1.53
36	B2	424	G	O4'-C1'	7.78	1.53	1.41
83	A5	3708	U	O4'-C1'	7.78	1.53	1.41
83	A5	295	G	C2'-C1'	-7.77	1.41	1.53
83	A5	3355	G	C2'-C1'	-7.77	1.41	1.53
83	A5	2654	G	O4'-C1'	7.77	1.53	1.41
36	B2	1755	A	O4'-C1'	7.77	1.53	1.41
36	B2	414	C	O4'-C1'	7.77	1.53	1.41
83	A5	1331	G	C2'-C1'	-7.77	1.41	1.53
83	A5	2529	G	C2'-C1'	-7.77	1.41	1.53
83	A5	3932	U	O4'-C1'	7.77	1.53	1.41
83	A5	2239	C	O4'-C1'	7.76	1.53	1.41
83	A5	3892	A	O4'-C1'	-7.76	1.30	1.42
36	B2	1810	C	O4'-C1'	7.76	1.53	1.42
83	A5	1326	A	O4'-C1'	7.76	1.53	1.41
46	CN	119	TYR	CA-C	-7.76	1.43	1.52
83	A5	1875	G	C2'-C1'	-7.76	1.41	1.53
36	B2	948	A	O4'-C1'	7.76	1.53	1.42
83	A5	3367	C	C2'-C1'	-7.76	1.41	1.53
36	B2	1553	A	C2'-C1'	-7.75	1.41	1.53
83	A5	404	U	O4'-C1'	7.75	1.53	1.41
86	A8	91	C	C2'-C1'	-7.75	1.41	1.53
86	A8	92	G	O4'-C1'	7.75	1.53	1.42
83	A5	481	A	O4'-C1'	7.75	1.53	1.41
83	A5	2587	U	O4'-C1'	7.75	1.53	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	306	A	O4'-C1'	7.74	1.53	1.41
36	B2	1954	C	C2'-C1'	-7.74	1.41	1.53
80	CH	12	ILE	N-CA	-7.74	1.38	1.46
83	A5	207	C	O4'-C1'	7.74	1.53	1.41
85	A7	41	G	C2'-C1'	-7.74	1.41	1.53
86	A8	72	C	O4'-C1'	7.73	1.53	1.41
83	A5	566	A	O4'-C1'	7.73	1.53	1.41
83	A5	2555	G	C2'-C1'	-7.73	1.41	1.53
83	A5	2643	C	O4'-C1'	7.73	1.53	1.41
83	A5	1069	A	C2'-C1'	-7.73	1.41	1.53
83	A5	3458	A	C2'-C1'	-7.73	1.41	1.53
36	B2	196	G	C2'-C1'	-7.72	1.41	1.53
36	B2	248	G	C2'-C1'	-7.72	1.41	1.53
83	A5	33	C	C2'-C1'	-7.72	1.41	1.53
83	A5	1552	A	O4'-C1'	7.72	1.53	1.41
83	A5	2159	C	O4'-C1'	7.72	1.53	1.41
36	B2	1056	C	O4'-C1'	7.72	1.53	1.41
83	A5	1258	C	O4'-C1'	7.72	1.53	1.41
83	A5	2772	G	O4'-C1'	7.72	1.53	1.41
37	BC	61	C	C2'-C1'	-7.72	1.41	1.53
36	B2	831	U	O4'-C1'	7.71	1.53	1.41
36	B2	890	U	O4'-C1'	7.71	1.53	1.41
83	A5	2669	A	C2'-C1'	-7.71	1.41	1.53
36	B2	344	C	O4'-C1'	7.71	1.53	1.41
84	A9	21	G	C2'-C1'	-7.71	1.41	1.53
83	A5	1050	C	C2'-C1'	-7.71	1.41	1.53
36	B2	451	C	O4'-C1'	7.71	1.53	1.41
36	B2	1759	U	C2'-C1'	-7.71	1.41	1.53
83	A5	3898	C	O4'-C1'	7.71	1.53	1.41
83	A5	1618	A	O4'-C1'	7.71	1.53	1.41
86	A8	117	C	C2'-C1'	-7.71	1.41	1.53
83	A5	3651	C	O4'-C1'	7.70	1.53	1.41
26	AJ	134	ARG	CD-NE	7.70	1.57	1.46
83	A5	186	G	O4'-C1'	7.70	1.53	1.42
83	A5	246	C	O4'-C1'	7.70	1.53	1.41
83	A5	1750	G	O4'-C1'	-7.70	1.30	1.42
36	B2	859	C	O4'-C1'	7.69	1.53	1.41
36	B2	1173	A	O4'-C1'	7.69	1.53	1.41
83	A5	3661	C	O4'-C1'	7.69	1.53	1.41
86	A8	88	C	C2'-C1'	-7.69	1.41	1.53
83	A5	1524	U	O4'-C1'	7.68	1.53	1.41
83	A5	2889	C	O4'-C1'	7.68	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	862	U	O4'-C1'	7.68	1.53	1.41
83	A5	3216	C	C2'-C1'	-7.68	1.41	1.53
36	B2	291	C	C2'-C1'	-7.67	1.41	1.53
85	A7	35	U	C2'-C1'	-7.67	1.41	1.53
83	A5	1252	U	O4'-C1'	7.67	1.53	1.41
83	A5	2832	G	C2'-C1'	-7.67	1.41	1.53
83	A5	544	U	O4'-C1'	7.67	1.53	1.41
83	A5	742	A	O4'-C1'	7.67	1.53	1.41
83	A5	402	A	O4'-C1'	7.66	1.53	1.41
85	A7	110	G	C2'-C1'	-7.66	1.41	1.53
36	B2	1202	G	O4'-C1'	-7.66	1.30	1.42
83	A5	1285	C	C2'-C1'	-7.66	1.41	1.53
83	A5	1502	A	C2'-C1'	-7.66	1.41	1.53
83	A5	3667	C	O4'-C1'	7.66	1.53	1.41
83	A5	3945	A	C2'-C1'	-7.66	1.41	1.53
83	A5	748	A	C2'-C1'	-7.66	1.41	1.53
83	A5	2621	A	O4'-C1'	7.66	1.53	1.42
83	A5	2270	G	C2'-C1'	-7.66	1.41	1.53
36	B2	1017	A	C2'-C1'	-7.65	1.41	1.53
83	A5	1544	U	O4'-C1'	7.65	1.53	1.42
36	B2	1273	U	C2'-C1'	-7.65	1.41	1.53
83	A5	3140	G	C2'-C1'	-7.65	1.41	1.53
83	A5	163	A	O4'-C1'	7.65	1.53	1.41
83	A5	1756	G	C2'-C1'	-7.65	1.41	1.53
83	A5	1594	U	C2'-C1'	7.64	1.64	1.53
83	A5	667	U	O4'-C1'	7.64	1.53	1.42
83	A5	1117	A	O4'-C1'	7.64	1.53	1.41
83	A5	2099	C	O4'-C1'	7.64	1.53	1.41
83	A5	3851	U	C2'-C1'	-7.64	1.41	1.53
83	A5	3899	A	O4'-C1'	7.64	1.53	1.41
83	A5	791	C	O4'-C1'	7.64	1.53	1.41
84	A9	3	C	O4'-C1'	7.64	1.53	1.41
83	A5	1859	U	O4'-C1'	7.64	1.53	1.41
83	A5	3679	C	O4'-C1'	7.64	1.53	1.41
36	B2	538	C	C2'-C1'	-7.64	1.41	1.53
36	B2	1174	A	C2'-C1'	-7.64	1.41	1.53
83	A5	881	G	C2'-C1'	-7.64	1.41	1.53
83	A5	3853	C	O4'-C1'	7.64	1.53	1.41
83	A5	3967	U	O4'-C1'	7.64	1.53	1.41
83	A5	197	G	O4'-C1'	7.63	1.53	1.41
83	A5	2572	G	O4'-C1'	7.63	1.53	1.41
36	B2	1837	G	C2'-C1'	-7.63	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	301	U	O4'-C1'	-7.63	1.30	1.41
83	A5	2217	A	C2'-C1'	-7.63	1.42	1.53
18	AY	62	ARG	CA-C	-7.63	1.43	1.52
83	A5	964	C	C2'-C1'	-7.63	1.42	1.53
83	A5	3692	G	C2'-C1'	-7.63	1.42	1.53
83	A5	808	G	C2'-C1'	-7.63	1.42	1.53
83	A5	1062	C	C2'-C1'	-7.63	1.42	1.53
83	A5	1267	A	O4'-C1'	7.63	1.53	1.41
83	A5	3510	U	C2'-C1'	-7.62	1.41	1.53
84	A9	8	A	O4'-C1'	7.62	1.53	1.41
85	A7	69	C	O4'-C1'	7.62	1.53	1.41
83	A5	2500	G	O4'-C1'	7.62	1.53	1.41
83	A5	3773	G	O4'-C1'	-7.62	1.30	1.42
36	B2	1538	C	O4'-C1'	7.61	1.53	1.41
85	A7	108	G	C2'-C1'	-7.61	1.42	1.53
36	B2	1588	G	C2'-C1'	-7.61	1.42	1.53
36	B2	1838	C	O4'-C1'	7.61	1.53	1.41
83	A5	1715	G	C2'-C1'	-7.61	1.42	1.53
83	A5	2218	G	C2'-C1'	-7.61	1.42	1.53
83	A5	1690	U	O4'-C1'	7.60	1.53	1.41
86	A8	104	G	O4'-C1'	7.60	1.53	1.41
36	B2	561	G	C2'-C1'	-7.60	1.42	1.53
36	B2	879	U	O4'-C1'	7.60	1.53	1.41
83	A5	3449	G	C2'-C1'	-7.60	1.42	1.53
83	A5	1378	A	O4'-C1'	7.60	1.53	1.41
83	A5	3860	A	O4'-C1'	7.59	1.53	1.41
83	A5	2039	G	C2'-C1'	-7.59	1.42	1.53
36	B2	1639	U	C2'-C1'	-7.59	1.41	1.53
83	A5	2771	G	C2'-C1'	-7.59	1.41	1.53
83	A5	3251	C	C2'-C1'	-7.59	1.42	1.53
83	A5	3898	C	C2'-C1'	-7.59	1.42	1.53
83	A5	1738	U	O4'-C1'	7.59	1.53	1.41
83	A5	59	G	C2'-C1'	-7.58	1.42	1.53
83	A5	2755	G	C2'-C1'	7.58	1.64	1.53
83	A5	3311	A	C2'-C1'	-7.58	1.42	1.53
36	B2	868	C	O4'-C1'	7.57	1.53	1.41
86	A8	55	G	C2'-C1'	-7.57	1.42	1.53
83	A5	1364	A	O4'-C1'	7.57	1.53	1.41
36	B2	1249	C	O4'-C1'	7.57	1.53	1.41
83	A5	631	A	O4'-C1'	7.57	1.52	1.41
83	A5	1649	G	O4'-C1'	-7.57	1.30	1.41
83	A5	1813	A	O4'-C1'	7.57	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2717	C	C2'-C1'	-7.57	1.41	1.53
83	A5	3752	G	O4'-C1'	7.56	1.52	1.41
83	A5	2711	C	O4'-C1'	7.56	1.52	1.41
36	B2	912	U	C2'-C1'	-7.55	1.42	1.53
83	A5	3483	G	O4'-C1'	7.55	1.52	1.41
36	B2	544	C	C2'-C1'	-7.55	1.42	1.53
36	B2	1121	C	O4'-C1'	7.55	1.52	1.41
36	B2	1260	G	C2'-C1'	-7.55	1.42	1.53
83	A5	3605	A	O4'-C1'	7.55	1.52	1.41
83	A5	1746	A	O4'-C1'	7.55	1.52	1.41
36	B2	26	A	C2'-C1'	7.55	1.64	1.53
83	A5	240	G	O4'-C1'	-7.55	1.30	1.42
83	A5	871	A	C2'-C1'	7.55	1.64	1.53
83	A5	2800	C	C2'-C1'	-7.55	1.42	1.53
36	B2	217	A	O4'-C1'	7.54	1.52	1.41
36	B2	981	C	O4'-C1'	7.54	1.52	1.41
36	B2	1427	U	C2'-C1'	-7.54	1.42	1.53
83	A5	265	U	O4'-C1'	7.54	1.52	1.41
83	A5	3604	G	O4'-C1'	7.54	1.52	1.41
83	A5	3624	C	C2'-C1'	-7.54	1.42	1.53
20	Aa	42	ARG	NE-CZ	7.54	1.41	1.33
36	B2	1103	U	O4'-C1'	7.54	1.52	1.41
36	B2	1393	C	O4'-C1'	7.54	1.53	1.42
83	A5	3245	U	O4'-C1'	7.54	1.53	1.42
83	A5	3414	U	O4'-C1'	7.54	1.52	1.41
36	B2	118	C	O4'-C1'	7.53	1.52	1.41
83	A5	2035	C	O4'-C1'	7.53	1.52	1.41
27	AE	228	ILE	C-N	7.53	1.40	1.33
83	A5	2623	C	C2'-C1'	-7.53	1.42	1.53
36	B2	378	G	C2'-C1'	-7.53	1.42	1.53
36	B2	380	U	C2'-C1'	-7.52	1.42	1.53
83	A5	2242	C	O4'-C1'	7.52	1.53	1.42
83	A5	3623	G	C2'-C1'	-7.52	1.42	1.53
83	A5	2688	U	C2'-C1'	-7.51	1.42	1.53
83	A5	1772	G	C2'-C1'	-7.51	1.42	1.53
36	B2	418	U	O4'-C1'	7.51	1.52	1.41
83	A5	311	C	C2'-C1'	-7.51	1.42	1.53
83	A5	2707	C	C2'-C1'	-7.51	1.42	1.53
83	A5	2872	U	O4'-C1'	7.51	1.52	1.41
83	A5	2153	C	C2'-C1'	-7.51	1.42	1.53
83	A5	1473	U	O4'-C1'	-7.50	1.30	1.41
86	A8	12	G	C2'-C1'	-7.50	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2785	C	O4'-C1'	7.50	1.52	1.41
83	A5	2665	C	O4'-C1'	7.50	1.53	1.42
83	A5	810	A	O4'-C1'	7.50	1.52	1.41
83	A5	3892	A	C2'-C1'	7.50	1.64	1.53
83	A5	43	A	O4'-C1'	7.50	1.52	1.41
83	A5	853	G	C2'-C1'	-7.50	1.42	1.53
83	A5	2812	U	C2'-C1'	7.50	1.64	1.53
83	A5	3719	A	O4'-C1'	-7.49	1.30	1.41
36	B2	1002	A	C2'-C1'	-7.49	1.42	1.53
36	B2	1081	G	C2'-C1'	-7.49	1.42	1.53
36	B2	1457	C	O4'-C1'	7.49	1.53	1.42
83	A5	238	G	O4'-C1'	7.49	1.52	1.41
36	B2	924	U	O4'-C1'	7.49	1.52	1.41
36	B2	126	G	O4'-C1'	7.48	1.53	1.42
83	A5	2043	G	C2'-C1'	7.48	1.64	1.53
83	A5	942	A	O4'-C1'	7.48	1.52	1.41
83	A5	2125	G	C2'-C1'	7.48	1.64	1.53
83	A5	281	C	O4'-C1'	7.47	1.52	1.41
83	A5	3579	C	C2'-C1'	-7.47	1.42	1.53
86	A8	1	A	O4'-C1'	7.47	1.52	1.41
36	B2	262	A	O4'-C1'	7.47	1.52	1.41
83	A5	906	A	O4'-C1'	7.47	1.52	1.41
85	A7	80	U	C2'-C1'	-7.47	1.42	1.53
36	B2	1238	G	O4'-C1'	7.46	1.52	1.41
83	A5	255	C	C2'-C1'	-7.46	1.42	1.53
83	A5	3796	G	O4'-C1'	7.46	1.52	1.41
36	B2	1322	C	O4'-C1'	7.46	1.52	1.41
83	A5	2202	A	C2'-C1'	-7.45	1.42	1.53
36	B2	925	U	C2'-C1'	7.45	1.64	1.53
36	B2	1953	U	C2'-C1'	-7.45	1.42	1.53
36	B2	281	C	O4'-C1'	7.45	1.53	1.42
36	B2	1692	C	O4'-C1'	7.45	1.52	1.41
56	CX	260	ARG	NE-CZ	7.45	1.41	1.33
83	A5	1537	G	O4'-C1'	-7.45	1.30	1.41
83	A5	3407	U	C2'-C1'	-7.45	1.42	1.53
83	A5	451	A	O4'-C1'	7.45	1.52	1.41
83	A5	3369	A	C2'-C1'	7.45	1.64	1.53
36	B2	1990	U	O4'-C1'	7.45	1.52	1.41
83	A5	1173	U	O4'-C1'	7.45	1.52	1.41
37	BC	38	C	O4'-C1'	7.44	1.52	1.41
83	A5	2771	G	O4'-C1'	7.44	1.53	1.42
83	A5	2248	A	C2'-C1'	7.44	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2777	A	C2'-C1'	-7.44	1.42	1.53
36	B2	55	A	O4'-C1'	7.44	1.52	1.41
36	B2	1761	A	C2'-C1'	-7.44	1.42	1.53
36	B2	1911	C	C2'-C1'	7.44	1.64	1.53
83	A5	2910	C	O4'-C1'	7.44	1.52	1.41
36	B2	1182	C	O4'-C1'	7.43	1.52	1.41
83	A5	1541	A	O4'-C1'	7.43	1.52	1.41
83	A5	2989	G	C2'-C1'	-7.43	1.42	1.53
83	A5	921	C	O4'-C1'	7.43	1.52	1.41
36	B2	48	G	C2'-C1'	-7.43	1.42	1.53
83	A5	2736	A	O4'-C1'	7.43	1.52	1.41
83	A5	1983	A	O4'-C1'	7.42	1.52	1.41
83	A5	3325	G	C2'-C1'	-7.42	1.42	1.53
83	A5	3526	C	C2'-C1'	-7.42	1.42	1.53
36	B2	1523	U	O4'-C1'	7.42	1.52	1.41
85	A7	68	G	C2'-C1'	-7.42	1.42	1.53
36	B2	1084	G	C2'-C1'	-7.42	1.42	1.53
83	A5	1289	C	O4'-C1'	7.41	1.52	1.41
83	A5	2048	G	C2'-C1'	-7.41	1.42	1.53
83	A5	2725	U	O4'-C1'	7.41	1.52	1.41
83	A5	247	C	C2'-C1'	-7.41	1.42	1.53
83	A5	353	G	C2'-C1'	-7.41	1.42	1.53
83	A5	130	C	O4'-C1'	7.41	1.52	1.41
86	A8	72	C	C2'-C1'	-7.40	1.42	1.53
36	B2	1443	U	O4'-C1'	7.40	1.52	1.41
83	A5	2770	C	C2'-C1'	-7.40	1.42	1.53
36	B2	1286	G	C2'-C1'	-7.40	1.42	1.53
83	A5	1027	A	C2'-C1'	-7.40	1.42	1.53
36	B2	1094	C	O4'-C1'	7.39	1.52	1.41
83	A5	1600	U	C2'-C1'	-7.39	1.42	1.53
83	A5	1805	A	O4'-C1'	7.39	1.52	1.41
83	A5	2181	A	O4'-C1'	7.39	1.52	1.41
86	A8	63	U	C2'-C1'	7.38	1.64	1.53
36	B2	953	A	O4'-C1'	7.38	1.52	1.41
83	A5	32	C	C2'-C1'	-7.38	1.42	1.53
83	A5	3347	G	O4'-C1'	7.38	1.52	1.41
36	B2	340	A	O4'-C1'	7.38	1.52	1.41
83	A5	3297	C	C2'-C1'	-7.38	1.42	1.53
36	B2	1216	C	O4'-C1'	7.37	1.52	1.41
83	A5	799	A	C2'-C1'	-7.37	1.42	1.53
83	A5	2877	G	O4'-C1'	-7.37	1.30	1.41
83	A5	1928	G	O4'-C1'	7.37	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1394	U	C2'-C1'	7.37	1.64	1.53
36	B2	976	U	O4'-C1'	7.37	1.52	1.41
36	B2	1962	G	O4'-C1'	7.37	1.52	1.42
83	A5	25	G	O4'-C1'	-7.36	1.30	1.42
83	A5	256	G	O4'-C1'	7.36	1.52	1.41
83	A5	432	U	C2'-C1'	-7.36	1.42	1.53
83	A5	3491	C	O4'-C1'	7.36	1.52	1.41
83	A5	3813	C	C2'-C1'	-7.36	1.42	1.53
83	A5	296	C	O4'-C1'	7.36	1.52	1.41
83	A5	1631	U	O4'-C1'	-7.36	1.30	1.42
83	A5	2656	C	O4'-C1'	7.36	1.52	1.41
37	BC	12	G	C2'-C1'	-7.35	1.42	1.53
83	A5	3962	A	C2'-C1'	-7.35	1.42	1.53
83	A5	514	A	C2'-C1'	-7.35	1.42	1.53
36	B2	1463	C	C2'-C1'	-7.35	1.42	1.53
83	A5	1750	G	C2'-C1'	7.35	1.64	1.53
83	A5	3126	C	C2'-C1'	-7.35	1.42	1.53
36	B2	1866	U	C2'-C1'	-7.35	1.42	1.53
36	B2	1635	U	C2'-C1'	7.34	1.64	1.53
36	B2	1935	A	C2'-C1'	-7.34	1.42	1.53
36	B2	1321	A	O4'-C1'	7.34	1.52	1.41
36	B2	1619	A	O4'-C1'	-7.34	1.30	1.42
83	A5	3864	C	O4'-C1'	7.34	1.52	1.41
36	B2	1693	C	C2'-C1'	-7.33	1.42	1.53
83	A5	1042	G	C2'-C1'	-7.33	1.42	1.53
36	B2	972	G	C2'-C1'	-7.33	1.42	1.53
83	A5	192	U	C2'-C1'	-7.33	1.42	1.53
83	A5	3479	C	C2'-C1'	-7.33	1.42	1.53
83	A5	3665	U	O4'-C1'	7.33	1.52	1.41
83	A5	1245	C	O4'-C1'	7.33	1.52	1.41
83	A5	1964	A	C2'-C1'	-7.33	1.42	1.53
83	A5	655	C	C2'-C1'	-7.33	1.42	1.53
83	A5	2166	U	C2'-C1'	-7.33	1.42	1.53
36	B2	13	C	C2'-C1'	-7.32	1.42	1.53
36	B2	835	A	C2'-C1'	7.32	1.64	1.53
85	A7	33	U	C2'-C1'	-7.32	1.42	1.53
83	A5	345	A	C2'-C1'	-7.32	1.42	1.53
81	CE	59	LYS	C-N	7.32	1.41	1.33
83	A5	2059	U	O4'-C1'	7.31	1.52	1.41
83	A5	3160	A	O4'-C1'	7.31	1.52	1.41
83	A5	3671	C	C2'-C1'	-7.31	1.42	1.53
36	B2	279	G	C2'-C1'	-7.31	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1420	A	C2'-C1'	-7.31	1.42	1.53
83	A5	2126	A	C2'-C1'	7.31	1.64	1.53
83	A5	2676	U	O4'-C1'	7.31	1.52	1.42
83	A5	1744	U	O4'-C1'	7.31	1.52	1.41
83	A5	1247	U	O4'-C1'	7.30	1.52	1.41
83	A5	2206	U	O4'-C1'	7.30	1.52	1.41
83	A5	3461	C	O4'-C1'	7.30	1.52	1.41
36	B2	1758	A	C2'-C1'	-7.30	1.42	1.53
36	B2	180	A	O4'-C1'	7.29	1.52	1.41
83	A5	155	U	O4'-C1'	7.29	1.52	1.42
83	A5	817	C	O4'-C1'	7.29	1.52	1.41
83	A5	1703	A	O4'-C1'	7.29	1.52	1.41
83	A5	2659	A	O4'-C1'	-7.29	1.31	1.42
83	A5	61	A	O4'-C1'	7.29	1.52	1.41
83	A5	3530	A	C2'-C1'	7.28	1.64	1.53
83	A5	3764	G	C2'-C1'	7.28	1.64	1.53
83	A5	560	U	O4'-C1'	7.28	1.52	1.41
83	A5	1384	C	O4'-C1'	7.28	1.52	1.41
83	A5	1664	C	O4'-C1'	7.28	1.52	1.41
83	A5	3014	G	C2'-C1'	-7.28	1.42	1.53
85	A7	31	G	C2'-C1'	-7.28	1.42	1.53
83	A5	3152	G	C2'-C1'	-7.28	1.42	1.53
83	A5	3562	A	C2'-C1'	-7.28	1.42	1.53
36	B2	1814	G	C2'-C1'	-7.27	1.42	1.53
83	A5	410	G	C2'-C1'	-7.27	1.42	1.53
83	A5	1268	A	C2'-C1'	-7.27	1.42	1.53
83	A5	1363	G	O4'-C1'	7.27	1.52	1.41
83	A5	3128	U	C2'-C1'	-7.27	1.42	1.53
83	A5	3287	C	C2'-C1'	-7.27	1.42	1.53
42	CL	3	LYS	CA-C	-7.27	1.43	1.52
83	A5	653	U	O4'-C1'	7.27	1.52	1.41
84	A9	17	G	O4'-C1'	7.27	1.52	1.41
83	A5	1237	G	O4'-C1'	-7.26	1.30	1.41
83	A5	323	U	C2'-C1'	-7.26	1.42	1.53
83	A5	1710	G	O4'-C1'	7.26	1.52	1.41
83	A5	586	C	C2'-C1'	-7.26	1.42	1.53
83	A5	2764	A	O4'-C1'	7.26	1.52	1.41
36	B2	529	C	O4'-C1'	7.26	1.52	1.41
83	A5	1100	G	O4'-C1'	7.26	1.52	1.41
83	A5	3905	U	O4'-C1'	7.26	1.52	1.41
36	B2	190	U	O4'-C1'	-7.26	1.31	1.42
37	BC	72	A	O4'-C1'	7.26	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1665	C	C2'-C1'	-7.26	1.42	1.53
83	A5	695	A	O4'-C1'	7.25	1.52	1.41
83	A5	996	C	C2'-C1'	-7.25	1.42	1.53
83	A5	2182	G	O4'-C1'	7.25	1.52	1.42
83	A5	2671	C	C2'-C1'	7.25	1.64	1.53
83	A5	3317	U	C2'-C1'	-7.25	1.42	1.53
36	B2	1887	A	C2'-C1'	-7.25	1.42	1.53
83	A5	450	G	C2'-C1'	-7.25	1.42	1.53
83	A5	733	A	O4'-C1'	7.25	1.52	1.41
83	A5	2744	C	O4'-C1'	7.25	1.52	1.41
36	B2	1423	A	C2'-C1'	-7.25	1.42	1.53
9	Ad	30	LEU	C-N	7.24	1.40	1.33
83	A5	3015	A	O4'-C1'	7.24	1.52	1.41
83	A5	3395	G	O4'-C1'	7.24	1.52	1.41
83	A5	3889	U	O4'-C1'	7.24	1.52	1.41
57	CY	45	ARG	CD-NE	7.24	1.56	1.46
83	A5	2022	C	C2'-C1'	-7.24	1.42	1.53
83	A5	1685	G	C2'-C1'	-7.24	1.42	1.53
21	Ab	80	ARG	NE-CZ	7.24	1.41	1.33
36	B2	1718	C	O4'-C1'	7.24	1.52	1.41
83	A5	91	U	O4'-C1'	7.24	1.52	1.41
83	A5	2656	C	C2'-C1'	-7.23	1.42	1.53
83	A5	1311	U	O4'-C1'	7.23	1.52	1.41
36	B2	124	U	O4'-C1'	7.23	1.52	1.41
83	A5	798	C	O4'-C1'	-7.23	1.31	1.42
83	A5	3775	A	C2'-C1'	-7.23	1.42	1.53
36	B2	1580	G	C2'-C1'	-7.23	1.42	1.53
83	A5	3492	G	C2'-C1'	-7.23	1.42	1.53
83	A5	3845	A	O4'-C1'	7.23	1.52	1.41
83	A5	965	C	C2'-C1'	-7.22	1.42	1.53
36	B2	89	C	O4'-C1'	7.22	1.52	1.41
83	A5	2462	U	O4'-C1'	7.22	1.52	1.41
83	A5	2709	U	O4'-C1'	7.22	1.52	1.41
83	A5	1143	U	C2'-C1'	-7.22	1.42	1.53
36	B2	1576	A	O4'-C1'	7.21	1.52	1.41
83	A5	2759	G	C2'-C1'	-7.21	1.42	1.53
83	A5	3591	A	C2'-C1'	7.21	1.63	1.53
36	B2	1356	U	C2'-C1'	-7.21	1.42	1.53
83	A5	3126	C	O4'-C1'	7.21	1.52	1.41
83	A5	2985	U	C2'-C1'	-7.21	1.42	1.53
36	B2	823	C	O4'-C1'	7.20	1.52	1.41
85	A7	95	U	C2'-C1'	7.20	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	702	U	C2'-C1'	-7.20	1.42	1.53
36	B2	976	U	C2'-C1'	-7.20	1.42	1.53
83	A5	1130	U	O4'-C1'	7.20	1.52	1.41
83	A5	1618	A	C2'-C1'	-7.20	1.42	1.53
83	A5	564	C	O4'-C1'	7.20	1.52	1.41
83	A5	3517	U	O4'-C1'	7.20	1.52	1.41
83	A5	1382	U	C2'-C1'	7.20	1.64	1.53
83	A5	1957	C	C2'-C1'	-7.20	1.42	1.53
83	A5	2219	U	C2'-C1'	7.20	1.64	1.53
28	AC	262	ARG	NE-CZ	7.20	1.41	1.33
37	BC	11	C	O4'-C1'	7.20	1.52	1.41
83	A5	2677	A	O4'-C1'	7.19	1.52	1.41
46	CN	175	GLY	CA-C	-7.19	1.46	1.52
83	A5	392	A	O4'-C1'	-7.19	1.31	1.42
83	A5	1458	G	C2'-C1'	-7.19	1.42	1.53
83	A5	2732	C	C2'-C1'	-7.19	1.42	1.53
36	B2	1693	C	O4'-C1'	7.19	1.52	1.41
83	A5	2021	C	C2'-C1'	-7.19	1.42	1.53
83	A5	2124	G	C2'-C1'	-7.19	1.42	1.53
36	B2	1354	G	C2'-C1'	-7.18	1.42	1.53
83	A5	81	A	C2'-C1'	-7.18	1.42	1.53
83	A5	2515	C	O4'-C1'	7.18	1.52	1.41
83	A5	3563	G	O4'-C1'	7.18	1.52	1.41
36	B2	1108	C	C2'-C1'	-7.18	1.42	1.53
83	A5	252	U	O4'-C1'	7.18	1.52	1.41
36	B2	1192	U	C2'-C1'	-7.18	1.42	1.53
36	B2	427	G	C2'-C1'	-7.17	1.42	1.53
83	A5	128	C	O4'-C1'	7.17	1.52	1.41
83	A5	2929	U	C2'-C1'	-7.17	1.42	1.53
83	A5	3684	A	O4'-C1'	7.17	1.52	1.41
83	A5	3182	U	C2'-C1'	-7.17	1.42	1.53
83	A5	257	U	O4'-C1'	7.17	1.52	1.41
83	A5	3316	U	O4'-C1'	7.17	1.52	1.41
83	A5	3438	C	O4'-C1'	7.17	1.52	1.41
36	B2	1831	C	O4'-C1'	7.16	1.52	1.41
83	A5	3652	C	C2'-C1'	-7.16	1.42	1.53
83	A5	3549	C	O4'-C1'	7.16	1.52	1.41
83	A5	1116	G	C2'-C1'	-7.16	1.42	1.53
83	A5	743	C	O4'-C1'	7.16	1.52	1.41
36	B2	195	G	O4'-C1'	-7.16	1.31	1.42
83	A5	2777	A	O4'-C1'	7.16	1.52	1.41
83	A5	3156	G	O4'-C1'	7.16	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1174	A	O4'-C1'	7.15	1.52	1.41
83	A5	2539	G	C2'-C1'	-7.15	1.42	1.53
83	A5	3512	U	C2'-C1'	-7.15	1.42	1.53
18	AY	61	PHE	CA-C	-7.15	1.43	1.52
36	B2	928	C	C2'-C1'	-7.15	1.42	1.53
83	A5	24	G	O4'-C1'	7.15	1.52	1.41
36	B2	349	A	O4'-C1'	7.15	1.52	1.41
83	A5	444	C	O4'-C1'	7.15	1.52	1.41
86	A8	45	G	C2'-C1'	-7.15	1.42	1.53
36	B2	72	A	C2'-C1'	7.14	1.63	1.53
36	B2	341	G	O4'-C1'	-7.14	1.30	1.41
83	A5	900	C	C2'-C1'	-7.14	1.42	1.53
83	A5	3545	C	O4'-C1'	7.14	1.52	1.41
85	A7	77	A	O4'-C1'	7.14	1.52	1.41
83	A5	755	A	C2'-C1'	7.14	1.64	1.53
86	A8	64	C	C2'-C1'	-7.14	1.42	1.53
84	A9	22	A	O4'-C1'	7.14	1.52	1.41
36	B2	467	G	C2'-C1'	-7.14	1.42	1.53
36	B2	1937	U	C2'-C1'	-7.14	1.42	1.53
83	A5	554	U	C2'-C1'	-7.14	1.42	1.53
83	A5	2784	C	O4'-C1'	7.14	1.52	1.41
83	A5	3409	G	C2'-C1'	-7.14	1.42	1.53
83	A5	3600	G	C2'-C1'	-7.14	1.42	1.53
36	B2	1015	U	O4'-C1'	7.13	1.52	1.42
83	A5	2043	G	O4'-C1'	-7.13	1.31	1.42
36	B2	1282	A	C2'-C1'	-7.13	1.42	1.53
83	A5	1801	U	C2'-C1'	7.13	1.64	1.53
1	Az	539	HIS	ND1-CE1	7.13	1.39	1.32
36	B2	835	A	O4'-C1'	7.13	1.52	1.41
36	B2	496	C	C2'-C1'	-7.13	1.42	1.53
36	B2	1774	C	O4'-C1'	7.13	1.52	1.42
83	A5	835	G	C2'-C1'	-7.13	1.42	1.53
83	A5	2477	C	O4'-C1'	7.13	1.52	1.41
83	A5	2746	A	C2'-C1'	-7.13	1.42	1.53
36	B2	1740	G	O4'-C1'	7.12	1.52	1.41
83	A5	333	C	O4'-C1'	7.12	1.52	1.41
83	A5	1803	C	C2'-C1'	-7.12	1.42	1.53
36	B2	715	U	C2'-C1'	-7.12	1.42	1.53
83	A5	2129	C	C2'-C1'	7.12	1.63	1.53
83	A5	3723	A	O4'-C1'	7.12	1.52	1.41
83	A5	1931	C	C2'-C1'	-7.12	1.42	1.53
36	B2	95	G	C2'-C1'	-7.12	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	177	U	O4'-C1'	7.12	1.52	1.41
85	A7	109	U	C2'-C1'	-7.11	1.42	1.53
36	B2	1690	G	C2'-C1'	-7.11	1.42	1.53
83	A5	1158	C	O4'-C1'	7.11	1.52	1.41
83	A5	1347	A	O4'-C1'	7.11	1.52	1.41
83	A5	3595	U	O4'-C1'	7.11	1.52	1.41
83	A5	3914	G	O4'-C1'	7.11	1.52	1.41
36	B2	1431	A	O4'-C1'	7.11	1.52	1.41
36	B2	583	C	O4'-C1'	7.10	1.52	1.41
36	B2	1548	G	C2'-C1'	-7.10	1.42	1.53
83	A5	3902	G	C2'-C1'	-7.10	1.42	1.53
83	A5	565	C	O4'-C1'	7.10	1.52	1.41
83	A5	3615	G	C2'-C1'	-7.10	1.42	1.53
83	A5	3416	C	C2'-C1'	-7.09	1.42	1.53
83	A5	1928	G	C2'-C1'	-7.09	1.42	1.53
83	A5	2162	C	C2'-C1'	7.09	1.64	1.53
83	A5	800	C	O4'-C1'	7.09	1.52	1.41
36	B2	1305	A	C2'-C1'	7.09	1.63	1.53
36	B2	1717	A	O4'-C1'	7.09	1.52	1.41
83	A5	335	A	C2'-C1'	-7.08	1.42	1.53
83	A5	1937	G	C2'-C1'	7.08	1.64	1.53
36	B2	1865	G	C2'-C1'	-7.08	1.42	1.53
83	A5	1683	U	O4'-C1'	7.08	1.52	1.41
83	A5	3863	G	C2'-C1'	-7.08	1.42	1.53
83	A5	2542	C	O4'-C1'	7.08	1.52	1.41
83	A5	2985	U	O4'-C1'	7.08	1.52	1.41
83	A5	2716	C	O4'-C1'	7.07	1.52	1.41
83	A5	3721	C	C2'-C1'	-7.07	1.42	1.53
36	B2	1767	G	C2'-C1'	-7.07	1.42	1.53
59	CZ	110	ARG	NE-CZ	7.07	1.40	1.33
83	A5	210	C	C2'-C1'	-7.07	1.42	1.53
83	A5	406	G	C2'-C1'	-7.07	1.42	1.53
83	A5	1372	A	C2'-C1'	7.07	1.64	1.53
83	A5	1292	G	C2'-C1'	7.07	1.64	1.53
83	A5	3219	A	C2'-C1'	7.06	1.64	1.53
85	A7	3	C	O4'-C1'	7.06	1.52	1.41
83	A5	1433	U	C2'-C1'	-7.06	1.42	1.53
36	B2	1685	U	O4'-C1'	7.06	1.52	1.42
83	A5	1548	C	O4'-C1'	7.06	1.52	1.41
83	A5	330	C	C2'-C1'	-7.06	1.42	1.53
83	A5	72	C	O4'-C1'	7.05	1.52	1.41
83	A5	2188	C	O4'-C1'	7.05	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	992	U	C2'-C1'	-7.05	1.42	1.53
83	A5	3648	A	O4'-C1'	7.05	1.52	1.41
37	BC	40	C	O4'-C1'	7.05	1.52	1.41
36	B2	865	A	C2'-C1'	-7.05	1.42	1.53
83	A5	1056	G	O4'-C1'	7.05	1.52	1.41
83	A5	2900	U	C2'-C1'	-7.05	1.42	1.53
83	A5	656	U	O4'-C1'	7.04	1.52	1.41
83	A5	1076	A	O4'-C1'	7.04	1.52	1.41
83	A5	2478	A	O4'-C1'	7.04	1.52	1.41
36	B2	487	U	C2'-C1'	-7.04	1.42	1.53
36	B2	1902	C	O4'-C1'	7.04	1.52	1.41
83	A5	2621	A	C2'-C1'	-7.03	1.42	1.53
83	A5	1979	A	C2'-C1'	-7.03	1.42	1.53
83	A5	2273	A	C2'-C1'	7.03	1.63	1.53
63	CB	42	HIS	ND1-CE1	7.03	1.39	1.32
83	A5	1333	C	O4'-C1'	7.03	1.52	1.41
36	B2	1007	C	O4'-C1'	7.02	1.52	1.41
83	A5	201	U	C2'-C1'	7.02	1.63	1.53
83	A5	455	U	C2'-C1'	-7.02	1.42	1.53
36	B2	839	A	O4'-C1'	7.02	1.52	1.41
35	Ah	138	ARG	NE-CZ	7.02	1.40	1.33
36	B2	387	C	C2'-C1'	-7.02	1.42	1.53
83	A5	1061	A	C2'-C1'	-7.02	1.42	1.53
83	A5	2663	C	C2'-C1'	-7.02	1.42	1.53
83	A5	2871	G	O4'-C1'	7.02	1.52	1.41
83	A5	2163	A	O4'-C1'	7.01	1.52	1.42
86	A8	9	G	C2'-C1'	-7.01	1.42	1.53
83	A5	1289	C	C2'-C1'	7.01	1.63	1.53
36	B2	1120	C	O4'-C1'	7.01	1.52	1.41
36	B2	1328	G	O4'-C1'	-7.01	1.31	1.41
36	B2	1643	C	C2'-C1'	-7.01	1.42	1.53
36	B2	1955	G	O4'-C1'	7.01	1.52	1.41
36	B2	447	C	O4'-C1'	7.01	1.52	1.41
83	A5	3449	G	O4'-C1'	7.01	1.52	1.41
36	B2	107	A	C2'-C1'	-7.01	1.42	1.53
36	B2	1056	C	C2'-C1'	-7.01	1.42	1.53
83	A5	2715	C	O4'-C1'	7.01	1.52	1.41
36	B2	1864	G	O4'-C1'	7.00	1.52	1.41
83	A5	1672	A	C2'-C1'	-7.00	1.42	1.53
83	A5	199	U	C2'-C1'	-7.00	1.42	1.53
83	A5	2205	G	C2'-C1'	-7.00	1.42	1.53
83	A5	3835	U	C2'-C1'	-7.00	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1001	G	C2'-C1'	-7.00	1.42	1.53
83	A5	2551	U	O4'-C1'	7.00	1.52	1.41
36	B2	1155	C	O4'-C1'	7.00	1.52	1.41
80	CH	98	PRO	CA-C	-7.00	1.44	1.52
36	B2	1371	C	O4'-C1'	6.99	1.52	1.42
83	A5	1056	G	C2'-C1'	-6.99	1.42	1.53
83	A5	2470	U	O4'-C1'	6.99	1.52	1.42
83	A5	97	C	C2'-C1'	-6.99	1.42	1.53
36	B2	920	U	O4'-C1'	6.99	1.52	1.41
83	A5	187	A	C2'-C1'	-6.99	1.42	1.53
83	A5	3265	C	O4'-C1'	6.98	1.52	1.41
83	A5	3597	C	O4'-C1'	6.98	1.52	1.41
20	Aa	15	ARG	NE-CZ	6.98	1.40	1.33
36	B2	821	U	C2'-C1'	-6.98	1.42	1.53
83	A5	3149	U	C2'-C1'	-6.98	1.42	1.53
83	A5	1663	G	O4'-C1'	6.98	1.52	1.41
83	A5	1479	G	O4'-C1'	6.98	1.52	1.42
83	A5	2790	G	C2'-C1'	-6.98	1.42	1.53
36	B2	49	C	C2'-C1'	-6.97	1.42	1.53
36	B2	1123	G	O4'-C1'	6.97	1.52	1.41
37	BC	39	U	O4'-C1'	6.97	1.52	1.41
83	A5	1167	A	C2'-C1'	-6.97	1.42	1.53
36	B2	589	U	C2'-C1'	-6.97	1.42	1.53
36	B2	1128	C	C2'-C1'	-6.97	1.42	1.53
83	A5	2774	G	C2'-C1'	-6.97	1.42	1.53
83	A5	2796	G	O4'-C1'	-6.97	1.31	1.42
36	B2	1062	C	O4'-C1'	6.97	1.52	1.41
83	A5	3234	A	O4'-C1'	6.96	1.52	1.42
36	B2	1975	G	O4'-C1'	6.96	1.52	1.41
36	B2	1845	C	O4'-C1'	6.96	1.52	1.41
83	A5	1530	U	O4'-C1'	6.96	1.52	1.42
83	A5	3419	A	O4'-C1'	6.96	1.52	1.42
36	B2	552	A	C2'-C1'	-6.96	1.43	1.53
36	B2	310	C	O4'-C1'	6.96	1.52	1.41
36	B2	1002	A	O4'-C1'	6.96	1.52	1.41
36	B2	1379	G	C2'-C1'	-6.96	1.43	1.53
83	A5	1932	C	O4'-C1'	6.96	1.52	1.41
83	A5	2741	A	C2'-C1'	-6.96	1.43	1.53
83	A5	3232	G	C2'-C1'	-6.96	1.43	1.53
83	A5	1085	U	C2'-C1'	-6.95	1.43	1.53
36	B2	1754	C	O4'-C1'	6.95	1.52	1.41
83	A5	256	G	C2'-C1'	-6.95	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	625	C	C2'-C1'	-6.95	1.43	1.53
36	B2	381	C	C2'-C1'	-6.95	1.43	1.53
36	B2	720	G	O4'-C1'	6.95	1.52	1.41
83	A5	2689	G	O4'-C1'	6.94	1.52	1.41
37	BC	55	C	O4'-C1'	6.94	1.52	1.41
83	A5	1397	A	O4'-C1'	6.94	1.52	1.41
83	A5	357	C	O4'-C1'	6.94	1.52	1.41
83	A5	1938	C	O4'-C1'	6.94	1.52	1.41
36	B2	342	G	C2'-C1'	-6.94	1.42	1.53
36	B2	1675	A	O4'-C1'	6.94	1.52	1.41
37	BC	37	A	O4'-C1'	6.94	1.52	1.41
83	A5	308	G	O4'-C1'	6.94	1.52	1.41
3	AU	21	ARG	CD-NE	6.94	1.55	1.46
36	B2	656	U	C2'-C1'	6.93	1.63	1.53
37	BC	2	G	C2'-C1'	-6.93	1.43	1.53
36	B2	1059	G	O4'-C1'	6.93	1.52	1.41
83	A5	546	G	O4'-C1'	6.93	1.52	1.41
83	A5	908	C	O4'-C1'	6.93	1.52	1.41
83	A5	1697	U	C2'-C1'	6.93	1.63	1.53
83	A5	915	C	O4'-C1'	6.93	1.52	1.41
83	A5	1755	U	C2'-C1'	6.93	1.63	1.53
83	A5	2612	G	C2'-C1'	-6.93	1.43	1.53
85	A7	10	C	O4'-C1'	6.93	1.52	1.42
83	A5	2199	A	O4'-C1'	6.93	1.52	1.41
85	A7	72	U	O4'-C1'	6.93	1.52	1.41
83	A5	168	G	C2'-C1'	-6.92	1.43	1.53
83	A5	2579	G	O4'-C1'	6.92	1.52	1.41
83	A5	3456	U	O4'-C1'	6.92	1.52	1.41
36	B2	247	G	O4'-C1'	6.92	1.52	1.41
36	B2	351	G	O4'-C1'	6.92	1.52	1.41
36	B2	1536	A	O4'-C1'	6.92	1.52	1.41
36	B2	1385	U	C2'-C1'	-6.92	1.43	1.53
83	A5	1519	A	C2'-C1'	6.92	1.63	1.53
85	A7	1	G	O4'-C1'	6.92	1.52	1.41
68	Cf	104	VAL	CA-C	6.92	1.60	1.52
83	A5	3366	G	C2'-C1'	-6.92	1.43	1.53
83	A5	3341	C	O4'-C1'	6.92	1.52	1.41
83	A5	3612	A	C2'-C1'	-6.92	1.43	1.53
83	A5	3620	G	O4'-C1'	-6.91	1.31	1.41
83	A5	3916	U	C2'-C1'	-6.91	1.43	1.53
83	A5	3136	U	C2'-C1'	-6.91	1.43	1.53
36	B2	939	G	O4'-C1'	-6.91	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1388	C	C2'-C1'	-6.91	1.43	1.53
85	A7	77	A	C2'-C1'	-6.91	1.43	1.53
83	A5	1598	A	O4'-C1'	6.91	1.52	1.41
36	B2	1687	C	C2'-C1'	-6.91	1.43	1.53
83	A5	515	A	C2'-C1'	6.91	1.63	1.53
83	A5	1408	A	C2'-C1'	-6.91	1.43	1.53
83	A5	3315	U	O4'-C1'	6.91	1.52	1.41
36	B2	1545	U	C2'-C1'	6.90	1.63	1.53
83	A5	2610	A	O4'-C1'	6.90	1.52	1.41
69	Cg	29	ARG	NE-CZ	6.90	1.40	1.33
83	A5	2576	A	O4'-C1'	6.90	1.52	1.41
36	B2	856	A	O4'-C1'	-6.90	1.31	1.41
36	B2	1353	U	C2'-C1'	6.90	1.63	1.53
83	A5	1154	U	O4'-C1'	6.90	1.51	1.41
36	B2	328	A	C2'-C1'	-6.89	1.43	1.53
83	A5	1018	C	C2'-C1'	-6.89	1.43	1.53
83	A5	1297	G	C2'-C1'	-6.89	1.43	1.53
36	B2	925	U	O4'-C1'	-6.89	1.31	1.42
36	B2	1796	C	C2'-C1'	-6.89	1.43	1.53
83	A5	1447	C	O4'-C1'	6.89	1.51	1.41
36	B2	1697	A	O4'-C1'	6.88	1.51	1.41
83	A5	859	A	C2'-C1'	-6.88	1.43	1.53
36	B2	821	U	O4'-C1'	6.88	1.51	1.41
83	A5	3361	U	C2'-C1'	6.88	1.63	1.53
85	A7	16	A	O4'-C1'	6.88	1.51	1.41
83	A5	3758	G	O4'-C1'	-6.88	1.31	1.41
36	B2	1244	C	O4'-C1'	6.88	1.51	1.41
83	A5	3176	C	C2'-C1'	-6.88	1.42	1.53
36	B2	66	C	O4'-C1'	6.87	1.51	1.41
36	B2	273	C	O4'-C1'	6.87	1.51	1.41
83	A5	760	G	O4'-C1'	6.87	1.51	1.41
83	A5	1136	A	O4'-C1'	6.87	1.51	1.41
83	A5	2182	G	C2'-C1'	-6.87	1.42	1.53
83	A5	2889	C	C2'-C1'	-6.87	1.43	1.53
36	B2	218	A	C2'-C1'	-6.87	1.43	1.53
36	B2	1856	U	O4'-C1'	6.87	1.51	1.41
36	B2	1661	A	C2'-C1'	-6.87	1.43	1.53
83	A5	2559	C	O4'-C1'	6.87	1.51	1.41
36	B2	74	U	O4'-C1'	-6.87	1.31	1.42
83	A5	2855	A	C2'-C1'	-6.87	1.43	1.53
83	A5	966	U	C2'-C1'	-6.87	1.43	1.53
36	B2	1603	G	O4'-C1'	6.86	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1105	U	O4'-C1'	6.86	1.51	1.41
36	B2	208	U	O4'-C1'	6.86	1.51	1.41
36	B2	978	C	O4'-C1'	6.86	1.51	1.41
83	A5	1396	A	C2'-C1'	6.86	1.63	1.53
83	A5	663	U	O4'-C1'	6.86	1.51	1.41
83	A5	3296	C	C2'-C1'	-6.86	1.43	1.53
83	A5	2552	G	O4'-C1'	6.86	1.52	1.42
83	A5	1176	A	C2'-C1'	6.85	1.63	1.53
83	A5	1405	U	O4'-C1'	6.85	1.51	1.41
8	AS	20	ILE	CA-C	-6.85	1.43	1.52
83	A5	2866	G	C2'-C1'	-6.85	1.43	1.53
36	B2	1776	G	O4'-C1'	6.85	1.52	1.42
83	A5	804	C	C2'-C1'	-6.85	1.43	1.53
83	A5	3426	U	O4'-C1'	6.85	1.51	1.41
37	BC	38	C	C2'-C1'	-6.84	1.43	1.53
83	A5	2814	U	C2'-C1'	6.84	1.63	1.53
36	B2	1459	G	O4'-C1'	6.84	1.52	1.42
36	B2	1470	A	O4'-C1'	6.84	1.51	1.41
83	A5	802	G	C2'-C1'	-6.84	1.43	1.53
83	A5	2176	G	C2'-C1'	-6.84	1.43	1.53
16	AA	218	LYS	CA-C	-6.84	1.45	1.53
83	A5	655	C	O4'-C1'	6.84	1.51	1.41
83	A5	2615	C	C2'-C1'	-6.84	1.43	1.53
83	A5	3017	U	C2'-C1'	-6.84	1.43	1.53
36	B2	350	U	O4'-C1'	6.84	1.52	1.42
83	A5	3163	U	O4'-C1'	6.83	1.51	1.41
36	B2	91	A	O4'-C1'	6.83	1.51	1.41
36	B2	1164	G	C2'-C1'	-6.83	1.43	1.53
83	A5	1787	C	O4'-C1'	6.83	1.51	1.41
83	A5	201	U	O4'-C1'	-6.83	1.31	1.41
83	A5	849	U	C2'-C1'	-6.83	1.43	1.53
83	A5	856	A	C2'-C1'	-6.83	1.43	1.53
36	B2	928	C	O4'-C1'	6.83	1.51	1.41
83	A5	574	C	O4'-C1'	6.83	1.51	1.41
83	A5	3127	A	C2'-C1'	6.83	1.63	1.53
83	A5	1684	G	O4'-C1'	6.83	1.51	1.41
83	A5	3939	C	O4'-C1'	6.83	1.51	1.41
36	B2	1141	C	O4'-C1'	6.82	1.51	1.41
83	A5	92	A	O4'-C1'	6.82	1.51	1.41
83	A5	1983	A	C2'-C1'	-6.82	1.43	1.53
36	B2	181	A	C2'-C1'	-6.82	1.43	1.53
83	A5	383	A	C2'-C1'	-6.82	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1176	C	O4'-C1'	6.82	1.51	1.41
36	B2	1468	G	O4'-C1'	6.82	1.51	1.41
83	A5	1471	G	O4'-C1'	6.82	1.51	1.41
83	A5	3384	C	C2'-C1'	-6.82	1.43	1.53
36	B2	65	A	C2'-C1'	6.81	1.63	1.53
36	B2	914	C	C2'-C1'	6.81	1.63	1.53
83	A5	1181	A	O4'-C1'	6.81	1.52	1.42
83	A5	1270	G	C2'-C1'	-6.81	1.43	1.53
83	A5	3650	G	C2'-C1'	-6.81	1.42	1.53
83	A5	1010	A	C2'-C1'	-6.81	1.43	1.53
36	B2	332	U	O4'-C1'	6.81	1.51	1.41
83	A5	1178	U	O4'-C1'	6.81	1.52	1.42
36	B2	1325	A	O4'-C1'	6.80	1.51	1.41
36	B2	1236	C	C2'-C1'	-6.80	1.43	1.53
83	A5	398	U	C2'-C1'	-6.80	1.43	1.53
83	A5	969	A	O4'-C1'	6.80	1.51	1.41
83	A5	1787	C	C2'-C1'	-6.80	1.43	1.53
36	B2	625	U	O4'-C1'	6.80	1.51	1.41
83	A5	3176	C	O4'-C1'	6.80	1.52	1.42
83	A5	1553	C	O4'-C1'	6.80	1.51	1.41
83	A5	3532	G	O4'-C1'	6.80	1.51	1.41
82	CG	264	ARG	CD-NE	6.80	1.55	1.46
36	B2	1304	G	O4'-C1'	6.79	1.52	1.42
36	B2	622	C	C2'-C1'	-6.79	1.43	1.53
83	A5	1538	U	C2'-C1'	6.79	1.63	1.53
83	A5	3148	C	C2'-C1'	-6.79	1.43	1.53
36	B2	866	U	O4'-C1'	6.79	1.52	1.42
36	B2	1466	A	O4'-C1'	6.79	1.51	1.41
83	A5	1122	U	C2'-C1'	6.79	1.63	1.53
13	AP	106	GLY	CA-C	-6.78	1.47	1.52
83	A5	2193	C	C2'-C1'	-6.78	1.43	1.53
83	A5	1264	U	O4'-C1'	6.78	1.51	1.41
83	A5	1317	A	O4'-C1'	6.78	1.51	1.41
83	A5	637	U	C2'-C1'	6.78	1.63	1.53
83	A5	3783	A	O4'-C1'	6.77	1.51	1.41
83	A5	2652	U	O4'-C1'	6.77	1.51	1.41
32	AW	118	ARG	CD-NE	6.77	1.55	1.46
86	A8	44	C	O3'-P	-6.77	1.50	1.61
36	B2	1995	A	O4'-C1'	-6.77	1.31	1.41
83	A5	2257	C	O4'-C1'	6.77	1.51	1.41
83	A5	3434	A	O4'-C1'	6.77	1.51	1.41
69	Cg	10	ARG	NE-CZ	6.77	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1303	C	C2'-C1'	-6.77	1.43	1.53
36	B2	1872	G	O4'-C1'	-6.77	1.31	1.42
86	A8	2	A	C2'-C1'	-6.77	1.43	1.53
36	B2	1907	G	C2'-C1'	-6.76	1.43	1.53
41	CO	61	ARG	CD-NE	6.76	1.55	1.46
83	A5	737	U	O4'-C1'	6.76	1.51	1.41
83	A5	3427	G	C2'-C1'	-6.76	1.43	1.53
36	B2	905	U	C2'-C1'	-6.76	1.43	1.53
36	B2	1520	A	C2'-C1'	-6.76	1.43	1.53
83	A5	359	G	C2'-C1'	6.76	1.63	1.53
83	A5	1529	C	O4'-C1'	6.76	1.51	1.41
83	A5	2096	C	O4'-C1'	6.76	1.51	1.41
83	A5	2552	G	C2'-C1'	-6.76	1.43	1.53
36	B2	84	A	O4'-C1'	6.76	1.51	1.41
83	A5	1737	U	O4'-C1'	6.76	1.52	1.42
83	A5	2200	A	C2'-C1'	6.76	1.63	1.53
36	B2	1621	G	C2'-C1'	-6.76	1.43	1.53
36	B2	206	U	C2'-C1'	-6.75	1.43	1.53
36	B2	1307	C	O4'-C1'	6.75	1.51	1.41
83	A5	679	G	O4'-C1'	6.75	1.51	1.41
36	B2	242	A	O4'-C1'	6.75	1.51	1.41
83	A5	1967	G	C2'-C1'	-6.75	1.43	1.53
83	A5	2878	A	C2'-C1'	-6.75	1.43	1.53
83	A5	2918	A	O4'-C1'	-6.75	1.31	1.42
83	A5	1007	A	C2'-C1'	-6.75	1.43	1.53
83	A5	2478	A	C2'-C1'	-6.75	1.43	1.53
36	B2	203	G	O4'-C1'	6.75	1.51	1.41
36	B2	208	U	C2'-C1'	-6.75	1.43	1.53
36	B2	616	U	C2'-C1'	-6.75	1.43	1.53
83	A5	3894	C	C2'-C1'	-6.75	1.43	1.53
85	A7	118	C	C2'-C1'	-6.75	1.43	1.53
86	A8	100	G	O4'-C1'	6.75	1.51	1.41
83	A5	485	A	O4'-C1'	6.74	1.51	1.41
83	A5	453	C	O4'-C1'	6.74	1.51	1.41
83	A5	3284	C	O4'-C1'	6.74	1.52	1.42
28	AC	178	LEU	CA-C	-6.74	1.44	1.52
36	B2	1211	C	C2'-C1'	-6.74	1.43	1.53
36	B2	1802	G	C2'-C1'	-6.74	1.43	1.53
83	A5	806	A	C2'-C1'	-6.74	1.43	1.53
83	A5	2634	A	C2'-C1'	6.74	1.63	1.53
83	A5	309	C	C2'-C1'	-6.74	1.43	1.53
83	A5	700	A	C2'-C1'	-6.74	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2805	C	C2'-C1'	-6.73	1.43	1.53
36	B2	825	A	O4'-C1'	6.73	1.51	1.41
83	A5	8	C	O4'-C1'	6.73	1.51	1.41
36	B2	1390	U	C2'-C1'	-6.73	1.43	1.53
83	A5	136	C	C2'-C1'	-6.73	1.43	1.53
36	B2	1729	C	O4'-C1'	6.73	1.52	1.42
36	B2	40	A	C2'-C1'	-6.72	1.43	1.53
74	CC	340	ARG	CD-NE	6.72	1.55	1.46
36	B2	1452	U	C2'-C1'	6.72	1.63	1.53
42	CL	51	SER	CA-C	6.72	1.55	1.52
85	A7	111	U	C2'-C1'	-6.72	1.43	1.53
83	A5	2165	C	O4'-C1'	6.72	1.52	1.42
83	A5	3175	A	O4'-C1'	6.72	1.51	1.41
83	A5	3379	A	O4'-C1'	6.72	1.51	1.41
36	B2	486	A	O4'-C1'	6.72	1.51	1.41
22	Ac	15	GLY	C-N	6.72	1.42	1.33
83	A5	2233	C	C2'-C1'	-6.72	1.43	1.53
83	A5	3421	C	O4'-C1'	6.72	1.51	1.41
36	B2	1016	A	C2'-C1'	-6.71	1.43	1.53
83	A5	1079	U	C2'-C1'	-6.71	1.43	1.53
83	A5	2710	A	C2'-C1'	-6.71	1.43	1.53
85	A7	60	C	C2'-C1'	-6.71	1.43	1.53
83	A5	3588	G	C2'-C1'	-6.71	1.43	1.53
36	B2	1079	A	C2'-C1'	6.71	1.63	1.53
83	A5	1920	U	O4'-C1'	6.71	1.51	1.41
83	A5	385	A	C2'-C1'	6.71	1.63	1.53
36	B2	992	A	O4'-C1'	6.70	1.51	1.41
83	A5	3276	C	C2'-C1'	-6.70	1.43	1.53
36	B2	533	A	O4'-C1'	6.70	1.51	1.41
83	A5	1870	G	C2'-C1'	-6.70	1.43	1.53
83	A5	3938	C	C2'-C1'	-6.70	1.43	1.53
36	B2	1257	G	C2'-C1'	-6.70	1.43	1.53
36	B2	1319	A	C2'-C1'	-6.70	1.43	1.53
83	A5	662	A	O4'-C1'	-6.70	1.31	1.42
83	A5	3538	G	C2'-C1'	-6.70	1.43	1.53
83	A5	131	U	O4'-C1'	6.69	1.51	1.41
83	A5	426	A	C2'-C1'	-6.69	1.43	1.53
83	A5	3840	G	C2'-C1'	6.69	1.63	1.53
60	Cr	20	LEU	CA-C	-6.69	1.44	1.52
36	B2	1613	A	C2'-C1'	-6.69	1.43	1.53
37	BC	13	C	C2'-C1'	-6.69	1.43	1.53
85	A7	59	G	C2'-C1'	-6.69	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1318	A	O4'-C1'	6.69	1.51	1.41
83	A5	986	A	O4'-C1'	6.68	1.51	1.42
83	A5	2745	A	O4'-C1'	6.68	1.51	1.41
83	A5	3284	C	C2'-C1'	6.68	1.63	1.53
83	A5	2027	A	O4'-C1'	6.68	1.51	1.42
37	BC	35	U	C2'-C1'	-6.68	1.43	1.53
83	A5	986	A	C2'-C1'	-6.68	1.43	1.53
42	CL	35	HIS	CA-C	-6.67	1.44	1.52
83	A5	222	C	O4'-C1'	6.67	1.51	1.41
83	A5	3330	C	O4'-C1'	6.67	1.51	1.41
86	A8	6	U	C2'-C1'	6.67	1.63	1.53
86	A8	47	A	O4'-C1'	6.67	1.51	1.42
83	A5	890	C	O4'-C1'	6.67	1.51	1.41
83	A5	3237	U	C2'-C1'	-6.67	1.43	1.53
84	A9	7	G	O4'-C1'	6.67	1.51	1.41
83	A5	1231	A	O4'-C1'	6.67	1.51	1.41
83	A5	3924	U	C2'-C1'	6.67	1.63	1.53
36	B2	207	U	C2'-C1'	6.67	1.63	1.53
36	B2	1322	C	C2'-C1'	-6.67	1.43	1.53
36	B2	545	A	C2'-C1'	-6.67	1.43	1.53
78	Co	21	HIS	ND1-CE1	6.67	1.39	1.32
83	A5	1711	C	C2'-C1'	6.66	1.63	1.53
83	A5	2096	C	C2'-C1'	-6.66	1.43	1.53
83	A5	3226	A	C2'-C1'	-6.66	1.43	1.53
36	B2	1344	A	C2'-C1'	-6.66	1.43	1.53
36	B2	1464	U	C2'-C1'	-6.66	1.43	1.53
83	A5	2207	A	C2'-C1'	6.66	1.63	1.53
83	A5	3209	G	C2'-C1'	-6.66	1.43	1.53
83	A5	3444	G	O4'-C1'	6.66	1.51	1.41
36	B2	710	C	O4'-C1'	6.66	1.51	1.41
83	A5	83	U	C2'-C1'	-6.66	1.43	1.53
83	A5	1620	A	C2'-C1'	-6.66	1.43	1.53
83	A5	1730	A	C2'-C1'	-6.66	1.43	1.53
1	Az	770	VAL	CA-C	-6.65	1.44	1.52
83	A5	1000	G	C2'-C1'	-6.65	1.43	1.53
36	B2	470	G	C2'-C1'	-6.65	1.43	1.53
83	A5	370	A	O4'-C1'	-6.65	1.31	1.42
83	A5	3174	A	C2'-C1'	-6.65	1.43	1.53
36	B2	1862	G	O4'-C1'	6.65	1.51	1.41
83	A5	2800	C	O4'-C1'	6.65	1.51	1.41
83	A5	2520	U	C2'-C1'	-6.64	1.43	1.53
36	B2	161	A	O4'-C1'	6.64	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A7	109	U	O4'-C1'	6.64	1.51	1.42
83	A5	493	A	O4'-C1'	6.64	1.51	1.41
83	A5	1321	G	O4'-C1'	6.64	1.51	1.41
36	B2	217	A	C2'-C1'	-6.64	1.43	1.53
83	A5	1237	G	C2'-C1'	6.64	1.63	1.53
83	A5	2896	U	O4'-C1'	6.64	1.51	1.41
36	B2	1291	A	O4'-C1'	6.64	1.51	1.41
83	A5	3441	C	C2'-C1'	-6.64	1.43	1.53
83	A5	3803	C	C2'-C1'	-6.64	1.43	1.53
83	A5	3756	A	O4'-C1'	6.63	1.51	1.41
83	A5	1704	A	C2'-C1'	6.63	1.63	1.53
83	A5	3258	C	C2'-C1'	-6.63	1.43	1.53
83	A5	236	G	O4'-C1'	6.63	1.51	1.41
83	A5	285	G	O4'-C1'	6.63	1.51	1.42
83	A5	1231	A	C2'-C1'	-6.63	1.43	1.53
36	B2	959	U	O4'-C1'	6.63	1.51	1.41
83	A5	939	A	C2'-C1'	-6.63	1.43	1.53
83	A5	1096	A	O4'-C1'	-6.63	1.32	1.42
85	A7	48	G	O4'-C1'	-6.63	1.32	1.42
83	A5	331	A	O4'-C1'	6.62	1.51	1.41
83	A5	885	U	O4'-C1'	6.62	1.51	1.41
83	A5	1464	G	C2'-C1'	-6.62	1.43	1.53
83	A5	2474	A	C2'-C1'	-6.62	1.43	1.53
68	Cf	58	GLY	CA-C	-6.62	1.45	1.51
11	AL	81	ARG	NE-CZ	6.62	1.40	1.33
36	B2	513	A	O4'-C1'	6.62	1.51	1.41
36	B2	913	G	O4'-C1'	6.62	1.51	1.41
83	A5	2730	A	C2'-C1'	-6.62	1.43	1.53
83	A5	276	G	C2'-C1'	-6.62	1.43	1.53
36	B2	658	C	C2'-C1'	-6.62	1.43	1.53
83	A5	512	A	C2'-C1'	6.62	1.63	1.53
83	A5	267	C	O4'-C1'	6.61	1.51	1.41
83	A5	2729	U	C2'-C1'	6.61	1.63	1.53
83	A5	1558	A	C2'-C1'	-6.61	1.43	1.53
83	A5	1682	G	C2'-C1'	-6.61	1.43	1.53
36	B2	25	U	C2'-C1'	6.61	1.62	1.53
83	A5	3157	U	C2'-C1'	6.61	1.62	1.53
83	A5	1809	A	C2'-C1'	-6.61	1.43	1.53
83	A5	2237	A	C2'-C1'	-6.60	1.43	1.53
36	B2	1469	U	O4'-C1'	6.60	1.51	1.41
83	A5	857	U	O4'-C1'	6.60	1.51	1.41
83	A5	759	U	C2'-C1'	-6.60	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	967	C	C2'-C1'	-6.60	1.43	1.53
83	A5	2256	G	C2'-C1'	-6.60	1.43	1.53
36	B2	295	A	C2'-C1'	-6.59	1.43	1.53
36	B2	1615	U	O4'-C1'	6.59	1.51	1.41
83	A5	2927	U	O4'-C1'	6.59	1.51	1.41
83	A5	1133	A	O4'-C1'	6.59	1.51	1.42
83	A5	3125	A	C2'-C1'	6.59	1.62	1.53
86	A8	9	G	O4'-C1'	6.59	1.51	1.41
83	A5	1678	C	O4'-C1'	6.59	1.51	1.41
83	A5	1698	A	O4'-C1'	-6.59	1.32	1.42
70	Ci	38	ARG	NE-CZ	6.59	1.40	1.33
83	A5	3121	A	O4'-C1'	6.59	1.51	1.41
83	A5	3360	G	C2'-C1'	-6.58	1.43	1.53
36	B2	1194	C	O4'-C1'	6.58	1.51	1.41
36	B2	595	C	C2'-C1'	-6.58	1.43	1.53
36	B2	990	U	C2'-C1'	-6.58	1.43	1.53
83	A5	1235	U	O4'-C1'	6.58	1.51	1.41
83	A5	1593	U	O4'-C1'	-6.58	1.32	1.42
83	A5	912	A	C2'-C1'	-6.58	1.43	1.53
83	A5	1149	C	C2'-C1'	-6.58	1.43	1.53
83	A5	2752	C	O4'-C1'	6.58	1.51	1.42
36	B2	452	U	C2'-C1'	-6.57	1.43	1.53
36	B2	1720	A	C2'-C1'	-6.57	1.43	1.53
83	A5	1354	G	C2'-C1'	-6.57	1.43	1.53
36	B2	278	G	O4'-C1'	6.57	1.51	1.41
36	B2	655	A	C2'-C1'	6.57	1.63	1.53
83	A5	2130	G	O4'-C1'	-6.57	1.31	1.41
36	B2	1161	G	C2'-C1'	-6.57	1.43	1.53
83	A5	69	A	O4'-C1'	-6.57	1.32	1.42
83	A5	3639	U	C2'-C1'	-6.57	1.43	1.53
83	A5	1693	C	O4'-C1'	6.57	1.51	1.41
36	B2	1669	A	C2'-C1'	6.56	1.63	1.53
54	CP	126	ARG	NE-CZ	6.56	1.40	1.33
83	A5	1877	A	C2'-C1'	-6.56	1.43	1.53
83	A5	1985	C	C2'-C1'	-6.56	1.43	1.53
83	A5	3113	U	C2'-C1'	-6.56	1.43	1.53
36	B2	964	G	C2'-C1'	6.56	1.63	1.53
36	B2	1531	G	O4'-C1'	6.56	1.51	1.41
36	B2	1731	U	C2'-C1'	6.56	1.62	1.53
36	B2	1832	C	O4'-C1'	6.56	1.51	1.41
86	A8	79	A	C2'-C1'	-6.56	1.43	1.53
36	B2	1625	G	C2'-C1'	-6.55	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	Ca	121	ARG	NE-CZ	6.55	1.40	1.33
83	A5	1773	U	C2'-C1'	-6.55	1.43	1.53
65	Cc	106	ARG	NE-CZ	6.55	1.40	1.33
83	A5	530	U	C2'-C1'	6.55	1.63	1.53
83	A5	2709	U	C2'-C1'	-6.55	1.43	1.53
83	A5	3910	A	C2'-C1'	-6.55	1.43	1.53
83	A5	3487	A	O4'-C1'	6.55	1.51	1.41
83	A5	782	G	O4'-C1'	6.55	1.51	1.41
83	A5	341	A	O4'-C1'	6.55	1.51	1.41
83	A5	3630	C	C2'-C1'	-6.55	1.43	1.53
86	A8	104	G	C2'-C1'	-6.55	1.43	1.53
36	B2	87	C	C2'-C1'	-6.54	1.43	1.53
36	B2	1721	C	C2'-C1'	-6.54	1.43	1.53
83	A5	1464	G	O4'-C1'	6.54	1.51	1.41
36	B2	141	G	O4'-C1'	6.54	1.51	1.42
36	B2	1769	A	C2'-C1'	-6.54	1.43	1.53
83	A5	3227	A	C2'-C1'	6.54	1.62	1.53
36	B2	246	U	C2'-C1'	-6.54	1.43	1.53
85	A7	89	G	C2'-C1'	-6.54	1.43	1.53
83	A5	297	U	C2'-C1'	6.54	1.63	1.53
36	B2	1022	A	O4'-C1'	6.54	1.51	1.41
36	B2	962	G	C2'-C1'	-6.53	1.43	1.53
83	A5	1878	A	O4'-C1'	6.53	1.51	1.41
83	A5	1157	C	C2'-C1'	-6.53	1.43	1.53
36	B2	983	C	O4'-C1'	6.52	1.51	1.41
36	B2	1604	A	O4'-C1'	6.52	1.51	1.41
83	A5	648	U	O4'-C1'	6.52	1.51	1.41
83	A5	690	U	O4'-C1'	6.52	1.51	1.41
36	B2	1063	G	C2'-C1'	-6.52	1.43	1.53
36	B2	1265	C	O4'-C1'	6.52	1.51	1.41
83	A5	759	U	O4'-C1'	6.52	1.51	1.41
83	A5	594	U	C2'-C1'	-6.51	1.43	1.53
83	A5	3579	C	O4'-C1'	6.51	1.51	1.41
36	B2	627	A	C2'-C1'	-6.51	1.43	1.53
37	BC	31	C	C2'-C1'	-6.51	1.43	1.53
83	A5	1032	G	C2'-C1'	-6.51	1.43	1.53
85	A7	78	C	O4'-C1'	6.51	1.51	1.41
83	A5	351	A	C2'-C1'	-6.51	1.43	1.53
83	A5	2650	G	O4'-C1'	-6.51	1.32	1.42
36	B2	1904	G	C2'-C1'	-6.51	1.43	1.53
83	A5	2216	A	C2'-C1'	6.50	1.62	1.53
83	A5	1098	U	O4'-C1'	6.50	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3599	U	O4'-C1'	6.50	1.51	1.41
83	A5	1684	G	C2'-C1'	-6.50	1.43	1.53
81	CE	225	TYR	CA-C	6.50	1.61	1.52
83	A5	920	G	C2'-C1'	-6.50	1.43	1.53
36	B2	61	A	C2'-C1'	-6.49	1.43	1.53
27	AE	191	ARG	CD-NE	6.49	1.55	1.46
36	B2	1219	A	C2'-C1'	-6.49	1.43	1.53
83	A5	2485	A	O4'-C1'	6.49	1.51	1.41
30	AF	213	ALA	CA-C	-6.49	1.44	1.52
83	A5	850	A	C2'-C1'	-6.48	1.43	1.53
36	B2	1948	A	O4'-C1'	6.48	1.51	1.41
83	A5	2708	C	C2'-C1'	-6.48	1.43	1.53
83	A5	3186	C	O4'-C1'	6.48	1.51	1.41
83	A5	615	C	C2'-C1'	-6.48	1.43	1.53
83	A5	3368	C	C2'-C1'	6.48	1.63	1.53
86	A8	48	G	O4'-C1'	6.48	1.51	1.41
83	A5	120	C	O4'-C1'	6.47	1.51	1.42
36	B2	1813	U	O4'-C1'	6.47	1.51	1.41
79	CJ	100	ARG	NE-CZ	6.47	1.40	1.33
83	A5	1298	A	O4'-C1'	6.47	1.51	1.41
83	A5	2249	A	O4'-C1'	6.47	1.51	1.41
36	B2	1282	A	O4'-C1'	6.47	1.51	1.41
86	A8	50	A	C2'-C1'	-6.47	1.43	1.53
6	AX	8	ARG	NE-CZ	6.46	1.40	1.33
36	B2	1941	A	C2'-C1'	-6.46	1.43	1.53
36	B2	714	U	O4'-C1'	6.46	1.51	1.42
36	B2	1830	G	O4'-C1'	6.46	1.51	1.41
83	A5	42	U	C2'-C1'	-6.46	1.43	1.53
83	A5	3366	G	O4'-C1'	6.46	1.51	1.41
37	BC	19	A	O4'-C1'	6.46	1.51	1.41
83	A5	3543	A	O4'-C1'	-6.46	1.31	1.41
36	B2	1764	U	C2'-C1'	-6.45	1.43	1.53
83	A5	2180	A	C2'-C1'	-6.45	1.43	1.53
83	A5	2818	G	C2'-C1'	-6.45	1.43	1.53
25	Af	80	ARG	CD-NE	6.45	1.55	1.46
27	AE	200	ARG	NE-CZ	6.45	1.40	1.33
84	A9	28	G	O4'-C1'	-6.45	1.31	1.41
83	A5	1323	C	O4'-C1'	6.45	1.51	1.41
83	A5	1783	A	C2'-C1'	6.45	1.63	1.53
83	A5	3907	G	C2'-C1'	6.45	1.62	1.53
19	AZ	79	ARG	CD-NE	6.45	1.55	1.46
36	B2	391	G	C2'-C1'	-6.45	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	453	C	O4'-C1'	6.45	1.51	1.41
36	B2	1768	A	O4'-C1'	6.45	1.51	1.41
36	B2	222	C	O4'-C1'	6.44	1.51	1.41
83	A5	539	G	O4'-C1'	6.44	1.51	1.42
36	B2	580	C	O4'-C1'	6.44	1.51	1.41
36	B2	1681	U	O4'-C1'	-6.44	1.31	1.41
83	A5	1440	A	C2'-C1'	-6.44	1.43	1.53
83	A5	2990	C	O4'-C1'	6.44	1.51	1.41
36	B2	161	A	C2'-C1'	-6.44	1.43	1.53
83	A5	3714	U	C2'-C1'	6.43	1.63	1.53
36	B2	1287	G	C2'-C1'	6.43	1.62	1.53
83	A5	1610	A	O4'-C1'	6.43	1.51	1.41
36	B2	1589	C	O4'-C1'	6.43	1.51	1.41
83	A5	1872	A	O4'-C1'	6.43	1.51	1.42
83	A5	1920	U	C2'-C1'	-6.42	1.43	1.53
36	B2	1456	G	O4'-C1'	6.42	1.51	1.41
36	B2	1559	A	O4'-C1'	6.42	1.51	1.41
83	A5	197	G	C2'-C1'	-6.42	1.43	1.53
83	A5	1558	A	O4'-C1'	6.42	1.51	1.41
83	A5	3599	U	C2'-C1'	-6.42	1.43	1.53
36	B2	1881	A	O4'-C1'	6.42	1.51	1.41
83	A5	671	A	C2'-C1'	-6.42	1.43	1.53
36	B2	1082	G	O4'-C1'	-6.42	1.32	1.41
36	B2	1396	G	C2'-C1'	-6.42	1.43	1.53
36	B2	1566	U	O4'-C1'	6.42	1.51	1.42
83	A5	3631	C	O4'-C1'	6.42	1.51	1.41
36	B2	1032	U	O4'-C1'	6.41	1.51	1.41
36	B2	1373	U	C2'-C1'	-6.41	1.43	1.53
83	A5	936	U	O4'-C1'	6.41	1.51	1.41
83	A5	2684	C	O4'-C1'	-6.41	1.32	1.42
83	A5	2722	U	C2'-C1'	-6.41	1.43	1.53
36	B2	1736	U	C2'-C1'	6.41	1.62	1.53
83	A5	1880	A	O4'-C1'	6.41	1.51	1.41
83	A5	459	U	O4'-C1'	-6.41	1.32	1.41
83	A5	2022	C	O4'-C1'	6.41	1.51	1.41
83	A5	2023	A	C2'-C1'	-6.41	1.43	1.53
83	A5	1528	G	C2'-C1'	-6.40	1.43	1.53
83	A5	3742	C	O4'-C1'	6.40	1.51	1.41
26	AJ	84	ARG	NE-CZ	6.40	1.40	1.33
82	CG	194	ARG	CD-NE	6.40	1.55	1.46
83	A5	1183	U	O4'-C1'	6.40	1.51	1.41
83	A5	3593	A	C2'-C1'	6.40	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	251	G	C2'-C1'	6.40	1.62	1.53
36	B2	1081	G	O4'-C1'	6.40	1.51	1.41
50	CR	104	ARG	CD-NE	6.40	1.55	1.46
83	A5	778	C	C2'-C1'	-6.40	1.43	1.53
83	A5	1532	A	O4'-C1'	-6.40	1.32	1.42
36	B2	433	A	C2'-C1'	-6.40	1.43	1.53
83	A5	1742	U	O4'-C1'	6.40	1.51	1.41
36	B2	322	C	O4'-C1'	6.40	1.51	1.41
36	B2	1427	U	O4'-C1'	6.39	1.51	1.41
83	A5	2469	U	O4'-C1'	6.39	1.51	1.41
83	A5	891	U	C2'-C1'	-6.39	1.43	1.53
83	A5	1249	A	O4'-C1'	6.39	1.51	1.41
83	A5	2788	U	O4'-C1'	6.39	1.51	1.41
74	CC	52	ARG	NE-CZ	6.39	1.40	1.33
36	B2	461	G	O4'-C1'	6.39	1.51	1.41
83	A5	3606	G	O4'-C1'	6.39	1.51	1.41
26	AJ	170	ARG	CD-NE	6.39	1.55	1.46
36	B2	1208	U	O4'-C1'	6.39	1.51	1.41
83	A5	2550	G	O4'-C1'	6.39	1.51	1.41
36	B2	374	C	O4'-C1'	6.38	1.51	1.41
36	B2	1468	G	C2'-C1'	-6.38	1.43	1.53
86	A8	53	C	C2'-C1'	-6.38	1.43	1.53
36	B2	232	C	O4'-C1'	6.38	1.51	1.41
83	A5	1686	A	C2'-C1'	-6.38	1.43	1.53
85	A7	75	G	C2'-C1'	-6.38	1.43	1.53
36	B2	1262	C	O4'-C1'	6.38	1.51	1.41
36	B2	1075	U	O4'-C1'	6.37	1.51	1.41
36	B2	1146	U	C2'-C1'	-6.37	1.43	1.53
36	B2	1684	U	O4'-C1'	6.37	1.51	1.42
36	B2	1162	U	C2'-C1'	6.37	1.62	1.53
83	A5	315	G	C2'-C1'	6.37	1.62	1.53
83	A5	1279	C	C2'-C1'	-6.37	1.43	1.53
83	A5	554	U	O4'-C1'	6.37	1.51	1.41
83	A5	1501	A	C2'-C1'	6.37	1.62	1.53
83	A5	1972	C	O4'-C1'	6.37	1.51	1.41
84	A9	30	A	C2'-C1'	6.37	1.62	1.53
36	B2	237	U	C2'-C1'	-6.37	1.43	1.53
63	CB	378	ARG	NE-CZ	6.37	1.40	1.33
36	B2	1387	A	C2'-C1'	6.36	1.62	1.53
83	A5	1209	A	O4'-C1'	6.36	1.51	1.41
83	A5	2067	C	O4'-C1'	6.36	1.51	1.41
23	AD	180	ARG	CD-NE	6.36	1.55	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1555	U	O4'-C1'	6.36	1.51	1.41
83	A5	191	A	C2'-C1'	-6.36	1.43	1.53
1	Az	414	ARG	CD-NE	6.36	1.55	1.46
83	A5	1882	G	O4'-C1'	-6.36	1.32	1.41
83	A5	2587	U	C2'-C1'	-6.36	1.43	1.53
83	A5	2803	A	O4'-C1'	6.36	1.51	1.41
36	B2	1409	A	C2'-C1'	-6.35	1.43	1.53
83	A5	224	U	O4'-C1'	6.35	1.51	1.41
83	A5	359	G	O4'-C1'	-6.35	1.32	1.42
64	CF	76	ARG	NE-CZ	6.35	1.40	1.33
36	B2	47	A	O4'-C1'	6.35	1.51	1.42
42	CL	64	ARG	NE-CZ	6.35	1.40	1.33
83	A5	711	A	O4'-C1'	6.35	1.51	1.41
83	A5	1035	G	O4'-C1'	-6.35	1.32	1.42
36	B2	1311	A	C2'-C1'	-6.34	1.43	1.53
83	A5	2072	C	C2'-C1'	-6.34	1.43	1.53
36	B2	255	U	O3'-P	-6.34	1.51	1.61
36	B2	1611	G	C2'-C1'	-6.34	1.43	1.53
83	A5	649	A	C2'-C1'	-6.34	1.43	1.53
83	A5	1981	A	O4'-C1'	6.34	1.51	1.41
36	B2	1027	A	C2'-C1'	6.34	1.62	1.53
36	B2	1233	U	C2'-C1'	-6.34	1.43	1.53
68	Cf	80	ARG	CA-C	-6.34	1.45	1.52
83	A5	552	U	C2'-C1'	6.34	1.62	1.53
83	A5	1260	A	C2'-C1'	-6.34	1.43	1.53
83	A5	1944	C	C2'-C1'	-6.34	1.43	1.53
14	AT	3	GLY	C-N	6.34	1.39	1.33
36	B2	1013	A	O4'-C1'	6.34	1.51	1.41
36	B2	1087	C	C2'-C1'	6.34	1.62	1.53
36	B2	1847	A	C2'-C1'	6.34	1.62	1.53
83	A5	1617	U	O4'-C1'	6.34	1.51	1.41
83	A5	213	A	C2'-C1'	-6.34	1.43	1.53
36	B2	1413	A	C2'-C1'	-6.33	1.43	1.53
36	B2	1093	C	C2'-C1'	-6.33	1.43	1.53
83	A5	1104	A	O4'-C1'	6.33	1.51	1.41
36	B2	52	U	O4'-C1'	6.33	1.51	1.41
36	B2	457	G	O4'-C1'	6.33	1.51	1.42
83	A5	1765	U	O4'-C1'	6.33	1.51	1.42
83	A5	3545	C	C2'-C1'	-6.33	1.43	1.53
46	CN	20	ARG	CD-NE	6.33	1.55	1.46
83	A5	2906	C	C2'-C1'	-6.33	1.43	1.53
83	A5	2001	U	O4'-C1'	6.33	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A8	56	U	O4'-C1'	6.33	1.51	1.41
83	A5	135	U	O4'-C1'	6.32	1.51	1.41
83	A5	3227	A	O4'-C1'	-6.32	1.32	1.42
36	B2	1752	U	O4'-C1'	-6.32	1.32	1.41
83	A5	2990	C	C2'-C1'	-6.32	1.43	1.53
83	A5	3307	A	O4'-C1'	6.32	1.51	1.41
36	B2	1794	C	C2'-C1'	-6.32	1.43	1.53
74	CC	381	ARG	NE-CZ	6.32	1.40	1.33
36	B2	455	C	C2'-C1'	-6.32	1.43	1.53
83	A5	1477	G	O4'-C1'	6.32	1.51	1.41
36	B2	1632	C	O4'-C1'	6.31	1.51	1.41
83	A5	2009	A	O4'-C1'	6.31	1.51	1.41
83	A5	679	G	C2'-C1'	-6.31	1.43	1.53
83	A5	3146	G	C2'-C1'	-6.31	1.43	1.53
85	A7	54	A	O4'-C1'	6.31	1.51	1.41
83	A5	2539	G	O4'-C1'	6.31	1.51	1.41
83	A5	705	G	C2'-C1'	-6.31	1.43	1.53
36	B2	282	U	C2'-C1'	6.31	1.62	1.53
36	B2	1549	U	C2'-C1'	-6.31	1.43	1.53
83	A5	433	U	O4'-C1'	6.31	1.51	1.41
83	A5	1529	C	C2'-C1'	-6.31	1.43	1.53
83	A5	1881	C	O4'-C1'	6.31	1.51	1.41
36	B2	1352	G	C2'-C1'	-6.30	1.43	1.53
83	A5	3914	G	C2'-C1'	-6.30	1.43	1.53
36	B2	713	A	C2'-C1'	6.30	1.62	1.53
83	A5	30	A	C2'-C1'	-6.30	1.43	1.53
83	A5	3873	A	O4'-C1'	6.30	1.51	1.41
36	B2	616	U	O4'-C1'	6.30	1.51	1.41
36	B2	1028	A	O4'-C1'	6.29	1.51	1.41
10	AN	106	ARG	CD-NE	6.29	1.55	1.46
83	A5	308	G	C2'-C1'	-6.29	1.44	1.53
83	A5	2635	C	C2'-C1'	-6.29	1.44	1.53
83	A5	3774	U	O4'-C1'	6.29	1.51	1.41
83	A5	1389	C	O4'-C1'	6.28	1.51	1.41
51	CA	62	HIS	ND1-CE1	6.28	1.38	1.32
36	B2	9	U	O4'-C1'	6.28	1.51	1.41
36	B2	1532	C	O4'-C1'	6.28	1.51	1.41
36	B2	649	U	C2'-C1'	-6.28	1.44	1.53
36	B2	826	U	C2'-C1'	-6.28	1.44	1.53
83	A5	315	G	O4'-C1'	-6.28	1.32	1.42
83	A5	3343	A	C2'-C1'	-6.28	1.44	1.53
83	A5	3511	U	O4'-C1'	6.28	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1560	G	C2'-C1'	-6.27	1.44	1.53
36	B2	1752	U	C2'-C1'	6.27	1.62	1.53
36	B2	1730	U	C2'-C1'	-6.27	1.44	1.53
83	A5	1520	U	C2'-C1'	6.27	1.62	1.53
36	B2	1366	C	C2'-C1'	-6.27	1.44	1.53
83	A5	2750	A	O4'-C1'	-6.27	1.32	1.41
36	B2	1860	G	C2'-C1'	-6.27	1.44	1.53
83	A5	1930	G	O4'-C1'	-6.27	1.32	1.41
83	A5	2991	A	C2'-C1'	-6.27	1.44	1.53
83	A5	3565	G	C2'-C1'	-6.27	1.44	1.53
83	A5	3567	A	C2'-C1'	6.27	1.62	1.53
83	A5	3102	C	O4'-C1'	6.27	1.51	1.41
83	A5	3537	U	C2'-C1'	6.26	1.62	1.53
85	A7	9	C	C2'-C1'	-6.26	1.44	1.53
36	B2	280	U	C2'-C1'	6.26	1.62	1.53
83	A5	733	A	C2'-C1'	-6.26	1.44	1.53
83	A5	988	C	O4'-C1'	6.26	1.51	1.41
36	B2	216	U	C2'-C1'	-6.26	1.44	1.53
46	CN	41	ARG	CD-NE	6.26	1.55	1.46
83	A5	1164	G	C2'-C1'	-6.26	1.44	1.53
83	A5	2861	G	O4'-C1'	6.26	1.51	1.41
83	A5	555	U	O4'-C1'	6.26	1.51	1.41
83	A5	1786	G	C2'-C1'	-6.26	1.44	1.53
36	B2	900	A	C2'-C1'	6.25	1.62	1.53
83	A5	488	U	O4'-C1'	6.25	1.51	1.41
83	A5	537	A	O4'-C1'	6.25	1.51	1.41
36	B2	1024	C	C2'-C1'	-6.25	1.44	1.53
69	Cg	15	THR	CA-C	-6.25	1.44	1.53
83	A5	1273	U	O4'-C1'	6.25	1.51	1.41
83	A5	1149	C	O4'-C1'	6.25	1.51	1.41
83	A5	1507	C	O4'-C1'	6.25	1.51	1.41
83	A5	3440	C	C2'-C1'	-6.25	1.44	1.53
83	A5	2921	G	C2'-C1'	-6.25	1.44	1.53
83	A5	3716	C	O4'-C1'	6.25	1.51	1.41
5	AO	147	ARG	NE-CZ	6.24	1.40	1.33
86	A8	18	C	O4'-C1'	6.24	1.51	1.41
36	B2	339	U	C2'-C1'	6.24	1.62	1.53
86	A8	25	C	C2'-C1'	-6.24	1.44	1.53
36	B2	908	G	C2'-C1'	-6.24	1.43	1.53
83	A5	1243	A	O4'-C1'	6.24	1.51	1.41
36	B2	539	U	O4'-C1'	6.24	1.51	1.41
83	A5	3153	G	C2'-C1'	-6.23	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1858	U	O4'-C1'	6.23	1.50	1.41
36	B2	1870	C	C2'-C1'	-6.23	1.44	1.53
49	CQ	146	ARG	NE-CZ	6.23	1.40	1.33
36	B2	1798	C	C2'-C1'	-6.23	1.44	1.53
51	CA	114	CYS	N-CA	-6.23	1.37	1.45
83	A5	193	U	O4'-C1'	6.23	1.50	1.41
83	A5	1522	G	O4'-C1'	6.23	1.51	1.42
83	A5	525	U	C2'-C1'	6.23	1.62	1.53
83	A5	2277	G	O4'-C1'	6.22	1.50	1.41
36	B2	1703	G	C2'-C1'	-6.22	1.44	1.53
63	CB	46	PHE	CA-C	-6.22	1.45	1.52
36	B2	104	A	C2'-C1'	-6.22	1.44	1.53
36	B2	1392	U	O4'-C1'	-6.22	1.32	1.42
74	CC	208	ARG	NE-CZ	6.22	1.39	1.33
83	A5	430	G	O4'-C1'	6.22	1.50	1.41
36	B2	1154	U	O4'-C1'	6.21	1.50	1.41
83	A5	876	G	C2'-C1'	-6.21	1.44	1.53
83	A5	3606	G	C2'-C1'	-6.21	1.44	1.53
36	B2	408	G	C2'-C1'	-6.21	1.44	1.53
36	B2	515	U	C2'-C1'	-6.21	1.44	1.53
83	A5	1864	U	C2'-C1'	-6.21	1.43	1.53
25	Af	116	ARG	NE-CZ	6.21	1.39	1.33
83	A5	1232	G	O4'-C1'	6.21	1.50	1.41
36	B2	1086	U	O4'-C1'	6.21	1.50	1.41
83	A5	3677	U	O4'-C1'	6.21	1.51	1.42
36	B2	197	A	O4'-C1'	6.21	1.50	1.41
36	B2	527	C	C2'-C1'	-6.21	1.44	1.53
83	A5	1677	U	O4'-C1'	6.21	1.50	1.41
83	A5	2105	C	C2'-C1'	-6.21	1.44	1.53
83	A5	3332	G	O4'-C1'	6.21	1.50	1.41
83	A5	3403	G	C2'-C1'	-6.21	1.44	1.53
36	B2	983	C	O5'-C5'	6.20	1.51	1.42
59	CZ	113	THR	CA-C	-6.20	1.44	1.52
83	A5	2867	U	C2'-C1'	-6.20	1.44	1.53
12	AR	23	ARG	NE-CZ	6.20	1.39	1.33
26	AJ	92	ARG	CD-NE	6.20	1.54	1.46
83	A5	3793	U	O4'-C1'	6.20	1.50	1.41
83	A5	496	U	C2'-C1'	-6.20	1.44	1.53
83	A5	1127	C	O4'-C1'	6.20	1.50	1.41
83	A5	2918	A	C2'-C1'	6.20	1.62	1.53
83	A5	3505	U	O4'-C1'	6.20	1.50	1.41
83	A5	3611	C	C2'-C1'	-6.20	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3172	A	C2'-C1'	-6.20	1.44	1.53
83	A5	3553	C	O4'-C1'	6.20	1.50	1.41
83	A5	2922	G	C2'-C1'	-6.19	1.44	1.53
36	B2	860	U	C2'-C1'	6.19	1.62	1.53
83	A5	1229	U	O4'-C1'	6.19	1.51	1.42
36	B2	534	A	C2'-C1'	-6.19	1.44	1.53
40	CK	88	PRO	CA-C	6.19	1.57	1.52
48	CD	203	HIS	ND1-CE1	6.19	1.38	1.32
83	A5	1251	C	C2'-C1'	-6.18	1.44	1.53
83	A5	1570	U	O4'-C1'	6.18	1.50	1.41
83	A5	3644	C	C2'-C1'	-6.18	1.44	1.53
83	A5	3734	A	O4'-C1'	6.18	1.50	1.41
36	B2	872	A	O4'-C1'	6.18	1.50	1.41
41	CO	10	VAL	CA-C	-6.18	1.45	1.52
83	A5	1004	C	O4'-C1'	6.18	1.50	1.41
83	A5	1431	G	O4'-C1'	-6.18	1.32	1.41
36	B2	398	C	O4'-C1'	6.18	1.50	1.41
83	A5	925	C	O4'-C1'	6.18	1.50	1.41
83	A5	1730	A	O4'-C1'	6.18	1.50	1.41
36	B2	904	C	O4'-C1'	6.18	1.50	1.41
36	B2	1100	A	C2'-C1'	-6.18	1.44	1.53
51	CA	167	GLY	CA-C	-6.18	1.44	1.51
83	A5	1600	U	O4'-C1'	6.17	1.50	1.41
83	A5	1789	A	O4'-C1'	6.17	1.50	1.41
83	A5	1945	U	O4'-C1'	6.17	1.50	1.41
83	A5	2920	U	O4'-C1'	6.17	1.50	1.41
83	A5	3243	C	O4'-C1'	6.17	1.50	1.41
36	B2	882	G	O4'-C1'	6.17	1.50	1.41
36	B2	1944	A	C2'-C1'	6.17	1.62	1.53
58	CW	105	ARG	NE-CZ	6.17	1.39	1.33
36	B2	1672	A	O4'-C1'	6.17	1.50	1.41
33	AI	42	ARG	CD-NE	6.17	1.54	1.46
83	A5	3665	U	C2'-C1'	-6.17	1.44	1.53
36	B2	1192	U	O4'-C1'	6.17	1.50	1.41
83	A5	676	A	O4'-C1'	6.17	1.50	1.41
83	A5	2165	C	C2'-C1'	-6.17	1.43	1.53
83	A5	3362	G	C2'-C1'	-6.17	1.44	1.53
83	A5	3566	G	C2'-C1'	-6.17	1.44	1.53
85	A7	93	G	O4'-C1'	6.17	1.50	1.41
78	Co	40	ARG	NE-CZ	6.17	1.39	1.33
23	AD	29	ARG	NE-CZ	6.16	1.39	1.33
83	A5	3501	C	C2'-C1'	-6.16	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2556	A	O4'-C1'	6.16	1.51	1.42
83	A5	559	A	C2'-C1'	-6.16	1.44	1.53
83	A5	1032	G	O4'-C1'	6.16	1.50	1.41
27	AE	68	ARG	NE-CZ	6.16	1.39	1.33
36	B2	345	U	O4'-C1'	6.16	1.50	1.41
36	B2	1863	A	O4'-C1'	6.16	1.50	1.41
83	A5	2604	U	O4'-C1'	6.16	1.50	1.41
83	A5	3114	C	C2'-C1'	-6.16	1.44	1.53
36	B2	1403	C	O4'-C1'	6.15	1.50	1.41
83	A5	2851	U	C2'-C1'	6.15	1.62	1.53
83	A5	2512	U	O4'-C1'	6.15	1.50	1.41
83	A5	478	A	O4'-C1'	6.15	1.50	1.41
83	A5	2734	A	C2'-C1'	-6.15	1.44	1.53
83	A5	3190	G	O4'-C1'	6.15	1.50	1.41
84	A9	25	G	C2'-C1'	-6.15	1.44	1.53
83	A5	2514	U	C2'-C1'	-6.15	1.44	1.53
36	B2	416	C	C2'-C1'	-6.15	1.44	1.53
36	B2	658	C	O4'-C1'	6.15	1.50	1.41
1	Az	701	HIS	ND1-CE1	6.14	1.38	1.32
83	A5	3585	A	C2'-C1'	-6.14	1.44	1.53
83	A5	2991	A	O4'-C1'	6.14	1.50	1.41
83	A5	769	U	O4'-C1'	6.14	1.50	1.41
36	B2	1841	C	O4'-C1'	6.13	1.50	1.41
36	B2	1391	G	C2'-C1'	-6.13	1.44	1.53
43	CV	12	GLY	CA-C	-6.13	1.46	1.51
83	A5	2073	A	C2'-C1'	-6.13	1.44	1.53
83	A5	2917	A	O4'-C1'	-6.13	1.32	1.42
11	AL	68	ARG	CD-NE	6.13	1.54	1.46
83	A5	30	A	O4'-C1'	6.13	1.50	1.41
83	A5	773	G	O3'-P	-6.13	1.51	1.61
83	A5	1888	A	O4'-C1'	6.13	1.50	1.41
37	BC	53	A	O4'-C1'	6.13	1.50	1.41
83	A5	3457	C	C2'-C1'	-6.13	1.44	1.53
36	B2	701	G	C2'-C1'	6.12	1.62	1.53
83	A5	262	G	C2'-C1'	-6.12	1.43	1.53
83	A5	619	U	C2'-C1'	-6.12	1.44	1.53
36	B2	214	G	O4'-C1'	-6.12	1.32	1.42
83	A5	1780	U	O3'-P	-6.12	1.51	1.61
83	A5	1045	G	C2'-C1'	6.12	1.62	1.53
46	CN	109	ARG	NE-CZ	6.11	1.39	1.33
83	A5	192	U	O4'-C1'	6.11	1.50	1.41
83	A5	3411	C	O4'-C1'	6.11	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	CQ	168	ARG	NE-CZ	6.11	1.39	1.33
83	A5	135	U	C2'-C1'	-6.11	1.44	1.53
83	A5	1570	U	C2'-C1'	-6.11	1.44	1.53
83	A5	3856	U	C2'-C1'	6.11	1.62	1.53
46	CN	202	ARG	NE-CZ	6.11	1.39	1.33
83	A5	2500	G	C2'-C1'	-6.11	1.44	1.53
36	B2	1642	C	C2'-C1'	-6.10	1.44	1.53
56	CX	166	HIS	ND1-CE1	6.10	1.38	1.32
83	A5	1141	G	C2'-C1'	-6.10	1.44	1.53
83	A5	3484	U	C2'-C1'	-6.10	1.44	1.53
83	A5	179	C	C2'-C1'	-6.09	1.44	1.53
83	A5	1906	G	O4'-C1'	6.09	1.50	1.41
83	A5	3351	A	C2'-C1'	-6.09	1.44	1.53
36	B2	490	A	C2'-C1'	-6.09	1.44	1.53
36	B2	1251	A	C2'-C1'	-6.09	1.44	1.53
83	A5	1912	G	O4'-C1'	6.09	1.50	1.41
83	A5	1086	C	C2'-C1'	-6.09	1.44	1.53
15	AB	235	HIS	ND1-CE1	6.09	1.38	1.32
28	AC	210	ARG	NE-CZ	6.09	1.39	1.33
83	A5	1442	C	C2'-C1'	-6.09	1.44	1.53
83	A5	1448	G	O4'-C1'	-6.09	1.32	1.41
83	A5	1476	G	O4'-C1'	6.09	1.50	1.41
48	CD	68	ARG	NE-CZ	6.08	1.39	1.33
83	A5	3373	G	C2'-C1'	6.08	1.62	1.53
83	A5	1134	G	O4'-C1'	6.08	1.50	1.41
83	A5	1699	A	C2'-C1'	-6.08	1.44	1.53
84	A9	10	U	O4'-C1'	6.08	1.50	1.41
36	B2	1011	A	C2'-C1'	6.08	1.62	1.53
36	B2	389	G	C2'-C1'	-6.08	1.44	1.53
36	B2	428	G	O4'-C1'	6.08	1.51	1.42
83	A5	1439	C	O4'-C1'	6.08	1.50	1.41
83	A5	3517	U	C2'-C1'	-6.08	1.44	1.53
36	B2	215	C	O4'-C1'	6.08	1.51	1.42
32	AW	118	ARG	NE-CZ	6.07	1.39	1.33
36	B2	437	G	C2'-C1'	-6.07	1.44	1.53
83	A5	2762	A	O4'-C1'	6.07	1.50	1.41
36	B2	1709	A	O4'-C1'	6.07	1.51	1.42
36	B2	288	C	O4'-C1'	6.07	1.51	1.42
36	B2	441	A	C2'-C1'	6.07	1.62	1.53
50	CR	100	ARG	NE-CZ	6.07	1.39	1.33
36	B2	487	U	O4'-C1'	6.06	1.50	1.41
83	A5	1	U	C2'-C1'	6.06	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1262	C	C2'-C1'	-6.06	1.44	1.53
83	A5	3247	A	C2'-C1'	-6.06	1.44	1.53
83	A5	3831	C	O4'-C1'	6.06	1.50	1.41
36	B2	1743	C	C2'-C1'	-6.06	1.44	1.53
36	B2	1844	C	C2'-C1'	-6.06	1.44	1.53
83	A5	2276	C	C2'-C1'	-6.06	1.44	1.53
83	A5	3766	U	O4'-C1'	6.06	1.50	1.41
83	A5	170	G	C2'-C1'	-6.06	1.44	1.53
27	AE	113	ARG	NE-CZ	6.05	1.39	1.33
82	CG	201	ARG	NE-CZ	6.05	1.39	1.33
83	A5	2050	U	C2'-C1'	-6.05	1.44	1.53
85	A7	70	G	C2'-C1'	-6.05	1.44	1.53
83	A5	431	C	O4'-C1'	6.05	1.50	1.41
83	A5	2894	A	C2'-C1'	-6.05	1.44	1.53
85	A7	106	G	O4'-C1'	6.05	1.50	1.41
36	B2	1014	C	O4'-C1'	6.04	1.50	1.41
36	B2	1255	G	O4'-C1'	6.04	1.50	1.41
36	B2	563	A	O4'-C1'	6.04	1.50	1.41
36	B2	1699	G	C2'-C1'	-6.04	1.44	1.53
83	A5	1416	U	O4'-C1'	6.04	1.50	1.41
36	B2	229	U	O4'-C1'	6.04	1.50	1.41
83	A5	1169	C	C2'-C1'	-6.04	1.44	1.53
9	Ad	40	ARG	CD-NE	6.04	1.54	1.46
36	B2	1754	C	C2'-C1'	-6.04	1.44	1.53
83	A5	1986	G	O4'-C1'	6.04	1.50	1.41
10	AN	138	ASN	CA-C	-6.04	1.45	1.53
83	A5	1963	U	O4'-C1'	6.03	1.50	1.41
36	B2	1760	G	O3'-P	-6.03	1.52	1.61
54	CP	135	ARG	NE-CZ	6.03	1.39	1.33
23	AD	67	ARG	CD-NE	6.03	1.54	1.46
30	AF	105	ARG	NE-CZ	6.03	1.39	1.33
34	AQ	13	GLN	C-N	6.03	1.39	1.33
36	B2	1674	C	C2'-C1'	-6.03	1.44	1.53
83	A5	971	C	C2'-C1'	-6.03	1.44	1.53
36	B2	109	U	C2'-C1'	-6.03	1.44	1.53
83	A5	3344	U	C2'-C1'	-6.03	1.44	1.53
36	B2	14	C	O4'-C1'	6.03	1.50	1.41
83	A5	2200	A	O4'-C1'	6.03	1.50	1.41
83	A5	3203	C	O4'-C1'	6.03	1.50	1.41
36	B2	1415	G	O4'-C1'	6.03	1.50	1.41
83	A5	1470	C	O4'-C1'	6.03	1.50	1.41
83	A5	181	A	O4'-C1'	6.02	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	279	U	C2'-C1'	-6.02	1.44	1.53
83	A5	2143	C	O4'-C1'	6.02	1.50	1.41
85	A7	52	U	O4'-C1'	6.02	1.50	1.41
36	B2	279	G	O4'-C1'	6.02	1.50	1.41
67	Ce	64	ARG	CD-NE	6.02	1.54	1.46
85	A7	54	A	C2'-C1'	-6.02	1.44	1.53
36	B2	11	A	C2'-C1'	6.02	1.62	1.53
36	B2	1103	U	C2'-C1'	-6.02	1.44	1.53
36	B2	1628	A	O4'-C1'	6.02	1.50	1.41
57	CY	87	ARG	NE-CZ	6.02	1.39	1.33
83	A5	3305	U	C2'-C1'	-6.02	1.44	1.53
86	A8	13	U	C2'-C1'	-6.02	1.44	1.53
86	A8	101	A	O4'-C1'	6.02	1.50	1.41
36	B2	1704	G	C2'-C1'	-6.02	1.44	1.53
65	Cc	89	PHE	CA-C	-6.01	1.45	1.52
26	AJ	18	ARG	NE-CZ	6.01	1.39	1.33
36	B2	1255	G	C2'-C1'	-6.01	1.44	1.53
80	CH	2	ARG	CD-NE	6.01	1.54	1.46
6	AX	18	ARG	CD-NE	6.01	1.54	1.46
83	A5	780	U	C2'-C1'	6.01	1.62	1.53
83	A5	960	U	O4'-C1'	6.01	1.50	1.41
83	A5	3282	C	C2'-C1'	-6.01	1.44	1.53
34	AQ	29	ARG	CD-NE	6.00	1.54	1.46
36	B2	1991	C	C2'-C1'	6.00	1.62	1.53
83	A5	2259	C	O4'-C1'	6.00	1.50	1.41
28	AC	113	ILE	C-N	6.00	1.41	1.33
36	B2	179	A	O4'-C1'	6.00	1.50	1.41
83	A5	3253	G	C2'-C1'	-6.00	1.44	1.53
36	B2	1751	G	O4'-C1'	-6.00	1.32	1.41
36	B2	1771	U	O4'-C1'	6.00	1.50	1.41
83	A5	2186	C	O4'-C1'	6.00	1.50	1.41
36	B2	1046	U	O4'-C1'	-6.00	1.32	1.41
36	B2	1702	C	O4'-C1'	6.00	1.50	1.41
48	CD	22	ARG	NE-CZ	6.00	1.39	1.33
83	A5	3402	C	C2'-C1'	6.00	1.62	1.53
83	A5	3829	U	O4'-C1'	-6.00	1.32	1.41
83	A5	3442	A	O4'-C1'	6.00	1.50	1.41
82	CG	118	ARG	NE-CZ	6.00	1.39	1.33
83	A5	159	G	C2'-C1'	-5.99	1.44	1.53
83	A5	3347	G	C2'-C1'	-5.99	1.44	1.53
83	A5	286	A	O4'-C1'	-5.99	1.32	1.42
83	A5	1308	U	O4'-C1'	5.99	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3690	A	C2'-C1'	-5.99	1.44	1.53
36	B2	826	U	O4'-C1'	5.98	1.50	1.41
36	B2	1026	A	O4'-C1'	5.98	1.50	1.41
83	A5	786	C	C2'-C1'	-5.98	1.44	1.53
83	A5	1141	G	O4'-C1'	5.98	1.50	1.41
14	AT	116	HIS	ND1-CE1	5.98	1.38	1.32
36	B2	271	A	C2'-C1'	-5.98	1.44	1.53
36	B2	982	G	O4'-C1'	-5.98	1.32	1.41
36	B2	1276	G	O4'-C1'	5.98	1.50	1.41
40	CK	16	ARG	NE-CZ	5.98	1.39	1.33
83	A5	1070	G	O4'-C1'	5.98	1.50	1.42
83	A5	2820	G	O4'-C1'	5.98	1.50	1.41
36	B2	1236	C	O4'-C1'	5.97	1.50	1.41
36	B2	1763	C	C2'-C1'	-5.97	1.44	1.53
83	A5	71	A	O4'-C1'	5.97	1.50	1.41
83	A5	136	C	C5'-C4'	5.97	1.60	1.51
83	A5	2459	C	C2'-C1'	-5.97	1.44	1.53
53	CT	63	ARG	CD-NE	5.97	1.54	1.46
83	A5	1011	U	O4'-C1'	5.97	1.50	1.41
83	A5	2217	A	O4'-C1'	5.97	1.50	1.41
37	BC	53	A	C2'-C1'	-5.97	1.44	1.53
83	A5	1043	G	C2'-C1'	-5.96	1.44	1.53
83	A5	3891	U	C2'-C1'	5.96	1.61	1.53
83	A5	576	U	O4'-C1'	5.96	1.50	1.41
36	B2	1406	A	O4'-C1'	5.96	1.50	1.41
52	CS	141	HIS	ND1-CE1	5.96	1.38	1.32
83	A5	3622	C	O4'-C1'	5.96	1.50	1.41
83	A5	378	G	C2'-C1'	-5.96	1.44	1.53
36	B2	1401	U	C2'-C1'	5.96	1.61	1.53
83	A5	207	C	C2'-C1'	-5.96	1.44	1.53
25	Af	138	ARG	NE-CZ	5.96	1.39	1.33
36	B2	1050	A	O4'-C1'	-5.95	1.33	1.42
83	A5	1739	U	O4'-C1'	5.95	1.50	1.41
36	B2	1445	A	O4'-C1'	5.95	1.50	1.41
83	A5	362	A	C2'-C1'	-5.95	1.44	1.53
36	B2	1375	G	O4'-C1'	5.95	1.50	1.41
54	CP	25	HIS	C-N	5.95	1.41	1.33
70	Ci	85	ARG	CD-NE	5.95	1.54	1.46
83	A5	1921	U	O4'-C1'	5.95	1.50	1.41
36	B2	1098	C	C2'-C1'	-5.94	1.44	1.53
82	CG	180	ARG	CZ-NH2	5.94	1.41	1.33
83	A5	2225	A	O4'-C1'	5.94	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3540	G	C2'-C1'	5.94	1.61	1.53
36	B2	841	U	O4'-C1'	5.94	1.50	1.41
83	A5	19	C	O4'-C1'	5.94	1.50	1.41
43	CV	48	ARG	NE-CZ	5.94	1.39	1.33
81	CE	139	ARG	NE-CZ	5.94	1.39	1.33
36	B2	1311	A	O4'-C1'	5.93	1.50	1.41
83	A5	218	A	O4'-C1'	5.93	1.50	1.41
83	A5	85	U	O4'-C1'	5.93	1.50	1.41
83	A5	130	C	C2'-C1'	-5.93	1.44	1.53
83	A5	360	A	C2'-C1'	5.93	1.61	1.53
36	B2	1092	A	O4'-C1'	5.93	1.50	1.41
36	B2	1348	A	C2'-C1'	-5.93	1.44	1.53
1	Az	47	ALA	C-N	5.93	1.41	1.33
83	A5	932	G	O4'-C1'	5.93	1.50	1.41
83	A5	1178	U	C2'-C1'	-5.93	1.44	1.53
83	A5	3228	A	C2'-C1'	-5.93	1.44	1.53
49	CQ	142	ARG	CA-CB	5.92	1.60	1.52
36	B2	43	A	C2'-C1'	-5.92	1.44	1.53
36	B2	588	A	O4'-C1'	5.92	1.50	1.42
36	B2	1331	A	O3'-P	-5.92	1.52	1.61
36	B2	1586	U	O4'-C1'	5.92	1.50	1.41
36	B2	1021	A	O4'-C1'	-5.92	1.32	1.41
36	B2	1611	G	O4'-C1'	5.92	1.50	1.41
83	A5	2833	U	O4'-C1'	5.92	1.50	1.42
83	A5	3442	A	C2'-C1'	-5.92	1.44	1.53
82	CG	209	LEU	CA-C	-5.92	1.45	1.52
36	B2	981	C	C2'-C1'	-5.91	1.44	1.53
83	A5	2227	U	C2'-C1'	-5.91	1.44	1.53
36	B2	313	C	O4'-C1'	-5.91	1.32	1.41
36	B2	515	U	O4'-C1'	5.91	1.50	1.41
36	B2	1190	G	C2'-C1'	-5.90	1.44	1.53
83	A5	1234	G	C2'-C1'	-5.90	1.44	1.53
83	A5	616	A	O4'-C1'	5.90	1.50	1.41
83	A5	2477	C	C2'-C1'	-5.90	1.44	1.53
36	B2	301	U	O4'-C1'	5.90	1.50	1.41
36	B2	713	A	O4'-C1'	-5.90	1.32	1.41
83	A5	799	A	O4'-C1'	5.90	1.50	1.41
83	A5	1390	C	C2'-C1'	-5.90	1.44	1.53
84	A9	19	U	O4'-C1'	5.90	1.50	1.41
83	A5	398	U	O4'-C1'	5.90	1.50	1.41
36	B2	607	A	O4'-C1'	5.90	1.50	1.41
83	A5	1518	A	C2'-C1'	5.89	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
76	Cn	17	ARG	NE-CZ	5.89	1.39	1.33
83	A5	826	A	O4'-C1'	5.89	1.50	1.41
85	A7	80	U	O4'-C1'	5.89	1.50	1.41
83	A5	491	U	O4'-C1'	5.89	1.50	1.41
83	A5	3926	C	O4'-C1'	5.89	1.50	1.42
36	B2	1523	U	C2'-C1'	-5.89	1.44	1.53
86	A8	45	G	C5'-C4'	5.89	1.60	1.51
29	AG	94	ARG	CD-NE	5.89	1.54	1.46
31	AH	111	LYS	C-N	5.89	1.42	1.33
36	B2	1374	A	O4'-C1'	5.89	1.50	1.42
83	A5	2895	U	C2'-C1'	5.89	1.62	1.53
36	B2	502	C	O4'-C1'	5.88	1.50	1.41
58	CW	33	ASP	N-CA	-5.88	1.38	1.46
83	A5	1893	C	C2'-C1'	-5.88	1.44	1.53
71	Cj	56	ARG	NE-CZ	5.88	1.39	1.33
83	A5	1061	A	O4'-C1'	5.88	1.50	1.41
83	A5	1951	C	C2'-C1'	-5.88	1.44	1.53
83	A5	1740	C	O4'-C1'	5.88	1.50	1.41
83	A5	1403	C	C5'-C4'	5.88	1.60	1.51
83	A5	1449	G	O4'-C1'	5.88	1.50	1.41
83	A5	2212	A	O4'-C1'	5.88	1.50	1.41
83	A5	2537	A	O4'-C1'	5.88	1.50	1.42
84	A9	27	U	O4'-C1'	5.88	1.50	1.41
36	B2	193	U	C2'-C1'	-5.88	1.44	1.53
36	B2	1194	C	C2'-C1'	-5.88	1.44	1.53
83	A5	585	A	C2'-C1'	-5.88	1.44	1.53
69	Cg	21	ARG	CA-C	-5.87	1.45	1.52
83	A5	3779	U	C2'-C1'	-5.87	1.44	1.53
83	A5	3909	A	C2'-C1'	-5.87	1.44	1.53
36	B2	1794	C	O4'-C1'	5.87	1.50	1.41
83	A5	3454	G	O4'-C1'	5.87	1.50	1.41
83	A5	1342	U	O4'-C1'	5.87	1.50	1.41
73	Cl	4	HIS	N-CA	-5.87	1.39	1.46
80	CH	36	ARG	NE-CZ	5.87	1.39	1.33
36	B2	189	C	C2'-C1'	5.87	1.61	1.53
36	B2	573	C	C2'-C1'	-5.87	1.44	1.53
69	Cg	43	ARG	NE-CZ	5.86	1.39	1.33
83	A5	1712	C	O4'-C1'	5.86	1.50	1.41
36	B2	156	U	C2'-C1'	-5.86	1.44	1.53
46	CN	39	SER	CA-C	-5.86	1.45	1.52
83	A5	2473	C	C2'-C1'	-5.86	1.44	1.53
69	Cg	24	ARG	CD-NE	5.86	1.54	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	771	A	O4'-C1'	5.86	1.50	1.41
14	AT	88	HIS	ND1-CE1	5.86	1.38	1.32
36	B2	1389	U	O4'-C1'	5.86	1.50	1.41
63	CB	191	GLU	N-CA	-5.86	1.39	1.46
24	Ae	75	HIS	ND1-CE1	5.86	1.38	1.32
36	B2	1555	U	O3'-P	-5.86	1.52	1.61
36	B2	1618	C	C2'-C1'	5.86	1.61	1.53
47	CI	200	ARG	CD-NE	5.86	1.54	1.46
58	CW	2	LYS	CA-C	-5.86	1.45	1.52
64	CF	144	THR	C-N	5.86	1.41	1.33
83	A5	2071	A	C2'-C1'	-5.86	1.44	1.53
83	A5	3122	A	O4'-C1'	5.86	1.50	1.41
81	CE	198	ARG	NE-CZ	5.85	1.39	1.33
83	A5	3008	U	O4'-C1'	5.85	1.50	1.41
36	B2	1073	G	O4'-C1'	5.85	1.50	1.41
83	A5	558	C	O4'-C1'	5.85	1.50	1.41
82	CG	270	GLN	CA-C	-5.85	1.45	1.52
36	B2	1722	U	C2'-C1'	-5.85	1.44	1.53
83	A5	2484	G	C2'-C1'	-5.85	1.44	1.53
8	AS	125	HIS	ND1-CE1	5.85	1.38	1.32
36	B2	471	U	C2'-C1'	-5.85	1.44	1.53
36	B2	1063	G	O4'-C1'	5.85	1.50	1.41
83	A5	2700	C	O4'-C1'	5.85	1.50	1.41
83	A5	3533	U	O4'-C1'	5.85	1.50	1.41
83	A5	2713	G	O4'-C1'	-5.85	1.33	1.42
83	A5	2810	A	O4'-C1'	5.85	1.50	1.41
36	B2	951	A	C2'-C1'	5.84	1.62	1.53
83	A5	3101	A	O4'-C1'	5.84	1.50	1.41
83	A5	617	U	C2'-C1'	-5.84	1.44	1.53
83	A5	2164	G	C2'-C1'	-5.84	1.44	1.53
83	A5	2602	A	C2'-C1'	5.84	1.62	1.53
85	A7	92	C	O4'-C1'	5.84	1.50	1.41
36	B2	900	A	O4'-C1'	-5.84	1.33	1.42
83	A5	286	A	C2'-C1'	5.84	1.61	1.53
83	A5	1917	U	C2'-C1'	5.84	1.62	1.53
83	A5	3720	A	O4'-C1'	5.84	1.50	1.41
36	B2	1971	A	O4'-C1'	5.83	1.50	1.41
63	CB	100	ARG	NE-CZ	5.83	1.39	1.33
83	A5	1780	U	O4'-C1'	5.83	1.50	1.41
54	CP	43	ARG	NE-CZ	5.83	1.39	1.33
83	A5	2601	A	C2'-C1'	-5.83	1.44	1.53
1	Az	506	LEU	CA-C	-5.83	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	CP	23	ARG	CD-NE	5.83	1.54	1.46
83	A5	241	C	C2'-C1'	-5.83	1.44	1.53
83	A5	337	A	C2'-C1'	-5.83	1.44	1.53
83	A5	720	G	C2'-C1'	-5.83	1.44	1.53
83	A5	3401	U	O4'-C1'	5.83	1.50	1.41
47	CI	10	ARG	NE-CZ	5.83	1.39	1.33
83	A5	635	G	C2'-C1'	-5.83	1.44	1.53
83	A5	2809	C	O4'-C1'	5.83	1.50	1.41
36	B2	426	A	C2'-C1'	5.82	1.62	1.53
83	A5	1034	U	O4'-C1'	5.82	1.50	1.41
22	Ac	36	ARG	CD-NE	5.82	1.54	1.46
83	A5	2853	A	C2'-C1'	-5.82	1.44	1.53
36	B2	1605	G	C2'-C1'	-5.82	1.44	1.53
83	A5	2718	U	O4'-C1'	5.82	1.50	1.41
36	B2	1412	A	O4'-C1'	5.82	1.50	1.41
5	AO	32	HIS	ND1-CE1	5.82	1.38	1.32
83	A5	165	G	O4'-C1'	5.82	1.50	1.41
83	A5	1049	C	O4'-C1'	5.82	1.50	1.41
53	CT	92	ARG	C-N	5.81	1.40	1.34
83	A5	1358	U	C2'-C1'	5.81	1.61	1.53
83	A5	1641	U	C2'-C1'	-5.81	1.44	1.53
11	AL	93	VAL	CA-C	-5.81	1.45	1.52
36	B2	1315	U	O4'-C1'	5.81	1.50	1.42
83	A5	3354	U	O4'-C1'	5.81	1.50	1.41
36	B2	397	G	C2'-C1'	5.81	1.62	1.53
36	B2	1329	A	O4'-C1'	5.81	1.50	1.41
83	A5	2808	G	C2'-C1'	-5.81	1.44	1.53
36	B2	1164	G	O4'-C1'	5.81	1.50	1.41
51	CA	43	GLY	CA-C	-5.81	1.47	1.52
61	Ch	70	ARG	NE-CZ	5.81	1.39	1.33
83	A5	723	U	O4'-C1'	5.81	1.50	1.41
83	A5	807	A	O4'-C1'	5.81	1.50	1.41
20	Aa	51	ARG	CD-NE	5.81	1.54	1.46
36	B2	446	A	O4'-C1'	5.80	1.50	1.41
83	A5	279	U	O4'-C1'	5.80	1.50	1.41
83	A5	413	A	O4'-C1'	5.80	1.50	1.41
83	A5	1425	U	O4'-C1'	5.80	1.50	1.41
83	A5	2743	C	C2'-C1'	-5.80	1.44	1.53
68	Cf	107	HIS	ND1-CE1	5.80	1.38	1.32
83	A5	96	G	C2'-C1'	-5.80	1.44	1.53
36	B2	137	C	C2'-C1'	-5.80	1.44	1.53
54	CP	111	ARG	NE-CZ	5.80	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	342	A	C2'-C1'	-5.80	1.44	1.53
83	A5	1006	A	C2'-C1'	-5.80	1.44	1.53
83	A5	1105	U	C2'-C1'	-5.80	1.44	1.53
83	A5	1540	U	O4'-C1'	5.80	1.50	1.41
83	A5	1586	A	C2'-C1'	-5.80	1.44	1.53
83	A5	3737	A	O4'-C1'	5.80	1.50	1.41
83	A5	562	U	O4'-C1'	5.80	1.50	1.41
83	A5	3245	U	C2'-C1'	-5.80	1.44	1.53
36	B2	454	C	C2'-C1'	-5.80	1.44	1.53
36	B2	1336	U	O4'-C1'	5.80	1.50	1.41
83	A5	389	G	C2'-C1'	-5.80	1.44	1.53
83	A5	970	A	O4'-C1'	5.80	1.50	1.41
33	AI	84	ASN	CA-C	-5.79	1.45	1.52
36	B2	39	A	C2'-C1'	5.79	1.61	1.53
36	B2	524	G	C2'-C1'	-5.79	1.44	1.53
83	A5	2851	U	O4'-C1'	5.79	1.50	1.41
83	A5	3778	U	C2'-C1'	5.79	1.62	1.53
83	A5	3866	U	O4'-C1'	5.79	1.50	1.41
85	A7	73	U	O4'-C1'	5.79	1.50	1.41
51	CA	89	TYR	N-CA	-5.79	1.39	1.46
63	CB	161	ARG	N-CA	-5.79	1.38	1.45
83	A5	416	C	C2'-C1'	5.79	1.61	1.53
83	A5	521	U	C2'-C1'	5.79	1.62	1.53
83	A5	1472	C	C2'-C1'	-5.79	1.44	1.53
83	A5	3961	G	C2'-C1'	-5.79	1.44	1.53
85	A7	46	C	C2'-C1'	-5.79	1.44	1.53
25	Af	128	ALA	CA-C	-5.79	1.45	1.52
36	B2	229	U	C2'-C1'	-5.79	1.44	1.53
36	B2	1215	G	C2'-C1'	-5.79	1.44	1.53
86	A8	48	G	C2'-C1'	-5.79	1.44	1.53
85	A7	114	U	O4'-C1'	5.79	1.50	1.41
36	B2	1433	A	O4'-C1'	5.79	1.50	1.41
36	B2	1554	U	C2'-C1'	5.79	1.62	1.53
71	Cj	63	ARG	NE-CZ	5.79	1.39	1.33
36	B2	1863	A	C2'-C1'	-5.78	1.44	1.53
83	A5	478	A	C2'-C1'	-5.78	1.44	1.53
36	B2	1676	A	O4'-C1'	5.78	1.50	1.41
83	A5	3668	G	C2'-C1'	-5.78	1.44	1.53
74	CC	283	PRO	N-CA	-5.78	1.40	1.47
83	A5	852	C	O4'-C1'	5.78	1.50	1.41
83	A5	3642	G	O4'-C1'	5.78	1.50	1.41
29	AG	94	ARG	NE-CZ	5.78	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	AM	39	VAL	C-N	5.78	1.41	1.33
36	B2	871	G	O4'-C1'	5.78	1.50	1.41
36	B2	1044	G	C2'-C1'	-5.78	1.44	1.53
83	A5	3493	U	O4'-C1'	5.78	1.50	1.41
36	B2	837	A	C2'-C1'	-5.77	1.44	1.53
47	CI	110	ARG	NE-CZ	5.77	1.39	1.33
64	CF	238	GLY	CA-C	-5.77	1.45	1.51
83	A5	977	C	O4'-C1'	5.77	1.50	1.41
83	A5	1746	A	C2'-C1'	-5.77	1.44	1.53
83	A5	2924	A	C2'-C1'	-5.77	1.44	1.53
47	CI	153	ARG	CZ-NH1	5.77	1.40	1.32
49	CQ	38	ARG	CD-NE	5.77	1.54	1.46
36	B2	314	C	C2'-C1'	-5.77	1.44	1.53
50	CR	81	ARG	CD-NE	5.77	1.54	1.46
83	A5	1236	C	O4'-C1'	5.77	1.50	1.41
36	B2	36	C	C2'-C1'	-5.76	1.44	1.53
83	A5	3285	G	C2'-C1'	-5.76	1.44	1.53
83	A5	665	U	O4'-C1'	5.76	1.50	1.41
83	A5	1575	U	O4'-C1'	5.76	1.50	1.41
83	A5	3656	A	O4'-C1'	5.76	1.50	1.41
14	AT	83	LYS	CA-C	-5.76	1.45	1.52
21	Ab	9	HIS	ND1-CE1	5.76	1.38	1.32
83	A5	1874	G	C2'-C1'	-5.75	1.44	1.53
71	Cj	75	ARG	CZ-NH1	5.75	1.40	1.32
56	CX	168	ARG	NE-CZ	5.75	1.39	1.33
83	A5	820	A	O4'-C1'	5.75	1.50	1.41
83	A5	3201	U	O4'-C1'	5.75	1.50	1.41
85	A7	88	G	C2'-C1'	-5.75	1.44	1.53
10	AN	104	ARG	CD-NE	5.75	1.54	1.46
36	B2	1100	A	O4'-C1'	5.75	1.50	1.41
63	CB	211	PHE	C-N	5.75	1.39	1.33
74	CC	145	HIS	ND1-CE1	5.75	1.38	1.32
83	A5	1911	C	C2'-C1'	5.75	1.61	1.53
83	A5	3703	C	O4'-C1'	5.75	1.50	1.41
83	A5	1327	G	O4'-C1'	5.75	1.50	1.41
83	A5	1934	C	O4'-C1'	5.75	1.50	1.41
35	Ah	136	ARG	CD-NE	5.74	1.54	1.46
83	A5	3307	A	C2'-C1'	-5.74	1.44	1.53
11	AL	32	ARG	NE-CZ	5.74	1.39	1.33
36	B2	1587	U	C2'-C1'	5.74	1.61	1.53
36	B2	1773	C	C2'-C1'	-5.74	1.44	1.53
83	A5	1125	A	O4'-C1'	5.74	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
51	CA	145	LYS	N-CA	-5.74	1.39	1.46
79	CJ	24	LYS	CA-C	-5.74	1.45	1.52
83	A5	1490	C	O4'-C1'	5.74	1.50	1.41
83	A5	3194	A	C2'-C1'	-5.74	1.44	1.53
83	A5	2801	U	O4'-C1'	5.74	1.50	1.41
83	A5	2098	C	C2'-C1'	5.74	1.61	1.53
83	A5	290	G	C2'-C1'	-5.73	1.44	1.53
1	Az	131	VAL	CA-C	-5.73	1.45	1.52
36	B2	78	A	C2'-C1'	5.73	1.61	1.53
36	B2	550	C	C2'-C1'	5.73	1.61	1.53
36	B2	1004	C	O4'-C1'	5.73	1.50	1.41
2	Ag	65	HIS	ND1-CE1	5.73	1.38	1.32
6	AX	8	ARG	CD-NE	5.73	1.54	1.46
25	Af	139	HIS	ND1-CE1	5.73	1.38	1.32
31	AH	118	ARG	NE-CZ	5.73	1.39	1.33
51	CA	216	HIS	CA-C	-5.73	1.50	1.53
68	Cf	40	SER	C-N	5.73	1.41	1.33
83	A5	1009	G	O4'-C1'	5.73	1.50	1.41
83	A5	3508	G	O4'-C1'	5.73	1.50	1.41
3	AU	87	HIS	ND1-CE1	5.73	1.38	1.32
36	B2	511	G	C2'-C1'	5.73	1.61	1.53
36	B2	612	A	O4'-C1'	5.72	1.50	1.41
37	BC	25	G	O4'-C1'	5.72	1.50	1.41
44	CM	61	ARG	CD-NE	5.72	1.54	1.46
83	A5	66	A	O4'-C1'	5.72	1.50	1.41
83	A5	316	U	O4'-C1'	5.72	1.50	1.41
83	A5	982	C	O4'-C1'	5.72	1.50	1.41
83	A5	2137	U	C2'-C1'	5.72	1.61	1.53
83	A5	3348	G	O4'-C1'	5.72	1.50	1.42
1	Az	259	LYS	CA-CB	5.72	1.62	1.53
83	A5	1414	C	C2'-C1'	-5.72	1.44	1.53
83	A5	3302	G	C2'-C1'	-5.72	1.44	1.53
29	AG	25	ARG	NE-CZ	5.72	1.39	1.33
83	A5	1310	A	C2'-C1'	5.72	1.61	1.53
83	A5	2727	U	O4'-C1'	5.72	1.50	1.41
83	A5	3371	G	C2'-C1'	-5.72	1.44	1.53
15	AB	42	ARG	NE-CZ	5.71	1.39	1.33
36	B2	373	U	C2'-C1'	5.71	1.61	1.53
83	A5	1498	C	O4'-C1'	5.71	1.50	1.41
83	A5	2873	C	C2'-C1'	-5.71	1.44	1.53
83	A5	1906	G	C2'-C1'	-5.71	1.44	1.53
83	A5	2789	U	O4'-C1'	5.71	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3636	G	O4'-C1'	5.71	1.50	1.41
2	Ag	11	LEU	N-CA	-5.71	1.39	1.46
14	AT	48	TYR	CA-C	-5.71	1.45	1.52
36	B2	41	A	C2'-C1'	5.71	1.61	1.53
36	B2	1393	C	C2'-C1'	-5.71	1.44	1.53
36	B2	1742	A	C2'-C1'	-5.71	1.44	1.53
56	CX	229	HIS	ND1-CE1	5.71	1.38	1.32
83	A5	1063	C	O4'-C1'	5.71	1.50	1.41
83	A5	2761	A	O4'-C1'	5.71	1.50	1.41
48	CD	195	HIS	ND1-CE1	5.71	1.38	1.32
83	A5	96	G	O4'-C1'	5.71	1.50	1.41
47	CI	124	GLY	CA-C	-5.71	1.45	1.51
83	A5	1538	U	O4'-C1'	5.71	1.50	1.41
83	A5	2224	A	C2'-C1'	-5.70	1.44	1.53
83	A5	3670	G	O4'-C1'	5.70	1.50	1.41
83	A5	3696	C	C2'-C1'	-5.70	1.44	1.53
83	A5	3916	U	O4'-C1'	5.70	1.50	1.41
79	CJ	164	LYS	N-CA	-5.70	1.39	1.46
83	A5	163	A	O3'-P	-5.70	1.52	1.61
36	B2	1224	U	O4'-C1'	5.70	1.50	1.41
36	B2	1730	U	O4'-C1'	5.70	1.50	1.41
70	Ci	21	ARG	CD-NE	5.70	1.54	1.46
83	A5	1621	A	O4'-C1'	5.70	1.50	1.41
83	A5	1930	G	C2'-C1'	5.70	1.61	1.53
36	B2	1775	A	C2'-C1'	-5.70	1.44	1.53
66	Cd	92	ASP	C-N	5.69	1.41	1.33
36	B2	1141	C	C2'-C1'	-5.69	1.44	1.53
46	CN	166	SER	CA-C	-5.69	1.45	1.52
74	CC	360	LYS	N-CA	-5.69	1.39	1.46
83	A5	2465	U	O4'-C1'	5.69	1.50	1.41
83	A5	2745	A	C2'-C1'	-5.69	1.44	1.53
83	A5	3572	G	C2'-C1'	-5.69	1.44	1.53
83	A5	2739	A	O4'-C1'	5.69	1.50	1.41
83	A5	3817	U	O4'-C1'	5.69	1.50	1.41
83	A5	3337	G	C2'-C1'	-5.69	1.44	1.53
83	A5	2830	G	C2'-C1'	-5.69	1.44	1.53
36	B2	371	A	C2'-C1'	5.69	1.61	1.53
41	CO	80	ARG	CD-NE	5.68	1.54	1.46
83	A5	1695	A	O4'-C1'	5.68	1.50	1.41
83	A5	2754	G	O4'-C1'	5.68	1.50	1.41
36	B2	150	G	C2'-C1'	-5.68	1.44	1.53
36	B2	1302	U	O4'-C1'	5.68	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
50	CR	38	ARG	NE-CZ	5.68	1.39	1.33
36	B2	58	U	C2'-C1'	5.67	1.61	1.53
83	A5	3316	U	C2'-C1'	-5.67	1.44	1.53
83	A5	475	U	C2'-C1'	-5.67	1.44	1.53
74	CC	306	ARG	NE-CZ	5.67	1.39	1.33
26	AJ	5	ARG	NE-CZ	5.67	1.39	1.33
36	B2	1157	C	O4'-C1'	5.67	1.50	1.41
83	A5	1774	C	C2'-C1'	-5.67	1.44	1.53
83	A5	652	G	O4'-C1'	5.67	1.50	1.42
83	A5	1792	G	C4'-C3'	5.67	1.61	1.52
83	A5	3904	G	O4'-C1'	5.67	1.50	1.41
36	B2	349	A	C2'-C1'	-5.67	1.44	1.53
83	A5	629	A	O4'-C1'	5.67	1.50	1.41
83	A5	2603	U	C2'-C1'	5.67	1.61	1.53
47	CI	92	HIS	ND1-CE1	5.66	1.38	1.32
83	A5	440	U	P-O5'	-5.66	1.51	1.59
39	Cq	28	PHE	CA-C	-5.66	1.45	1.52
51	CA	68	ARG	CA-C	-5.66	1.45	1.52
56	CX	178	SER	CA-CB	5.66	1.57	1.52
67	Ce	15	ARG	CD-NE	5.66	1.54	1.46
83	A5	1019	U	C2'-C1'	5.66	1.61	1.53
36	B2	299	C	C2'-C1'	-5.66	1.44	1.53
83	A5	3513	A	O4'-C1'	5.66	1.50	1.41
83	A5	3893	A	O4'-C1'	-5.66	1.33	1.41
86	A8	106	A	O4'-C1'	5.66	1.50	1.41
76	Cn	12	ARG	CA-C	-5.66	1.45	1.52
83	A5	2555	G	O4'-C1'	5.66	1.50	1.42
36	B2	1097	C	C2'-C1'	-5.65	1.44	1.53
67	Ce	47	ARG	CD-NE	5.65	1.54	1.46
36	B2	516	U	O4'-C1'	5.65	1.50	1.41
36	B2	1897	U	O4'-C1'	5.65	1.50	1.41
83	A5	259	A	O4'-C1'	5.65	1.50	1.41
83	A5	3327	U	C2'-C1'	5.65	1.61	1.53
85	A7	82	G	C2'-C1'	-5.65	1.44	1.53
36	B2	250	U	O4'-C1'	5.65	1.50	1.41
36	B2	1329	A	C2'-C1'	-5.65	1.44	1.53
1	Az	490	VAL	CA-C	-5.65	1.45	1.52
36	B2	97	U	O4'-C1'	5.65	1.50	1.41
83	A5	1577	A	O4'-C1'	5.65	1.50	1.41
36	B2	1784	G	C2'-C1'	-5.65	1.44	1.53
36	B2	1959	C	O4'-C1'	5.65	1.50	1.41
83	A5	103	A	C2'-C1'	5.65	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1359	G	C2'-C1'	-5.65	1.44	1.53
83	A5	2206	U	C2'-C1'	-5.65	1.44	1.53
85	A7	108	G	O4'-C1'	5.65	1.50	1.41
29	AG	120	ASP	C-N	5.64	1.39	1.33
36	B2	513	A	C2'-C1'	5.64	1.61	1.53
41	CO	20	ARG	CZ-NH2	5.64	1.40	1.33
52	CS	170	ARG	NE-CZ	5.64	1.39	1.33
36	B2	1410	C	C2'-C1'	-5.64	1.44	1.53
83	A5	467	A	C2'-C1'	-5.64	1.44	1.53
36	B2	596	U	O4'-C1'	5.64	1.50	1.41
49	CQ	13	VAL	C-N	5.64	1.41	1.33
36	B2	14	C	C2'-C1'	-5.64	1.44	1.53
83	A5	2563	G	C2'-C1'	-5.64	1.44	1.53
83	A5	3830	A	O4'-C1'	5.64	1.50	1.41
78	Co	60	ALA	C-N	5.63	1.41	1.33
83	A5	1585	U	C2'-C1'	5.63	1.61	1.53
83	A5	1944	C	O4'-C1'	5.63	1.50	1.41
83	A5	3298	U	O4'-C1'	5.63	1.50	1.41
36	B2	371	A	O4'-C1'	5.63	1.50	1.41
36	B2	1741	A	C2'-C1'	-5.63	1.45	1.53
83	A5	1666	A	O4'-C1'	5.63	1.50	1.41
83	A5	1211	A	C2'-C1'	-5.63	1.45	1.53
36	B2	1385	U	O4'-C1'	5.63	1.50	1.41
83	A5	571	U	C2'-C1'	-5.63	1.45	1.53
85	A7	4	A	O4'-C1'	5.63	1.50	1.41
69	Cg	108	ARG	NE-CZ	5.63	1.39	1.33
83	A5	636	U	C2'-C1'	5.63	1.61	1.53
83	A5	1055	U	O4'-C1'	5.63	1.50	1.41
83	A5	1071	U	O4'-C1'	5.63	1.50	1.41
83	A5	1367	A	O4'-C1'	5.63	1.50	1.41
36	B2	1342	G	C2'-C1'	5.62	1.61	1.53
83	A5	3267	C	C2'-C1'	-5.62	1.45	1.53
50	CR	151	ARG	NE-CZ	5.62	1.39	1.33
83	A5	969	A	C2'-C1'	-5.62	1.45	1.53
83	A5	2062	A	C2'-C1'	5.62	1.61	1.53
36	B2	143	U	O4'-C1'	5.62	1.50	1.41
36	B2	315	C	O4'-C1'	5.62	1.50	1.41
36	B2	1932	A	O4'-C1'	5.62	1.50	1.41
51	CA	245	ARG	C-N	5.62	1.39	1.33
83	A5	595	U	O4'-C1'	5.62	1.50	1.41
83	A5	672	U	O3'-P	-5.62	1.52	1.61
83	A5	3232	G	O4'-C1'	5.62	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2607	A	C2'-C1'	-5.62	1.45	1.53
36	B2	524	G	O4'-C1'	5.62	1.50	1.41
58	CW	77	LYS	C-N	5.62	1.41	1.33
83	A5	403	A	O4'-C1'	5.62	1.50	1.41
83	A5	444	C	C2'-C1'	-5.62	1.45	1.53
83	A5	2054	U	C5'-C4'	5.62	1.59	1.51
1	Az	799	VAL	C-N	5.62	1.41	1.33
51	CA	123	ARG	NE-CZ	5.62	1.39	1.33
74	CC	245	PRO	CA-C	-5.62	1.46	1.52
83	A5	3226	A	O4'-C1'	5.62	1.50	1.41
85	A7	69	C	C2'-C1'	-5.62	1.45	1.53
36	B2	203	G	C2'-C1'	-5.61	1.45	1.53
36	B2	1099	U	C4'-O4'	-5.61	1.37	1.45
36	B2	1746	A	O4'-C1'	5.61	1.50	1.41
83	A5	3294	A	C2'-C1'	5.61	1.61	1.53
36	B2	1414	C	O4'-C1'	5.61	1.50	1.41
39	Cq	18	ILE	C-N	5.61	1.41	1.33
63	CB	300	LYS	CA-C	-5.61	1.46	1.52
83	A5	403	A	C2'-C1'	-5.61	1.45	1.53
36	B2	246	U	O4'-C1'	5.61	1.50	1.41
37	BC	35	U	O4'-C1'	5.61	1.50	1.41
83	A5	3200	G	C2'-C1'	5.61	1.61	1.53
83	A5	2100	U	C2'-C1'	5.60	1.61	1.53
2	Ag	190	HIS	ND1-CE1	5.60	1.38	1.32
29	AG	95	LYS	CA-C	-5.60	1.45	1.52
64	CF	45	VAL	CA-CB	-5.60	1.46	1.54
46	CN	60	VAL	CA-C	-5.60	1.45	1.52
83	A5	438	G	C2'-C1'	-5.60	1.45	1.53
83	A5	2837	A	O4'-C1'	5.60	1.50	1.41
36	B2	1929	U	C2'-C1'	-5.60	1.45	1.53
83	A5	2075	A	O4'-C1'	5.60	1.50	1.41
83	A5	1037	A	O4'-C1'	5.59	1.50	1.41
49	CQ	172	ARG	NE-CZ	5.59	1.39	1.33
1	Az	755	HIS	ND1-CE1	5.59	1.38	1.32
36	B2	1295	U	O4'-C1'	5.59	1.50	1.42
83	A5	2228	U	O4'-C1'	5.59	1.50	1.41
83	A5	2908	U	O4'-C1'	5.59	1.50	1.42
36	B2	996	U	O4'-C1'	5.59	1.50	1.41
36	B2	1432	A	C2'-C1'	5.59	1.61	1.53
74	CC	115	HIS	ND1-CE1	5.59	1.38	1.32
14	AT	144	ASP	CA-C	-5.58	1.45	1.52
36	B2	309	U	O4'-C1'	5.58	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	CL	100	ARG	NE-CZ	5.58	1.39	1.33
83	A5	1656	U	C2'-C1'	-5.58	1.45	1.53
83	A5	1770	C	C2'-C1'	-5.58	1.45	1.53
83	A5	1519	A	O4'-C1'	-5.58	1.33	1.41
83	A5	2141	A	C2'-C1'	5.58	1.61	1.53
83	A5	2790	G	O4'-C1'	5.58	1.50	1.41
83	A5	3140	G	O4'-C1'	5.58	1.50	1.41
36	B2	143	U	C2'-C1'	-5.58	1.45	1.53
83	A5	734	U	O4'-C1'	5.58	1.50	1.41
83	A5	3960	U	C2'-C1'	5.58	1.61	1.53
83	A5	374	C	O4'-C1'	5.58	1.50	1.41
83	A5	1996	U	O4'-C1'	5.58	1.50	1.41
83	A5	1261	A	C2'-C1'	-5.57	1.45	1.53
83	A5	3509	U	O4'-C1'	5.57	1.50	1.42
83	A5	3751	C	O4'-C1'	5.57	1.50	1.41
53	CT	75	ILE	CA-C	-5.57	1.47	1.53
83	A5	3129	U	C2'-C1'	-5.57	1.45	1.53
83	A5	3725	U	C2'-C1'	5.57	1.61	1.53
83	A5	3961	G	O4'-C1'	5.57	1.50	1.41
85	A7	74	A	C2'-C1'	5.57	1.61	1.53
83	A5	2025	G	O4'-C1'	5.57	1.50	1.41
61	Ch	10	ARG	NE-CZ	5.57	1.39	1.33
83	A5	1685	G	O4'-C1'	5.57	1.50	1.41
83	A5	1424	G	O4'-C1'	5.57	1.50	1.41
83	A5	528	U	O4'-C1'	5.56	1.50	1.41
29	AG	6	SER	CA-C	-5.56	1.45	1.52
37	BC	59	A	O4'-C1'	5.56	1.50	1.42
83	A5	2498	U	O4'-C1'	5.56	1.50	1.41
83	A5	2994	C	O4'-C1'	5.56	1.50	1.42
2	Ag	258	LYS	CA-C	-5.56	1.46	1.52
58	CW	117	ARG	NE-CZ	5.56	1.39	1.33
83	A5	1654	C	C2'-C1'	-5.56	1.45	1.53
27	AE	145	ARG	NE-CZ	5.56	1.39	1.33
72	Ck	16	ARG	CD-NE	5.56	1.54	1.46
50	CR	117	ARG	NE-CZ	5.55	1.39	1.33
64	CF	39	ARG	CA-C	-5.55	1.45	1.52
83	A5	1243	A	C2'-C1'	-5.55	1.45	1.53
83	A5	1807	U	O4'-C1'	5.55	1.50	1.41
36	B2	379	U	C2'-C1'	-5.55	1.45	1.53
36	B2	442	A	C2'-C1'	5.55	1.61	1.53
83	A5	1751	U	C2'-C1'	-5.55	1.45	1.53
15	AB	104	HIS	ND1-CE1	5.55	1.38	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	Ac	9	ARG	C-N	5.55	1.39	1.33
81	CE	101	LEU	CA-C	-5.55	1.45	1.52
83	A5	3490	C	C2'-C1'	-5.55	1.45	1.53
1	Az	619	ARG	NE-CZ	5.55	1.39	1.33
36	B2	1739	U	C2'-C1'	-5.55	1.45	1.53
83	A5	1539	A	O4'-C1'	5.55	1.50	1.41
1	Az	487	VAL	CA-CB	-5.54	1.47	1.54
17	AV	60	ARG	NE-CZ	5.54	1.39	1.33
84	A9	15	A	O4'-C1'	5.54	1.50	1.41
83	A5	1808	A	C2'-C1'	-5.54	1.45	1.53
85	A7	120	U	C2'-C1'	-5.54	1.45	1.53
26	AJ	110	ARG	CZ-NH1	5.54	1.40	1.32
36	B2	1769	A	O4'-C1'	5.54	1.50	1.41
36	B2	1963	G	C2'-C1'	-5.54	1.45	1.53
83	A5	165	G	C2'-C1'	-5.54	1.45	1.53
83	A5	1891	U	C2'-C1'	5.54	1.61	1.53
54	CP	70	CYS	CA-C	-5.54	1.45	1.52
78	Co	85	ARG	CZ-NH1	5.54	1.40	1.32
83	A5	1552	A	C2'-C1'	-5.54	1.45	1.53
83	A5	2903	U	O4'-C1'	5.54	1.50	1.41
36	B2	862	C	C2'-C1'	-5.54	1.45	1.53
83	A5	1310	A	O4'-C1'	5.54	1.50	1.41
36	B2	195	G	C2'-C1'	5.54	1.61	1.53
36	B2	878	C	C2'-C1'	5.54	1.61	1.53
51	CA	83	HIS	CA-C	-5.54	1.45	1.52
61	Ch	109	ARG	CD-NE	5.54	1.54	1.46
81	CE	20	HIS	ND1-CE1	5.54	1.38	1.32
84	A9	26	U	C2'-C1'	-5.54	1.45	1.53
2	Ag	47	ARG	NE-CZ	5.53	1.39	1.33
41	CO	162	ARG	NE-CZ	5.53	1.39	1.33
67	Ce	94	TYR	CA-C	-5.53	1.46	1.52
83	A5	58	G	O4'-C1'	-5.53	1.33	1.41
83	A5	2055	G	O4'-C1'	5.53	1.50	1.41
83	A5	2068	A	C2'-C1'	-5.53	1.45	1.53
53	CT	107	ARG	CZ-NH1	5.53	1.40	1.32
14	AT	52	TRP	CA-CB	5.53	1.61	1.54
83	A5	115	U	C2'-C1'	5.53	1.61	1.53
83	A5	1051	C	C2'-C1'	-5.53	1.45	1.53
83	A5	3169	A	O4'-C1'	5.53	1.50	1.41
80	CH	40	HIS	ND1-CE1	5.53	1.38	1.32
11	AL	126	GLY	C-N	5.53	1.40	1.33
83	A5	1351	C	C2'-C1'	-5.53	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3143	U	C5'-C4'	5.53	1.59	1.51
32	AW	50	PHE	CA-C	-5.52	1.46	1.52
83	A5	1228	C	C2'-C1'	5.52	1.61	1.53
83	A5	3451	A	O4'-C1'	5.52	1.50	1.41
1	Az	563	VAL	C-N	5.52	1.41	1.33
51	CA	92	ARG	NE-CZ	5.52	1.39	1.33
83	A5	712	U	O4'-C1'	5.52	1.50	1.41
83	A5	3947	C	O4'-C1'	5.52	1.50	1.41
83	A5	914	C	O4'-C1'	5.52	1.50	1.41
83	A5	1357	C	C2'-C1'	-5.52	1.44	1.53
36	B2	95	G	O4'-C1'	5.52	1.50	1.41
44	CM	11	ARG	NE-CZ	5.52	1.39	1.33
64	CF	181	LYS	N-CA	-5.52	1.38	1.46
7	AM	36	ASP	N-CA	-5.52	1.39	1.46
28	AC	183	ARG	NE-CZ	5.52	1.39	1.33
36	B2	1529	G	C2'-C1'	5.52	1.61	1.53
69	Cg	16	ARG	NE-CZ	5.52	1.39	1.33
74	CC	103	ARG	NE-CZ	5.52	1.39	1.33
19	AZ	86	ALA	C-N	5.51	1.41	1.33
83	A5	861	C	O4'-C1'	5.51	1.50	1.41
83	A5	2550	G	C2'-C1'	-5.51	1.45	1.53
36	B2	1937	U	O4'-C1'	5.51	1.50	1.41
57	CY	39	ARG	CD-NE	5.51	1.53	1.46
83	A5	146	A	O4'-C1'	5.51	1.50	1.41
83	A5	157	C	C2'-C1'	5.51	1.61	1.53
83	A5	1568	A	O4'-C1'	5.51	1.50	1.41
83	A5	3669	U	C2'-C1'	-5.51	1.45	1.53
36	B2	902	A	C2'-C1'	-5.51	1.45	1.53
36	B2	1845	C	C2'-C1'	-5.51	1.45	1.53
71	Cj	72	ARG	NE-CZ	5.51	1.39	1.33
36	B2	1578	U	O4'-C1'	5.51	1.50	1.41
42	CL	6	ASN	CA-CB	5.51	1.60	1.53
61	Ch	51	ARG	CD-NE	5.51	1.53	1.46
81	CE	107	ARG	CD-NE	5.51	1.53	1.46
83	A5	136	C	O4'-C1'	5.51	1.50	1.41
83	A5	1694	A	O4'-C1'	5.51	1.50	1.41
36	B2	1989	A	C2'-C1'	-5.50	1.44	1.53
83	A5	3402	C	O4'-C1'	5.50	1.50	1.41
16	AA	176	TRP	CA-C	-5.50	1.45	1.52
46	CN	197	ARG	NE-CZ	5.50	1.39	1.33
83	A5	2897	G	O4'-C1'	-5.50	1.33	1.41
83	A5	3648	A	C2'-C1'	-5.50	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	AR	33	ARG	CD-NE	5.50	1.53	1.46
17	AV	61	ARG	NE-CZ	5.50	1.39	1.33
36	B2	534	A	O4'-C1'	5.50	1.50	1.41
36	B2	1080	A	C2'-C1'	-5.50	1.45	1.53
44	CM	51	ARG	CD-NE	5.50	1.53	1.46
80	CH	102	VAL	CA-C	-5.50	1.46	1.52
36	B2	545	A	O4'-C1'	5.50	1.49	1.41
83	A5	1144	C	C2'-C1'	-5.50	1.45	1.53
83	A5	2120	G	C2'-C1'	-5.50	1.45	1.53
83	A5	2823	A	C2'-C1'	-5.50	1.45	1.53
38	Cz	24	LYS	C-N	5.50	1.41	1.33
18	AY	108	ARG	NE-CZ	5.49	1.39	1.33
37	BC	16	U	C2'-C1'	5.49	1.61	1.53
68	Cf	91	ARG	CD-NE	5.49	1.53	1.46
36	B2	82	G	C2'-C1'	-5.49	1.45	1.53
83	A5	3181	G	C2'-C1'	-5.49	1.45	1.53
83	A5	3459	C	C2'-C1'	-5.49	1.45	1.53
36	B2	911	C	O4'-C1'	5.49	1.49	1.41
83	A5	336	A	C2'-C1'	-5.49	1.45	1.53
83	A5	3495	G	O4'-C1'	-5.49	1.33	1.41
76	Cn	18	ARG	CD-NE	5.49	1.53	1.46
36	B2	1581	A	C2'-C1'	-5.49	1.44	1.53
83	A5	1717	A	C2'-C1'	-5.49	1.45	1.53
83	A5	1872	A	C2'-C1'	-5.49	1.44	1.53
83	A5	3202	G	C2'-C1'	-5.48	1.45	1.53
83	A5	3370	A	C2'-C1'	5.48	1.61	1.53
36	B2	338	C	O4'-C1'	5.48	1.49	1.41
36	B2	571	U	C2'-C1'	-5.48	1.45	1.53
57	CY	97	VAL	C-N	5.48	1.38	1.33
83	A5	2687	A	O4'-C1'	5.48	1.50	1.42
83	A5	2877	G	C2'-C1'	5.48	1.61	1.53
45	Ca	66	ARG	CD-NE	5.48	1.53	1.46
86	A8	65	G	C2'-C1'	-5.48	1.45	1.53
36	B2	843	G	C2'-C1'	-5.48	1.45	1.53
41	CO	180	THR	C-N	5.48	1.40	1.33
83	A5	122	C	C2'-C1'	-5.48	1.45	1.53
46	CN	144	ARG	NE-CZ	5.47	1.39	1.33
84	A9	12	C	C2'-C1'	-5.47	1.45	1.53
36	B2	329	U	C2'-C1'	5.47	1.61	1.53
36	B2	1886	G	O4'-C1'	5.47	1.49	1.41
83	A5	984	U	O4'-C1'	-5.47	1.33	1.42
83	A5	2914	A	C2'-C1'	-5.47	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3260	G	C5'-C4'	5.47	1.59	1.51
36	B2	1035	G	C2'-C1'	-5.47	1.45	1.53
36	B2	1349	U	O4'-C1'	5.47	1.49	1.41
83	A5	1195	U	O4'-C1'	5.47	1.49	1.41
83	A5	1339	U	O4'-C1'	5.47	1.49	1.41
31	AH	46	ARG	NE-CZ	5.47	1.39	1.33
36	B2	174	A	O4'-C1'	-5.47	1.33	1.41
36	B2	899	A	O3'-P	-5.47	1.52	1.61
43	CV	131	ARG	CD-NE	5.47	1.53	1.46
64	CF	225	ARG	NE-CZ	5.47	1.39	1.33
83	A5	3210	A	C2'-C1'	-5.47	1.45	1.53
83	A5	3697	A	O3'-P	-5.47	1.52	1.61
63	CB	169	ARG	NE-CZ	5.47	1.39	1.33
83	A5	1322	U	O4'-C1'	5.47	1.49	1.41
36	B2	1806	A	O4'-C1'	-5.47	1.33	1.41
74	CC	83	ARG	CD-NE	5.47	1.53	1.46
83	A5	2636	U	O4'-C1'	5.47	1.49	1.41
83	A5	3921	A	O4'-C1'	5.47	1.49	1.41
36	B2	265	A	O4'-C1'	5.46	1.50	1.42
36	B2	1039	A	C2'-C1'	-5.46	1.45	1.53
83	A5	62	G	C2'-C1'	-5.46	1.45	1.53
86	A8	98	U	O4'-C1'	5.46	1.49	1.41
46	CN	109	ARG	CD-NE	5.46	1.53	1.46
83	A5	2732	C	O4'-C1'	5.46	1.49	1.41
29	AG	77	LEU	CA-C	-5.46	1.46	1.52
73	Cl	21	ARG	CD-NE	5.46	1.53	1.46
83	A5	620	U	C2'-C1'	5.46	1.61	1.53
83	A5	977	C	C2'-C1'	-5.46	1.45	1.53
36	B2	1010	A	C2'-C1'	-5.46	1.45	1.53
32	AW	78	ARG	C-N	5.46	1.41	1.33
36	B2	443	A	O4'-C1'	5.46	1.50	1.42
49	CQ	65	ARG	NE-CZ	5.46	1.39	1.33
63	CB	116	ARG	CD-NE	5.46	1.53	1.46
83	A5	1017	A	O4'-C1'	5.46	1.50	1.42
36	B2	993	A	O4'-C1'	5.46	1.49	1.41
27	AE	139	LEU	CA-C	-5.45	1.46	1.52
83	A5	2071	A	O4'-C1'	5.45	1.49	1.41
83	A5	3211	A	O4'-C1'	-5.45	1.33	1.41
83	A5	3843	U	O4'-C1'	-5.45	1.33	1.41
83	A5	3816	A	C2'-C1'	5.45	1.61	1.53
30	AF	120	SER	CA-C	-5.45	1.45	1.52
36	B2	535	A	O4'-C1'	5.45	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
51	CA	92	ARG	CD-NE	5.45	1.53	1.46
82	CG	108	ARG	NE-CZ	5.45	1.39	1.33
83	A5	2498	U	C2'-C1'	-5.45	1.45	1.53
83	A5	3688	A	C2'-C1'	-5.45	1.45	1.53
36	B2	1285	C	O4'-C1'	5.45	1.49	1.41
83	A5	3164	C	O4'-C1'	5.45	1.49	1.41
83	A5	3120	C	O4'-C1'	5.44	1.49	1.41
36	B2	937	A	C2'-C1'	-5.44	1.45	1.53
83	A5	1224	A	O4'-C1'	5.44	1.49	1.41
83	A5	3144	U	C2'-C1'	5.44	1.61	1.53
52	CS	74	LYS	N-CA	-5.44	1.39	1.46
81	CE	242	ARG	NE-CZ	5.44	1.39	1.33
83	A5	635	G	O4'-C1'	5.44	1.49	1.41
83	A5	3345	A	O4'-C1'	5.44	1.49	1.41
36	B2	1372	U	O4'-C1'	-5.44	1.33	1.42
36	B2	1634	U	C2'-C1'	5.44	1.61	1.53
85	A7	3	C	C2'-C1'	-5.44	1.45	1.53
83	A5	2598	A	C2'-C1'	-5.44	1.45	1.53
38	Cz	205	HIS	ND1-CE1	5.43	1.38	1.32
63	CB	93	ILE	CA-C	-5.43	1.46	1.52
73	Cl	42	ARG	CD-NE	5.43	1.53	1.46
83	A5	360	A	O4'-C1'	-5.43	1.33	1.42
83	A5	891	U	O4'-C1'	5.43	1.49	1.41
83	A5	1280	C	C2'-C1'	-5.43	1.45	1.53
83	A5	1511	C	C2'-C1'	-5.43	1.45	1.53
83	A5	3435	A	O4'-C1'	5.43	1.49	1.41
16	AA	49	LEU	CA-C	-5.43	1.46	1.52
22	Ac	9	ARG	NE-CZ	5.43	1.39	1.33
46	CN	69	GLY	C-N	5.43	1.38	1.33
83	A5	3528	A	C2'-C1'	5.43	1.61	1.53
29	AG	75	LEU	CA-C	-5.43	1.45	1.52
36	B2	1633	C	C2'-C1'	-5.43	1.45	1.53
64	CF	243	GLN	C-N	5.43	1.40	1.34
83	A5	2172	C	O3'-P	-5.43	1.53	1.61
83	A5	3586	A	O4'-C1'	5.43	1.49	1.41
52	CS	95	ARG	NE-CZ	5.43	1.39	1.33
83	A5	155	U	O3'-P	-5.43	1.53	1.61
83	A5	3485	U	O4'-C1'	5.43	1.50	1.42
36	B2	697	U	O3'-P	-5.43	1.53	1.61
36	B2	299	C	O4'-C1'	5.42	1.49	1.41
83	A5	124	A	C2'-C1'	5.42	1.61	1.53
85	A7	116	G	C2'-C1'	-5.42	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A8	98	U	C2'-C1'	-5.42	1.45	1.53
36	B2	637	U	O4'-C1'	5.42	1.49	1.41
36	B2	1654	G	O4'-C1'	-5.42	1.33	1.41
44	CM	35	ARG	CZ-NH1	5.42	1.40	1.32
63	CB	199	GLU	N-CA	-5.42	1.39	1.46
83	A5	3573	C	O4'-C1'	5.42	1.49	1.41
25	Af	93	HIS	C-N	5.42	1.40	1.34
27	AE	171	ASP	C-N	5.42	1.40	1.33
32	AW	20	ARG	CZ-NH1	5.42	1.40	1.32
36	B2	958	G	O4'-C1'	5.42	1.49	1.41
36	B2	1438	U	O4'-C1'	5.42	1.49	1.41
74	CC	191	ARG	NE-CZ	5.42	1.39	1.33
36	B2	386	C	C2'-C1'	-5.42	1.45	1.53
83	A5	2095	U	C2'-C1'	-5.42	1.45	1.53
84	A9	8	A	C2'-C1'	-5.42	1.45	1.53
33	AI	129	HIS	ND1-CE1	5.42	1.38	1.32
63	CB	407	ALA	CA-C	-5.42	1.45	1.52
83	A5	1718	G	O4'-C1'	5.42	1.49	1.41
36	B2	1705	G	C2'-C1'	-5.42	1.45	1.53
83	A5	235	A	C2'-C1'	5.42	1.61	1.53
83	A5	243	A	O4'-C1'	5.42	1.50	1.42
83	A5	2158	U	C2'-C1'	-5.42	1.45	1.53
51	CA	241	ARG	NE-CZ	5.42	1.39	1.33
83	A5	2201	U	P-O5'	-5.42	1.51	1.59
83	A5	3536	U	O4'-C1'	5.42	1.49	1.41
36	B2	1770	U	C2'-C1'	-5.41	1.45	1.53
45	Ca	42	HIS	ND1-CE1	5.41	1.38	1.32
51	CA	83	HIS	ND1-CE1	5.41	1.38	1.32
83	A5	1368	A	C2'-C1'	5.41	1.61	1.53
86	A8	89	A	O4'-C1'	5.41	1.49	1.41
38	Cz	95	LYS	C-N	5.41	1.40	1.33
74	CC	289	ASN	CA-C	-5.41	1.45	1.52
77	Cp	84	ARG	CD-NE	5.41	1.53	1.46
83	A5	1271	G	O4'-C1'	-5.41	1.33	1.41
83	A5	1411	U	C2'-C1'	5.41	1.61	1.53
83	A5	2030	U	O4'-C1'	5.41	1.49	1.41
83	A5	2234	C	C2'-C1'	-5.41	1.45	1.53
46	CN	145	ASP	C-O	-5.41	1.20	1.25
36	B2	1200	A	O4'-C1'	5.41	1.49	1.41
83	A5	480	C	O4'-C1'	5.41	1.49	1.41
83	A5	2680	G	O4'-C1'	5.41	1.49	1.41
36	B2	879	U	C2'-C1'	-5.40	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3506	U	O4'-C1'	5.40	1.49	1.41
86	A8	31	G	C2'-C1'	-5.40	1.45	1.53
17	AV	61	ARG	CD-NE	5.40	1.53	1.46
36	B2	68	C	C2'-C1'	5.40	1.61	1.53
36	B2	1405	G	C2'-C1'	-5.40	1.45	1.53
36	B2	1441	C	O4'-C1'	5.40	1.49	1.41
36	B2	960	U	C2'-C1'	5.40	1.61	1.53
54	CP	177	ARG	CD-NE	5.40	1.53	1.46
1	Az	437	ILE	CA-C	-5.40	1.46	1.52
36	B2	1281	A	O4'-C1'	5.40	1.50	1.42
29	AG	200	GLN	CA-C	-5.39	1.45	1.52
36	B2	1199	G	C2'-C1'	-5.39	1.45	1.53
69	Cg	10	ARG	C-N	5.39	1.40	1.33
27	AE	88	ASP	CA-CB	5.39	1.61	1.53
29	AG	155	ARG	NE-CZ	5.39	1.39	1.33
36	B2	263	A	C2'-C1'	5.39	1.61	1.53
60	Cr	7	LEU	CA-C	-5.39	1.46	1.52
83	A5	101	C	O4'-C1'	5.39	1.49	1.41
83	A5	2204	U	O4'-C1'	5.39	1.49	1.41
83	A5	162	U	O4'-C1'	-5.39	1.33	1.42
83	A5	372	U	O4'-C1'	5.39	1.49	1.41
83	A5	1234	G	C5'-C4'	5.39	1.59	1.51
84	A9	14	U	C2'-C1'	-5.39	1.45	1.53
57	CY	119	LEU	CA-CB	5.39	1.61	1.53
83	A5	966	U	C5'-C4'	5.39	1.59	1.51
83	A5	2646	U	C2'-C1'	5.39	1.61	1.53
23	AD	70	GLU	CA-C	-5.39	1.45	1.52
33	AI	101	ILE	CA-C	-5.39	1.46	1.52
41	CO	16	HIS	CA-C	-5.39	1.46	1.52
63	CB	26	ARG	CD-NE	5.39	1.53	1.46
83	A5	3781	U	C2'-C1'	5.39	1.61	1.53
83	A5	3866	U	C2'-C1'	-5.39	1.45	1.53
48	CD	212	GLU	CA-C	-5.38	1.45	1.52
83	A5	624	A	C2'-C1'	5.38	1.61	1.53
83	A5	3514	C	C2'-C1'	5.38	1.61	1.53
36	B2	406	A	O4'-C1'	5.38	1.50	1.42
39	Cq	48	ARG	NE-CZ	5.38	1.39	1.33
36	B2	1014	C	C2'-C1'	-5.38	1.45	1.53
36	B2	1027	A	O4'-C1'	5.38	1.49	1.41
52	CS	120	ARG	CZ-NH1	5.38	1.40	1.32
83	A5	239	U	C2'-C1'	-5.38	1.45	1.53
83	A5	2470	U	C2'-C1'	-5.38	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3199	A	O4'-C1'	5.38	1.49	1.41
83	A5	3762	G	O4'-C1'	-5.38	1.33	1.42
23	AD	118	ARG	NE-CZ	5.38	1.39	1.33
23	AD	120	ALA	CA-C	-5.38	1.46	1.52
36	B2	55	A	O3'-P	-5.38	1.53	1.61
36	B2	954	A	O4'-C1'	5.38	1.49	1.41
83	A5	2706	U	C2'-C1'	-5.38	1.45	1.53
83	A5	3330	C	C2'-C1'	-5.38	1.45	1.53
60	Cr	44	TYR	CA-CB	5.38	1.59	1.52
86	A8	56	U	C2'-C1'	-5.38	1.45	1.53
69	Cg	47	CYS	CA-C	-5.38	1.46	1.52
20	Aa	89	ARG	NE-CZ	5.37	1.39	1.33
83	A5	1024	U	O4'-C1'	5.37	1.49	1.41
83	A5	1989	A	O4'-C1'	5.37	1.49	1.41
83	A5	3283	U	O4'-C1'	5.37	1.49	1.41
36	B2	980	A	C2'-C1'	-5.37	1.45	1.53
36	B2	1039	A	O4'-C1'	5.37	1.49	1.41
83	A5	587	U	O4'-C1'	5.37	1.49	1.41
83	A5	3503	G	C2'-C1'	-5.37	1.45	1.53
83	A5	3913	G	C2'-C1'	-5.37	1.45	1.53
83	A5	855	A	C2'-C1'	5.37	1.61	1.53
83	A5	1248	A	O3'-P	-5.37	1.53	1.61
13	AP	117	HIS	ND1-CE1	5.37	1.38	1.32
36	B2	531	U	O4'-C1'	5.37	1.49	1.41
37	BC	67	C	C2'-C1'	-5.37	1.45	1.53
22	Ac	11	MET	C-N	5.37	1.41	1.33
36	B2	367	G	C2'-C1'	-5.37	1.45	1.53
83	A5	2510	A	O4'-C1'	5.37	1.49	1.41
1	Az	827	ARG	NE-CZ	5.36	1.39	1.33
83	A5	2156	U	O4'-C1'	5.36	1.50	1.42
83	A5	3560	C	C2'-C1'	5.36	1.61	1.53
54	CP	69	ARG	CA-C	-5.36	1.46	1.52
30	AF	84	ARG	NE-CZ	5.36	1.39	1.33
36	B2	1284	A	C2'-C1'	5.36	1.61	1.53
36	B2	1816	C	C2'-C1'	-5.36	1.45	1.53
42	CL	176	PHE	CA-CB	5.36	1.59	1.52
83	A5	768	U	C2'-C1'	5.36	1.61	1.53
83	A5	355	G	C2'-C1'	-5.36	1.45	1.53
83	A5	395	A	O4'-C1'	5.36	1.49	1.41
83	A5	2002	C	C2'-C1'	-5.36	1.45	1.53
85	A7	76	U	C2'-C1'	-5.36	1.45	1.53
11	AL	86	ARG	NE-CZ	5.36	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	AP	53	LYS	CA-C	-5.36	1.46	1.52
36	B2	649	U	O4'-C1'	5.36	1.49	1.41
36	B2	1295	U	C4'-C3'	5.36	1.61	1.53
23	AD	141	SER	CA-C	-5.35	1.46	1.52
66	Cd	47	ARG	CA-C	-5.35	1.45	1.52
83	A5	1709	A	C2'-C1'	5.35	1.61	1.53
52	CS	49	ARG	NE-CZ	5.35	1.39	1.33
84	A9	24	G	C2'-C1'	5.35	1.61	1.53
36	B2	1105	U	O4'-C1'	5.35	1.49	1.41
69	Cg	88	ARG	CD-NE	5.35	1.53	1.46
83	A5	1545	A	C2'-C1'	-5.35	1.45	1.53
83	A5	2171	U	O4'-C1'	5.35	1.49	1.41
1	Az	587	ARG	CD-NE	5.35	1.53	1.46
36	B2	1599	U	C2'-C1'	-5.35	1.45	1.53
47	CI	4	ARG	NE-CZ	5.35	1.39	1.33
83	A5	809	G	C2'-C1'	-5.35	1.45	1.53
83	A5	1690	U	C2'-C1'	5.35	1.61	1.53
83	A5	2529	G	O4'-C1'	5.35	1.49	1.41
83	A5	2058	C	C2'-C1'	-5.35	1.45	1.53
83	A5	2266	U	O4'-C1'	5.34	1.49	1.41
7	AM	54	ALA	CA-C	-5.34	1.46	1.52
48	CD	196	ARG	NE-CZ	5.34	1.39	1.33
49	CQ	91	ARG	NE-CZ	5.34	1.39	1.33
83	A5	528	U	C2'-C1'	-5.34	1.45	1.53
79	CJ	117	HIS	ND1-CE1	5.34	1.37	1.32
36	B2	885	U	C2'-C1'	5.34	1.61	1.53
83	A5	896	A	C2'-C1'	-5.34	1.45	1.53
83	A5	1395	U	O4'-C1'	5.34	1.49	1.41
47	CI	7	ARG	CZ-NH1	5.33	1.40	1.32
82	CG	70	ARG	NE-CZ	5.33	1.39	1.33
84	A9	23	G	C2'-C1'	-5.33	1.45	1.53
36	B2	94	G	O4'-C1'	5.33	1.49	1.41
36	B2	1681	U	C2'-C1'	5.33	1.61	1.53
83	A5	341	A	C5'-C4'	5.33	1.59	1.51
9	Ad	44	ARG	NE-CZ	5.33	1.39	1.33
36	B2	542	A	O4'-C1'	5.33	1.49	1.41
67	Ce	83	GLU	N-CA	-5.33	1.40	1.46
83	A5	3110	U	O4'-C1'	5.33	1.49	1.41
83	A5	3546	A	C2'-C1'	-5.33	1.45	1.53
36	B2	2	U	O4'-C1'	5.33	1.50	1.42
78	Co	8	ARG	NE-CZ	5.33	1.39	1.33
36	B2	85	A	C2'-C1'	5.33	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3618	A	C2'-C1'	-5.33	1.45	1.53
30	AF	87	LYS	CA-C	-5.33	1.45	1.52
36	B2	46	A	C2'-C1'	-5.33	1.45	1.53
36	B2	395	G	O4'-C1'	-5.33	1.33	1.41
36	B2	1156	U	O4'-C1'	5.33	1.49	1.41
83	A5	796	A	O4'-C1'	5.33	1.49	1.41
83	A5	1012	G	C2'-C1'	-5.33	1.45	1.53
83	A5	1758	U	O4'-C1'	5.33	1.49	1.41
83	A5	1901	G	C2'-C1'	-5.33	1.45	1.53
83	A5	3363	G	C2'-C1'	-5.33	1.45	1.53
34	AQ	39	ARG	CD-NE	5.32	1.53	1.46
48	CD	107	ARG	NE-CZ	5.32	1.39	1.33
51	CA	192	LYS	C-N	5.32	1.38	1.33
83	A5	2834	A	C2'-C1'	-5.32	1.45	1.53
36	B2	1047	U	O4'-C1'	5.32	1.49	1.41
36	B2	1437	A	O4'-C1'	5.32	1.49	1.41
83	A5	1725	A	C2'-C1'	5.32	1.61	1.53
36	B2	1127	G	O4'-C1'	5.32	1.49	1.41
83	A5	685	A	C2'-C1'	-5.32	1.45	1.53
83	A5	3445	C	C2'-C1'	-5.32	1.45	1.53
3	AU	103	ILE	N-CA	-5.32	1.39	1.46
36	B2	1205	U	C2'-C1'	-5.32	1.45	1.53
36	B2	1737	U	O4'-C1'	5.32	1.49	1.41
60	Cr	63	GLY	CA-C	-5.32	1.45	1.52
83	A5	3612	A	O4'-C1'	5.31	1.49	1.41
2	Ag	302	GLY	CA-C	-5.31	1.48	1.52
26	AJ	18	ARG	CD-NE	5.31	1.53	1.46
36	B2	274	G	C2'-C1'	-5.31	1.45	1.53
15	AB	139	ARG	CZ-NH1	5.31	1.40	1.32
46	CN	114	ARG	NE-CZ	5.31	1.38	1.33
83	A5	1030	A	O4'-C1'	5.31	1.49	1.41
12	AR	37	GLU	C-N	5.31	1.40	1.33
59	CZ	29	HIS	ND1-CE1	5.31	1.37	1.32
27	AE	183	ILE	C-N	5.30	1.39	1.33
83	A5	2212	A	O3'-P	-5.30	1.53	1.61
83	A5	2769	G	O4'-C1'	5.30	1.49	1.41
54	CP	116	HIS	ND1-CE1	5.30	1.37	1.32
36	B2	276	A	O4'-C1'	5.30	1.49	1.41
36	B2	1165	C	O4'-C1'	5.30	1.49	1.41
48	CD	285	HIS	ND1-CE1	5.30	1.37	1.32
83	A5	894	U	O4'-C1'	5.30	1.50	1.42
83	A5	3742	C	C2'-C1'	-5.30	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
63	CB	268	ARG	CZ-NH2	5.30	1.40	1.33
83	A5	863	U	O4'-C1'	5.30	1.49	1.41
83	A5	1314	U	C2'-C1'	-5.30	1.45	1.53
83	A5	2138	C	C5'-C4'	5.30	1.59	1.51
84	A9	9	C	C2'-C1'	-5.30	1.45	1.53
1	Az	435	ARG	CD-NE	5.30	1.53	1.46
74	CC	92	GLN	CA-CB	5.30	1.62	1.53
76	Cn	15	ARG	NE-CZ	5.30	1.38	1.33
81	CE	169	ARG	NE-CZ	5.30	1.38	1.33
83	A5	2632	U	O4'-C1'	5.30	1.49	1.41
46	CN	131	GLU	CA-C	-5.29	1.46	1.52
83	A5	482	U	O4'-C1'	5.29	1.49	1.41
83	A5	1693	C	C2'-C1'	-5.29	1.45	1.53
21	Ab	54	VAL	CA-C	-5.29	1.47	1.53
36	B2	1216	C	C2'-C1'	-5.29	1.45	1.53
83	A5	2658	A	O4'-C1'	5.29	1.49	1.41
33	AI	11	ARG	CD-NE	5.29	1.53	1.46
36	B2	176	U	C2'-C1'	-5.29	1.45	1.53
36	B2	383	A	O4'-C1'	5.29	1.49	1.41
42	CL	57	VAL	CA-C	-5.29	1.45	1.52
79	CJ	109	ASN	C-N	5.29	1.40	1.33
83	A5	1513	C	C2'-C1'	-5.29	1.45	1.53
83	A5	2486	A	O4'-C1'	5.29	1.49	1.41
85	A7	70	G	O4'-C1'	5.29	1.49	1.41
36	B2	1679	U	C2'-C1'	5.29	1.61	1.53
48	CD	64	ILE	C-N	5.29	1.40	1.33
29	AG	74	ARG	NE-CZ	5.29	1.38	1.33
30	AF	212	TYR	CA-C	-5.29	1.46	1.52
36	B2	1008	G	O4'-C1'	5.29	1.49	1.41
64	CF	75	ARG	NE-CZ	5.29	1.38	1.33
83	A5	3836	A	C2'-C1'	-5.29	1.45	1.53
50	CR	203	HIS	ND1-CE1	5.29	1.37	1.32
83	A5	1359	G	O4'-C1'	5.29	1.49	1.41
36	B2	70	C	O4'-C1'	5.28	1.49	1.41
83	A5	3393	U	O4'-C1'	5.28	1.49	1.41
37	BC	10	G	C2'-C1'	-5.28	1.45	1.53
83	A5	3846	U	C5'-C4'	5.28	1.59	1.51
7	AM	35	ALA	C-N	5.28	1.40	1.33
36	B2	1164	G	O3'-P	-5.28	1.53	1.61
81	CE	89	ARG	NE-CZ	5.28	1.38	1.33
83	A5	938	U	O4'-C1'	5.28	1.49	1.41
48	CD	188	LYS	C-N	5.28	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Az	262	LYS	C-N	5.28	1.40	1.33
46	CN	41	ARG	NE-CZ	5.28	1.38	1.33
75	Cm	106	ARG	NE-CZ	5.28	1.38	1.33
26	AJ	47	VAL	CA-C	-5.28	1.46	1.52
63	CB	287	ILE	C-N	5.28	1.39	1.33
83	A5	3437	U	O4'-C1'	5.28	1.49	1.41
36	B2	1307	C	C2'-C1'	-5.27	1.45	1.53
60	Cr	55	VAL	C-N	5.27	1.39	1.33
61	Ch	108	ILE	C-N	5.27	1.40	1.33
36	B2	1323	A	O4'-C1'	5.27	1.49	1.41
29	AG	207	SER	CA-C	-5.27	1.46	1.52
39	Cq	120	GLU	CA-CB	5.27	1.59	1.52
79	CJ	63	ARG	NE-CZ	5.27	1.38	1.33
83	A5	2513	G	O4'-C1'	5.27	1.49	1.41
46	CN	65	ARG	C-N	5.27	1.41	1.33
83	A5	3400	U	C2'-C1'	-5.27	1.45	1.53
41	CO	80	ARG	NE-CZ	5.27	1.38	1.33
83	A5	828	G	C2'-C1'	5.27	1.61	1.53
36	B2	136	A	O4'-C1'	-5.26	1.33	1.41
36	B2	1428	A	O4'-C1'	5.26	1.49	1.41
51	CA	54	ARG	NE-CZ	5.26	1.38	1.33
83	A5	1123	C	O4'-C1'	5.26	1.49	1.42
83	A5	1530	U	C2'-C1'	-5.26	1.45	1.53
34	AQ	128	ARG	CD-NE	5.26	1.53	1.46
83	A5	967	C	O4'-C1'	5.26	1.49	1.41
5	AO	134	PRO	C-N	5.26	1.38	1.33
36	B2	1428	A	C2'-C1'	5.26	1.61	1.53
36	B2	1724	U	C2'-C1'	-5.26	1.45	1.53
83	A5	366	A	O4'-C1'	5.26	1.49	1.41
8	AS	66	LYS	N-CA	-5.26	1.39	1.46
41	CO	138	CYS	N-CA	-5.26	1.39	1.45
83	A5	1097	A	O4'-C1'	5.26	1.49	1.41
83	A5	1578	C	C2'-C1'	-5.26	1.45	1.53
83	A5	3829	U	C2'-C1'	5.26	1.61	1.53
85	A7	113	G	O4'-C1'	5.26	1.49	1.41
86	A8	49	C	C5'-C4'	5.26	1.59	1.51
81	CE	186	ALA	CA-C	-5.26	1.46	1.52
36	B2	1889	G	C2'-C1'	-5.26	1.45	1.53
63	CB	21	ARG	CD-NE	5.26	1.53	1.46
31	AH	107	ARG	CZ-NH1	5.25	1.40	1.32
36	B2	1294	U	C2'-C1'	-5.25	1.45	1.53
36	B2	1526	G	O4'-C1'	5.25	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	AB	154	ARG	NE-CZ	5.25	1.38	1.33
86	A8	80	C	O4'-C1'	-5.25	1.33	1.41
48	CD	94	ASN	CA-CB	5.25	1.61	1.53
55	CU	248	HIS	ND1-CE1	5.25	1.37	1.32
83	A5	441	A	O4'-C1'	5.25	1.49	1.41
36	B2	979	G	C2'-C1'	-5.25	1.45	1.53
65	Cc	92	CYS	C-N	5.25	1.40	1.33
83	A5	1744	U	C2'-C1'	-5.25	1.45	1.53
83	A5	3838	A	O3'-P	-5.25	1.53	1.61
86	A8	16	A	O4'-C1'	5.25	1.49	1.41
29	AG	128	THR	C-N	5.25	1.39	1.33
70	Ci	55	ARG	NE-CZ	5.25	1.38	1.33
83	A5	2806	U	O4'-C1'	5.25	1.49	1.41
36	B2	1955	G	C2'-C1'	-5.25	1.45	1.53
46	CN	179	ARG	CZ-NH2	5.25	1.40	1.33
51	CA	184	ARG	NE-CZ	5.25	1.38	1.33
85	A7	100	A	C2'-C1'	-5.24	1.45	1.53
74	CC	202	ARG	CZ-NH2	5.24	1.40	1.33
83	A5	1941	A	O4'-C1'	5.24	1.49	1.41
6	AX	134	TYR	CA-C	-5.24	1.46	1.52
8	AS	139	THR	CA-C	-5.24	1.48	1.52
47	CI	128	ARG	NE-CZ	5.24	1.38	1.33
49	CQ	176	ARG	NE-CZ	5.24	1.38	1.33
83	A5	3730	G	C2'-C1'	5.24	1.61	1.53
16	AA	193	VAL	CA-C	-5.24	1.46	1.52
36	B2	1324	G	C2'-C1'	-5.24	1.45	1.53
49	CQ	127	ALA	CA-C	-5.24	1.45	1.52
83	A5	181	A	O3'-P	-5.24	1.53	1.61
27	AE	39	ARG	NE-CZ	5.24	1.38	1.33
37	BC	65	C	C2'-C1'	-5.24	1.45	1.53
38	Cz	62	LYS	CA-CB	5.24	1.59	1.53
56	CX	192	MET	CA-C	-5.24	1.48	1.53
83	A5	1403	C	O4'-C1'	5.24	1.49	1.42
83	A5	2246	A	O4'-C1'	5.24	1.49	1.42
83	A5	3413	C	C2'-C1'	5.24	1.61	1.53
36	B2	1364	G	O4'-C1'	5.23	1.49	1.41
36	B2	1655	C	C2'-C1'	-5.23	1.45	1.53
42	CL	100	ARG	CZ-NH2	5.23	1.40	1.33
83	A5	1797	A	C2'-C1'	5.23	1.60	1.53
36	B2	118	C	C2'-C1'	-5.23	1.45	1.53
36	B2	588	A	C2'-C1'	-5.23	1.45	1.53
53	CT	152	PRO	C-N	5.23	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	CP	6	ARG	NE-CZ	5.23	1.38	1.33
83	A5	1148	C	C2'-C1'	-5.23	1.45	1.53
83	A5	1276	G	O4'-C1'	5.23	1.49	1.42
40	CK	16	ARG	CD-NE	5.23	1.53	1.46
33	AI	77	ARG	NE-CZ	5.23	1.38	1.33
36	B2	302	U	O4'-C1'	5.23	1.49	1.41
69	Cg	24	ARG	NE-CZ	5.23	1.38	1.33
83	A5	2499	U	O4'-C1'	5.23	1.49	1.41
77	Cp	85	ARG	NE-CZ	5.23	1.38	1.33
36	B2	1158	U	O4'-C1'	5.22	1.49	1.41
36	B2	1403	C	C2'-C1'	-5.22	1.45	1.53
64	CF	246	ARG	NE-CZ	5.22	1.38	1.33
82	CG	90	GLN	CA-CB	5.22	1.59	1.52
36	B2	1220	A	C2'-C1'	-5.22	1.45	1.53
41	CO	70	ARG	NE-CZ	5.22	1.38	1.33
44	CM	29	ASP	C-N	5.22	1.38	1.33
64	CF	197	GLU	N-CA	-5.22	1.40	1.46
83	A5	3686	A	O4'-C1'	-5.22	1.33	1.41
60	Cr	83	ARG	CD-NE	5.22	1.53	1.46
63	CB	120	LYS	C-N	5.22	1.40	1.33
83	A5	1386	U	O3'-P	-5.22	1.53	1.61
83	A5	1582	U	O4'-C1'	5.22	1.49	1.41
20	Aa	22	ARG	NE-CZ	5.22	1.38	1.33
30	AF	146	ARG	NE-CZ	5.22	1.38	1.33
83	A5	1966	A	C2'-C1'	-5.22	1.45	1.53
83	A5	3639	U	O4'-C1'	5.22	1.49	1.41
1	Az	183	GLN	CA-C	-5.21	1.46	1.52
18	AY	62	ARG	CD-NE	5.21	1.53	1.46
79	CJ	174	LYS	N-CA	-5.21	1.39	1.46
83	A5	3520	U	C2'-C1'	-5.21	1.45	1.53
16	AA	214	GLU	CA-CB	5.21	1.59	1.53
83	A5	880	A	O4'-C1'	5.21	1.49	1.41
83	A5	1314	U	O4'-C1'	5.21	1.49	1.41
85	A7	44	C	C2'-C1'	-5.21	1.45	1.53
36	B2	832	U	O4'-C1'	5.21	1.49	1.41
36	B2	611	U	C2'-C1'	5.21	1.61	1.53
43	CV	73	ARG	CD-NE	5.21	1.53	1.46
83	A5	351	A	O4'-C1'	5.21	1.49	1.41
83	A5	1320	U	O4'-C1'	5.21	1.49	1.41
83	A5	1465	A	O4'-C1'	5.21	1.49	1.41
83	A5	2175	A	O4'-C1'	5.21	1.49	1.41
36	B2	832	U	C2'-C1'	-5.21	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	513	G	C5'-C4'	5.21	1.59	1.51
41	CO	160	ARG	C-N	5.21	1.40	1.33
11	AL	47	ALA	CA-C	-5.20	1.46	1.52
27	AE	11	ARG	NE-CZ	5.20	1.38	1.33
36	B2	142	A	C2'-C1'	5.20	1.60	1.53
36	B2	237	U	O4'-C1'	5.20	1.49	1.41
49	CQ	181	ARG	CD-NE	5.20	1.53	1.46
67	Ce	79	HIS	ND1-CE1	5.20	1.37	1.32
83	A5	1215	A	C2'-C1'	-5.20	1.45	1.53
83	A5	3649	C	O4'-C1'	5.20	1.49	1.42
33	AI	125	ARG	NE-CZ	5.20	1.38	1.33
36	B2	1461	A	O4'-C1'	5.20	1.49	1.41
36	B2	1595	G	C2'-C1'	-5.20	1.45	1.53
36	B2	1686	C	O4'-C1'	5.20	1.49	1.41
36	B2	1933	U	C2'-C1'	-5.20	1.45	1.53
62	Cb	47	ARG	CZ-NH1	5.20	1.40	1.32
1	Az	20	ARG	NE-CZ	5.20	1.38	1.33
1	Az	309	LEU	CA-C	5.20	1.59	1.52
1	Az	752	ARG	NE-CZ	5.20	1.38	1.33
83	A5	234	G	O4'-C1'	-5.20	1.34	1.42
36	B2	1299	A	O4'-C1'	5.20	1.49	1.41
44	CM	128	ASN	CA-CB	5.20	1.62	1.53
56	CX	222	HIS	ND1-CE1	5.20	1.37	1.32
83	A5	272	U	O4'-C1'	5.20	1.49	1.41
83	A5	3697	A	O4'-C1'	-5.20	1.34	1.42
32	AW	68	ARG	CD-NE	5.19	1.53	1.46
36	B2	375	A	O4'-C1'	5.19	1.49	1.41
56	CX	249	ILE	CA-C	-5.19	1.46	1.52
83	A5	3364	C	O4'-C1'	5.19	1.49	1.41
27	AE	24	GLY	CA-C	-5.19	1.45	1.51
36	B2	1259	A	C2'-C1'	-5.19	1.45	1.53
59	CZ	73	LYS	CA-C	-5.19	1.46	1.52
83	A5	1078	G	C2'-C1'	5.19	1.61	1.53
83	A5	2619	U	O4'-C1'	5.19	1.49	1.41
83	A5	3131	C	C2'-C1'	-5.19	1.45	1.53
16	AA	54	THR	CA-C	-5.19	1.46	1.52
83	A5	121	A	O4'-C1'	-5.19	1.34	1.42
83	A5	325	A	O4'-C1'	5.19	1.49	1.41
36	B2	294	C	C2'-C1'	-5.19	1.45	1.53
83	A5	353	G	O3'-P	-5.19	1.53	1.61
83	A5	1748	C	C2'-C1'	-5.19	1.45	1.53
83	A5	2773	G	C2'-C1'	-5.19	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3836	A	O4'-C1'	5.19	1.49	1.41
47	CI	32	ARG	NE-CZ	5.19	1.38	1.33
63	CB	343	ARG	CZ-NH1	5.19	1.40	1.32
83	A5	1513	C	O4'-C1'	5.19	1.49	1.41
83	A5	2270	G	O4'-C1'	5.19	1.49	1.41
36	B2	69	A	O4'-C1'	5.18	1.49	1.41
36	B2	1088	A	O4'-C1'	5.18	1.49	1.41
82	CG	197	ARG	NE-CZ	5.18	1.38	1.33
83	A5	2527	A	O3'-P	-5.18	1.53	1.61
83	A5	3205	G	C2'-C1'	5.18	1.61	1.53
83	A5	3527	A	O4'-C1'	5.18	1.49	1.41
2	Ag	168	SER	CA-C	-5.18	1.46	1.52
42	CL	149	LEU	CA-C	5.18	1.59	1.52
58	CW	78	PHE	N-CA	5.18	1.52	1.46
36	B2	971	A	C2'-C1'	-5.18	1.45	1.53
52	CS	129	VAL	C-N	5.18	1.40	1.33
83	A5	795	A	O4'-C1'	5.18	1.49	1.42
42	CL	19	ARG	CZ-NH2	5.18	1.40	1.33
83	A5	657	G	C2'-C1'	-5.18	1.45	1.53
83	A5	1206	G	O4'-C1'	-5.18	1.34	1.42
83	A5	2119	G	C2'-C1'	-5.18	1.45	1.53
83	A5	3243	C	C2'-C1'	-5.18	1.45	1.53
36	B2	241	U	O4'-C1'	5.18	1.49	1.41
58	CW	56	ARG	N-CA	-5.18	1.40	1.46
2	Ag	151	TRP	C-N	5.18	1.40	1.33
36	B2	1287	G	O4'-C1'	-5.18	1.33	1.41
36	B2	1499	U	O3'-P	-5.18	1.53	1.61
36	B2	1788	C	C2'-C1'	5.18	1.61	1.53
39	Cq	83	ARG	CD-NE	5.18	1.53	1.46
30	AF	101	MET	CA-C	-5.17	1.47	1.53
36	B2	570	G	C2'-C1'	-5.17	1.45	1.53
41	CO	33	GLY	C-N	5.17	1.39	1.33
45	Ca	18	HIS	ND1-CE1	5.17	1.37	1.32
60	Cr	47	ILE	C-N	5.17	1.40	1.33
65	Cc	73	HIS	ND1-CE1	5.17	1.37	1.32
83	A5	1590	A	C2'-C1'	-5.17	1.45	1.53
83	A5	3937	U	C2'-C1'	5.17	1.61	1.53
36	B2	1786	G	C2'-C1'	-5.17	1.45	1.53
83	A5	1979	A	O4'-C1'	5.17	1.49	1.41
15	AB	72	ALA	N-CA	-5.17	1.40	1.46
28	AC	152	TYR	C-N	5.17	1.41	1.33
36	B2	1296	A	O4'-C1'	-5.17	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	CL	120	ARG	CD-NE	5.17	1.53	1.46
51	CA	245	ARG	CD-NE	5.17	1.53	1.46
83	A5	1765	U	C2'-C1'	-5.17	1.45	1.53
83	A5	2004	G	O4'-C1'	5.17	1.49	1.41
83	A5	2173	C	O4'-C1'	5.17	1.49	1.41
83	A5	3309	A	O4'-C1'	5.17	1.49	1.42
8	AS	124	ARG	C-N	5.17	1.41	1.33
36	B2	390	A	O4'-C1'	5.17	1.49	1.41
56	CX	219	PHE	N-CA	-5.17	1.39	1.46
11	AL	33	ARG	NE-CZ	5.17	1.38	1.33
36	B2	319	C	O4'-C1'	5.17	1.49	1.41
1	Az	671	TRP	CA-C	-5.16	1.46	1.52
36	B2	1559	A	C2'-C1'	-5.16	1.45	1.53
42	CL	90	ALA	CA-C	-5.16	1.46	1.52
83	A5	3429	A	P-O5'	-5.16	1.52	1.59
36	B2	1095	G	C2'-C1'	-5.16	1.45	1.53
83	A5	335	A	O3'-P	-5.16	1.53	1.61
83	A5	1521	G	O4'-C1'	5.16	1.49	1.42
83	A5	2994	C	C2'-C1'	5.16	1.60	1.53
83	A5	245	G	C2'-C1'	-5.16	1.45	1.53
83	A5	1432	C	C2'-C1'	-5.16	1.45	1.53
83	A5	3141	A	C2'-C1'	-5.16	1.45	1.53
29	AG	154	ARG	NE-CZ	5.16	1.38	1.33
45	Ca	118	LEU	N-CA	-5.16	1.40	1.45
83	A5	1481	G	O4'-C1'	5.16	1.49	1.41
83	A5	1729	G	C2'-C1'	-5.16	1.45	1.53
36	B2	653	U	O4'-C1'	5.16	1.49	1.41
70	Ci	51	ARG	NE-CZ	5.16	1.38	1.33
83	A5	997	U	O4'-C1'	5.16	1.49	1.41
83	A5	2053	A	C2'-C1'	-5.16	1.45	1.53
36	B2	366	C	C2'-C1'	-5.15	1.45	1.53
10	AN	130	LYS	N-CA	-5.15	1.40	1.46
36	B2	521	U	C2'-C1'	5.15	1.61	1.53
36	B2	1528	G	O4'-C1'	5.15	1.49	1.41
46	CN	204	ARG	CZ-NH1	5.15	1.40	1.32
73	Cl	30	ARG	NE-CZ	5.15	1.38	1.33
83	A5	5	A	O4'-C1'	-5.15	1.33	1.41
83	A5	654	G	C2'-C1'	-5.15	1.45	1.53
83	A5	2038	A	C2'-C1'	-5.15	1.45	1.53
83	A5	2189	U	O4'-C1'	5.15	1.49	1.41
25	Af	147	THR	CA-C	-5.15	1.46	1.52
83	A5	2157	A	O4'-C1'	-5.15	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	AL	33	ARG	CZ-NH2	5.15	1.40	1.33
36	B2	98	C	C2'-C1'	5.15	1.60	1.53
36	B2	1715	G	O4'-C1'	-5.15	1.33	1.41
51	CA	64	ARG	CZ-NH2	5.15	1.40	1.33
67	Ce	92	ARG	N-CA	-5.15	1.40	1.46
83	A5	2515	C	O3'-P	-5.15	1.53	1.61
29	AG	217	ARG	CD-NE	5.15	1.53	1.46
36	B2	1809	U	C2'-C1'	-5.15	1.45	1.53
27	AE	57	ASN	C-N	5.14	1.40	1.34
36	B2	519	A	C2'-C1'	-5.14	1.45	1.53
36	B2	1380	U	C2'-C1'	5.14	1.61	1.53
59	CZ	111	PHE	CA-C	-5.14	1.46	1.52
11	AL	66	ARG	NE-CZ	5.14	1.38	1.33
11	AL	102	ARG	NE-CZ	5.14	1.38	1.33
20	Aa	10	ARG	NE-CZ	5.14	1.38	1.33
36	B2	1139	A	C2'-C1'	5.14	1.61	1.53
36	B2	1801	U	C2'-C1'	-5.14	1.45	1.53
54	CP	115	HIS	CA-C	-5.14	1.46	1.52
83	A5	3924	U	O4'-C1'	5.14	1.49	1.41
42	CL	59	ARG	NE-CZ	5.14	1.38	1.33
83	A5	257	U	C2'-C1'	-5.14	1.45	1.53
83	A5	2534	G	C2'-C1'	-5.14	1.45	1.53
83	A5	3843	U	O3'-P	-5.14	1.53	1.61
86	A8	106	A	C2'-C1'	-5.14	1.45	1.53
36	B2	614	A	C2'-C1'	-5.14	1.45	1.53
36	B2	942	A	O4'-C1'	-5.14	1.34	1.42
26	AJ	157	HIS	ND1-CE1	5.14	1.37	1.32
36	B2	75	U	C5'-C4'	5.14	1.58	1.51
55	CU	292	ASP	N-CA	-5.14	1.39	1.46
83	A5	3460	C	C2'-C1'	-5.14	1.45	1.53
79	CJ	177	GLY	C-N	5.13	1.39	1.33
83	A5	3224	G	O4'-C1'	5.13	1.49	1.41
83	A5	3806	C	C2'-C1'	-5.13	1.45	1.53
10	AN	87	ASP	CA-CB	5.13	1.61	1.53
5	AO	66	ARG	CD-NE	5.13	1.53	1.46
83	A5	825	C	C2'-C1'	-5.13	1.45	1.53
83	A5	3696	C	P-O5'	5.13	1.67	1.59
36	B2	50	C	C2'-C1'	-5.13	1.45	1.53
83	A5	1277	A	O4'-C1'	5.13	1.49	1.42
36	B2	913	G	C2'-C1'	-5.13	1.45	1.53
71	Cj	11	ARG	NE-CZ	5.13	1.38	1.33
83	A5	41	U	C2'-C1'	-5.13	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	396	A	O4'-C1'	5.13	1.49	1.41
1	Az	687	ARG	CA-C	-5.13	1.46	1.52
36	B2	1169	C	O3'-P	-5.13	1.53	1.61
43	CV	73	ARG	NE-CZ	5.13	1.38	1.33
83	A5	216	U	O3'-P	-5.13	1.53	1.61
83	A5	763	A	C2'-C1'	5.13	1.61	1.53
27	AE	252	ARG	CD-NE	5.12	1.53	1.46
38	Cz	56	LYS	C-N	5.12	1.39	1.33
51	CA	246	ILE	CA-C	-5.12	1.47	1.53
83	A5	392	A	C2'-C1'	5.12	1.60	1.53
36	B2	1992	A	C2'-C1'	5.12	1.61	1.53
41	CO	76	ARG	CD-NE	5.12	1.53	1.46
69	Cg	91	ARG	NE-CZ	5.12	1.38	1.33
83	A5	1276	G	C2'-C1'	-5.12	1.45	1.53
83	A5	3282	C	C5'-C4'	5.12	1.58	1.51
5	AO	149	ARG	NE-CZ	5.12	1.38	1.33
13	AP	105	PHE	C-N	5.12	1.36	1.33
36	B2	32	U	C2'-C1'	5.12	1.61	1.53
36	B2	1019	U	O4'-C1'	5.12	1.49	1.42
57	CY	91	ASN	CA-CB	5.12	1.60	1.53
36	B2	828	A	O4'-C1'	5.12	1.49	1.41
38	Cz	75	ASP	CA-C	-5.12	1.46	1.52
66	Cd	105	TYR	C-N	5.12	1.37	1.33
83	A5	3688	A	O4'-C1'	5.12	1.49	1.41
11	AL	64	ARG	C-N	5.11	1.37	1.33
3	AU	34	LEU	CA-C	-5.11	1.46	1.52
36	B2	1775	A	O4'-C1'	5.11	1.49	1.42
41	CO	51	ARG	CD-NE	5.11	1.53	1.46
19	AZ	108	TYR	C-N	5.11	1.39	1.33
21	Ab	81	ARG	NE-CZ	5.11	1.38	1.33
83	A5	1229	U	C2'-C1'	-5.11	1.45	1.53
83	A5	3006	A	O4'-C1'	5.11	1.49	1.41
84	A9	13	A	C2'-C1'	-5.11	1.45	1.53
85	A7	92	C	C2'-C1'	-5.11	1.45	1.53
67	Ce	35	ARG	NE-CZ	5.11	1.38	1.33
9	Ad	22	ARG	NE-CZ	5.11	1.38	1.33
17	AV	25	GLY	C-N	5.11	1.40	1.33
36	B2	1354	G	O4'-C1'	5.11	1.49	1.41
80	CH	107	ASN	C-N	5.11	1.40	1.33
83	A5	3491	C	C2'-C1'	-5.11	1.45	1.53
4	AK	87	ILE	C-N	5.10	1.39	1.33
6	AX	119	ARG	NE-CZ	5.10	1.38	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	AA	80	ARG	CD-NE	5.10	1.53	1.46
51	CA	112	ILE	CA-C	-5.10	1.46	1.52
83	A5	72	C	C2'-C1'	-5.10	1.45	1.53
36	B2	457	G	C2'-C1'	-5.10	1.45	1.53
36	B2	1417	G	O4'-C1'	5.10	1.49	1.41
29	AG	90	GLY	C-N	5.10	1.40	1.33
46	CN	26	ARG	C-N	5.10	1.40	1.33
68	Cf	56	PHE	CA-C	-5.10	1.46	1.52
83	A5	288	U	C2'-C1'	-5.10	1.45	1.53
8	AS	117	ILE	N-CA	-5.10	1.39	1.46
36	B2	1256	U	O4'-C1'	5.10	1.49	1.41
44	CM	155	LYS	C-N	5.10	1.40	1.33
83	A5	907	A	O4'-C1'	5.10	1.49	1.41
83	A5	2581	U	C2'-C1'	-5.10	1.45	1.53
83	A5	3450	G	C2'-C1'	-5.10	1.45	1.53
24	Ae	105	LYS	CA-C	-5.10	1.46	1.52
58	CW	71	ARG	CD-NE	5.10	1.53	1.46
83	A5	1806	G	C2'-C1'	5.10	1.60	1.53
14	AT	122	LYS	CA-C	-5.09	1.46	1.52
27	AE	11	ARG	CZ-NH1	5.09	1.39	1.32
36	B2	220	A	O4'-C1'	5.09	1.49	1.41
40	CK	131	GLU	N-CA	-5.09	1.40	1.46
83	A5	138	A	C2'-C1'	5.09	1.60	1.53
83	A5	826	A	C2'-C1'	5.09	1.60	1.53
83	A5	2766	U	C2'-C1'	-5.09	1.45	1.53
83	A5	3815	G	C2'-C1'	-5.09	1.45	1.53
36	B2	381	C	O4'-C1'	5.09	1.49	1.41
36	B2	406	A	C2'-C1'	-5.09	1.45	1.53
36	B2	1888	C	O4'-C1'	5.09	1.49	1.41
39	Cq	51	ALA	CA-C	-5.09	1.46	1.52
83	A5	1308	U	C2'-C1'	-5.09	1.45	1.53
10	AN	20	ARG	NE-CZ	5.09	1.38	1.33
83	A5	1431	G	C2'-C1'	5.09	1.60	1.53
83	A5	3162	C	C2'-C1'	-5.09	1.45	1.53
29	AG	52	ILE	N-CA	-5.09	1.40	1.46
34	AQ	64	LYS	C-N	5.09	1.40	1.33
36	B2	270	G	O4'-C1'	5.09	1.49	1.42
83	A5	1474	A	O4'-C1'	-5.09	1.34	1.41
29	AG	188	ARG	NE-CZ	5.09	1.38	1.33
36	B2	634	U	C5'-C4'	5.09	1.58	1.51
36	B2	1741	A	O4'-C1'	5.09	1.49	1.41
60	Cr	54	GLY	C-N	5.09	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3420	U	O4'-C1'	5.09	1.49	1.42
46	CN	181	SER	CA-C	-5.08	1.46	1.52
63	CB	275	HIS	C-N	5.08	1.40	1.33
83	A5	21	U	O4'-C1'	5.08	1.49	1.41
83	A5	267	C	C2'-C1'	-5.08	1.45	1.53
83	A5	2797	A	C2'-C1'	-5.08	1.45	1.53
29	AG	212	LYS	CA-C	-5.08	1.46	1.52
36	B2	824	U	O4'-C1'	5.08	1.49	1.42
83	A5	1089	U	O4'-C1'	5.08	1.49	1.41
83	A5	3161	U	O4'-C1'	5.08	1.49	1.41
83	A5	1475	A	O4'-C1'	-5.08	1.34	1.41
83	A5	3469	G	C5'-C4'	5.08	1.58	1.51
44	CM	71	ARG	NE-CZ	5.08	1.38	1.33
67	Ce	21	ARG	CD-NE	5.08	1.53	1.46
80	CH	113	ARG	CD-NE	5.08	1.53	1.46
83	A5	498	U	C2'-C1'	-5.08	1.45	1.53
83	A5	2683	G	O4'-C1'	-5.07	1.34	1.42
32	AW	23	ARG	N-CA	-5.07	1.39	1.46
36	B2	1381	G	C2'-C1'	-5.07	1.45	1.53
83	A5	882	U	O4'-C1'	5.07	1.49	1.41
36	B2	306	A	C2'-C1'	-5.07	1.45	1.53
51	CA	48	ILE	N-CA	-5.07	1.40	1.46
66	Cd	114	LEU	CA-C	-5.07	1.46	1.52
83	A5	3252	G	O4'-C1'	-5.07	1.34	1.41
83	A5	3571	C	C2'-C1'	-5.07	1.45	1.53
3	AU	21	ARG	CA-C	-5.07	1.46	1.52
12	AR	112	HIS	ND1-CE1	5.07	1.37	1.32
15	AB	174	ILE	C-N	5.07	1.40	1.33
20	Aa	6	ARG	NE-CZ	5.07	1.38	1.33
20	Aa	93	ARG	C-N	5.07	1.39	1.33
42	CL	166	PHE	CA-CB	5.07	1.58	1.53
83	A5	2117	A	O4'-C1'	5.07	1.49	1.41
83	A5	2629	G	O4'-C1'	5.07	1.49	1.41
83	A5	3333	A	C2'-C1'	-5.07	1.45	1.53
86	A8	10	C	C2'-C1'	-5.07	1.45	1.53
5	AO	121	ARG	CD-NE	5.06	1.53	1.46
12	AR	77	GLU	CA-CB	5.06	1.61	1.53
36	B2	1050	A	C2'-C1'	5.06	1.60	1.53
83	A5	643	U	C2'-C1'	-5.06	1.45	1.53
83	A5	1293	A	O5'-C5'	5.06	1.50	1.42
13	AP	64	ARG	NE-CZ	5.06	1.38	1.33
36	B2	1760	G	O4'-C1'	-5.06	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	CT	81	ARG	NE-CZ	5.06	1.38	1.33
27	AE	208	VAL	CA-CB	-5.06	1.48	1.54
36	B2	1733	G	C2'-C1'	-5.06	1.45	1.53
83	A5	1006	A	O4'-C1'	5.06	1.49	1.41
36	B2	488	A	O3'-P	-5.06	1.53	1.61
36	B2	858	G	C2'-C1'	-5.06	1.45	1.53
70	Ci	97	ARG	NE-CZ	5.06	1.38	1.33
82	CG	260	ARG	NE-CZ	5.06	1.38	1.33
83	A5	840	U	C2'-C1'	-5.06	1.45	1.53
83	A5	1942	U	C2'-C1'	-5.06	1.45	1.53
83	A5	3381	C	C2'-C1'	-5.06	1.45	1.53
83	A5	3863	G	O4'-C1'	5.06	1.49	1.41
46	CN	133	ILE	CA-C	-5.06	1.46	1.52
79	CJ	59	ARG	CD-NE	5.06	1.53	1.46
36	B2	1204	A	O4'-C1'	5.06	1.49	1.41
83	A5	1142	U	C2'-C1'	-5.06	1.45	1.53
36	B2	1686	C	C2'-C1'	-5.05	1.45	1.53
44	CM	133	ARG	CD-NE	5.05	1.53	1.46
71	Cj	11	ARG	CA-CB	5.05	1.59	1.52
36	B2	1323	A	C2'-C1'	-5.05	1.45	1.53
83	A5	594	U	O4'-C1'	5.05	1.49	1.41
7	AM	94	GLU	C-N	5.05	1.40	1.33
71	Cj	79	ARG	CD-NE	5.05	1.53	1.46
5	AO	66	ARG	NE-CZ	5.05	1.38	1.33
33	AI	92	ARG	NE-CZ	5.05	1.38	1.33
36	B2	1790	U	C2'-C1'	-5.05	1.45	1.53
44	CM	66	TYR	C-O	-5.05	1.18	1.24
81	CE	42	ARG	NE-CZ	5.05	1.38	1.33
83	A5	172	C	C2'-C1'	-5.05	1.45	1.53
83	A5	2575	C	O4'-C1'	5.05	1.49	1.42
40	CK	159	SER	C-N	5.05	1.40	1.33
2	Ag	235	ASP	C-N	5.05	1.39	1.33
30	AF	151	ARG	NE-CZ	5.05	1.38	1.33
53	CT	108	ARG	NE-CZ	5.05	1.38	1.33
83	A5	557	G	O4'-C1'	5.05	1.49	1.41
46	CN	5	ARG	NE-CZ	5.04	1.38	1.33
83	A5	1312	G	C2'-C1'	-5.04	1.45	1.53
83	A5	3530	A	O4'-C1'	-5.04	1.34	1.41
83	A5	3680	A	C2'-C1'	-5.04	1.45	1.53
8	AS	38	ARG	CZ-NH2	5.04	1.40	1.33
10	AN	124	ARG	NE-CZ	5.04	1.38	1.33
64	CF	246	ARG	CZ-NH2	5.04	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
71	Cj	55	ARG	NE-CZ	5.04	1.38	1.33
83	A5	248	C	C2'-C1'	-5.04	1.45	1.53
83	A5	716	C	O4'-C1'	5.04	1.49	1.41
16	AA	181	GLU	C-N	5.04	1.40	1.34
18	AY	112	ARG	CD-NE	5.04	1.53	1.46
36	B2	572	G	O4'-C1'	5.04	1.49	1.42
36	B2	846	U	O4'-C1'	5.04	1.49	1.41
83	A5	1577	A	C2'-C1'	-5.04	1.45	1.53
83	A5	3373	G	O4'-C1'	-5.04	1.34	1.41
18	AY	13	PHE	CA-C	-5.04	1.46	1.52
36	B2	1061	A	O4'-C1'	5.04	1.49	1.41
49	CQ	129	ARG	CD-NE	5.04	1.53	1.46
58	CW	101	ARG	NE-CZ	5.04	1.38	1.33
74	CC	311	ARG	NE-CZ	5.04	1.38	1.33
1	Az	493	VAL	CA-C	-5.04	1.46	1.52
24	Ae	106	ARG	CD-NE	5.04	1.53	1.46
41	CO	153	ASP	CA-C	-5.04	1.46	1.52
83	A5	93	G	O4'-C1'	-5.04	1.34	1.41
83	A5	236	G	C2'-C1'	-5.04	1.45	1.53
83	A5	1156	U	C2'-C1'	-5.04	1.45	1.53
83	A5	3247	A	O4'-C1'	5.04	1.49	1.42
64	CF	160	ARG	NE-CZ	5.04	1.38	1.33
83	A5	1633	G	C2'-C1'	5.04	1.60	1.53
23	AD	145	ARG	C-N	5.03	1.36	1.33
34	AQ	77	GLY	C-N	5.03	1.39	1.33
36	B2	711	G	C2'-C1'	-5.03	1.45	1.53
79	CJ	95	ARG	CZ-NH2	5.03	1.40	1.33
83	A5	54	U	O4'-C1'	5.03	1.49	1.41
83	A5	2192	U	O4'-C1'	5.03	1.49	1.41
83	A5	70	A	O4'-C1'	-5.03	1.34	1.42
83	A5	118	A	O4'-C1'	5.03	1.49	1.41
83	A5	266	A	C2'-C1'	-5.03	1.45	1.53
83	A5	1443	A	O4'-C1'	5.03	1.49	1.41
83	A5	253	A	C2'-C1'	-5.03	1.45	1.53
83	A5	1732	A	O4'-C1'	5.03	1.49	1.41
83	A5	1874	G	O4'-C1'	5.03	1.49	1.41
83	A5	2695	A	O4'-C1'	5.03	1.49	1.41
5	AO	150	ARG	CD-NE	5.03	1.53	1.46
7	AM	80	GLN	C-N	5.03	1.39	1.33
14	AT	129	ARG	NE-CZ	5.03	1.38	1.33
15	AB	88	ARG	CD-NE	5.03	1.53	1.46
36	B2	551	C	O4'-C1'	5.03	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	CT	79	ARG	CZ-NH2	5.03	1.40	1.33
83	A5	680	C	C2'-C1'	-5.03	1.45	1.53
83	A5	2725	U	C2'-C1'	-5.03	1.45	1.53
36	B2	1325	A	C2'-C1'	-5.03	1.45	1.53
54	CP	126	ARG	CA-CB	5.03	1.61	1.53
83	A5	3917	G	O4'-C1'	5.02	1.49	1.41
36	B2	415	A	C2'-C1'	-5.02	1.45	1.53
83	A5	738	A	O4'-C1'	5.02	1.49	1.41
83	A5	3204	G	O4'-C1'	5.02	1.49	1.41
27	AE	30	ARG	NE-CZ	5.02	1.38	1.33
36	B2	620	U	O4'-C1'	5.02	1.49	1.41
36	B2	1445	A	C2'-C1'	5.02	1.60	1.53
81	CE	147	GLY	C-N	5.02	1.40	1.33
83	A5	2655	C	C2'-C1'	-5.02	1.45	1.53
83	A5	454	C	C2'-C1'	-5.02	1.45	1.53
36	B2	719	G	C2'-C1'	-5.02	1.45	1.53
59	CZ	54	THR	CA-C	-5.02	1.46	1.52
85	A7	18	G	C2'-C1'	-5.02	1.45	1.53
36	B2	1317	U	O4'-C1'	5.01	1.49	1.41
67	Ce	4	ARG	NE-CZ	5.01	1.38	1.33
11	AL	103	HIS	ND1-CE1	5.01	1.37	1.32
83	A5	2485	A	C2'-C1'	5.01	1.60	1.53
35	Ah	135	PRO	CA-C	-5.01	1.46	1.52
36	B2	1683	U	O4'-C1'	-5.01	1.34	1.41
64	CF	116	ARG	CD-NE	5.01	1.53	1.46
68	Cf	44	TYR	CA-C	5.01	1.56	1.53
83	A5	2749	G	C2'-C1'	-5.01	1.45	1.53
23	AD	226	THR	CA-C	5.01	1.58	1.52
36	B2	232	C	C2'-C1'	-5.01	1.45	1.53
36	B2	1054	A	C2'-C1'	-5.01	1.45	1.53
36	B2	1439	A	C2'-C1'	-5.01	1.45	1.53
49	CQ	50	ARG	NE-CZ	5.01	1.38	1.33
69	Cg	68	ARG	NE-CZ	5.01	1.38	1.33
83	A5	3222	G	C2'-C1'	-5.01	1.45	1.53
63	CB	174	ARG	CD-NE	5.01	1.53	1.46
85	A7	78	C	C2'-C1'	-5.01	1.45	1.53
1	Az	273	ARG	CD-NE	5.01	1.53	1.46
5	AO	88	LEU	C-N	5.01	1.40	1.33
5	AO	98	ARG	NE-CZ	5.01	1.38	1.33
47	CI	31	ILE	N-CA	-5.01	1.40	1.46
54	CP	177	ARG	NE-CZ	5.01	1.38	1.33
83	A5	3464	G	C2'-C1'	5.01	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	AD	18	ILE	CA-C	-5.00	1.46	1.52
74	CC	44	HIS	ND1-CE1	5.00	1.37	1.32
21	Ab	14	GLU	C-N	5.00	1.40	1.33
21	Ab	67	THR	CA-C	-5.00	1.46	1.52
36	B2	529	C	C2'-C1'	-5.00	1.45	1.53
80	CH	24	VAL	CA-C	-5.00	1.47	1.52
83	A5	3702	G	O4'-C1'	5.00	1.49	1.41
30	AF	53	THR	N-CA	-5.00	1.40	1.46
36	B2	38	C	C2'-C1'	-5.00	1.45	1.53
42	CL	151	GLY	N-CA	5.00	1.51	1.44
83	A5	1467	A	O3'-P	-5.00	1.53	1.61
83	A5	3668	G	O4'-C1'	5.00	1.49	1.41

All (10570) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	668	A	C4'-C3'-O3'	25.46	151.19	113.00
83	A5	3842	A	P-O5'-C5'	24.91	158.27	120.90
36	B2	1472	C	P-O3'-C3'	24.24	156.56	120.20
83	A5	668	A	P-O3'-C3'	23.93	156.09	120.20
36	B2	199	G	C4'-C3'-O3'	-23.63	77.55	113.00
83	A5	866	C	P-O3'-C3'	23.16	154.94	120.20
36	B2	1371	C	P-O3'-C3'	22.12	153.39	120.20
36	B2	1169	C	C4'-C3'-O3'	-21.84	80.24	113.00
83	A5	2040	A	C4'-C3'-O3'	21.65	145.48	113.00
36	B2	905	U	P-O3'-C3'	21.10	151.85	120.20
84	A9	22	A	P-O3'-C3'	21.07	151.80	120.20
86	A8	61	C	P-O3'-C3'	-20.24	89.85	120.20
83	A5	3514	C	O4'-C1'-N1	19.91	138.37	108.50
83	A5	303	G	P-O3'-C3'	19.73	149.79	120.20
83	A5	1491	U	C4'-C3'-O3'	-19.61	83.59	113.00
83	A5	3554	G	C4'-C3'-O3'	-19.12	84.31	113.00
83	A5	698	A	P-O3'-C3'	-19.09	91.56	120.20
83	A5	2091	A	P-O3'-C3'	18.99	148.69	120.20
36	B2	1727	U	P-O3'-C3'	18.98	148.67	120.20
36	B2	496	C	P-O5'-C5'	18.80	149.10	120.90
83	A5	1798	A	P-O3'-C3'	18.71	148.27	120.20
83	A5	1778	A	C4'-C3'-O3'	18.67	141.00	113.00
83	A5	3368	C	O4'-C1'-N1	18.52	136.28	108.50
83	A5	3023	A	P-O3'-C3'	18.49	147.94	120.20
7	AM	39	VAL	CA-C-N	18.48	154.97	121.70
7	AM	39	VAL	C-N-CA	18.48	154.97	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	199	G	O3'-P-O5'	-18.46	76.30	104.00
83	A5	3968	C	P-O3'-C3'	18.44	147.85	120.20
86	A8	21	U	O3'-P-O5'	18.40	131.60	104.00
83	A5	1922	A	C4'-C3'-O3'	-18.36	85.45	113.00
83	A5	211	U	P-O3'-C3'	18.33	147.70	120.20
86	A8	44	C	P-O3'-C3'	18.29	147.63	120.20
85	A7	12	U	P-O3'-C3'	-18.23	92.86	120.20
36	B2	1639	U	P-O3'-C3'	18.20	147.51	120.20
36	B2	225	G	P-O3'-C3'	18.08	147.33	120.20
86	A8	85	G	P-O3'-C3'	18.06	147.29	120.20
86	A8	108	A	C4'-C3'-O3'	-18.04	82.35	109.40
83	A5	2990	C	P-O3'-C3'	18.02	147.23	120.20
83	A5	117	C	N1-C1'-C2'	18.01	139.01	112.00
83	A5	3094	U	P-O3'-C3'	17.99	147.18	120.20
83	A5	3778	U	P-O5'-C5'	17.98	147.87	120.90
86	A8	108	A	P-O3'-C3'	-17.96	93.26	120.20
83	A5	3000	G	C4'-C3'-O3'	-17.84	86.25	113.00
83	A5	2041	G	C4'-C3'-O3'	-17.82	82.67	109.40
83	A5	303	G	C4'-C3'-O3'	-17.80	82.69	109.40
36	B2	458	C	N1-C1'-C2'	17.44	138.16	112.00
83	A5	643	U	P-O3'-C3'	17.40	146.30	120.20
36	B2	1087	C	O4'-C1'-N1	17.39	134.59	108.50
83	A5	1119	C	P-O3'-C3'	-17.25	94.32	120.20
36	B2	984	G	P-O3'-C3'	17.18	145.96	120.20
36	B2	495	U	P-O3'-C3'	17.13	145.89	120.20
36	B2	488	A	P-O3'-C3'	16.90	145.56	120.20
5	AO	99	ALA	CA-C-N	16.81	151.96	121.70
5	AO	99	ALA	C-N-CA	16.81	151.96	121.70
83	A5	3841	C	P-O3'-C3'	16.80	145.40	120.20
83	A5	3819	C	P-O3'-C3'	16.79	145.38	120.20
83	A5	3843	U	P-O3'-C3'	16.76	145.34	120.20
36	B2	825	A	P-O3'-C3'	16.75	145.33	120.20
83	A5	1565	A	P-O3'-C3'	16.67	145.20	120.20
36	B2	74	U	P-O3'-C3'	16.64	145.17	120.20
83	A5	3676	C	O4'-C1'-N1	16.64	133.46	108.50
83	A5	668	A	C2'-C3'-O3'	-16.57	88.84	113.70
83	A5	2491	C	O4'-C1'-N1	16.55	133.03	108.20
83	A5	1250	C	N1-C1'-C2'	16.52	136.77	112.00
36	B2	1169	C	P-O3'-C3'	16.45	144.88	120.20
36	B2	866	U	P-O3'-C3'	16.44	144.85	120.20
83	A5	2838	U	P-O3'-C3'	16.39	144.78	120.20
85	A7	72	U	P-O3'-C3'	16.39	144.78	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1668	U	N1-C1'-C2'	16.36	136.53	112.00
83	A5	2885	A	C4'-C3'-O3'	-16.32	88.51	113.00
83	A5	163	A	P-O3'-C3'	16.29	144.64	120.20
36	B2	1473	C	P-O3'-C3'	16.19	144.49	120.20
83	A5	680	C	P-O3'-C3'	16.19	144.48	120.20
83	A5	1927	U	C1'-C2'-O2'	-16.14	84.19	108.40
83	A5	1968	A	C4'-C3'-O3'	-16.11	85.24	109.40
36	B2	1788	C	O4'-C1'-N1	16.04	132.56	108.50
85	A7	38	U	O3'-P-O5'	15.99	127.98	104.00
83	A5	1811	A	O3'-P-O5'	15.98	127.97	104.00
36	B2	550	C	O4'-C1'-N1	15.98	132.47	108.50
72	Ck	40	ARG	CA-C-N	15.98	150.46	121.70
72	Ck	40	ARG	C-N-CA	15.98	150.46	121.70
83	A5	1863	U	P-O3'-C3'	15.97	144.15	120.20
36	B2	256	C	O3'-P-O5'	-15.95	80.08	104.00
36	B2	266	U	P-O3'-C3'	15.91	144.07	120.20
83	A5	773	G	P-O3'-C3'	15.90	144.05	120.20
83	A5	540	G	C4'-C3'-O3'	-15.89	89.17	113.00
83	A5	3708	U	P-O3'-C3'	15.85	143.98	120.20
83	A5	3034	A	P-O3'-C3'	15.84	143.96	120.20
85	A7	64	G	P-O3'-C3'	-15.83	96.45	120.20
36	B2	1749	C	P-O3'-C3'	15.80	143.90	120.20
83	A5	1368	A	O4'-C1'-N9	15.77	131.85	108.20
83	A5	1436	A	P-O3'-C3'	15.72	143.79	120.20
83	A5	77	A	C4'-C3'-O3'	-15.59	86.02	109.40
83	A5	2812	U	O4'-C1'-N1	15.50	131.45	108.20
36	B2	226	C	P-O3'-C3'	15.43	143.34	120.20
83	A5	2015	G	P-O3'-C3'	15.39	143.28	120.20
34	AQ	3	GLN	CA-C-N	15.38	149.39	121.70
34	AQ	3	GLN	C-N-CA	15.38	149.39	121.70
85	A7	38	U	P-O3'-C3'	-15.34	97.19	120.20
83	A5	2997	C	C4'-C3'-O3'	15.33	136.00	113.00
83	A5	3760	A	P-O3'-C3'	15.32	143.17	120.20
29	AG	68	LEU	CA-C-N	15.31	149.26	121.70
29	AG	68	LEU	C-N-CA	15.31	149.26	121.70
83	A5	2131	C	P-O3'-C3'	15.24	143.06	120.20
83	A5	761	C	N1-C1'-C2'	15.23	134.85	112.00
36	B2	1760	G	P-O3'-C3'	15.14	142.91	120.20
83	A5	1909	U	C4'-C3'-O3'	-15.14	90.29	113.00
83	A5	3838	A	P-O3'-C3'	15.14	142.91	120.20
83	A5	2949	A	P-O3'-C3'	15.13	142.90	120.20
83	A5	3801	A	C2'-C3'-O3'	15.12	136.38	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	973	G	N9-C1'-C2'	15.11	134.67	112.00
36	B2	699	A	P-O3'-C3'	15.10	142.85	120.20
83	A5	1668	U	C1'-O4'-C4'	-15.08	94.82	109.90
83	A5	3591	A	P-O3'-C3'	15.08	142.82	120.20
36	B2	68	C	O4'-C1'-N1	15.03	130.75	108.20
72	Ck	58	GLN	CA-C-N	15.02	148.74	121.70
72	Ck	58	GLN	C-N-CA	15.02	148.74	121.70
36	B2	75	U	O4'-C1'-N1	14.97	130.95	108.50
83	A5	1309	U	P-O5'-C5'	14.95	143.32	120.90
83	A5	187	A	P-O5'-C5'	14.93	143.29	120.90
36	B2	1695	A	O4'-C1'-N9	14.87	130.81	108.50
36	B2	1665	U	C4'-C3'-O3'	14.85	131.68	109.40
85	A7	64	G	P-O5'-C5'	-14.85	98.63	120.90
83	A5	225	U	P-O3'-C3'	14.80	142.41	120.20
83	A5	2278	G	P-O3'-C3'	14.80	142.40	120.20
36	B2	138	U	C2'-C3'-O3'	14.75	135.83	113.70
36	B2	1196	G	P-O3'-C3'	14.75	142.33	120.20
83	A5	3846	U	O4'-C1'-N1	14.75	130.62	108.50
83	A5	2454	U	P-O3'-C3'	14.71	142.27	120.20
36	B2	251	G	O4'-C1'-C2'	-14.65	92.95	107.60
36	B2	690	U	P-O3'-C3'	14.64	142.16	120.20
85	A7	13	A	C4'-C3'-O3'	14.63	131.34	109.40
1	Az	800	PHE	N-CA-C	14.58	130.97	111.28
36	B2	1331	A	P-O3'-C3'	14.58	142.07	120.20
83	A5	2128	A	P-O3'-C3'	14.47	141.91	120.20
84	A9	23	G	P-O3'-C3'	14.46	141.88	120.20
45	Ca	51	PRO	CA-C-N	14.42	147.66	121.70
45	Ca	51	PRO	C-N-CA	14.42	147.66	121.70
36	B2	1428	A	O4'-C1'-C2'	-14.42	93.18	107.60
83	A5	227	A	P-O3'-C3'	14.41	141.82	120.20
36	B2	904	C	P-O3'-C3'	14.39	141.79	120.20
83	A5	3417	C	C4'-C3'-O3'	-14.37	91.44	113.00
83	A5	1780	U	P-O3'-C3'	14.37	141.75	120.20
83	A5	2887	U	N1-C1'-C2'	14.36	133.54	112.00
36	B2	1727	U	C2'-C3'-O3'	-14.34	92.18	113.70
36	B2	1547	U	P-O3'-C3'	14.33	141.69	120.20
83	A5	1562	U	P-O3'-C3'	14.33	141.69	120.20
45	Ca	47	ASP	CA-C-N	14.32	147.47	121.70
45	Ca	47	ASP	C-N-CA	14.32	147.47	121.70
85	A7	73	U	P-O5'-C5'	14.26	142.29	120.90
36	B2	727	U	P-O3'-C3'	14.25	141.58	120.20
85	A7	62	U	P-O3'-C3'	-14.24	98.84	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
85	A7	49	A	O4'-C1'-C2'	-14.23	93.37	107.60
36	B2	1752	U	O4'-C1'-N1	14.19	129.78	108.50
36	B2	824	U	P-O3'-C3'	14.18	141.47	120.20
83	A5	2585	A	C4'-C3'-O3'	14.18	134.26	113.00
36	B2	484	C	C4'-C3'-O3'	-14.17	91.75	113.00
83	A5	958	U	P-O3'-C3'	14.16	141.43	120.20
83	A5	201	U	P-O3'-C3'	14.13	141.40	120.20
36	B2	255	U	C4'-C3'-O3'	-14.11	88.23	109.40
83	A5	3893	A	O4'-C1'-N9	14.07	129.60	108.50
83	A5	3788	G	O4'-C1'-N9	14.02	129.53	108.50
36	B2	1290	A	N9-C1'-C2'	14.01	133.01	112.00
79	CJ	102	GLU	CA-C-N	13.98	146.86	121.70
79	CJ	102	GLU	C-N-CA	13.98	146.86	121.70
83	A5	2660	U	P-O3'-C3'	13.97	141.16	120.20
83	A5	3018	U	P-O3'-C3'	13.91	141.06	120.20
83	A5	1229	U	P-O3'-C3'	13.89	141.04	120.20
83	A5	188	G	P-O5'-C5'	13.86	141.69	120.90
83	A5	3695	G	P-O3'-C3'	13.86	140.98	120.20
85	A7	65	C	C4'-C3'-O3'	13.84	133.75	113.00
83	A5	2155	A	N9-C1'-C2'	13.81	134.72	114.00
83	A5	3791	A	C4'-C3'-O3'	13.77	133.66	113.00
83	A5	3418	U	C1'-C2'-O2'	-13.75	87.78	108.40
36	B2	908	G	P-O3'-C3'	13.74	140.81	120.20
83	A5	1308	U	P-O3'-C3'	13.73	140.80	120.20
36	B2	1727	U	C4'-C3'-O3'	13.73	133.60	113.00
83	A5	3801	A	C5'-C4'-C3'	-13.70	95.45	116.00
83	A5	3258	C	N1-C1'-C2'	13.69	132.53	112.00
83	A5	2129	C	P-O3'-C3'	13.66	140.69	120.20
83	A5	2882	A	N9-C1'-C2'	13.66	132.49	112.00
36	B2	1571	U	O4'-C1'-N1	13.65	128.98	108.50
36	B2	138	U	O3'-P-O5'	-13.65	83.53	104.00
83	A5	1927	U	C4'-C3'-O3'	-13.65	92.53	113.00
83	A5	1594	U	O4'-C1'-N1	13.62	128.93	108.50
83	A5	1231	A	P-O3'-C3'	13.62	140.62	120.20
83	A5	315	G	O4'-C1'-N9	13.61	128.61	108.20
83	A5	147	A	P-O3'-C3'	13.60	140.60	120.20
36	B2	255	U	O3'-P-O5'	13.59	124.38	104.00
83	A5	2932	C	C4'-C3'-O3'	-13.57	92.64	113.00
37	BC	17	G	P-O3'-C3'	13.56	140.54	120.20
36	B2	429	C	N1-C1'-C2'	13.54	132.31	112.00
42	CL	169	VAL	CA-C-N	13.54	146.07	121.70
42	CL	169	VAL	C-N-CA	13.54	146.07	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1777	A	C4'-C3'-O3'	-13.53	92.70	113.00
36	B2	278	G	P-O3'-C3'	13.51	140.47	120.20
64	CF	173	THR	CA-C-N	13.49	145.98	121.70
64	CF	173	THR	C-N-CA	13.49	145.98	121.70
36	B2	200	U	C2'-C3'-O3'	13.48	133.92	113.70
36	B2	1333	C	O4'-C1'-N1	13.48	128.71	108.50
83	A5	3840	G	O4'-C1'-C2'	-13.47	94.12	107.60
83	A5	3002	U	C4'-C3'-O3'	13.47	129.61	109.40
83	A5	2085	G	O4'-C1'-C2'	13.44	121.04	107.60
83	A5	420	A	O4'-C1'-N9	13.43	128.65	108.50
83	A5	2626	C	N1-C1'-C2'	13.42	132.13	112.00
36	B2	698	U	P-O3'-C3'	13.41	140.32	120.20
86	A8	82	C	P-O3'-C3'	-13.41	100.08	120.20
36	B2	1079	A	O4'-C1'-N9	13.40	128.61	108.50
83	A5	2092	U	C2'-C3'-O3'	-13.40	93.60	113.70
36	B2	1342	G	O4'-C1'-N9	13.39	128.28	108.20
83	A5	3626	A	P-O3'-C3'	13.38	140.27	120.20
85	A7	43	U	N1-C1'-C2'	13.38	132.06	112.00
36	B2	1749	C	C4'-C3'-O3'	13.36	129.44	109.40
83	A5	1724	A	N9-C1'-C2'	13.36	132.04	112.00
83	A5	3697	A	P-O3'-C3'	13.36	140.24	120.20
83	A5	2122	G	N9-C1'-C2'	13.35	132.02	112.00
83	A5	1501	A	P-O3'-C3'	13.34	140.21	120.20
36	B2	1681	U	O4'-C1'-N1	13.33	128.49	108.50
83	A5	2767	U	N1-C1'-C2'	13.32	131.99	112.00
85	A7	64	G	C4'-C3'-O3'	-13.31	93.04	113.00
81	CE	65	SER	CA-C-N	13.23	145.51	121.70
81	CE	65	SER	C-N-CA	13.23	145.51	121.70
36	B2	1394	U	O4'-C1'-N1	13.22	128.33	108.50
83	A5	2005	U	O3'-P-O5'	-13.21	84.18	104.00
83	A5	623	C	O4'-C1'-C2'	-13.20	94.40	107.60
36	B2	1020	U	N1-C1'-C2'	13.19	133.79	114.00
36	B2	765	U	P-O3'-C3'	13.19	139.99	120.20
83	A5	1698	A	P-O3'-C3'	13.19	139.98	120.20
36	B2	1492	A	P-O3'-C3'	13.18	139.96	120.20
36	B2	1873	A	C4'-C3'-O3'	13.16	132.74	113.00
83	A5	1727	U	P-O3'-C3'	13.14	139.91	120.20
36	B2	1320	G	C1'-O4'-C4'	-13.12	96.78	109.90
83	A5	134	G	C2'-C3'-O3'	13.12	133.38	113.70
83	A5	2586	A	C4'-C3'-O3'	-13.11	89.73	109.40
74	CC	72	THR	CA-C-N	13.08	145.24	121.70
74	CC	72	THR	C-N-CA	13.08	145.24	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	AJ	5	ARG	CA-C-N	13.07	145.23	121.70
26	AJ	5	ARG	C-N-CA	13.07	145.23	121.70
83	A5	615	C	P-O3'-C3'	13.05	139.77	120.20
20	Aa	97	PRO	CA-C-O	-13.04	101.65	120.56
83	A5	1811	A	P-O3'-C3'	-13.04	100.64	120.20
83	A5	3095	C	P-O3'-C3'	12.99	139.69	120.20
83	A5	153	G	P-O3'-C3'	-12.97	100.74	120.20
83	A5	2479	A	O4'-C1'-N9	12.97	127.96	108.50
36	B2	697	U	P-O3'-C3'	12.97	139.65	120.20
83	A5	774	A	P-O3'-C3'	12.96	139.65	120.20
83	A5	116	U	O4'-C1'-N1	12.96	127.94	108.50
83	A5	2627	G	P-O3'-C3'	12.95	139.62	120.20
36	B2	157	C	P-O5'-C5'	12.94	140.30	120.90
83	A5	2490	G	P-O3'-C3'	12.91	139.56	120.20
36	B2	1995	A	O4'-C1'-N9	12.90	127.85	108.50
83	A5	1948	C	N1-C1'-C2'	12.89	131.34	112.00
83	A5	2904	U	P-O3'-C3'	12.88	139.52	120.20
36	B2	1427	U	P-O3'-C3'	12.87	139.50	120.20
83	A5	3770	A	C2'-C3'-O3'	-12.86	94.41	113.70
83	A5	2997	C	C2'-C3'-O3'	-12.85	94.43	113.70
83	A5	2040	A	C2'-C3'-O3'	-12.84	94.43	113.70
84	A9	21	G	P-O3'-C3'	12.84	139.46	120.20
68	Cf	40	SER	CA-C-N	12.83	144.79	121.70
68	Cf	40	SER	C-N-CA	12.83	144.79	121.70
83	A5	2651	G	P-O3'-C3'	12.82	139.43	120.20
83	A5	2085	G	C1'-O4'-C4'	-12.81	97.09	109.90
42	CL	57	VAL	CA-C-N	12.79	144.72	121.70
42	CL	57	VAL	C-N-CA	12.79	144.72	121.70
83	A5	1301	A	C4'-C3'-O3'	-12.76	93.86	113.00
83	A5	675	C	P-O3'-C3'	12.75	139.33	120.20
83	A5	755	A	O4'-C1'-C2'	-12.74	94.86	107.60
36	B2	1313	U	P-O3'-C3'	12.74	139.31	120.20
36	B2	950	U	O4'-C1'-N1	12.70	127.56	108.50
83	A5	178	U	P-O3'-C3'	12.70	139.26	120.20
83	A5	669	U	O5'-C5'-C4'	12.68	130.72	111.70
83	A5	304	U	C4'-C3'-O3'	-12.65	94.02	113.00
83	A5	1573	U	P-O3'-C3'	12.65	139.18	120.20
83	A5	573	U	P-O3'-C3'	12.62	139.13	120.20
83	A5	1488	A	P-O3'-C3'	12.61	139.11	120.20
83	A5	3754	C	N1-C1'-C2'	12.61	130.91	112.00
83	A5	1959	A	P-O5'-C5'	12.60	139.80	120.90
36	B2	943	U	O3'-P-O5'	12.60	122.89	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	211	U	O3'-P-O5'	12.59	122.89	104.00
83	A5	642	A	P-O3'-C3'	12.58	139.07	120.20
83	A5	3627	C	P-O3'-C3'	12.58	139.07	120.20
83	A5	416	C	O4'-C1'-C2'	-12.57	93.23	105.80
86	A8	80	C	O4'-C1'-N1	12.56	127.34	108.50
83	A5	1183	U	P-O3'-C3'	12.53	139.00	120.20
83	A5	1689	G	N9-C1'-C2'	12.52	130.78	112.00
83	A5	1907	U	O4'-C1'-C2'	-12.52	95.08	107.60
83	A5	1237	G	O4'-C1'-N9	12.51	127.27	108.50
83	A5	618	U	P-O3'-C3'	12.51	138.96	120.20
86	A8	68	U	N1-C1'-C2'	12.50	130.75	112.00
83	A5	3687	A	N9-C1'-C2'	12.49	132.74	114.00
83	A5	164	U	P-O3'-C3'	12.48	138.92	120.20
83	A5	1782	C	P-O3'-C3'	12.47	138.91	120.20
36	B2	1591	U	O4'-C1'-N1	12.47	126.90	108.20
28	AC	115	ASP	CA-C-N	12.46	145.33	121.54
28	AC	115	ASP	C-N-CA	12.46	145.33	121.54
36	B2	172	G	P-O3'-C3'	12.45	138.88	120.20
83	A5	1404	A	N9-C1'-C2'	12.45	130.68	112.00
36	B2	67	A	P-O3'-C3'	12.43	138.85	120.20
83	A5	667	U	N1-C1'-C2'	12.41	132.62	114.00
83	A5	864	G	N9-C1'-C2'	12.41	130.61	112.00
83	A5	3025	A	P-O5'-C5'	-12.40	101.40	120.00
36	B2	258	A	P-O3'-C3'	12.39	138.79	120.20
83	A5	1940	C	O4'-C1'-C2'	-12.37	95.23	107.60
83	A5	1968	A	P-O3'-C3'	12.37	138.76	120.20
83	A5	698	A	C4'-C3'-O3'	12.37	131.55	113.00
83	A5	1866	G	O4'-C1'-N9	12.36	127.04	108.50
83	A5	872	A	P-O3'-C3'	12.35	138.72	120.20
83	A5	872	A	O4'-C1'-N9	12.35	126.72	108.20
83	A5	3712	G	N9-C1'-C2'	12.32	130.49	112.00
83	A5	1712	C	P-O5'-C5'	12.32	139.38	120.90
83	A5	672	U	P-O3'-C3'	12.32	138.68	120.20
83	A5	1988	A	P-O5'-C5'	12.30	139.35	120.90
1	Az	218	GLY	N-CA-C	12.30	142.32	113.18
83	A5	1808	A	P-O3'-C3'	12.30	138.65	120.20
36	B2	1426	A	P-O3'-C3'	12.28	138.62	120.20
83	A5	1810	A	P-O5'-C5'	12.28	139.32	120.90
86	A8	82	C	O3'-P-O5'	12.27	122.41	104.00
83	A5	3472	A	C2'-C3'-O3'	12.27	132.10	113.70
83	A5	985	G	O4'-C1'-N9	12.26	126.89	108.50
83	A5	3853	C	P-O3'-C3'	12.26	138.59	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1648	C	O4'-C1'-N1	12.24	126.86	108.50
83	A5	3125	A	O4'-C1'-C2'	-12.24	93.56	105.80
63	CB	335	GLY	N-CA-C	12.24	142.18	113.18
83	A5	3472	A	P-O3'-C3'	12.23	138.55	120.20
83	A5	3025	A	C4'-C3'-O3'	12.21	128.32	110.00
83	A5	3193	C	O4'-C1'-N1	12.20	126.80	108.50
83	A5	740	G	P-O3'-C3'	12.19	138.49	120.20
53	CT	6	GLY	CA-C-N	12.19	136.61	120.28
53	CT	6	GLY	C-N-CA	12.19	136.61	120.28
36	B2	1650	G	N9-C1'-C2'	12.18	130.27	112.00
36	B2	250	U	P-O3'-C3'	12.18	138.47	120.20
83	A5	3728	A	P-O3'-C3'	12.15	138.43	120.20
83	A5	3567	A	O4'-C1'-C2'	-12.14	95.45	107.60
36	B2	857	G	P-O3'-C3'	12.14	138.41	120.20
68	Cf	105	PRO	N-CA-C	12.13	129.03	113.86
36	B2	264	C	N1-C1'-C2'	12.12	130.18	112.00
38	Cz	35	GLN	CB-CG-CD	12.12	133.20	112.60
36	B2	257	U	C4'-C3'-O3'	12.11	131.16	113.00
80	CH	162	SER	CA-C-N	12.09	143.46	121.70
80	CH	162	SER	C-N-CA	12.09	143.46	121.70
83	A5	1310	A	P-O3'-C3'	12.08	138.32	120.20
83	A5	607	A	P-O3'-C3'	12.08	138.32	120.20
1	Az	198	ASP	CA-C-N	12.07	143.43	121.70
1	Az	198	ASP	C-N-CA	12.07	143.43	121.70
36	B2	692	U	P-O3'-C3'	12.06	138.29	120.20
82	CG	88	PHE	CA-C-N	12.05	143.40	121.70
82	CG	88	PHE	C-N-CA	12.05	143.40	121.70
83	A5	3775	A	P-O3'-C3'	12.03	138.25	120.20
86	A8	58	C	O4'-C1'-N1	12.01	126.22	108.20
83	A5	24	G	N9-C1'-C2'	11.98	129.97	112.00
83	A5	885	U	N1-C1'-C2'	11.98	129.96	112.00
36	B2	726	U	P-O3'-C3'	11.97	138.16	120.20
83	A5	3539	C	N1-C1'-C2'	11.97	129.95	112.00
83	A5	300	A	P-O3'-C3'	11.96	138.13	120.20
83	A5	5	A	O4'-C1'-N9	11.94	126.41	108.50
83	A5	76	C	P-O3'-C3'	11.92	138.08	120.20
83	A5	1911	C	O4'-C1'-C2'	-11.91	95.69	107.60
83	A5	1323	C	P-O3'-C3'	11.91	138.06	120.20
83	A5	523	C	P-O3'-C3'	11.91	138.06	120.20
83	A5	3712	G	P-O3'-C3'	11.91	138.06	120.20
36	B2	1000	G	P-O3'-C3'	11.90	138.05	120.20
36	B2	825	A	P-O5'-C5'	11.89	138.74	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3843	U	N1-C1'-C2'	-11.88	94.18	112.00
83	A5	3719	A	O4'-C1'-N9	11.87	126.30	108.50
83	A5	1631	U	O4'-C1'-N1	11.85	125.98	108.20
36	B2	1472	C	O3'-P-O5'	-11.84	86.24	104.00
83	A5	3713	C	O4'-C1'-N1	11.84	126.26	108.50
83	A5	3886	U	C4'-C3'-O3'	-11.82	95.27	113.00
83	A5	186	G	P-O3'-C3'	11.78	137.87	120.20
83	A5	3803	C	N1-C1'-C2'	11.77	131.66	114.00
52	CS	18	PRO	N-CA-C	11.77	136.71	112.47
83	A5	138	A	O4'-C1'-N9	11.76	126.13	108.50
83	A5	1640	U	P-O3'-C3'	11.75	137.83	120.20
83	A5	1783	A	O4'-C1'-C2'	-11.74	95.86	107.60
83	A5	754	A	O4'-C1'-C2'	-11.72	95.88	107.60
83	A5	2820	G	P-O3'-C3'	11.68	137.72	120.20
83	A5	775	U	N1-C1'-C2'	11.68	129.51	112.00
83	A5	775	U	P-O5'-C5'	11.67	138.40	120.90
83	A5	420	A	P-O3'-C3'	11.67	137.70	120.20
83	A5	1661	C	O4'-C1'-C2'	-11.67	95.93	107.60
83	A5	865	A	O3'-P-O5'	-11.66	86.51	104.00
36	B2	225	G	C4'-C3'-O3'	11.63	126.85	109.40
83	A5	2673	A	N9-C1'-C2'	11.62	129.43	112.00
83	A5	346	U	P-O3'-C3'	11.61	137.62	120.20
83	A5	2064	G	P-O3'-C3'	11.59	137.59	120.20
83	A5	2200	A	O4'-C1'-C2'	-11.59	96.01	107.60
52	CS	58	THR	CA-C-N	11.59	130.79	122.33
52	CS	58	THR	C-N-CA	11.59	130.79	122.33
83	A5	2126	A	P-O3'-C3'	11.59	137.58	120.20
64	CF	234	GLY	CA-C-N	11.59	133.08	119.99
64	CF	234	GLY	C-N-CA	11.59	133.08	119.99
68	Cf	44	TYR	N-CA-C	11.56	119.85	108.75
36	B2	1338	U	C4'-C3'-O3'	11.56	130.34	113.00
83	A5	3876	U	N1-C1'-C2'	11.55	129.32	112.00
36	B2	464	G	C4'-C3'-O3'	-11.55	95.68	113.00
86	A8	21	U	P-O3'-C3'	-11.54	102.89	120.20
36	B2	200	U	C5'-C4'-C3'	-11.53	98.71	116.00
83	A5	3729	A	P-O5'-C5'	-11.50	103.65	120.90
83	A5	3035	A	P-O5'-C5'	11.49	137.23	120.00
83	A5	569	U	O3'-P-O5'	11.47	121.20	104.00
83	A5	2828	A	O4'-C1'-C2'	-11.47	96.13	107.60
36	B2	988	G	O4'-C1'-N9	11.45	125.68	108.50
83	A5	2008	U	N1-C1'-C2'	11.45	129.18	112.00
83	A5	1324	C	P-O3'-C3'	11.44	137.36	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	509	C	P-O3'-C3'	11.44	137.36	120.20
84	A9	23	G	P-O5'-C5'	11.44	138.06	120.90
1	Az	799	VAL	CA-C-N	11.44	139.10	122.63
1	Az	799	VAL	C-N-CA	11.44	139.10	122.63
36	B2	591	C	N1-C1'-C2'	11.43	129.14	112.00
83	A5	3732	U	C4'-C3'-O3'	-11.42	95.87	113.00
83	A5	2457	A	P-O3'-C3'	11.42	137.33	120.20
36	B2	947	U	N1-C1'-C2'	11.42	129.12	112.00
36	B2	835	A	O4'-C1'-C2'	-11.41	96.19	107.60
74	CC	195	GLY	CA-C-N	11.41	142.24	121.70
74	CC	195	GLY	C-N-CA	11.41	142.24	121.70
83	A5	3819	C	C4'-C3'-O3'	-11.41	92.28	109.40
83	A5	2968	C	P-O3'-C3'	11.41	137.31	120.20
83	A5	1688	A	P-O3'-C3'	11.39	137.28	120.20
36	B2	1734	G	C4'-C3'-O3'	11.37	126.46	109.40
36	B2	113	G	P-O3'-C3'	11.37	137.26	120.20
83	A5	2041	G	P-O3'-C3'	-11.37	103.14	120.20
1	Az	217	PHE	CA-C-N	11.36	143.68	121.41
1	Az	217	PHE	C-N-CA	11.36	143.68	121.41
36	B2	1402	U	N1-C1'-C2'	11.35	129.03	112.00
36	B2	253	A	O4'-C1'-C2'	11.35	117.15	105.80
83	A5	2487	C	N1-C1'-C2'	11.35	129.03	112.00
83	A5	1725	A	O4'-C1'-N9	11.34	125.21	108.20
36	B2	480	A	C4'-C3'-O3'	-11.34	95.99	113.00
83	A5	1544	U	P-O3'-C3'	11.34	137.21	120.20
83	A5	2996	U	N1-C1'-C2'	11.33	131.00	114.00
83	A5	3472	A	C4'-C3'-O3'	-11.33	96.00	113.00
45	Ca	93	LYS	CA-C-N	11.33	142.09	121.70
45	Ca	93	LYS	C-N-CA	11.33	142.09	121.70
83	A5	134	G	C5'-C4'-C3'	-11.32	99.01	116.00
77	Cp	66	GLY	CA-C-N	11.32	130.86	120.10
77	Cp	66	GLY	C-N-CA	11.32	130.86	120.10
36	B2	1729	C	O4'-C1'-C2'	-11.32	94.48	105.80
37	BC	48	C	O4'-C1'-C2'	-11.32	96.28	107.60
1	Az	226	PHE	N-CA-C	11.31	128.24	110.70
83	A5	3183	G	O4'-C1'-C2'	11.31	117.11	105.80
26	AJ	166	PHE	CA-C-N	11.31	142.06	121.70
26	AJ	166	PHE	C-N-CA	11.31	142.06	121.70
83	A5	470	G	P-O3'-C3'	11.30	137.16	120.20
83	A5	1181	A	N9-C1'-C2'	11.29	130.94	114.00
14	AT	97	ASP	CA-C-N	11.29	134.56	120.22
14	AT	97	ASP	C-N-CA	11.29	134.56	120.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AA	222	PRO	CB-CA-C	-11.29	97.15	110.92
36	B2	77	A	P-O3'-C3'	11.29	137.13	120.20
2	Ag	94	ALA	CA-C-N	11.27	141.99	121.70
2	Ag	94	ALA	C-N-CA	11.27	141.99	121.70
53	CT	5	LYS	CA-C-N	11.27	141.99	121.70
53	CT	5	LYS	C-N-CA	11.27	141.99	121.70
83	A5	493	A	P-O3'-C3'	11.27	137.10	120.20
36	B2	1584	A	O4'-C1'-C2'	-11.26	96.34	107.60
36	B2	1873	A	O3'-P-O5'	11.26	120.89	104.00
83	A5	1888	A	N9-C1'-C2'	11.26	128.89	112.00
83	A5	3514	C	C1'-C2'-O2'	11.24	125.27	108.40
36	B2	656	U	O4'-C1'-N1	11.22	125.03	108.20
36	B2	1320	G	N9-C1'-C2'	11.22	128.83	112.00
83	A5	639	U	C4'-C3'-O3'	-11.22	96.18	113.00
83	A5	2684	C	O4'-C1'-N1	11.20	125.00	108.20
36	B2	137	C	C2'-C3'-O3'	11.19	126.28	109.50
83	A5	2916	U	O4'-C1'-C2'	-11.17	94.63	105.80
83	A5	3697	A	P-O5'-C5'	11.17	137.66	120.90
36	B2	701	G	O4'-C1'-C2'	-11.17	96.43	107.60
83	A5	1810	A	O3'-P-O5'	11.16	120.75	104.00
83	A5	477	C	O4'-C1'-C2'	-11.16	96.44	107.60
36	B2	73	A	O4'-C1'-N9	11.15	124.93	108.20
36	B2	837	A	P-O3'-C3'	11.15	136.93	120.20
36	B2	1803	A	O3'-P-O5'	11.15	120.72	104.00
83	A5	1909	U	O3'-P-O5'	11.15	120.72	104.00
83	A5	300	A	O4'-C1'-C2'	-11.15	96.45	107.60
83	A5	1160	U	C3'-C2'-C1'	11.14	112.44	101.30
83	A5	610	G	P-O3'-C3'	11.14	136.91	120.20
51	CA	218	HIS	CA-C-N	11.13	134.59	120.56
51	CA	218	HIS	C-N-CA	11.13	134.59	120.56
83	A5	3117	A	C4'-C3'-O3'	11.12	126.07	109.40
83	A5	1581	G	P-O3'-C3'	11.11	136.87	120.20
83	A5	1074	U	C4'-C3'-O3'	-11.09	96.37	113.00
83	A5	2137	U	P-O3'-C3'	11.08	136.81	120.20
83	A5	1471	G	N9-C1'-C2'	11.06	128.59	112.00
83	A5	1690	U	O4'-C1'-C2'	-11.06	96.54	107.60
41	CO	59	TYR	CA-C-N	11.05	141.59	121.70
41	CO	59	TYR	C-N-CA	11.05	141.59	121.70
83	A5	3567	A	P-O3'-C3'	11.04	136.77	120.20
36	B2	1806	A	O4'-C1'-N9	11.04	125.06	108.50
10	AN	58	HIS	CA-C-N	11.03	141.56	121.70
10	AN	58	HIS	C-N-CA	11.03	141.56	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	817	C	N1-C1'-C2'	11.03	128.55	112.00
83	A5	3969	G	P-O3'-C3'	11.03	136.74	120.20
36	B2	1188	G	P-O3'-C3'	11.02	136.73	120.20
36	B2	285	U	P-O3'-C3'	11.01	136.71	120.20
36	B2	1717	A	O4'-C1'-C2'	-11.01	96.59	107.60
8	AS	89	ASP	CA-C-N	10.99	141.49	121.70
8	AS	89	ASP	C-N-CA	10.99	141.49	121.70
83	A5	227	A	O4'-C1'-C2'	-10.99	96.61	107.60
83	A5	1116	G	P-O3'-C3'	10.99	136.68	120.20
83	A5	1417	G	C1'-O4'-C4'	-10.98	98.92	109.90
83	A5	1721	C	C4'-C3'-O3'	-10.98	96.54	113.00
53	CT	149	ALA	CA-C-N	10.97	141.45	121.70
53	CT	149	ALA	C-N-CA	10.97	141.45	121.70
83	A5	535	A	P-O3'-C3'	10.97	136.65	120.20
83	A5	2138	C	N1-C1'-C2'	10.96	128.44	112.00
36	B2	140	G	P-O5'-C5'	10.95	137.33	120.90
83	A5	1015	G	N9-C1'-C2'	10.95	128.43	112.00
83	A5	2220	C	N1-C1'-C2'	10.95	128.42	112.00
83	A5	187	A	P-O3'-C3'	10.94	136.61	120.20
36	B2	1570	U	O4'-C1'-C2'	-10.93	94.88	105.80
36	B2	187	A	P-O3'-C3'	10.92	136.58	120.20
83	A5	2676	U	N1-C1'-C2'	10.91	130.37	114.00
83	A5	1197	A	C4'-C3'-O3'	10.91	125.77	109.40
83	A5	2839	A	P-O3'-C3'	-10.91	103.83	120.20
36	B2	188	C	O4'-C1'-C2'	-10.90	96.69	107.60
34	AQ	6	ARG	CA-C-N	10.90	135.47	120.65
34	AQ	6	ARG	C-N-CA	10.90	135.47	120.65
83	A5	1801	U	P-O3'-C3'	10.90	136.55	120.20
83	A5	3368	C	C3'-C2'-C1'	-10.89	90.41	101.30
83	A5	3923	C	O4'-C1'-C2'	-10.89	96.71	107.60
1	Az	694	THR	CA-C-N	10.88	137.13	121.02
1	Az	694	THR	C-N-CA	10.88	137.13	121.02
36	B2	1329	A	P-O3'-C3'	10.86	136.49	120.20
83	A5	3757	U	N1-C1'-C2'	10.85	128.28	112.00
1	Az	834	LEU	N-CA-C	10.85	133.78	109.81
36	B2	199	G	P-O3'-C3'	10.85	136.47	120.20
83	A5	1499	C	O4'-C1'-C2'	-10.84	96.76	107.60
83	A5	1886	C	N1-C1'-C2'	10.84	128.26	112.00
36	B2	68	C	P-O3'-C3'	10.83	136.45	120.20
83	A5	776	A	C2'-C3'-O3'	-10.82	97.47	113.70
83	A5	673	U	P-O5'-C5'	10.82	137.13	120.90
83	A5	984	U	O4'-C1'-N1	10.82	124.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	652	G	P-O3'-C3'	10.80	136.40	120.20
39	Cq	83	ARG	CA-C-N	10.80	142.58	121.41
39	Cq	83	ARG	C-N-CA	10.80	142.58	121.41
36	B2	1606	A	O4'-C1'-N9	10.78	124.68	108.50
83	A5	1802	U	P-O5'-C5'	10.79	137.08	120.90
83	A5	2762	A	O4'-C1'-C2'	-10.78	96.82	107.60
36	B2	1499	U	P-O3'-C3'	10.78	136.37	120.20
83	A5	157	C	P-O3'-C3'	10.78	136.36	120.20
36	B2	134	U	O3'-P-O5'	-10.77	87.84	104.00
36	B2	283	U	O4'-C1'-N1	10.77	124.35	108.20
83	A5	1593	U	O4'-C1'-N1	10.77	124.35	108.20
81	CE	71	THR	N-CA-CB	10.76	122.73	110.35
36	B2	635	C	N1-C1'-C2'	10.75	128.13	112.00
83	A5	2752	C	O4'-C1'-C2'	-10.75	95.05	105.80
83	A5	3405	U	N1-C1'-C2'	10.74	130.12	114.00
83	A5	2155	A	P-O3'-C3'	10.73	136.29	120.20
86	A8	110	C	C2'-C3'-O3'	-10.72	97.63	113.70
83	A5	324	A	O4'-C1'-C2'	-10.71	96.89	107.60
83	A5	188	G	N9-C1'-C2'	10.70	128.05	112.00
7	AM	40	HIS	N-CA-C	10.70	140.96	111.00
83	A5	2833	U	P-O3'-C3'	10.70	136.25	120.20
83	A5	910	C	C4'-C3'-O3'	10.70	129.05	113.00
36	B2	1159	C	C4'-C3'-O3'	-10.68	96.98	113.00
36	B2	1090	A	N9-C1'-C2'	10.68	130.02	114.00
36	B2	903	C	O4'-C1'-C2'	-10.68	96.92	107.60
83	A5	3928	A	O4'-C1'-N9	10.68	124.52	108.50
36	B2	1679	U	P-O3'-C3'	10.68	136.21	120.20
83	A5	3664	A	O4'-C1'-N9	10.67	124.51	108.50
36	B2	216	U	P-O3'-C3'	10.66	136.20	120.20
83	A5	2652	U	O4'-C1'-C2'	-10.66	96.94	107.60
36	B2	3	U	O4'-C1'-N1	10.66	124.19	108.20
36	B2	226	C	O3'-P-O5'	10.65	119.98	104.00
83	A5	4	U	O4'-C1'-C2'	-10.64	95.16	105.80
83	A5	2552	G	P-O3'-C3'	10.64	136.16	120.20
83	A5	386	G	P-O3'-C3'	-10.64	104.25	120.20
36	B2	513	A	O4'-C1'-C2'	-10.63	96.97	107.60
36	B2	74	U	O4'-C1'-N1	10.63	124.15	108.20
36	B2	139	U	O3'-P-O5'	10.63	119.94	104.00
36	B2	283	U	P-O3'-C3'	10.63	136.15	120.20
83	A5	3943	G	O4'-C1'-C2'	10.62	118.22	107.60
83	A5	1564	G	N9-C1'-C2'	10.62	127.93	112.00
83	A5	3706	U	O4'-C1'-N1	10.62	124.43	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	137	C	P-O3'-C3'	10.61	136.12	120.20
83	A5	3898	C	N1-C1'-C2'	10.59	127.89	112.00
83	A5	1240	A	P-O3'-C3'	10.59	136.08	120.20
67	Ce	124	PRO	CA-C-N	10.57	141.73	121.54
67	Ce	124	PRO	C-N-CA	10.57	141.73	121.54
83	A5	3754	C	C3'-C2'-C1'	10.56	111.86	101.30
83	A5	3770	A	C4'-C3'-O3'	10.56	128.84	113.00
83	A5	4	U	C1'-O4'-C4'	10.55	120.25	109.70
83	A5	1306	G	P-O3'-C3'	10.55	136.02	120.20
83	A5	3891	U	P-O3'-C3'	10.54	136.02	120.20
36	B2	1604	A	O4'-C1'-C2'	-10.54	97.06	107.60
36	B2	1338	U	P-O3'-C3'	10.53	135.99	120.20
83	A5	2124	G	P-O3'-C3'	10.53	135.99	120.20
86	A8	63	U	O4'-C1'-C2'	-10.53	97.07	107.60
80	CH	91	ARG	N-CA-C	10.52	125.49	112.23
36	B2	422	A	P-O3'-C3'	10.51	135.97	120.20
83	A5	1927	U	O5'-C5'-C4'	10.51	127.27	111.50
83	A5	640	U	P-O3'-C3'	10.51	135.96	120.20
36	B2	1603	G	N9-C1'-C2'	10.50	127.75	112.00
83	A5	929	A	P-O3'-C3'	10.49	135.94	120.20
83	A5	3590	C	O4'-C1'-C2'	-10.48	97.12	107.60
83	A5	3962	A	P-O3'-C3'	10.48	135.91	120.20
16	AA	158	ASP	CA-C-N	10.46	140.54	121.70
16	AA	158	ASP	C-N-CA	10.46	140.54	121.70
83	A5	3127	A	O4'-C1'-N9	10.46	124.20	108.50
83	A5	3502	A	O4'-C1'-N9	10.46	124.20	108.50
83	A5	2981	G	P-O3'-C3'	10.45	135.87	120.20
36	B2	1713	C	O4'-C1'-C2'	-10.44	95.36	105.80
83	A5	3024	U	C4'-C3'-O3'	-10.44	81.17	112.50
83	A5	2152	C	N1-C1'-C2'	10.44	127.66	112.00
83	A5	2929	U	P-O3'-C3'	10.44	135.86	120.20
83	A5	2471	A	P-O3'-C3'	10.43	135.85	120.20
81	CE	51	LYS	N-CA-C	10.42	122.33	110.97
83	A5	2969	U	P-O3'-C3'	10.42	135.83	120.20
83	A5	3765	A	O4'-C1'-N9	10.42	123.83	108.20
83	A5	484	A	P-O3'-C3'	10.40	135.80	120.20
36	B2	1018	C	O4'-C1'-C2'	-10.40	97.20	107.60
74	CC	314	ARG	N-CA-C	10.40	125.56	113.19
36	B2	430	A	N9-C1'-C2'	10.39	127.59	112.00
53	CT	144	LEU	CA-C-N	10.39	140.40	121.70
53	CT	144	LEU	C-N-CA	10.39	140.40	121.70
83	A5	2491	C	P-O3'-C3'	10.38	135.78	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1594	U	P-O3'-C3'	10.38	135.76	120.20
83	A5	2997	C	O3'-P-O5'	10.37	119.55	104.00
31	AH	110	LEU	CA-C-N	10.36	140.35	121.70
31	AH	110	LEU	C-N-CA	10.36	140.35	121.70
36	B2	223	A	O3'-P-O5'	-10.37	88.45	104.00
83	A5	3593	A	O4'-C1'-N9	10.36	124.05	108.50
60	Cr	132	GLY	CA-C-N	10.36	138.16	123.04
60	Cr	132	GLY	C-N-CA	10.36	138.16	123.04
36	B2	25	U	P-O3'-C3'	10.36	135.73	120.20
83	A5	512	A	O4'-C1'-C2'	-10.35	97.25	107.60
84	A9	6	G	O4'-C1'-C2'	-10.35	97.25	107.60
36	B2	1678	G	O4'-C1'-N9	10.34	124.02	108.50
83	A5	1212	G	C4'-C3'-O3'	-10.34	97.48	113.00
36	B2	313	C	O4'-C1'-N1	10.34	124.00	108.50
83	A5	1417	G	O4'-C1'-C2'	10.33	117.93	107.60
36	B2	1046	U	O4'-C1'-N1	10.32	123.99	108.50
83	A5	228	C	P-O3'-C3'	10.32	135.69	120.20
83	A5	1066	A	C4'-C3'-O3'	10.32	128.49	113.00
83	A5	2585	A	C2'-C3'-O3'	-10.32	98.22	113.70
83	A5	2907	U	C1'-O4'-C4'	10.31	120.02	109.70
36	B2	1445	A	O4'-C1'-C2'	-10.31	97.29	107.60
36	B2	1803	A	P-O3'-C3'	-10.29	104.76	120.20
85	A7	23	A	O3'-P-O5'	10.29	119.44	104.00
36	B2	4	C	N1-C1'-C2'	10.29	127.44	112.00
83	A5	1455	A	O4'-C1'-C2'	-10.29	97.31	107.60
83	A5	2217	A	N9-C1'-C2'	10.29	127.43	112.00
83	A5	1395	U	P-O3'-C3'	10.27	135.61	120.20
36	B2	174	A	O4'-C1'-N9	10.27	123.90	108.50
59	CZ	122	LYS	CA-C-N	10.26	140.18	121.70
59	CZ	122	LYS	C-N-CA	10.26	140.18	121.70
36	B2	323	U	C4'-C3'-O3'	-10.25	97.62	113.00
83	A5	189	A	O4'-C1'-N9	10.25	123.58	108.20
83	A5	869	A	O4'-C1'-N9	10.25	123.88	108.50
36	B2	1372	U	O4'-C1'-N1	10.25	123.57	108.20
52	CS	176	PHE	CA-CB-CG	10.25	124.05	113.80
83	A5	3683	G	C1'-O4'-C4'	-10.24	99.66	109.90
36	B2	404	A	O4'-C1'-C2'	-10.24	95.56	105.80
36	B2	878	C	P-O3'-C3'	10.24	135.56	120.20
36	B2	1833	C	O4'-C1'-C2'	-10.23	97.37	107.60
30	AF	209	SER	CA-C-N	10.22	140.10	121.70
30	AF	209	SER	C-N-CA	10.22	140.10	121.70
83	A5	2155	A	C3'-C2'-C1'	10.22	111.72	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	AT	152	ILE	CA-C-N	10.22	140.36	121.97
14	AT	152	ILE	C-N-CA	10.22	140.36	121.97
36	B2	215	C	P-O3'-C3'	10.20	135.50	120.20
36	B2	713	A	P-O3'-C3'	10.20	135.50	120.20
83	A5	3924	U	P-O3'-C3'	10.20	135.50	120.20
83	A5	2841	G	N9-C1'-C2'	10.20	127.30	112.00
83	A5	459	U	O4'-C1'-N1	10.19	123.79	108.50
83	A5	944	G	P-O3'-C3'	10.19	135.49	120.20
83	A5	815	A	N9-C1'-C2'	10.19	127.28	112.00
44	CM	8	GLN	CA-C-N	10.18	137.84	122.77
44	CM	8	GLN	C-N-CA	10.18	137.84	122.77
34	AQ	44	ILE	CA-C-N	10.18	133.82	122.83
34	AQ	44	ILE	C-N-CA	10.18	133.82	122.83
57	CY	128	ALA	N-CA-C	10.18	122.13	111.14
36	B2	631	C	O4'-C1'-N1	10.17	123.46	108.20
83	A5	2557	C	O4'-C1'-C2'	-10.17	95.63	105.80
36	B2	1147	U	O4'-C1'-N1	10.17	123.75	108.50
83	A5	1913	U	O4'-C1'-N1	10.16	123.75	108.50
83	A5	178	U	P-O5'-C5'	10.15	136.13	120.90
83	A5	1804	A	P-O3'-C3'	10.15	135.42	120.20
81	CE	224	LYS	CA-C-N	10.14	133.62	120.44
81	CE	224	LYS	C-N-CA	10.14	133.62	120.44
36	B2	1911	C	O4'-C1'-C2'	-10.14	95.66	105.80
83	A5	4	U	P-O3'-C3'	10.14	135.41	120.20
82	CG	41	PRO	CA-C-N	10.13	139.93	121.70
82	CG	41	PRO	C-N-CA	10.13	139.93	121.70
83	A5	304	U	P-O3'-C3'	10.12	135.38	120.20
85	A7	99	G	N9-C1'-C2'	10.12	127.18	112.00
36	B2	648	G	O4'-C1'-C2'	-10.11	97.49	107.60
83	A5	189	A	P-O3'-C3'	10.12	135.37	120.20
83	A5	3530	A	P-O3'-C3'	10.11	135.36	120.20
78	Co	25	GLN	CA-C-N	10.11	135.98	120.82
78	Co	25	GLN	C-N-CA	10.11	135.98	120.82
83	A5	1266	A	O4'-C1'-C2'	-10.10	97.50	107.60
83	A5	3773	G	O4'-C1'-N9	10.10	123.35	108.20
83	A5	1433	U	N1-C1'-C2'	10.09	127.13	112.00
83	A5	3829	U	O4'-C1'-N1	10.09	123.63	108.50
83	A5	771	A	P-O3'-C3'	10.08	135.31	120.20
83	A5	2116	U	P-O3'-C3'	10.08	135.32	120.20
74	CC	309	ARG	CA-C-N	10.07	140.78	121.54
74	CC	309	ARG	C-N-CA	10.07	140.78	121.54
83	A5	2109	G	N9-C1'-C2'	10.07	127.10	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	17	C	C3'-C2'-C1'	10.06	111.36	101.30
83	A5	2216	A	N9-C1'-C2'	-10.06	98.91	114.00
83	A5	2623	C	N1-C1'-C2'	10.06	127.08	112.00
83	A5	669	U	P-O3'-C3'	10.05	135.27	120.20
36	B2	139	U	P-O3'-C3'	-10.04	105.14	120.20
36	B2	521	U	O4'-C1'-C2'	-10.04	97.56	107.60
36	B2	1305	A	O4'-C1'-N9	10.04	123.26	108.20
83	A5	2015	G	O3'-P-O5'	-10.04	88.94	104.00
83	A5	2028	A	O4'-C1'-C2'	10.04	115.83	105.80
36	B2	474	C	N1-C1'-C2'	10.03	127.04	112.00
83	A5	3784	C	N1-C1'-C2'	10.02	127.03	112.00
1	Az	264	GLN	N-CA-C	10.02	132.13	110.80
83	A5	1407	C	P-O3'-C3'	10.01	135.22	120.20
83	A5	3710	U	O4'-C1'-N1	10.01	123.52	108.50
83	A5	3950	A	O4'-C1'-N9	10.00	123.49	108.50
36	B2	863	A	P-O3'-C3'	-9.99	105.21	120.20
36	B2	1917	A	O4'-C1'-C2'	-9.99	97.61	107.60
83	A5	1293	A	O4'-C1'-N9	9.99	123.49	108.50
83	A5	1750	G	O4'-C1'-N9	9.99	123.19	108.20
83	A5	3049	A	P-O3'-C3'	9.99	135.19	120.20
26	AJ	66	GLU	CA-C-N	9.99	139.68	121.70
26	AJ	66	GLU	C-N-CA	9.99	139.68	121.70
36	B2	371	A	O4'-C1'-C2'	-9.99	97.61	107.60
83	A5	3670	G	C1'-O4'-C4'	-9.98	99.92	109.90
36	B2	1573	U	C2'-C3'-O3'	9.97	128.66	113.70
83	A5	156	G	N9-C1'-C2'	9.96	126.93	112.00
36	B2	944	G	C4'-C3'-O3'	-9.95	98.07	113.00
83	A5	3530	A	O4'-C1'-N9	9.95	123.43	108.50
1	Az	95	ARG	CA-C-N	9.95	139.61	121.70
1	Az	95	ARG	C-N-CA	9.95	139.61	121.70
83	A5	1522	G	P-O3'-C3'	9.95	135.12	120.20
36	B2	704	U	P-O3'-C3'	9.93	135.10	120.20
83	A5	3569	C	N1-C1'-C2'	9.93	126.89	112.00
1	Az	647	PHE	CA-CB-CG	-9.93	103.87	113.80
36	B2	1873	A	C2'-C3'-O3'	-9.93	98.81	113.70
36	B2	1186	U	N1-C1'-C2'	9.92	128.87	114.00
81	CE	50	LYS	CA-C-N	9.91	133.74	120.65
81	CE	50	LYS	C-N-CA	9.91	133.74	120.65
36	B2	718	C	P-O3'-C3'	9.91	135.06	120.20
36	B2	655	A	O4'-C1'-C2'	-9.91	97.69	107.60
83	A5	776	A	C4'-C3'-O3'	9.90	127.86	113.00
83	A5	120	C	O4'-C1'-C2'	-9.90	95.90	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3482	G	O4'-C1'-C2'	-9.90	97.70	107.60
83	A5	3934	C	O3'-P-O5'	9.89	118.84	104.00
36	B2	1318	A	O4'-C1'-C2'	-9.88	97.72	107.60
1	Az	71	LYS	CA-C-N	9.88	140.40	121.54
1	Az	71	LYS	C-N-CA	9.88	140.40	121.54
83	A5	641	A	O4'-C1'-C2'	-9.87	97.73	107.60
83	A5	181	A	P-O3'-C3'	9.87	135.00	120.20
83	A5	3389	C	N1-C1'-C2'	9.87	126.80	112.00
83	A5	2750	A	P-O3'-C3'	9.87	135.00	120.20
83	A5	3764	G	O4'-C1'-N9	9.87	123.30	108.50
83	A5	1288	U	P-O3'-C3'	9.86	134.99	120.20
83	A5	2798	C	N1-C1'-C2'	9.86	126.79	112.00
83	A5	2126	A	C1'-O4'-C4'	9.85	119.75	109.90
60	Cr	80	ASN	N-CA-C	-9.84	100.09	113.18
83	A5	176	A	P-O3'-C3'	9.83	134.95	120.20
36	B2	1503	U	P-O3'-C3'	9.83	134.94	120.20
36	B2	1988	G	O4'-C1'-C2'	-9.83	95.97	105.80
83	A5	2243	G	O4'-C1'-N9	9.81	123.21	108.50
85	A7	64	G	O3'-P-O5'	9.81	118.71	104.00
40	CK	44	ASP	CA-CB-CG	-9.80	102.80	112.60
83	A5	1289	C	O4'-C1'-C2'	-9.80	97.80	107.60
36	B2	647	U	P-O3'-C3'	9.79	134.88	120.20
36	B2	267	G	C1'-O4'-C4'	-9.79	100.11	109.90
83	A5	95	G	N9-C1'-C2'	9.79	126.68	112.00
36	B2	948	A	N9-C1'-C2'	9.79	128.68	114.00
13	AP	131	HIS	CA-CB-CG	-9.78	104.02	113.80
34	AQ	30	GLY	CA-C-N	9.78	140.22	121.54
34	AQ	30	GLY	C-N-CA	9.78	140.22	121.54
39	Cq	182	PRO	CA-C-N	9.78	135.91	121.72
39	Cq	182	PRO	C-N-CA	9.78	135.91	121.72
83	A5	3628	G	O4'-C1'-C2'	-9.78	97.82	107.60
83	A5	1891	U	P-O3'-C3'	9.77	134.86	120.20
83	A5	3015	A	O4'-C1'-C2'	-9.77	97.83	107.60
62	Cb	38	LYS	CA-C-N	9.76	139.27	121.70
62	Cb	38	LYS	C-N-CA	9.76	139.27	121.70
83	A5	1296	U	O4'-C1'-N1	9.75	123.12	108.50
83	A5	2995	U	O4'-C1'-N1	9.74	123.12	108.50
36	B2	907	U	P-O3'-C3'	9.73	134.80	120.20
83	A5	3407	U	N1-C1'-C2'	9.73	126.60	112.00
69	Cg	61	GLU	N-CA-C	-9.72	102.50	114.75
83	A5	2029	G	P-O3'-C3'	9.72	134.78	120.20
36	B2	265	A	P-O3'-C3'	9.71	134.76	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3690	A	O4'-C1'-C2'	-9.71	97.89	107.60
83	A5	333	C	N1-C1'-C2'	9.70	126.55	112.00
36	B2	1620	G	O4'-C1'-C2'	9.70	117.30	107.60
83	A5	301	U	O4'-C1'-C2'	9.70	117.30	107.60
36	B2	152	U	O4'-C1'-C2'	-9.68	97.92	107.60
83	A5	3906	U	N1-C1'-C2'	9.68	126.52	112.00
83	A5	513	G	P-O3'-C3'	9.68	134.72	120.20
36	B2	438	C	N1-C1'-C2'	9.67	126.51	112.00
36	B2	96	C	N1-C1'-C2'	9.67	126.50	112.00
36	B2	395	G	O4'-C1'-N9	9.66	122.99	108.50
83	A5	77	A	O3'-P-O5'	-9.66	89.51	104.00
83	A5	3357	C	N1-C1'-C2'	9.65	126.48	112.00
83	A5	3802	U	P-O3'-C3'	9.65	134.68	120.20
83	A5	2196	U	O4'-C1'-N1	9.65	122.98	108.50
36	B2	154	A	P-O3'-C3'	9.65	134.67	120.20
44	CM	68	ALA	CA-C-N	9.64	129.73	119.89
44	CM	68	ALA	C-N-CA	9.64	129.73	119.89
36	B2	1322	C	N1-C1'-C2'	9.64	126.46	112.00
85	A7	27	A	O4'-C1'-C2'	-9.63	97.97	107.60
83	A5	1374	C	C4'-C3'-O3'	-9.63	98.55	113.00
36	B2	1620	G	C1'-O4'-C4'	-9.62	100.28	109.90
36	B2	1195	G	C4'-C3'-O3'	-9.60	98.59	113.00
83	A5	194	A	P-O3'-C3'	9.60	134.60	120.20
36	B2	140	G	C4'-C3'-O3'	-9.60	98.60	113.00
83	A5	1176	A	O4'-C1'-C2'	-9.60	98.00	107.60
83	A5	2994	C	O4'-C1'-C2'	-9.60	96.20	105.80
83	A5	1793	C	N1-C1'-C2'	9.59	128.39	114.00
36	B2	14	C	N1-C1'-C2'	9.59	126.39	112.00
83	A5	746	G	N9-C1'-C2'	9.59	126.38	112.00
83	A5	2620	C	O4'-C1'-C2'	-9.58	98.02	107.60
83	A5	1805	A	O4'-C1'-C2'	-9.58	98.02	107.60
83	A5	3807	G	N9-C1'-C2'	9.58	126.37	112.00
83	A5	862	U	O4'-C1'-C2'	-9.57	98.03	107.60
83	A5	3515	C	N1-C1'-C2'	9.57	126.35	112.00
83	A5	542	C	O4'-C1'-C2'	-9.57	98.03	107.60
85	A7	64	G	O5'-C5'-C4'	9.57	125.85	111.50
36	B2	998	U	C5'-C4'-C3'	-9.56	101.66	116.00
37	BC	33	C	N1-C1'-C2'	9.56	126.34	112.00
37	BC	74	C	P-O3'-C3'	9.56	134.54	120.20
36	B2	1342	G	O4'-C1'-C2'	9.56	115.36	105.80
83	A5	6	U	N1-C1'-C2'	9.55	126.33	112.00
36	B2	598	C	N1-C1'-C2'	9.55	126.33	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	818	C	C4'-C3'-O3'	-9.55	98.67	113.00
83	A5	270	G	P-O3'-C3'	9.55	134.53	120.20
83	A5	3700	U	C4'-C3'-O3'	9.54	127.32	113.00
36	B2	1582	C	O4'-C1'-C2'	9.54	117.14	107.60
83	A5	3621	A	O4'-C1'-C2'	-9.54	98.06	107.60
83	A5	2781	G	P-O3'-C3'	9.53	134.50	120.20
36	B2	426	A	O4'-C1'-C2'	-9.53	98.07	107.60
36	B2	1871	G	N9-C1'-C2'	9.53	126.29	112.00
86	A8	99	U	N1-C1'-C2'	9.53	126.29	112.00
36	B2	1170	G	P-O5'-C5'	-9.52	106.62	120.90
83	A5	3803	C	C3'-C2'-C1'	9.52	111.02	101.50
83	A5	3304	U	P-O3'-C3'	9.52	134.48	120.20
83	A5	1713	U	P-O5'-C5'	9.52	135.18	120.90
83	A5	1119	C	C4'-C3'-O3'	-9.52	98.73	113.00
83	A5	1755	U	O4'-C1'-C2'	-9.51	98.09	107.60
36	B2	195	G	O4'-C1'-N9	9.51	122.47	108.20
36	B2	1027	A	O4'-C1'-C2'	-9.51	98.09	107.60
36	B2	244	A	P-O3'-C3'	9.50	134.44	120.20
1	Az	834	LEU	CA-C-N	9.49	131.71	119.84
1	Az	834	LEU	C-N-CA	9.49	131.71	119.84
83	A5	11	C	N1-C1'-C2'	9.49	126.24	112.00
83	A5	212	U	O4'-C1'-C2'	-9.49	98.11	107.60
30	AF	121	PHE	CA-CB-CG	9.49	123.29	113.80
79	CJ	149	ARG	CA-C-N	9.49	132.99	120.28
79	CJ	149	ARG	C-N-CA	9.49	132.99	120.28
83	A5	1862	U	P-O3'-C3'	9.49	134.43	120.20
85	A7	22	A	C4'-C3'-O3'	-9.49	98.77	113.00
83	A5	9	A	P-O3'-C3'	9.48	134.42	120.20
36	B2	1991	C	O4'-C1'-N1	9.48	122.42	108.20
83	A5	874	G	N9-C1'-C2'	9.47	126.20	112.00
83	A5	1641	U	C5'-C4'-C3'	-9.47	101.80	116.00
83	A5	1867	A	P-O5'-C5'	9.46	135.09	120.90
83	A5	2910	C	O4'-C1'-C2'	-9.46	98.14	107.60
83	A5	864	G	C3'-C2'-C1'	9.46	110.76	101.30
34	AQ	31	ASN	N-CA-C	9.44	130.92	110.80
36	B2	398	C	O4'-C1'-C2'	-9.44	98.16	107.60
36	B2	929	A	P-O3'-C3'	9.43	134.34	120.20
83	A5	2992	A	N9-C1'-C2'	9.43	126.14	112.00
22	Ac	34	GLN	CA-C-N	9.42	139.54	121.54
22	Ac	34	GLN	C-N-CA	9.42	139.54	121.54
83	A5	3824	C	P-O5'-C5'	9.42	135.04	120.90
36	B2	1434	U	C4'-C3'-C2'	-9.42	93.18	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	310	LYS	N-CA-C	9.41	130.85	110.80
83	A5	1292	G	O4'-C1'-N9	9.41	122.61	108.50
83	A5	2641	C	O4'-C1'-C2'	-9.41	98.19	107.60
83	A5	3649	C	O4'-C1'-C2'	-9.41	96.39	105.80
83	A5	421	C	O4'-C1'-C2'	-9.40	98.20	107.60
34	AQ	5	ARG	CA-C-N	9.40	139.50	121.54
34	AQ	5	ARG	C-N-CA	9.40	139.50	121.54
79	CJ	159	GLN	CA-C-N	9.40	138.62	121.70
79	CJ	159	GLN	C-N-CA	9.40	138.62	121.70
83	A5	697	U	P-O3'-C3'	-9.39	106.11	120.20
85	A7	47	C	P-O3'-C3'	9.39	134.29	120.20
83	A5	211	U	P-O5'-C5'	9.39	134.98	120.90
83	A5	424	G	P-O3'-C3'	-9.39	106.12	120.20
83	A5	302	A	P-O3'-C3'	-9.38	106.13	120.20
83	A5	1963	U	O4'-C1'-C2'	-9.38	98.22	107.60
83	A5	3206	A	O4'-C1'-C2'	-9.38	98.22	107.60
83	A5	3627	C	C2'-C3'-O3'	9.38	123.57	109.50
83	A5	682	U	O3'-P-O5'	-9.38	89.94	104.00
83	A5	1248	A	P-O3'-C3'	9.37	134.25	120.20
36	B2	1807	C	P-O3'-C3'	9.36	134.24	120.20
83	A5	1598	A	N9-C1'-C2'	9.36	126.03	112.00
83	A5	1492	C	O3'-P-O5'	-9.35	89.98	104.00
83	A5	1711	C	O3'-P-O5'	9.35	118.02	104.00
42	CL	132	LYS	CB-CA-C	-9.34	98.92	111.63
83	A5	3443	A	O4'-C1'-C2'	9.34	115.14	105.80
83	A5	2879	A	P-O3'-C3'	9.34	134.21	120.20
83	A5	1411	U	O4'-C1'-C2'	-9.34	96.47	105.80
83	A5	3151	G	N9-C1'-C2'	9.34	126.00	112.00
83	A5	460	A	P-O5'-C5'	9.33	134.90	120.90
83	A5	3683	G	O4'-C1'-C2'	9.33	116.93	107.60
36	B2	198	C	C4'-C3'-O3'	9.33	127.00	113.00
83	A5	776	A	P-O3'-C3'	-9.33	106.21	120.20
83	A5	3670	G	O4'-C1'-C2'	9.33	116.93	107.60
36	B2	384	U	P-O3'-C3'	-9.33	106.21	120.20
83	A5	3118	U	P-O3'-C3'	9.32	134.19	120.20
83	A5	1177	U	P-O3'-C3'	9.32	134.18	120.20
36	B2	1821	G	C1'-O4'-C4'	-9.32	100.58	109.90
83	A5	925	C	O4'-C1'-C2'	-9.31	98.29	107.60
49	CQ	152	PHE	CA-C-N	9.31	138.46	121.70
49	CQ	152	PHE	C-N-CA	9.31	138.46	121.70
83	A5	491	U	O4'-C1'-C2'	-9.31	98.29	107.60
30	AF	57	ILE	CA-C-N	9.30	138.44	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	AF	57	ILE	C-N-CA	9.30	138.44	121.70
83	A5	3366	G	N9-C1'-C2'	9.30	125.95	112.00
36	B2	1455	U	C2'-C3'-O3'	9.29	127.64	113.70
83	A5	2516	U	C3'-C2'-C1'	9.29	110.59	101.30
83	A5	3676	C	P-O3'-C3'	9.29	134.14	120.20
64	CF	173	THR	O-C-N	-9.28	111.04	122.55
70	Ci	33	GLY	CA-C-N	9.28	135.57	120.63
70	Ci	33	GLY	C-N-CA	9.28	135.57	120.63
83	A5	2904	U	O4'-C1'-N1	9.28	122.42	108.50
36	B2	997	C	C4'-C3'-O3'	-9.28	99.08	113.00
83	A5	1173	U	O4'-C1'-C2'	-9.28	98.32	107.60
3	AU	53	LYS	CA-C-N	9.27	136.43	121.87
3	AU	53	LYS	C-N-CA	9.27	136.43	121.87
83	A5	3249	C	N1-C1'-C2'	9.27	125.91	112.00
1	Az	482	VAL	CA-C-N	9.27	134.73	121.02
1	Az	482	VAL	C-N-CA	9.27	134.73	121.02
83	A5	755	A	C1'-O4'-C4'	9.27	119.17	109.90
83	A5	3729	A	P-O3'-C3'	-9.27	106.30	120.20
85	A7	71	G	P-O3'-C3'	9.27	134.10	120.20
36	B2	1342	G	C1'-C2'-O2'	9.26	125.69	111.80
83	A5	1721	C	P-O5'-C5'	9.26	134.79	120.90
81	CE	157	PHE	CA-CB-CG	-9.26	104.54	113.80
36	B2	17	C	O4'-C1'-C2'	-9.26	98.34	107.60
83	A5	3393	U	O4'-C1'-C2'	-9.26	98.34	107.60
36	B2	944	G	O4'-C4'-C3'	-9.25	94.75	104.00
83	A5	1553	C	O4'-C1'-C2'	-9.25	98.35	107.60
83	A5	74	A	C4'-C3'-O3'	-9.25	99.13	113.00
83	A5	1180	U	P-O3'-C3'	9.24	134.06	120.20
83	A5	3759	G	N9-C1'-C2'	9.24	125.86	112.00
36	B2	1127	G	C1'-O4'-C4'	-9.23	100.67	109.90
36	B2	1652	A	O4'-C1'-N9	9.23	122.35	108.50
83	A5	123	U	P-O3'-C3'	9.23	134.05	120.20
36	B2	410	C	P-O3'-C3'	-9.23	106.36	120.20
83	A5	1491	U	O3'-P-O5'	-9.23	90.16	104.00
83	A5	461	U	P-O3'-C3'	9.22	134.03	120.20
83	A5	764	A	P-O3'-C3'	9.22	134.03	120.20
83	A5	1179	U	N1-C1'-C2'	9.22	125.83	112.00
83	A5	3498	A	C4'-C3'-O3'	9.22	126.83	113.00
36	B2	204	C	O4'-C1'-C2'	-9.22	98.38	107.60
83	A5	1226	G	P-O3'-C3'	9.22	134.02	120.20
36	B2	1582	C	C1'-C2'-O2'	9.20	122.20	108.40
83	A5	185	U	N1-C1'-C2'	9.20	125.81	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AK	70	THR	CA-C-N	9.20	132.61	120.28
4	AK	70	THR	C-N-CA	9.20	132.61	120.28
83	A5	3835	U	N1-C1'-C2'	9.20	125.80	112.00
83	A5	250	U	O3'-P-O5'	9.20	117.80	104.00
83	A5	1436	A	C4'-C3'-O3'	-9.20	95.60	109.40
83	A5	3514	C	N1-C1'-C2'	-9.20	98.20	112.00
83	A5	3856	U	O4'-C1'-C2'	-9.20	98.40	107.60
36	B2	1273	U	N1-C1'-C2'	9.19	127.79	114.00
36	B2	245	U	P-O3'-C3'	-9.19	106.41	120.20
83	A5	1668	U	C1'-C2'-O2'	9.19	122.18	108.40
83	A5	3292	C	O4'-C1'-C2'	-9.17	98.43	107.60
36	B2	1006	U	P-O5'-C5'	9.17	134.66	120.90
83	A5	1524	U	O4'-C1'-C2'	-9.17	98.43	107.60
83	A5	2776	A	O4'-C1'-C2'	-9.17	98.43	107.60
83	A5	118	A	O4'-C1'-C2'	9.17	116.77	107.60
31	AH	97	LYS	N-CA-C	9.16	124.27	113.18
83	A5	2919	A	P-O3'-C3'	9.16	133.94	120.20
83	A5	440	U	P-O5'-C5'	9.16	134.64	120.90
83	A5	3227	A	O4'-C1'-N9	9.16	121.94	108.20
83	A5	3023	A	O3'-P-O5'	9.16	117.74	104.00
83	A5	1300	G	C4'-C3'-O3'	9.15	126.73	113.00
25	Af	93	HIS	CA-C-N	9.15	132.62	121.64
25	Af	93	HIS	C-N-CA	9.15	132.62	121.64
83	A5	669	U	C4'-C3'-O3'	-9.15	95.67	109.40
83	A5	2090	U	C4'-C3'-O3'	-9.14	99.28	113.00
37	BC	57	A	O4'-C1'-C2'	-9.14	96.66	105.80
37	BC	70	C	N1-C1'-C2'	9.14	125.71	112.00
83	A5	1668	U	C3'-C2'-C1'	-9.13	92.17	101.30
83	A5	817	C	O4'-C1'-C2'	-9.13	98.47	107.60
15	AB	39	PHE	CA-CB-CG	-9.13	104.67	113.80
83	A5	594	U	P-O5'-C5'	9.13	134.59	120.90
83	A5	3697	A	C2'-C3'-O3'	9.12	123.19	109.50
84	A9	23	G	C5'-C4'-C3'	9.12	129.68	116.00
36	B2	1695	A	C3'-C2'-C1'	-9.12	92.18	101.30
83	A5	1801	U	C1'-O4'-C4'	9.12	119.02	109.90
36	B2	713	A	O4'-C1'-N9	9.11	122.17	108.50
83	A5	1456	U	O4'-C1'-N1	9.11	121.87	108.20
83	A5	2744	C	O4'-C1'-C2'	-9.11	98.49	107.60
36	B2	175	A	O4'-C1'-C2'	-9.11	98.49	107.60
83	A5	1527	C	O4'-C1'-C2'	-9.11	98.49	107.60
36	B2	190	U	O4'-C1'-N1	9.10	121.85	108.20
36	B2	1284	A	P-O3'-C3'	9.10	133.85	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1328	G	O4'-C1'-N9	9.10	122.14	108.50
36	B2	1550	C	P-O3'-C3'	9.09	133.84	120.20
83	A5	3239	C	O4'-C1'-C2'	-9.09	98.51	107.60
1	Az	95	ARG	N-CA-C	9.08	121.26	111.36
83	A5	1538	U	O4'-C1'-C2'	-9.08	98.52	107.60
86	A8	110	C	P-O3'-C3'	-9.08	106.58	120.20
36	B2	1804	U	P-O5'-C5'	9.07	134.51	120.90
83	A5	1134	G	N9-C1'-C2'	9.07	125.61	112.00
83	A5	1801	U	P-O5'-C5'	9.07	134.51	120.90
83	A5	2688	U	N1-C1'-C2'	9.07	125.61	112.00
83	A5	3627	C	P-O5'-C5'	9.07	134.51	120.90
83	A5	130	C	P-O3'-C3'	9.07	133.80	120.20
16	AA	208	GLU	CA-C-N	9.06	138.01	121.70
16	AA	208	GLU	C-N-CA	9.06	138.01	121.70
36	B2	1992	A	P-O3'-C3'	9.06	133.79	120.20
83	A5	263	A	O4'-C1'-C2'	-9.06	98.54	107.60
83	A5	3392	U	P-O3'-C3'	-9.06	106.61	120.20
36	B2	1810	C	O4'-C1'-C2'	-9.06	96.74	105.80
83	A5	1956	A	N9-C1'-C2'	9.06	125.59	112.00
83	A5	297	U	O4'-C1'-C2'	-9.06	98.54	107.60
36	B2	720	G	O4'-C1'-C2'	-9.05	98.55	107.60
48	CD	219	PHE	CA-CB-CG	-9.05	104.75	113.80
83	A5	3086	G	P-O3'-C3'	9.05	133.77	120.20
83	A5	358	C	N1-C1'-C2'	9.04	125.56	112.00
83	A5	746	G	C1'-O4'-C4'	-9.04	100.86	109.90
83	A5	1518	A	O4'-C1'-N9	9.04	121.75	108.20
36	B2	1758	A	C1'-O4'-C4'	-9.03	100.87	109.90
83	A5	1051	C	N1-C1'-C2'	9.03	125.54	112.00
83	A5	2098	C	O4'-C1'-C2'	-9.03	98.57	107.60
36	B2	1144	C	O4'-C1'-C2'	-9.02	96.78	105.80
83	A5	272	U	P-O3'-C3'	9.02	133.73	120.20
83	A5	1406	G	P-O3'-C3'	9.02	133.72	120.20
83	A5	2129	C	O4'-C1'-N1	9.01	121.72	108.20
36	B2	880	G	O4'-C1'-N9	9.01	122.02	108.50
1	Az	790	THR	CA-C-N	9.01	137.92	121.70
1	Az	790	THR	C-N-CA	9.01	137.92	121.70
83	A5	3666	C	N1-C1'-C2'	9.01	125.52	112.00
36	B2	316	U	O4'-C1'-N1	9.01	122.01	108.50
86	A8	84	U	P-O3'-C3'	9.01	133.71	120.20
36	B2	423	G	N9-C1'-C2'	9.00	125.50	112.00
39	Cq	183	PHE	CA-C-O	-9.00	110.05	120.49
85	A7	23	A	P-O3'-C3'	-9.00	106.70	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	120	U	N1-C1'-C2'	9.00	125.49	112.00
7	AM	108	ARG	N-CA-C	-8.99	97.12	108.45
66	Cd	38	ARG	CA-C-O	-8.99	111.32	121.39
83	A5	2270	G	C1'-O4'-C4'	-8.99	100.91	109.90
83	A5	3276	C	N1-C1'-C2'	8.99	125.48	112.00
36	B2	284	G	N9-C1'-C2'	8.99	125.48	112.00
36	B2	706	U	C3'-C2'-C1'	8.99	110.29	101.30
45	Ca	78	LYS	CA-C-N	8.99	138.71	121.54
45	Ca	78	LYS	C-N-CA	8.99	138.71	121.54
83	A5	50	U	N1-C1'-C2'	8.99	125.48	112.00
83	A5	2066	G	C3'-C2'-C1'	8.99	110.29	101.30
36	B2	600	A	C4'-C3'-O3'	8.98	126.47	113.00
36	B2	1022	A	O4'-C1'-C2'	-8.98	98.62	107.60
37	BC	47	C	P-O5'-C5'	-8.98	107.43	120.90
29	AG	58	LYS	CA-C-N	8.97	137.85	121.70
29	AG	58	LYS	C-N-CA	8.97	137.85	121.70
36	B2	310	C	N1-C1'-C2'	8.97	125.46	112.00
83	A5	697	U	O3'-P-O5'	-8.97	90.54	104.00
83	A5	1320	U	O4'-C1'-C2'	-8.97	98.63	107.60
37	BC	37	A	O4'-C1'-C2'	-8.97	98.63	107.60
57	CY	51	ARG	N-CA-C	8.97	123.23	111.75
83	A5	2671	C	O4'-C1'-C2'	-8.97	98.63	107.60
39	Cq	109	ALA	CA-C-N	8.96	134.67	121.31
39	Cq	109	ALA	C-N-CA	8.96	134.67	121.31
11	AL	152	PHE	CA-CB-CG	-8.96	104.84	113.80
83	A5	2037	C	O4'-C1'-N1	8.96	121.64	108.20
83	A5	3864	C	N1-C1'-C2'	8.96	125.44	112.00
36	B2	481	U	C5'-C4'-C3'	8.96	129.44	116.00
1	Az	553	CYS	CA-C-N	8.96	129.04	122.59
1	Az	553	CYS	C-N-CA	8.96	129.04	122.59
83	A5	2593	A	O4'-C1'-C2'	-8.96	98.64	107.60
36	B2	1945	A	O4'-C1'-C2'	-8.95	98.65	107.60
36	B2	1427	U	N1-C1'-C2'	8.95	125.42	112.00
83	A5	3188	A	O4'-C1'-C2'	8.95	114.75	105.80
83	A5	1470	C	N1-C1'-C2'	8.95	125.42	112.00
33	AI	121	LEU	CA-C-N	8.95	137.80	121.70
33	AI	121	LEU	C-N-CA	8.95	137.80	121.70
83	A5	3845	A	O4'-C1'-C2'	-8.95	98.65	107.60
83	A5	6	U	O5'-C5'-C4'	8.94	124.92	111.50
83	A5	2157	A	O4'-C1'-N9	8.95	121.62	108.20
83	A5	1637	U	O3'-P-O5'	8.94	117.41	104.00
36	B2	282	U	O4'-C1'-C2'	-8.94	98.66	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	431	G	C1'-O4'-C4'	-8.94	100.96	109.90
36	B2	1434	U	N1-C1'-C2'	8.94	125.41	112.00
63	CB	390	GLY	CA-C-N	8.94	131.01	119.84
63	CB	390	GLY	C-N-CA	8.94	131.01	119.84
34	AQ	3	GLN	O-C-N	-8.93	112.38	122.03
83	A5	1649	G	O4'-C1'-N9	8.93	121.90	108.50
83	A5	2466	C	O4'-C1'-C2'	-8.93	98.67	107.60
83	A5	3843	U	C1'-O4'-C4'	8.93	118.83	109.90
36	B2	137	C	N1-C1'-C2'	8.93	127.40	114.00
83	A5	3436	U	O4'-C1'-C2'	-8.93	98.67	107.60
51	CA	91	GLY	CA-C-N	8.93	132.24	120.28
51	CA	91	GLY	C-N-CA	8.93	132.24	120.28
83	A5	874	G	C1'-O4'-C4'	-8.92	100.98	109.90
83	A5	1778	A	C2'-C3'-O3'	-8.92	100.33	113.70
13	AP	32	PRO	CA-C-N	8.91	132.22	120.28
13	AP	32	PRO	C-N-CA	8.91	132.22	120.28
42	CL	127	PRO	CA-N-CD	-8.91	99.52	112.00
83	A5	304	U	O4'-C4'-C3'	-8.91	95.09	104.00
63	CB	3	HIS	CA-CB-CG	-8.91	104.89	113.80
83	A5	682	U	C2'-C3'-O3'	-8.91	100.34	113.70
83	A5	213	A	N9-C1'-C2'	8.91	125.36	112.00
36	B2	163	C	N1-C1'-C2'	8.90	125.36	112.00
83	A5	1056	G	N9-C1'-C2'	8.90	125.35	112.00
62	Cb	37	VAL	CA-C-N	8.90	135.50	122.41
62	Cb	37	VAL	C-N-CA	8.90	135.50	122.41
36	B2	1748	A	N9-C1'-C2'	8.90	127.35	114.00
36	B2	865	A	N9-C1'-C2'	8.90	125.35	112.00
36	B2	1454	G	C4'-C3'-O3'	-8.90	99.65	113.00
36	B2	1665	U	P-O3'-C3'	8.90	133.55	120.20
83	A5	804	C	N1-C1'-C2'	8.89	125.34	112.00
83	A5	980	A	P-O3'-C3'	8.89	133.53	120.20
83	A5	910	C	C2'-C3'-O3'	-8.89	100.37	113.70
83	A5	1501	A	O4'-C1'-C2'	-8.89	96.91	105.80
83	A5	2485	A	O4'-C1'-C2'	-8.89	98.71	107.60
36	B2	1185	U	P-O3'-C3'	8.88	133.53	120.20
1	Az	361	GLY	CA-C-N	8.88	130.94	119.84
1	Az	361	GLY	C-N-CA	8.88	130.94	119.84
83	A5	3891	U	O4'-C1'-N1	8.88	121.52	108.20
78	Co	92	GLY	CA-C-N	8.88	138.81	121.41
78	Co	92	GLY	C-N-CA	8.88	138.81	121.41
83	A5	1556	C	N1-C1'-C2'	8.88	125.32	112.00
83	A5	1788	G	O4'-C1'-C2'	-8.88	98.72	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	155	U	N1-C1'-C2'	8.87	127.31	114.00
83	A5	2796	G	P-O3'-C3'	8.87	133.50	120.20
36	B2	1245	A	P-O3'-C3'	8.87	133.50	120.20
50	CR	130	ASN	N-CA-C	8.87	120.94	111.28
83	A5	2007	U	P-O3'-C3'	8.87	133.50	120.20
36	B2	1173	A	N9-C1'-C2'	8.86	125.29	112.00
38	Cz	57	HIS	CA-C-N	8.86	138.53	122.13
38	Cz	57	HIS	C-N-CA	8.86	138.53	122.13
83	A5	1561	G	P-O3'-C3'	8.86	133.49	120.20
83	A5	1757	A	N9-C1'-C2'	8.86	127.30	114.00
83	A5	3719	A	C3'-C2'-C1'	-8.86	92.44	101.30
36	B2	1960	A	N9-C1'-C2'	8.86	127.28	114.00
83	A5	580	A	P-O3'-C3'	8.86	133.49	120.20
36	B2	1792	A	N9-C1'-C2'	8.85	127.28	114.00
74	CC	335	ALA	N-CA-C	-8.85	101.60	111.07
86	A8	76	A	C2'-C3'-O3'	8.85	126.97	113.70
36	B2	819	G	O3'-P-O5'	-8.85	90.73	104.00
78	Co	35	ALA	CA-C-N	8.85	132.48	120.54
78	Co	35	ALA	C-N-CA	8.85	132.48	120.54
83	A5	3927	C	O4'-C1'-C2'	-8.85	98.75	107.60
36	B2	511	G	C1'-O4'-C4'	8.84	118.74	109.90
36	B2	985	A	P-O3'-C3'	8.84	133.46	120.20
83	A5	640	U	C4'-C3'-O3'	-8.84	99.73	113.00
83	A5	3154	C	O4'-C1'-C2'	-8.84	98.76	107.60
83	A5	2932	C	P-O3'-C3'	-8.84	106.94	120.20
20	Aa	107	ALA	CA-C-N	8.84	137.61	121.70
20	Aa	107	ALA	C-N-CA	8.84	137.61	121.70
36	B2	215	C	O4'-C1'-C2'	-8.84	96.97	105.80
83	A5	1231	A	P-O5'-C5'	8.84	134.15	120.90
36	B2	1314	G	N9-C1'-C2'	8.83	127.25	114.00
83	A5	637	U	O4'-C1'-C2'	-8.83	98.77	107.60
83	A5	1958	G	N9-C1'-C2'	8.83	125.24	112.00
36	B2	1287	G	O4'-C1'-N9	8.83	121.74	108.50
83	A5	1744	U	P-O3'-C3'	8.83	133.44	120.20
83	A5	2553	U	P-O3'-C3'	8.83	133.44	120.20
36	B2	1341	C	P-O3'-C3'	8.83	133.44	120.20
27	AE	239	PRO	CA-C-N	8.82	134.45	121.31
27	AE	239	PRO	C-N-CA	8.82	134.45	121.31
83	A5	567	A	P-O3'-C3'	8.82	133.43	120.20
83	A5	3775	A	C3'-C2'-C1'	8.82	110.32	101.50
67	Ce	15	ARG	CA-C-N	8.82	132.81	120.29
67	Ce	15	ARG	C-N-CA	8.82	132.81	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1913	C	P-O5'-C5'	8.82	134.12	120.90
83	A5	2627	G	P-O5'-C5'	8.81	134.12	120.90
36	B2	248	G	P-O3'-C3'	8.81	133.41	120.20
36	B2	645	C	O4'-C1'-C2'	-8.81	98.79	107.60
84	A9	19	U	O4'-C1'-C2'	-8.81	98.79	107.60
70	Ci	9	ILE	N-CA-C	8.81	119.62	110.72
83	A5	301	U	C3'-C2'-C1'	-8.81	92.49	101.30
83	A5	515	A	C1'-O4'-C4'	8.81	118.71	109.90
36	B2	1741	A	P-O3'-C3'	8.81	133.41	120.20
36	B2	1910	U	N1-C1'-C2'	8.81	125.21	112.00
83	A5	2796	G	O4'-C1'-N9	8.80	121.40	108.20
83	A5	3211	A	O4'-C1'-N9	8.80	121.70	108.50
36	B2	156	U	O3'-P-O5'	8.79	117.18	104.00
36	B2	1345	U	C4'-C3'-O3'	8.79	126.18	113.00
36	B2	1650	G	C1'-O4'-C4'	-8.78	101.12	109.90
39	Cq	96	THR	N-CA-C	-8.78	102.70	113.41
83	A5	3004	A	P-O3'-C3'	8.78	133.36	120.20
83	A5	461	U	C2'-C3'-O3'	8.77	122.66	109.50
83	A5	1456	U	O4'-C1'-C2'	8.77	114.57	105.80
83	A5	132	U	P-O3'-C3'	8.77	133.35	120.20
42	CL	161	PRO	CA-N-CD	-8.76	99.73	112.00
83	A5	1295	A	O4'-C1'-N9	8.76	121.64	108.50
83	A5	12	C	N1-C1'-C2'	8.76	125.14	112.00
83	A5	715	U	O4'-C1'-N1	8.76	121.64	108.50
83	A5	2211	A	P-O3'-C3'	8.76	133.34	120.20
83	A5	2572	G	N9-C1'-C2'	8.76	125.13	112.00
36	B2	1529	G	O4'-C1'-N9	8.75	121.33	108.20
83	A5	973	G	C1'-O4'-C4'	-8.75	101.15	109.90
83	A5	1751	U	N1-C1'-C2'	8.75	125.12	112.00
83	A5	1921	U	P-O3'-C3'	8.75	133.33	120.20
83	A5	3955	U	C4'-C3'-O3'	-8.75	96.28	109.40
36	B2	1569	C	C3'-C2'-C1'	8.74	110.05	101.30
42	CL	56	PRO	N-CA-C	8.74	130.49	112.47
83	A5	192	U	P-O3'-C3'	8.74	133.32	120.20
7	AM	39	VAL	CB-CA-C	8.74	125.63	111.29
85	A7	119	C	P-O3'-C3'	8.74	133.32	120.20
36	B2	975	U	N1-C1'-C2'	8.74	125.11	112.00
83	A5	372	U	O4'-C1'-C2'	-8.74	98.86	107.60
1	Az	251	TRP	N-CA-CB	8.74	123.37	110.35
36	B2	1780	G	C1'-O4'-C4'	-8.74	101.16	109.90
7	AM	89	HIS	N-CA-C	8.73	120.57	111.14
42	CL	162	ALA	N-CA-C	8.73	120.79	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	831	A	O4'-C1'-C2'	-8.73	98.87	107.60
83	A5	1463	C	O4'-C1'-C2'	-8.73	98.87	107.60
83	A5	1647	A	N9-C1'-C2'	8.73	125.09	112.00
83	A5	3571	C	N1-C1'-C2'	8.73	125.09	112.00
1	Az	467	LYS	CA-C-N	8.72	138.20	121.54
1	Az	467	LYS	C-N-CA	8.72	138.20	121.54
36	B2	156	U	O4'-C1'-N1	8.72	121.58	108.50
83	A5	3145	U	O4'-C1'-C2'	-8.72	98.88	107.60
83	A5	481	A	O4'-C1'-C2'	-8.72	98.88	107.60
83	A5	1921	U	O3'-P-O5'	8.72	117.08	104.00
85	A7	96	U	O4'-C1'-C2'	-8.72	98.88	107.60
37	BC	12	G	O4'-C1'-C2'	8.72	116.32	107.60
83	A5	1480	U	O4'-C1'-C2'	-8.71	98.89	107.60
83	A5	2142	A	O4'-C1'-C2'	-8.71	98.89	107.60
36	B2	1431	A	P-O3'-C3'	8.71	133.27	120.20
83	A5	2268	G	O3'-P-O5'	-8.71	90.94	104.00
83	A5	2815	A	O4'-C1'-N9	8.71	121.56	108.50
83	A5	801	G	N9-C1'-C2'	8.71	125.06	112.00
83	A5	3232	G	N9-C1'-C2'	8.70	125.06	112.00
85	A7	24	U	O3'-P-O5'	8.71	117.06	104.00
83	A5	212	U	P-O5'-C5'	8.70	133.95	120.90
83	A5	745	U	P-O3'-C3'	8.70	133.25	120.20
36	B2	867	G	C1'-O4'-C4'	-8.70	101.20	109.90
83	A5	3818	G	C4'-C3'-O3'	-8.69	99.96	113.00
83	A5	2651	G	O4'-C1'-C2'	-8.69	97.11	105.80
80	CH	110	ILE	N-CA-CB	8.69	125.56	111.23
52	CS	17	LEU	CA-C-N	8.69	130.70	119.84
52	CS	17	LEU	C-N-CA	8.69	130.70	119.84
83	A5	2174	A	O4'-C1'-N9	8.69	121.23	108.20
83	A5	3478	G	O4'-C1'-C2'	8.69	116.29	107.60
83	A5	3843	U	O4'-C1'-C2'	-8.69	98.91	107.60
83	A5	2196	U	O4'-C1'-C2'	-8.69	98.92	107.60
83	A5	1323	C	O4'-C1'-C2'	-8.68	98.92	107.60
36	B2	628	A	O3'-P-O5'	-8.68	90.98	104.00
83	A5	3717	U	P-O3'-C3'	8.68	133.22	120.20
83	A5	3856	U	O4'-C1'-N1	8.68	121.52	108.50
36	B2	414	C	O4'-C1'-C2'	-8.68	98.92	107.60
83	A5	1600	U	P-O3'-C3'	8.67	133.21	120.20
83	A5	2092	U	C4'-C3'-O3'	8.67	126.01	113.00
83	A5	3404	A	P-O3'-C3'	8.67	133.21	120.20
36	B2	1821	G	N9-C1'-C2'	8.66	125.00	112.00
36	B2	1949	A	P-O3'-C3'	8.66	133.20	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	642	A	O4'-C1'-C2'	-8.66	98.94	107.60
83	A5	3391	U	C4'-C3'-O3'	8.66	122.38	109.40
36	B2	964	G	O4'-C1'-C2'	-8.65	98.95	107.60
83	A5	223	A	O4'-C1'-C2'	-8.65	98.95	107.60
83	A5	1417	G	N9-C1'-C2'	8.65	124.98	112.00
83	A5	1707	A	N9-C1'-C2'	8.65	124.97	112.00
36	B2	54	C	C3'-C2'-C1'	8.64	109.94	101.30
83	A5	734	U	O4'-C1'-C2'	-8.64	98.96	107.60
83	A5	1601	U	O4'-C1'-N1	8.64	121.47	108.50
83	A5	1931	C	N1-C1'-C2'	8.64	124.97	112.00
83	A5	2146	G	O4'-C1'-C2'	-8.64	98.96	107.60
83	A5	3361	U	O4'-C1'-C2'	-8.64	98.96	107.60
83	A5	3570	C	O4'-C1'-C2'	-8.64	98.96	107.60
36	B2	794	U	P-O3'-C3'	8.64	133.16	120.20
83	A5	2516	U	O4'-C1'-C2'	-8.64	98.96	107.60
83	A5	2162	C	O4'-C1'-C2'	-8.64	98.96	107.60
36	B2	464	G	P-O3'-C3'	8.64	133.15	120.20
83	A5	865	A	P-O3'-C3'	8.63	133.15	120.20
28	AC	39	ASP	CA-C-N	8.63	137.24	121.70
28	AC	39	ASP	C-N-CA	8.63	137.24	121.70
36	B2	249	U	C1'-O4'-C4'	-8.63	101.27	109.90
81	CE	64	LYS	N-CA-C	8.63	129.18	110.80
83	A5	589	A	O4'-C1'-C2'	-8.63	98.97	107.60
83	A5	1699	A	P-O5'-C5'	8.62	133.84	120.90
83	A5	3228	A	C3'-C2'-C1'	8.63	109.93	101.30
83	A5	3272	A	N9-C1'-C2'	8.62	124.94	112.00
83	A5	1317	A	P-O5'-C5'	8.62	133.83	120.90
83	A5	3149	U	O4'-C1'-N1	8.62	121.13	108.20
60	Cr	45	SER	CA-C-N	8.62	128.52	120.34
60	Cr	45	SER	C-N-CA	8.62	128.52	120.34
83	A5	262	G	C2'-C3'-O3'	8.62	122.42	109.50
86	A8	51	A	O4'-C1'-C2'	-8.62	98.98	107.60
83	A5	841	A	P-O3'-C3'	8.61	133.12	120.20
83	A5	2737	C	N1-C1'-C2'	8.61	124.92	112.00
36	B2	1036	C	N1-C1'-C2'	8.61	124.92	112.00
83	A5	1095	G	N9-C1'-C2'	8.61	126.91	114.00
36	B2	1729	C	C3'-C2'-C1'	8.61	110.11	101.50
31	AH	108	ASN	CA-CB-CG	8.60	121.20	112.60
83	A5	588	U	P-O5'-C5'	8.60	133.81	120.90
83	A5	652	G	C1'-O4'-C4'	-8.60	101.10	109.70
83	A5	3839	A	O4'-C1'-N9	8.60	121.40	108.50
83	A5	3816	A	O4'-C1'-C2'	-8.60	99.00	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	69	A	P-O3'-C3'	8.60	133.10	120.20
83	A5	2235	G	O4'-C1'-C2'	-8.60	99.00	107.60
83	A5	3791	A	C2'-C3'-O3'	-8.60	100.80	113.70
83	A5	3391	U	P-O3'-C3'	8.59	133.09	120.20
36	B2	381	C	P-O3'-C3'	8.59	133.08	120.20
36	B2	621	G	N9-C1'-C2'	8.59	126.88	114.00
83	A5	3762	G	P-O3'-C3'	8.59	133.08	120.20
83	A5	3790	A	P-O3'-C3'	8.59	133.08	120.20
83	A5	3790	A	C4'-C3'-O3'	-8.59	100.12	113.00
86	A8	68	U	C1'-O4'-C4'	-8.59	101.31	109.90
83	A5	201	U	O4'-C1'-N1	8.58	121.37	108.50
31	AH	99	LEU	CA-C-N	8.58	130.57	119.84
31	AH	99	LEU	C-N-CA	8.58	130.57	119.84
83	A5	497	U	O4'-C1'-N1	8.58	121.37	108.50
83	A5	3487	A	O4'-C1'-C2'	-8.57	99.03	107.60
83	A5	1015	G	C1'-O4'-C4'	-8.57	101.33	109.90
36	B2	566	U	P-O3'-C3'	8.57	133.06	120.20
83	A5	1554	C	N1-C1'-C2'	8.57	124.86	112.00
83	A5	200	U	P-O3'-C3'	8.56	133.05	120.20
40	CK	120	SER	N-CA-C	8.56	122.71	111.75
83	A5	117	C	C3'-C2'-C1'	8.56	109.86	101.30
83	A5	515	A	O4'-C1'-C2'	-8.56	99.04	107.60
83	A5	3886	U	P-O3'-C3'	-8.56	107.36	120.20
83	A5	2175	A	O4'-C1'-C2'	-8.56	99.04	107.60
36	B2	276	A	O4'-C1'-C2'	-8.55	99.05	107.60
36	B2	1792	A	P-O3'-C3'	8.55	133.02	120.20
83	A5	2101	C	O4'-C1'-C2'	-8.55	99.05	107.60
36	B2	1956	U	P-O3'-C3'	8.55	133.02	120.20
36	B2	157	C	O4'-C1'-C2'	-8.54	99.06	107.60
83	A5	2405	A	P-O3'-C3'	8.54	133.01	120.20
83	A5	3695	G	O4'-C1'-C2'	8.54	114.34	105.80
83	A5	562	U	N1-C1'-C2'	8.54	124.80	112.00
83	A5	3025	A	O3'-P-O5'	8.54	116.80	104.00
42	CL	171	LYS	N-CA-C	8.53	128.98	110.80
83	A5	2030	U	N1-C1'-C2'	8.54	124.80	112.00
83	A5	3665	U	N1-C1'-C2'	8.53	124.79	112.00
83	A5	3762	G	O4'-C1'-C2'	8.52	114.32	105.80
83	A5	1492	C	P-O5'-C5'	-8.52	108.12	120.90
83	A5	91	U	N1-C1'-C2'	8.51	124.76	112.00
83	A5	2520	U	N1-C1'-C2'	8.51	124.76	112.00
80	CH	106	ASN	CA-C-N	8.50	137.01	121.70
80	CH	106	ASN	C-N-CA	8.50	137.01	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1818	U	P-O3'-C3'	-8.50	107.45	120.20
37	BC	41	A	O4'-C1'-C2'	-8.50	99.10	107.60
4	AK	86	GLU	N-CA-C	-8.50	92.70	110.80
83	A5	1255	U	O4'-C1'-N1	8.49	121.24	108.50
83	A5	1564	G	C1'-O4'-C4'	-8.49	101.41	109.90
83	A5	3693	G	C1'-O4'-C4'	-8.49	101.41	109.90
83	A5	3697	A	O4'-C1'-N9	8.49	120.93	108.20
83	A5	2651	G	C2'-C3'-O3'	8.49	122.23	109.50
36	B2	511	G	P-O3'-C3'	8.48	132.93	120.20
83	A5	3474	G	N9-C1'-C2'	8.48	124.72	112.00
83	A5	1739	U	O4'-C1'-C2'	-8.48	99.12	107.60
36	B2	1202	G	O4'-C1'-N9	8.48	120.92	108.20
68	Cf	16	LYS	N-CA-C	8.48	120.52	111.28
83	A5	3577	U	N1-C1'-C2'	8.47	124.71	112.00
85	A7	119	C	O4'-C1'-C2'	-8.47	99.12	107.60
36	B2	1298	C	N1-C1'-C2'	8.47	124.70	112.00
83	A5	3017	U	P-O3'-C3'	8.47	132.91	120.20
48	CD	186	GLU	CA-C-N	8.47	136.94	121.70
48	CD	186	GLU	C-N-CA	8.47	136.94	121.70
83	A5	1107	G	P-O3'-C3'	8.47	132.90	120.20
83	A5	79	G	C4'-C3'-O3'	-8.46	100.31	113.00
36	B2	1760	G	O4'-C1'-N9	8.46	120.89	108.20
83	A5	1879	U	O4'-C1'-N1	8.46	120.88	108.20
83	A5	1701	C	N1-C1'-C2'	8.45	124.68	112.00
83	A5	2137	U	O4'-C1'-C2'	-8.45	99.15	107.60
83	A5	2999	U	C2'-C3'-O3'	8.45	122.18	109.50
83	A5	1369	C	O4'-C1'-C2'	-8.45	99.15	107.60
83	A5	1705	U	O4'-C1'-N1	8.45	121.17	108.50
83	A5	1992	G	C1'-O4'-C4'	-8.45	101.45	109.90
83	A5	3034	A	O3'-P-O5'	8.45	116.67	104.00
83	A5	3841	C	O4'-C1'-N1	8.45	120.87	108.20
36	B2	1031	A	O4'-C1'-C2'	-8.44	97.36	105.80
83	A5	3168	A	O4'-C1'-C2'	8.44	116.04	107.60
83	A5	3676	C	N1-C1'-C2'	-8.44	99.34	112.00
36	B2	266	U	O4'-C1'-N1	8.44	120.86	108.20
83	A5	1957	C	N1-C1'-C2'	8.43	124.64	112.00
83	A5	3717	U	C4'-C3'-O3'	-8.43	100.36	113.00
83	A5	2769	G	N9-C1'-C2'	8.42	124.63	112.00
36	B2	1121	C	O4'-C1'-C2'	-8.42	99.18	107.60
36	B2	1666	G	C4'-C3'-O3'	-8.42	100.38	113.00
83	A5	1423	C	O4'-C1'-C2'	-8.42	97.38	105.80
31	AH	108	ASN	N-CA-C	8.41	122.53	110.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1678	G	C3'-C2'-C1'	-8.41	92.89	101.30
83	A5	1657	G	N9-C1'-C2'	8.41	124.62	112.00
83	A5	2877	G	O4'-C1'-N9	8.41	121.12	108.50
36	B2	1353	U	O4'-C1'-C2'	-8.41	99.19	107.60
83	A5	3567	A	C3'-C2'-C1'	8.41	109.71	101.30
83	A5	3926	C	O4'-C1'-C2'	-8.41	97.39	105.80
34	AQ	13	GLN	N-CA-C	8.41	122.33	108.96
83	A5	2000	U	N1-C1'-C2'	8.41	124.61	112.00
83	A5	2520	U	C3'-C2'-C1'	8.41	109.71	101.30
83	A5	2194	G	N9-C1'-C2'	8.40	124.61	112.00
83	A5	3332	G	O4'-C1'-C2'	-8.40	99.20	107.60
83	A5	2061	G	C1'-O4'-C4'	-8.40	101.50	109.90
83	A5	242	C	N1-C1'-C2'	8.40	126.59	114.00
83	A5	3383	A	N9-C1'-C2'	8.40	124.60	112.00
46	CN	182	GLN	CA-C-N	8.39	136.81	121.70
46	CN	182	GLN	C-N-CA	8.39	136.81	121.70
83	A5	1003	C	N1-C1'-C2'	8.39	124.59	112.00
83	A5	1029	C	N1-C1'-C2'	8.39	124.59	112.00
83	A5	3212	A	O4'-C1'-N9	8.39	120.79	108.20
1	Az	207	ARG	N-CA-C	8.39	122.98	111.90
36	B2	195	G	P-O3'-C3'	8.39	132.79	120.20
83	A5	1489	A	O4'-C1'-C2'	-8.39	99.21	107.60
83	A5	1752	G	O4'-C1'-C2'	8.39	115.99	107.60
36	B2	567	C	O4'-C1'-C2'	-8.39	99.21	107.60
83	A5	3820	C	O4'-C1'-C2'	-8.39	99.21	107.60
83	A5	770	C	O4'-C1'-C2'	-8.39	99.21	107.60
3	AU	107	ASN	CA-CB-CG	-8.38	104.22	112.60
83	A5	3268	A	P-O3'-C3'	8.38	132.78	120.20
36	B2	1913	C	O4'-C1'-C2'	-8.38	99.22	107.60
83	A5	2764	A	O4'-C1'-C2'	-8.38	99.22	107.60
28	AC	81	LEU	N-CA-C	-8.38	97.37	108.34
60	Cr	133	LYS	N-CA-C	8.38	122.66	108.67
70	Ci	75	LYS	CA-C-N	8.38	132.61	120.38
70	Ci	75	LYS	C-N-CA	8.38	132.61	120.38
83	A5	1228	C	O4'-C1'-N1	8.38	120.76	108.20
83	A5	2907	U	P-O3'-C3'	8.37	132.76	120.20
83	A5	631	A	O4'-C1'-C2'	-8.37	99.23	107.60
83	A5	2836	A	O4'-C1'-C2'	-8.37	99.23	107.60
83	A5	503	A	N9-C1'-C2'	8.37	124.56	112.00
36	B2	873	A	P-O3'-C3'	-8.37	107.65	120.20
36	B2	1736	U	O4'-C1'-C2'	-8.37	99.23	107.60
83	A5	1992	G	O4'-C1'-C2'	8.37	115.97	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3207	C	O4'-C1'-C2'	-8.37	99.23	107.60
36	B2	328	A	N9-C1'-C2'	8.37	124.55	112.00
83	A5	1373	A	C4'-C3'-O3'	8.37	125.55	113.00
83	A5	1311	U	O4'-C1'-C2'	-8.36	99.24	107.60
43	CV	123	LYS	CA-C-N	8.36	131.48	120.28
43	CV	123	LYS	C-N-CA	8.36	131.48	120.28
66	Cd	66	ASN	CA-CB-CG	8.36	120.96	112.60
83	A5	2767	U	C1'-O4'-C4'	-8.36	101.54	109.90
83	A5	2603	U	O4'-C1'-C2'	-8.36	99.25	107.60
83	A5	3402	C	O4'-C1'-C2'	-8.36	99.25	107.60
35	Ah	134	PRO	CA-C-N	8.35	128.86	119.93
35	Ah	134	PRO	C-N-CA	8.35	128.86	119.93
36	B2	1554	U	O4'-C1'-N1	8.35	121.02	108.50
83	A5	1066	A	C2'-C3'-O3'	-8.35	101.18	113.70
83	A5	1228	C	O4'-C1'-C2'	-8.35	97.45	105.80
83	A5	3258	C	C1'-C2'-O2'	8.35	120.92	108.40
31	AH	98	ILE	N-CA-C	8.35	126.70	109.34
36	B2	113	G	O4'-C1'-C2'	-8.35	97.45	105.80
83	A5	826	A	O4'-C1'-C2'	-8.35	99.25	107.60
36	B2	419	C	N1-C1'-C2'	8.34	124.51	112.00
36	B2	563	A	P-O3'-C3'	8.34	132.71	120.20
36	B2	1296	A	O4'-C1'-N9	8.34	121.01	108.50
83	A5	3162	C	N1-C1'-C2'	8.34	124.51	112.00
36	B2	613	A	O4'-C1'-C2'	-8.34	99.26	107.60
36	B2	873	A	O3'-P-O5'	8.34	116.51	104.00
86	A8	81	A	O4'-C1'-C2'	-8.34	99.26	107.60
48	CD	188	LYS	CA-C-N	8.34	136.70	121.70
48	CD	188	LYS	C-N-CA	8.34	136.70	121.70
49	CQ	70	PHE	CA-CB-CG	-8.34	105.46	113.80
83	A5	3628	G	C3'-C2'-C1'	8.34	109.64	101.30
83	A5	1564	G	O4'-C1'-C2'	8.33	115.93	107.60
83	A5	1927	U	O3'-P-O5'	-8.33	91.50	104.00
83	A5	2105	C	C3'-C2'-C1'	8.33	109.63	101.30
83	A5	3848	U	O4'-C1'-N1	8.33	120.99	108.50
36	B2	1137	G	C4'-C3'-O3'	8.33	125.49	113.00
83	A5	3814	U	O4'-C1'-C2'	-8.32	99.28	107.60
36	B2	1715	G	O4'-C1'-N9	8.32	120.98	108.50
83	A5	431	C	O4'-C1'-C2'	-8.32	99.28	107.60
83	A5	2524	A	O4'-C1'-C2'	-8.32	99.28	107.60
86	A8	60	U	C4'-C3'-O3'	8.32	125.48	113.00
83	A5	2192	U	N1-C1'-C2'	8.32	124.48	112.00
35	Ah	117	PHE	N-CA-C	8.32	120.12	111.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1803	A	C2'-C3'-O3'	-8.32	101.23	113.70
68	Cf	16	LYS	CA-C-N	8.31	136.67	121.70
68	Cf	16	LYS	C-N-CA	8.31	136.67	121.70
71	Cj	87	LYS	CA-C-N	8.31	132.59	120.95
71	Cj	87	LYS	C-N-CA	8.31	132.59	120.95
83	A5	1786	G	N9-C1'-C2'	8.31	124.47	112.00
36	B2	1719	C	O4'-C1'-C2'	-8.31	99.29	107.60
36	B2	1002	A	N9-C1'-C2'	8.31	124.46	112.00
56	CX	159	ARG	CA-C-N	8.31	132.93	121.05
56	CX	159	ARG	C-N-CA	8.31	132.93	121.05
1	Az	309	LEU	N-CA-C	8.31	128.49	110.80
74	CC	365	LEU	N-CA-CB	8.30	124.62	110.50
83	A5	238	G	C1'-O4'-C4'	-8.30	101.59	109.90
36	B2	399	C	N1-C1'-C2'	8.30	124.45	112.00
36	B2	1576	A	O4'-C1'-C2'	-8.30	99.30	107.60
83	A5	1077	C	N1-C1'-C2'	8.30	124.45	112.00
83	A5	1687	U	N1-C1'-C2'	8.30	126.45	114.00
36	B2	992	A	O4'-C1'-C2'	-8.30	99.30	107.60
83	A5	624	A	O4'-C1'-C2'	-8.30	99.30	107.60
83	A5	746	G	C3'-C2'-C1'	-8.29	93.01	101.30
38	Cz	211	GLY	CA-C-N	8.29	128.92	120.38
38	Cz	211	GLY	C-N-CA	8.29	128.92	120.38
44	CM	152	ARG	N-CA-C	8.29	120.09	111.14
83	A5	2131	C	C3'-C2'-C1'	8.29	109.59	101.30
83	A5	2950	C	P-O5'-C5'	8.29	132.44	120.00
83	A5	753	U	O4'-C1'-N1	8.29	120.63	108.20
17	AV	13	VAL	CA-C-O	-8.29	115.25	120.88
29	AG	147	LEU	N-CA-C	8.29	122.81	112.87
83	A5	2741	A	C1'-O4'-C4'	-8.29	101.61	109.90
83	A5	3552	G	O4'-C1'-C2'	8.28	115.88	107.60
36	B2	1546	U	P-O3'-C3'	8.28	132.62	120.20
52	CS	55	LYS	N-CA-CB	8.28	122.78	109.95
36	B2	198	C	O3'-P-O5'	-8.28	91.59	104.00
83	A5	420	A	C3'-C2'-C1'	-8.28	93.03	101.30
83	A5	460	A	O4'-C1'-C2'	-8.28	97.52	105.80
83	A5	2131	C	O4'-C1'-C2'	-8.28	99.32	107.60
83	A5	3686	A	O4'-C1'-N9	8.28	120.91	108.50
36	B2	648	G	C3'-C2'-C1'	8.27	109.57	101.30
52	CS	175	TYR	CA-C-N	8.27	134.54	122.63
52	CS	175	TYR	C-N-CA	8.27	134.54	122.63
81	CE	221	PHE	N-CA-C	8.27	127.15	113.50
1	Az	266	GLN	N-CA-C	8.27	128.40	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1740	G	O4'-C1'-C2'	-8.27	99.33	107.60
81	CE	232	LEU	N-CA-CB	8.27	122.67	110.35
83	A5	1279	C	C3'-C2'-C1'	8.27	109.57	101.30
83	A5	863	U	N1-C1'-C2'	8.26	124.40	112.00
83	A5	1250	C	C1'-C2'-O2'	8.26	120.80	108.40
55	CU	231	ASN	CA-CB-CG	-8.26	104.34	112.60
83	A5	2134	A	O4'-C1'-C2'	-8.26	99.34	107.60
83	A5	241	C	O4'-C1'-C2'	8.26	114.06	105.80
36	B2	1673	U	P-O3'-C3'	8.26	132.58	120.20
83	A5	2130	G	P-O5'-C5'	8.26	133.28	120.90
83	A5	3474	G	C1'-O4'-C4'	-8.26	101.64	109.90
36	B2	866	U	O4'-C1'-C2'	-8.25	97.55	105.80
63	CB	63	PRO	CA-C-N	8.25	137.59	121.41
63	CB	63	PRO	C-N-CA	8.25	137.59	121.41
83	A5	2956	U	P-O3'-C3'	8.25	132.57	120.20
36	B2	61	A	O4'-C1'-C2'	8.25	115.85	107.60
83	A5	260	A	N9-C1'-C2'	8.25	124.37	112.00
83	A5	3819	C	C2'-C3'-O3'	8.25	121.87	109.50
36	B2	1244	C	O4'-C1'-C2'	-8.24	99.36	107.60
36	B2	1373	U	N1-C1'-C2'	8.24	124.36	112.00
83	A5	2196	U	N1-C1'-C2'	-8.24	99.64	112.00
83	A5	3661	C	N1-C1'-C2'	8.24	124.36	112.00
34	AQ	6	ARG	N-CA-C	8.23	128.34	110.80
36	B2	1449	U	P-O3'-C3'	-8.23	107.85	120.20
59	CZ	130	PHE	CA-CB-CG	-8.23	105.57	113.80
83	A5	1317	A	O4'-C1'-C2'	-8.23	99.36	107.60
36	B2	495	U	O3'-P-O5'	8.23	116.35	104.00
83	A5	3781	U	O4'-C1'-C2'	-8.23	99.37	107.60
83	A5	2701	G	O4'-C1'-C2'	-8.23	97.57	105.80
81	CE	225	TYR	CA-CB-CG	8.22	128.70	113.90
63	CB	55	HIS	CA-CB-CG	8.22	122.02	113.80
83	A5	1390	C	O4'-C1'-N1	8.22	120.54	108.20
83	A5	2077	A	O4'-C1'-C2'	-8.22	99.38	107.60
85	A7	39	C	C4'-C3'-O3'	-8.22	100.67	113.00
36	B2	1765	U	P-O3'-C3'	8.22	132.53	120.20
42	CL	161	PRO	N-CA-C	8.22	129.40	112.47
83	A5	3369	A	O4'-C1'-C2'	-8.22	97.58	105.80
78	Co	31	GLU	N-CA-C	8.21	128.30	110.80
36	B2	65	A	N9-C1'-C2'	-8.21	101.68	114.00
83	A5	942	A	O4'-C1'-C2'	-8.21	99.39	107.60
83	A5	2770	C	N1-C1'-C2'	8.21	124.32	112.00
85	A7	117	G	N9-C1'-C2'	8.21	124.32	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1392	U	O4'-C1'-N1	8.21	120.51	108.20
36	B2	916	U	O4'-C1'-C2'	-8.21	99.39	107.60
37	BC	54	U	O4'-C1'-N1	8.21	120.81	108.50
51	CA	98	ILE	CA-C-N	8.21	136.47	121.70
51	CA	98	ILE	C-N-CA	8.21	136.47	121.70
83	A5	1939	U	O4'-C1'-N1	8.21	120.81	108.50
79	CJ	36	ASP	CA-CB-CG	-8.20	104.40	112.60
83	A5	3620	G	O4'-C1'-N9	8.20	120.80	108.50
83	A5	749	U	C4'-C3'-O3'	8.20	125.30	113.00
83	A5	2575	C	O4'-C1'-C2'	-8.20	97.60	105.80
86	A8	70	A	N9-C1'-C2'	8.20	126.29	114.00
36	B2	589	U	N1-C1'-C2'	8.19	124.29	112.00
83	A5	445	C	C3'-C2'-C1'	8.19	109.49	101.30
36	B2	1618	C	O4'-C1'-C2'	-8.19	97.61	105.80
36	B2	1671	U	O4'-C1'-C2'	-8.19	99.41	107.60
83	A5	1959	A	O5'-C5'-C4'	8.19	123.79	111.50
61	Ch	122	LYS	N-CA-CB	8.19	124.33	110.49
83	A5	1727	U	C2'-C3'-O3'	8.18	121.78	109.50
83	A5	2066	G	O4'-C1'-C2'	-8.18	99.42	107.60
58	CW	81	ALA	N-CA-C	8.18	121.38	111.40
19	AZ	103	HIS	ND1-CE1-NE2	8.18	116.58	108.40
81	CE	193	VAL	CA-C-O	-8.18	108.99	119.95
83	A5	2093	U	P-O3'-C3'	8.18	132.47	120.20
83	A5	2847	G	O3'-P-O5'	-8.17	91.74	104.00
83	A5	3808	A	P-O3'-C3'	8.17	132.46	120.20
81	CE	28	GLY	CA-C-N	-8.17	116.09	121.65
81	CE	28	GLY	C-N-CA	-8.17	116.09	121.65
83	A5	3498	A	O3'-P-O5'	8.17	116.26	104.00
83	A5	3778	U	O4'-C1'-C2'	-8.17	99.43	107.60
36	B2	298	U	N1-C1'-C2'	8.17	124.26	112.00
36	B2	90	A	O4'-C1'-C2'	-8.17	99.43	107.60
63	CB	177	LYS	N-CA-CB	8.17	122.34	110.58
36	B2	880	G	C3'-C2'-C1'	-8.16	93.14	101.30
36	B2	214	G	P-O3'-C3'	8.16	132.44	120.20
36	B2	1145	U	P-O3'-C3'	8.16	132.44	120.20
83	A5	161	G	C3'-C2'-C1'	8.16	109.46	101.30
83	A5	833	U	O4'-C1'-C2'	-8.16	99.44	107.60
83	A5	190	A	P-O3'-C3'	8.16	132.44	120.20
83	A5	2086	U	O4'-C4'-C3'	-8.16	95.84	104.00
36	B2	197	A	O4'-C1'-C2'	-8.15	99.45	107.60
83	A5	1667	U	P-O3'-C3'	8.15	132.43	120.20
86	A8	50	A	O4'-C1'-C2'	8.15	113.95	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1644	C	O4'-C1'-C2'	-8.15	99.45	107.60
5	AO	32	HIS	CA-CB-CG	-8.14	105.66	113.80
10	AN	72	LEU	CA-C-N	8.14	131.19	120.28
10	AN	72	LEU	C-N-CA	8.14	131.19	120.28
83	A5	2493	C	C3'-C2'-C1'	8.14	109.44	101.30
83	A5	3499	G	O3'-P-O5'	-8.14	91.79	104.00
83	A5	1797	A	O4'-C1'-C2'	-8.14	97.66	105.80
83	A5	2006	U	P-O5'-C5'	-8.13	108.70	120.90
20	Aa	104	LYS	CA-C-N	8.13	133.03	120.75
20	Aa	104	LYS	C-N-CA	8.13	133.03	120.75
82	CG	83	PRO	N-CA-C	8.13	120.62	110.70
36	B2	1849	U	O4'-C1'-N1	8.13	120.39	108.20
83	A5	860	A	O4'-C1'-C2'	-8.13	99.47	107.60
31	AH	86	SER	CA-C-N	8.12	136.32	121.70
31	AH	86	SER	C-N-CA	8.12	136.32	121.70
36	B2	221	C	O4'-C1'-C2'	-8.12	99.48	107.60
36	B2	345	U	N1-C1'-C2'	8.12	124.18	112.00
83	A5	2141	A	O4'-C1'-C2'	-8.12	99.48	107.60
36	B2	627	A	O4'-C1'-C2'	8.12	115.72	107.60
36	B2	291	C	N1-C1'-C2'	8.11	124.17	112.00
36	B2	1353	U	C1'-O4'-C4'	8.11	118.01	109.90
83	A5	1385	G	O4'-C1'-C2'	-8.12	99.48	107.60
36	B2	1711	C	O4'-C1'-C2'	-8.11	99.49	107.60
27	AE	195	VAL	N-CA-CB	8.11	124.61	111.23
74	CC	310	LYS	N-CA-C	8.11	128.07	110.80
1	Az	790	THR	N-CA-C	8.11	120.20	111.36
29	AG	59	GLN	CA-C-N	8.11	137.30	121.41
29	AG	59	GLN	C-N-CA	8.11	137.30	121.41
36	B2	596	U	O4'-C1'-C2'	-8.11	99.49	107.60
83	A5	93	G	O4'-C1'-N9	8.11	120.66	108.50
36	B2	1912	G	N9-C1'-C2'	8.11	124.16	112.00
68	Cf	107	HIS	O-C-N	8.11	128.16	121.84
36	B2	871	G	N9-C1'-C2'	8.10	124.16	112.00
36	B2	1004	C	O4'-C1'-C2'	-8.10	99.50	107.60
83	A5	397	C	N1-C1'-C2'	8.10	124.15	112.00
36	B2	1469	U	O4'-C1'-C2'	-8.10	99.50	107.60
83	A5	122	C	N1-C1'-C2'	8.10	124.15	112.00
83	A5	737	U	O4'-C1'-C2'	-8.10	99.50	107.60
83	A5	3843	U	O4'-C1'-N1	8.10	120.65	108.50
83	A5	1096	A	O4'-C1'-N9	8.10	120.35	108.20
36	B2	1444	C	O4'-C1'-C2'	-8.10	99.50	107.60
67	Ce	128	LEU	CA-C-N	8.10	136.27	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
67	Ce	128	LEU	C-N-CA	8.10	136.27	121.70
36	B2	1656	G	O4'-C1'-N9	8.09	120.64	108.50
83	A5	530	U	O4'-C1'-N1	8.09	120.64	108.50
83	A5	641	A	P-O3'-C3'	8.09	132.34	120.20
83	A5	1926	A	C4'-C3'-O3'	8.09	125.14	113.00
36	B2	1148	U	C4'-C3'-O3'	8.09	125.14	113.00
83	A5	3	A	N9-C1'-C2'	8.09	124.13	112.00
83	A5	3236	A	O4'-C1'-N9	8.09	120.33	108.20
83	A5	1256	C	N1-C1'-C2'	8.09	124.13	112.00
36	B2	1337	U	C4'-C3'-O3'	-8.09	100.87	113.00
83	A5	3536	U	O4'-C1'-C2'	-8.09	99.51	107.60
35	Ah	133	GLY	O-C-N	-8.08	113.69	121.77
83	A5	2871	G	O4'-C1'-C2'	-8.08	99.52	107.60
83	A5	1190	U	P-O3'-C3'	8.08	132.32	120.20
36	B2	1166	U	C4'-C3'-O3'	-8.08	100.88	113.00
36	B2	156	U	P-O5'-C5'	8.08	133.02	120.90
68	Cf	152	LEU	CA-C-N	8.08	131.49	120.67
68	Cf	152	LEU	C-N-CA	8.08	131.49	120.67
83	A5	3659	G	O4'-C1'-N9	8.08	120.61	108.50
6	AX	90	SER	N-CA-C	8.07	128.00	110.80
43	CV	48	ARG	N-CA-CB	8.07	121.80	110.17
36	B2	1246	C	C3'-C2'-C1'	8.07	109.57	101.50
83	A5	3727	A	O4'-C1'-N9	8.07	120.31	108.20
26	AJ	118	LEU	CA-C-N	8.07	137.23	121.41
26	AJ	118	LEU	C-N-CA	8.07	137.23	121.41
64	CF	213	TRP	N-CA-C	-8.07	99.17	110.31
83	A5	1009	G	N9-C1'-C2'	8.07	124.11	112.00
36	B2	1414	C	O4'-C1'-C2'	-8.07	99.53	107.60
40	CK	100	HIS	CA-CB-CG	8.07	121.87	113.80
83	A5	2993	G	P-O3'-C3'	8.07	132.30	120.20
83	A5	3857	G	O3'-P-O5'	-8.07	91.90	104.00
36	B2	1659	C	N1-C1'-C2'	8.07	124.10	112.00
60	Cr	22	LYS	CA-C-N	8.07	136.95	121.54
60	Cr	22	LYS	C-N-CA	8.07	136.95	121.54
68	Cf	128	THR	CA-C-N	8.07	137.22	121.41
68	Cf	128	THR	C-N-CA	8.07	137.22	121.41
83	A5	932	G	C1'-O4'-C4'	-8.07	101.83	109.90
83	A5	3260	G	O4'-C1'-C2'	8.07	115.67	107.60
83	A5	3431	C	O4'-C1'-N1	8.07	120.60	108.50
85	A7	42	A	O4'-C1'-C2'	-8.07	99.53	107.60
83	A5	35	C	N1-C1'-C2'	8.06	124.10	112.00
83	A5	396	A	O4'-C1'-C2'	-8.06	99.53	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1801	U	O4'-C1'-N1	8.06	120.60	108.50
83	A5	3675	A	C1'-C2'-O2'	-8.06	99.71	111.80
1	Az	701	HIS	CA-CB-CG	-8.06	105.74	113.80
83	A5	623	C	O3'-P-O5'	-8.06	91.91	104.00
36	B2	41	A	O4'-C1'-C2'	-8.06	99.54	107.60
83	A5	1034	U	N1-C1'-C2'	8.06	124.09	112.00
51	CA	213	GLY	CA-C-N	-8.06	116.17	121.65
51	CA	213	GLY	C-N-CA	-8.06	116.17	121.65
77	Cp	33	GLN	N-CA-CB	8.05	122.53	110.29
83	A5	2692	U	O4'-C1'-N1	8.05	120.58	108.50
14	AT	152	ILE	N-CA-C	8.04	118.84	110.72
36	B2	378	G	P-O3'-C3'	8.04	132.27	120.20
36	B2	1578	U	O4'-C1'-C2'	-8.04	99.56	107.60
83	A5	3466	A	O4'-C1'-C2'	-8.04	99.56	107.60
83	A5	1453	U	P-O5'-C5'	8.04	132.97	120.90
15	AB	221	LEU	N-CA-C	8.04	127.92	110.80
36	B2	1131	U	P-O5'-C5'	8.04	132.96	120.90
46	CN	82	GLY	CA-C-N	8.04	131.56	120.39
46	CN	82	GLY	C-N-CA	8.04	131.56	120.39
83	A5	755	A	C3'-C2'-C1'	8.04	109.34	101.30
36	B2	701	G	C1'-O4'-C4'	8.04	117.94	109.90
83	A5	2686	C	N1-C1'-C2'	8.04	124.06	112.00
1	Az	346	SER	CA-C-O	-8.04	109.15	120.16
83	A5	1373	A	C2'-C3'-O3'	-8.04	101.65	113.70
36	B2	1818	U	C4'-C3'-O3'	-8.03	100.96	113.00
83	A5	1007	A	O4'-C1'-C2'	8.03	115.63	107.60
83	A5	3790	A	O4'-C1'-N9	8.03	120.54	108.50
39	Cq	82	ILE	CA-C-N	8.02	133.50	122.19
39	Cq	82	ILE	C-N-CA	8.02	133.50	122.19
83	A5	1382	U	O4'-C1'-C2'	-8.02	99.58	107.60
83	A5	904	U	P-O3'-C3'	-8.02	108.17	120.20
83	A5	3395	G	N9-C1'-C2'	8.02	124.03	112.00
83	A5	3722	C	O4'-C1'-C2'	-8.02	99.58	107.60
1	Az	54	THR	CA-C-N	8.02	134.00	121.26
1	Az	54	THR	C-N-CA	8.02	134.00	121.26
1	Az	815	SER	N-CA-C	8.02	127.87	110.80
83	A5	1159	C	C3'-C2'-C1'	8.02	109.32	101.30
83	A5	3790	A	O3'-P-O5'	8.02	116.02	104.00
57	CY	121	ARG	CB-CA-C	-8.01	97.49	110.79
36	B2	1582	C	O4'-C1'-N1	8.01	120.52	108.50
83	A5	1328	U	P-O3'-C3'	-8.01	108.18	120.20
36	B2	98	C	O4'-C1'-C2'	-8.01	97.79	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AA	17	LYS	CA-C-N	8.01	131.01	120.28
16	AA	17	LYS	C-N-CA	8.01	131.01	120.28
42	CL	149	LEU	CA-C-N	8.01	136.84	121.54
42	CL	149	LEU	C-N-CA	8.01	136.84	121.54
83	A5	1547	A	N9-C1'-C2'	8.01	124.02	112.00
83	A5	3775	A	O4'-C4'-C3'	-8.01	98.09	106.10
35	Ah	117	PHE	CA-C-N	8.00	136.11	121.70
35	Ah	117	PHE	C-N-CA	8.00	136.11	121.70
36	B2	106	C	N1-C1'-C2'	8.00	124.00	112.00
83	A5	2204	U	O4'-C1'-C2'	-8.00	99.60	107.60
28	AC	116	ASN	N-CA-C	8.00	127.84	110.80
83	A5	2155	A	C2'-C3'-O3'	8.00	121.50	109.50
83	A5	1805	A	P-O5'-C5'	8.00	132.89	120.90
36	B2	1750	U	P-O3'-C3'	7.99	132.19	120.20
83	A5	241	C	N1-C1'-C2'	7.99	125.99	114.00
83	A5	1057	G	C4'-C3'-O3'	7.99	121.39	109.40
83	A5	3919	G	C1'-O4'-C4'	-7.99	101.91	109.90
36	B2	411	U	P-O3'-C3'	-7.99	108.22	120.20
2	Ag	123	SER	CA-C-N	7.98	128.16	122.33
2	Ag	123	SER	C-N-CA	7.98	128.16	122.33
83	A5	1245	C	N1-C1'-C2'	7.98	123.97	112.00
36	B2	70	C	O4'-C1'-C2'	-7.98	99.62	107.60
36	B2	1285	C	O4'-C1'-C2'	-7.98	99.62	107.60
83	A5	3472	A	O3'-P-O5'	7.98	115.97	104.00
44	CM	9	THR	CA-C-N	7.98	136.06	121.70
44	CM	9	THR	C-N-CA	7.98	136.06	121.70
83	A5	717	A	N9-C1'-C2'	7.98	125.97	114.00
36	B2	514	A	P-O3'-C3'	7.97	132.16	120.20
66	Cd	35	PHE	CA-CB-CG	-7.97	105.83	113.80
83	A5	1594	U	C1'-O4'-C4'	7.97	117.87	109.90
86	A8	12	G	N9-C1'-C2'	7.97	123.96	112.00
36	B2	777	A	C4'-C3'-O3'	7.97	121.95	110.00
36	B2	1803	A	C4'-C3'-O3'	7.97	124.95	113.00
48	CD	259	LYS	CA-C-N	7.97	136.04	121.70
48	CD	259	LYS	C-N-CA	7.97	136.04	121.70
83	A5	128	C	O4'-C1'-C2'	-7.97	99.63	107.60
83	A5	268	U	O4'-C1'-N1	7.97	120.45	108.50
83	A5	3502	A	C3'-C2'-C1'	-7.97	93.33	101.30
83	A5	1000	G	C3'-C2'-C1'	7.96	109.46	101.50
83	A5	3418	U	C4'-C3'-O3'	7.96	124.95	113.00
36	B2	92	A	N9-C1'-C2'	7.96	125.94	114.00
83	A5	3377	A	O3'-P-O5'	7.96	115.94	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	717	C	N1-C1'-C2'	7.96	123.94	112.00
36	B2	1679	U	O4'-C1'-C2'	-7.96	99.64	107.60
15	AB	21	VAL	CA-C-N	7.96	136.30	121.97
15	AB	21	VAL	C-N-CA	7.96	136.30	121.97
83	A5	2927	U	N1-C1'-C2'	7.96	123.94	112.00
36	B2	231	G	O4'-C1'-C2'	-7.96	99.64	107.60
36	B2	394	G	C1'-O4'-C4'	-7.96	101.94	109.90
36	B2	1086	U	N1-C1'-C2'	7.96	123.94	112.00
83	A5	1796	A	P-O3'-C3'	7.96	132.13	120.20
1	Az	554	ILE	CB-CA-C	7.96	119.22	110.71
83	A5	2129	C	C1'-O4'-C4'	7.95	117.65	109.70
1	Az	254	ASN	CA-CB-CG	7.95	120.55	112.60
23	AD	223	THR	CA-C-N	7.95	129.78	119.84
23	AD	223	THR	C-N-CA	7.95	129.78	119.84
42	CL	127	PRO	N-CA-C	7.95	128.84	112.47
83	A5	3638	U	N1-C1'-C2'	7.95	123.92	112.00
49	CQ	158	VAL	CA-C-N	7.95	129.77	119.84
49	CQ	158	VAL	C-N-CA	7.95	129.77	119.84
83	A5	3529	A	P-O3'-C3'	7.95	132.12	120.20
83	A5	1876	G	O4'-C1'-C2'	7.95	113.75	105.80
83	A5	2690	A	O4'-C1'-C2'	-7.95	99.66	107.60
83	A5	3029	U	P-O3'-C3'	7.95	132.12	120.20
83	A5	1469	C	N1-C1'-C2'	7.94	123.92	112.00
36	B2	1912	G	O3'-P-O5'	-7.94	92.09	104.00
83	A5	3924	U	O4'-C1'-C2'	-7.94	99.66	107.60
36	B2	1430	U	N1-C1'-C2'	7.94	123.91	112.00
68	Cf	30	GLU	N-CA-C	-7.93	103.81	113.97
83	A5	756	C	O4'-C1'-C2'	-7.93	99.67	107.60
49	CQ	13	VAL	N-CA-C	7.93	125.84	109.34
21	Ab	19	HIS	CA-C-N	7.93	131.70	120.28
21	Ab	19	HIS	C-N-CA	7.93	131.70	120.28
83	A5	1537	G	O4'-C1'-N9	7.93	120.39	108.50
83	A5	2999	U	O3'-P-O5'	-7.93	92.11	104.00
83	A5	1368	A	C1'-C2'-O2'	7.93	123.69	111.80
42	CL	58	VAL	CA-C-N	7.92	136.67	121.54
42	CL	58	VAL	C-N-CA	7.92	136.67	121.54
42	CL	129	ASN	N-CA-C	-7.92	105.59	114.62
83	A5	943	U	P-O3'-C3'	7.92	132.08	120.20
36	B2	77	A	O4'-C1'-C2'	-7.92	97.88	105.80
36	B2	1727	U	O3'-P-O5'	-7.92	92.12	104.00
62	Cb	51	LEU	N-CA-C	7.92	127.66	110.80
83	A5	2884	C	N1-C1'-C2'	7.92	123.87	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3607	C	N1-C1'-C2'	7.91	123.87	112.00
36	B2	72	A	P-O5'-C5'	7.91	132.77	120.90
36	B2	1215	G	O4'-C1'-C2'	7.91	115.51	107.60
83	A5	2931	U	O3'-P-O5'	7.91	115.87	104.00
83	A5	2884	C	C3'-C2'-C1'	7.91	109.21	101.30
83	A5	3208	A	O4'-C1'-C2'	-7.91	97.89	105.80
83	A5	3840	G	C1'-O4'-C4'	7.91	117.81	109.90
83	A5	2270	G	N9-C1'-C2'	7.91	123.86	112.00
49	CQ	161	SER	N-CA-C	7.91	121.04	111.40
83	A5	1067	A	C4'-C3'-O3'	-7.91	101.14	113.00
83	A5	2571	U	P-O3'-C3'	7.91	132.06	120.20
83	A5	3472	A	C5'-C4'-C3'	-7.91	104.14	116.00
11	AL	98	ARG	N-CA-C	-7.90	97.71	108.38
22	Ac	43	LYS	N-CA-C	7.90	119.53	111.07
62	Cb	73	PRO	N-CA-CB	-7.90	94.95	103.25
83	A5	475	U	P-O3'-C3'	7.90	132.05	120.20
83	A5	615	C	N1-C1'-C2'	7.90	123.85	112.00
83	A5	2523	A	O4'-C1'-N9	7.90	120.05	108.20
1	Az	674	LYS	CA-C-N	7.90	136.63	121.54
1	Az	674	LYS	C-N-CA	7.90	136.63	121.54
85	A7	4	A	C1'-O4'-C4'	-7.90	102.00	109.90
36	B2	533	A	N9-C1'-C2'	7.90	123.85	112.00
83	A5	2075	A	P-O5'-C5'	-7.89	109.06	120.90
1	Az	835	PRO	N-CA-C	7.89	128.73	112.47
25	Af	92	LYS	CA-C-N	7.89	136.61	121.54
25	Af	92	LYS	C-N-CA	7.89	136.61	121.54
83	A5	2506	U	O4'-C1'-N1	7.89	120.33	108.50
83	A5	2819	A	O4'-C1'-C2'	-7.89	99.71	107.60
83	A5	3531	C	P-O3'-C3'	7.89	132.03	120.20
1	Az	250	LEU	CA-C-N	7.89	134.00	122.41
1	Az	250	LEU	C-N-CA	7.89	134.00	122.41
36	B2	1042	A	O4'-C1'-C2'	-7.89	99.71	107.60
83	A5	1801	U	O4'-C1'-C2'	-7.89	99.71	107.60
36	B2	1989	A	O4'-C1'-N9	7.88	120.03	108.20
83	A5	1601	U	O4'-C1'-C2'	-7.88	99.72	107.60
83	A5	2913	G	O4'-C1'-C2'	7.88	115.48	107.60
57	CY	62	PHE	CA-C-N	7.88	136.60	121.54
57	CY	62	PHE	C-N-CA	7.88	136.60	121.54
83	A5	156	G	C1'-C2'-O2'	7.88	120.22	108.40
39	Cq	7	ALA	N-CA-C	-7.88	102.70	113.18
83	A5	3892	A	O4'-C1'-N9	7.88	120.02	108.20
36	B2	137	C	O4'-C1'-C2'	-7.88	97.92	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3916	U	N1-C1'-C2'	7.88	123.82	112.00
83	A5	682	U	C4'-C3'-O3'	7.88	124.82	113.00
11	AL	34	SER	CA-C-N	7.88	136.58	121.54
11	AL	34	SER	C-N-CA	7.88	136.58	121.54
63	CB	129	ALA	CA-C-N	7.88	135.88	121.70
63	CB	129	ALA	C-N-CA	7.88	135.88	121.70
83	A5	3593	A	C3'-C2'-C1'	-7.88	93.42	101.30
36	B2	1530	A	P-O3'-C3'	7.88	132.01	120.20
19	AZ	62	PRO	CA-C-N	7.87	135.87	121.70
19	AZ	62	PRO	C-N-CA	7.87	135.87	121.70
83	A5	77	A	P-O3'-C3'	-7.87	108.39	120.20
83	A5	486	A	O4'-C1'-C2'	-7.87	99.73	107.60
83	A5	1666	A	O4'-C1'-C2'	-7.87	99.73	107.60
83	A5	1225	G	P-O3'-C3'	7.87	132.00	120.20
36	B2	54	C	O4'-C1'-C2'	-7.87	99.73	107.60
83	A5	542	C	C3'-C2'-C1'	7.87	109.17	101.30
83	A5	1860	A	O4'-C1'-N9	7.87	120.30	108.50
42	CL	97	VAL	N-CA-C	7.86	125.69	109.34
83	A5	791	C	O4'-C1'-C2'	-7.86	99.74	107.60
83	A5	871	A	P-O3'-C3'	7.86	132.00	120.20
36	B2	266	U	C2'-C3'-O3'	7.86	121.29	109.50
36	B2	820	G	O3'-P-O5'	7.86	115.79	104.00
36	B2	1565	C	O4'-C1'-C2'	-7.86	99.74	107.60
83	A5	3454	G	N9-C1'-C2'	7.86	123.79	112.00
36	B2	850	U	C2'-C3'-O3'	-7.86	101.91	113.70
83	A5	800	C	O4'-C1'-C2'	-7.86	99.74	107.60
83	A5	2106	C	O4'-C1'-C2'	-7.86	97.94	105.80
62	Cb	17	HIS	CA-CB-CG	7.86	121.66	113.80
83	A5	3949	U	P-O3'-C3'	7.86	131.98	120.20
83	A5	2462	U	O4'-C1'-C2'	-7.85	99.75	107.60
83	A5	3304	U	O4'-C1'-N1	7.85	119.98	108.20
83	A5	1475	A	O4'-C1'-N9	7.85	120.28	108.50
18	AY	36	VAL	N-CA-CB	7.85	124.18	111.23
83	A5	169	C	N1-C1'-C2'	7.85	123.77	112.00
83	A5	798	C	O4'-C1'-N1	7.85	119.97	108.20
83	A5	3552	G	C1'-O4'-C4'	-7.85	102.05	109.90
83	A5	2196	U	C1'-O4'-C4'	7.85	117.75	109.90
36	B2	428	G	O4'-C1'-C2'	-7.84	97.95	105.80
83	A5	1722	U	N1-C1'-C2'	7.84	123.77	112.00
83	A5	388	U	N1-C1'-C2'	7.84	123.76	112.00
83	A5	670	G	O4'-C1'-C2'	-7.84	99.76	107.60
83	A5	1711	C	O4'-C1'-N1	7.84	119.96	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	394	G	N9-C1'-C2'	7.84	123.76	112.00
79	CJ	103	ASN	N-CA-C	7.84	132.94	111.00
83	A5	404	U	O4'-C1'-C2'	-7.84	99.76	107.60
83	A5	775	U	C1'-O4'-C4'	-7.84	102.06	109.90
83	A5	3230	G	O4'-C1'-N9	7.83	120.25	108.50
19	AZ	103	HIS	CE1-NE2-CD2	-7.83	101.17	109.00
43	CV	84	GLN	CA-C-N	7.83	131.56	120.28
43	CV	84	GLN	C-N-CA	7.83	131.56	120.28
1	Az	74	ALA	N-CA-C	7.83	120.51	107.20
36	B2	1454	G	O3'-P-O5'	-7.83	92.26	104.00
33	AI	145	GLU	N-CA-CB	7.83	123.80	110.50
48	CD	260	SER	N-CA-CB	7.83	123.80	110.50
57	CY	4	ASN	CA-C-O	-7.82	112.91	120.19
83	A5	3293	G	C1'-O4'-C4'	7.82	117.52	109.70
83	A5	521	U	O4'-C1'-N1	7.82	120.23	108.50
36	B2	565	G	N9-C1'-C2'	7.82	125.73	114.00
36	B2	580	C	N1-C1'-C2'	7.82	123.73	112.00
36	B2	1461	A	O4'-C1'-C2'	-7.82	99.78	107.60
36	B2	1915	A	O4'-C1'-C2'	-7.82	99.78	107.60
83	A5	2063	A	O4'-C1'-N9	7.82	119.93	108.20
83	A5	3297	C	N1-C1'-C2'	7.82	123.73	112.00
15	AB	109	THR	N-CA-CB	7.82	121.47	109.97
29	AG	63	MET	N-CA-CB	7.82	121.23	109.19
83	A5	1316	U	O4'-C1'-N1	7.82	120.23	108.50
83	A5	1585	U	O4'-C1'-C2'	-7.82	99.78	107.60
46	CN	176	LYS	CA-C-N	7.82	135.77	121.70
46	CN	176	LYS	C-N-CA	7.82	135.77	121.70
52	CS	15	ARG	N-CA-C	7.82	123.14	112.90
83	A5	1292	G	P-O3'-C3'	7.82	131.92	120.20
83	A5	3920	C	O4'-C1'-C2'	-7.82	99.78	107.60
35	Ah	133	GLY	CA-C-O	-7.81	110.35	121.52
83	A5	1369	C	N1-C1'-C2'	7.81	123.72	112.00
36	B2	67	A	C2'-C3'-O3'	7.81	121.22	109.50
83	A5	2468	A	O4'-C1'-C2'	-7.81	99.79	107.60
36	B2	341	G	C3'-C2'-C1'	-7.81	93.49	101.30
83	A5	1745	G	O4'-C1'-N9	7.80	119.91	108.20
83	A5	2128	A	C4'-C3'-C2'	7.80	110.40	102.60
83	A5	2551	U	N1-C1'-C2'	7.80	123.71	112.00
1	Az	554	ILE	N-CA-C	7.80	115.64	107.76
36	B2	135	U	C2'-C3'-O3'	7.80	121.20	109.50
83	A5	36	U	O4'-C1'-C2'	-7.80	99.80	107.60
68	Cf	40	SER	O-C-N	-7.80	112.22	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
82	CG	250	LYS	CA-C-N	7.80	130.57	120.44
82	CG	250	LYS	C-N-CA	7.80	130.57	120.44
83	A5	569	U	P-O3'-C3'	-7.80	108.51	120.20
83	A5	3259	A	C3'-C2'-C1'	7.80	109.10	101.30
86	A8	44	C	O4'-C1'-C2'	-7.80	99.80	107.60
83	A5	896	A	O4'-C1'-N9	7.79	120.19	108.50
83	A5	3936	A	O4'-C1'-N9	7.79	120.19	108.50
83	A5	527	U	O4'-C1'-C2'	-7.79	99.81	107.60
83	A5	751	A	O4'-C1'-N9	7.79	119.89	108.20
83	A5	2901	C	N1-C1'-C2'	7.79	123.69	112.00
83	A5	2473	C	O4'-C1'-C2'	-7.79	99.81	107.60
81	CE	229	MET	CA-C-N	7.79	132.91	121.31
81	CE	229	MET	C-N-CA	7.79	132.91	121.31
82	CG	65	TYR	N-CA-CB	7.79	121.66	109.82
83	A5	1447	C	N1-C1'-C2'	7.79	123.68	112.00
83	A5	2936	U	P-O3'-C3'	7.79	131.88	120.20
1	Az	267	LYS	CA-C-N	7.79	134.44	123.07
1	Az	267	LYS	C-N-CA	7.79	134.44	123.07
36	B2	1449	U	O3'-P-O5'	7.79	115.68	104.00
83	A5	2481	U	C1'-O4'-C4'	-7.79	102.11	109.90
83	A5	1493	A	C5'-C4'-C3'	-7.78	104.32	116.00
83	A5	1972	C	O4'-C1'-C2'	-7.78	99.82	107.60
83	A5	2794	U	N1-C1'-C2'	7.78	123.68	112.00
83	A5	3676	C	C3'-C2'-C1'	-7.78	93.52	101.30
36	B2	1416	A	O4'-C1'-C2'	-7.78	99.82	107.60
83	A5	1927	U	C3'-C2'-O2'	7.78	122.37	110.70
83	A5	3232	G	C1'-O4'-C4'	-7.78	102.12	109.90
85	A7	52	U	N1-C1'-C2'	7.78	123.67	112.00
83	A5	1926	A	O3'-P-O5'	-7.78	92.33	104.00
83	A5	1948	C	C1'-O4'-C4'	-7.78	102.12	109.90
83	A5	3839	A	P-O3'-C3'	7.78	131.87	120.20
1	Az	308	THR	N-CA-C	7.78	127.36	110.80
1	Az	464	PHE	CA-C-N	7.78	132.87	122.06
1	Az	464	PHE	C-N-CA	7.78	132.87	122.06
10	AN	91	MET	CA-C-N	7.78	131.11	120.46
10	AN	91	MET	C-N-CA	7.78	131.11	120.46
83	A5	1752	G	C1'-O4'-C4'	-7.77	102.13	109.90
83	A5	1860	A	N9-C1'-C2'	-7.77	100.34	112.00
83	A5	2837	A	N9-C1'-C2'	7.77	123.66	112.00
36	B2	1649	U	O4'-C1'-C2'	-7.77	98.03	105.80
39	Cq	110	ALA	N-CA-C	7.77	121.23	110.35
83	A5	210	C	C3'-C2'-C1'	7.77	109.07	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
81	CE	225	TYR	N-CA-C	-7.77	102.76	111.07
83	A5	2738	C	C3'-C2'-C1'	7.77	109.07	101.30
83	A5	2926	G	C1'-O4'-C4'	-7.76	102.14	109.90
3	AU	119	ALA	N-CA-CB	7.76	122.04	110.40
1	Az	160	PHE	CA-CB-CG	-7.76	106.04	113.80
36	B2	254	C	C3'-C2'-C1'	7.76	109.06	101.30
36	B2	59	C	O4'-C1'-C2'	-7.76	98.04	105.80
83	A5	570	U	P-O5'-C5'	7.76	132.54	120.90
83	A5	1619	C	O4'-C1'-C2'	-7.76	99.84	107.60
83	A5	3516	C	N1-C1'-C2'	7.76	123.64	112.00
83	A5	3373	G	O4'-C1'-N9	7.75	120.13	108.50
83	A5	623	C	C5'-C4'-C3'	7.75	127.63	116.00
83	A5	1677	U	O4'-C1'-C2'	-7.75	99.85	107.60
83	A5	2729	U	O4'-C1'-C2'	-7.75	99.85	107.60
83	A5	2839	A	O5'-C5'-C4'	7.75	123.33	111.70
36	B2	1052	U	N1-C1'-C2'	7.75	123.63	112.00
83	A5	2624	G	C1'-O4'-C4'	-7.75	102.15	109.90
2	Ag	278	PRO	CA-C-N	7.75	136.34	121.54
2	Ag	278	PRO	C-N-CA	7.75	136.34	121.54
83	A5	2154	A	O4'-C1'-C2'	-7.75	99.85	107.60
36	B2	1045	U	O4'-C1'-C2'	-7.75	99.85	107.60
60	Cr	29	PHE	N-CA-C	7.75	120.98	109.59
83	A5	732	U	O4'-C1'-C2'	-7.75	99.85	107.60
36	B2	131	C	P-O3'-C3'	7.75	131.82	120.20
83	A5	3299	U	O4'-C1'-N1	7.74	120.12	108.50
66	Cd	25	HIS	CA-CB-CG	7.74	121.54	113.80
83	A5	2494	G	N9-C1'-C2'	7.74	123.61	112.00
36	B2	52	U	O4'-C1'-C2'	-7.74	99.86	107.60
82	CG	65	TYR	CA-C-N	7.74	130.31	120.56
82	CG	65	TYR	C-N-CA	7.74	130.31	120.56
83	A5	946	A	O3'-P-O5'	7.74	115.61	104.00
83	A5	870	U	O4'-C1'-N1	7.74	120.11	108.50
36	B2	1338	U	C2'-C3'-O3'	-7.74	102.10	113.70
83	A5	2003	U	P-O3'-C3'	7.74	131.80	120.20
36	B2	1995	A	C3'-C2'-C1'	-7.73	93.57	101.30
50	CR	172	ARG	CA-C-N	7.73	130.49	120.44
50	CR	172	ARG	C-N-CA	7.73	130.49	120.44
68	Cf	56	PHE	N-CA-C	-7.73	94.98	108.20
83	A5	959	U	O4'-C1'-C2'	-7.73	99.87	107.60
83	A5	2892	U	O4'-C1'-N1	7.73	120.10	108.50
83	A5	3626	A	O4'-C1'-C2'	-7.73	99.87	107.60
9	Ad	48	ASN	CA-C-N	7.73	135.61	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	Ad	48	ASN	C-N-CA	7.73	135.61	121.70
29	AG	24	LEU	CA-C-N	7.73	131.41	120.28
29	AG	24	LEU	C-N-CA	7.73	131.41	120.28
36	B2	1455	U	C5'-C4'-C3'	-7.73	104.41	116.00
83	A5	1310	A	O4'-C1'-C2'	-7.73	99.87	107.60
36	B2	1123	G	C1'-O4'-C4'	-7.73	102.17	109.90
36	B2	1552	C	O4'-C1'-C2'	-7.73	99.87	107.60
83	A5	3849	A	P-O3'-C3'	-7.73	108.61	120.20
36	B2	983	C	O4'-C1'-C2'	-7.72	99.88	107.60
83	A5	156	G	C3'-C2'-C1'	-7.72	93.58	101.30
83	A5	175	U	P-O3'-C3'	7.72	131.79	120.20
33	AI	155	GLN	N-CA-CB	7.72	123.54	110.49
83	A5	2635	C	N1-C1'-C2'	7.72	123.58	112.00
36	B2	1644	U	O4'-C1'-N1	7.72	120.08	108.50
36	B2	1877	G	N9-C1'-C2'	7.72	123.57	112.00
65	Cc	57	LYS	CB-CA-C	-7.72	98.77	110.88
79	CJ	144	TYR	CA-C-N	7.72	130.95	120.38
79	CJ	144	TYR	C-N-CA	7.72	130.95	120.38
83	A5	1812	C	P-O3'-C3'	7.72	131.78	120.20
83	A5	3550	C	O4'-C1'-C2'	-7.72	99.88	107.60
42	CL	150	LYS	N-CA-C	7.71	127.23	110.80
36	B2	1005	G	O4'-C1'-C2'	7.71	115.31	107.60
81	CE	141	SER	N-CA-CB	7.71	121.27	110.17
83	A5	3295	U	O4'-C1'-C2'	-7.71	99.89	107.60
61	Ch	105	LEU	CA-C-N	7.71	130.46	120.44
61	Ch	105	LEU	C-N-CA	7.71	130.46	120.44
83	A5	2666	G	C4'-C3'-O3'	-7.71	101.44	113.00
83	A5	3758	G	O4'-C1'-N9	7.71	120.06	108.50
3	AU	106	ILE	O-C-N	-7.71	115.56	123.03
83	A5	3187	C	C3'-C2'-C1'	7.70	109.20	101.50
34	AQ	3	GLN	N-CA-C	7.70	119.58	111.03
36	B2	1108	C	N1-C1'-C2'	7.70	123.55	112.00
81	CE	40	LYS	CA-C-N	7.70	136.25	121.54
81	CE	40	LYS	C-N-CA	7.70	136.25	121.54
83	A5	746	G	P-O3'-C3'	7.70	131.75	120.20
36	B2	1658	G	O4'-C1'-C2'	7.70	115.30	107.60
83	A5	259	A	O4'-C1'-C2'	-7.70	99.91	107.60
83	A5	776	A	O3'-P-O5'	7.69	115.54	104.00
83	A5	2799	U	O4'-C1'-N1	7.69	120.04	108.50
83	A5	3799	G	O3'-P-O5'	-7.69	92.46	104.00
36	B2	1419	C	N1-C1'-C2'	7.69	123.54	112.00
83	A5	514	A	C1'-O4'-C4'	-7.69	102.21	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AL	119	HIS	CA-C-N	7.68	135.53	121.70
11	AL	119	HIS	C-N-CA	7.68	135.53	121.70
48	CD	32	ALA	CA-C-N	7.68	130.58	120.28
48	CD	32	ALA	C-N-CA	7.68	130.58	120.28
83	A5	2814	U	P-O3'-C3'	7.68	131.73	120.20
83	A5	3960	U	O4'-C1'-N1	7.68	120.02	108.50
83	A5	1342	U	O4'-C1'-C2'	-7.68	99.92	107.60
83	A5	2187	U	O4'-C1'-C2'	-7.68	99.92	107.60
83	A5	2526	A	N9-C1'-C2'	7.68	123.52	112.00
36	B2	515	U	P-O3'-C3'	7.68	131.72	120.20
36	B2	905	U	O4'-C1'-N1	7.68	120.02	108.50
24	Ae	95	GLU	N-CA-CB	7.68	123.46	110.49
36	B2	416	C	O4'-C1'-C2'	-7.68	99.92	107.60
36	B2	902	A	O4'-C1'-C2'	-7.68	99.92	107.60
83	A5	212	U	O4'-C1'-N1	7.68	120.02	108.50
83	A5	3701	U	C2'-C3'-O3'	-7.67	102.19	113.70
83	A5	1911	C	C1'-O4'-C4'	7.67	117.57	109.90
36	B2	848	C	C3'-C2'-C1'	7.67	108.97	101.30
36	B2	1658	G	C1'-O4'-C4'	-7.67	102.23	109.90
83	A5	273	G	O4'-C1'-C2'	-7.67	99.93	107.60
83	A5	1981	A	O4'-C1'-C2'	-7.67	99.93	107.60
68	Cf	111	LYS	CA-C-N	7.67	136.18	121.54
68	Cf	111	LYS	C-N-CA	7.67	136.18	121.54
83	A5	573	U	O4'-C1'-N1	7.67	120.00	108.50
85	A7	64	G	C2'-C3'-O3'	-7.67	102.20	113.70
83	A5	1052	U	N1-C1'-C2'	7.66	123.49	112.00
45	Ca	46	PHE	CA-CB-CG	-7.66	106.14	113.80
83	A5	156	G	C1'-O4'-C4'	-7.66	102.24	109.90
36	B2	220	A	O4'-C1'-C2'	-7.66	99.94	107.60
58	CW	113	LYS	CA-C-N	7.66	130.40	120.44
58	CW	113	LYS	C-N-CA	7.66	130.40	120.44
83	A5	156	G	O4'-C1'-C2'	7.66	115.26	107.60
83	A5	1720	A	C4'-C3'-O3'	7.66	124.49	113.00
83	A5	3887	U	P-O3'-C3'	-7.66	108.71	120.20
33	AI	98	LYS	N-CA-CB	7.66	121.21	110.26
35	Ah	136	ARG	N-CA-CB	7.66	123.43	110.49
36	B2	1991	C	O4'-C1'-C2'	-7.65	98.15	105.80
46	CN	69	GLY	CA-C-N	7.65	127.87	120.98
46	CN	69	GLY	C-N-CA	7.65	127.87	120.98
8	AS	142	ARG	N-CA-CB	7.65	123.51	110.50
86	A8	37	U	O4'-C1'-N1	7.65	119.67	108.20
36	B2	1247	C	O4'-C1'-C2'	-7.65	99.95	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1900	U	O4'-C1'-C2'	-7.64	99.95	107.60
1	Az	656	GLN	CA-C-N	7.64	131.54	120.38
1	Az	656	GLN	C-N-CA	7.64	131.54	120.38
36	B2	474	C	P-O3'-C3'	7.64	131.66	120.20
83	A5	3759	G	C1'-O4'-C4'	-7.64	102.26	109.90
83	A5	3943	G	C1'-O4'-C4'	-7.64	102.26	109.90
83	A5	1778	A	O3'-P-O5'	7.64	115.46	104.00
83	A5	2659	A	O4'-C1'-N9	7.64	119.66	108.20
83	A5	2735	A	O4'-C1'-C2'	-7.64	99.96	107.60
83	A5	3050	A	P-O3'-C3'	7.64	131.66	120.20
5	AO	100	THR	N-CA-C	7.64	132.38	111.00
36	B2	1771	U	N1-C1'-C2'	7.64	123.45	112.00
41	CO	126	MET	CA-C-N	7.64	130.84	120.38
41	CO	126	MET	C-N-CA	7.64	130.84	120.38
83	A5	118	A	C1'-O4'-C4'	-7.64	102.26	109.90
83	A5	2126	A	O4'-C1'-C2'	-7.64	99.96	107.60
83	A5	3173	U	N1-C1'-C2'	7.64	123.45	112.00
16	AA	105	PRO	CA-C-N	7.63	135.44	121.70
16	AA	105	PRO	C-N-CA	7.63	135.44	121.70
83	A5	2918	A	O4'-C1'-N9	7.63	119.65	108.20
36	B2	960	U	O4'-C1'-N1	7.63	119.95	108.50
68	Cf	35	SER	N-CA-C	-7.63	103.95	112.57
83	A5	2897	G	O4'-C1'-N9	7.63	119.95	108.50
83	A5	3227	A	N9-C1'-C2'	-7.63	102.55	114.00
83	A5	1492	C	C2'-C3'-O3'	7.63	125.14	113.70
83	A5	2753	G	N9-C1'-C2'	7.63	125.44	114.00
83	A5	523	C	O4'-C1'-C2'	-7.62	99.97	107.60
83	A5	1364	A	O4'-C1'-C2'	-7.62	99.97	107.60
37	BC	46	U	C4'-C3'-O3'	7.62	124.44	113.00
36	B2	1428	A	C1'-O4'-C4'	7.62	117.52	109.90
36	B2	1642	C	O4'-C1'-C2'	-7.62	99.98	107.60
83	A5	2537	A	O4'-C1'-C2'	-7.62	98.18	105.80
84	A9	24	G	O4'-C1'-C2'	-7.62	99.98	107.60
36	B2	909	U	O4'-C1'-N1	7.62	119.92	108.50
83	A5	184	A	O4'-C1'-N9	7.61	119.92	108.50
83	A5	536	U	O4'-C1'-C2'	-7.61	99.99	107.60
36	B2	1851	A	O4'-C1'-C2'	-7.61	99.99	107.60
36	B2	520	A	O4'-C1'-C2'	-7.61	99.99	107.60
36	B2	998	U	C4'-C3'-O3'	7.61	124.41	113.00
60	Cr	33	PRO	N-CA-C	7.61	128.14	112.47
83	A5	359	G	O4'-C1'-N9	7.60	119.61	108.20
83	A5	1269	U	O4'-C1'-C2'	-7.60	100.00	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3970	A	C1'-O4'-C4'	7.60	117.50	109.90
8	AS	89	ASP	N-CA-C	7.60	123.83	111.37
19	AZ	46	GLN	CA-C-N	7.60	132.63	122.90
19	AZ	46	GLN	C-N-CA	7.60	132.63	122.90
60	Cr	32	GLU	CA-C-N	7.60	129.34	119.84
60	Cr	32	GLU	C-N-CA	7.60	129.34	119.84
83	A5	473	A	P-O3'-C3'	7.60	131.60	120.20
36	B2	377	G	O4'-C1'-C2'	-7.60	100.00	107.60
68	Cf	105	PRO	CB-CA-C	-7.60	100.59	111.68
74	CC	385	LEU	CA-C-N	7.60	130.32	120.44
74	CC	385	LEU	C-N-CA	7.60	130.32	120.44
36	B2	1565	C	C3'-C2'-C1'	7.60	108.90	101.30
83	A5	2770	C	C3'-C2'-C1'	7.60	108.90	101.30
65	Cc	101	ASP	CA-C-N	7.59	131.91	121.05
65	Cc	101	ASP	C-N-CA	7.59	131.91	121.05
83	A5	3683	G	N9-C1'-C2'	7.59	123.39	112.00
36	B2	890	U	N1-C1'-C2'	7.59	123.39	112.00
83	A5	188	G	O5'-C5'-C4'	7.59	122.89	111.50
36	B2	657	A	N9-C1'-C2'	7.59	123.39	112.00
83	A5	3418	U	P-O3'-C3'	7.59	131.59	120.20
60	Cr	28	PRO	CB-CA-C	-7.59	99.04	111.56
82	CG	219	ASN	CA-C-N	7.59	130.45	120.28
82	CG	219	ASN	C-N-CA	7.59	130.45	120.28
83	A5	1671	U	N1-C1'-C2'	7.59	123.38	112.00
83	A5	3395	G	C1'-O4'-C4'	-7.59	102.31	109.90
83	A5	1226	G	C4'-C3'-O3'	7.59	124.38	113.00
83	A5	725	U	O4'-C1'-N1	7.58	119.87	108.50
83	A5	2140	C	O4'-C1'-C2'	-7.58	100.02	107.60
83	A5	2219	U	O4'-C1'-C2'	-7.58	100.02	107.60
83	A5	3024	U	P-O3'-C3'	-7.58	108.83	120.20
86	A8	60	U	P-O3'-C3'	7.58	131.57	120.20
83	A5	2809	C	O4'-C1'-C2'	-7.58	100.02	107.60
83	A5	3563	G	N9-C1'-C2'	7.58	123.37	112.00
83	A5	3619	U	O4'-C1'-C2'	-7.57	100.03	107.60
26	AJ	162	LEU	N-CA-C	7.57	122.36	113.20
64	CF	176	PHE	CA-CB-CG	-7.57	106.23	113.80
73	Cl	38	ASN	CA-C-N	7.57	135.99	121.54
73	Cl	38	ASN	C-N-CA	7.57	135.99	121.54
36	B2	58	U	O4'-C1'-N1	7.56	119.84	108.50
36	B2	1195	G	O3'-P-O5'	-7.56	92.66	104.00
36	B2	1658	G	N9-C1'-C2'	7.56	123.34	112.00
35	Ah	130	ASP	CA-CB-CG	-7.56	105.04	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	509	C	O4'-C1'-C2'	-7.56	100.04	107.60
83	A5	123	U	C1'-O4'-C4'	7.56	117.26	109.70
36	B2	1361	C	O4'-C1'-N1	7.56	119.54	108.20
36	B2	1849	U	O4'-C4'-C3'	-7.56	98.54	106.10
83	A5	1329	G	P-O3'-C3'	-7.56	108.86	120.20
83	A5	2517	A	C4'-C3'-O3'	7.56	120.74	109.40
80	CH	174	LEU	CA-C-N	7.55	135.97	121.54
80	CH	174	LEU	C-N-CA	7.55	135.97	121.54
83	A5	615	C	O4'-C1'-C2'	-7.55	100.05	107.60
68	Cf	104	VAL	CB-CA-C	7.55	125.10	111.36
36	B2	924	U	O4'-C1'-C2'	-7.55	100.05	107.60
83	A5	3938	C	N1-C1'-C2'	7.55	123.32	112.00
85	A7	32	U	O4'-C1'-N1	7.55	119.53	108.20
6	AX	9	THR	CA-C-N	7.55	130.39	120.28
6	AX	9	THR	C-N-CA	7.55	130.39	120.28
36	B2	1830	G	O4'-C1'-C2'	-7.55	100.05	107.60
54	CP	26	PHE	CB-CA-C	-7.55	98.74	110.81
83	A5	1003	C	C1'-O4'-C4'	-7.55	102.35	109.90
36	B2	32	U	O4'-C1'-N1	7.54	119.82	108.50
74	CC	77	ALA	N-CA-C	7.54	120.91	110.35
29	AG	112	VAL	N-CA-C	-7.54	97.59	108.53
36	B2	1686	C	N1-C1'-C2'	7.54	123.32	112.00
36	B2	1191	C	O4'-C1'-C2'	-7.54	100.06	107.60
36	B2	1751	G	O4'-C1'-N9	7.54	119.81	108.50
26	AJ	16	THR	CA-C-N	7.54	127.53	119.76
26	AJ	16	THR	C-N-CA	7.54	127.53	119.76
83	A5	1647	A	C3'-C2'-C1'	7.54	108.84	101.30
42	CL	134	ARG	N-CA-CB	7.54	124.17	110.60
1	Az	384	ILE	N-CA-C	-7.54	96.15	106.85
83	A5	779	U	P-O5'-C5'	-7.54	109.59	120.90
36	B2	386	C	N1-C1'-C2'	7.54	123.31	112.00
44	CM	127	PHE	CA-CB-CG	-7.54	106.26	113.80
83	A5	1084	A	O4'-C1'-C2'	-7.54	98.26	105.80
83	A5	2131	C	P-O5'-C5'	7.54	132.20	120.90
83	A5	829	U	O4'-C1'-C2'	-7.53	100.07	107.60
83	A5	2092	U	C5'-C4'-C3'	7.53	127.30	116.00
83	A5	2128	A	O4'-C1'-C2'	7.53	113.33	105.80
36	B2	1635	U	O4'-C1'-N1	7.53	119.80	108.50
83	A5	228	C	N1-C1'-C2'	7.53	123.30	112.00
68	Cf	114	VAL	N-CA-C	-7.53	97.57	108.11
78	Co	56	PHE	CA-CB-CG	-7.52	106.28	113.80
83	A5	3127	A	C3'-C2'-C1'	-7.52	93.78	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1587	U	C1'-O4'-C4'	7.52	117.42	109.90
83	A5	28	C	O4'-C1'-C2'	-7.52	100.08	107.60
83	A5	2738	C	O4'-C1'-C2'	-7.52	100.08	107.60
36	B2	1545	U	O4'-C1'-N1	7.52	119.78	108.50
83	A5	2101	C	C3'-C2'-C1'	7.52	108.82	101.30
33	AI	144	SER	CA-C-N	7.52	135.24	121.70
33	AI	144	SER	C-N-CA	7.52	135.24	121.70
83	A5	1701	C	C1'-O4'-C4'	-7.52	102.38	109.90
25	Af	151	SER	CA-C-N	7.52	135.23	121.70
25	Af	151	SER	C-N-CA	7.52	135.23	121.70
36	B2	244	A	C4'-C3'-O3'	-7.52	101.72	113.00
83	A5	941	A	O4'-C1'-C2'	-7.51	100.08	107.60
83	A5	966	U	P-O3'-C3'	7.51	131.47	120.20
83	A5	1774	C	N1-C1'-C2'	7.51	123.27	112.00
83	A5	67	A	N9-C1'-C2'	7.51	123.27	112.00
68	Cf	46	ARG	N-CA-C	7.51	126.80	110.80
58	CW	78	PHE	N-CA-CB	7.51	123.18	110.49
63	CB	62	ARG	CA-C-N	7.51	128.10	119.99
63	CB	62	ARG	C-N-CA	7.51	128.10	119.99
36	B2	1944	A	O4'-C1'-C2'	-7.51	100.09	107.60
83	A5	1588	A	O4'-C1'-N9	7.51	119.76	108.50
83	A5	3475	U	O4'-C1'-C2'	-7.51	100.09	107.60
83	A5	2206	U	N1-C1'-C2'	7.50	123.26	112.00
83	A5	3624	C	C3'-C2'-C1'	7.50	108.81	101.30
8	AS	15	ILE	N-CA-C	-7.50	96.57	108.95
36	B2	225	G	O3'-P-O5'	-7.50	92.75	104.00
63	CB	139	ASP	CA-C-N	7.50	135.87	121.54
63	CB	139	ASP	C-N-CA	7.50	135.87	121.54
8	AS	54	LYS	CA-C-N	7.50	133.84	121.39
8	AS	54	LYS	C-N-CA	7.50	133.84	121.39
45	Ca	83	VAL	N-CA-CB	7.50	119.99	111.21
36	B2	647	U	O4'-C1'-C2'	-7.50	98.30	105.80
51	CA	214	GLY	CA-C-N	7.50	130.94	120.29
51	CA	214	GLY	C-N-CA	7.50	130.94	120.29
83	A5	2632	U	O4'-C1'-C2'	-7.50	100.10	107.60
83	A5	1358	U	O4'-C1'-N1	7.50	119.45	108.20
1	Az	449	ASP	CA-C-N	7.50	136.00	122.13
1	Az	449	ASP	C-N-CA	7.50	136.00	122.13
1	Az	564	SER	CA-C-N	7.49	131.35	120.71
1	Az	564	SER	C-N-CA	7.49	131.35	120.71
33	AI	180	ARG	CB-CA-C	-7.49	103.70	110.44
83	A5	1097	A	C3'-C2'-C1'	7.49	108.79	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1463	C	N1-C1'-C2'	7.49	123.24	112.00
36	B2	1711	C	C3'-C2'-C1'	7.49	108.79	101.30
48	CD	160	PHE	CA-CB-CG	-7.49	106.31	113.80
83	A5	3295	U	C3'-C2'-C1'	7.49	108.79	101.30
36	B2	829	C	N1-C1'-C2'	7.49	123.23	112.00
83	A5	436	A	O4'-C1'-C2'	-7.49	100.11	107.60
83	A5	3419	A	N9-C1'-C2'	7.49	125.23	114.00
12	AR	96	ILE	N-CA-C	7.49	118.28	110.72
36	B2	1187	U	O4'-C1'-N1	7.49	119.43	108.20
83	A5	1893	C	N1-C1'-C2'	7.49	123.23	112.00
4	AK	2	PHE	CA-CB-CG	-7.48	106.32	113.80
83	A5	2503	G	O4'-C1'-C2'	7.48	115.08	107.60
64	CF	186	HIS	O-C-N	-7.48	112.64	122.59
83	A5	2159	C	N1-C1'-C2'	7.48	123.22	112.00
37	BC	14	A	P-O3'-C3'	-7.48	108.98	120.20
36	B2	936	G	N9-C1'-C2'	7.48	123.22	112.00
83	A5	780	U	O4'-C1'-N1	7.47	119.71	108.50
36	B2	431	G	C3'-C2'-C1'	-7.47	93.83	101.30
36	B2	1098	C	C3'-C2'-C1'	7.47	108.77	101.30
83	A5	1609	U	O4'-C1'-C2'	-7.47	100.13	107.60
1	Az	225	ALA	N-CA-C	7.47	120.98	108.20
36	B2	1176	C	N1-C1'-C2'	7.47	123.20	112.00
50	CR	4	LEU	CA-C-N	7.47	130.62	120.54
50	CR	4	LEU	C-N-CA	7.47	130.62	120.54
83	A5	853	G	O4'-C1'-C2'	7.47	115.07	107.60
83	A5	3952	C	N1-C1'-C2'	7.47	123.20	112.00
83	A5	2543	C	O4'-C1'-C2'	-7.46	100.14	107.60
83	A5	319	G	N9-C1'-C2'	7.46	123.19	112.00
31	AH	13	SER	CA-C-N	7.46	129.41	120.09
31	AH	13	SER	C-N-CA	7.46	129.41	120.09
36	B2	1168	C	C4'-C3'-O3'	7.46	120.59	109.40
36	B2	1339	C	N1-C1'-C2'	7.46	123.19	112.00
36	B2	1623	C	O4'-C1'-C2'	-7.46	98.34	105.80
42	CL	58	VAL	N-CA-C	7.46	131.88	111.00
83	A5	2935	U	P-O3'-C3'	7.46	131.39	120.20
23	AD	154	PHE	CA-CB-CG	-7.46	106.34	113.80
83	A5	1780	U	O4'-C1'-C2'	-7.46	100.14	107.60
1	Az	61	LYS	CA-C-N	7.45	135.12	121.70
1	Az	61	LYS	C-N-CA	7.45	135.12	121.70
1	Az	465	LEU	N-CA-CB	7.45	118.70	110.35
83	A5	3674	G	O4'-C1'-C2'	-7.45	98.35	105.80
13	AP	93	THR	CA-C-N	7.45	136.01	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	AP	93	THR	C-N-CA	7.45	136.01	121.41
45	Ca	63	HIS	CA-CB-CG	-7.45	106.35	113.80
83	A5	439	U	N1-C1'-C2'	7.45	123.17	112.00
84	A9	21	G	C1'-O4'-C4'	-7.45	102.45	109.90
83	A5	3411	C	O4'-C1'-C2'	-7.45	100.15	107.60
1	Az	256	PHE	N-CA-C	7.45	126.66	110.80
36	B2	998	U	C2'-C3'-O3'	7.45	124.87	113.70
36	B2	1337	U	P-O3'-C3'	7.45	131.37	120.20
81	CE	62	ILE	CA-C-N	7.45	135.76	121.54
81	CE	62	ILE	C-N-CA	7.45	135.76	121.54
83	A5	3744	U	O4'-C1'-N1	7.45	119.67	108.50
83	A5	2602	A	O4'-C1'-N9	7.44	119.67	108.50
83	A5	3903	U	O4'-C1'-C2'	-7.44	100.16	107.60
79	CJ	142	PRO	CA-C-O	-7.44	113.21	121.32
83	A5	3745	U	O4'-C1'-C2'	-7.44	100.16	107.60
83	A5	161	G	O4'-C1'-C2'	-7.44	100.16	107.60
1	Az	173	LEU	N-CA-C	7.44	121.66	111.17
36	B2	1138	U	P-O3'-C3'	7.44	131.36	120.20
51	CA	3	ARG	CA-C-N	7.44	135.36	121.97
51	CA	3	ARG	C-N-CA	7.44	135.36	121.97
83	A5	564	C	P-O3'-C3'	7.44	131.35	120.20
36	B2	1148	U	C2'-C3'-O3'	-7.43	102.55	113.70
83	A5	3810	C	P-O3'-C3'	7.43	131.35	120.20
72	Ck	41	PHE	N-CA-C	7.43	131.81	111.00
36	B2	856	A	O4'-C1'-N9	7.43	119.64	108.50
27	AE	240	LYS	CA-C-N	7.43	135.97	121.41
27	AE	240	LYS	C-N-CA	7.43	135.97	121.41
83	A5	187	A	N9-C1'-C2'	7.43	125.14	114.00
51	CA	107	MET	CA-C-N	7.43	127.85	119.83
51	CA	107	MET	C-N-CA	7.43	127.85	119.83
83	A5	392	A	O4'-C1'-N9	7.43	119.34	108.20
83	A5	3711	G	N9-C1'-C2'	-7.43	102.86	114.00
83	A5	2903	U	O4'-C1'-C2'	-7.42	100.18	107.60
60	Cr	109	ASP	N-CA-C	-7.42	103.31	113.18
83	A5	1158	C	O4'-C1'-C2'	-7.42	100.18	107.60
83	A5	459	U	C1'-O4'-C4'	7.42	117.32	109.90
27	AE	103	TYR	CA-C-N	7.42	131.95	120.75
27	AE	103	TYR	C-N-CA	7.42	131.95	120.75
36	B2	1303	C	N1-C1'-C2'	7.42	123.13	112.00
83	A5	761	C	C1'-O4'-C4'	-7.42	102.48	109.90
83	A5	1976	G	O4'-C1'-C2'	7.42	115.02	107.60
36	B2	287	C	N1-C1'-C2'	7.42	123.12	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	CT	128	LEU	N-CA-C	7.42	126.59	110.80
74	CC	6	ALA	CB-CA-C	-7.42	108.03	116.63
74	CC	196	ARG	N-CA-C	7.42	131.76	111.00
83	A5	359	G	N9-C1'-C2'	-7.42	102.88	114.00
83	A5	1755	U	C1'-O4'-C4'	7.41	117.31	109.90
83	A5	3643	C	O4'-C1'-C2'	-7.41	100.19	107.60
45	Ca	13	ARG	CA-C-N	7.41	135.04	121.70
45	Ca	13	ARG	C-N-CA	7.41	135.04	121.70
36	B2	187	A	O3'-P-O5'	7.41	115.12	104.00
83	A5	33	C	N1-C1'-C2'	7.41	123.12	112.00
83	A5	1689	G	C3'-C2'-C1'	7.41	108.71	101.30
36	B2	146	C	N1-C1'-C2'	7.41	123.11	112.00
83	A5	1068	C	O4'-C1'-C2'	-7.41	100.19	107.60
83	A5	3404	A	O4'-C1'-N9	7.41	119.31	108.20
36	B2	339	U	O4'-C1'-N1	7.41	119.61	108.50
83	A5	1304	A	O4'-C1'-N9	7.41	119.61	108.50
83	A5	995	G	O4'-C1'-N9	7.41	119.61	108.50
83	A5	1437	A	P-O3'-C3'	-7.41	109.09	120.20
83	A5	1479	G	O4'-C1'-C2'	-7.41	98.39	105.80
83	A5	2507	C	N1-C1'-C2'	7.41	123.11	112.00
83	A5	3753	A	O4'-C1'-N9	7.40	119.61	108.50
36	B2	1880	C	N1-C1'-C2'	7.40	123.10	112.00
63	CB	189	SER	CA-C-N	7.40	130.60	120.46
63	CB	189	SER	C-N-CA	7.40	130.60	120.46
83	A5	270	G	O4'-C1'-N9	7.40	119.61	108.50
23	AD	115	LEU	N-CA-C	7.40	126.56	110.80
36	B2	1993	U	O4'-C1'-N1	7.40	119.60	108.50
59	CZ	111	PHE	CA-CB-CG	-7.40	106.40	113.80
24	Ae	116	ASN	CA-C-N	7.40	135.02	121.70
24	Ae	116	ASN	C-N-CA	7.40	135.02	121.70
42	CL	157	LYS	CA-C-N	7.40	135.02	121.70
42	CL	157	LYS	C-N-CA	7.40	135.02	121.70
1	Az	198	ASP	O-C-N	-7.40	112.47	122.68
36	B2	18	C	O4'-C1'-C2'	-7.40	100.20	107.60
83	A5	1916	G	O4'-C1'-C2'	-7.40	100.20	107.60
36	B2	1674	C	C3'-C2'-C1'	7.39	108.69	101.30
1	Az	605	ASN	N-CA-C	7.39	119.34	111.28
4	AK	84	PRO	O-C-N	7.39	124.62	121.15
52	CS	148	SER	CA-C-N	7.39	135.01	121.70
52	CS	148	SER	C-N-CA	7.39	135.01	121.70
70	Ci	37	SER	CA-C-N	7.39	135.66	121.54
70	Ci	37	SER	C-N-CA	7.39	135.66	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	936	G	C1'-O4'-C4'	-7.39	102.51	109.90
36	B2	1330	U	P-O3'-C3'	7.39	131.29	120.20
72	Ck	5	ILE	CA-C-N	7.39	130.78	120.29
72	Ck	5	ILE	C-N-CA	7.39	130.78	120.29
83	A5	1976	G	C1'-O4'-C4'	-7.39	102.51	109.90
36	B2	1683	U	O4'-C1'-N1	7.39	119.58	108.50
86	A8	110	C	O3'-P-O5'	-7.39	92.92	104.00
1	Az	6	VAL	N-CA-C	-7.39	105.78	111.62
83	A5	155	U	C5'-C4'-C3'	-7.39	104.12	115.20
83	A5	163	A	C3'-C2'-C1'	7.39	108.69	101.30
36	B2	313	C	C1'-C2'-O2'	7.38	119.48	108.40
83	A5	3144	U	O4'-C1'-C2'	-7.38	100.22	107.60
83	A5	3691	A	P-O3'-C3'	7.38	131.28	120.20
83	A5	1145	C	N1-C1'-C2'	7.38	123.08	112.00
1	Az	407	VAL	N-CA-C	7.38	124.69	109.34
36	B2	73	A	O4'-C1'-C2'	7.38	113.18	105.80
83	A5	187	A	C5'-C4'-C3'	7.38	126.27	115.20
83	A5	2557	C	C1'-C2'-O2'	-7.38	100.73	111.80
83	A5	3791	A	O3'-P-O5'	7.38	115.07	104.00
23	AD	35	GLY	CA-C-N	7.38	131.28	120.95
23	AD	35	GLY	C-N-CA	7.38	131.28	120.95
48	CD	221	ARG	CA-C-N	7.38	131.67	120.82
48	CD	221	ARG	C-N-CA	7.38	131.67	120.82
86	A8	98	U	N1-C1'-C2'	7.38	123.07	112.00
36	B2	1760	G	C2'-C3'-O3'	7.38	120.57	109.50
83	A5	3647	A	O4'-C1'-C2'	-7.38	100.22	107.60
36	B2	1029	G	O4'-C1'-C2'	7.38	114.97	107.60
27	AE	185	GLY	CA-C-N	7.37	135.86	121.41
27	AE	185	GLY	C-N-CA	7.37	135.86	121.41
36	B2	1049	C	N1-C1'-C2'	7.37	123.06	112.00
83	A5	403	A	N9-C1'-C2'	7.37	123.06	112.00
83	A5	549	A	O4'-C1'-C2'	-7.37	100.23	107.60
83	A5	228	C	O3'-P-O5'	7.37	115.06	104.00
83	A5	1698	A	C2'-C3'-O3'	7.37	120.56	109.50
47	CI	179	GLU	CA-C-N	7.37	130.75	120.29
47	CI	179	GLU	C-N-CA	7.37	130.75	120.29
25	Af	99	LYS	N-CA-CB	7.37	122.94	110.49
60	Cr	13	ARG	CB-CA-C	-7.36	99.03	110.81
36	B2	647	U	O4'-C1'-N1	7.36	119.24	108.20
36	B2	860	U	O4'-C1'-N1	7.36	119.54	108.50
49	CQ	97	LYS	N-CA-C	7.36	126.48	110.80
83	A5	1472	C	P-O5'-C5'	7.36	131.94	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	163	C	C3'-C2'-C1'	7.36	108.66	101.30
83	A5	315	G	N9-C1'-C2'	-7.36	102.96	114.00
36	B2	902	A	C3'-C2'-C1'	7.36	108.66	101.30
83	A5	3376	C	O4'-C1'-C2'	-7.36	100.25	107.60
83	A5	3824	C	O4'-C1'-C2'	-7.36	100.24	107.60
42	CL	157	LYS	CA-C-O	-7.35	113.05	121.65
70	Ci	60	HIS	CA-C-N	7.35	130.61	120.39
70	Ci	60	HIS	C-N-CA	7.35	130.61	120.39
82	CG	92	LEU	N-CA-CB	7.35	122.92	110.49
83	A5	2122	G	C1'-O4'-C4'	-7.35	102.55	109.90
42	CL	128	ILE	N-CA-C	7.35	124.63	109.34
47	CI	34	PHE	CA-CB-CG	-7.35	106.45	113.80
83	A5	880	A	P-O3'-C3'	7.35	131.23	120.20
36	B2	1622	U	O4'-C1'-C2'	-7.35	100.25	107.60
83	A5	1596	A	N9-C1'-C2'	7.35	123.03	112.00
83	A5	3357	C	O4'-C1'-C2'	-7.35	100.25	107.60
43	CV	69	LYS	CA-C-N	7.35	126.98	119.56
43	CV	69	LYS	C-N-CA	7.35	126.98	119.56
36	B2	1750	U	C4'-C3'-O3'	-7.35	101.98	113.00
83	A5	3754	C	O4'-C1'-C2'	-7.35	100.25	107.60
1	Az	126	THR	N-CA-C	7.34	121.28	111.30
2	Ag	235	ASP	CA-C-O	7.34	122.20	117.94
36	B2	706	U	N1-C1'-C2'	7.34	123.01	112.00
36	B2	990	U	N1-C1'-C2'	7.34	123.01	112.00
36	B2	1181	G	O4'-C1'-C2'	7.34	114.94	107.60
83	A5	3087	G	P-O3'-C3'	7.34	131.21	120.20
36	B2	17	C	C3'-C2'-C1'	7.34	108.64	101.30
36	B2	1087	C	C3'-C2'-C1'	-7.34	93.96	101.30
36	B2	1792	A	C1'-O4'-C4'	-7.34	102.36	109.70
83	A5	3778	U	O5'-C5'-C4'	7.34	122.51	111.50
60	Cr	6	HIS	CA-CB-CG	-7.34	106.46	113.80
80	CH	24	VAL	N-CA-CB	7.34	118.53	110.53
83	A5	458	A	O4'-C1'-C2'	-7.34	100.26	107.60
51	CA	216	HIS	CA-CB-CG	-7.33	106.47	113.80
61	Ch	117	ARG	CA-C-N	7.33	135.55	121.54
61	Ch	117	ARG	C-N-CA	7.33	135.55	121.54
1	Az	794	ALA	N-CA-C	7.33	126.42	110.80
45	Ca	99	ALA	CA-C-N	7.33	129.00	119.84
45	Ca	99	ALA	C-N-CA	7.33	129.00	119.84
83	A5	1599	C	N1-C1'-C2'	7.33	123.00	112.00
83	A5	2634	A	O4'-C1'-C2'	-7.33	98.47	105.80
83	A5	3968	C	O3'-P-O5'	-7.33	93.00	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	322	G	P-O3'-C3'	-7.33	109.20	120.20
83	A5	844	C	O4'-C1'-C2'	-7.33	100.27	107.60
83	A5	1356	G	O4'-C1'-C2'	-7.33	100.27	107.60
2	Ag	233	HIS	CA-CB-CG	-7.33	106.47	113.80
36	B2	1168	C	P-O3'-C3'	7.33	131.19	120.20
83	A5	157	C	C4'-C3'-C2'	-7.33	95.27	102.60
83	A5	3762	G	C2'-C3'-O3'	7.33	120.49	109.50
36	B2	1908	U	O4'-C1'-N1	7.33	119.49	108.50
83	A5	904	U	O3'-P-O5'	7.33	114.99	104.00
83	A5	3958	C	O3'-P-O5'	-7.33	93.01	104.00
1	Az	677	ILE	N-CA-CB	7.32	119.62	110.47
36	B2	1452	U	O4'-C1'-C2'	-7.32	100.28	107.60
83	A5	3259	A	O4'-C1'-C2'	-7.32	100.28	107.60
49	CQ	70	PHE	CB-CA-C	-7.32	96.62	110.67
83	A5	3143	U	O4'-C1'-C2'	-7.32	100.28	107.60
83	A5	3906	U	C3'-C2'-C1'	7.32	108.62	101.30
36	B2	18	C	C3'-C2'-C1'	7.32	108.62	101.30
36	B2	650	G	C5'-C4'-C3'	7.32	126.97	116.00
36	B2	942	A	O4'-C1'-N9	7.32	119.17	108.20
83	A5	1961	C	C4'-C3'-O3'	7.32	123.97	113.00
83	A5	3534	U	O4'-C1'-C2'	-7.31	100.29	107.60
83	A5	3565	G	O4'-C1'-C2'	7.31	114.91	107.60
83	A5	2514	U	N1-C1'-C2'	7.31	122.97	112.00
36	B2	1032	U	O4'-C1'-C2'	-7.31	100.29	107.60
74	CC	392	VAL	N-CA-CB	7.31	123.29	111.23
83	A5	725	U	O4'-C1'-C2'	-7.31	100.29	107.60
83	A5	768	U	O4'-C1'-C2'	-7.31	100.29	107.60
83	A5	1066	A	O3'-P-O5'	7.31	114.96	104.00
83	A5	2634	A	O4'-C1'-N9	7.30	119.16	108.20
83	A5	3244	U	O4'-C1'-C2'	-7.30	100.30	107.60
83	A5	1448	G	P-O5'-C5'	7.30	131.85	120.90
2	Ag	143	ILE	CB-CA-C	7.30	120.98	110.98
59	CZ	33	THR	CA-C-N	7.30	126.83	119.24
59	CZ	33	THR	C-N-CA	7.30	126.83	119.24
85	A7	91	C	O4'-C1'-C2'	-7.30	100.30	107.60
36	B2	1545	U	O4'-C1'-C2'	-7.30	100.30	107.60
36	B2	1568	G	P-O3'-C3'	7.30	131.15	120.20
83	A5	1235	U	N1-C1'-C2'	7.30	122.95	112.00
36	B2	587	A	O4'-C1'-N9	7.30	119.44	108.50
83	A5	1976	G	N9-C1'-C2'	7.30	122.94	112.00
83	A5	3584	C	O4'-C1'-C2'	-7.30	98.50	105.80
83	A5	1503	G	N9-C1'-C2'	7.29	122.94	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	AI	22	ARG	N-CA-CB	7.29	122.82	110.49
70	Ci	38	ARG	N-CA-C	7.29	126.33	110.80
83	A5	61	A	O4'-C1'-C2'	-7.29	100.31	107.60
71	Cj	51	VAL	CA-C-N	7.29	130.05	120.28
71	Cj	51	VAL	C-N-CA	7.29	130.05	120.28
74	CC	61	ALA	N-CA-CB	7.29	120.93	109.71
63	CB	334	LYS	CA-C-N	7.29	135.69	121.41
63	CB	334	LYS	C-N-CA	7.29	135.69	121.41
83	A5	359	G	C1'-O4'-C4'	7.29	116.99	109.70
83	A5	1503	G	C1'-O4'-C4'	-7.29	102.61	109.90
83	A5	2036	G	O4'-C1'-C2'	-7.29	100.31	107.60
36	B2	520	A	C2'-C3'-O3'	7.28	124.62	113.70
41	CO	116	LYS	N-CA-C	-7.28	104.39	113.28
83	A5	3219	A	O4'-C1'-C2'	-7.28	100.32	107.60
83	A5	3603	C	O4'-C1'-C2'	-7.28	100.32	107.60
53	CT	147	PRO	CA-C-N	7.28	135.07	121.97
53	CT	147	PRO	C-N-CA	7.28	135.07	121.97
26	AJ	173	ARG	CA-C-N	7.28	129.99	120.60
26	AJ	173	ARG	C-N-CA	7.28	129.99	120.60
48	CD	188	LYS	N-CA-C	7.28	126.31	110.80
83	A5	2491	C	C1'-C2'-O2'	7.28	122.72	111.80
15	AB	162	SER	N-CA-C	-7.28	102.74	111.69
42	CL	52	GLY	CA-C-N	7.28	135.44	121.54
42	CL	52	GLY	C-N-CA	7.28	135.44	121.54
79	CJ	19	ASP	N-CA-C	7.28	121.91	112.89
83	A5	2566	A	O3'-P-O5'	7.28	114.92	104.00
83	A5	2154	A	C1'-O4'-C4'	7.28	117.17	109.90
83	A5	3621	A	N9-C1'-C2'	-7.27	101.09	112.00
36	B2	703	A	P-O3'-C3'	7.27	131.11	120.20
83	A5	144	C	O4'-C1'-C2'	-7.27	100.33	107.60
33	AI	121	LEU	CA-C-O	-7.27	113.91	122.13
83	A5	1714	U	O4'-C1'-N1	7.27	119.40	108.50
28	AC	115	ASP	N-CA-C	7.27	119.89	111.02
36	B2	1127	G	O4'-C1'-C2'	7.27	114.87	107.60
36	B2	1168	C	C2'-C3'-O3'	7.27	120.40	109.50
83	A5	1809	A	C4'-C3'-C2'	-7.27	95.33	102.60
85	A7	63	C	C2'-C3'-O3'	7.27	124.60	113.70
36	B2	431	G	O4'-C1'-C2'	7.26	114.86	107.60
83	A5	2988	U	P-O3'-C3'	7.26	131.10	120.20
83	A5	3476	G	O4'-C1'-N9	7.26	119.40	108.50
83	A5	1997	C	O4'-C1'-C2'	-7.26	100.34	107.60
36	B2	267	G	O4'-C1'-C2'	7.26	114.86	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1261	C	C3'-C2'-C1'	7.26	108.56	101.30
36	B2	1674	C	O4'-C1'-C2'	-7.26	100.34	107.60
86	A8	68	U	C1'-C2'-O2'	7.26	119.29	108.40
1	Az	640	PRO	CA-C-N	7.26	134.77	121.70
1	Az	640	PRO	C-N-CA	7.26	134.77	121.70
1	Az	801	ASP	N-CA-C	7.26	118.84	111.07
11	AL	105	ASN	CA-CB-CG	-7.26	105.34	112.60
83	A5	926	U	N1-C1'-C2'	7.26	122.89	112.00
83	A5	3594	A	O4'-C1'-C2'	-7.26	100.34	107.60
36	B2	1431	A	O4'-C1'-C2'	-7.25	100.34	107.60
45	Ca	117	HIS	CE1-NE2-CD2	-7.25	101.75	109.00
81	CE	123	LEU	CA-C-N	7.25	131.79	121.42
81	CE	123	LEU	C-N-CA	7.25	131.79	121.42
83	A5	856	A	C3'-C2'-C1'	7.25	108.55	101.30
83	A5	2595	U	O4'-C1'-C2'	-7.25	100.35	107.60
36	B2	1005	G	C1'-O4'-C4'	-7.25	102.65	109.90
36	B2	1544	G	C1'-O4'-C4'	-7.25	102.65	109.90
59	CZ	101	LYS	N-CA-C	-7.25	102.40	112.12
83	A5	2846	A	P-O3'-C3'	7.25	131.08	120.20
36	B2	825	A	O4'-C1'-C2'	-7.25	100.35	107.60
21	Ab	49	HIS	CE1-NE2-CD2	-7.25	101.75	109.00
83	A5	1641	U	O4'-C1'-C2'	-7.25	100.35	107.60
83	A5	2645	C	O4'-C1'-C2'	-7.25	100.35	107.60
36	B2	1166	U	O3'-P-O5'	-7.25	93.13	104.00
43	CV	119	GLY	CA-C-N	7.25	127.69	119.93
43	CV	119	GLY	C-N-CA	7.25	127.69	119.93
81	CE	29	GLY	CA-C-N	7.25	135.01	121.97
81	CE	29	GLY	C-N-CA	7.25	135.01	121.97
83	A5	2783	C	O4'-C1'-C2'	-7.25	100.35	107.60
42	CL	172	ASP	CA-C-N	7.25	135.38	121.54
42	CL	172	ASP	C-N-CA	7.25	135.38	121.54
36	B2	1048	U	N1-C1'-C2'	7.24	122.87	112.00
36	B2	1606	A	C3'-C2'-C1'	-7.24	94.06	101.30
47	CI	174	THR	CA-C-N	7.24	130.32	120.54
47	CI	174	THR	C-N-CA	7.24	130.32	120.54
36	B2	1357	G	O4'-C1'-C2'	7.24	114.84	107.60
83	A5	2755	G	O4'-C1'-N9	7.24	119.06	108.20
83	A5	3478	G	C1'-O4'-C4'	-7.24	102.66	109.90
36	B2	595	C	O4'-C1'-C2'	-7.24	100.36	107.60
36	B2	1758	A	C3'-C2'-C1'	-7.24	94.06	101.30
36	B2	515	U	N1-C1'-C2'	7.24	122.86	112.00
36	B2	883	C	N1-C1'-C2'	7.24	122.86	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1587	U	O4'-C1'-C2'	-7.24	100.36	107.60
83	A5	1133	A	O4'-C1'-C2'	-7.24	98.56	105.80
36	B2	207	U	O4'-C1'-N1	7.24	119.36	108.50
83	A5	2472	A	P-O3'-C3'	7.24	131.05	120.20
83	A5	3141	A	N9-C1'-C2'	7.24	122.85	112.00
83	A5	3715	U	O4'-C1'-C2'	-7.24	100.36	107.60
83	A5	3864	C	P-O5'-C5'	7.24	131.75	120.90
36	B2	426	A	C1'-O4'-C4'	7.23	117.13	109.90
36	B2	590	U	N1-C1'-C2'	7.23	124.85	114.00
68	Cf	61	ARG	CA-C-N	7.23	129.75	120.64
68	Cf	61	ARG	C-N-CA	7.23	129.75	120.64
36	B2	1434	U	O4'-C1'-C2'	-7.23	100.37	107.60
83	A5	3857	G	O4'-C1'-N9	7.23	119.34	108.50
10	AN	85	PRO	N-CA-CB	7.23	109.70	103.19
86	A8	107	U	C4'-C3'-O3'	-7.23	102.16	113.00
34	AQ	10	GLN	N-CA-C	7.23	122.62	111.56
81	CE	62	ILE	N-CA-C	-7.23	106.05	112.12
36	B2	217	A	P-O5'-C5'	7.22	131.74	120.90
36	B2	1186	U	P-O3'-C3'	7.22	131.04	120.20
59	CZ	5	MET	N-CA-CB	7.22	122.70	110.49
83	A5	463	C	C3'-C2'-C1'	7.22	108.52	101.30
86	A8	100	G	N9-C1'-C2'	7.22	122.84	112.00
1	Az	72	SER	N-CA-C	7.22	126.18	110.80
83	A5	163	A	O4'-C1'-C2'	-7.22	100.38	107.60
83	A5	1698	A	O4'-C1'-N9	7.22	119.03	108.20
83	A5	3418	U	N1-C1'-C2'	7.22	122.83	112.00
83	A5	3627	C	O4'-C1'-C2'	-7.22	98.58	105.80
86	A8	76	A	P-O3'-C3'	-7.22	109.38	120.20
28	AC	83	SER	N-CA-C	-7.21	96.76	108.52
36	B2	925	U	C2'-C3'-O3'	7.21	120.32	109.50
50	CR	139	MET	N-CA-CB	7.21	121.46	110.28
83	A5	2473	C	C3'-C2'-C1'	7.21	108.52	101.30
86	A8	62	A	C2'-C3'-O3'	-7.21	102.88	113.70
36	B2	1024	C	C3'-C2'-C1'	7.21	108.51	101.30
85	A7	46	C	O4'-C1'-C2'	-7.21	100.39	107.60
83	A5	186	G	C2'-C3'-O3'	7.21	120.32	109.50
83	A5	3925	G	N9-C1'-C2'	7.21	124.82	114.00
36	B2	861	U	O4'-C1'-N1	7.21	119.31	108.50
36	B2	366	C	O4'-C1'-C2'	-7.21	100.39	107.60
36	B2	604	C	O4'-C1'-C2'	-7.21	100.39	107.60
83	A5	1471	G	C1'-O4'-C4'	-7.21	102.69	109.90
36	B2	1457	C	O4'-C1'-C2'	-7.21	98.59	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	CF	175	ASN	CA-C-N	7.21	129.94	120.28
64	CF	175	ASN	C-N-CA	7.21	129.94	120.28
83	A5	3260	G	N9-C1'-C2'	7.21	122.81	112.00
83	A5	2026	G	O4'-C1'-N9	7.21	119.01	108.20
83	A5	2981	G	O3'-P-O5'	7.21	114.81	104.00
36	B2	898	U	O4'-C1'-N1	7.20	119.00	108.20
83	A5	645	U	O4'-C1'-N1	7.20	119.30	108.50
83	A5	1297	G	P-O3'-C3'	7.20	131.00	120.20
67	Ce	95	CYS	CA-C-N	7.20	127.46	120.98
67	Ce	95	CYS	C-N-CA	7.20	127.46	120.98
83	A5	1809	A	O4'-C1'-N9	7.20	119.30	108.50
36	B2	1662	C	N1-C1'-C2'	7.20	122.80	112.00
63	CB	248	LEU	N-CA-C	7.20	126.14	110.80
66	Cd	115	GLN	CA-C-N	7.20	131.35	121.05
66	Cd	115	GLN	C-N-CA	7.20	131.35	121.05
83	A5	190	A	O4'-C1'-C2'	-7.20	100.40	107.60
83	A5	1394	U	O4'-C1'-N1	7.20	119.00	108.20
20	Aa	38	LYS	CA-C-N	7.20	135.29	121.54
20	Aa	38	LYS	C-N-CA	7.20	135.29	121.54
36	B2	1788	C	C3'-C2'-C1'	-7.20	94.10	101.30
69	Cg	1	MET	CA-C-N	7.20	134.66	121.70
69	Cg	1	MET	C-N-CA	7.20	134.66	121.70
83	A5	2467	A	O4'-C1'-C2'	-7.20	100.40	107.60
83	A5	3436	U	C1'-O4'-C4'	7.20	117.10	109.90
81	CE	52	SER	N-CA-C	7.20	125.71	109.81
14	AT	4	VAL	CA-C-N	7.20	130.51	120.29
14	AT	4	VAL	C-N-CA	7.20	130.51	120.29
84	A9	23	G	C3'-C2'-C1'	7.20	108.50	101.30
86	A8	97	U	N1-C1'-C2'	7.20	122.79	112.00
43	CV	14	PHE	CA-CB-CG	-7.19	106.61	113.80
86	A8	56	U	N1-C1'-C2'	7.19	122.79	112.00
15	AB	92	GLU	N-CA-C	7.19	119.74	111.11
83	A5	2266	U	N1-C1'-C2'	7.19	122.79	112.00
83	A5	3724	U	O4'-C1'-C2'	-7.19	100.41	107.60
39	Cq	87	GLY	N-CA-C	-7.19	99.90	110.90
83	A5	1534	G	C1'-O4'-C4'	-7.19	102.71	109.90
36	B2	1168	C	O3'-P-O5'	7.19	114.78	104.00
83	A5	2926	G	N9-C1'-C2'	7.19	122.78	112.00
23	AD	188	VAL	N-CA-C	-7.19	98.11	108.17
83	A5	525	U	O4'-C1'-N1	7.19	119.28	108.50
83	A5	527	U	N1-C1'-C2'	7.19	122.78	112.00
36	B2	243	U	N1-C1'-C2'	7.18	122.78	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	2822	C	P-O3'-C3'	7.18	130.98	120.20
83	A5	3224	G	N9-C1'-C2'	7.18	122.78	112.00
83	A5	3670	G	N9-C1'-C2'	7.18	122.78	112.00
11	AL	19	ARG	N-CA-C	7.18	119.11	111.28
83	A5	982	C	N1-C1'-C2'	7.18	122.77	112.00
83	A5	3880	A	C2'-C3'-O3'	-7.18	102.92	113.70
8	AS	125	HIS	CA-CB-CG	7.18	120.98	113.80
36	B2	1642	C	C3'-C2'-C1'	7.18	108.48	101.30
83	A5	1581	G	O4'-C1'-N9	7.18	119.27	108.50
83	A5	2880	A	P-O5'-C5'	7.18	131.67	120.90
36	B2	597	C	C3'-C2'-C1'	7.18	108.48	101.30
36	B2	1130	A	P-O3'-C3'	-7.17	109.44	120.20
36	B2	1951	A	C3'-C2'-C1'	-7.17	94.12	101.30
81	CE	97	PRO	CA-C-N	7.17	134.61	121.70
81	CE	97	PRO	C-N-CA	7.17	134.61	121.70
83	A5	487	A	P-O3'-C3'	7.17	130.96	120.20
83	A5	2719	A	O4'-C1'-C2'	-7.17	100.43	107.60
36	B2	252	A	O4'-C1'-C2'	7.17	112.97	105.80
83	A5	2898	U	O4'-C1'-N1	7.17	119.26	108.50
83	A5	3689	U	O4'-C1'-N1	7.17	119.25	108.50
15	AB	208	TYR	CA-C-N	7.17	127.57	119.83
15	AB	208	TYR	C-N-CA	7.17	127.57	119.83
36	B2	1353	U	O4'-C1'-N1	7.17	119.25	108.50
36	B2	1550	C	O4'-C1'-C2'	-7.17	100.43	107.60
36	B2	1968	C	O4'-C1'-C2'	-7.17	100.43	107.60
83	A5	2022	C	N1-C1'-C2'	7.17	122.75	112.00
83	A5	2716	C	N1-C1'-C2'	7.17	122.75	112.00
19	AZ	111	ALA	CA-C-N	7.16	135.22	121.54
19	AZ	111	ALA	C-N-CA	7.16	135.22	121.54
36	B2	183	A	O4'-C1'-C2'	-7.16	100.44	107.60
83	A5	1548	C	N1-C1'-C2'	7.16	122.75	112.00
83	A5	2054	U	O4'-C1'-N1	7.16	119.24	108.50
36	B2	465	A	P-O3'-C3'	7.16	130.94	120.20
25	Af	131	PHE	CA-C-N	7.16	131.98	121.31
25	Af	131	PHE	C-N-CA	7.16	131.98	121.31
36	B2	92	A	C5'-C4'-C3'	-7.16	104.46	115.20
36	B2	430	A	C1'-O4'-C4'	-7.16	102.74	109.90
36	B2	1359	U	N1-C1'-C2'	7.16	122.74	112.00
66	Cd	38	ARG	CA-C-N	7.16	134.59	121.70
66	Cd	38	ARG	C-N-CA	7.16	134.59	121.70
68	Cf	50	LEU	N-CA-CB	7.16	121.04	109.95
83	A5	2481	U	N1-C1'-C2'	7.16	122.74	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	2913	G	C1'-O4'-C4'	-7.16	102.74	109.90
83	A5	2992	A	P-O5'-C5'	7.16	131.64	120.90
52	CS	92	ASN	CA-CB-CG	-7.16	105.44	112.60
56	CX	171	THR	CA-C-N	7.16	130.91	120.82
56	CX	171	THR	C-N-CA	7.16	130.91	120.82
83	A5	32	C	N1-C1'-C2'	7.16	122.73	112.00
83	A5	3027	A	C4'-C3'-O3'	7.16	120.74	110.00
45	Ca	135	GLU	CA-C-N	7.16	129.87	120.28
45	Ca	135	GLU	C-N-CA	7.16	129.87	120.28
83	A5	1157	C	O4'-C1'-C2'	-7.16	100.44	107.60
83	A5	3833	U	O4'-C1'-N1	7.16	119.23	108.50
36	B2	1777	U	O3'-P-O5'	7.15	114.73	104.00
38	Cz	140	HIS	CE1-NE2-CD2	-7.15	101.85	109.00
60	Cr	30	SER	N-CA-CB	7.15	121.53	109.87
9	Ad	10	HIS	CA-C-N	7.15	128.78	119.84
9	Ad	10	HIS	C-N-CA	7.15	128.78	119.84
36	B2	1167	U	O3'-P-O5'	7.15	114.73	104.00
37	BC	69	G	C4'-C3'-C2'	-7.15	95.45	102.60
40	CK	74	VAL	CA-C-N	7.15	128.78	119.84
40	CK	74	VAL	C-N-CA	7.15	128.78	119.84
83	A5	3805	U	O4'-C1'-C2'	-7.15	100.45	107.60
1	Az	659	ASN	CA-C-N	7.15	129.86	120.28
1	Az	659	ASN	C-N-CA	7.15	129.86	120.28
30	AF	206	LYS	CA-C-N	7.15	135.42	121.41
30	AF	206	LYS	C-N-CA	7.15	135.42	121.41
51	CA	125	ARG	N-CA-C	7.15	120.90	111.75
83	A5	2061	G	O3'-P-O5'	-7.15	93.28	104.00
43	CV	22	VAL	CA-C-N	7.15	134.57	121.70
43	CV	22	VAL	C-N-CA	7.15	134.57	121.70
83	A5	3715	U	P-O3'-C3'	7.15	130.92	120.20
83	A5	1180	U	O4'-C1'-C2'	-7.14	100.45	107.60
36	B2	988	G	C3'-C2'-C1'	-7.14	94.16	101.30
42	CL	96	ALA	N-CA-C	7.14	126.01	110.80
75	Cm	88	LYS	N-CA-C	-7.14	103.43	112.93
83	A5	1896	A	C4'-C3'-C2'	-7.14	95.46	102.60
83	A5	2923	A	O4'-C1'-C2'	-7.14	100.46	107.60
34	AQ	76	GLY	CA-C-N	7.14	135.40	121.41
34	AQ	76	GLY	C-N-CA	7.14	135.40	121.41
36	B2	1057	A	O4'-C1'-C2'	-7.14	100.46	107.60
83	A5	302	A	C4'-C3'-O3'	-7.14	102.29	113.00
83	A5	3814	U	O4'-C1'-N1	7.14	119.21	108.50
86	A8	115	U	O4'-C1'-N1	7.14	119.21	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	CQ	174	PHE	CA-CB-CG	-7.14	106.66	113.80
83	A5	1240	A	C4'-C3'-O3'	-7.14	102.30	113.00
86	A8	6	U	O4'-C1'-N1	7.14	119.21	108.50
63	CB	224	LYS	CA-C-N	7.13	128.49	121.57
63	CB	224	LYS	C-N-CA	7.13	128.49	121.57
83	A5	990	U	O4'-C1'-N1	7.13	119.20	108.50
83	A5	2824	U	O4'-C1'-N1	7.13	119.20	108.50
83	A5	1118	C	C4'-C3'-O3'	-7.13	102.30	113.00
85	A7	76	U	N1-C1'-C2'	7.13	122.70	112.00
36	B2	1631	C	O4'-C1'-C2'	-7.13	100.47	107.60
42	CL	125	LEU	N-CA-C	7.13	125.98	110.80
48	CD	151	ALA	N-CA-CB	7.13	120.45	109.97
83	A5	2089	A	C4'-C3'-O3'	-7.13	102.31	113.00
36	B2	1029	G	C1'-O4'-C4'	-7.13	102.77	109.90
36	B2	1128	C	N1-C1'-C2'	7.13	122.69	112.00
36	B2	1586	U	O4'-C1'-N1	7.13	119.19	108.50
83	A5	3198	C	N1-C1'-C2'	7.13	122.69	112.00
36	B2	183	A	C3'-C2'-C1'	7.12	108.42	101.30
83	A5	706	G	N9-C1'-C2'	-7.12	101.31	112.00
1	Az	595	MET	CA-C-O	-7.12	115.56	120.47
36	B2	863	A	O3'-P-O5'	7.12	114.69	104.00
36	B2	1766	G	C3'-C2'-C1'	7.12	108.42	101.30
83	A5	214	A	C3'-C2'-C1'	7.12	108.42	101.30
83	A5	2117	A	C3'-C2'-C1'	7.12	108.42	101.30
83	A5	1569	U	O4'-C1'-C2'	-7.12	100.48	107.60
83	A5	2908	U	O4'-C1'-C2'	-7.12	98.68	105.80
83	A5	3729	A	N9-C1'-C2'	-7.12	101.32	112.00
83	A5	85	U	O4'-C1'-N1	7.12	119.18	108.50
83	A5	3746	A	O4'-C1'-N9	7.12	119.18	108.50
5	AO	128	ARG	N-CA-CB	7.12	122.52	110.49
83	A5	3936	A	C1'-C2'-O2'	7.12	119.08	108.40
1	Az	605	ASN	CA-C-N	7.12	134.51	121.70
1	Az	605	ASN	C-N-CA	7.12	134.51	121.70
83	A5	2220	C	C3'-C2'-C1'	7.12	108.42	101.30
83	A5	3933	G	N9-C1'-C2'	7.12	122.67	112.00
34	AQ	12	VAL	CA-C-N	7.11	131.90	122.30
34	AQ	12	VAL	C-N-CA	7.11	131.90	122.30
36	B2	1320	G	O4'-C1'-C2'	7.11	114.71	107.60
83	A5	1752	G	N9-C1'-C2'	7.11	122.67	112.00
8	AS	10	GLN	N-CA-C	7.11	121.22	112.54
36	B2	866	U	N1-C1'-C2'	7.11	124.67	114.00
83	A5	2135	C	O4'-C1'-C2'	-7.11	100.49	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	Aa	103	PRO	CA-C-N	7.11	131.54	121.02
20	Aa	103	PRO	C-N-CA	7.11	131.54	121.02
37	BC	73	C	N1-C1'-C2'	7.11	122.67	112.00
83	A5	13	U	O4'-C1'-C2'	-7.11	100.49	107.60
36	B2	451	C	O4'-C1'-C2'	-7.11	100.49	107.60
83	A5	311	C	N1-C1'-C2'	7.11	122.66	112.00
83	A5	908	C	O4'-C1'-C2'	-7.11	100.49	107.60
83	A5	2123	G	P-O3'-C3'	7.11	130.86	120.20
36	B2	1047	U	O4'-C1'-C2'	-7.11	100.49	107.60
83	A5	3654	C	N1-C1'-C2'	7.11	122.66	112.00
27	AE	6	LYS	N-CA-CB	7.11	122.50	110.49
30	AF	189	ASN	CA-C-N	7.11	132.28	120.62
30	AF	189	ASN	C-N-CA	7.11	132.28	120.62
83	A5	3161	U	N1-C1'-C2'	7.11	122.66	112.00
31	AH	34	ASP	CA-C-N	7.10	130.38	120.29
31	AH	34	ASP	C-N-CA	7.10	130.38	120.29
40	CK	59	THR	N-CA-C	7.10	118.92	111.03
83	A5	730	U	O4'-C1'-N1	7.10	119.16	108.50
60	Cr	27	LYS	N-CA-C	-7.10	99.42	110.14
1	Az	254	ASN	N-CA-C	7.10	120.55	110.68
63	CB	106	TRP	CA-C-N	7.10	130.79	120.71
63	CB	106	TRP	C-N-CA	7.10	130.79	120.71
83	A5	2998	U	C5'-C4'-C3'	-7.10	105.35	116.00
60	Cr	39	VAL	CA-C-N	7.10	133.17	122.95
60	Cr	39	VAL	C-N-CA	7.10	133.17	122.95
83	A5	1531	U	O4'-C1'-N1	7.10	119.15	108.50
83	A5	2277	G	O4'-C1'-C2'	-7.10	100.50	107.60
84	A9	29	U	N1-C1'-C2'	7.10	122.65	112.00
83	A5	1159	C	N1-C1'-C2'	7.10	122.64	112.00
83	A5	3298	U	O4'-C1'-C2'	-7.10	100.50	107.60
28	AC	181	ALA	CA-C-N	7.09	127.07	119.76
28	AC	181	ALA	C-N-CA	7.09	127.07	119.76
83	A5	1779	G	O4'-C4'-C3'	-7.09	96.91	104.00
18	AY	61	PHE	N-CA-CB	7.09	122.47	110.49
36	B2	1077	C	O4'-C1'-C2'	-7.09	100.51	107.60
36	B2	1115	C	O4'-C1'-C2'	-7.09	98.71	105.80
42	CL	148	GLN	N-CA-C	7.09	121.51	112.86
36	B2	55	A	N9-C1'-C2'	7.09	122.63	112.00
36	B2	1575	A	O4'-C1'-N9	7.09	118.83	108.20
45	Ca	103	ASP	CA-C-N	7.09	131.09	120.31
45	Ca	103	ASP	C-N-CA	7.09	131.09	120.31
36	B2	48	G	N9-C1'-C2'	7.09	122.63	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AA	216	ALA	CA-C-N	7.09	135.07	121.54
16	AA	216	ALA	C-N-CA	7.09	135.07	121.54
33	AI	120	PRO	CA-C-N	7.09	132.40	122.41
33	AI	120	PRO	C-N-CA	7.09	132.40	122.41
83	A5	761	C	P-O3'-C3'	7.09	130.83	120.20
83	A5	3284	C	O4'-C1'-C2'	-7.09	98.71	105.80
85	A7	31	G	C1'-O4'-C4'	-7.09	102.81	109.90
36	B2	65	A	O4'-C1'-N9	7.08	118.83	108.20
83	A5	2495	G	O4'-C1'-N9	7.08	118.82	108.20
36	B2	783	U	P-O3'-C3'	7.08	130.82	120.20
36	B2	1782	G	O4'-C1'-C2'	-7.08	100.52	107.60
83	A5	1385	G	C1'-O4'-C4'	7.08	116.98	109.90
83	A5	2587	U	O5'-C5'-C4'	-7.08	101.08	111.70
23	AD	79	PHE	CA-CB-CG	-7.08	106.72	113.80
80	CH	30	THR	N-CA-C	-7.08	105.26	114.04
36	B2	449	C	N1-C1'-C2'	7.08	124.62	114.00
82	CG	129	GLY	CA-C-N	7.08	135.05	121.54
82	CG	129	GLY	C-N-CA	7.08	135.05	121.54
83	A5	475	U	N1-C1'-C2'	7.08	122.61	112.00
83	A5	2862	U	O4'-C1'-C2'	-7.08	100.53	107.60
32	AW	5	ASN	CA-C-N	7.07	132.45	120.29
32	AW	5	ASN	C-N-CA	7.07	132.45	120.29
1	Az	586	ASN	CA-C-O	-7.07	112.89	121.02
36	B2	1714	U	O4'-C1'-C2'	-7.07	98.73	105.80
83	A5	3543	A	N9-C1'-C2'	-7.07	101.39	112.00
83	A5	3722	C	P-O5'-C5'	7.07	131.51	120.90
19	AZ	51	LYS	N-CA-C	7.07	121.53	112.34
36	B2	1315	U	C3'-C2'-C1'	7.07	108.57	101.50
36	B2	257	U	C2'-C3'-O3'	-7.07	103.10	113.70
83	A5	932	G	N9-C1'-C2'	7.07	122.60	112.00
83	A5	1250	C	C1'-O4'-C4'	-7.07	102.83	109.90
83	A5	1443	A	O4'-C1'-C2'	-7.07	100.53	107.60
83	A5	1522	G	O4'-C1'-C2'	-7.07	98.73	105.80
83	A5	3931	C	N1-C1'-C2'	7.07	122.60	112.00
51	CA	216	HIS	N-CA-C	-7.07	101.97	108.75
65	Cc	103	ASP	CA-C-N	7.07	132.23	120.64
65	Cc	103	ASP	C-N-CA	7.07	132.23	120.64
83	A5	2899	U	P-O5'-C5'	7.07	131.50	120.90
83	A5	3159	C	O4'-C1'-C2'	-7.07	98.73	105.80
30	AF	226	SER	CA-C-N	7.06	135.03	121.54
30	AF	226	SER	C-N-CA	7.06	135.03	121.54
36	B2	544	C	N1-C1'-C2'	7.06	122.59	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	656	U	N1-C1'-C2'	-7.06	103.41	114.00
37	BC	18	G	O3'-P-O5'	7.06	114.59	104.00
42	CL	2	GLY	CA-C-N	7.06	132.94	123.05
42	CL	2	GLY	C-N-CA	7.06	132.94	123.05
79	CJ	8	ILE	CA-C-N	7.06	135.03	121.54
79	CJ	8	ILE	C-N-CA	7.06	135.03	121.54
81	CE	230	PHE	CA-CB-CG	7.06	120.86	113.80
1	Az	464	PHE	CA-CB-CG	-7.06	106.74	113.80
53	CT	154	PRO	CB-CA-C	-7.06	99.91	111.56
12	AR	112	HIS	CA-CB-CG	7.06	120.86	113.80
28	AC	190	ALA	CA-C-N	7.06	127.37	119.32
28	AC	190	ALA	C-N-CA	7.06	127.37	119.32
29	AG	68	LEU	O-C-N	-7.06	113.20	122.59
36	B2	1734	G	C2'-C3'-O3'	-7.06	98.92	109.50
83	A5	1432	C	N1-C1'-C2'	7.06	122.58	112.00
83	A5	995	G	O4'-C1'-C2'	7.05	114.66	107.60
83	A5	1776	U	O4'-C1'-C2'	-7.05	100.55	107.60
83	A5	2086	U	O4'-C1'-N1	7.05	119.08	108.50
83	A5	3692	G	P-O3'-C3'	7.05	130.78	120.20
36	B2	869	C	N1-C1'-C2'	7.05	122.58	112.00
36	B2	1796	C	N1-C1'-C2'	7.05	122.58	112.00
83	A5	1809	A	P-O3'-C3'	7.05	130.78	120.20
83	A5	2091	A	C4'-C3'-O3'	7.05	119.98	109.40
34	AQ	7	GLU	CA-C-N	7.05	128.65	119.84
34	AQ	7	GLU	C-N-CA	7.05	128.65	119.84
36	B2	1774	C	O4'-C1'-C2'	-7.05	98.75	105.80
42	CL	159	GLU	N-CA-CB	7.05	122.48	110.50
83	A5	3734	A	O4'-C1'-C2'	-7.05	100.55	107.60
23	AD	181	GLN	N-CA-C	7.05	120.00	111.40
33	AI	65	PHE	CA-CB-CG	-7.05	106.75	113.80
64	CF	196	HIS	CE1-NE2-CD2	-7.05	101.95	109.00
83	A5	405	A	N9-C1'-C2'	-7.05	101.43	112.00
83	A5	3890	G	N9-C1'-C2'	7.05	122.57	112.00
83	A5	2131	C	O3'-P-O5'	7.04	114.57	104.00
36	B2	523	A	O4'-C1'-C2'	-7.04	100.56	107.60
36	B2	1007	C	O4'-C1'-C2'	-7.04	100.56	107.60
83	A5	3406	G	P-O5'-C5'	7.04	131.47	120.90
19	AZ	96	ILE	N-CA-C	7.04	118.44	108.93
27	AE	240	LYS	N-CA-C	7.04	120.21	110.35
83	A5	3206	A	C3'-C2'-C1'	7.04	108.34	101.30
83	A5	3591	A	O4'-C1'-N9	7.04	118.76	108.20
1	Az	307	VAL	N-CA-C	7.04	123.98	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	214	A	O4'-C1'-C2'	-7.04	100.56	107.60
83	A5	3412	U	O4'-C1'-N1	7.04	119.06	108.50
1	Az	638	PHE	N-CA-C	-7.04	98.26	109.59
52	CS	173	ARG	CA-C-N	7.04	131.86	120.60
52	CS	173	ARG	C-N-CA	7.04	131.86	120.60
83	A5	1011	U	N1-C1'-C2'	7.04	122.55	112.00
83	A5	1277	A	P-O3'-C3'	7.04	130.75	120.20
1	Az	554	ILE	CA-C-O	-7.03	115.00	119.15
83	A5	771	A	O4'-C1'-C2'	-7.03	100.57	107.60
83	A5	3652	C	N1-C1'-C2'	7.03	122.55	112.00
85	A7	17	C	O4'-C1'-C2'	-7.03	100.57	107.60
83	A5	357	C	N1-C1'-C2'	7.03	122.55	112.00
36	B2	1246	C	O4'-C1'-C2'	-7.03	98.77	105.80
83	A5	301	U	O4'-C1'-N1	7.03	119.04	108.50
83	A5	2480	U	P-O3'-C3'	7.03	130.74	120.20
36	B2	251	G	C1'-O4'-C4'	7.03	116.93	109.90
36	B2	1110	A	O3'-P-O5'	-7.03	93.46	104.00
83	A5	836	G	P-O5'-C5'	7.03	131.44	120.90
83	A5	2107	U	O4'-C1'-C2'	-7.03	98.78	105.80
36	B2	851	A	C4'-C3'-O3'	-7.02	102.46	113.00
83	A5	478	A	P-O3'-C3'	7.02	130.74	120.20
83	A5	1178	U	N1-C1'-C2'	7.02	124.54	114.00
36	B2	915	U	O4'-C1'-N1	7.02	118.73	108.20
68	Cf	24	VAL	CA-C-N	7.02	134.95	121.54
68	Cf	24	VAL	C-N-CA	7.02	134.95	121.54
72	Ck	2	PRO	N-CA-C	7.02	122.97	113.84
83	A5	2043	G	N9-C1'-C2'	-7.02	103.47	114.00
86	A8	74	G	N9-C1'-C2'	7.02	122.53	112.00
36	B2	1261	C	N1-C1'-C2'	7.02	122.53	112.00
83	A5	547	U	N1-C1'-C2'	7.02	122.53	112.00
36	B2	1819	U	P-O3'-C3'	-7.02	109.67	120.20
83	A5	333	C	O4'-C1'-C2'	-7.02	100.58	107.60
36	B2	1340	U	P-O3'-C3'	7.02	130.72	120.20
83	A5	2170	C	O4'-C1'-C2'	-7.01	100.59	107.60
85	A7	39	C	O3'-P-O5'	7.01	114.52	104.00
38	Cz	177	ASP	CA-C-N	7.01	129.68	120.28
38	Cz	177	ASP	C-N-CA	7.01	129.68	120.28
69	Cg	44	CYS	CA-C-N	7.01	135.16	121.41
69	Cg	44	CYS	C-N-CA	7.01	135.16	121.41
83	A5	1144	C	N1-C1'-C2'	7.01	122.52	112.00
83	A5	2105	C	O4'-C1'-C2'	-7.01	100.59	107.60
36	B2	511	G	O4'-C1'-C2'	-7.01	100.59	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3931	C	O4'-C1'-C2'	-7.01	100.59	107.60
36	B2	396	A	O4'-C1'-C2'	-7.01	100.59	107.60
36	B2	1116	G	O4'-C1'-C2'	-7.01	98.79	105.80
83	A5	1717	A	P-O3'-C3'	7.01	130.72	120.20
68	Cf	50	LEU	N-CA-C	-7.01	98.62	109.76
83	A5	3348	G	O5'-C5'-C4'	-7.01	101.19	111.70
39	Cq	69	LEU	CA-C-N	7.01	134.92	121.54
39	Cq	69	LEU	C-N-CA	7.01	134.92	121.54
83	A5	201	U	O3'-P-O5'	-7.00	93.49	104.00
83	A5	3829	U	N1-C1'-C2'	-7.00	101.49	112.00
36	B2	521	U	O4'-C1'-N1	7.00	119.01	108.50
36	B2	1401	U	N1-C1'-C2'	-7.00	103.50	114.00
83	A5	751	A	O4'-C1'-C2'	7.00	112.80	105.80
36	B2	1855	A	O4'-C1'-C2'	-7.00	100.60	107.60
83	A5	1357	C	O4'-C1'-C2'	-7.00	98.80	105.80
36	B2	1888	C	O4'-C1'-C2'	-7.00	100.60	107.60
42	CL	69	LEU	CB-CA-C	7.00	120.23	110.16
45	Ca	7	LYS	N-CA-CB	7.00	120.33	110.04
83	A5	1900	U	O4'-C1'-N1	7.00	119.00	108.50
83	A5	2579	G	N9-C1'-C2'	7.00	122.50	112.00
83	A5	1138	C	N1-C1'-C2'	7.00	122.49	112.00
83	A5	3840	G	C3'-C2'-C1'	7.00	108.30	101.30
16	AA	30	VAL	N-CA-C	6.99	117.78	110.72
50	CR	132	PHE	N-CA-CB	6.99	122.31	110.49
83	A5	68	G	O4'-C1'-N9	6.99	118.99	108.50
1	Az	226	PHE	CA-CB-CG	6.99	120.79	113.80
83	A5	1812	C	O5'-C5'-C4'	6.99	122.19	111.70
83	A5	2218	G	N9-C1'-C2'	6.99	122.49	112.00
16	AA	222	PRO	N-CA-C	6.99	119.23	110.70
36	B2	905	U	O3'-P-O5'	6.99	114.49	104.00
72	Ck	40	ARG	N-CA-C	6.99	122.45	109.24
83	A5	2782	A	O4'-C1'-N9	6.99	118.99	108.50
8	AS	139	THR	CA-C-N	6.99	135.11	121.41
8	AS	139	THR	C-N-CA	6.99	135.11	121.41
29	AG	23	LYS	CA-C-N	6.99	130.21	120.29
29	AG	23	LYS	C-N-CA	6.99	130.21	120.29
72	Ck	59	SER	N-CA-C	6.99	130.57	111.00
83	A5	2493	C	O4'-C1'-C2'	-6.99	100.61	107.60
1	Az	574	ASP	CA-C-N	6.99	132.06	122.77
1	Az	574	ASP	C-N-CA	6.99	132.06	122.77
36	B2	1875	G	O4'-C1'-N9	6.99	118.68	108.20
83	A5	1448	G	O4'-C1'-N9	6.99	118.98	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	722	ALA	N-CA-C	6.99	125.68	110.80
19	AZ	112	THR	N-CA-C	6.99	125.68	110.80
36	B2	1305	A	C1'-O4'-C4'	6.98	116.68	109.70
83	A5	3810	C	O4'-C1'-C2'	-6.98	100.62	107.60
63	CB	292	HIS	CA-CB-CG	6.98	120.78	113.80
4	AK	2	PHE	N-CA-CB	6.98	120.82	110.49
83	A5	400	U	N1-C1'-C2'	6.98	122.47	112.00
36	B2	1019	U	P-O3'-C3'	6.98	130.67	120.20
36	B2	1845	C	N1-C1'-C2'	6.98	122.47	112.00
83	A5	2605	C	P-O3'-C3'	6.98	130.66	120.20
26	AJ	13	THR	O-C-N	-6.98	113.31	122.59
36	B2	1778	A	C4'-C3'-O3'	-6.98	102.54	113.00
52	CS	6	LEU	N-CA-C	6.98	125.66	110.80
83	A5	3542	C	O4'-C1'-C2'	-6.98	100.62	107.60
36	B2	848	C	N1-C1'-C2'	6.97	122.46	112.00
48	CD	95	TYR	CB-CA-C	-6.97	99.21	110.79
58	CW	14	TYR	CA-C-N	6.97	127.00	119.89
58	CW	14	TYR	C-N-CA	6.97	127.00	119.89
83	A5	2459	C	N1-C1'-C2'	6.97	122.46	112.00
83	A5	3583	C	N1-C1'-C2'	6.97	122.46	112.00
3	AU	87	HIS	CE1-NE2-CD2	-6.97	102.03	109.00
76	Cn	14	LYS	N-CA-CB	6.97	120.37	110.12
83	A5	66	A	O4'-C1'-C2'	-6.97	100.63	107.60
36	B2	1388	U	O4'-C1'-C2'	-6.97	100.63	107.60
65	Cc	102	SER	N-CA-C	6.97	120.48	110.24
83	A5	717	A	C1'-O4'-C4'	-6.97	102.73	109.70
83	A5	2769	G	C1'-O4'-C4'	-6.97	102.93	109.90
44	CM	58	THR	N-CA-C	6.97	119.56	110.43
83	A5	884	U	O4'-C1'-C2'	-6.97	100.63	107.60
29	AG	149	LYS	N-CA-C	6.97	125.64	110.80
36	B2	1077	C	N1-C1'-C2'	6.97	122.45	112.00
36	B2	1413	A	O4'-C1'-C2'	-6.97	100.63	107.60
83	A5	2558	A	C1'-O4'-C4'	-6.97	102.93	109.90
83	A5	3916	U	C1'-O4'-C4'	-6.97	102.93	109.90
36	B2	574	C	N1-C1'-C2'	6.96	122.44	112.00
36	B2	600	A	C2'-C3'-O3'	-6.96	103.25	113.70
36	B2	1276	G	C1'-O4'-C4'	-6.96	102.94	109.90
45	Ca	47	ASP	O-C-N	-6.96	113.33	122.59
83	A5	3711	G	O4'-C1'-C2'	-6.96	98.84	105.80
36	B2	823	C	P-O5'-C5'	6.96	131.34	120.90
36	B2	1162	U	O4'-C1'-N1	6.96	118.94	108.50
36	B2	1596	C	N1-C1'-C2'	6.96	122.44	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1675	A	O4'-C1'-C2'	-6.96	100.64	107.60
57	CY	100	HIS	CA-CB-CG	-6.96	106.84	113.80
83	A5	1089	U	O4'-C1'-C2'	-6.96	100.64	107.60
36	B2	618	G	O4'-C1'-C2'	6.96	114.56	107.60
83	A5	3368	C	O4'-C1'-C2'	6.96	114.56	107.60
37	BC	32	C	O4'-C1'-C2'	-6.96	100.64	107.60
67	Ce	125	ASN	N-CA-C	6.96	125.62	110.80
83	A5	1809	A	O3'-P-O5'	6.96	114.44	104.00
83	A5	3801	A	O3'-P-O5'	-6.96	93.56	104.00
1	Az	15	LYS	N-CA-C	6.96	125.62	110.80
83	A5	280	C	N1-C1'-C2'	6.96	122.43	112.00
36	B2	824	U	C2'-C3'-O3'	6.96	119.93	109.50
36	B2	857	G	O4'-C1'-C2'	6.96	114.56	107.60
36	B2	1724	U	N1-C1'-C2'	6.96	122.43	112.00
83	A5	316	U	P-O3'-C3'	6.96	130.63	120.20
5	AO	103	ASN	N-CA-C	-6.95	105.14	112.93
36	B2	284	G	O4'-C1'-N9	-6.95	98.07	108.50
36	B2	488	A	O4'-C1'-C2'	-6.95	100.65	107.60
83	A5	2837	A	C5'-C4'-C3'	-6.95	105.57	116.00
36	B2	777	A	O3'-P-O5'	6.95	114.43	104.00
63	CB	262	VAL	CB-CA-C	-6.95	103.72	111.23
83	A5	3881	A	O4'-C1'-C2'	-6.95	100.65	107.60
36	B2	1127	G	C3'-C2'-C1'	-6.95	94.35	101.30
83	A5	1019	U	O4'-C1'-C2'	-6.95	100.65	107.60
83	A5	1496	U	O4'-C1'-C2'	-6.95	100.65	107.60
57	CY	130	LEU	CA-C-N	6.95	127.65	119.94
57	CY	130	LEU	C-N-CA	6.95	127.65	119.94
36	B2	416	C	N1-C1'-C2'	6.95	122.42	112.00
83	A5	261	U	O4'-C1'-N1	6.95	118.92	108.50
83	A5	1529	C	N1-C1'-C2'	6.95	122.42	112.00
83	A5	1965	A	O4'-C1'-C2'	-6.95	100.65	107.60
83	A5	2875	A	O4'-C1'-C2'	-6.95	100.66	107.60
83	A5	3833	U	O4'-C1'-C2'	-6.95	100.66	107.60
37	BC	46	U	C2'-C3'-O3'	-6.94	103.28	113.70
83	A5	3640	A	O4'-C1'-N9	6.94	118.92	108.50
7	AM	39	VAL	O-C-N	-6.94	113.89	122.57
15	AB	22	VAL	N-CA-CB	6.94	122.69	111.23
25	Af	112	GLY	CA-C-N	6.94	130.57	120.71
25	Af	112	GLY	C-N-CA	6.94	130.57	120.71
36	B2	1755	A	P-O3'-C3'	6.94	130.61	120.20
83	A5	691	C	C1'-O4'-C4'	-6.94	102.96	109.90
83	A5	800	C	C3'-C2'-C1'	6.94	108.24	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	CK	30	PRO	CA-C-N	6.94	129.58	120.28
40	CK	30	PRO	C-N-CA	6.94	129.58	120.28
36	B2	1145	U	O4'-C1'-N1	6.94	118.61	108.20
83	A5	784	G	C1'-O4'-C4'	-6.94	102.96	109.90
85	A7	74	A	O4'-C1'-C2'	-6.94	98.86	105.80
86	A8	60	U	C2'-C3'-O3'	-6.94	103.29	113.70
19	AZ	49	PHE	CA-CB-CG	-6.94	106.86	113.80
36	B2	997	C	O3'-P-O5'	-6.94	93.59	104.00
83	A5	644	U	N1-C1'-C2'	6.94	122.41	112.00
83	A5	523	C	C3'-C2'-C1'	6.94	108.24	101.30
83	A5	959	U	N1-C1'-C2'	6.94	122.40	112.00
83	A5	1859	U	N1-C1'-C2'	6.94	122.40	112.00
36	B2	65	A	C1'-O4'-C4'	6.93	116.64	109.70
38	Cz	210	MET	N-CA-C	-6.93	104.85	113.38
49	CQ	69	PHE	CA-CB-CG	-6.93	106.87	113.80
56	CX	164	ASN	N-CA-CB	6.93	122.21	110.49
82	CG	37	PHE	CA-CB-CG	-6.93	106.86	113.80
83	A5	1302	U	O4'-C1'-N1	6.93	118.90	108.50
20	Aa	22	ARG	CA-C-N	6.93	131.22	121.24
20	Aa	22	ARG	C-N-CA	6.93	131.22	121.24
81	CE	187	ALA	CA-C-N	6.93	134.78	121.54
81	CE	187	ALA	C-N-CA	6.93	134.78	121.54
83	A5	356	A	O4'-C1'-C2'	-6.93	98.87	105.80
83	A5	1225	G	C4'-C3'-O3'	-6.93	102.60	113.00
83	A5	2835	G	N9-C1'-C2'	6.93	122.40	112.00
83	A5	3807	G	C3'-C2'-C1'	6.93	108.23	101.30
6	AX	125	VAL	CA-C-N	6.93	132.23	122.46
6	AX	125	VAL	C-N-CA	6.93	132.23	122.46
10	AN	148	ALA	CA-C-N	6.93	129.57	120.28
10	AN	148	ALA	C-N-CA	6.93	129.57	120.28
83	A5	1910	C	C2'-C3'-O3'	6.93	119.90	109.50
83	A5	2031	C	N1-C1'-C2'	6.93	122.39	112.00
42	CL	66	HIS	CE1-NE2-CD2	-6.93	102.07	109.00
83	A5	2991	A	P-O5'-C5'	6.93	131.29	120.90
85	A7	40	C	O5'-C5'-C4'	-6.93	101.11	111.50
36	B2	909	U	O4'-C1'-C2'	-6.93	100.67	107.60
83	A5	1626	A	P-O3'-C3'	6.93	130.59	120.20
83	A5	3831	C	O4'-C1'-C2'	-6.93	100.67	107.60
36	B2	611	U	O4'-C1'-N1	6.92	118.89	108.50
83	A5	769	U	O4'-C1'-C2'	-6.92	100.67	107.60
83	A5	2062	A	O4'-C1'-C2'	-6.92	98.88	105.80
83	A5	3900	A	O4'-C1'-C2'	-6.92	100.68	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	Ad	38	ILE	N-CA-C	6.92	117.04	110.53
30	AF	85	PHE	CA-CB-CG	-6.92	106.88	113.80
36	B2	282	U	C5'-C4'-C3'	-6.92	105.62	116.00
36	B2	1399	A	P-O3'-C3'	-6.92	109.82	120.20
36	B2	1688	U	C4'-C3'-C2'	-6.92	95.68	102.60
52	CS	119	ALA	N-CA-C	6.92	125.54	110.80
83	A5	1178	U	C3'-C2'-C1'	6.92	108.42	101.50
36	B2	1546	U	P-O5'-C5'	-6.92	110.52	120.90
36	B2	846	U	O4'-C1'-C2'	-6.92	100.68	107.60
36	B2	1619	A	O4'-C1'-N9	6.92	118.58	108.20
83	A5	3119	U	N1-C1'-C2'	6.92	122.38	112.00
36	B2	1089	G	N9-C1'-C2'	6.92	122.37	112.00
83	A5	3488	G	O4'-C1'-C2'	-6.92	100.68	107.60
77	Cp	19	GLY	CA-C-N	6.92	129.85	120.38
77	Cp	19	GLY	C-N-CA	6.92	129.85	120.38
36	B2	1268	C	N1-C1'-C2'	6.91	122.37	112.00
49	CQ	116	ALA	CA-C-N	6.91	134.15	121.70
49	CQ	116	ALA	C-N-CA	6.91	134.15	121.70
83	A5	821	U	O4'-C1'-N1	6.91	118.87	108.50
83	A5	828	G	O4'-C1'-C2'	-6.91	100.69	107.60
83	A5	1336	U	O4'-C1'-N1	6.91	118.87	108.50
83	A5	3721	C	O4'-C4'-C3'	-6.91	97.09	104.00
85	A7	1	G	N9-C1'-C2'	6.91	122.37	112.00
42	CL	170	THR	N-CA-C	6.91	130.35	111.00
30	AF	89	GLN	N-CA-C	6.91	118.89	111.36
86	A8	73	U	O4'-C1'-C2'	-6.91	100.69	107.60
68	Cf	23	ALA	N-CA-C	6.91	125.51	110.80
83	A5	143	G	O4'-C1'-C2'	6.91	114.51	107.60
1	Az	28	VAL	CA-C-N	6.91	134.13	121.70
1	Az	28	VAL	C-N-CA	6.91	134.13	121.70
81	CE	135	CYS	CA-C-N	6.91	128.47	119.84
81	CE	135	CYS	C-N-CA	6.91	128.47	119.84
83	A5	533	A	O4'-C1'-C2'	6.91	114.51	107.60
83	A5	265	U	O4'-C1'-C2'	-6.91	100.69	107.60
85	A7	65	C	C2'-C3'-O3'	-6.91	103.34	113.70
83	A5	439	U	C1'-O4'-C4'	-6.90	103.00	109.90
83	A5	2040	A	O3'-P-O5'	-6.90	93.64	104.00
83	A5	1861	A	O4'-C1'-C2'	-6.90	100.70	107.60
83	A5	3368	C	N1-C1'-C2'	-6.90	101.65	112.00
36	B2	505	G	O4'-C1'-N9	6.90	118.85	108.50
36	B2	1174	A	N9-C1'-C2'	6.90	122.35	112.00
83	A5	2075	A	O3'-P-O5'	-6.90	93.65	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	554	ILE	O-C-N	-6.90	115.57	121.57
29	AG	121	ILE	CA-C-N	6.90	126.71	119.05
29	AG	121	ILE	C-N-CA	6.90	126.71	119.05
83	A5	1326	A	O4'-C1'-C2'	-6.90	100.70	107.60
83	A5	3263	C	N1-C1'-C2'	6.90	122.35	112.00
36	B2	821	U	P-O5'-C5'	6.90	131.25	120.90
61	Ch	100	ALA	N-CA-C	-6.90	104.74	113.43
83	A5	2513	G	O4'-C1'-C2'	-6.90	100.70	107.60
1	Az	486	SER	N-CA-C	6.89	119.43	111.02
5	AO	147	ARG	CA-C-N	6.89	134.92	121.41
5	AO	147	ARG	C-N-CA	6.89	134.92	121.41
64	CF	235	GLY	N-CA-C	6.89	120.98	112.64
83	A5	3966	U	N1-C1'-C2'	6.89	122.34	112.00
82	CG	63	PRO	CA-C-N	6.89	134.71	121.54
82	CG	63	PRO	C-N-CA	6.89	134.71	121.54
30	AF	189	ASN	N-CA-CB	6.89	121.64	110.41
36	B2	1442	U	O4'-C1'-N1	6.89	118.84	108.50
52	CS	52	LYS	N-CA-CB	6.89	122.06	110.69
83	A5	749	U	P-O3'-C3'	6.89	130.54	120.20
36	B2	1815	C	O4'-C1'-C2'	-6.89	100.71	107.60
68	Cf	22	LYS	N-CA-C	6.89	121.85	113.17
80	CH	48	PRO	CA-C-N	6.89	134.70	121.54
80	CH	48	PRO	C-N-CA	6.89	134.70	121.54
83	A5	2715	C	O4'-C1'-C2'	-6.89	100.71	107.60
86	A8	109	U	C4'-C3'-O3'	6.89	123.33	113.00
36	B2	1818	U	O3'-P-O5'	6.89	114.33	104.00
1	Az	564	SER	N-CA-C	6.89	125.47	110.80
15	AB	100	LEU	N-CA-C	6.89	119.80	111.40
36	B2	1098	C	N1-C1'-C2'	6.89	122.33	112.00
45	Ca	98	LYS	CA-C-N	6.89	134.09	121.70
45	Ca	98	LYS	C-N-CA	6.89	134.09	121.70
74	CC	282	LEU	CA-C-N	6.89	127.27	119.83
74	CC	282	LEU	C-N-CA	6.89	127.27	119.83
83	A5	2027	A	O4'-C1'-C2'	-6.89	98.91	105.80
29	AG	148	SER	CA-C-N	6.88	134.69	121.54
29	AG	148	SER	C-N-CA	6.88	134.69	121.54
52	CS	113	MET	CA-C-N	6.88	127.77	119.99
52	CS	113	MET	C-N-CA	6.88	127.77	119.99
83	A5	1799	U	O3'-P-O5'	6.88	114.33	104.00
83	A5	2529	G	C1'-O4'-C4'	-6.88	103.02	109.90
83	A5	3117	A	N9-C1'-C2'	-6.88	103.67	114.00
83	A5	25	G	O4'-C1'-N9	6.88	118.53	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	AE	76	VAL	N-CA-C	6.88	118.47	110.62
66	Cd	37	LYS	N-CA-C	-6.88	104.92	113.38
83	A5	187	A	C2'-C3'-O3'	6.88	119.82	109.50
83	A5	1630	G	N9-C1'-C2'	6.88	122.32	112.00
69	Cg	54	ILE	CA-C-N	6.88	130.67	120.83
69	Cg	54	ILE	C-N-CA	6.88	130.67	120.83
83	A5	176	A	O4'-C1'-N9	6.88	118.82	108.50
83	A5	18	U	O4'-C1'-N1	6.88	118.52	108.20
83	A5	3013	C	O4'-C1'-C2'	-6.88	100.72	107.60
83	A5	3117	A	C5'-C4'-O4'	-6.88	98.79	109.10
36	B2	394	G	O4'-C1'-C2'	6.88	114.47	107.60
46	CN	143	ARG	CA-C-N	6.88	131.13	120.82
46	CN	143	ARG	C-N-CA	6.88	131.13	120.82
1	Az	757	PHE	CA-CB-CG	6.87	120.67	113.80
83	A5	3147	A	O4'-C1'-C2'	-6.87	100.73	107.60
86	A8	103	C	O4'-C1'-C2'	-6.87	98.93	105.80
83	A5	2128	A	C2'-C3'-O3'	6.87	119.81	109.50
83	A5	3498	A	C2'-C3'-O3'	-6.87	103.39	113.70
36	B2	93	A	O4'-C1'-N9	6.87	118.81	108.50
83	A5	593	U	O4'-C1'-C2'	-6.87	100.73	107.60
14	AT	153	VAL	N-CA-CB	6.87	122.56	111.23
64	CF	174	ASP	CA-C-N	6.87	129.48	120.28
64	CF	174	ASP	C-N-CA	6.87	129.48	120.28
83	A5	194	A	O4'-C1'-C2'	-6.86	100.74	107.60
83	A5	2393	A	P-O3'-C3'	6.86	130.49	120.20
83	A5	2711	C	O4'-C1'-C2'	-6.86	100.74	107.60
11	AL	26	THR	CA-C-N	6.86	134.65	121.54
11	AL	26	THR	C-N-CA	6.86	134.65	121.54
83	A5	613	U	O4'-C1'-C2'	-6.86	100.74	107.60
83	A5	1072	U	O4'-C1'-N1	6.86	118.79	108.50
82	CG	231	PHE	CA-CB-CG	-6.86	106.94	113.80
83	A5	2139	U	O4'-C1'-N1	6.86	118.79	108.50
40	CK	82	ILE	CB-CA-C	-6.86	103.19	111.97
83	A5	168	G	O4'-C1'-N9	6.86	118.79	108.50
36	B2	1764	U	O4'-C1'-N1	6.86	118.78	108.50
83	A5	620	U	O4'-C1'-C2'	-6.86	100.74	107.60
83	A5	2662	C	N1-C1'-C2'	6.86	122.28	112.00
13	AP	13	ARG	CA-C-N	6.86	134.63	121.54
13	AP	13	ARG	C-N-CA	6.86	134.63	121.54
36	B2	170	A	P-O5'-C5'	6.86	131.18	120.90
78	Co	46	GLN	N-CA-CB	6.86	120.11	109.48
36	B2	239	G	P-O3'-C3'	6.85	130.48	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	560	ASP	CA-C-N	6.85	128.41	119.84
1	Az	560	ASP	C-N-CA	6.85	128.41	119.84
27	AE	186	GLY	CA-C-N	6.85	130.15	120.28
27	AE	186	GLY	C-N-CA	6.85	130.15	120.28
83	A5	445	C	O4'-C1'-C2'	-6.85	100.75	107.60
83	A5	1510	G	C4'-C3'-O3'	-6.85	102.72	113.00
83	A5	3527	A	O4'-C1'-C2'	-6.85	100.75	107.60
85	A7	37	G	O4'-C1'-C2'	-6.85	100.75	107.60
83	A5	3714	U	O4'-C1'-C2'	-6.85	100.75	107.60
36	B2	83	A	O4'-C1'-C2'	-6.85	100.75	107.60
36	B2	124	U	O4'-C1'-C2'	-6.85	100.75	107.60
36	B2	1932	A	O4'-C1'-C2'	-6.85	100.75	107.60
36	B2	11	A	O4'-C1'-C2'	-6.85	100.75	107.60
52	CS	23	PRO	N-CA-C	6.85	126.57	112.47
83	A5	193	U	O4'-C1'-C2'	-6.85	100.75	107.60
83	A5	2542	C	O4'-C1'-C2'	-6.85	100.75	107.60
83	A5	3559	A	O4'-C1'-C2'	-6.85	100.75	107.60
36	B2	1587	U	O4'-C1'-N1	6.85	118.77	108.50
83	A5	1318	A	O4'-C1'-C2'	-6.85	100.75	107.60
84	A9	21	G	P-O5'-C5'	6.85	131.17	120.90
52	CS	54	PHE	CA-CB-CG	6.84	120.64	113.80
83	A5	3282	C	N1-C1'-C2'	6.84	122.27	112.00
12	AR	51	ALA	CA-C-N	6.84	127.53	120.00
12	AR	51	ALA	C-N-CA	6.84	127.53	120.00
83	A5	2086	U	O4'-C1'-C2'	-6.84	100.76	107.60
83	A5	3775	A	N9-C1'-C2'	6.84	124.26	114.00
16	AA	50	ASN	CA-C-N	6.84	130.13	120.28
16	AA	50	ASN	C-N-CA	6.84	130.13	120.28
36	B2	1349	U	O4'-C1'-C2'	-6.84	100.76	107.60
63	CB	130	PHE	CA-CB-CG	6.84	120.64	113.80
83	A5	1090	U	O4'-C1'-N1	6.84	118.76	108.50
83	A5	1987	G	O3'-P-O5'	6.84	114.26	104.00
30	AF	121	PHE	CB-CA-C	-6.84	100.14	110.88
64	CF	173	THR	N-CA-C	6.84	120.83	111.39
73	Cl	39	ALA	N-CA-C	6.84	125.36	110.80
52	CS	35	PRO	CA-C-N	6.84	133.27	122.74
52	CS	35	PRO	C-N-CA	6.84	133.27	122.74
83	A5	846	U	O4'-C1'-N1	6.84	118.75	108.50
36	B2	838	A	O4'-C1'-C2'	-6.83	100.77	107.60
36	B2	1247	C	C3'-C2'-C1'	6.83	108.14	101.30
83	A5	641	A	C3'-C2'-C1'	6.83	108.14	101.30
37	BC	49	G	C1'-O4'-C4'	-6.83	103.07	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
65	Cc	81	LEU	N-CA-CB	6.83	120.17	110.12
81	CE	194	PRO	CA-C-N	6.83	130.46	120.82
81	CE	194	PRO	C-N-CA	6.83	130.46	120.82
44	CM	145	LYS	N-CA-C	-6.83	104.76	113.23
83	A5	749	U	C2'-C3'-O3'	-6.83	103.45	113.70
83	A5	1317	A	O4'-C4'-C3'	-6.83	97.17	104.00
83	A5	1695	A	N9-C1'-C2'	6.83	122.25	112.00
83	A5	3576	G	O4'-C1'-C2'	6.83	114.43	107.60
85	A7	53	U	N1-C1'-C2'	-6.83	103.75	114.00
50	CR	117	ARG	CA-C-N	6.83	129.32	120.44
50	CR	117	ARG	C-N-CA	6.83	129.32	120.44
83	A5	262	G	P-O5'-C5'	6.83	131.15	120.90
83	A5	1444	G	O4'-C1'-N9	6.83	118.75	108.50
83	A5	2024	U	N1-C1'-C2'	6.83	122.24	112.00
83	A5	2916	U	C3'-C2'-C1'	6.83	108.33	101.50
27	AE	109	PHE	CA-CB-CG	-6.83	106.97	113.80
63	CB	258	HIS	CE1-NE2-CD2	-6.83	102.17	109.00
83	A5	3806	C	P-O3'-C3'	6.83	130.44	120.20
28	AC	115	ASP	O-C-N	-6.83	114.78	122.08
33	AI	49	ARG	CA-C-N	6.83	134.79	121.41
33	AI	49	ARG	C-N-CA	6.83	134.79	121.41
36	B2	337	U	N1-C1'-C2'	6.83	122.24	112.00
83	A5	125	A	O4'-C1'-C2'	-6.83	98.97	105.80
83	A5	3287	C	N1-C1'-C2'	6.83	122.24	112.00
83	A5	3929	U	P-O5'-C5'	6.83	131.14	120.90
86	A8	43	A	O4'-C1'-C2'	-6.83	100.78	107.60
1	Az	639	GLY	O-C-N	-6.82	114.95	121.77
36	B2	1137	G	C2'-C3'-O3'	-6.82	103.47	113.70
64	CF	171	PRO	CA-C-N	6.82	134.25	121.97
64	CF	171	PRO	C-N-CA	6.82	134.25	121.97
83	A5	3176	C	C3'-C2'-C1'	6.82	108.32	101.50
83	A5	3443	A	O4'-C1'-N9	6.82	118.44	108.20
83	A5	3768	C	O4'-C1'-C2'	-6.82	98.98	105.80
22	Ac	47	ARG	CA-C-N	6.82	130.44	120.82
22	Ac	47	ARG	C-N-CA	6.82	130.44	120.82
59	CZ	76	ASN	CA-CB-CG	6.82	119.42	112.60
83	A5	1872	A	C3'-C2'-C1'	6.82	108.32	101.50
85	A7	39	C	P-O3'-C3'	-6.82	109.97	120.20
83	A5	3115	C	O4'-C1'-C2'	-6.82	100.78	107.60
1	Az	281	ASP	O-C-N	-6.82	114.41	120.48
29	AG	22	HIS	CA-C-N	6.82	129.42	120.28
29	AG	22	HIS	C-N-CA	6.82	129.42	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
58	CW	13	ILE	CA-C-N	6.82	131.04	120.68
58	CW	13	ILE	C-N-CA	6.82	131.04	120.68
59	CZ	50	PRO	CA-C-N	6.82	130.51	120.90
59	CZ	50	PRO	C-N-CA	6.82	130.51	120.90
83	A5	1397	A	C1'-O4'-C4'	-6.82	103.08	109.90
83	A5	3252	G	O4'-C1'-N9	6.82	118.72	108.50
36	B2	931	A	O3'-P-O5'	6.82	114.22	104.00
60	Cr	28	PRO	N-CA-C	6.82	126.51	112.47
83	A5	566	A	O4'-C1'-C2'	-6.82	100.78	107.60
85	A7	115	U	O4'-C1'-N1	6.82	118.72	108.50
5	AO	139	SER	CA-C-N	6.81	134.56	121.54
5	AO	139	SER	C-N-CA	6.81	134.56	121.54
11	AL	87	ARG	N-CA-C	-6.81	98.29	109.40
36	B2	1582	C	C3'-C2'-C1'	-6.81	94.49	101.30
85	A7	28	U	C3'-C2'-C1'	6.81	108.11	101.30
83	A5	1081	C	N1-C1'-C2'	6.81	122.22	112.00
83	A5	2506	U	O4'-C1'-C2'	-6.81	100.79	107.60
83	A5	2776	A	C3'-C2'-C1'	6.81	108.11	101.30
1	Az	383	TYR	N-CA-C	-6.81	98.11	109.07
28	AC	76	ILE	CA-C-N	6.81	130.09	120.42
28	AC	76	ILE	C-N-CA	6.81	130.09	120.42
83	A5	3712	G	C1'-C2'-O2'	6.81	118.62	108.40
36	B2	141	G	O4'-C1'-C2'	-6.81	98.99	105.80
83	A5	2722	U	N1-C1'-C2'	6.81	122.22	112.00
28	AC	153	TRP	CB-CG-CD2	-6.81	117.27	126.80
36	B2	420	U	O4'-C1'-C2'	-6.81	100.79	107.60
64	CF	169	ARG	CA-C-N	6.81	129.25	123.33
64	CF	169	ARG	C-N-CA	6.81	129.25	123.33
83	A5	1721	C	O3'-P-O5'	-6.81	93.79	104.00
83	A5	2656	C	N1-C1'-C2'	6.81	122.21	112.00
83	A5	1343	A	N9-C1'-C2'	6.81	122.21	112.00
83	A5	1768	G	C4'-C3'-O3'	-6.80	102.79	113.00
83	A5	3250	U	O4'-C1'-C2'	-6.80	100.80	107.60
83	A5	412	U	O4'-C1'-N1	6.80	118.70	108.50
36	B2	1257	G	N9-C1'-C2'	6.80	122.20	112.00
83	A5	1785	G	O4'-C1'-N9	6.80	118.70	108.50
8	AS	27	GLY	CA-C-N	6.80	129.78	120.46
8	AS	27	GLY	C-N-CA	6.80	129.78	120.46
36	B2	866	U	O4'-C1'-N1	6.80	118.40	108.20
38	Cz	157	PHE	CA-CB-CG	6.80	120.60	113.80
42	CL	84	GLY	CA-C-N	6.80	133.94	121.70
42	CL	84	GLY	C-N-CA	6.80	133.94	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	CX	183	ARG	N-CA-C	6.80	118.69	111.28
75	Cm	100	TYR	CA-C-N	6.80	132.17	121.56
75	Cm	100	TYR	C-N-CA	6.80	132.17	121.56
83	A5	178	U	C3'-C2'-C1'	6.80	108.10	101.30
83	A5	2069	U	O4'-C1'-C2'	-6.80	100.80	107.60
36	B2	1990	U	N1-C1'-C2'	6.80	122.20	112.00
49	CQ	159	PRO	CA-C-N	6.80	134.52	121.54
49	CQ	159	PRO	C-N-CA	6.80	134.52	121.54
83	A5	8	C	O4'-C1'-C2'	-6.80	100.80	107.60
1	Az	292	ASN	N-CA-C	-6.80	98.18	109.46
83	A5	3797	G	C4'-C3'-O3'	-6.80	102.80	113.00
83	A5	704	U	O4'-C1'-N1	6.79	118.69	108.50
83	A5	1659	A	O3'-P-O5'	-6.79	93.81	104.00
83	A5	1668	U	O4'-C1'-C2'	6.79	114.39	107.60
36	B2	1118	U	O4'-C1'-C2'	-6.79	99.01	105.80
36	B2	67	A	N9-C1'-C2'	6.79	124.19	114.00
36	B2	479	A	O3'-P-O5'	6.79	114.19	104.00
83	A5	978	G	O4'-C1'-N9	6.79	118.69	108.50
83	A5	2160	C	N1-C1'-C2'	6.79	122.19	112.00
83	A5	3190	G	C1'-O4'-C4'	-6.79	103.11	109.90
83	A5	3702	G	O4'-C1'-C2'	-6.79	100.81	107.60
36	B2	705	G	O4'-C1'-C2'	6.79	114.39	107.60
83	A5	2639	G	C4'-C3'-O3'	6.79	119.58	109.40
64	CF	179	GLU	CA-C-N	6.79	134.50	121.54
64	CF	179	GLU	C-N-CA	6.79	134.50	121.54
83	A5	1894	G	O4'-C1'-C2'	6.79	114.39	107.60
36	B2	1538	C	O4'-C1'-C2'	-6.79	100.81	107.60
83	A5	614	G	O4'-C1'-N9	6.79	118.68	108.50
83	A5	1487	C	C3'-C2'-C1'	6.79	108.09	101.30
86	A8	80	C	C1'-C2'-O2'	6.79	118.58	108.40
83	A5	1249	A	O4'-C1'-C2'	-6.78	100.82	107.60
36	B2	615	G	O4'-C1'-C2'	6.78	112.58	105.80
83	A5	424	G	C4'-C3'-O3'	-6.78	99.23	109.40
83	A5	715	U	O4'-C1'-C2'	-6.78	100.82	107.60
14	AT	49	ASP	CA-C-N	6.78	126.74	119.28
14	AT	49	ASP	C-N-CA	6.78	126.74	119.28
28	AC	101	ALA	CA-C-N	6.78	133.90	121.70
28	AC	101	ALA	C-N-CA	6.78	133.90	121.70
83	A5	3904	G	N9-C1'-C2'	6.78	122.17	112.00
36	B2	1168	C	C3'-C2'-C1'	6.78	108.28	101.50
83	A5	3334	A	O4'-C1'-N9	6.78	118.36	108.20
83	A5	3586	A	N9-C1'-C2'	6.78	122.16	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	95	G	C1'-O4'-C4'	-6.77	103.13	109.90
36	B2	1024	C	O4'-C1'-C2'	-6.77	100.83	107.60
49	CQ	152	PHE	O-C-N	-6.77	114.99	123.05
72	Ck	28	ASN	CB-CA-C	-6.77	99.48	108.76
83	A5	1063	C	O4'-C1'-C2'	-6.77	100.83	107.60
36	B2	431	G	N9-C1'-C2'	6.77	122.16	112.00
36	B2	1678	G	O4'-C1'-C2'	6.77	114.37	107.60
65	Cc	59	GLU	CB-CA-C	-6.77	100.25	110.88
83	A5	583	U	P-O3'-C3'	6.77	130.36	120.20
83	A5	2756	C	N1-C1'-C2'	6.77	122.16	112.00
86	A8	112	C	O4'-C1'-C2'	-6.77	100.83	107.60
17	AV	65	SER	N-CA-C	6.77	120.42	111.75
31	AH	136	GLU	CA-C-N	6.77	134.15	121.97
31	AH	136	GLU	C-N-CA	6.77	134.15	121.97
36	B2	228	A	O4'-C1'-C2'	-6.77	100.83	107.60
67	Ce	14	LYS	CA-C-N	6.77	134.47	121.54
67	Ce	14	LYS	C-N-CA	6.77	134.47	121.54
83	A5	247	C	O4'-C1'-C2'	-6.77	100.83	107.60
83	A5	299	G	O4'-C1'-C2'	6.77	114.37	107.60
83	A5	1228	C	N1-C1'-C2'	-6.77	103.84	114.00
86	A8	83	A	P-O5'-C5'	6.77	131.05	120.90
1	Az	364	ASP	CA-CB-CG	-6.77	105.83	112.60
83	A5	1621	A	O4'-C1'-C2'	-6.77	100.83	107.60
80	CH	97	PHE	CA-C-N	6.77	127.83	119.98
80	CH	97	PHE	C-N-CA	6.77	127.83	119.98
83	A5	2273	A	O4'-C1'-C2'	-6.77	100.83	107.60
83	A5	2868	A	P-O3'-C3'	6.77	130.35	120.20
83	A5	1150	G	O4'-C1'-C2'	-6.76	100.84	107.60
83	A5	1657	G	C3'-C2'-C1'	6.76	108.06	101.30
36	B2	251	G	C3'-C2'-C1'	6.76	108.06	101.30
36	B2	1681	U	C1'-O4'-C4'	6.76	116.66	109.90
51	CA	16	PHE	CA-CB-CG	-6.76	107.04	113.80
55	CU	220	LYS	N-CA-CB	6.76	120.76	109.94
68	Cf	25	LYS	N-CA-C	6.76	125.20	110.80
83	A5	1294	U	O4'-C1'-C2'	-6.76	99.04	105.80
13	AP	122	PHE	CA-CB-CG	-6.76	107.04	113.80
36	B2	173	C	N1-C1'-C2'	6.76	122.14	112.00
83	A5	390	A	N9-C1'-C2'	6.76	122.14	112.00
83	A5	2783	C	C3'-C2'-C1'	6.76	108.06	101.30
15	AB	28	LYS	CA-C-N	6.76	134.45	121.54
15	AB	28	LYS	C-N-CA	6.76	134.45	121.54
41	CO	60	LEU	N-CA-C	6.76	129.92	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	869	C	C1'-O4'-C4'	-6.75	103.15	109.90
36	B2	963	G	O4'-C1'-C2'	6.75	114.35	107.60
37	BC	9	G	O4'-C1'-C2'	-6.75	99.05	105.80
83	A5	547	U	C3'-C2'-C1'	6.75	108.05	101.30
83	A5	785	A	O3'-P-O5'	-6.75	93.87	104.00
83	A5	1708	G	N9-C1'-C2'	6.75	122.13	112.00
83	A5	3479	C	N1-C1'-C2'	6.75	122.13	112.00
86	A8	51	A	C3'-C2'-C1'	6.75	108.05	101.30
5	AO	50	ARG	N-CA-C	6.75	119.65	111.82
36	B2	370	G	O4'-C1'-C2'	-6.75	100.85	107.60
36	B2	1011	A	O4'-C1'-C2'	-6.75	100.85	107.60
36	B2	1452	U	O4'-C1'-N1	6.75	118.63	108.50
83	A5	2601	A	C3'-C2'-C1'	6.75	108.05	101.30
83	A5	3804	U	N1-C1'-C2'	6.75	122.13	112.00
42	CL	55	ARG	CA-C-O	-6.75	110.91	120.16
74	CC	157	VAL	CA-C-N	6.75	131.36	121.31
74	CC	157	VAL	C-N-CA	6.75	131.36	121.31
83	A5	1087	G	C1'-O4'-C4'	-6.75	103.15	109.90
83	A5	1793	C	C2'-C3'-O3'	6.74	119.61	109.50
83	A5	2838	U	O3'-P-O5'	-6.74	93.88	104.00
20	Aa	64	LEU	CA-C-N	6.74	126.72	119.78
20	Aa	64	LEU	C-N-CA	6.74	126.72	119.78
36	B2	323	U	P-O3'-C3'	-6.74	110.09	120.20
56	CX	229	HIS	CA-CB-CG	6.74	120.54	113.80
83	A5	731	U	O4'-C1'-N1	6.74	118.61	108.50
66	Cd	31	HIS	ND1-CE1-NE2	6.74	115.14	108.40
80	CH	52	THR	N-CA-CB	6.74	120.01	109.83
83	A5	2131	C	N1-C1'-C2'	6.74	122.11	112.00
27	AE	33	THR	N-CA-C	6.74	125.15	110.80
36	B2	1979	C	O3'-P-O5'	-6.74	93.89	104.00
54	CP	70	CYS	CA-C-N	6.74	129.98	120.28
54	CP	70	CYS	C-N-CA	6.74	129.98	120.28
63	CB	180	VAL	CB-CA-C	-6.74	102.55	110.91
69	Cg	89	ILE	CA-C-N	6.74	129.05	120.56
69	Cg	89	ILE	C-N-CA	6.74	129.05	120.56
83	A5	1517	A	O4'-C1'-N9	6.74	118.61	108.50
83	A5	1921	U	C4'-C3'-C2'	-6.74	95.86	102.60
83	A5	3677	U	C2'-C3'-O3'	6.74	119.61	109.50
83	A5	3702	G	P-O3'-C3'	6.74	130.31	120.20
83	A5	2766	U	N1-C1'-C2'	6.74	122.11	112.00
42	CL	71	ALA	CA-C-N	6.74	134.61	121.41
42	CL	71	ALA	C-N-CA	6.74	134.61	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	675	C	O4'-C1'-C2'	-6.74	100.86	107.60
83	A5	1079	U	C4'-C3'-C2'	-6.74	95.86	102.60
83	A5	2087	C	O4'-C1'-C2'	-6.74	100.86	107.60
83	A5	3519	C	O4'-C1'-C2'	-6.74	100.86	107.60
3	AU	76	SER	CA-C-N	6.73	134.40	121.54
3	AU	76	SER	C-N-CA	6.73	134.40	121.54
36	B2	617	U	O4'-C1'-N1	6.73	118.30	108.20
83	A5	2235	G	C3'-C2'-C1'	6.73	108.03	101.30
83	A5	857	U	O4'-C1'-C2'	-6.73	100.87	107.60
83	A5	3970	A	O4'-C1'-C2'	-6.73	100.87	107.60
11	AL	96	TYR	CA-C-N	6.73	131.97	122.08
11	AL	96	TYR	C-N-CA	6.73	131.97	122.08
13	AP	60	ILE	CA-C-N	6.73	129.19	120.44
13	AP	60	ILE	C-N-CA	6.73	129.19	120.44
51	CA	179	ILE	N-CA-CB	6.73	122.33	111.23
83	A5	3673	G	O4'-C1'-N9	6.73	118.59	108.50
1	Az	684	ARG	N-CA-CB	6.73	121.64	110.47
62	Cb	19	ASN	CA-C-N	6.73	134.59	121.41
62	Cb	19	ASN	C-N-CA	6.73	134.59	121.41
81	CE	225	TYR	N-CA-CB	-6.73	100.25	110.01
83	A5	1800	U	P-O3'-C3'	-6.73	110.11	120.20
83	A5	3413	C	O4'-C1'-C2'	-6.73	100.87	107.60
7	AM	86	VAL	CA-C-N	6.72	134.38	121.54
7	AM	86	VAL	C-N-CA	6.72	134.38	121.54
36	B2	1880	C	O4'-C1'-C2'	-6.72	100.88	107.60
82	CG	234	ARG	CA-C-N	6.72	129.29	120.28
82	CG	234	ARG	C-N-CA	6.72	129.29	120.28
36	B2	74	U	C2'-C3'-O3'	6.72	119.58	109.50
63	CB	245	HIS	CE1-NE2-CD2	-6.72	102.28	109.00
40	CK	88	PRO	N-CA-C	6.72	118.90	110.70
59	CZ	122	LYS	O-C-N	-6.72	114.87	122.93
83	A5	1542	C	N1-C1'-C2'	6.72	122.08	112.00
36	B2	1089	G	C1'-O4'-C4'	-6.72	103.18	109.90
83	A5	1177	U	O4'-C1'-N1	6.72	118.58	108.50
83	A5	2625	G	C1'-O4'-C4'	-6.72	103.18	109.90
36	B2	495	U	O4'-C1'-N1	6.72	118.58	108.50
36	B2	542	A	O4'-C1'-C2'	-6.72	100.88	107.60
44	CM	12	ILE	N-CA-CB	-6.72	99.21	112.24
83	A5	303	G	C2'-C3'-O3'	6.72	119.58	109.50
83	A5	1437	A	C4'-C3'-O3'	6.72	119.47	109.40
36	B2	1165	C	O4'-C1'-C2'	-6.71	100.89	107.60
83	A5	258	U	O4'-C1'-C2'	-6.71	100.89	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	805	C	O4'-C1'-C2'	-6.71	100.89	107.60
83	A5	2727	U	N1-C1'-C2'	6.71	122.07	112.00
83	A5	3330	C	N1-C1'-C2'	6.71	122.07	112.00
83	A5	3436	U	O4'-C1'-N1	6.71	118.57	108.50
36	B2	97	U	N1-C1'-C2'	6.71	122.07	112.00
36	B2	1278	C	O4'-C1'-C2'	-6.71	99.09	105.80
42	CL	132	LYS	N-CA-C	6.71	120.91	111.92
83	A5	551	C	O4'-C1'-C2'	-6.71	100.89	107.60
83	A5	624	A	C5'-C4'-C3'	6.71	126.07	116.00
82	CG	88	PHE	CA-C-O	-6.71	113.12	120.30
4	AK	32	HIS	N-CA-CB	6.71	120.35	109.95
36	B2	1650	G	C1'-C2'-O2'	6.71	118.46	108.40
66	Cd	31	HIS	CE1-NE2-CD2	-6.71	102.29	109.00
83	A5	2906	C	N1-C1'-C2'	6.71	122.06	112.00
83	A5	548	A	O4'-C1'-C2'	-6.71	100.89	107.60
36	B2	1342	G	C3'-C2'-C1'	-6.70	94.80	101.50
81	CE	193	VAL	N-CA-CB	6.70	120.59	111.21
83	A5	544	U	O4'-C1'-C2'	-6.70	100.90	107.60
83	A5	1891	U	N1-C1'-C2'	-6.70	103.95	114.00
36	B2	647	U	C2'-C3'-O3'	6.70	119.55	109.50
36	B2	1055	U	O4'-C1'-C2'	-6.70	100.90	107.60
23	AD	224	PRO	N-CA-C	6.70	126.27	112.47
36	B2	715	U	N1-C1'-C2'	6.70	122.05	112.00
83	A5	3560	C	O4'-C1'-C2'	-6.70	100.90	107.60
40	CK	119	ARG	CA-C-N	6.70	130.16	120.38
40	CK	119	ARG	C-N-CA	6.70	130.16	120.38
36	B2	910	U	N1-C1'-C2'	6.70	122.04	112.00
36	B2	1284	A	O4'-C1'-C2'	-6.70	99.11	105.80
36	B2	1886	G	C1'-O4'-C4'	-6.70	103.20	109.90
54	CP	170	LEU	N-CA-C	-6.70	105.14	113.38
61	Ch	38	GLY	CA-C-N	6.70	134.53	121.41
61	Ch	38	GLY	C-N-CA	6.70	134.53	121.41
83	A5	885	U	C1'-O4'-C4'	-6.70	103.20	109.90
36	B2	1849	U	P-O3'-C3'	6.69	130.24	120.20
83	A5	795	A	O4'-C1'-C2'	-6.69	99.11	105.80
83	A5	1559	A	O4'-C4'-C3'	-6.69	97.31	104.00
83	A5	3889	U	O4'-C1'-C2'	-6.69	100.91	107.60
80	CH	105	GLU	CA-C-N	6.69	133.74	121.70
80	CH	105	GLU	C-N-CA	6.69	133.74	121.70
83	A5	2999	U	O4'-C1'-C2'	-6.69	99.11	105.80
1	Az	565	TYR	N-CA-C	6.69	119.93	110.23
26	AJ	6	ILE	N-CA-C	6.69	129.73	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1713	C	C1'-C2'-O2'	-6.69	101.77	111.80
36	B2	1596	C	C1'-O4'-C4'	-6.69	103.21	109.90
58	CW	45	ASN	CA-C-N	6.69	126.38	119.56
58	CW	45	ASN	C-N-CA	6.69	126.38	119.56
83	A5	1409	G	C3'-C2'-C1'	6.69	107.99	101.30
83	A5	2199	A	O4'-C1'-C2'	-6.69	100.91	107.60
83	A5	3559	A	C3'-C2'-C1'	6.69	107.99	101.30
86	A8	44	C	O3'-P-O5'	-6.69	93.97	104.00
27	AE	112	HIS	CE1-NE2-CD2	-6.68	102.32	109.00
36	B2	925	U	O4'-C1'-N1	6.68	118.22	108.20
44	CM	97	ASN	CA-CB-CG	6.68	119.28	112.60
83	A5	3571	C	O4'-C1'-C2'	-6.68	100.92	107.60
1	Az	198	ASP	N-CA-C	6.68	119.97	110.68
36	B2	258	A	C2'-C3'-O3'	-6.68	103.68	113.70
69	Cg	12	SER	CA-C-N	6.68	130.36	120.87
69	Cg	12	SER	C-N-CA	6.68	130.36	120.87
83	A5	2198	G	C1'-O4'-C4'	-6.68	103.22	109.90
83	A5	2547	C	N1-C1'-C2'	6.68	122.02	112.00
36	B2	1563	C	O4'-C1'-C2'	-6.68	100.92	107.60
83	A5	2214	G	C3'-C2'-C1'	-6.68	94.62	101.30
86	A8	121	C	N1-C1'-C2'	6.68	122.02	112.00
83	A5	588	U	O4'-C1'-C2'	-6.68	100.92	107.60
83	A5	2536	G	O4'-C1'-N9	6.68	118.22	108.20
40	CK	106	PHE	N-CA-C	6.67	125.01	110.80
83	A5	2822	C	O4'-C1'-C2'	-6.67	100.93	107.60
1	Az	575	GLN	O-C-N	-6.67	115.61	123.22
36	B2	126	G	O4'-C1'-C2'	-6.67	99.13	105.80
37	BC	16	U	C3'-C2'-C1'	-6.67	94.83	101.50
82	CG	130	LYS	N-CA-C	6.67	125.01	110.80
83	A5	2917	A	O4'-C1'-N9	6.67	118.21	108.20
83	A5	3962	A	C2'-C3'-O3'	6.67	119.51	109.50
14	AT	10	ASP	CA-C-N	6.67	133.71	121.70
14	AT	10	ASP	C-N-CA	6.67	133.71	121.70
36	B2	1542	U	O4'-C1'-N1	6.67	118.50	108.50
83	A5	175	U	O4'-C1'-N1	6.67	118.50	108.50
83	A5	3273	C	O4'-C1'-C2'	-6.67	100.93	107.60
36	B2	1443	U	O4'-C1'-C2'	-6.67	100.93	107.60
1	Az	637	CYS	N-CA-CB	6.67	122.01	110.81
83	A5	2530	C	O4'-C1'-C2'	-6.67	100.94	107.60
36	B2	1401	U	O4'-C1'-C2'	-6.66	99.14	105.80
36	B2	1632	C	O4'-C1'-C2'	-6.66	100.94	107.60
73	Cl	48	LYS	CA-C-N	6.66	133.45	121.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
73	Cl	48	LYS	C-N-CA	6.66	133.45	121.92
83	A5	2586	A	P-O3'-C3'	-6.66	110.20	120.20
85	A7	49	A	C3'-C2'-C1'	6.66	107.96	101.30
36	B2	120	U	C1'-O4'-C4'	-6.66	103.24	109.90
83	A5	188	G	P-O3'-C3'	6.66	130.19	120.20
83	A5	1241	C	C4'-C3'-O3'	-6.66	99.41	109.40
83	A5	1566	U	O4'-C1'-N1	6.66	118.49	108.50
83	A5	1933	U	O4'-C1'-N1	6.66	118.49	108.50
83	A5	2000	U	O3'-P-O5'	-6.66	94.01	104.00
83	A5	2078	C	N1-C1'-C2'	6.66	121.99	112.00
83	A5	2219	U	C1'-O4'-C4'	6.66	116.56	109.90
2	Ag	65	HIS	CE1-NE2-CD2	-6.66	102.34	109.00
20	Aa	17	HIS	CA-CB-CG	-6.66	107.14	113.80
83	A5	636	U	O4'-C1'-C2'	-6.66	100.94	107.60
68	Cf	16	LYS	O-C-N	-6.66	115.06	122.12
83	A5	1921	U	C4'-C3'-O3'	-6.66	103.01	113.00
14	AT	4	VAL	N-CA-C	6.66	118.03	107.98
36	B2	132	A	P-O3'-C3'	6.66	130.18	120.20
39	Cq	117	ALA	CA-C-N	6.66	126.28	119.56
39	Cq	117	ALA	C-N-CA	6.66	126.28	119.56
41	CO	59	TYR	O-C-N	-6.66	114.85	122.84
52	CS	153	PRO	N-CA-C	6.66	121.73	110.95
83	A5	3219	A	C1'-O4'-C4'	6.66	116.56	109.90
83	A5	3635	G	P-O5'-C5'	6.66	130.88	120.90
66	Cd	38	ARG	O-C-N	-6.65	114.51	122.63
83	A5	812	U	O4'-C1'-C2'	-6.65	100.95	107.60
15	AB	141	PHE	CA-CB-CG	-6.65	107.15	113.80
37	BC	65	C	N1-C1'-C2'	6.65	121.98	112.00
83	A5	637	U	N1-C1'-C2'	-6.65	102.02	112.00
83	A5	1721	C	O5'-C5'-C4'	-6.65	101.52	111.50
83	A5	3932	U	O4'-C1'-C2'	-6.65	100.95	107.60
23	AD	200	ILE	N-CA-CB	6.65	122.20	111.23
83	A5	78	A	C4'-C3'-O3'	6.65	122.98	113.00
83	A5	2228	U	N1-C1'-C2'	6.65	121.98	112.00
83	A5	3148	C	N1-C1'-C2'	6.65	121.97	112.00
83	A5	1768	G	O3'-P-O5'	6.65	113.97	104.00
15	AB	215	ILE	CA-C-N	6.65	134.24	121.54
15	AB	215	ILE	C-N-CA	6.65	134.24	121.54
34	AQ	15	PHE	CA-C-N	6.65	126.77	122.18
34	AQ	15	PHE	C-N-CA	6.65	126.77	122.18
83	A5	118	A	N9-C1'-C2'	6.65	121.97	112.00
83	A5	132	U	O3'-P-O5'	-6.65	94.03	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	377	U	N1-C1'-C2'	6.65	121.97	112.00
83	A5	2535	U	O4'-C1'-N1	6.65	118.47	108.50
83	A5	2729	U	O4'-C1'-N1	6.65	118.47	108.50
83	A5	2920	U	O4'-C1'-C2'	-6.65	100.95	107.60
36	B2	155	U	C3'-C2'-C1'	6.65	107.95	101.30
36	B2	1930	U	O4'-C1'-N1	6.65	118.47	108.50
83	A5	431	C	N1-C1'-C2'	6.65	121.97	112.00
41	CO	122	VAL	O-C-N	-6.64	117.18	121.37
44	CM	147	ARG	N-CA-C	-6.64	104.99	113.23
54	CP	10	ASN	CA-C-N	6.64	133.93	121.97
54	CP	10	ASN	C-N-CA	6.64	133.93	121.97
83	A5	1637	U	P-O3'-C3'	-6.64	110.23	120.20
83	A5	3684	A	O4'-C1'-C2'	-6.64	100.95	107.60
85	A7	106	G	N9-C1'-C2'	6.64	121.97	112.00
86	A8	63	U	C1'-O4'-C4'	6.64	116.54	109.90
36	B2	143	U	N1-C1'-C2'	6.64	121.97	112.00
83	A5	1566	U	P-O3'-C3'	6.64	130.16	120.20
81	CE	117	LYS	N-CA-C	6.64	118.30	108.60
83	A5	1008	A	O4'-C1'-N9	6.64	118.46	108.50
36	B2	705	G	N9-C1'-C2'	6.64	121.96	112.00
41	CO	142	ARG	CA-C-N	6.64	129.18	120.28
41	CO	142	ARG	C-N-CA	6.64	129.18	120.28
43	CV	55	ALA	CA-C-N	6.64	126.72	121.61
43	CV	55	ALA	C-N-CA	6.64	126.72	121.61
77	Cp	3	LYS	CA-C-N	6.64	129.18	120.28
77	Cp	3	LYS	C-N-CA	6.64	129.18	120.28
83	A5	1391	A	O4'-C1'-C2'	-6.64	100.96	107.60
36	B2	1531	G	C3'-C2'-C1'	6.64	107.94	101.30
68	Cf	52	ALA	N-CA-C	-6.64	99.71	110.20
83	A5	1596	A	O4'-C1'-C2'	-6.64	100.96	107.60
1	Az	739	GLU	N-CA-C	6.63	124.93	110.80
27	AE	32	SER	CA-C-N	6.63	134.21	121.54
27	AE	32	SER	C-N-CA	6.63	134.21	121.54
71	Cj	43	LYS	CB-CA-C	-6.63	99.55	109.90
42	CL	127	PRO	CB-CA-C	6.63	122.50	111.56
83	A5	471	A	O4'-C1'-C2'	-6.63	100.97	107.60
83	A5	3003	C	C4'-C3'-O3'	-6.63	103.05	113.00
25	Af	148	PHE	CA-CB-CG	6.63	120.43	113.80
36	B2	1768	A	O4'-C1'-C2'	-6.63	100.97	107.60
40	CK	104	ILE	N-CA-C	6.63	118.38	107.24
54	CP	5	SER	N-CA-C	6.63	120.69	111.74
83	A5	903	A	O4'-C1'-N9	6.63	118.44	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1502	A	C3'-C2'-C1'	6.63	107.93	101.30
83	A5	1592	U	P-O5'-C5'	-6.63	110.96	120.90
83	A5	2174	A	O4'-C1'-C2'	6.63	112.43	105.80
83	A5	3254	U	O4'-C1'-C2'	-6.63	100.97	107.60
83	A5	3592	C	O4'-C1'-N1	6.63	118.14	108.20
83	A5	3603	C	C3'-C2'-C1'	6.63	107.93	101.30
36	B2	482	A	O4'-C1'-C2'	-6.63	100.97	107.60
36	B2	1327	U	O4'-C1'-N1	6.63	118.44	108.50
36	B2	1676	A	O4'-C1'-C2'	-6.63	100.97	107.60
21	Ab	3	LEU	N-CA-C	-6.62	102.83	111.71
36	B2	865	A	C3'-C2'-C1'	6.62	107.92	101.30
83	A5	1457	G	P-O3'-C3'	6.62	130.14	120.20
14	AT	7	LYS	N-CA-CB	6.62	121.68	110.49
83	A5	1998	U	C4'-C3'-O3'	-6.62	103.07	113.00
83	A5	2735	A	C3'-C2'-C1'	6.62	107.92	101.30
86	A8	61	C	C4'-C3'-O3'	-6.62	99.46	109.40
29	AG	145	TYR	CA-C-N	6.62	131.53	122.19
29	AG	145	TYR	C-N-CA	6.62	131.53	122.19
36	B2	33	U	O4'-C1'-N1	6.62	118.43	108.50
83	A5	2273	A	O4'-C1'-N9	6.62	118.43	108.50
83	A5	3838	A	O4'-C1'-N9	6.62	118.43	108.50
36	B2	125	C	O4'-C1'-N1	6.62	118.13	108.20
83	A5	3817	U	O3'-P-O5'	6.62	113.93	104.00
29	AG	55	GLY	O-C-N	-6.62	117.61	123.76
4	AK	34	GLU	N-CA-CB	6.62	121.67	110.49
83	A5	3399	C	O4'-C1'-C2'	-6.62	100.98	107.60
36	B2	308	G	O4'-C1'-N9	6.62	118.42	108.50
36	B2	1144	C	C1'-C2'-O2'	-6.62	101.88	111.80
83	A5	3534	U	O4'-C1'-N1	6.62	118.42	108.50
1	Az	452	SER	CA-C-N	6.61	133.60	121.70
1	Az	452	SER	C-N-CA	6.61	133.60	121.70
36	B2	1649	U	O4'-C4'-C3'	-6.61	99.49	106.10
83	A5	476	U	P-O5'-C5'	-6.61	110.98	120.90
85	A7	22	A	P-O3'-C3'	-6.61	110.28	120.20
1	Az	684	ARG	CB-CA-C	6.61	121.56	110.79
36	B2	358	A	O3'-P-O5'	6.61	113.92	104.00
39	Cq	108	PRO	CA-C-N	6.61	134.16	121.54
39	Cq	108	PRO	C-N-CA	6.61	134.16	121.54
83	A5	1991	A	O4'-C1'-C2'	-6.61	100.99	107.60
83	A5	2511	C	O4'-C1'-C2'	-6.61	100.99	107.60
36	B2	1412	A	O4'-C1'-C2'	-6.61	100.99	107.60
36	B2	1795	U	O4'-C1'-N1	6.61	118.41	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3880	A	O5'-C5'-C4'	6.61	121.41	111.50
84	A9	28	G	O4'-C1'-N9	6.61	118.41	108.50
15	AB	19	LYS	CA-C-N	6.61	130.25	120.87
15	AB	19	LYS	C-N-CA	6.61	130.25	120.87
54	CP	33	ALA	CA-C-N	6.61	129.79	120.28
54	CP	33	ALA	C-N-CA	6.61	129.79	120.28
80	CH	115	PHE	CA-C-N	6.61	133.59	121.70
80	CH	115	PHE	C-N-CA	6.61	133.59	121.70
83	A5	1424	G	N9-C1'-C2'	6.61	121.91	112.00
28	AC	117	ASN	CA-CB-CG	-6.60	106.00	112.60
35	Ah	109	GLY	N-CA-C	6.60	122.44	113.99
36	B2	1831	C	O4'-C1'-C2'	-6.60	101.00	107.60
36	B2	823	C	C3'-C2'-C1'	6.60	107.90	101.30
36	B2	930	G	O4'-C1'-C2'	-6.60	101.00	107.60
49	CQ	159	PRO	N-CA-C	6.60	126.07	112.47
83	A5	1352	U	N1-C1'-C2'	-6.60	102.10	112.00
83	A5	1957	C	P-O3'-C3'	6.60	130.10	120.20
83	A5	2272	U	O4'-C1'-N1	6.60	118.40	108.50
36	B2	1062	C	N1-C1'-C2'	6.60	121.90	112.00
36	B2	1618	C	C1'-O4'-C4'	6.60	116.30	109.70
83	A5	1180	U	O4'-C1'-N1	6.60	118.40	108.50
5	AO	99	ALA	O-C-N	-6.60	113.81	122.59
40	CK	39	PRO	CA-C-N	6.60	134.15	121.54
40	CK	39	PRO	C-N-CA	6.60	134.15	121.54
82	CG	76	GLN	CA-C-N	6.60	129.12	120.28
82	CG	76	GLN	C-N-CA	6.60	129.12	120.28
83	A5	234	G	O4'-C1'-N9	6.60	118.10	108.20
70	Ci	31	VAL	CA-C-N	6.60	133.57	121.70
70	Ci	31	VAL	C-N-CA	6.60	133.57	121.70
83	A5	3458	A	N9-C1'-C2'	6.60	121.89	112.00
43	CV	82	ILE	N-CA-CB	-6.60	104.95	112.21
36	B2	421	A	C1'-O4'-C4'	6.59	116.30	109.70
36	B2	831	U	N1-C1'-C2'	6.59	121.89	112.00
36	B2	1268	C	O4'-C1'-C2'	-6.59	101.01	107.60
83	A5	267	C	P-O3'-C3'	6.59	130.09	120.20
36	B2	1102	U	O4'-C1'-N1	6.59	118.39	108.50
83	A5	1534	G	O4'-C1'-C2'	6.59	114.19	107.60
83	A5	1878	A	O4'-C1'-C2'	-6.59	101.01	107.60
37	BC	7	G	N9-C1'-C2'	-6.59	104.11	114.00
83	A5	2554	U	O4'-C1'-C2'	-6.59	101.01	107.60
41	CO	4	LEU	N-CA-CB	-6.59	99.48	110.22
42	CL	75	PHE	N-CA-C	6.59	120.64	112.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	CM	142	VAL	N-CA-C	6.59	123.05	109.34
63	CB	229	LYS	CA-C-N	6.59	126.60	120.34
63	CB	229	LYS	C-N-CA	6.59	126.60	120.34
83	A5	156	G	P-O5'-C5'	6.59	130.78	120.90
83	A5	198	A	O4'-C1'-C2'	-6.59	101.01	107.60
1	Az	271	ASN	N-CA-C	6.59	124.83	110.80
83	A5	1408	A	N9-C1'-C2'	6.59	121.88	112.00
83	A5	3353	C	O4'-C1'-C2'	-6.59	101.01	107.60
36	B2	1052	U	O4'-C1'-N1	6.59	118.38	108.50
48	CD	184	SER	N-CA-CB	6.59	120.40	109.60
63	CB	207	VAL	CA-C-N	6.59	129.76	120.28
63	CB	207	VAL	C-N-CA	6.59	129.76	120.28
74	CC	316	VAL	N-CA-CB	6.59	122.10	111.23
83	A5	281	C	O4'-C1'-C2'	-6.59	101.01	107.60
46	CN	57	GLN	O-C-N	-6.58	114.92	123.02
36	B2	899	A	N9-C1'-C2'	6.58	123.87	114.00
51	CA	236	GLY	CA-C-N	6.58	132.37	122.23
51	CA	236	GLY	C-N-CA	6.58	132.37	122.23
83	A5	2869	U	P-O5'-C5'	-6.58	111.02	120.90
86	A8	107	U	P-O3'-C3'	6.58	130.07	120.20
4	AK	27	SER	CA-C-N	6.58	128.07	119.84
4	AK	27	SER	C-N-CA	6.58	128.07	119.84
45	Ca	101	VAL	N-CA-C	6.58	116.92	106.32
83	A5	2608	G	O4'-C1'-N9	6.58	118.37	108.50
83	A5	2686	C	C3'-C2'-C1'	6.58	107.88	101.30
83	A5	3956	U	O3'-P-O5'	-6.58	94.13	104.00
36	B2	1737	U	O4'-C1'-C2'	-6.58	101.02	107.60
58	CW	75	THR	N-CA-C	6.58	124.81	110.80
42	CL	5	ASN	N-CA-CB	6.58	122.05	111.20
83	A5	2006	U	P-O3'-C3'	-6.58	110.33	120.20
56	CX	175	LEU	CA-C-N	6.58	126.93	119.83
56	CX	175	LEU	C-N-CA	6.58	126.93	119.83
63	CB	38	SER	N-CA-CB	6.58	121.60	110.49
83	A5	2136	U	P-O3'-C3'	6.58	130.06	120.20
83	A5	2168	G	N9-C1'-C2'	6.57	121.86	112.00
83	A5	2763	U	N1-C1'-C2'	6.57	123.86	114.00
42	CL	173	GLU	N-CA-C	6.57	124.80	110.80
83	A5	1327	G	C1'-O4'-C4'	-6.57	103.33	109.90
83	A5	1703	A	O4'-C1'-C2'	-6.57	101.03	107.60
24	Ae	75	HIS	CG-CD2-NE2	6.57	113.77	107.20
63	CB	102	LEU	N-CA-CB	6.57	119.99	110.20
83	A5	653	U	P-O5'-C5'	6.57	130.76	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	878	U	N1-C1'-C2'	6.57	121.86	112.00
83	A5	1024	U	N1-C1'-C2'	6.57	121.86	112.00
36	B2	985	A	O5'-C5'-C4'	6.57	121.55	111.70
36	B2	702	U	N1-C1'-C2'	6.57	121.85	112.00
53	CT	131	GLN	CA-C-N	6.57	126.92	119.83
53	CT	131	GLN	C-N-CA	6.57	126.92	119.83
58	CW	59	HIS	CA-CB-CG	6.57	120.37	113.80
63	CB	42	HIS	CA-C-N	6.57	131.70	121.26
63	CB	42	HIS	C-N-CA	6.57	131.70	121.26
10	AN	85	PRO	CA-C-N	6.57	129.38	120.38
10	AN	85	PRO	C-N-CA	6.57	129.38	120.38
23	AD	204	LYS	CA-C-O	-6.57	111.17	120.16
36	B2	1401	U	O4'-C1'-N1	6.57	118.05	108.20
50	CR	143	HIS	CE1-NE2-CD2	-6.57	102.43	109.00
83	A5	1484	U	O4'-C1'-N1	6.57	118.35	108.50
86	A8	39	A	N9-C1'-C2'	6.57	121.85	112.00
36	B2	661	G	P-O3'-C3'	6.56	130.05	120.20
83	A5	1502	A	O4'-C1'-C2'	-6.56	101.04	107.60
8	AS	40	TYR	N-CA-CB	6.56	121.43	110.41
36	B2	36	C	O4'-C1'-C2'	-6.56	101.04	107.60
36	B2	522	G	P-O3'-C3'	6.56	130.04	120.20
36	B2	1545	U	C1'-O4'-C4'	6.56	116.46	109.90
36	B2	1900	U	O4'-C1'-N1	6.56	118.34	108.50
83	A5	90	G	O4'-C1'-C2'	-6.56	99.24	105.80
83	A5	2115	U	O4'-C1'-N1	6.56	118.34	108.50
36	B2	55	A	C1'-O4'-C4'	-6.56	103.34	109.90
83	A5	3929	U	O4'-C1'-N1	6.56	118.34	108.50
16	AA	131	HIS	CE1-NE2-CD2	-6.56	102.44	109.00
36	B2	1965	U	C1'-O4'-C4'	-6.56	103.34	109.90
40	CK	141	CYS	CA-C-N	6.56	134.17	122.89
40	CK	141	CYS	C-N-CA	6.56	134.17	122.89
83	A5	1397	A	N9-C1'-C2'	6.56	121.84	112.00
83	A5	1742	U	O4'-C1'-C2'	-6.56	101.04	107.60
83	A5	3865	C	N1-C1'-C2'	6.56	121.84	112.00
34	AQ	62	LYS	CA-C-N	6.56	129.07	120.28
34	AQ	62	LYS	C-N-CA	6.56	129.07	120.28
36	B2	576	G	O4'-C1'-N9	6.56	118.34	108.50
36	B2	640	U	N1-C1'-C2'	-6.56	102.17	112.00
74	CC	73	GLY	N-CA-C	6.56	132.31	113.30
83	A5	2774	G	N9-C1'-C2'	6.56	121.83	112.00
40	CK	143	VAL	CA-C-N	6.55	134.06	121.54
40	CK	143	VAL	C-N-CA	6.55	134.06	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	CX	178	SER	CA-C-N	6.55	128.03	119.84
56	CX	178	SER	C-N-CA	6.55	128.03	119.84
83	A5	243	A	O4'-C1'-C2'	-6.55	99.25	105.80
83	A5	621	A	O3'-P-O5'	6.55	113.83	104.00
36	B2	420	U	O4'-C1'-N1	6.55	118.33	108.50
36	B2	908	G	C2'-C3'-O3'	6.55	119.33	109.50
83	A5	455	U	N1-C1'-C2'	6.55	121.83	112.00
36	B2	140	G	O5'-C5'-C4'	-6.55	101.67	111.50
83	A5	2510	A	O4'-C1'-C2'	-6.55	101.05	107.60
34	AQ	5	ARG	O-C-N	-6.55	114.88	122.93
53	CT	95	HIS	CE1-NE2-CD2	-6.55	102.45	109.00
63	CB	21	ARG	CA-C-N	6.55	130.41	121.05
63	CB	21	ARG	C-N-CA	6.55	130.41	121.05
83	A5	155	U	P-O3'-C3'	6.55	130.03	120.20
86	A8	62	A	O3'-P-O5'	-6.55	94.18	104.00
64	CF	82	ASN	CA-C-N	6.55	130.01	120.71
64	CF	82	ASN	C-N-CA	6.55	130.01	120.71
2	Ag	212	GLY	CA-C-N	6.55	130.64	120.82
2	Ag	212	GLY	C-N-CA	6.55	130.64	120.82
14	AT	31	PRO	CA-C-N	6.55	134.04	121.54
14	AT	31	PRO	C-N-CA	6.55	134.04	121.54
28	AC	93	MET	CA-C-N	6.55	126.72	120.31
28	AC	93	MET	C-N-CA	6.55	126.72	120.31
56	CX	162	ARG	N-CA-CB	6.55	120.86	110.65
83	A5	354	A	C1'-O4'-C4'	-6.55	103.35	109.90
83	A5	1425	U	O4'-C1'-C2'	-6.55	101.05	107.60
83	A5	3209	G	O4'-C1'-C2'	6.55	112.35	105.80
83	A5	3752	G	C3'-C2'-C1'	6.55	107.85	101.30
83	A5	1812	C	C5'-C4'-O4'	-6.54	99.28	109.10
83	A5	2122	G	O5'-C5'-C4'	-6.54	101.68	111.50
36	B2	255	U	C2'-C3'-O3'	6.54	119.32	109.50
36	B2	1378	C	N1-C1'-C2'	6.54	121.81	112.00
36	B2	1802	G	O4'-C1'-C2'	-6.54	101.06	107.60
82	CG	83	PRO	CA-C-O	-6.54	111.07	120.56
83	A5	329	C	O4'-C1'-C2'	-6.54	101.06	107.60
83	A5	483	U	O4'-C1'-C2'	-6.54	101.06	107.60
83	A5	2734	A	O4'-C1'-C2'	-6.54	101.06	107.60
58	CW	33	ASP	CA-C-N	6.54	134.03	121.54
58	CW	33	ASP	C-N-CA	6.54	134.03	121.54
83	A5	4	U	O4'-C1'-N1	6.54	118.01	108.20
83	A5	97	C	C3'-C2'-C1'	6.54	108.04	101.50
83	A5	567	A	O3'-P-O5'	6.54	113.81	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1000	G	N9-C1'-C2'	6.54	123.81	114.00
83	A5	3338	U	O4'-C1'-N1	6.54	118.31	108.50
83	A5	1971	C	N1-C1'-C2'	6.54	121.81	112.00
10	AN	144	SER	CA-C-O	6.54	127.68	120.82
47	CI	69	ARG	CA-C-N	6.54	129.70	120.42
47	CI	69	ARG	C-N-CA	6.54	129.70	120.42
74	CC	324	ASN	CA-C-N	6.54	129.33	120.77
74	CC	324	ASN	C-N-CA	6.54	129.33	120.77
83	A5	235	A	O4'-C1'-N9	6.54	118.31	108.50
31	AH	147	ASP	N-CA-C	-6.53	102.42	110.65
36	B2	1254	A	O4'-C1'-C2'	-6.53	101.07	107.60
58	CW	74	ARG	N-CA-C	6.53	121.29	113.12
10	AN	137	PRO	CA-C-N	6.53	131.40	122.19
10	AN	137	PRO	C-N-CA	6.53	131.40	122.19
14	AT	34	MET	CA-C-N	6.53	129.03	120.28
14	AT	34	MET	C-N-CA	6.53	129.03	120.28
28	AC	261	PRO	CA-C-N	6.53	130.39	121.05
28	AC	261	PRO	C-N-CA	6.53	130.39	121.05
36	B2	899	A	O4'-C1'-C2'	6.53	112.33	105.80
74	CC	204	ARG	N-CA-CB	6.53	121.53	110.49
83	A5	787	C	O4'-C1'-C2'	-6.53	99.27	105.80
36	B2	200	U	O4'-C4'-C3'	6.53	110.53	104.00
83	A5	888	A	O4'-C1'-C2'	-6.53	101.07	107.60
83	A5	860	A	C3'-C2'-C1'	6.53	107.83	101.30
83	A5	201	U	N1-C1'-C2'	-6.53	102.21	112.00
83	A5	2006	U	O3'-P-O5'	-6.53	94.21	104.00
83	A5	2663	C	C3'-C2'-C1'	6.53	107.83	101.30
83	A5	3896	G	O4'-C1'-N9	6.53	118.29	108.50
86	A8	16	A	C3'-C2'-C1'	6.53	107.83	101.30
36	B2	1653	C	O4'-C1'-C2'	-6.53	101.08	107.60
36	B2	1902	C	O4'-C1'-C2'	-6.53	101.07	107.60
39	Cq	84	GLY	CA-C-N	6.53	134.00	121.54
39	Cq	84	GLY	C-N-CA	6.53	134.00	121.54
83	A5	299	G	C1'-O4'-C4'	-6.53	103.38	109.90
83	A5	1237	G	C3'-C2'-C1'	-6.53	94.77	101.30
1	Az	262	LYS	N-CA-C	6.52	124.70	110.80
31	AH	106	ALA	CA-C-O	-6.52	114.40	122.03
1	Az	276	CYS	N-CA-CB	6.52	119.78	110.13
74	CC	36	ARG	CA-C-N	6.52	126.10	119.19
74	CC	36	ARG	C-N-CA	6.52	126.10	119.19
85	A7	7	G	P-O5'-C5'	6.52	130.68	120.90
36	B2	73	A	P-O3'-C3'	6.52	129.98	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	820	G	O5'-C5'-C4'	-6.52	101.72	111.50
83	A5	2491	C	C2'-C3'-O3'	6.52	119.28	109.50
7	AM	125	THR	CA-C-N	6.52	127.99	119.84
7	AM	125	THR	C-N-CA	6.52	127.99	119.84
83	A5	2053	A	N9-C1'-C2'	6.52	123.78	114.00
83	A5	2134	A	C1'-O4'-C4'	6.52	116.42	109.90
29	AG	134	GLY	CA-C-N	6.52	126.75	119.32
29	AG	134	GLY	C-N-CA	6.52	126.75	119.32
36	B2	39	A	N9-C1'-C2'	-6.52	104.22	114.00
36	B2	1953	U	N1-C1'-C2'	6.52	121.78	112.00
83	A5	1225	G	N9-C1'-C2'	6.52	121.78	112.00
83	A5	3594	A	C3'-C2'-C1'	6.52	107.82	101.30
83	A5	2525	C	N1-C1'-C2'	6.52	121.78	112.00
14	AT	34	MET	N-CA-C	6.51	124.68	110.80
53	CT	28	SER	N-CA-CB	6.51	120.25	110.22
60	Cr	70	LYS	N-CA-C	6.51	124.68	110.80
83	A5	19	C	O4'-C1'-C2'	-6.51	101.09	107.60
83	A5	618	U	P-O5'-C5'	6.51	130.67	120.90
36	B2	917	U	O4'-C1'-N1	6.51	118.27	108.50
60	Cr	28	PRO	N-CA-CB	-6.51	96.41	103.25
83	A5	1945	U	O4'-C1'-C2'	-6.51	101.09	107.60
36	B2	614	A	O4'-C1'-N9	6.51	117.96	108.20
36	B2	1138	U	O5'-C5'-C4'	6.51	121.27	111.50
83	A5	2662	C	O4'-C1'-C2'	-6.51	101.09	107.60
36	B2	384	U	C4'-C3'-O3'	-6.51	103.24	113.00
63	CB	251	VAL	N-CA-C	-6.51	98.36	107.80
36	B2	14	C	C1'-O4'-C4'	-6.51	103.39	109.90
36	B2	50	C	N1-C1'-C2'	6.51	121.76	112.00
36	B2	857	G	C1'-O4'-C4'	-6.51	103.39	109.90
55	CU	208	VAL	CA-C-N	6.51	129.00	120.28
55	CU	208	VAL	C-N-CA	6.51	129.00	120.28
63	CB	39	LYS	CA-C-N	6.51	127.97	119.84
63	CB	39	LYS	C-N-CA	6.51	127.97	119.84
75	Cm	125	LYS	N-CA-CB	6.51	121.49	110.49
36	B2	1243	G	N9-C1'-C2'	6.50	121.76	112.00
36	B2	1432	A	O4'-C1'-C2'	-6.50	101.09	107.60
83	A5	1877	A	N9-C1'-C2'	6.50	121.76	112.00
83	A5	2907	U	O4'-C1'-N1	6.50	117.96	108.20
42	CL	66	HIS	ND1-CE1-NE2	6.50	114.90	108.40
83	A5	3655	U	P-O3'-C3'	6.50	129.95	120.20
9	Ad	42	CYS	CA-C-N	6.50	129.64	120.28
9	Ad	42	CYS	C-N-CA	6.50	129.64	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	CL	68	LYS	N-CA-CB	6.50	121.48	110.49
1	Az	199	ASP	N-CA-CB	6.50	121.55	110.50
29	AG	130	PRO	CA-C-N	6.50	131.57	122.41
29	AG	130	PRO	C-N-CA	6.50	131.57	122.41
36	B2	1127	G	N9-C1'-C2'	6.50	121.75	112.00
83	A5	3142	G	O4'-C1'-N9	6.50	118.25	108.50
83	A5	3516	C	C3'-C2'-C1'	6.50	107.80	101.30
23	AD	93	VAL	N-CA-CB	6.50	117.80	110.72
26	AJ	77	ALA	N-CA-C	6.50	118.36	111.28
63	CB	103	VAL	CB-CA-C	6.50	120.55	110.28
83	A5	2522	A	C4'-C3'-O3'	-6.50	103.25	113.00
83	A5	3811	A	P-O3'-C3'	6.50	129.94	120.20
29	AG	201	ILE	CA-C-N	6.50	129.51	120.29
29	AG	201	ILE	C-N-CA	6.50	129.51	120.29
36	B2	920	U	N1-C1'-C2'	6.49	121.74	112.00
36	B2	1021	A	O4'-C1'-N9	6.49	118.24	108.50
44	CM	153	ALA	N-CA-C	6.49	124.21	113.50
63	CB	313	SER	CA-C-N	6.49	130.73	120.47
63	CB	313	SER	C-N-CA	6.49	130.73	120.47
83	A5	1404	A	C1'-O4'-C4'	-6.49	103.41	109.90
83	A5	2588	G	N9-C1'-C2'	6.49	121.74	112.00
1	Az	269	ALA	CA-C-N	6.49	133.94	121.54
1	Az	269	ALA	C-N-CA	6.49	133.94	121.54
36	B2	497	A	N9-C1'-C2'	6.49	121.74	112.00
10	AN	58	HIS	O-C-N	-6.49	113.96	122.59
13	AP	111	LYS	N-CA-C	-6.49	101.66	110.36
33	AI	199	PHE	CA-CB-CG	-6.49	107.31	113.80
36	B2	1872	G	O4'-C1'-N9	6.49	117.94	108.20
45	Ca	93	LYS	N-CA-C	6.49	118.02	111.07
48	CD	18	VAL	CA-C-N	6.49	133.94	121.54
48	CD	18	VAL	C-N-CA	6.49	133.94	121.54
48	CD	48	LYS	N-CA-C	6.49	119.18	111.33
64	CF	174	ASP	N-CA-C	6.49	129.17	111.00
79	CJ	131	TYR	CA-C-N	6.49	126.27	120.10
79	CJ	131	TYR	C-N-CA	6.49	126.27	120.10
83	A5	100	G	O4'-C1'-C2'	6.49	114.09	107.60
83	A5	2055	G	N9-C1'-C2'	6.49	121.74	112.00
83	A5	3309	A	N9-C1'-C2'	6.49	123.74	114.00
83	A5	460	A	O4'-C4'-C3'	-6.49	99.61	106.10
83	A5	3786	U	O4'-C1'-N1	6.49	118.23	108.50
15	AB	45	GLY	N-CA-C	6.49	120.22	110.75
36	B2	947	U	C1'-O4'-C4'	-6.49	103.41	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1297	C	C3'-C2'-C1'	6.49	107.79	101.30
1	Az	268	GLU	CB-CA-C	6.49	121.18	110.74
69	Cg	81	CYS	N-CA-C	6.49	119.84	112.97
83	A5	1002	C	N1-C1'-C2'	6.49	121.73	112.00
83	A5	1426	U	O4'-C1'-N1	6.49	118.23	108.50
83	A5	1448	G	C3'-C2'-C1'	-6.49	94.81	101.30
36	B2	1357	G	C1'-O4'-C4'	-6.48	103.42	109.90
40	CK	21	GLU	N-CA-C	-6.48	101.68	111.34
83	A5	3889	U	C3'-C2'-C1'	6.48	107.78	101.30
29	AG	152	ASP	N-CA-C	6.48	124.61	110.80
36	B2	207	U	O4'-C1'-C2'	-6.48	101.12	107.60
49	CQ	12	LYS	N-CA-C	6.48	124.61	110.80
63	CB	285	TYR	CB-CA-C	-6.48	100.66	110.90
83	A5	485	A	O4'-C1'-C2'	-6.48	101.12	107.60
83	A5	517	A	O4'-C1'-C2'	-6.48	101.12	107.60
83	A5	1176	A	N9-C1'-C2'	-6.48	102.28	112.00
83	A5	1673	C	O4'-C1'-C2'	-6.48	99.32	105.80
83	A5	2217	A	C1'-O4'-C4'	-6.48	103.42	109.90
83	A5	3324	A	O4'-C1'-C2'	-6.48	101.12	107.60
22	Ac	41	ASN	CA-C-N	6.48	131.10	122.93
22	Ac	41	ASN	C-N-CA	6.48	131.10	122.93
31	AH	188	PRO	CA-C-N	6.48	128.97	120.28
31	AH	188	PRO	C-N-CA	6.48	128.97	120.28
36	B2	31	C	N1-C1'-C2'	6.48	121.72	112.00
78	Co	53	LYS	CA-C-N	6.48	126.86	119.93
78	Co	53	LYS	C-N-CA	6.48	126.86	119.93
83	A5	452	A	P-O3'-C3'	6.48	129.92	120.20
36	B2	594	G	N9-C1'-C2'	6.48	121.72	112.00
36	B2	1078	G	O4'-C1'-C2'	-6.48	101.12	107.60
36	B2	1806	A	C3'-C2'-C1'	-6.48	94.82	101.30
83	A5	2516	U	N1-C1'-C2'	6.48	121.72	112.00
36	B2	374	C	O4'-C1'-C2'	-6.48	101.12	107.60
69	Cg	25	THR	CA-C-N	6.48	127.94	119.84
69	Cg	25	THR	C-N-CA	6.48	127.94	119.84
81	CE	65	SER	O-C-N	-6.48	113.98	122.59
83	A5	1709	A	O4'-C1'-N9	6.48	117.92	108.20
68	Cf	81	LYS	CA-C-N	6.47	129.48	120.29
68	Cf	81	LYS	C-N-CA	6.47	129.48	120.29
83	A5	837	A	O4'-C1'-C2'	-6.47	101.12	107.60
83	A5	1368	A	O4'-C1'-C2'	6.47	112.28	105.80
8	AS	132	ARG	N-CA-C	-6.47	99.35	109.25
36	B2	611	U	O4'-C1'-C2'	-6.47	101.13	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	CK	105	GLY	N-CA-C	6.47	128.52	113.18
67	Ce	4	ARG	CA-C-N	6.47	126.86	119.93
67	Ce	4	ARG	C-N-CA	6.47	126.86	119.93
83	A5	461	U	O4'-C4'-C3'	-6.47	99.63	106.10
83	A5	1120	A	P-O5'-C5'	-6.47	111.19	120.90
83	A5	94	C	N1-C1'-C2'	6.47	121.71	112.00
36	B2	49	C	O4'-C1'-C2'	-6.47	101.13	107.60
36	B2	908	G	P-O5'-C5'	6.47	130.60	120.90
36	B2	961	U	N1-C1'-C2'	6.47	121.70	112.00
74	CC	184	GLN	CA-C-N	6.47	129.59	120.28
74	CC	184	GLN	C-N-CA	6.47	129.59	120.28
83	A5	1610	A	O4'-C1'-C2'	-6.47	101.13	107.60
83	A5	2512	U	N1-C1'-C2'	6.47	121.71	112.00
83	A5	2650	G	O4'-C1'-N9	6.47	117.91	108.20
83	A5	3396	A	O4'-C1'-C2'	-6.47	101.13	107.60
83	A5	3841	C	O4'-C1'-C2'	-6.47	99.33	105.80
30	AF	71	ARG	N-CA-C	6.47	119.32	111.82
37	BC	60	C	N1-C1'-C2'	6.47	121.70	112.00
83	A5	1955	A	O4'-C1'-C2'	-6.47	101.13	107.60
34	AQ	128	ARG	CA-C-N	6.47	133.89	121.54
34	AQ	128	ARG	C-N-CA	6.47	133.89	121.54
36	B2	163	C	O4'-C1'-C2'	-6.47	101.13	107.60
36	B2	1371	C	O4'-C1'-C2'	-6.47	99.33	105.80
83	A5	505	U	O4'-C1'-N1	6.47	118.20	108.50
6	AX	93	TYR	N-CA-C	-6.46	105.55	113.50
21	Ab	69	GLY	N-CA-C	-6.46	104.33	110.21
83	A5	173	A	O4'-C1'-N9	6.46	118.19	108.50
83	A5	2819	A	P-O5'-C5'	6.46	130.60	120.90
81	CE	32	ARG	N-CA-C	6.46	117.98	111.07
83	A5	3361	U	O4'-C1'-N1	6.46	118.19	108.50
1	Az	683	LEU	CA-C-N	6.46	132.28	123.11
1	Az	683	LEU	C-N-CA	6.46	132.28	123.11
60	Cr	76	ARG	N-CA-C	6.46	124.08	109.81
83	A5	2872	U	O4'-C1'-C2'	-6.46	101.14	107.60
83	A5	3721	C	C5'-C4'-C3'	6.46	125.69	116.00
17	AV	66	ASP	CA-C-N	6.46	129.58	120.28
17	AV	66	ASP	C-N-CA	6.46	129.58	120.28
34	AQ	46	PRO	CA-C-N	6.46	133.87	121.54
34	AQ	46	PRO	C-N-CA	6.46	133.87	121.54
83	A5	1469	C	O4'-C1'-C2'	-6.46	101.14	107.60
83	A5	2153	C	N1-C1'-C2'	6.46	121.69	112.00
83	A5	2584	G	O4'-C1'-C2'	-6.46	101.14	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3699	U	O3'-P-O5'	6.46	113.69	104.00
1	Az	99	CYS	CA-C-N	6.46	133.87	121.54
1	Az	99	CYS	C-N-CA	6.46	133.87	121.54
2	Ag	266	LYS	N-CA-C	-6.46	99.22	109.23
83	A5	482	U	O4'-C1'-C2'	-6.46	101.14	107.60
83	A5	867	U	N1-C1'-C2'	6.46	121.68	112.00
44	CM	56	HIS	CA-C-N	6.45	131.08	121.72
44	CM	56	HIS	C-N-CA	6.45	131.08	121.72
51	CA	205	ASN	N-CA-C	-6.45	102.41	108.22
83	A5	1869	C	N1-C1'-C2'	6.45	121.68	112.00
83	A5	2066	G	P-O5'-C5'	6.45	130.58	120.90
83	A5	3881	A	C3'-C2'-C1'	6.45	107.75	101.30
36	B2	578	A	O4'-C1'-C2'	-6.45	101.15	107.60
83	A5	545	U	O4'-C1'-C2'	-6.45	101.15	107.60
15	AB	220	VAL	CA-C-N	6.45	133.86	121.54
15	AB	220	VAL	C-N-CA	6.45	133.86	121.54
36	B2	595	C	C3'-C2'-C1'	6.45	107.75	101.30
36	B2	874	U	O5'-C5'-C4'	-6.45	101.82	111.50
82	CG	165	ASP	CA-C-N	6.45	129.39	120.49
82	CG	165	ASP	C-N-CA	6.45	129.39	120.49
83	A5	116	U	N1-C1'-C2'	-6.45	102.33	112.00
83	A5	1007	A	O4'-C1'-N9	6.45	118.17	108.50
83	A5	1519	A	C1'-O4'-C4'	6.45	116.35	109.90
34	AQ	8	PRO	CA-C-N	6.45	133.57	121.97
34	AQ	8	PRO	C-N-CA	6.45	133.57	121.97
36	B2	647	U	C1'-O4'-C4'	6.45	116.15	109.70
42	CL	169	VAL	O-C-N	-6.45	114.51	122.57
68	Cf	62	GLY	N-CA-C	-6.45	103.92	112.82
83	A5	1231	A	N9-C1'-C2'	6.45	121.67	112.00
83	A5	1813	A	O4'-C1'-C2'	-6.45	101.16	107.60
83	A5	2917	A	P-O3'-C3'	6.45	129.87	120.20
36	B2	329	U	O4'-C1'-C2'	-6.44	101.16	107.60
40	CK	149	HIS	N-CA-C	6.44	117.96	111.07
74	CC	389	LYS	N-CA-CB	-6.44	100.34	110.46
83	A5	1382	U	O4'-C1'-N1	6.44	118.17	108.50
83	A5	3208	A	C1'-O4'-C4'	6.44	116.14	109.70
36	B2	1447	G	C1'-O4'-C4'	-6.44	103.46	109.90
42	CL	171	LYS	CA-C-N	6.44	129.20	120.44
42	CL	171	LYS	C-N-CA	6.44	129.20	120.44
51	CA	179	ILE	CA-C-N	6.44	133.84	121.54
51	CA	179	ILE	C-N-CA	6.44	133.84	121.54
83	A5	3361	U	C1'-O4'-C4'	6.44	116.34	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	Af	83	LYS	CA-C-N	6.44	131.70	121.66
25	Af	83	LYS	C-N-CA	6.44	131.70	121.66
39	Cq	37	SER	CA-C-N	6.44	129.43	120.29
39	Cq	37	SER	C-N-CA	6.44	129.43	120.29
83	A5	2969	U	O3'-P-O5'	6.44	113.66	104.00
86	A8	29	U	O4'-C1'-N1	6.44	118.16	108.50
36	B2	1639	U	C3'-C2'-C1'	6.44	107.94	101.50
83	A5	27	A	O4'-C1'-C2'	-6.44	101.16	107.60
85	A7	50	A	O4'-C1'-C2'	-6.44	101.16	107.60
36	B2	1821	G	O4'-C1'-C2'	6.43	114.03	107.60
68	Cf	46	ARG	CA-C-N	6.43	133.82	121.54
68	Cf	46	ARG	C-N-CA	6.43	133.82	121.54
83	A5	272	U	O4'-C1'-N1	6.43	118.15	108.50
83	A5	2268	G	P-O3'-C3'	6.43	129.85	120.20
83	A5	3315	U	O4'-C1'-C2'	-6.43	101.17	107.60
83	A5	3943	G	C3'-C2'-C1'	-6.43	94.87	101.30
84	A9	23	G	C2'-C3'-O3'	6.43	123.35	113.70
23	AD	95	ALA	CA-C-N	6.43	133.82	121.54
23	AD	95	ALA	C-N-CA	6.43	133.82	121.54
83	A5	1170	U	O4'-C1'-C2'	-6.43	101.17	107.60
83	A5	2904	U	O4'-C1'-C2'	-6.43	101.17	107.60
84	A9	23	G	O5'-C5'-C4'	6.43	121.14	111.50
85	A7	99	G	C1'-O4'-C4'	-6.43	103.47	109.90
36	B2	640	U	O4'-C1'-N1	6.43	118.14	108.50
44	CM	128	ASN	N-CA-C	6.43	124.49	110.80
83	A5	296	C	O4'-C1'-C2'	-6.43	101.17	107.60
83	A5	549	A	C3'-C2'-C1'	6.43	107.73	101.30
83	A5	3452	U	P-O3'-C3'	-6.43	110.56	120.20
83	A5	3604	G	N9-C1'-C2'	6.43	121.64	112.00
83	A5	1891	U	O4'-C1'-N1	6.42	117.83	108.20
36	B2	458	C	O4'-C1'-C2'	-6.42	101.18	107.60
36	B2	974	A	N9-C1'-C2'	6.42	121.63	112.00
36	B2	1670	G	C1'-O4'-C4'	-6.42	103.48	109.90
46	CN	5	ARG	CA-C-N	6.42	128.88	120.28
46	CN	5	ARG	C-N-CA	6.42	128.88	120.28
56	CX	181	TYR	CA-C-N	6.42	127.87	119.84
56	CX	181	TYR	C-N-CA	6.42	127.87	119.84
74	CC	316	VAL	N-CA-C	6.42	122.69	109.34
83	A5	1476	G	C3'-C2'-C1'	6.42	107.72	101.30
83	A5	313	A	O4'-C1'-N9	6.42	118.13	108.50
83	A5	1138	C	C1'-O4'-C4'	-6.42	103.48	109.90
83	A5	2715	C	N1-C1'-C2'	6.42	121.63	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	29	U	O4'-C1'-N1	6.42	118.13	108.50
83	A5	1987	G	C4'-C3'-C2'	-6.42	96.18	102.60
83	A5	2126	A	N9-C1'-C2'	-6.42	102.37	112.00
83	A5	2899	U	O4'-C1'-N1	6.42	118.13	108.50
6	AX	132	ALA	CA-C-N	6.42	128.88	120.28
6	AX	132	ALA	C-N-CA	6.42	128.88	120.28
36	B2	624	G	O4'-C1'-N9	6.42	118.12	108.50
36	B2	946	U	O4'-C1'-C2'	-6.42	101.18	107.60
55	CU	291	ASN	CA-C-N	6.42	133.79	121.54
55	CU	291	ASN	C-N-CA	6.42	133.79	121.54
75	Cm	94	MET	N-CA-CB	6.42	120.20	110.45
83	A5	3356	G	O4'-C1'-C2'	-6.42	101.18	107.60
36	B2	939	G	O4'-C1'-N9	6.42	118.12	108.50
83	A5	3840	G	O4'-C1'-N9	6.42	118.12	108.50
36	B2	509	C	P-O5'-C5'	6.41	130.52	120.90
52	CS	160	HIS	CE1-NE2-CD2	-6.41	102.59	109.00
83	A5	502	U	O4'-C1'-C2'	-6.41	101.19	107.60
83	A5	1092	U	O4'-C1'-C2'	-6.41	101.19	107.60
83	A5	2839	A	P-O5'-C5'	-6.41	111.28	120.90
60	Cr	58	ALA	CA-C-N	6.41	133.24	121.70
60	Cr	58	ALA	C-N-CA	6.41	133.24	121.70
83	A5	28	C	C3'-C2'-C1'	6.41	107.71	101.30
83	A5	1782	C	C3'-C2'-C1'	6.41	107.71	101.30
36	B2	552	A	N9-C1'-C2'	6.41	121.62	112.00
55	CU	287	ARG	CA-C-N	6.41	133.24	121.70
55	CU	287	ARG	C-N-CA	6.41	133.24	121.70
83	A5	920	G	O4'-C1'-C2'	-6.41	101.19	107.60
83	A5	1249	A	P-O3'-C3'	6.41	129.81	120.20
27	AE	102	VAL	N-CA-C	-6.41	99.36	108.65
36	B2	967	C	O4'-C1'-C2'	-6.41	101.19	107.60
66	Cd	74	ILE	N-CA-C	6.41	122.67	109.34
66	Cd	97	ASN	CA-CB-CG	-6.41	106.19	112.60
83	A5	87	U	O4'-C1'-N1	6.41	118.11	108.50
83	A5	3739	U	O4'-C1'-N1	6.41	118.11	108.50
33	AI	180	ARG	N-CA-CB	6.40	119.72	110.11
36	B2	292	G	C2'-C3'-O3'	6.40	119.11	109.50
36	B2	1038	A	N9-C1'-C2'	-6.40	102.39	112.00
70	Ci	90	HIS	CA-CB-CG	-6.40	107.40	113.80
83	A5	2602	A	C1'-O4'-C4'	6.40	116.30	109.90
83	A5	3160	A	N9-C1'-C2'	6.40	121.61	112.00
83	A5	3763	U	O4'-C1'-N1	6.40	118.11	108.50
68	Cf	44	TYR	CA-CB-CG	6.40	125.42	113.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3927	C	C3'-C2'-C1'	6.40	107.70	101.30
36	B2	1169	C	C2'-C3'-O3'	6.40	123.30	113.70
83	A5	189	A	C2'-C3'-O3'	6.40	119.10	109.50
83	A5	717	A	C2'-C3'-O3'	6.40	119.10	109.50
83	A5	843	A	C5'-C4'-C3'	-6.40	106.40	116.00
83	A5	2466	C	C3'-C2'-C1'	6.40	107.70	101.30
80	CH	134	ASN	CA-CB-CG	-6.40	106.20	112.60
83	A5	3849	A	O3'-P-O5'	6.40	113.60	104.00
15	AB	98	ASN	CA-CB-CG	6.40	119.00	112.60
83	A5	2482	C	O4'-C1'-C2'	-6.40	101.20	107.60
86	A8	70	A	C1'-O4'-C4'	-6.40	103.30	109.70
36	B2	1390	U	N1-C1'-C2'	6.40	121.59	112.00
83	A5	1023	C	N1-C1'-C2'	6.40	121.59	112.00
8	AS	73	ASN	CA-CB-CG	-6.39	106.21	112.60
36	B2	188	C	N1-C1'-C2'	6.39	121.59	112.00
85	A7	68	G	N9-C1'-C2'	6.39	121.59	112.00
36	B2	147	U	O4'-C1'-N1	6.39	118.09	108.50
36	B2	173	C	P-O3'-C3'	6.39	129.79	120.20
68	Cf	153	TYR	O-C-N	-6.39	114.89	121.28
69	Cg	47	CYS	N-CA-C	-6.39	97.13	108.13
83	A5	1630	G	C1'-O4'-C4'	-6.39	103.51	109.90
83	A5	1805	A	O5'-C5'-C4'	6.39	121.09	111.50
83	A5	2528	A	O4'-C1'-C2'	-6.39	101.21	107.60
58	CW	77	LYS	N-CA-C	6.39	118.70	110.65
83	A5	2636	U	O4'-C1'-C2'	-6.39	101.21	107.60
83	A5	3190	G	O4'-C1'-C2'	6.39	113.99	107.60
36	B2	586	U	O4'-C1'-C2'	-6.39	99.41	105.80
41	CO	150	HIS	CE1-NE2-CD2	-6.39	102.61	109.00
50	CR	132	PHE	N-CA-C	-6.39	97.19	110.80
67	Ce	46	ARG	CA-C-N	6.39	131.47	122.46
67	Ce	46	ARG	C-N-CA	6.39	131.47	122.46
67	Ce	129	ARG	N-CA-CB	6.39	121.36	110.50
36	B2	888	G	O4'-C1'-C2'	6.39	112.19	105.80
36	B2	1402	U	C1'-O4'-C4'	-6.39	103.51	109.90
36	B2	770	C	P-O3'-C3'	6.39	129.78	120.20
36	B2	1217	U	O4'-C1'-N1	6.39	118.08	108.50
28	AC	60	SER	N-CA-CB	6.38	121.28	110.49
34	AQ	4	LYS	N-CA-C	6.38	128.88	111.00
36	B2	969	U	N1-C1'-C2'	6.38	121.58	112.00
46	CN	177	GLY	CA-C-N	6.38	133.73	121.54
46	CN	177	GLY	C-N-CA	6.38	133.73	121.54
83	A5	640	U	C2'-C3'-O3'	6.38	123.28	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1873	A	C1'-O4'-C4'	-6.38	103.31	109.70
83	A5	2043	G	P-O3'-C3'	6.38	129.77	120.20
83	A5	2786	U	O4'-C1'-N1	6.38	118.08	108.50
83	A5	2007	U	O4'-C1'-N1	6.38	117.77	108.20
83	A5	3508	G	O4'-C1'-C2'	-6.38	101.22	107.60
83	A5	3962	A	N9-C1'-C2'	6.38	123.57	114.00
83	A5	1279	C	O4'-C1'-C2'	-6.38	101.22	107.60
52	CS	140	VAL	CA-C-N	6.38	128.83	120.28
52	CS	140	VAL	C-N-CA	6.38	128.83	120.28
83	A5	3391	U	O3'-P-O5'	-6.38	94.43	104.00
9	Ad	39	CYS	N-CA-CB	6.38	121.27	110.49
36	B2	856	A	O4'-C1'-C2'	6.38	113.98	107.60
83	A5	2949	A	O3'-P-O5'	6.38	113.56	104.00
83	A5	3303	G	C5'-C4'-O4'	-6.38	100.23	109.80
36	B2	886	G	O4'-C1'-N9	6.38	118.06	108.50
83	A5	1534	G	N9-C1'-C2'	6.38	121.56	112.00
83	A5	2236	U	O4'-C1'-C2'	-6.38	101.22	107.60
85	A7	29	C	O4'-C1'-N1	6.38	118.06	108.50
36	B2	1131	U	O3'-P-O5'	-6.37	94.44	104.00
63	CB	300	LYS	N-CA-CB	6.37	120.59	110.65
83	A5	914	C	O4'-C1'-N1	6.37	118.06	108.50
83	A5	2015	G	C4'-C3'-O3'	6.37	122.56	113.00
83	A5	2269	A	C4'-C3'-O3'	-6.37	103.44	113.00
83	A5	3445	C	C3'-C2'-C1'	6.37	107.67	101.30
36	B2	849	U	N1-C1'-C2'	6.37	121.56	112.00
36	B2	1692	C	N1-C1'-C2'	6.37	121.56	112.00
83	A5	930	U	O4'-C1'-N1	6.37	118.06	108.50
36	B2	1332	G	O4'-C1'-N9	6.37	117.75	108.20
36	B2	1938	U	O4'-C1'-N1	6.37	118.05	108.50
36	B2	1606	A	C1'-C2'-O2'	6.37	117.95	108.40
83	A5	2584	G	N9-C1'-C2'	6.37	121.55	112.00
83	A5	2617	G	O4'-C1'-C2'	-6.37	101.23	107.60
36	B2	1612	C	O4'-C1'-C2'	-6.37	101.23	107.60
38	Cz	153	SER	N-CA-C	6.37	124.36	110.80
83	A5	530	U	O4'-C1'-C2'	-6.37	101.23	107.60
83	A5	2505	A	O4'-C1'-C2'	-6.37	101.23	107.60
83	A5	3108	U	O4'-C1'-C2'	-6.37	101.23	107.60
36	B2	206	U	N1-C1'-C2'	6.36	121.54	112.00
36	B2	1762	A	N9-C1'-C2'	6.36	121.54	112.00
39	Cq	156	SER	N-CA-CB	6.36	121.24	110.49
62	Cb	36	ASP	CA-C-N	6.36	133.43	121.97
62	Cb	36	ASP	C-N-CA	6.36	133.43	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	15	A	N9-C1'-C2'	6.36	121.55	112.00
83	A5	2916	U	C1'-C2'-O2'	-6.36	102.25	111.80
83	A5	1504	C	O4'-C1'-C2'	-6.36	101.24	107.60
83	A5	1607	A	O4'-C1'-C2'	-6.36	101.24	107.60
83	A5	1794	G	O4'-C1'-N9	6.36	118.04	108.50
34	AQ	45	GLU	CA-C-N	6.36	127.18	120.12
34	AQ	45	GLU	C-N-CA	6.36	127.18	120.12
36	B2	1178	A	O4'-C1'-C2'	6.36	112.16	105.80
64	CF	171	PRO	N-CA-C	6.36	125.57	112.47
83	A5	1543	C	N1-C1'-C2'	6.36	121.54	112.00
83	A5	2172	C	N1-C1'-C2'	6.36	121.54	112.00
8	AS	119	SER	CA-C-N	6.36	128.71	120.44
8	AS	119	SER	C-N-CA	6.36	128.71	120.44
28	AC	101	ALA	N-CA-C	6.36	119.75	112.57
83	A5	1990	G	O4'-C1'-C2'	-6.36	101.24	107.60
28	AC	40	SER	CA-C-N	6.36	133.68	121.54
28	AC	40	SER	C-N-CA	6.36	133.68	121.54
36	B2	963	G	O4'-C1'-N9	6.36	118.03	108.50
83	A5	893	U	O4'-C1'-C2'	-6.36	101.24	107.60
83	A5	2859	C	O4'-C1'-C2'	-6.36	101.24	107.60
83	A5	2926	G	C3'-C2'-C1'	-6.36	94.94	101.30
83	A5	3890	G	P-O3'-C3'	6.36	129.74	120.20
7	AM	38	LEU	N-CA-CB	6.36	120.78	110.42
32	AW	31	SER	CA-C-N	6.36	128.80	120.28
32	AW	31	SER	C-N-CA	6.36	128.80	120.28
36	B2	1599	U	N1-C1'-C2'	6.36	121.53	112.00
83	A5	677	G	C1'-O4'-C4'	-6.36	103.55	109.90
83	A5	1625	U	O4'-C1'-N1	6.36	118.03	108.50
83	A5	2675	U	C3'-C2'-C1'	6.36	107.66	101.30
36	B2	1606	A	O4'-C1'-C2'	6.35	113.95	107.60
83	A5	841	A	C3'-C2'-C1'	6.35	107.85	101.50
83	A5	749	U	O3'-P-O5'	-6.35	94.47	104.00
83	A5	3706	U	P-O3'-C3'	-6.35	110.67	120.20
81	CE	26	LEU	N-CA-C	6.35	117.87	111.07
27	AE	61	VAL	N-CA-CB	6.35	119.18	110.54
36	B2	1034	U	O4'-C1'-N1	6.35	118.02	108.50
36	B2	1147	U	C3'-C2'-C1'	-6.35	94.95	101.30
37	BC	30	G	O4'-C1'-N9	6.35	118.02	108.50
83	A5	1230	U	C5'-C4'-C3'	6.35	125.53	116.00
83	A5	3635	G	C2'-C3'-O3'	-6.35	104.18	113.70
43	CV	125	CYS	CB-CA-C	-6.35	100.06	110.85
36	B2	641	U	O4'-C1'-N1	6.35	118.02	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1473	U	O4'-C1'-N1	6.35	118.02	108.50
83	A5	1723	G	O4'-C1'-C2'	-6.35	99.45	105.80
83	A5	2132	A	P-O5'-C5'	6.35	130.42	120.90
83	A5	2496	A	N9-C1'-C2'	6.35	121.52	112.00
65	Cc	10	ALA	CA-C-N	6.34	133.66	121.54
65	Cc	10	ALA	C-N-CA	6.34	133.66	121.54
83	A5	2155	A	O3'-P-O5'	6.34	113.52	104.00
85	A7	2	C	N1-C1'-C2'	6.34	121.52	112.00
83	A5	2850	A	O4'-C1'-C2'	-6.34	101.26	107.60
36	B2	240	U	O4'-C1'-C2'	-6.34	101.26	107.60
64	CF	237	PHE	CA-CB-CG	6.34	120.14	113.80
67	Ce	107	ARG	CA-C-N	6.34	128.78	120.28
67	Ce	107	ARG	C-N-CA	6.34	128.78	120.28
83	A5	321	G	C4'-C3'-O3'	-6.34	103.49	113.00
83	A5	732	U	N1-C1'-C2'	-6.34	102.49	112.00
83	A5	2471	A	C2'-C3'-O3'	6.34	119.01	109.50
1	Az	81	VAL	N-CA-C	6.34	122.52	109.34
36	B2	657	A	O4'-C1'-C2'	-6.34	101.26	107.60
36	B2	906	C	N1-C1'-C2'	6.34	121.51	112.00
16	AA	68	ILE	CA-C-N	6.34	128.77	120.28
16	AA	68	ILE	C-N-CA	6.34	128.77	120.28
36	B2	1817	C	N1-C1'-C2'	6.34	121.51	112.00
31	AH	64	ILE	O-C-N	-6.34	113.88	121.10
64	CF	27	LYS	CA-C-N	6.34	133.64	121.54
64	CF	27	LYS	C-N-CA	6.34	133.64	121.54
83	A5	524	A	O4'-C1'-N9	6.34	118.00	108.50
83	A5	3572	G	C1'-O4'-C4'	-6.34	103.56	109.90
83	A5	3600	G	O4'-C1'-N9	6.34	118.01	108.50
83	A5	3825	U	O4'-C1'-C2'	-6.34	101.26	107.60
36	B2	1620	G	N9-C1'-C2'	6.33	121.50	112.00
63	CB	281	ASN	N-CA-CB	6.33	121.19	110.49
82	CG	141	VAL	N-CA-CB	6.33	117.43	110.53
83	A5	587	U	N1-C1'-C2'	6.33	121.50	112.00
83	A5	1174	G	N9-C1'-C2'	6.33	121.50	112.00
7	AM	40	HIS	CA-CB-CG	6.33	120.13	113.80
83	A5	967	C	P-O3'-C3'	6.33	129.70	120.20
83	A5	1289	C	O4'-C1'-N1	6.33	118.00	108.50
83	A5	2047	U	O4'-C1'-N1	6.33	118.00	108.50
83	A5	2729	U	C1'-O4'-C4'	6.33	116.23	109.90
83	A5	1719	G	C1'-O4'-C4'	-6.33	103.57	109.90
12	AR	44	LYS	CA-C-O	-6.33	111.49	120.16
16	AA	9	SER	CA-C-N	6.33	133.63	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AA	9	SER	C-N-CA	6.33	133.63	121.54
36	B2	15	U	O4'-C1'-C2'	-6.33	101.27	107.60
36	B2	1127	G	C1'-C2'-O2'	6.33	117.89	108.40
83	A5	531	C	N1-C1'-C2'	6.33	121.49	112.00
36	B2	217	A	C3'-C2'-C1'	6.33	107.62	101.30
68	Cf	19	LYS	N-CA-C	6.33	124.27	110.80
83	A5	3912	U	O4'-C1'-N1	6.33	117.99	108.50
23	AD	181	GLN	CA-C-O	-6.32	113.78	120.55
32	AW	106	THR	N-CA-CB	6.32	120.12	110.70
56	CX	266	ASP	CA-CB-CG	-6.32	106.28	112.60
74	CC	44	HIS	CA-C-N	6.32	128.75	120.28
74	CC	44	HIS	C-N-CA	6.32	128.75	120.28
83	A5	2205	G	N9-C1'-C2'	6.32	121.49	112.00
83	A5	3772	U	C1'-O4'-C4'	-6.32	103.58	109.90
83	A5	278	U	O4'-C1'-N1	6.32	117.98	108.50
83	A5	1544	U	C3'-C2'-C1'	6.32	107.82	101.50
83	A5	3517	U	N1-C1'-C2'	6.32	121.48	112.00
83	A5	3915	U	C2'-C3'-O3'	6.32	118.98	109.50
85	A7	80	U	N1-C1'-C2'	6.32	121.48	112.00
14	AT	68	SER	CA-C-O	-6.32	111.50	120.16
36	B2	824	U	O4'-C1'-N1	6.32	117.68	108.20
36	B2	1131	U	P-O3'-C3'	-6.32	110.72	120.20
82	CG	43	ASN	N-CA-CB	6.32	121.17	110.49
83	A5	541	A	P-O3'-C3'	-6.32	110.72	120.20
83	A5	735	U	O4'-C1'-N1	6.32	117.98	108.50
83	A5	1371	A	O3'-P-O5'	6.32	113.48	104.00
83	A5	3711	G	C1'-O4'-C4'	6.32	116.02	109.70
1	Az	203	MET	CA-C-N	6.32	133.80	121.41
1	Az	203	MET	C-N-CA	6.32	133.80	121.41
36	B2	1956	U	C2'-C3'-O3'	6.32	118.98	109.50
1	Az	100	LYS	N-CA-C	6.32	124.26	110.80
1	Az	322	LEU	N-CA-CB	6.32	119.17	110.01
33	AI	121	LEU	N-CA-C	6.32	119.67	108.24
36	B2	591	C	C4'-C3'-O3'	-6.32	103.52	113.00
36	B2	592	C	N1-C1'-C2'	6.32	121.48	112.00
83	A5	304	U	N1-C1'-C2'	-6.32	102.52	112.00
83	A5	3568	A	C1'-O4'-C4'	6.32	116.02	109.70
15	AB	111	ASP	CA-C-N	6.32	129.03	120.44
15	AB	111	ASP	C-N-CA	6.32	129.03	120.44
36	B2	21	U	O4'-C1'-C2'	-6.32	101.28	107.60
36	B2	1179	A	O4'-C1'-N9	6.32	117.67	108.20
36	B2	1849	U	C2'-C3'-O3'	6.32	118.97	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	CL	100	ARG	N-CA-C	-6.32	97.35	110.80
43	CV	42	VAL	N-CA-C	-6.32	99.02	108.12
83	A5	2592	A	O4'-C1'-C2'	-6.32	101.28	107.60
1	Az	748	VAL	N-CA-C	6.31	117.06	110.62
83	A5	596	A	O4'-C1'-N9	6.31	117.97	108.50
83	A5	2163	A	O4'-C1'-C2'	-6.31	99.49	105.80
83	A5	3237	U	O4'-C1'-C2'	-6.31	99.49	105.80
1	Az	330	LEU	CA-C-O	-6.31	111.51	120.16
61	Ch	57	VAL	CA-C-N	6.31	128.74	120.28
61	Ch	57	VAL	C-N-CA	6.31	128.74	120.28
81	CE	83	ASN	CA-C-N	6.31	133.60	121.54
81	CE	83	ASN	C-N-CA	6.31	133.60	121.54
83	A5	1293	A	O4'-C1'-C2'	-6.31	101.29	107.60
83	A5	2126	A	P-O5'-C5'	6.31	130.37	120.90
16	AA	10	LEU	N-CA-C	6.31	124.24	110.80
56	CX	161	ILE	N-CA-C	6.31	116.71	107.37
63	CB	200	HIS	CE1-NE2-CD2	-6.31	102.69	109.00
83	A5	2762	A	C1'-O4'-C4'	6.31	116.21	109.90
1	Az	307	VAL	CA-C-N	6.31	133.59	121.54
1	Az	307	VAL	C-N-CA	6.31	133.59	121.54
43	CV	13	LYS	CB-CA-C	-6.31	100.63	111.23
60	Cr	39	VAL	CA-C-O	-6.31	112.90	120.78
83	A5	801	G	C1'-O4'-C4'	-6.31	103.59	109.90
83	A5	1981	A	C3'-C2'-C1'	6.31	107.61	101.30
86	A8	8	A	O4'-C1'-C2'	-6.31	101.29	107.60
2	Ag	194	GLY	CA-C-N	6.31	133.58	121.54
2	Ag	194	GLY	C-N-CA	6.31	133.58	121.54
83	A5	1233	G	O4'-C1'-C2'	6.31	113.91	107.60
20	Aa	29	CYS	N-CA-CB	6.30	121.14	110.49
46	CN	178	TYR	N-CA-C	6.30	124.23	110.80
60	Cr	42	TYR	N-CA-C	-6.30	104.55	112.93
82	CG	101	PHE	CA-CB-CG	-6.30	107.50	113.80
83	A5	1296	U	C1'-O4'-C4'	-6.30	103.60	109.90
83	A5	210	C	N1-C1'-C2'	6.30	121.45	112.00
36	B2	489	C	N1-C1'-C2'	6.30	121.45	112.00
38	Cz	171	HIS	CE1-NE2-CD2	-6.30	102.70	109.00
62	Cb	17	HIS	CE1-NE2-CD2	-6.30	102.70	109.00
83	A5	246	C	O4'-C1'-C2'	-6.30	101.30	107.60
83	A5	309	C	C3'-C2'-C1'	6.30	107.60	101.30
83	A5	1931	C	O4'-C1'-C2'	-6.30	101.30	107.60
83	A5	3535	G	O4'-C1'-C2'	-6.30	101.30	107.60
25	Af	92	LYS	N-CA-C	6.30	118.22	109.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	AF	176	TRP	CB-CG-CD2	-6.30	117.98	126.80
83	A5	500	A	O4'-C1'-C2'	-6.30	101.30	107.60
12	AR	56	HIS	CE1-NE2-CD2	-6.30	102.70	109.00
83	A5	3955	U	P-O3'-C3'	-6.30	110.75	120.20
41	CO	77	ALA	CA-C-N	6.30	125.86	119.19
41	CO	77	ALA	C-N-CA	6.30	125.86	119.19
83	A5	770	C	C3'-C2'-C1'	6.30	107.60	101.30
83	A5	2882	A	C1'-C2'-O2'	6.30	117.85	108.40
83	A5	2935	U	O3'-P-O5'	6.30	113.45	104.00
83	A5	1453	U	O4'-C1'-N1	6.29	117.94	108.50
83	A5	1785	G	N9-C1'-C2'	-6.29	102.56	112.00
85	A7	103	A	N9-C1'-C2'	6.29	121.44	112.00
52	CS	93	MET	CG-SD-CE	-6.29	87.06	100.90
80	CH	103	THR	N-CA-CB	6.29	121.12	110.49
83	A5	1059	A	N9-C1'-C2'	-6.29	104.56	114.00
36	B2	1297	C	O4'-C1'-C2'	-6.29	101.31	107.60
83	A5	1023	C	O4'-C1'-C2'	-6.29	101.31	107.60
83	A5	2064	G	O4'-C1'-C2'	6.29	112.09	105.80
2	Ag	185	LEU	CA-C-N	6.29	129.03	120.54
2	Ag	185	LEU	C-N-CA	6.29	129.03	120.54
47	CI	93	PRO	CA-C-O	-6.29	116.54	121.38
83	A5	1640	U	C2'-C3'-O3'	6.29	123.14	113.70
1	Az	649	LEU	N-CA-C	-6.29	98.13	108.76
6	AX	87	ARG	N-CA-CB	6.29	121.12	110.49
36	B2	1346	C	P-O3'-C3'	6.29	129.63	120.20
36	B2	1385	U	C1'-O4'-C4'	-6.29	103.61	109.90
57	CY	24	HIS	CA-CB-CG	-6.29	107.51	113.80
65	Cc	63	TYR	CA-C-N	6.29	128.71	120.28
65	Cc	63	TYR	C-N-CA	6.29	128.71	120.28
82	CG	64	LYS	N-CA-C	6.29	124.19	110.80
83	A5	1040	C	O4'-C1'-C2'	-6.29	101.31	107.60
83	A5	1794	G	O4'-C1'-C2'	6.29	113.89	107.60
83	A5	1956	A	C1'-O4'-C4'	-6.29	103.61	109.90
15	AB	102	ASN	CA-CB-CG	6.29	118.89	112.60
36	B2	1173	A	C1'-O4'-C4'	-6.29	103.61	109.90
37	BC	31	C	N1-C1'-C2'	6.29	121.43	112.00
68	Cf	38	LYS	CA-C-N	6.29	133.28	121.97
68	Cf	38	LYS	C-N-CA	6.29	133.28	121.97
83	A5	1489	A	C3'-C2'-C1'	6.29	107.58	101.30
83	A5	1885	U	N1-C1'-C2'	6.29	121.43	112.00
83	A5	3434	A	O4'-C1'-C2'	-6.29	101.31	107.60
41	CO	149	TRP	CA-C-N	6.28	129.33	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	CO	149	TRP	C-N-CA	6.28	129.33	120.28
63	CB	292	HIS	N-CA-CB	6.28	121.11	110.49
81	CE	226	LEU	N-CA-C	6.28	118.93	111.33
36	B2	156	U	C4'-C3'-C2'	-6.28	96.32	102.60
36	B2	211	U	P-O3'-C3'	-6.28	110.78	120.20
82	CG	195	LEU	CA-C-N	6.28	126.91	119.94
82	CG	195	LEU	C-N-CA	6.28	126.91	119.94
83	A5	3590	C	N1-C1'-C2'	6.28	121.42	112.00
36	B2	465	A	C5'-C4'-C3'	6.28	125.42	116.00
36	B2	1726	A	O4'-C1'-C2'	-6.28	99.52	105.80
37	BC	64	G	O4'-C1'-N9	6.28	117.92	108.50
83	A5	774	A	O4'-C4'-C3'	-6.28	99.82	106.10
83	A5	1036	A	O4'-C1'-C2'	-6.28	101.32	107.60
83	A5	1235	U	C4'-C3'-O3'	-6.28	103.58	113.00
83	A5	1709	A	O4'-C1'-C2'	-6.28	99.52	105.80
83	A5	2472	A	O4'-C1'-N9	6.28	117.92	108.50
83	A5	3480	U	O4'-C1'-N1	6.28	117.92	108.50
83	A5	221	C	N1-C1'-C2'	6.28	121.42	112.00
83	A5	2712	U	O4'-C1'-C2'	-6.28	101.32	107.60
83	A5	3622	C	P-O5'-C5'	-6.28	111.48	120.90
83	A5	3762	G	C1'-O4'-C4'	-6.28	103.42	109.70
36	B2	203	G	N9-C1'-C2'	6.28	121.42	112.00
53	CT	63	ARG	CA-C-N	6.28	129.52	120.98
53	CT	63	ARG	C-N-CA	6.28	129.52	120.98
83	A5	3206	A	N9-C1'-C2'	6.28	121.42	112.00
86	A8	88	C	P-O5'-C5'	6.28	130.32	120.90
15	AB	162	SER	CA-C-N	6.28	128.94	120.65
15	AB	162	SER	C-N-CA	6.28	128.94	120.65
20	Aa	34	LYS	CB-CA-C	-6.28	103.03	111.88
28	AC	224	TYR	CB-CA-C	-6.28	100.18	110.85
83	A5	2657	A	C3'-C2'-C1'	6.28	107.78	101.50
83	A5	3518	A	O4'-C1'-C2'	-6.28	101.32	107.60
85	A7	95	U	O4'-C1'-N1	6.28	117.91	108.50
21	Ab	49	HIS	ND1-CE1-NE2	6.27	114.67	108.40
39	Cq	19	GLN	N-CA-C	6.27	118.12	111.28
83	A5	1251	C	N1-C1'-C2'	6.27	121.41	112.00
74	CC	309	ARG	N-CA-C	6.27	120.11	110.20
83	A5	180	U	O4'-C1'-C2'	-6.27	101.33	107.60
83	A5	871	A	O4'-C1'-N9	6.27	117.91	108.50
86	A8	14	G	C4'-C3'-O3'	-6.27	103.59	113.00
27	AE	6	LYS	CA-C-N	6.27	133.52	121.54
27	AE	6	LYS	C-N-CA	6.27	133.52	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	237	U	N1-C1'-C2'	6.27	121.41	112.00
83	A5	1452	A	C1'-O4'-C4'	6.27	116.17	109.90
17	AV	56	CYS	CA-C-N	6.27	128.03	120.13
17	AV	56	CYS	C-N-CA	6.27	128.03	120.13
23	AD	202	PRO	N-CA-C	6.27	125.39	112.47
29	AG	16	PHE	CA-CB-CG	-6.27	107.53	113.80
36	B2	523	A	P-O5'-C5'	-6.27	111.50	120.90
55	CU	224	LYS	CA-C-N	6.27	131.05	120.64
55	CU	224	LYS	C-N-CA	6.27	131.05	120.64
83	A5	3426	U	O4'-C1'-C2'	-6.27	101.33	107.60
83	A5	3540	G	C1'-O4'-C4'	6.27	115.97	109.70
6	AX	21	ARG	CA-C-N	6.27	128.59	120.44
6	AX	21	ARG	C-N-CA	6.27	128.59	120.44
36	B2	588	A	O4'-C1'-C2'	-6.27	99.53	105.80
36	B2	1519	U	O4'-C1'-N1	6.27	117.90	108.50
36	B2	1639	U	O3'-P-O5'	6.27	113.40	104.00
50	CR	146	LYS	CA-C-N	6.27	128.68	120.28
50	CR	146	LYS	C-N-CA	6.27	128.68	120.28
83	A5	3629	U	O4'-C1'-N1	6.27	117.90	108.50
83	A5	499	A	C3'-C2'-C1'	6.27	107.57	101.30
83	A5	1061	A	C4'-C3'-C2'	-6.27	96.33	102.60
83	A5	1893	C	O4'-C1'-C2'	-6.27	101.33	107.60
85	A7	32	U	N1-C1'-C2'	-6.27	104.60	114.00
36	B2	300	U	O4'-C1'-N1	6.26	117.90	108.50
36	B2	904	C	O4'-C1'-C2'	-6.26	101.34	107.60
36	B2	1387	A	C1'-O4'-C4'	6.26	116.17	109.90
40	CK	160	ILE	CA-C-N	6.26	128.67	120.28
40	CK	160	ILE	C-N-CA	6.26	128.67	120.28
58	CW	63	ILE	CA-C-N	6.26	133.50	121.54
58	CW	63	ILE	C-N-CA	6.26	133.50	121.54
83	A5	1478	A	O4'-C1'-C2'	6.26	112.06	105.80
1	Az	268	GLU	CA-C-N	6.26	132.97	121.70
1	Az	268	GLU	C-N-CA	6.26	132.97	121.70
7	AM	134	HIS	CB-CG-CD2	-6.26	123.06	131.20
36	B2	160	G	P-O3'-C3'	-6.26	110.81	120.20
83	A5	1639	U	O4'-C1'-N1	6.26	117.89	108.50
1	Az	43	ALA	CA-C-N	6.26	133.68	121.41
1	Az	43	ALA	C-N-CA	6.26	133.68	121.41
1	Az	691	TYR	N-CA-C	6.26	124.14	110.80
67	Ce	61	SER	CA-C-N	6.26	130.64	121.31
67	Ce	61	SER	C-N-CA	6.26	130.64	121.31
83	A5	1280	C	C3'-C2'-C1'	6.26	107.56	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	2016	U	C2'-C3'-O3'	-6.26	100.11	109.50
12	AR	41	ILE	N-CA-C	-6.26	100.76	107.77
83	A5	526	U	O4'-C1'-C2'	-6.26	101.34	107.60
83	A5	637	U	O4'-C1'-N1	6.26	117.89	108.50
83	A5	2895	U	O4'-C1'-C2'	-6.26	101.34	107.60
23	AD	201	GLY	CA-C-N	6.26	127.66	119.84
23	AD	201	GLY	C-N-CA	6.26	127.66	119.84
36	B2	138	U	N1-C1'-C2'	6.26	121.39	112.00
49	CQ	160	HIS	CE1-NE2-CD2	-6.26	102.74	109.00
68	Cf	67	HIS	ND1-CE1-NE2	6.26	114.66	108.40
83	A5	2121	U	P-O5'-C5'	6.26	130.29	120.90
36	B2	1001	G	C1'-C2'-O2'	-6.26	102.41	111.80
36	B2	1195	G	P-O3'-C3'	6.26	129.59	120.20
53	CT	158	ILE	CB-CA-C	6.26	119.81	112.68
67	Ce	73	PHE	N-CA-C	6.26	118.37	108.67
79	CJ	30	CYS	N-CA-CB	6.26	120.86	110.47
83	A5	3313	U	O4'-C1'-C2'	-6.26	101.34	107.60
83	A5	3531	C	C2'-C3'-O3'	6.26	118.88	109.50
83	A5	671	A	P-O3'-C3'	6.25	129.58	120.20
83	A5	1860	A	O4'-C1'-C2'	-6.25	101.34	107.60
36	B2	1074	G	O3'-P-O5'	-6.25	94.62	104.00
36	B2	1677	C	N1-C1'-C2'	6.25	121.38	112.00
36	B2	1690	G	C1'-O4'-C4'	-6.25	103.65	109.90
36	B2	1856	U	O4'-C1'-C2'	-6.25	101.35	107.60
83	A5	304	U	C5'-C4'-O4'	-6.25	100.42	109.80
83	A5	1764	G	O4'-C1'-N9	6.25	117.88	108.50
5	AO	25	GLU	N-CA-CB	6.25	121.05	110.49
36	B2	135	U	C5'-C4'-O4'	-6.25	99.72	109.10
36	B2	876	U	O4'-C1'-C2'	-6.25	101.35	107.60
36	B2	1728	G	P-O5'-C5'	-6.25	111.52	120.90
36	B2	1804	U	O5'-C5'-C4'	-6.25	102.12	111.50
36	B2	1829	C	N1-C1'-C2'	6.25	123.38	114.00
37	BC	36	A	O4'-C1'-C2'	-6.25	101.35	107.60
56	CX	266	ASP	CA-C-N	6.25	133.48	121.54
56	CX	266	ASP	C-N-CA	6.25	133.48	121.54
73	Cl	40	LYS	N-CA-C	-6.25	105.51	112.57
83	A5	2208	G	O4'-C1'-N9	6.25	117.88	108.50
85	A7	95	U	C1'-O4'-C4'	6.25	116.15	109.90
20	Aa	13	HIS	CE1-NE2-CD2	-6.25	102.75	109.00
36	B2	940	U	O3'-P-O5'	-6.25	94.63	104.00
36	B2	1943	G	O4'-C1'-C2'	6.25	113.85	107.60
83	A5	1734	G	P-O5'-C5'	-6.25	111.53	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	Ab	27	HIS	CA-C-N	6.25	126.58	119.83
21	Ab	27	HIS	C-N-CA	6.25	126.58	119.83
36	B2	237	U	P-O3'-C3'	6.25	129.57	120.20
38	Cz	27	GLY	CA-C-N	6.25	134.62	122.07
38	Cz	27	GLY	C-N-CA	6.25	134.62	122.07
83	A5	410	G	N9-C1'-C2'	6.25	121.37	112.00
83	A5	1938	C	N1-C1'-C2'	6.25	121.37	112.00
36	B2	835	A	N9-C1'-C2'	-6.24	102.64	112.00
44	CM	155	LYS	CA-C-N	6.24	132.94	121.70
44	CM	155	LYS	C-N-CA	6.24	132.94	121.70
46	CN	68	ARG	N-CA-CB	6.24	121.04	110.49
47	CI	181	TYR	CB-CG-CD2	6.24	130.16	120.80
83	A5	1800	U	O4'-C1'-C2'	-6.24	101.36	107.60
83	A5	2038	A	C3'-C2'-C1'	6.24	107.54	101.30
83	A5	3682	U	O4'-C1'-N1	6.24	117.86	108.50
83	A5	3752	G	N9-C1'-C2'	6.24	121.37	112.00
86	A8	6	U	N1-C1'-C2'	-6.24	102.64	112.00
36	B2	17	C	N1-C1'-C2'	6.24	121.36	112.00
36	B2	45	U	C3'-C2'-C1'	6.24	107.54	101.30
36	B2	1740	G	C3'-C2'-C1'	6.24	107.54	101.30
86	A8	20	C	O3'-P-O5'	6.24	113.36	104.00
16	AA	108	PHE	CA-CB-CG	-6.24	107.56	113.80
36	B2	1573	U	C4'-C3'-O3'	-6.24	103.64	113.00
57	CY	11	ARG	CA-C-N	6.24	129.15	120.29
57	CY	11	ARG	C-N-CA	6.24	129.15	120.29
83	A5	1195	U	P-O3'-C3'	6.24	129.56	120.20
1	Az	695	LEU	N-CA-C	6.24	119.25	109.96
36	B2	529	C	O4'-C1'-C2'	-6.24	101.36	107.60
36	B2	573	C	O4'-C1'-C2'	-6.24	99.56	105.80
36	B2	1356	U	O4'-C1'-N1	6.24	117.56	108.20
42	CL	184	LYS	CA-C-N	6.24	128.64	120.28
42	CL	184	LYS	C-N-CA	6.24	128.64	120.28
67	Ce	56	ASN	N-CA-C	-6.24	99.23	109.40
83	A5	245	G	O4'-C1'-N9	6.24	117.86	108.50
83	A5	463	C	P-O3'-C3'	6.24	129.56	120.20
83	A5	1872	A	N9-C1'-C2'	6.24	123.36	114.00
83	A5	2030	U	C1'-C2'-O2'	6.24	117.76	108.40
83	A5	3293	G	N9-C1'-C2'	-6.24	104.64	114.00
83	A5	3781	U	N1-C1'-C2'	-6.24	102.64	112.00
41	CO	17	LEU	CA-C-N	6.24	128.64	120.28
41	CO	17	LEU	C-N-CA	6.24	128.64	120.28
52	CS	117	HIS	CE1-NE2-CD2	-6.24	102.76	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	537	A	O4'-C1'-C2'	-6.24	101.36	107.60
83	A5	1301	A	O4'-C4'-C3'	-6.24	97.76	104.00
36	B2	1380	U	O4'-C1'-C2'	-6.24	101.36	107.60
83	A5	291	U	O4'-C1'-C2'	-6.24	101.36	107.60
83	A5	2620	C	C3'-C2'-C1'	6.24	107.53	101.30
83	A5	3319	A	O5'-C5'-C4'	-6.24	102.15	111.50
36	B2	344	C	C4'-C3'-O3'	-6.23	103.65	113.00
61	Ch	79	LYS	CA-C-N	6.23	127.63	119.84
61	Ch	79	LYS	C-N-CA	6.23	127.63	119.84
36	B2	1625	G	N9-C1'-C2'	6.23	121.35	112.00
41	CO	112	SER	N-CA-C	6.23	123.58	109.81
83	A5	533	A	C1'-O4'-C4'	-6.23	103.67	109.90
83	A5	1093	C	O3'-P-O5'	-6.23	94.65	104.00
83	A5	1324	C	N1-C1'-C2'	6.23	123.35	114.00
83	A5	2117	A	O4'-C1'-C2'	-6.23	101.37	107.60
15	AB	230	LYS	CA-C-N	6.23	128.63	120.28
15	AB	230	LYS	C-N-CA	6.23	128.63	120.28
36	B2	580	C	O4'-C1'-C2'	-6.23	101.37	107.60
36	B2	1297	C	N1-C1'-C2'	6.23	121.35	112.00
45	Ca	119	PRO	CA-C-N	6.23	130.66	120.63
45	Ca	119	PRO	C-N-CA	6.23	130.66	120.63
83	A5	3664	A	N9-C1'-C2'	6.23	121.34	112.00
83	A5	3918	A	O4'-C1'-C2'	6.23	113.83	107.60
83	A5	311	C	O4'-C1'-C2'	-6.23	101.37	107.60
83	A5	1324	C	C3'-C2'-C1'	6.23	107.73	101.50
83	A5	2996	U	P-O3'-C3'	6.23	129.54	120.20
29	AG	60	GLY	N-CA-C	6.23	127.94	113.18
36	B2	158	U	O4'-C1'-C2'	-6.23	101.37	107.60
48	CD	189	SER	CB-CA-C	6.23	121.93	110.10
83	A5	1478	A	N9-C1'-C2'	6.23	123.34	114.00
83	A5	1782	C	N1-C1'-C2'	6.23	121.34	112.00
83	A5	2802	A	O4'-C1'-C2'	-6.23	101.37	107.60
83	A5	3664	A	C5'-C4'-C3'	-6.23	106.66	116.00
83	A5	3774	U	N1-C1'-C2'	6.23	121.34	112.00
6	AX	39	ASN	CA-C-N	6.22	126.13	119.28
6	AX	39	ASN	C-N-CA	6.22	126.13	119.28
83	A5	547	U	O4'-C1'-C2'	-6.22	101.38	107.60
83	A5	1294	U	C1'-O4'-C4'	6.22	115.92	109.70
83	A5	3692	G	C1'-O4'-C4'	-6.22	103.67	109.90
83	A5	3830	A	O4'-C1'-C2'	-6.22	101.38	107.60
85	A7	25	A	P-O5'-C5'	-6.22	111.56	120.90
40	CK	151	VAL	CA-C-N	6.22	128.99	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	CK	151	VAL	C-N-CA	6.22	128.99	120.46
83	A5	586	C	N1-C1'-C2'	6.22	121.33	112.00
83	A5	1461	G	O4'-C1'-C2'	6.22	113.82	107.60
83	A5	2913	G	C3'-C2'-C1'	-6.22	95.08	101.30
1	Az	283	ILE	CA-C-N	6.22	128.61	120.28
1	Az	283	ILE	C-N-CA	6.22	128.61	120.28
1	Az	583	ASN	CA-CB-CG	-6.22	106.38	112.60
36	B2	889	A	O4'-C1'-C2'	-6.22	101.38	107.60
83	A5	465	U	O4'-C1'-N1	6.22	117.83	108.50
83	A5	3779	U	P-O5'-C5'	6.22	130.23	120.90
83	A5	2872	U	C3'-C2'-C1'	6.22	107.52	101.30
83	A5	3690	A	C3'-C2'-C1'	6.22	107.52	101.30
36	B2	1766	G	O4'-C1'-C2'	-6.22	101.38	107.60
68	Cf	109	GLU	N-CA-C	-6.22	98.15	108.34
83	A5	1159	C	P-O3'-C3'	6.22	129.53	120.20
3	AU	41	LEU	CA-C-N	6.21	128.97	120.46
3	AU	41	LEU	C-N-CA	6.21	128.97	120.46
23	AD	167	ASN	CA-CB-CG	-6.21	106.39	112.60
70	Ci	10	GLY	CA-C-N	6.21	133.41	121.54
70	Ci	10	GLY	C-N-CA	6.21	133.41	121.54
83	A5	707	C	N1-C1'-C2'	6.21	121.32	112.00
83	A5	1356	G	C3'-C2'-C1'	6.21	107.51	101.30
83	A5	3676	C	C1'-O4'-C4'	6.21	116.11	109.90
15	AB	112	LYS	CA-C-N	6.21	128.51	120.44
15	AB	112	LYS	C-N-CA	6.21	128.51	120.44
36	B2	329	U	O4'-C1'-N1	6.21	117.82	108.50
36	B2	713	A	O4'-C1'-C2'	-6.21	101.39	107.60
36	B2	850	U	C4'-C3'-O3'	6.21	122.32	113.00
36	B2	1318	A	C3'-C2'-C1'	6.21	107.51	101.30
36	B2	1951	A	O4'-C1'-N9	6.21	117.82	108.50
83	A5	1208	U	O4'-C1'-C2'	-6.21	101.39	107.60
83	A5	1272	G	C4'-C3'-O3'	-6.21	103.68	113.00
83	A5	2052	G	N9-C1'-C2'	6.21	121.32	112.00
17	AV	24	ILE	CB-CA-C	6.21	118.12	111.35
36	B2	1393	C	C3'-C2'-C1'	6.21	107.71	101.50
74	CC	193	ARG	CA-C-N	6.21	130.54	120.60
74	CC	193	ARG	C-N-CA	6.21	130.54	120.60
77	Cp	79	VAL	CA-C-N	6.21	129.11	120.29
77	Cp	79	VAL	C-N-CA	6.21	129.11	120.29
83	A5	3375	U	O4'-C1'-C2'	-6.21	101.39	107.60
1	Az	586	ASN	N-CA-C	6.21	118.56	108.63
36	B2	118	C	N1-C1'-C2'	6.21	121.31	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	326	U	P-O5'-C5'	-6.21	111.59	120.90
83	A5	1062	C	C3'-C2'-C1'	6.21	107.51	101.30
36	B2	622	C	C3'-C2'-C1'	6.21	107.51	101.30
36	B2	1687	C	N1-C1'-C2'	6.21	121.31	112.00
83	A5	1372	A	O4'-C1'-C2'	-6.21	101.39	107.60
83	A5	1744	U	C3'-C2'-C1'	6.21	107.51	101.30
83	A5	1984	U	N1-C1'-C2'	6.21	121.31	112.00
83	A5	2576	A	O4'-C1'-C2'	-6.21	101.39	107.60
44	CM	157	LYS	CA-C-N	6.21	133.57	121.41
44	CM	157	LYS	C-N-CA	6.21	133.57	121.41
63	CB	237	THR	CA-C-N	6.21	131.13	121.26
63	CB	237	THR	C-N-CA	6.21	131.13	121.26
20	Aa	30	VAL	CA-C-N	6.20	126.12	119.85
20	Aa	30	VAL	C-N-CA	6.20	126.12	119.85
83	A5	275	U	O4'-C1'-C2'	-6.20	101.40	107.60
83	A5	1891	U	C1'-O4'-C4'	6.20	115.90	109.70
83	A5	3554	G	P-O3'-C3'	-6.20	110.89	120.20
1	Az	462	ASP	N-CA-C	6.20	118.04	111.28
36	B2	1871	G	C3'-C2'-C1'	6.20	107.50	101.30
46	CN	138	HIS	CA-CB-CG	-6.20	107.60	113.80
83	A5	3208	A	O4'-C4'-C3'	-6.20	99.90	106.10
36	B2	527	C	N1-C1'-C2'	6.20	121.30	112.00
83	A5	1292	G	C5'-C4'-C3'	6.20	125.30	116.00
83	A5	1522	G	C2'-C3'-O3'	6.20	118.80	109.50
83	A5	1721	C	P-O3'-C3'	6.20	129.50	120.20
83	A5	3384	C	N1-C1'-C2'	6.20	121.30	112.00
35	Ah	113	SER	CA-C-N	6.20	133.38	121.54
35	Ah	113	SER	C-N-CA	6.20	133.38	121.54
83	A5	1156	U	N1-C1'-C2'	6.20	121.30	112.00
83	A5	3445	C	O4'-C1'-C2'	-6.20	101.40	107.60
36	B2	304	A	O4'-C1'-C2'	-6.20	101.40	107.60
83	A5	206	C	N1-C1'-C2'	6.20	121.30	112.00
83	A5	3150	G	O4'-C1'-N9	6.20	117.50	108.20
62	Cb	14	LYS	CA-C-N	6.20	128.49	120.44
62	Cb	14	LYS	C-N-CA	6.20	128.49	120.44
83	A5	1199	C	C3'-C2'-C1'	6.20	107.50	101.30
83	A5	2717	C	C3'-C2'-C1'	6.20	107.69	101.50
36	B2	914	C	O4'-C1'-C2'	-6.19	99.61	105.80
36	B2	1119	G	N9-C1'-C2'	6.19	121.29	112.00
69	Cg	82	HIS	CA-C-N	6.19	128.58	120.28
69	Cg	82	HIS	C-N-CA	6.19	128.58	120.28
77	Cp	24	LYS	CA-C-N	6.19	128.58	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
77	Cp	24	LYS	C-N-CA	6.19	128.58	120.28
83	A5	963	G	O4'-C1'-N9	6.19	117.79	108.50
64	CF	90	ALA	N-CA-C	6.19	119.59	110.30
83	A5	3117	A	P-O5'-C5'	-6.19	111.61	120.90
12	AR	25	THR	CA-C-N	6.19	130.50	120.60
12	AR	25	THR	C-N-CA	6.19	130.50	120.60
13	AP	56	PRO	CA-C-N	6.19	129.08	120.29
13	AP	56	PRO	C-N-CA	6.19	129.08	120.29
16	AA	64	ALA	CA-C-N	6.19	128.88	120.77
16	AA	64	ALA	C-N-CA	6.19	128.88	120.77
21	Ab	51	GLN	N-CA-CB	6.19	121.23	114.17
36	B2	703	A	O4'-C1'-N9	6.19	117.78	108.50
83	A5	283	A	O4'-C1'-N9	6.19	117.79	108.50
83	A5	1914	U	O4'-C1'-N1	6.19	117.78	108.50
83	A5	3486	U	O4'-C1'-C2'	-6.19	101.41	107.60
1	Az	459	VAL	O-C-N	-6.19	116.19	123.00
37	BC	10	G	O4'-C1'-C2'	-6.19	101.41	107.60
58	CW	33	ASP	N-CA-CB	6.19	120.95	110.49
69	Cg	58	ARG	CA-C-O	-6.19	114.21	119.59
83	A5	869	A	C3'-C2'-C1'	-6.19	95.11	101.30
83	A5	3806	C	C3'-C2'-C1'	6.19	107.69	101.50
1	Az	499	ASN	CA-C-O	-6.19	111.69	120.16
36	B2	1532	C	O4'-C1'-C2'	-6.19	101.41	107.60
50	CR	61	TYR	CB-CA-C	-6.19	100.33	110.85
83	A5	3106	G	O4'-C1'-N9	6.19	117.78	108.50
83	A5	3151	G	C1'-O4'-C4'	-6.19	103.71	109.90
83	A5	3166	C	N1-C1'-C2'	6.19	121.28	112.00
86	A8	22	C	P-O5'-C5'	6.19	130.18	120.90
1	Az	389	PRO	N-CA-C	6.18	125.21	112.47
3	AU	106	ILE	CA-C-N	6.18	132.83	121.70
3	AU	106	ILE	C-N-CA	6.18	132.83	121.70
1	Az	55	ARG	N-CA-C	6.18	119.58	110.30
36	B2	801	C	P-O5'-C5'	-6.18	110.73	120.00
36	B2	982	G	O4'-C1'-N9	6.18	117.77	108.50
45	Ca	122	PRO	CA-C-O	-6.18	114.61	121.23
51	CA	20	VAL	CA-C-N	6.18	128.56	120.28
51	CA	20	VAL	C-N-CA	6.18	128.56	120.28
83	A5	2707	C	O4'-C1'-C2'	-6.18	101.42	107.60
83	A5	134	G	C4'-C3'-O3'	-6.18	103.73	113.00
83	A5	1037	A	O4'-C1'-C2'	-6.18	101.42	107.60
83	A5	3178	G	C1'-O4'-C4'	-6.18	103.72	109.90
36	B2	1452	U	C1'-O4'-C4'	6.18	116.08	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	875	G	C1'-O4'-C4'	-6.18	103.72	109.90
83	A5	1035	G	O4'-C1'-N9	6.18	117.47	108.20
83	A5	1226	G	O3'-P-O5'	-6.18	94.73	104.00
83	A5	1337	U	O4'-C1'-N1	6.18	117.77	108.50
83	A5	33	C	O4'-C1'-C2'	-6.18	101.42	107.60
83	A5	199	U	O4'-C1'-N1	6.18	117.77	108.50
1	Az	280	LEU	N-CA-CB	6.18	120.47	110.40
1	Az	322	LEU	CB-CA-C	-6.18	101.18	110.88
18	AY	95	HIS	CA-C-N	6.18	133.51	121.41
18	AY	95	HIS	C-N-CA	6.18	133.51	121.41
24	Ae	118	VAL	CA-C-N	6.18	133.34	121.54
24	Ae	118	VAL	C-N-CA	6.18	133.34	121.54
36	B2	1986	A	N9-C1'-C2'	-6.18	104.74	114.00
83	A5	12	C	C1'-O4'-C4'	-6.18	103.72	109.90
83	A5	1755	U	O4'-C1'-N1	6.18	117.76	108.50
83	A5	1923	A	C5'-C4'-C3'	-6.18	106.73	116.00
83	A5	3771	A	O5'-C5'-C4'	-6.18	102.23	111.50
29	AG	223	ALA	CA-C-N	6.17	128.56	120.28
29	AG	223	ALA	C-N-CA	6.17	128.56	120.28
83	A5	1127	C	N1-C1'-C2'	6.17	121.26	112.00
83	A5	2677	A	O4'-C1'-C2'	-6.17	101.42	107.60
83	A5	3429	A	O4'-C1'-C2'	-6.17	101.42	107.60
83	A5	1995	U	O4'-C1'-C2'	-6.17	101.43	107.60
83	A5	3251	C	N1-C1'-C2'	6.17	121.26	112.00
85	A7	51	A	O4'-C1'-C2'	-6.17	101.43	107.60
1	Az	408	ALA	N-CA-C	6.17	119.56	110.30
17	AV	41	PRO	N-CA-C	6.17	125.18	112.47
36	B2	251	G	P-O3'-C3'	6.17	129.46	120.20
83	A5	1374	C	N1-C1'-C2'	6.17	121.26	112.00
83	A5	3769	C	O4'-C1'-C2'	-6.17	101.43	107.60
85	A7	72	U	O3'-P-O5'	6.17	113.26	104.00
31	AH	96	ARG	CA-C-N	6.17	133.61	121.58
31	AH	96	ARG	C-N-CA	6.17	133.61	121.58
36	B2	564	A	O4'-C1'-C2'	-6.17	101.43	107.60
48	CD	40	ASP	N-CA-CB	6.17	119.13	109.69
4	AK	83	LEU	CA-C-N	6.17	124.10	119.66
4	AK	83	LEU	C-N-CA	6.17	124.10	119.66
29	AG	214	LEU	N-CA-CB	6.17	118.95	110.01
36	B2	39	A	O4'-C1'-N9	6.17	117.45	108.20
63	CB	295	ASP	N-CA-C	-6.17	107.59	114.62
83	A5	3837	A	O4'-C1'-N9	6.17	117.75	108.50
83	A5	3870	A	C4'-C3'-C2'	-6.17	96.43	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3878	U	P-O5'-C5'	-6.17	111.65	120.90
84	A9	4	U	O4'-C1'-C2'	-6.17	101.43	107.60
36	B2	1842	U	O4'-C1'-N1	6.17	117.75	108.50
86	A8	99	U	C1'-C2'-O2'	6.17	117.65	108.40
40	CK	88	PRO	O-C-N	-6.16	114.19	121.46
81	CE	224	LYS	N-CA-C	-6.16	105.76	113.28
83	A5	529	U	O4'-C1'-C2'	-6.16	101.44	107.60
83	A5	696	U	O4'-C1'-N1	6.16	117.75	108.50
83	A5	1522	G	C3'-C2'-C1'	6.16	107.66	101.50
83	A5	2742	G	O4'-C1'-N9	6.16	117.44	108.20
83	A5	3527	A	P-O3'-C3'	6.16	129.44	120.20
26	AJ	126	HIS	CA-CB-CG	6.16	119.96	113.80
31	AH	170	THR	CA-C-N	6.16	129.38	120.38
31	AH	170	THR	C-N-CA	6.16	129.38	120.38
36	B2	1547	U	P-O5'-C5'	6.16	130.14	120.90
47	CI	93	PRO	N-CA-CB	-6.16	98.68	102.81
59	CZ	79	HIS	CE1-NE2-CD2	-6.16	102.84	109.00
83	A5	119	G	O4'-C1'-C2'	-6.16	101.44	107.60
83	A5	2043	G	O3'-P-O5'	-6.16	94.76	104.00
83	A5	2851	U	O4'-C1'-C2'	-6.16	101.44	107.60
83	A5	3273	C	C3'-C2'-C1'	6.16	107.46	101.30
83	A5	3684	A	C3'-C2'-C1'	6.16	107.46	101.30
8	AS	59	CYS	CA-C-N	6.16	133.30	121.54
8	AS	59	CYS	C-N-CA	6.16	133.30	121.54
9	Ad	27	ARG	N-CA-C	6.16	118.07	111.36
23	AD	115	LEU	N-CA-CB	6.16	120.90	110.49
44	CM	16	SER	N-CA-C	6.16	117.99	111.28
62	Cb	50	ASN	CA-C-N	6.16	133.30	121.54
62	Cb	50	ASN	C-N-CA	6.16	133.30	121.54
83	A5	178	U	O4'-C1'-C2'	-6.16	101.44	107.60
83	A5	395	A	O4'-C1'-C2'	-6.16	101.44	107.60
83	A5	1373	A	P-O3'-C3'	-6.16	110.96	120.20
83	A5	2212	A	N9-C1'-C2'	6.16	121.24	112.00
86	A8	89	A	O4'-C1'-C2'	-6.16	101.44	107.60
36	B2	698	U	P-O5'-C5'	6.16	139.37	120.90
83	A5	1477	G	P-O3'-C3'	6.16	129.44	120.20
83	A5	1605	U	O4'-C1'-N1	6.16	117.73	108.50
83	A5	2094	U	O5'-C5'-C4'	-6.16	102.47	111.70
83	A5	2518	A	P-O3'-C3'	-6.16	110.97	120.20
83	A5	3205	G	O4'-C1'-C2'	-6.16	101.44	107.60
86	A8	15	G	O4'-C1'-N9	6.16	117.43	108.20
80	CH	53	LEU	N-CA-C	-6.15	99.37	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	58	G	O4'-C1'-N9	6.15	117.73	108.50
83	A5	1688	A	O4'-C1'-N9	6.15	117.43	108.20
83	A5	3475	U	C4'-C3'-O3'	-6.15	103.77	113.00
83	A5	1556	C	C3'-C2'-C1'	6.15	107.45	101.30
83	A5	2217	A	C1'-C2'-O2'	6.15	117.63	108.40
83	A5	33	C	C3'-C2'-C1'	6.15	107.45	101.30
83	A5	646	G	O4'-C1'-N9	6.15	117.73	108.50
83	A5	2589	U	O4'-C1'-N1	6.15	117.73	108.50
68	Cf	41	ALA	N-CA-C	6.15	128.22	111.00
2	Ag	90	LEU	N-CA-C	-6.15	99.17	109.07
3	AU	87	HIS	ND1-CE1-NE2	6.15	114.55	108.40
36	B2	152	U	C1'-O4'-C4'	6.15	116.05	109.90
36	B2	1610	A	O4'-C1'-C2'	-6.15	101.45	107.60
83	A5	115	U	O4'-C1'-C2'	-6.15	101.45	107.60
83	A5	672	U	O3'-P-O5'	-6.15	94.78	104.00
83	A5	1177	U	O4'-C1'-C2'	-6.15	101.45	107.60
83	A5	864	G	O4'-C1'-C2'	-6.15	101.45	107.60
83	A5	1183	U	P-O5'-C5'	6.15	130.12	120.90
36	B2	776	A	O3'-P-O5'	6.14	113.22	104.00
42	CL	49	PRO	CA-C-N	6.14	133.28	121.54
42	CL	49	PRO	C-N-CA	6.14	133.28	121.54
74	CC	391	LYS	CA-C-N	6.14	133.03	121.97
74	CC	391	LYS	C-N-CA	6.14	133.03	121.97
82	CG	33	VAL	CA-C-N	6.14	133.28	121.54
82	CG	33	VAL	C-N-CA	6.14	133.28	121.54
83	A5	476	U	O4'-C1'-C2'	-6.14	101.45	107.60
2	Ag	233	HIS	CE1-NE2-CD2	-6.14	102.86	109.00
83	A5	3316	U	N1-C1'-C2'	6.14	121.21	112.00
11	AL	112	PRO	N-CA-C	-6.14	107.61	114.92
83	A5	321	G	P-O3'-C3'	6.14	129.41	120.20
83	A5	764	A	O4'-C1'-C2'	-6.14	101.46	107.60
83	A5	2004	G	O3'-P-O5'	-6.14	94.79	104.00
20	Aa	58	ILE	CB-CA-C	-6.14	101.22	111.29
36	B2	75	U	N1-C1'-C2'	-6.14	102.79	112.00
83	A5	1292	G	C1'-O4'-C4'	6.14	116.04	109.90
83	A5	2586	A	P-O5'-C5'	-6.14	111.69	120.90
83	A5	2680	G	C1'-O4'-C4'	-6.14	103.76	109.90
36	B2	1622	U	P-O3'-C3'	6.14	129.41	120.20
59	CZ	114	ARG	N-CA-CB	6.14	118.97	110.07
83	A5	673	U	O4'-C1'-C2'	-6.14	101.46	107.60
41	CO	63	ARG	CB-CA-C	-6.14	101.75	110.34
83	A5	301	U	C1'-C2'-O2'	6.14	117.61	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	962	U	O4'-C1'-C2'	-6.14	101.46	107.60
83	A5	3013	C	C3'-C2'-C1'	6.14	107.44	101.30
25	Af	94	LYS	N-CA-C	6.13	118.60	108.48
36	B2	540	U	O4'-C1'-C2'	-6.13	101.47	107.60
36	B2	1436	G	C4'-C3'-O3'	6.13	122.20	113.00
38	Cz	171	HIS	CG-CD2-NE2	6.13	113.33	107.20
51	CA	215	ASN	N-CA-C	-6.13	104.67	111.36
81	CE	127	THR	N-CA-C	-6.13	99.72	109.23
83	A5	1697	U	O4'-C1'-N1	6.13	117.40	108.20
83	A5	2257	C	N1-C1'-C2'	6.13	121.20	112.00
83	A5	3528	A	O4'-C1'-C2'	-6.13	101.47	107.60
36	B2	1184	U	C3'-C2'-C1'	6.13	107.43	101.30
3	AU	109	GLU	CA-C-O	-6.13	111.76	120.16
5	AO	44	VAL	N-CA-CB	6.13	117.40	110.72
83	A5	167	A	O4'-C1'-C2'	-6.13	101.47	107.60
83	A5	371	G	O4'-C1'-C2'	-6.13	99.67	105.80
83	A5	454	C	P-O3'-C3'	6.13	129.40	120.20
83	A5	1520	U	N1-C1'-C2'	-6.13	104.80	114.00
83	A5	2680	G	N9-C1'-C2'	6.13	121.20	112.00
83	A5	3211	A	O4'-C1'-C2'	6.13	113.73	107.60
25	Af	123	GLY	CA-C-N	6.13	133.24	121.54
25	Af	123	GLY	C-N-CA	6.13	133.24	121.54
63	CB	360	LEU	N-CA-C	6.13	119.49	112.57
81	CE	169	ARG	N-CA-CB	6.13	119.06	109.69
83	A5	3725	U	O4'-C1'-C2'	-6.13	101.47	107.60
83	A5	211	U	C5'-C4'-C3'	6.12	125.19	116.00
83	A5	3703	C	N1-C1'-C2'	6.12	121.19	112.00
36	B2	1028	A	C3'-C2'-C1'	6.12	107.42	101.30
83	A5	117	C	C5'-C4'-C3'	-6.12	106.81	116.00
83	A5	405	A	O4'-C1'-C2'	-6.12	101.48	107.60
83	A5	653	U	O4'-C1'-C2'	-6.12	101.48	107.60
36	B2	988	G	O4'-C1'-C2'	6.12	113.72	107.60
36	B2	1582	C	P-O3'-C3'	6.12	129.38	120.20
42	CL	151	GLY	N-CA-C	6.12	124.83	112.34
47	CI	195	CYS	N-CA-C	-6.12	103.97	112.30
83	A5	325	A	O4'-C1'-C2'	-6.12	101.48	107.60
83	A5	1130	U	N1-C1'-C2'	6.12	121.18	112.00
17	AV	12	TYR	N-CA-C	6.12	118.60	108.99
36	B2	985	A	C2'-C3'-O3'	-6.12	100.32	109.50
83	A5	329	C	C3'-C2'-C1'	6.12	107.42	101.30
36	B2	1654	G	O4'-C1'-N9	6.12	117.68	108.50
83	A5	919	G	O4'-C1'-N9	6.12	117.68	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1123	C	O4'-C1'-C2'	-6.12	99.68	105.80
83	A5	2758	U	O4'-C1'-N1	6.12	117.68	108.50
83	A5	3168	A	N9-C1'-C2'	6.12	121.18	112.00
36	B2	247	G	N9-C1'-C2'	6.12	121.17	112.00
36	B2	560	G	O4'-C1'-N9	6.12	117.68	108.50
36	B2	641	U	O4'-C1'-C2'	-6.12	101.48	107.60
83	A5	3770	A	O3'-P-O5'	6.12	113.17	104.00
18	AY	40	GLU	CA-C-N	6.11	128.84	120.46
18	AY	40	GLU	C-N-CA	6.11	128.84	120.46
49	CQ	40	ASN	CA-C-N	6.11	133.22	121.54
49	CQ	40	ASN	C-N-CA	6.11	133.22	121.54
83	A5	332	U	O4'-C1'-N1	6.11	117.67	108.50
83	A5	1084	A	C1'-O4'-C4'	6.11	115.81	109.70
83	A5	1108	G	O4'-C1'-N9	6.11	117.37	108.20
83	A5	2129	C	P-O5'-C5'	6.11	130.07	120.90
83	A5	3595	U	O4'-C1'-C2'	-6.11	101.49	107.60
30	AF	100	LEU	CB-CA-C	-6.11	101.24	110.90
74	CC	206	ALA	CA-C-N	6.11	133.21	121.54
74	CC	206	ALA	C-N-CA	6.11	133.21	121.54
16	AA	67	ALA	N-CA-C	6.11	123.82	110.80
36	B2	213	G	C3'-C2'-C1'	6.11	107.41	101.30
39	Cq	83	ARG	O-C-N	-6.11	116.25	123.22
78	Co	30	LYS	N-CA-C	6.11	123.81	110.80
83	A5	2014	C	N1-C1'-C2'	6.11	121.17	112.00
83	A5	2837	A	C1'-O4'-C4'	-6.11	103.79	109.90
27	AE	36	HIS	CA-C-N	6.11	129.38	120.71
27	AE	36	HIS	C-N-CA	6.11	129.38	120.71
83	A5	2907	U	N1-C1'-C2'	-6.11	104.84	114.00
83	A5	3015	A	C1'-O4'-C4'	6.11	116.01	109.90
83	A5	3641	U	O4'-C1'-N1	6.11	117.66	108.50
19	AZ	68	THR	CA-C-O	-6.11	114.46	120.26
36	B2	460	C	O4'-C1'-C2'	-6.11	99.69	105.80
74	CC	289	ASN	CA-C-N	6.11	133.20	121.54
74	CC	289	ASN	C-N-CA	6.11	133.20	121.54
83	A5	662	A	N9-C1'-C2'	-6.11	104.84	114.00
39	Cq	60	MET	N-CA-C	-6.10	105.83	113.28
40	CK	62	LEU	N-CA-CB	6.10	119.82	109.87
48	CD	46	THR	N-CA-CB	6.10	119.96	110.01
36	B2	157	C	N1-C1'-C2'	6.10	121.15	112.00
36	B2	700	U	P-O3'-C3'	6.10	129.35	120.20
27	AE	136	VAL	CA-C-O	-6.10	111.77	119.95
83	A5	2520	U	O4'-C1'-C2'	-6.10	101.50	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	2685	G	C1'-O4'-C4'	-6.10	103.60	109.70
36	B2	155	U	O4'-C1'-N1	6.10	117.65	108.50
36	B2	509	C	N1-C1'-C2'	6.10	121.15	112.00
36	B2	1447	G	C4'-C3'-C2'	-6.10	96.50	102.60
83	A5	2078	C	C3'-C2'-C1'	6.10	107.40	101.30
83	A5	2141	A	N9-C1'-C2'	-6.10	102.85	112.00
83	A5	2880	A	C1'-O4'-C4'	6.10	115.80	109.70
83	A5	3800	G	C4'-C3'-O3'	-6.10	103.85	113.00
36	B2	11	A	C1'-O4'-C4'	6.10	116.00	109.90
83	A5	3920	C	C3'-C2'-C1'	6.10	107.40	101.30
86	A8	87	A	O4'-C1'-C2'	-6.10	101.50	107.60
83	A5	3387	C	C3'-C2'-C1'	6.10	107.40	101.30
8	AS	89	ASP	O-C-N	-6.09	114.83	122.20
28	AC	262	ARG	N-CA-C	6.09	119.20	110.24
58	CW	17	HIS	CE1-NE2-CD2	-6.09	102.91	109.00
79	CJ	102	GLU	CA-C-O	-6.09	113.75	120.33
83	A5	623	C	N1-C1'-C2'	6.09	121.14	112.00
83	A5	1174	G	C1'-O4'-C4'	-6.09	103.81	109.90
83	A5	2152	C	C1'-C2'-O2'	6.09	117.54	108.40
83	A5	2646	U	O4'-C1'-C2'	-6.09	101.50	107.60
83	A5	2768	A	C3'-C2'-C1'	6.09	107.39	101.30
83	A5	3937	U	O4'-C1'-N1	6.09	117.64	108.50
83	A5	3960	U	O4'-C1'-C2'	-6.09	101.50	107.60
62	Cb	38	LYS	CA-C-O	-6.09	114.58	120.92
83	A5	499	A	N9-C1'-C2'	6.09	121.14	112.00
83	A5	153	G	O5'-C5'-C4'	-6.09	102.36	111.50
83	A5	2626	C	C3'-C2'-C1'	6.09	107.39	101.30
58	CW	25	ASP	CA-C-N	6.09	132.66	121.70
58	CW	25	ASP	C-N-CA	6.09	132.66	121.70
66	Cd	118	ASN	N-CA-C	6.09	123.77	110.80
79	CJ	56	SER	CA-C-N	6.09	129.41	120.82
79	CJ	56	SER	C-N-CA	6.09	129.41	120.82
83	A5	2896	U	N1-C1'-C2'	6.09	121.14	112.00
36	B2	618	G	O4'-C1'-N9	6.09	117.63	108.50
83	A5	1076	A	N9-C1'-C2'	6.09	121.13	112.00
83	A5	3757	U	C1'-C2'-O2'	6.09	117.53	108.40
83	A5	1293	A	N9-C1'-C2'	-6.09	102.87	112.00
2	Ag	65	HIS	ND1-CE1-NE2	6.08	114.48	108.40
30	AF	113	ALA	CA-C-N	6.08	128.93	120.29
30	AF	113	ALA	C-N-CA	6.08	128.93	120.29
36	B2	1096	C	O4'-C1'-C2'	-6.08	101.52	107.60
78	Co	101	MET	CA-C-N	6.08	132.92	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
78	Co	101	MET	C-N-CA	6.08	132.92	121.97
83	A5	2242	C	O4'-C1'-C2'	-6.08	99.72	105.80
50	CR	127	CYS	CA-C-N	6.08	130.20	121.50
50	CR	127	CYS	C-N-CA	6.08	130.20	121.50
2	Ag	192	HIS	CE1-NE2-CD2	-6.08	102.92	109.00
28	AC	41	LYS	N-CA-C	6.08	123.75	110.80
32	AW	81	VAL	CA-C-O	-6.08	114.76	119.20
41	CO	201	TYR	CA-C-N	6.08	133.33	121.41
41	CO	201	TYR	C-N-CA	6.08	133.33	121.41
79	CJ	11	ASP	CA-C-O	-6.08	111.83	120.16
83	A5	177	U	O4'-C1'-N1	6.08	117.62	108.50
83	A5	1182	A	N9-C1'-C2'	6.08	123.12	114.00
83	A5	1583	G	O4'-C1'-C2'	6.08	113.68	107.60
83	A5	2665	C	O4'-C1'-C2'	-6.08	99.72	105.80
83	A5	3781	U	O4'-C1'-N1	6.08	117.62	108.50
83	A5	3811	A	N9-C1'-C2'	6.08	121.12	112.00
83	A5	3867	A	O4'-C1'-N9	6.08	117.32	108.20
36	B2	103	U	P-O3'-C3'	-6.08	111.08	120.20
69	Cg	64	ARG	N-CA-C	-6.08	105.04	112.88
83	A5	3905	U	N1-C1'-C2'	6.08	121.12	112.00
83	A5	1178	U	P-O3'-C3'	6.08	129.32	120.20
83	A5	1465	A	O4'-C1'-C2'	-6.08	101.52	107.60
83	A5	3157	U	C1'-O4'-C4'	6.08	115.78	109.70
36	B2	1271	A	N9-C1'-C2'	6.08	121.12	112.00
83	A5	731	U	O4'-C1'-C2'	-6.08	101.52	107.60
83	A5	1812	C	C2'-C3'-O3'	6.08	118.61	109.50
83	A5	3469	G	O4'-C1'-C2'	-6.08	101.52	107.60
83	A5	3588	G	C1'-O4'-C4'	-6.08	103.82	109.90
78	Co	100	GLN	CA-C-N	6.08	129.99	121.24
78	Co	100	GLN	C-N-CA	6.08	129.99	121.24
1	Az	140	CYS	CA-C-N	6.07	128.78	120.46
1	Az	140	CYS	C-N-CA	6.07	128.78	120.46
26	AJ	13	THR	N-CA-C	6.07	123.74	110.80
36	B2	277	U	N1-C1'-C2'	6.07	121.11	112.00
36	B2	283	U	O4'-C1'-C2'	6.07	111.87	105.80
48	CD	252	THR	N-CA-C	6.07	118.86	111.82
52	CS	157	ARG	CA-C-O	-6.07	115.82	120.19
63	CB	305	THR	N-CA-C	-6.07	101.21	110.14
81	CE	187	ALA	N-CA-CB	6.07	120.75	110.49
83	A5	3471	A	P-O3'-C3'	-6.07	111.09	120.20
36	B2	658	C	P-O3'-C3'	6.07	129.31	120.20
1	Az	89	ILE	CA-C-N	6.07	133.13	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	89	ILE	C-N-CA	6.07	133.13	121.54
15	AB	147	ALA	CA-C-N	6.07	129.38	120.82
15	AB	147	ALA	C-N-CA	6.07	129.38	120.82
36	B2	1110	A	O5'-C5'-C4'	-6.07	102.59	111.70
63	CB	179	HIS	CE1-NE2-CD2	-6.07	102.93	109.00
83	A5	3584	C	C3'-C2'-C1'	6.07	107.57	101.50
83	A5	3969	G	N9-C1'-C2'	6.07	121.11	112.00
20	Aa	102	PHE	CA-CB-CG	-6.07	107.73	113.80
29	AG	190	HIS	CE1-NE2-CD2	-6.07	102.93	109.00
83	A5	632	A	O4'-C1'-C2'	-6.07	101.53	107.60
83	A5	1004	C	O4'-C1'-C2'	-6.07	101.53	107.60
36	B2	1099	U	P-O5'-C5'	-6.07	111.80	120.90
67	Ce	69	LEU	CA-C-O	-6.07	113.83	120.69
75	Cm	127	LEU	CA-C-N	6.07	132.62	121.70
75	Cm	127	LEU	C-N-CA	6.07	132.62	121.70
2	Ag	40	LEU	N-CA-C	-6.07	99.39	109.46
39	Cq	108	PRO	N-CA-C	6.07	124.97	112.47
42	CL	14	HIS	CE1-NE2-CD2	-6.07	102.94	109.00
83	A5	1189	A	P-O3'-C3'	6.07	129.30	120.20
83	A5	1519	A	O4'-C1'-N9	6.07	117.60	108.50
83	A5	1866	G	N9-C1'-C2'	-6.07	102.90	112.00
85	A7	107	C	O4'-C1'-C2'	-6.07	101.53	107.60
86	A8	109	U	N1-C1'-C2'	6.07	121.10	112.00
44	CM	69	PRO	N-CA-CB	6.06	108.41	103.32
81	CE	176	ASP	CA-C-N	6.06	133.12	121.54
81	CE	176	ASP	C-N-CA	6.06	133.12	121.54
16	AA	90	PHE	CA-C-N	6.06	128.40	120.28
16	AA	90	PHE	C-N-CA	6.06	128.40	120.28
33	AI	5	ARG	CA-C-N	6.06	133.12	121.54
33	AI	5	ARG	C-N-CA	6.06	133.12	121.54
44	CM	56	HIS	CB-CA-C	6.06	120.81	109.71
78	Co	33	LYS	CA-C-N	6.06	132.61	121.70
78	Co	33	LYS	C-N-CA	6.06	132.61	121.70
83	A5	3387	C	O4'-C1'-C2'	-6.06	101.54	107.60
83	A5	922	G	P-O3'-C3'	6.06	129.29	120.20
21	Ab	23	ARG	CA-C-N	6.06	129.91	120.82
21	Ab	23	ARG	C-N-CA	6.06	129.91	120.82
36	B2	1119	G	C1'-O4'-C4'	-6.06	103.84	109.90
36	B2	1775	A	O4'-C1'-C2'	-6.06	99.74	105.80
58	CW	73	ARG	N-CA-C	6.06	118.28	107.80
18	AY	88	PRO	CA-C-N	6.06	133.11	121.54
18	AY	88	PRO	C-N-CA	6.06	133.11	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	779	A	O3'-P-O5'	-6.06	94.91	104.00
36	B2	1603	G	C1'-O4'-C4'	-6.06	103.84	109.90
63	CB	276	HIS	CE1-NE2-CD2	-6.06	102.94	109.00
81	CE	29	GLY	O-C-N	6.06	128.34	123.49
83	A5	2739	A	N9-C1'-C2'	6.06	121.08	112.00
83	A5	3520	U	O4'-C1'-C2'	-6.06	101.54	107.60
83	A5	3696	C	P-O5'-C5'	-6.06	111.81	120.90
85	A7	10	C	O4'-C1'-C2'	-6.06	99.74	105.80
85	A7	90	A	C1'-O4'-C4'	6.06	115.96	109.90
36	B2	1351	G	O4'-C1'-C2'	-6.06	101.54	107.60
46	CN	80	THR	CA-C-N	6.06	133.11	121.54
46	CN	80	THR	C-N-CA	6.06	133.11	121.54
1	Az	91	HIS	N-CA-C	6.05	120.18	109.58
33	AI	91	VAL	CB-CA-C	-6.05	103.97	112.14
36	B2	49	C	N1-C1'-C2'	6.05	121.08	112.00
36	B2	1090	A	P-O3'-C3'	6.05	129.28	120.20
36	B2	1179	A	C5'-C4'-O4'	6.05	118.18	109.10
36	B2	1227	A	C4'-C3'-O3'	-6.05	103.92	113.00
36	B2	1394	U	C3'-C2'-C1'	-6.05	95.25	101.30
83	A5	1333	C	O4'-C1'-C2'	-6.05	101.55	107.60
83	A5	2064	G	O4'-C1'-N9	6.05	117.28	108.20
36	B2	11	A	N9-C1'-C2'	-6.05	102.92	112.00
36	B2	24	U	O4'-C1'-N1	6.05	117.58	108.50
30	AF	103	LYS	N-CA-CB	6.05	120.72	110.49
70	Ci	17	THR	N-CA-C	6.05	117.96	111.36
83	A5	1558	A	P-O5'-C5'	6.05	129.98	120.90
83	A5	2868	A	N9-C1'-C2'	6.05	121.08	112.00
83	A5	3727	A	C4'-C3'-C2'	-6.05	96.55	102.60
83	A5	3773	G	P-O5'-C5'	6.05	129.98	120.90
27	AE	142	HIS	ND1-CE1-NE2	6.05	114.45	108.40
31	AH	155	HIS	CE1-NE2-CD2	-6.05	102.95	109.00
36	B2	440	U	N1-C1'-C2'	6.05	121.08	112.00
36	B2	1535	U	O4'-C1'-C2'	-6.05	101.55	107.60
54	CP	9	ASP	CA-C-N	6.05	133.09	121.54
54	CP	9	ASP	C-N-CA	6.05	133.09	121.54
63	CB	18	PRO	CA-C-N	6.05	133.09	121.54
63	CB	18	PRO	C-N-CA	6.05	133.09	121.54
83	A5	994	U	O4'-C1'-N1	6.05	117.57	108.50
83	A5	1382	U	C1'-O4'-C4'	6.05	115.95	109.90
83	A5	1503	G	O4'-C1'-C2'	6.05	113.65	107.60
83	A5	2152	C	C1'-O4'-C4'	-6.05	103.85	109.90
12	AR	3	ARG	N-CA-C	6.05	119.26	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	869	C	C5'-C4'-O4'	6.05	118.87	109.80
39	Cq	183	PHE	N-CA-CB	6.05	119.73	109.87
83	A5	788	C	N1-C1'-C2'	6.05	121.07	112.00
83	A5	1461	G	C1'-O4'-C4'	-6.05	103.85	109.90
83	A5	3358	U	C4'-C3'-O3'	-6.05	103.93	113.00
1	Az	450	VAL	O-C-N	-6.05	114.21	121.10
36	B2	66	C	O4'-C1'-C2'	-6.05	101.55	107.60
36	B2	1326	U	O4'-C1'-N1	6.05	117.57	108.50
83	A5	42	U	N1-C1'-C2'	6.05	121.07	112.00
83	A5	3591	A	N9-C1'-C2'	-6.05	104.93	114.00
36	B2	73	A	C1'-C2'-O2'	6.04	120.87	111.80
36	B2	347	C	O4'-C1'-C2'	-6.04	101.56	107.60
79	CJ	134	ASP	N-CA-C	-6.04	99.34	109.07
83	A5	2142	A	C3'-C2'-C1'	6.04	107.34	101.30
36	B2	388	G	N9-C1'-C2'	6.04	121.06	112.00
36	B2	1024	C	N1-C1'-C2'	6.04	121.06	112.00
51	CA	50	HIS	CE1-NE2-CD2	-6.04	102.96	109.00
83	A5	1296	U	C1'-C2'-O2'	6.04	117.47	108.40
83	A5	1688	A	C2'-C3'-O3'	6.04	118.56	109.50
83	A5	1922	A	C2'-C3'-O3'	6.04	122.77	113.70
12	AR	94	ASP	CA-C-N	6.04	132.58	121.70
12	AR	94	ASP	C-N-CA	6.04	132.58	121.70
31	AH	17	ASP	CA-CB-CG	-6.04	106.56	112.60
41	CO	194	PHE	N-CA-C	-6.04	106.24	113.97
81	CE	71	THR	N-CA-C	-6.04	103.04	110.65
83	A5	74	A	O3'-P-O5'	-6.04	94.94	104.00
83	A5	687	U	O4'-C1'-N1	6.04	117.56	108.50
83	A5	1567	G	C1'-O4'-C4'	-6.04	103.86	109.90
52	CS	34	ALA	CA-C-O	-6.04	113.10	119.50
58	CW	70	LYS	N-CA-CB	6.04	120.70	110.49
63	CB	111	SER	CA-C-N	6.04	133.08	121.54
63	CB	111	SER	C-N-CA	6.04	133.08	121.54
81	CE	108	HIS	CA-C-N	6.04	133.08	121.54
81	CE	108	HIS	C-N-CA	6.04	133.08	121.54
36	B2	1026	A	O4'-C1'-C2'	-6.04	101.56	107.60
83	A5	1801	U	C5'-C4'-O4'	-6.04	100.74	109.80
8	AS	12	ILE	N-CA-CB	6.04	121.19	111.23
1	Az	268	GLU	O-C-N	-6.04	115.15	123.12
1	Az	537	GLU	CA-C-N	6.04	128.86	120.29
1	Az	537	GLU	C-N-CA	6.04	128.86	120.29
20	Aa	102	PHE	N-CA-CB	6.04	121.11	110.37
46	CN	50	ARG	N-CA-CB	6.04	120.69	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	CA	174	ARG	CA-C-N	6.04	130.20	120.30
51	CA	174	ARG	C-N-CA	6.04	130.20	120.30
83	A5	1733	A	O4'-C1'-C2'	-6.04	101.56	107.60
72	Ck	40	ARG	CA-C-O	-6.03	114.41	122.31
74	CC	151	SER	N-CA-C	6.03	118.35	111.11
83	A5	862	U	C3'-C2'-C1'	6.03	107.33	101.30
83	A5	3559	A	P-O5'-C5'	-6.03	111.85	120.90
83	A5	3778	U	C1'-O4'-C4'	6.03	115.93	109.90
6	AX	140	ARG	CA-C-N	6.03	127.38	119.84
6	AX	140	ARG	C-N-CA	6.03	127.38	119.84
36	B2	779	A	C4'-C3'-O3'	-6.03	100.95	110.00
69	Cg	108	ARG	CA-C-N	6.03	128.36	120.28
69	Cg	108	ARG	C-N-CA	6.03	128.36	120.28
15	AB	110	THR	CA-C-N	6.03	128.28	120.44
15	AB	110	THR	C-N-CA	6.03	128.28	120.44
31	AH	157	ASP	N-CA-C	6.03	123.64	110.80
42	CL	126	PHE	N-CA-CB	6.03	121.11	110.37
60	Cr	23	ARG	CB-CA-C	6.03	122.42	110.42
83	A5	1110	G	O4'-C1'-C2'	6.03	113.63	107.60
83	A5	1769	U	C4'-C3'-O3'	6.03	118.45	109.40
83	A5	2095	U	P-O5'-C5'	6.03	129.94	120.90
85	A7	26	C	O5'-C5'-C4'	-6.03	102.46	111.50
49	CQ	116	ALA	N-CA-C	6.03	120.36	112.89
83	A5	176	A	O4'-C1'-C2'	6.03	113.63	107.60
83	A5	489	U	O4'-C1'-C2'	-6.03	101.57	107.60
83	A5	1809	A	P-O5'-C5'	6.03	129.94	120.90
83	A5	1990	G	P-O5'-C5'	-6.03	111.86	120.90
83	A5	3591	A	C2'-C3'-O3'	6.03	118.54	109.50
5	AO	55	ARG	N-CA-C	6.03	118.62	111.33
36	B2	707	A	O4'-C1'-C2'	-6.03	101.57	107.60
44	CM	57	LEU	N-CA-C	6.03	118.47	109.25
83	A5	1501	A	N9-C1'-C2'	-6.03	104.96	114.00
36	B2	280	U	O4'-C1'-C2'	-6.02	101.58	107.60
36	B2	1857	U	O4'-C1'-N1	6.02	117.54	108.50
83	A5	921	C	O4'-C1'-C2'	-6.02	101.58	107.60
83	A5	2248	A	O4'-C1'-C2'	-6.02	101.58	107.60
86	A8	75	C	O3'-P-O5'	-6.02	94.96	104.00
36	B2	520	A	P-O3'-C3'	6.02	129.23	120.20
49	CQ	158	VAL	CA-C-O	-6.02	111.88	119.95
80	CH	20	VAL	N-CA-C	6.02	116.36	107.15
83	A5	1021	U	O4'-C1'-N1	6.02	117.53	108.50
83	A5	3138	G	O4'-C1'-C2'	6.02	111.82	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	738	PRO	CA-C-N	6.02	133.04	121.54
1	Az	738	PRO	C-N-CA	6.02	133.04	121.54
24	Ae	116	ASN	N-CA-C	6.02	118.75	111.40
36	B2	1167	U	P-O3'-C3'	6.02	129.23	120.20
83	A5	1894	G	C1'-O4'-C4'	-6.02	103.88	109.90
83	A5	3722	C	C3'-C2'-C1'	6.02	107.32	101.30
83	A5	3953	C	N1-C1'-C2'	6.02	121.03	112.00
85	A7	1	G	C1'-O4'-C4'	-6.02	103.88	109.90
36	B2	23	G	P-O5'-C5'	-6.02	111.87	120.90
36	B2	501	C	O4'-C1'-C2'	-6.02	101.58	107.60
83	A5	187	A	O4'-C4'-C3'	-6.02	100.08	106.10
83	A5	2082	U	O4'-C1'-N1	6.02	117.53	108.50
83	A5	3582	A	O4'-C1'-C2'	-6.02	101.58	107.60
33	AI	98	LYS	CA-C-N	6.02	133.03	121.54
33	AI	98	LYS	C-N-CA	6.02	133.03	121.54
79	CJ	164	LYS	CA-C-N	6.02	128.34	120.28
79	CJ	164	LYS	C-N-CA	6.02	128.34	120.28
83	A5	3555	U	P-O5'-C5'	-6.02	111.88	120.90
86	A8	6	U	O4'-C1'-C2'	-6.02	101.58	107.60
83	A5	793	U	N1-C1'-C2'	6.02	121.02	112.00
33	AI	6	ASP	CA-C-N	6.01	128.62	120.38
33	AI	6	ASP	C-N-CA	6.01	128.62	120.38
48	CD	205	ALA	CA-C-N	6.01	128.83	120.29
48	CD	205	ALA	C-N-CA	6.01	128.83	120.29
50	CR	120	TYR	N-CA-CB	6.01	118.96	110.12
60	Cr	87	LYS	N-CA-C	6.01	118.54	111.02
83	A5	557	G	O5'-C5'-C4'	-6.01	102.48	111.50
83	A5	1353	G	P-O5'-C5'	-6.01	111.88	120.90
83	A5	3756	A	O4'-C1'-C2'	-6.01	101.59	107.60
83	A5	856	A	C5'-C4'-C3'	6.01	125.02	116.00
83	A5	3693	G	O4'-C1'-C2'	6.01	113.61	107.60
5	AO	108	PRO	CA-C-N	6.01	131.31	121.87
5	AO	108	PRO	C-N-CA	6.01	131.31	121.87
36	B2	374	C	C3'-C2'-C1'	6.01	107.31	101.30
58	CW	59	HIS	CE1-NE2-CD2	-6.01	102.99	109.00
83	A5	1635	A	O4'-C1'-C2'	-6.01	101.59	107.60
86	A8	83	A	O5'-C5'-C4'	-6.01	102.69	111.70
18	AY	60	GLY	N-CA-C	-6.01	100.18	111.66
74	CC	315	SER	N-CA-C	6.01	123.60	110.80
84	A9	4	U	O4'-C1'-N1	6.01	117.51	108.50
1	Az	95	ARG	CA-C-O	-6.01	114.05	120.42
4	AK	32	HIS	CE1-NE2-CD2	-6.01	102.99	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	AH	142	ILE	CA-C-N	6.01	130.01	121.42
31	AH	142	ILE	C-N-CA	6.01	130.01	121.42
36	B2	776	A	P-O3'-C3'	6.01	129.21	120.20
83	A5	2821	A	O4'-C1'-N9	6.01	117.51	108.50
83	A5	3354	U	P-O5'-C5'	-6.01	111.89	120.90
3	AU	48	GLN	CA-C-N	6.00	133.01	121.54
3	AU	48	GLN	C-N-CA	6.00	133.01	121.54
74	CC	224	PHE	CA-CB-CG	-6.00	107.80	113.80
85	A7	108	G	N9-C1'-C2'	6.00	121.01	112.00
2	Ag	237	ILE	CB-CA-C	6.00	119.00	110.84
16	AA	165	ASN	N-CA-C	6.00	123.59	110.80
42	CL	85	ILE	CA-C-N	6.00	132.50	121.70
42	CL	85	ILE	C-N-CA	6.00	132.50	121.70
83	A5	98	G	N9-C1'-C2'	6.00	121.01	112.00
83	A5	805	C	C3'-C2'-C1'	6.00	107.30	101.30
83	A5	1651	C	O3'-P-O5'	-6.00	95.00	104.00
83	A5	1777	A	P-O3'-C3'	-6.00	111.19	120.20
21	Ab	16	LYS	CA-C-N	6.00	128.32	120.28
21	Ab	16	LYS	C-N-CA	6.00	128.32	120.28
26	AJ	4	GLY	CA-C-N	6.00	132.50	121.70
26	AJ	4	GLY	C-N-CA	6.00	132.50	121.70
29	AG	214	LEU	CA-C-N	6.00	128.94	120.42
29	AG	214	LEU	C-N-CA	6.00	128.94	120.42
36	B2	1429	U	O4'-C1'-N1	6.00	117.50	108.50
36	B2	1664	A	O4'-C1'-C2'	-6.00	99.80	105.80
36	B2	1665	U	O3'-P-O5'	-6.00	95.00	104.00
36	B2	1724	U	C1'-C2'-O2'	6.00	117.40	108.40
42	CL	50	ALA	N-CA-C	6.00	123.58	110.80
82	CG	184	VAL	CA-C-N	6.00	126.31	119.83
82	CG	184	VAL	C-N-CA	6.00	126.31	119.83
83	A5	370	A	O4'-C4'-C3'	-6.00	100.10	106.10
83	A5	899	G	C4'-C3'-C2'	-6.00	96.60	102.60
83	A5	1257	U	O4'-C1'-N1	6.00	117.50	108.50
83	A5	2694	G	O4'-C1'-N9	6.00	117.50	108.50
84	A9	16	U	O4'-C1'-N1	6.00	117.50	108.50
85	A7	29	C	N1-C1'-C2'	-6.00	103.00	112.00
83	A5	385	A	O4'-C1'-C2'	-6.00	101.60	107.60
36	B2	896	A	C2'-C3'-O3'	6.00	118.50	109.50
74	CC	269	THR	N-CA-CB	6.00	120.63	110.49
83	A5	2180	A	N9-C1'-C2'	6.00	121.00	112.00
83	A5	3672	U	O4'-C1'-N1	6.00	117.50	108.50
84	A9	22	A	O4'-C1'-C2'	-6.00	101.60	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	AY	30	HIS	ND1-CE1-NE2	6.00	114.40	108.40
24	Ae	82	GLY	O-C-N	6.00	127.37	122.51
24	Ae	121	PHE	CA-CB-CG	-6.00	107.80	113.80
40	CK	95	GLN	CA-C-N	6.00	132.99	121.54
40	CK	95	GLN	C-N-CA	6.00	132.99	121.54
42	CL	55	ARG	CA-C-N	6.00	127.33	119.84
42	CL	55	ARG	C-N-CA	6.00	127.33	119.84
45	Ca	85	ALA	N-CA-C	6.00	117.82	111.28
60	Cr	7	LEU	CB-CA-C	-6.00	101.42	110.90
83	A5	418	G	O4'-C1'-C2'	-6.00	99.80	105.80
83	A5	1454	C	N1-C1'-C2'	6.00	120.99	112.00
83	A5	3708	U	O4'-C1'-C2'	-6.00	101.60	107.60
85	A7	48	G	O4'-C1'-N9	6.00	117.19	108.20
6	AX	22	TRP	N-CA-C	-6.00	104.66	111.07
40	CK	121	MET	N-CA-C	6.00	123.57	110.80
83	A5	309	C	O4'-C1'-C2'	-6.00	101.61	107.60
83	A5	765	A	O4'-C1'-C2'	-6.00	101.61	107.60
83	A5	3856	U	C1'-O4'-C4'	6.00	115.89	109.90
7	AM	126	PRO	N-CA-C	5.99	124.81	112.47
14	AT	68	SER	CB-CA-C	5.99	121.98	110.17
36	B2	248	G	N9-C1'-C2'	5.99	120.99	112.00
54	CP	137	ASN	CA-C-N	5.99	125.90	119.85
54	CP	137	ASN	C-N-CA	5.99	125.90	119.85
83	A5	3874	A	O4'-C1'-C2'	-5.99	101.61	107.60
66	Cd	37	LYS	N-CA-CB	5.99	119.46	110.53
83	A5	159	G	O4'-C1'-N9	5.99	117.49	108.50
83	A5	1959	A	C3'-C2'-C1'	5.99	107.29	101.30
83	A5	2032	U	O4'-C1'-C2'	-5.99	101.61	107.60
83	A5	3430	G	O4'-C1'-C2'	5.99	113.59	107.60
83	A5	3947	C	O4'-C1'-C2'	-5.99	101.61	107.60
85	A7	41	G	O4'-C1'-C2'	5.99	111.79	105.80
28	AC	264	HIS	CE1-NE2-CD2	-5.99	103.01	109.00
36	B2	356	C	O4'-C1'-C2'	-5.99	99.81	105.80
37	BC	11	C	O4'-C1'-C2'	-5.99	101.61	107.60
42	CL	10	ASN	CA-C-N	5.99	131.63	122.77
42	CL	10	ASN	C-N-CA	5.99	131.63	122.77
81	CE	164	ASN	CA-CB-CG	-5.99	106.61	112.60
83	A5	1424	G	C1'-O4'-C4'	-5.99	103.91	109.90
83	A5	3935	G	P-O5'-C5'	5.99	129.88	120.90
83	A5	1890	U	O4'-C1'-N1	5.99	117.18	108.20
83	A5	3696	C	O4'-C1'-C2'	-5.99	101.61	107.60
6	AX	110	HIS	CE1-NE2-CD2	-5.99	103.01	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	593	U	O4'-C1'-N1	5.99	117.48	108.50
83	A5	2008	U	C1'-C2'-O2'	5.99	117.38	108.40
10	AN	5	HIS	ND1-CE1-NE2	5.99	114.39	108.40
20	Aa	81	SER	CA-C-N	5.99	131.08	122.40
20	Aa	81	SER	C-N-CA	5.99	131.08	122.40
36	B2	186	A	P-O3'-C3'	5.99	129.18	120.20
36	B2	1431	A	C4'-C3'-O3'	-5.99	104.02	113.00
83	A5	94	C	P-O3'-C3'	5.99	129.18	120.20
83	A5	2587	U	C2'-C3'-O3'	5.99	118.48	109.50
83	A5	3741	A	O4'-C1'-C2'	-5.99	101.61	107.60
36	B2	1815	C	C3'-C2'-C1'	5.98	107.28	101.30
28	AC	149	ARG	N-CA-C	5.98	117.76	109.15
36	B2	1397	U	O4'-C1'-N1	5.98	117.47	108.50
40	CK	88	PRO	CA-C-O	-5.98	111.89	120.56
47	CI	15	LYS	CA-C-N	5.98	126.33	119.93
47	CI	15	LYS	C-N-CA	5.98	126.33	119.93
74	CC	51	ASN	CB-CA-C	-5.98	103.80	111.22
80	CH	10	VAL	CA-C-N	5.98	129.85	121.24
80	CH	10	VAL	C-N-CA	5.98	129.85	121.24
83	A5	1492	C	C5'-C4'-C3'	-5.98	107.03	116.00
83	A5	2794	U	C1'-O4'-C4'	-5.98	103.92	109.90
83	A5	2883	C	O4'-C1'-C2'	-5.98	101.62	107.60
2	Ag	150	ASP	CA-C-N	5.98	129.78	120.75
2	Ag	150	ASP	C-N-CA	5.98	129.78	120.75
13	AP	55	LYS	CA-C-N	5.98	127.32	119.84
13	AP	55	LYS	C-N-CA	5.98	127.32	119.84
36	B2	876	U	O4'-C1'-N1	5.98	117.47	108.50
36	B2	1007	C	C3'-C2'-C1'	5.98	107.28	101.30
83	A5	1358	U	C1'-O4'-C4'	5.98	115.68	109.70
83	A5	1535	U	O4'-C1'-C2'	-5.98	101.62	107.60
83	A5	3969	G	C4'-C3'-O3'	5.98	121.97	113.00
85	A7	8	A	N9-C1'-C2'	5.98	120.97	112.00
36	B2	1657	C	P-O5'-C5'	-5.98	111.93	120.90
83	A5	730	U	O4'-C1'-C2'	-5.98	101.62	107.60
83	A5	3462	A	O4'-C1'-C2'	-5.98	101.62	107.60
49	CQ	79	THR	CA-C-N	5.98	129.50	120.77
49	CQ	79	THR	C-N-CA	5.98	129.50	120.77
83	A5	116	U	C1'-O4'-C4'	5.98	115.88	109.90
83	A5	460	A	C5'-C4'-O4'	5.98	118.07	109.10
83	A5	778	C	O4'-C1'-C2'	-5.98	101.62	107.60
83	A5	1797	A	N9-C1'-C2'	-5.98	105.03	114.00
83	A5	2657	A	C2'-C3'-O3'	5.98	118.47	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3250	U	O4'-C1'-N1	5.98	117.47	108.50
1	Az	217	PHE	CA-C-O	5.98	126.67	120.40
83	A5	3435	A	O4'-C1'-C2'	-5.98	101.62	107.60
83	A5	3600	G	O4'-C1'-C2'	5.98	113.58	107.60
83	A5	3906	U	P-O5'-C5'	5.98	129.86	120.90
7	AM	124	GLU	N-CA-CB	5.97	120.59	110.49
36	B2	547	G	N9-C1'-C2'	5.97	122.96	114.00
36	B2	932	U	C4'-C3'-O3'	-5.97	104.04	113.00
38	Cz	3	SER	CA-C-N	5.97	129.10	120.38
38	Cz	3	SER	C-N-CA	5.97	129.10	120.38
49	CQ	29	VAL	CA-C-N	5.97	128.28	120.28
49	CQ	29	VAL	C-N-CA	5.97	128.28	120.28
83	A5	1585	U	C1'-O4'-C4'	5.97	115.88	109.90
83	A5	1807	U	O4'-C1'-N1	5.97	117.46	108.50
83	A5	2577	G	O4'-C1'-C2'	-5.97	101.63	107.60
1	Az	441	GLY	N-CA-C	5.97	121.24	114.67
36	B2	952	G	O4'-C1'-N9	5.97	117.46	108.50
38	Cz	73	HIS	CE1-NE2-CD2	-5.97	103.03	109.00
83	A5	1511	C	C3'-C2'-C1'	5.97	107.27	101.30
83	A5	3778	U	O4'-C1'-N1	5.97	117.46	108.50
16	AA	46	VAL	N-CA-C	-5.97	99.14	108.81
36	B2	489	C	C3'-C2'-C1'	5.97	107.27	101.30
83	A5	973	G	O4'-C1'-N9	-5.97	99.54	108.50
83	A5	2124	G	C1'-O4'-C4'	-5.97	103.93	109.90
83	A5	2676	U	C3'-C2'-C1'	5.97	107.47	101.50
83	A5	2779	A	O4'-C1'-C2'	-5.97	101.63	107.60
64	CF	100	GLY	CA-C-N	5.97	130.37	121.77
64	CF	100	GLY	C-N-CA	5.97	130.37	121.77
83	A5	866	C	C5'-C4'-C3'	5.97	124.95	116.00
83	A5	1303	C	O4'-C1'-C2'	-5.97	101.63	107.60
26	AJ	138	VAL	CA-C-N	5.97	132.94	121.54
26	AJ	138	VAL	C-N-CA	5.97	132.94	121.54
83	A5	2751	A	O4'-C4'-C3'	-5.97	100.13	106.10
45	Ca	121	ARG	CA-C-N	5.97	126.27	119.83
45	Ca	121	ARG	C-N-CA	5.97	126.27	119.83
53	CT	122	LYS	N-CA-C	-5.97	105.86	113.02
64	CF	196	HIS	CG-CD2-NE2	5.97	113.17	107.20
71	Cj	42	ALA	CA-C-N	5.97	129.23	120.82
71	Cj	42	ALA	C-N-CA	5.97	129.23	120.82
83	A5	235	A	C4'-C3'-C2'	-5.97	96.63	102.60
83	A5	574	C	O4'-C1'-C2'	-5.97	101.63	107.60
83	A5	1725	A	C1'-C2'-O2'	5.97	120.75	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1957	C	O4'-C1'-C2'	-5.97	101.63	107.60
83	A5	3408	C	N1-C1'-C2'	5.97	120.95	112.00
85	A7	87	G	P-O3'-C3'	-5.97	111.25	120.20
7	AM	69	LYS	CA-C-N	5.96	128.27	120.28
7	AM	69	LYS	C-N-CA	5.96	128.27	120.28
15	AB	211	HIS	N-CA-C	-5.96	100.54	109.96
36	B2	1146	U	O4'-C1'-N1	5.96	117.15	108.20
83	A5	280	C	C3'-C2'-C1'	5.96	107.26	101.30
83	A5	681	G	O3'-P-O5'	5.96	112.94	104.00
83	A5	1217	U	N1-C1'-C2'	5.96	120.95	112.00
83	A5	1296	U	O4'-C1'-C2'	5.96	113.56	107.60
83	A5	3151	G	C1'-C2'-O2'	5.96	117.35	108.40
83	A5	3713	C	N1-C1'-C2'	-5.96	103.05	112.00
21	Ab	15	GLU	CA-C-N	5.96	128.27	120.28
21	Ab	15	GLU	C-N-CA	5.96	128.27	120.28
36	B2	705	G	C1'-O4'-C4'	-5.96	103.94	109.90
36	B2	1274	U	O4'-C1'-C2'	-5.96	101.64	107.60
83	A5	526	U	O4'-C1'-N1	5.96	117.44	108.50
47	CI	159	PHE	CB-CA-C	-5.96	102.44	109.47
83	A5	814	U	O4'-C1'-C2'	-5.96	101.64	107.60
83	A5	1410	A	O4'-C1'-N9	5.96	117.44	108.50
83	A5	2885	A	C2'-C3'-O3'	5.96	122.64	113.70
83	A5	3669	U	O4'-C1'-C2'	-5.96	101.64	107.60
5	AO	30	VAL	CA-C-N	5.96	130.67	120.72
5	AO	30	VAL	C-N-CA	5.96	130.67	120.72
48	CD	203	HIS	CA-CB-CG	-5.96	107.84	113.80
83	A5	3399	C	N1-C1'-C2'	5.96	120.94	112.00
46	CN	34	THR	CA-C-N	5.96	128.19	120.44
46	CN	34	THR	C-N-CA	5.96	128.19	120.44
64	CF	224	TRP	CA-C-N	5.96	132.92	121.54
64	CF	224	TRP	C-N-CA	5.96	132.92	121.54
72	Ck	34	PHE	CA-CB-CG	-5.96	107.84	113.80
84	A9	30	A	O4'-C1'-C2'	-5.96	101.64	107.60
83	A5	947	U	P-O5'-C5'	5.96	138.77	120.90
83	A5	981	C	O4'-C1'-C2'	-5.96	101.64	107.60
83	A5	1160	U	N1-C1'-C2'	5.96	120.94	112.00
1	Az	361	GLY	O-C-N	5.96	127.72	121.77
36	B2	44	U	O4'-C1'-C2'	-5.96	99.84	105.80
36	B2	212	A	O5'-C5'-C4'	-5.96	102.57	111.50
83	A5	992	U	O4'-C1'-C2'	-5.96	101.64	107.60
16	AA	214	GLU	CA-C-N	5.95	129.32	120.87
16	AA	214	GLU	C-N-CA	5.95	129.32	120.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	CF	89	GLU	CA-C-N	5.95	130.73	121.26
64	CF	89	GLU	C-N-CA	5.95	130.73	121.26
83	A5	1268	A	P-O5'-C5'	-5.95	111.97	120.90
83	A5	3690	A	N9-C1'-C2'	5.95	120.93	112.00
81	CE	151	LYS	CA-C-N	5.95	130.05	122.37
81	CE	151	LYS	C-N-CA	5.95	130.05	122.37
22	Ac	35	ASN	N-CA-C	5.95	123.47	110.80
26	AJ	106	PHE	CA-CB-CG	-5.95	107.85	113.80
83	A5	672	U	O4'-C1'-C2'	-5.95	101.65	107.60
83	A5	2194	G	C1'-C2'-O2'	5.95	117.33	108.40
83	A5	2880	A	O4'-C1'-C2'	-5.95	99.85	105.80
83	A5	3417	C	C2'-C3'-O3'	5.95	122.63	113.70
2	Ag	127	ASP	CA-CB-CG	5.95	118.55	112.60
36	B2	1338	U	N1-C1'-C2'	5.95	120.92	112.00
36	B2	1680	G	O4'-C1'-N9	5.95	117.42	108.50
42	CL	162	ALA	CA-C-N	5.95	132.41	121.70
42	CL	162	ALA	C-N-CA	5.95	132.41	121.70
45	Ca	117	HIS	CG-CD2-NE2	5.95	113.15	107.20
51	CA	94	ALA	CA-C-N	5.95	129.32	120.87
51	CA	94	ALA	C-N-CA	5.95	129.32	120.87
62	Cb	39	PHE	N-CA-C	5.95	127.66	111.00
86	A8	101	A	C3'-C2'-C1'	5.95	107.25	101.30
36	B2	1537	C	N1-C1'-C2'	5.95	120.92	112.00
36	B2	1575	A	C3'-C2'-C1'	-5.95	95.55	101.50
1	Az	281	ASP	CA-C-N	5.95	125.82	119.28
1	Az	281	ASP	C-N-CA	5.95	125.82	119.28
43	CV	94	VAL	N-CA-CB	5.95	117.61	110.95
83	A5	428	C	N1-C1'-C2'	5.95	120.92	112.00
83	A5	3679	C	O4'-C1'-C2'	-5.95	101.65	107.60
83	A5	3685	U	P-O5'-C5'	5.95	129.82	120.90
27	AE	112	HIS	CG-CD2-NE2	5.94	113.14	107.20
36	B2	291	C	C4'-C3'-O3'	-5.94	104.08	113.00
42	CL	66	HIS	CB-CA-C	-5.94	100.42	110.64
43	CV	107	ASN	CA-CB-CG	-5.94	106.66	112.60
83	A5	2109	G	O4'-C1'-C2'	-5.94	101.66	107.60
1	Az	147	LEU	CA-C-O	-5.94	114.25	120.55
37	BC	16	U	O4'-C1'-N1	5.94	117.11	108.20
58	CW	96	MET	CA-C-N	5.94	129.69	120.60
58	CW	96	MET	C-N-CA	5.94	129.69	120.60
67	Ce	98	ILE	N-CA-CB	5.94	121.03	111.23
72	Ck	28	ASN	CA-CB-CG	5.94	118.54	112.60
74	CC	338	LEU	CA-C-N	5.94	128.52	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
74	CC	338	LEU	C-N-CA	5.94	128.52	120.38
83	A5	248	C	C4'-C3'-C2'	-5.94	96.66	102.60
83	A5	792	U	O4'-C1'-C2'	-5.94	101.66	107.60
83	A5	1294	U	C3'-C2'-C1'	5.94	107.44	101.50
83	A5	1864	U	C3'-C2'-C1'	5.94	107.44	101.50
83	A5	2159	C	C4'-C3'-O3'	-5.94	104.08	113.00
36	B2	29	U	O4'-C1'-N1	5.94	117.41	108.50
36	B2	1824	C	N1-C1'-C2'	5.94	120.91	112.00
83	A5	979	U	N1-C1'-C2'	5.94	120.91	112.00
83	A5	2221	G	O4'-C1'-N9	5.94	117.41	108.50
83	A5	698	A	C2'-C3'-O3'	-5.94	104.79	113.70
83	A5	3562	A	N9-C1'-C2'	5.94	120.91	112.00
1	Az	363	HIS	CA-CB-CG	-5.94	107.86	113.80
60	Cr	69	LYS	CA-C-N	5.94	132.88	121.54
60	Cr	69	LYS	C-N-CA	5.94	132.88	121.54
82	CG	86	HIS	CE1-NE2-CD2	-5.94	103.06	109.00
83	A5	784	G	O4'-C1'-C2'	5.94	113.54	107.60
83	A5	1225	G	C1'-O4'-C4'	-5.94	103.96	109.90
83	A5	3367	C	N1-C1'-C2'	5.94	120.91	112.00
6	AX	136	GLU	N-CA-CB	5.94	120.52	110.49
28	AC	235	THR	CA-C-O	-5.94	114.49	120.96
36	B2	1630	G	N9-C1'-C2'	5.94	120.90	112.00
36	B2	1764	U	O4'-C1'-C2'	5.94	113.54	107.60
83	A5	1189	A	C4'-C3'-O3'	5.94	118.90	110.00
83	A5	1903	U	O4'-C1'-N1	5.94	117.40	108.50
83	A5	3317	U	O4'-C1'-N1	5.94	117.40	108.50
8	AS	80	PRO	N-CA-CB	5.93	108.31	103.32
36	B2	1366	C	N1-C1'-C2'	5.93	120.90	112.00
80	CH	136	THR	N-CA-C	-5.93	100.03	109.76
81	CE	21	PRO	CA-N-CD	-5.93	103.69	112.00
83	A5	2814	U	O4'-C1'-C2'	-5.93	101.67	107.60
1	Az	419	ASN	CA-C-N	5.93	132.87	121.54
1	Az	419	ASN	C-N-CA	5.93	132.87	121.54
31	AH	107	ARG	N-CA-C	5.93	118.72	109.52
83	A5	2085	G	N9-C1'-C2'	5.93	120.90	112.00
8	AS	85	ASN	CB-CA-C	-5.93	101.32	110.81
83	A5	1084	A	N9-C1'-C2'	-5.93	105.10	114.00
83	A5	1138	C	C1'-C2'-O2'	5.93	117.30	108.40
83	A5	3375	U	C1'-O4'-C4'	5.93	115.83	109.90
15	AB	120	TRP	N-CA-C	5.93	123.43	110.80
16	AA	145	ILE	N-CA-C	-5.93	99.93	108.53
36	B2	158	U	O4'-C1'-N1	5.93	117.39	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	183	A	P-O3'-C3'	5.93	129.09	120.20
36	B2	193	U	O4'-C1'-C2'	-5.93	101.67	107.60
36	B2	1993	U	C4'-C3'-C2'	5.93	108.53	102.60
63	CB	290	GLY	CA-C-N	5.93	132.64	121.97
63	CB	290	GLY	C-N-CA	5.93	132.64	121.97
83	A5	671	A	O4'-C1'-N9	5.93	117.09	108.20
83	A5	1713	U	C1'-O4'-C4'	-5.93	103.97	109.90
27	AE	126	VAL	CB-CA-C	5.93	118.13	110.96
83	A5	1583	G	C1'-O4'-C4'	-5.93	103.97	109.90
83	A5	1999	U	C2'-C3'-O3'	-5.93	104.81	113.70
83	A5	1071	U	C5'-C4'-C3'	-5.93	107.11	116.00
83	A5	1195	U	N1-C1'-C2'	5.93	120.89	112.00
83	A5	2267	U	O4'-C1'-C2'	-5.93	101.67	107.60
83	A5	3837	A	O4'-C1'-C2'	-5.93	101.67	107.60
85	A7	13	A	C2'-C3'-O3'	-5.93	100.61	109.50
36	B2	1874	C	P-O5'-C5'	5.92	129.79	120.90
83	A5	409	A	O4'-C1'-C2'	-5.92	101.68	107.60
83	A5	1499	C	C3'-C2'-C1'	5.92	107.22	101.30
83	A5	3431	C	C1'-C2'-O2'	5.92	117.29	108.40
42	CL	138	SER	CA-C-N	5.92	128.81	120.28
42	CL	138	SER	C-N-CA	5.92	128.81	120.28
83	A5	1157	C	N1-C1'-C2'	5.92	120.89	112.00
36	B2	1835	U	N1-C1'-C2'	5.92	120.88	112.00
59	CZ	116	LYS	N-CA-CB	5.92	118.92	110.16
70	Ci	24	LYS	CB-CA-C	-5.92	104.24	111.82
83	A5	23	U	O4'-C1'-N1	5.92	117.38	108.50
83	A5	2857	C	O4'-C1'-C2'	-5.92	101.68	107.60
83	A5	3537	U	O4'-C1'-C2'	-5.92	101.68	107.60
86	A8	66	U	O4'-C1'-C2'	-5.92	101.68	107.60
83	A5	2806	U	O4'-C1'-C2'	-5.92	101.68	107.60
83	A5	3460	C	O4'-C1'-C2'	-5.92	101.68	107.60
12	AR	29	HIS	CG-CD2-NE2	5.92	113.12	107.20
29	AG	61	PHE	CA-C-N	5.92	125.86	119.76
29	AG	61	PHE	C-N-CA	5.92	125.86	119.76
69	Cg	49	GLU	CA-C-N	5.92	132.84	121.54
69	Cg	49	GLU	C-N-CA	5.92	132.84	121.54
83	A5	1567	G	O5'-C5'-C4'	-5.92	102.62	111.50
1	Az	775	PRO	CA-C-N	5.92	128.56	120.46
1	Az	775	PRO	C-N-CA	5.92	128.56	120.46
36	B2	900	A	O4'-C1'-N9	5.92	117.08	108.20
63	CB	40	PRO	N-CA-C	5.92	124.66	112.47
63	CB	399	GLU	CA-C-N	5.92	128.21	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
63	CB	399	GLU	C-N-CA	5.92	128.21	120.28
83	A5	1267	A	O4'-C1'-C2'	-5.92	101.68	107.60
83	A5	3244	U	C3'-C2'-C1'	5.92	107.22	101.30
36	B2	1042	A	C3'-C2'-C1'	5.92	107.22	101.30
36	B2	1696	G	N9-C1'-C2'	5.92	120.87	112.00
68	Cf	142	HIS	N-CA-C	-5.92	105.56	112.89
1	Az	677	ILE	CB-CA-C	-5.91	104.29	112.04
36	B2	595	C	N1-C1'-C2'	5.91	120.87	112.00
36	B2	900	A	O4'-C1'-C2'	-5.91	99.89	105.80
36	B2	1184	U	O4'-C1'-C2'	-5.91	101.69	107.60
36	B2	1960	A	O4'-C1'-C2'	5.91	111.71	105.80
43	CV	20	LEU	CB-CA-C	-5.91	99.94	111.29
51	CA	5	ILE	CA-C-N	5.91	128.80	120.28
51	CA	5	ILE	C-N-CA	5.91	128.80	120.28
83	A5	212	U	C4'-C3'-C2'	-5.91	96.69	102.60
83	A5	420	A	C1'-C2'-O2'	5.91	117.27	108.40
83	A5	732	U	O4'-C1'-N1	5.91	117.37	108.50
83	A5	835	G	O4'-C1'-C2'	5.91	113.51	107.60
83	A5	2634	A	N9-C1'-C2'	-5.91	105.13	114.00
83	A5	3228	A	N9-C1'-C2'	5.91	120.87	112.00
83	A5	3839	A	C3'-C2'-C1'	-5.91	95.39	101.30
86	A8	91	C	N1-C1'-C2'	5.91	120.87	112.00
71	Cj	44	LEU	N-CA-CB	5.91	118.66	109.85
85	A7	29	C	C5'-C4'-C3'	5.91	124.87	116.00
36	B2	177	U	O4'-C1'-N1	5.91	117.06	108.20
36	B2	1529	G	C1'-O4'-C4'	5.91	115.61	109.70
36	B2	1547	U	O4'-C1'-N1	5.91	117.37	108.50
47	CI	104	SER	CA-C-N	5.91	132.83	121.54
47	CI	104	SER	C-N-CA	5.91	132.83	121.54
64	CF	213	TRP	CA-C-N	5.91	127.23	119.84
64	CF	213	TRP	C-N-CA	5.91	127.23	119.84
85	A7	11	A	O3'-P-O5'	-5.91	95.14	104.00
28	AC	56	GLY	CA-C-N	5.91	129.29	120.31
28	AC	56	GLY	C-N-CA	5.91	129.29	120.31
36	B2	1472	C	C4'-C3'-O3'	5.91	118.86	110.00
49	CQ	156	PRO	CA-C-N	5.91	132.99	121.41
49	CQ	156	PRO	C-N-CA	5.91	132.99	121.41
83	A5	1689	G	O4'-C1'-N9	-5.91	99.64	108.50
83	A5	2775	A	N9-C1'-C2'	5.91	120.86	112.00
81	CE	44	LEU	N-CA-CB	5.91	120.47	110.49
83	A5	1220	U	O4'-C1'-N1	5.91	117.36	108.50
85	A7	88	G	N9-C1'-C2'	5.91	120.86	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
71	Cj	17	THR	CA-C-N	5.91	132.19	121.97
71	Cj	17	THR	C-N-CA	5.91	132.19	121.97
83	A5	101	C	N1-C1'-C2'	5.91	120.86	112.00
83	A5	123	U	O4'-C1'-C2'	-5.91	99.89	105.80
83	A5	1175	C	O4'-C1'-C2'	-5.91	101.69	107.60
83	A5	3193	C	C1'-C2'-O2'	5.91	117.26	108.40
36	B2	1870	C	N1-C1'-C2'	5.90	120.86	112.00
37	BC	49	G	O4'-C1'-C2'	5.90	113.50	107.60
63	CB	275	HIS	ND1-CE1-NE2	5.90	114.30	108.40
83	A5	2883	C	C3'-C2'-C1'	5.90	107.20	101.30
49	CQ	14	ARG	CA-C-N	5.90	130.64	121.26
49	CQ	14	ARG	C-N-CA	5.90	130.64	121.26
83	A5	334	U	O4'-C1'-N1	5.90	117.05	108.20
83	A5	1431	G	N9-C1'-C2'	-5.90	103.15	112.00
83	A5	3730	G	O4'-C1'-N9	5.90	117.35	108.50
36	B2	26	A	O4'-C1'-C2'	-5.90	99.90	105.80
49	CQ	117	GLY	CA-C-N	5.90	129.06	122.69
49	CQ	117	GLY	C-N-CA	5.90	129.06	122.69
83	A5	1313	A	O4'-C1'-C2'	-5.90	101.70	107.60
83	A5	1784	A	O4'-C1'-N9	5.90	117.35	108.50
36	B2	442	A	O4'-C1'-C2'	-5.90	101.70	107.60
49	CQ	160	HIS	CA-CB-CG	5.90	119.70	113.80
83	A5	3612	A	C4'-C3'-O3'	-5.90	104.15	113.00
30	AF	42	LYS	N-CA-CB	5.90	120.46	110.49
69	Cg	78	GLY	CA-C-N	5.90	127.99	120.56
69	Cg	78	GLY	C-N-CA	5.90	127.99	120.56
74	CC	5	ASN	N-CA-C	5.90	123.36	110.80
83	A5	1872	A	C2'-C3'-O3'	5.90	118.34	109.50
83	A5	3687	A	P-O3'-C3'	5.90	129.04	120.20
1	Az	327	ARG	N-CA-C	5.89	117.70	111.28
14	AT	66	HIS	CA-C-N	5.89	129.27	120.31
14	AT	66	HIS	C-N-CA	5.89	129.27	120.31
17	AV	43	THR	CA-C-N	5.89	132.96	121.41
17	AV	43	THR	C-N-CA	5.89	132.96	121.41
36	B2	1277	A	O4'-C1'-C2'	-5.89	101.71	107.60
36	B2	1529	G	C2'-C3'-O3'	5.89	118.34	109.50
83	A5	499	A	O4'-C1'-C2'	-5.89	101.70	107.60
36	B2	1557	U	C2'-C3'-O3'	-5.89	104.86	113.70
44	CM	109	ARG	N-CA-C	5.89	117.78	111.36
83	A5	3894	C	N1-C1'-C2'	5.89	120.84	112.00
15	AB	95	GLN	CA-C-N	5.89	132.79	121.54
15	AB	95	GLN	C-N-CA	5.89	132.79	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	972	U	O4'-C1'-N1	5.89	117.34	108.50
31	AH	108	ASN	CA-C-O	-5.89	114.57	120.64
36	B2	1817	C	C1'-O4'-C4'	-5.89	104.01	109.90
48	CD	243	ALA	N-CA-C	-5.89	104.81	112.23
83	A5	124	A	O4'-C1'-N9	5.89	117.04	108.20
83	A5	476	U	P-O3'-C3'	5.89	129.03	120.20
83	A5	1606	G	O4'-C1'-C2'	-5.89	99.91	105.80
83	A5	1786	G	O3'-P-O5'	-5.89	95.17	104.00
83	A5	1982	U	C4'-C3'-O3'	-5.89	104.17	113.00
83	A5	3389	C	C1'-O4'-C4'	-5.89	104.01	109.90
1	Az	264	GLN	O-C-N	-5.89	114.76	122.59
36	B2	1280	C	O4'-C1'-C2'	-5.89	101.71	107.60
36	B2	1540	G	O3'-P-O5'	5.89	112.83	104.00
83	A5	3598	U	N1-C1'-C2'	-5.89	103.17	112.00
18	AY	89	LYS	CA-C-N	5.89	128.76	120.28
18	AY	89	LYS	C-N-CA	5.89	128.76	120.28
24	Ae	75	HIS	CE1-NE2-CD2	-5.89	103.11	109.00
29	AG	28	TYR	N-CA-CB	5.89	118.60	109.48
36	B2	1788	C	C1'-C2'-O2'	5.89	117.23	108.40
38	Cz	16	GLY	CA-C-N	5.89	128.76	120.28
38	Cz	16	GLY	C-N-CA	5.89	128.76	120.28
42	CL	88	ASN	CA-C-N	5.89	128.17	120.28
42	CL	88	ASN	C-N-CA	5.89	128.17	120.28
81	CE	124	LEU	CA-C-O	-5.89	114.34	121.05
83	A5	3335	A	C1'-O4'-C4'	5.89	115.59	109.70
83	A5	3345	A	C1'-O4'-C4'	-5.89	104.01	109.90
36	B2	324	U	P-O5'-C5'	-5.88	112.08	120.90
36	B2	1274	U	O4'-C1'-N1	5.88	117.33	108.50
52	CS	81	TRP	N-CA-C	-5.88	99.81	109.40
63	CB	90	VAL	CA-C-N	5.88	126.62	122.33
63	CB	90	VAL	C-N-CA	5.88	126.62	122.33
82	CG	91	THR	N-CA-C	5.88	118.48	111.71
83	A5	3026	U	P-O3'-C3'	5.88	129.03	120.20
67	Ce	5	PRO	CA-C-N	5.88	132.78	121.54
67	Ce	5	PRO	C-N-CA	5.88	132.78	121.54
70	Ci	48	LYS	CA-C-N	5.88	128.16	120.28
70	Ci	48	LYS	C-N-CA	5.88	128.16	120.28
83	A5	530	U	C4'-C3'-C2'	-5.88	96.72	102.60
83	A5	2926	G	P-O3'-C3'	5.88	129.02	120.20
83	A5	3855	A	O4'-C1'-N9	5.88	117.32	108.50
21	Ab	56	CYS	CA-C-N	5.88	132.78	121.54
21	Ab	56	CYS	C-N-CA	5.88	132.78	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1207	G	C1'-O4'-C4'	-5.88	104.02	109.90
53	CT	132	PRO	CA-C-N	5.88	132.77	121.54
53	CT	132	PRO	C-N-CA	5.88	132.77	121.54
67	Ce	124	PRO	O-C-N	-5.88	114.70	122.64
83	A5	3935	G	O5'-C5'-C4'	-5.88	102.68	111.50
39	Cq	165	ASP	CA-C-N	5.88	132.14	121.97
39	Cq	165	ASP	C-N-CA	5.88	132.14	121.97
83	A5	353	G	O4'-C1'-C2'	5.88	113.48	107.60
36	B2	243	U	C3'-C2'-C1'	5.88	107.18	101.30
36	B2	249	U	N1-C1'-C2'	5.88	120.82	112.00
36	B2	866	U	C2'-C3'-O3'	5.88	118.32	109.50
37	BC	20	A	O4'-C1'-C2'	-5.88	99.92	105.80
46	CN	124	ASP	CA-C-N	5.88	132.77	121.54
46	CN	124	ASP	C-N-CA	5.88	132.77	121.54
52	CS	99	ASP	CA-C-N	5.88	128.48	120.54
52	CS	99	ASP	C-N-CA	5.88	128.48	120.54
64	CF	190	CYS	CA-C-N	5.88	128.51	120.46
64	CF	190	CYS	C-N-CA	5.88	128.51	120.46
83	A5	1614	A	O4'-C1'-C2'	-5.88	101.72	107.60
83	A5	3879	A	O3'-P-O5'	-5.88	95.18	104.00
83	A5	1112	G	O4'-C1'-N9	5.88	117.31	108.50
83	A5	2070	G	O4'-C1'-C2'	5.88	113.48	107.60
83	A5	2928	G	C1'-O4'-C4'	-5.88	104.02	109.90
86	A8	84	U	O3'-P-O5'	-5.88	95.19	104.00
36	B2	1126	A	O4'-C1'-C2'	-5.88	99.92	105.80
36	B2	1574	U	O4'-C1'-N1	5.88	117.31	108.50
70	Ci	97	ARG	CA-C-N	5.87	128.15	120.28
70	Ci	97	ARG	C-N-CA	5.87	128.15	120.28
83	A5	743	C	C1'-O4'-C4'	-5.87	104.03	109.90
83	A5	1025	U	O4'-C1'-C2'	-5.87	101.73	107.60
83	A5	2612	G	C1'-O4'-C4'	-5.87	104.03	109.90
83	A5	2904	U	C4'-C3'-C2'	-5.87	96.73	102.60
36	B2	1747	A	C3'-C2'-C1'	5.87	107.17	101.30
36	B2	1944	A	O4'-C1'-N9	5.87	117.31	108.50
41	CO	10	VAL	N-CA-C	-5.87	99.96	108.36
63	CB	394	LYS	CA-C-N	5.87	128.15	120.28
63	CB	394	LYS	C-N-CA	5.87	128.15	120.28
83	A5	563	A	C1'-O4'-C4'	-5.87	104.03	109.90
83	A5	2063	A	C2'-C3'-O3'	5.87	118.31	109.50
21	Ab	49	HIS	CG-CD2-NE2	5.87	113.07	107.20
33	AI	119	LEU	CA-C-N	5.87	127.18	119.84
33	AI	119	LEU	C-N-CA	5.87	127.18	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	341	G	O4'-C1'-C2'	5.87	113.47	107.60
36	B2	650	G	O4'-C1'-C2'	5.87	113.47	107.60
37	BC	66	U	O4'-C1'-N1	5.87	117.31	108.50
49	CQ	98	LEU	N-CA-C	5.87	123.30	110.80
83	A5	456	G	O4'-C1'-N9	5.87	117.31	108.50
83	A5	1140	G	O4'-C1'-N9	5.87	117.31	108.50
1	Az	173	LEU	CB-CA-C	-5.87	102.85	112.06
22	Ac	61	ALA	CA-C-N	5.87	132.75	121.54
22	Ac	61	ALA	C-N-CA	5.87	132.75	121.54
44	CM	125	ILE	N-CA-CB	-5.87	101.83	111.98
81	CE	86	GLU	N-CA-C	5.87	118.51	110.24
83	A5	1183	U	C3'-C2'-C1'	5.87	107.17	101.30
83	A5	1632	A	O4'-C1'-C2'	-5.87	99.93	105.80
83	A5	1995	U	O4'-C1'-N1	5.87	117.30	108.50
83	A5	2841	G	O3'-P-O5'	-5.87	95.20	104.00
83	A5	3291	U	O4'-C1'-N1	5.87	117.30	108.50
83	A5	3575	G	C1'-O4'-C4'	-5.87	104.03	109.90
10	AN	84	ILE	CA-C-N	5.87	126.21	119.93
10	AN	84	ILE	C-N-CA	5.87	126.21	119.93
83	A5	555	U	N1-C1'-C2'	5.87	120.80	112.00
83	A5	911	A	O4'-C4'-C3'	-5.87	98.13	104.00
83	A5	1367	A	N9-C1'-C2'	5.87	120.80	112.00
83	A5	486	A	O4'-C1'-N9	5.87	117.30	108.50
83	A5	1229	U	C4'-C3'-C2'	5.87	108.47	102.60
83	A5	3888	U	N1-C1'-C2'	5.87	120.80	112.00
85	A7	112	U	O4'-C1'-N1	5.87	117.30	108.50
34	AQ	134	PHE	N-CA-CB	5.86	118.31	109.34
35	Ah	114	ASN	N-CA-C	5.86	123.29	110.80
36	B2	1577	A	O4'-C1'-N9	5.86	117.30	108.50
82	CG	108	ARG	CA-C-N	5.86	127.17	119.84
82	CG	108	ARG	C-N-CA	5.86	127.17	119.84
83	A5	136	C	N1-C1'-C2'	5.86	120.80	112.00
83	A5	742	A	O4'-C1'-C2'	-5.86	101.74	107.60
83	A5	1241	C	O3'-P-O5'	-5.86	95.20	104.00
83	A5	3015	A	C3'-C2'-C1'	5.86	107.16	101.30
83	A5	3170	U	O4'-C1'-N1	5.86	117.30	108.50
36	B2	1834	G	N9-C1'-C2'	5.86	120.79	112.00
50	CR	134	ASN	CA-C-N	5.86	128.41	120.44
50	CR	134	ASN	C-N-CA	5.86	128.41	120.44
83	A5	3915	U	P-O3'-C3'	5.86	128.99	120.20
16	AA	11	LYS	CA-C-N	5.86	128.41	120.38
16	AA	11	LYS	C-N-CA	5.86	128.41	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	AE	168	LYS	CA-C-N	5.86	130.00	121.80
27	AE	168	LYS	C-N-CA	5.86	130.00	121.80
36	B2	567	C	C3'-C2'-C1'	5.86	107.16	101.30
83	A5	838	U	N1-C1'-C2'	5.86	120.79	112.00
83	A5	3182	U	N1-C1'-C2'	5.86	120.79	112.00
83	A5	3404	A	C1'-O4'-C4'	5.86	115.56	109.70
83	A5	3692	G	C4'-C3'-C2'	-5.86	96.74	102.60
83	A5	3925	G	C2'-C3'-O3'	5.86	118.29	109.50
36	B2	1758	A	O4'-C1'-C2'	5.86	113.46	107.60
41	CO	200	SER	N-CA-C	-5.86	105.96	113.23
63	CB	211	PHE	CA-C-N	5.86	127.03	121.46
63	CB	211	PHE	C-N-CA	5.86	127.03	121.46
1	Az	502	ASP	CA-C-N	5.86	128.31	120.58
1	Az	502	ASP	C-N-CA	5.86	128.31	120.58
4	AK	11	ILE	CB-CA-C	-5.86	104.47	111.97
36	B2	429	C	C1'-O4'-C4'	-5.86	104.04	109.90
36	B2	447	C	O4'-C1'-C2'	-5.86	101.74	107.60
36	B2	1812	C	O4'-C1'-C2'	-5.86	101.74	107.60
54	CP	63	PHE	CA-CB-CG	-5.86	107.94	113.80
80	CH	16	ILE	CA-CB-CG1	5.86	120.36	110.40
83	A5	491	U	O4'-C1'-N1	5.86	117.29	108.50
83	A5	2818	G	O4'-C1'-N9	5.86	117.29	108.50
1	Az	146	VAL	CA-C-N	5.86	128.13	120.28
1	Az	146	VAL	C-N-CA	5.86	128.13	120.28
1	Az	543	CYS	CA-C-N	5.86	128.61	120.29
1	Az	543	CYS	C-N-CA	5.86	128.61	120.29
36	B2	579	G	O4'-C1'-C2'	-5.86	101.75	107.60
83	A5	1562	U	O4'-C1'-N1	5.86	117.28	108.50
83	A5	3689	U	O4'-C1'-C2'	-5.86	101.75	107.60
36	B2	636	G	N9-C1'-C2'	5.85	120.78	112.00
74	CC	83	ARG	N-CA-C	5.85	123.27	110.80
74	CC	115	HIS	CA-CB-CG	5.85	119.65	113.80
83	A5	3701	U	O5'-C5'-C4'	5.85	120.28	111.50
24	Ae	101	THR	CA-C-N	5.85	132.88	121.41
24	Ae	101	THR	C-N-CA	5.85	132.88	121.41
36	B2	1205	U	N1-C1'-C2'	5.85	120.78	112.00
41	CO	60	LEU	CB-CA-C	-5.85	98.98	110.10
51	CA	215	ASN	N-CA-CB	5.85	118.82	110.16
63	CB	340	SER	N-CA-CB	5.85	118.81	110.44
64	CF	149	ASN	CA-C-N	5.85	129.21	120.31
64	CF	149	ASN	C-N-CA	5.85	129.21	120.31
68	Cf	47	HIS	CA-C-N	5.85	132.23	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
68	Cf	47	HIS	C-N-CA	5.85	132.23	121.70
83	A5	1241	C	P-O3'-C3'	5.85	128.98	120.20
83	A5	2125	G	O4'-C1'-N9	5.85	117.28	108.50
83	A5	3331	A	C3'-C2'-C1'	5.85	107.15	101.30
83	A5	3727	A	P-O3'-C3'	5.85	128.98	120.20
36	B2	107	A	C3'-C2'-C1'	5.85	107.15	101.30
14	AT	37	VAL	CB-CA-C	5.85	117.92	111.08
36	B2	1	A	O4'-C1'-C2'	-5.85	99.95	105.80
36	B2	1569	C	N1-C1'-C2'	5.85	120.78	112.00
36	B2	1783	U	O4'-C1'-C2'	-5.85	101.75	107.60
44	CM	123	LEU	CA-C-O	5.85	126.72	120.70
83	A5	1208	U	O4'-C1'-N1	5.85	117.28	108.50
83	A5	2747	G	O4'-C1'-C2'	5.85	113.45	107.60
36	B2	1816	C	O4'-C1'-C2'	-5.85	101.75	107.60
39	Cq	111	ALA	CA-C-N	5.85	129.86	121.50
39	Cq	111	ALA	C-N-CA	5.85	129.86	121.50
46	CN	31	ARG	N-CA-C	-5.85	105.75	114.64
53	CT	78	LYS	CA-C-N	5.85	129.66	121.24
53	CT	78	LYS	C-N-CA	5.85	129.66	121.24
83	A5	458	A	C3'-C2'-C1'	5.85	107.15	101.30
83	A5	1951	C	O4'-C1'-C2'	-5.85	101.75	107.60
83	A5	3746	A	P-O5'-C5'	-5.85	112.13	120.90
83	A5	3751	C	P-O3'-C3'	5.85	128.97	120.20
36	B2	1992	A	O4'-C1'-C2'	-5.85	101.75	107.60
63	CB	103	VAL	N-CA-CB	5.85	121.05	111.58
83	A5	534	U	O4'-C1'-C2'	-5.85	101.75	107.60
83	A5	1955	A	C3'-C2'-C1'	5.85	107.15	101.30
1	Az	112	HIS	CG-CD2-NE2	5.84	113.05	107.20
17	AV	49	GLY	N-CA-C	-5.84	99.33	113.18
36	B2	590	U	C3'-C2'-C1'	5.84	107.34	101.50
36	B2	777	A	P-O3'-C3'	-5.84	111.43	120.20
63	CB	311	ASP	CA-C-N	5.84	132.70	121.54
63	CB	311	ASP	C-N-CA	5.84	132.70	121.54
67	Ce	123	ASN	O-C-N	-5.84	116.10	121.42
83	A5	157	C	O4'-C1'-C2'	-5.84	101.76	107.60
83	A5	531	C	P-O5'-C5'	5.84	129.67	120.90
83	A5	3536	U	O4'-C1'-N1	5.84	117.27	108.50
36	B2	459	U	O4'-C1'-C2'	-5.84	99.96	105.80
42	CL	73	ARG	CA-C-N	5.84	132.86	121.41
42	CL	73	ARG	C-N-CA	5.84	132.86	121.41
55	CU	191	LEU	N-CA-CB	5.84	119.72	110.55
60	Cr	12	ILE	N-CA-CB	-5.84	102.26	112.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3517	U	C3'-C2'-C1'	5.84	107.14	101.30
83	A5	3720	A	C4'-C3'-C2'	-5.84	96.76	102.60
36	B2	289	G	C5'-C4'-C3'	5.84	124.76	116.00
36	B2	1138	U	O4'-C4'-C3'	-5.84	98.16	104.00
54	CP	174	LYS	CB-CA-C	-5.84	98.80	110.42
83	A5	691	C	C3'-C2'-C1'	5.84	107.14	101.30
83	A5	775	U	C5'-C4'-C3'	5.84	124.76	116.00
83	A5	878	U	C1'-C2'-O2'	5.84	117.16	108.40
83	A5	1544	U	C2'-C3'-O3'	5.84	118.26	109.50
83	A5	3817	U	C4'-C3'-O3'	-5.84	104.24	113.00
36	B2	704	U	O4'-C1'-N1	5.84	117.26	108.50
52	CS	5	GLY	CA-C-N	5.84	132.69	121.54
52	CS	5	GLY	C-N-CA	5.84	132.69	121.54
74	CC	152	GLU	N-CA-CB	5.84	120.61	111.56
83	A5	221	C	O4'-C1'-C2'	-5.84	101.76	107.60
83	A5	821	U	O4'-C1'-C2'	-5.84	101.76	107.60
1	Az	800	PHE	CB-CA-C	-5.84	103.59	112.11
51	CA	68	ARG	CA-C-N	5.84	131.60	122.26
51	CA	68	ARG	C-N-CA	5.84	131.60	122.26
83	A5	1756	G	O4'-C1'-C2'	-5.84	101.76	107.60
6	AX	17	ARG	N-CA-CB	5.84	118.80	110.16
36	B2	83	A	N9-C1'-C2'	-5.84	103.25	112.00
36	B2	1920	U	O4'-C1'-C2'	-5.84	101.76	107.60
36	B2	1967	C	O4'-C1'-C2'	-5.84	101.76	107.60
83	A5	2876	U	O4'-C1'-N1	5.84	117.25	108.50
83	A5	3586	A	C1'-O4'-C4'	-5.84	104.06	109.90
15	AB	40	GLN	N-CA-CB	5.83	120.35	110.49
21	Ab	63	LEU	N-CA-CB	5.83	120.35	110.49
36	B2	281	C	C3'-C2'-C1'	5.83	107.33	101.50
36	B2	489	C	O4'-C1'-C2'	-5.83	101.77	107.60
36	B2	847	G	O4'-C1'-N9	5.83	116.95	108.20
36	B2	1303	C	C3'-C2'-C1'	5.83	107.14	101.30
41	CO	175	GLU	CB-CG-CD	-5.83	102.68	112.60
69	Cg	46	GLN	N-CA-C	-5.83	105.93	114.39
27	AE	209	HIS	CE1-NE2-CD2	-5.83	103.17	109.00
49	CQ	184	CYS	CA-C-N	5.83	132.84	121.41
49	CQ	184	CYS	C-N-CA	5.83	132.84	121.41
50	CR	123	LEU	CA-C-N	5.83	128.57	120.29
50	CR	123	LEU	C-N-CA	5.83	128.57	120.29
52	CS	164	ARG	N-CA-C	-5.83	106.14	113.72
54	CP	87	SER	N-CA-CB	5.83	118.69	110.12
83	A5	831	A	C3'-C2'-C1'	5.83	107.13	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	922	G	N9-C1'-C2'	5.83	120.75	112.00
83	A5	1797	A	C1'-O4'-C4'	5.83	115.53	109.70
83	A5	2818	G	O4'-C4'-C3'	-5.83	98.17	104.00
8	AS	49	ASP	CA-CB-CG	-5.83	106.77	112.60
38	Cz	140	HIS	ND1-CE1-NE2	5.83	114.23	108.40
51	CA	212	GLY	CA-C-N	-5.83	109.98	121.41
51	CA	212	GLY	C-N-CA	-5.83	109.98	121.41
57	CY	7	VAL	N-CA-CB	-5.83	105.41	112.35
74	CC	64	GLN	N-CA-CB	5.83	118.69	110.12
83	A5	2781	G	O4'-C4'-C3'	-5.83	100.27	106.10
83	A5	3036	C	C5'-C4'-C3'	5.83	123.65	114.90
48	CD	272	LYS	N-CA-C	5.83	123.22	110.80
57	CY	66	GLN	N-CA-CB	5.83	120.34	110.49
51	CA	206	PRO	CA-C-N	5.83	128.44	120.46
51	CA	206	PRO	C-N-CA	5.83	128.44	120.46
69	Cg	26	PRO	N-CA-C	5.83	124.48	112.47
74	CC	363	VAL	CA-C-N	5.83	132.67	121.54
74	CC	363	VAL	C-N-CA	5.83	132.67	121.54
83	A5	248	C	O4'-C1'-C2'	-5.83	101.77	107.60
83	A5	2067	C	O4'-C1'-C2'	-5.83	101.77	107.60
83	A5	2736	A	O4'-C1'-C2'	-5.83	101.77	107.60
58	CW	98	PRO	N-CA-C	5.83	124.47	112.47
83	A5	501	A	O4'-C1'-N9	5.83	117.24	108.50
13	AP	110	VAL	N-CA-CB	5.83	118.47	111.31
33	AI	140	THR	O-C-N	5.83	128.38	122.09
36	B2	292	G	O4'-C1'-N9	5.83	116.94	108.20
36	B2	821	U	O5'-C5'-C4'	-5.83	102.76	111.50
83	A5	172	C	P-O5'-C5'	-5.83	112.16	120.90
83	A5	1258	C	N1-C1'-C2'	5.83	120.74	112.00
1	Az	59	THR	N-CA-C	5.82	120.11	112.89
29	AG	154	ARG	N-CA-C	5.82	123.20	110.80
36	B2	1571	U	C5'-C4'-C3'	-5.82	107.26	116.00
36	B2	1731	U	C1'-O4'-C4'	5.82	115.52	109.70
36	B2	1875	G	C4'-C3'-C2'	-5.82	96.78	102.60
42	CL	177	LYS	CA-C-N	5.82	128.08	120.28
42	CL	177	LYS	C-N-CA	5.82	128.08	120.28
60	Cr	38	SER	CA-C-N	5.82	132.45	121.97
60	Cr	38	SER	C-N-CA	5.82	132.45	121.97
81	CE	18	LYS	N-CA-CB	5.82	120.33	110.49
83	A5	297	U	O4'-C1'-N1	5.82	117.23	108.50
83	A5	2620	C	C5'-C4'-C3'	-5.82	107.27	116.00
83	A5	3465	C	O4'-C1'-C2'	-5.82	101.78	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3634	U	O3'-P-O5'	-5.82	95.27	104.00
1	Az	464	PHE	N-CA-C	-5.82	105.83	113.17
36	B2	1451	A	O4'-C1'-N9	5.82	117.23	108.50
83	A5	3086	G	O3'-P-O5'	5.82	112.73	104.00
83	A5	3790	A	O4'-C1'-C2'	-5.82	101.78	107.60
14	AT	17	ALA	CA-C-N	5.82	128.68	120.42
14	AT	17	ALA	C-N-CA	5.82	128.68	120.42
36	B2	189	C	O4'-C1'-C2'	-5.82	99.98	105.80
37	BC	63	U	O4'-C1'-N1	5.82	117.23	108.50
51	CA	196	TRP	CA-C-O	-5.82	112.19	120.16
81	CE	241	MET	CB-CA-C	-5.82	101.22	111.05
83	A5	241	C	C1'-C2'-O2'	5.82	120.53	111.80
83	A5	1658	G	O3'-P-O5'	-5.82	95.27	104.00
83	A5	3669	U	N1-C1'-C2'	5.82	120.73	112.00
83	A5	3812	C	N1-C1'-C2'	5.82	120.73	112.00
28	AC	51	ARG	CA-C-N	5.82	128.08	120.28
28	AC	51	ARG	C-N-CA	5.82	128.08	120.28
33	AI	126	ASN	CA-C-O	-5.82	112.69	118.34
36	B2	180	A	O4'-C1'-C2'	-5.82	101.78	107.60
70	Ci	40	LYS	CA-C-N	5.82	129.16	120.31
70	Ci	40	LYS	C-N-CA	5.82	129.16	120.31
83	A5	1284	A	N9-C1'-C2'	-5.82	105.27	114.00
36	B2	1767	G	C1'-O4'-C4'	-5.82	104.08	109.90
83	A5	161	G	P-O5'-C5'	5.82	129.63	120.90
83	A5	924	U	O4'-C1'-N1	5.82	117.23	108.50
83	A5	1626	A	C3'-C2'-C1'	5.82	107.12	101.30
83	A5	1793	C	C4'-C3'-C2'	5.82	108.42	102.60
83	A5	1930	G	O4'-C1'-N9	5.82	117.23	108.50
36	B2	904	C	O4'-C1'-N1	5.82	117.22	108.50
50	CR	118	HIS	CE1-NE2-CD2	-5.82	103.19	109.00
83	A5	1532	A	O4'-C1'-N9	5.82	116.92	108.20
84	A9	14	U	O4'-C1'-N1	5.82	117.22	108.50
36	B2	1948	A	O4'-C1'-C2'	-5.81	101.79	107.60
38	Cz	74	CYS	CA-C-N	5.81	128.07	120.28
38	Cz	74	CYS	C-N-CA	5.81	128.07	120.28
40	CK	76	SER	CA-C-N	5.81	132.64	121.54
40	CK	76	SER	C-N-CA	5.81	132.64	121.54
59	CZ	67	LYS	N-CA-C	5.81	118.62	109.96
83	A5	1457	G	N9-C1'-C2'	5.81	120.72	112.00
85	A7	17	C	O4'-C1'-N1	5.81	117.22	108.50
40	CK	106	PHE	CA-CB-CG	-5.81	107.99	113.80
51	CA	142	ASP	CA-CB-CG	-5.81	106.79	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
69	Cg	62	ARG	O-C-N	-5.81	114.64	121.32
83	A5	693	G	N9-C1'-C2'	5.81	120.72	112.00
83	A5	3700	U	O3'-P-O5'	5.81	112.72	104.00
1	Az	450	VAL	CA-C-O	-5.81	112.17	119.95
29	AG	214	LEU	CB-CA-C	-5.81	101.76	110.88
33	AI	129	HIS	CA-C-N	5.81	128.07	120.28
33	AI	129	HIS	C-N-CA	5.81	128.07	120.28
36	B2	1732	G	N9-C1'-C2'	5.81	120.71	112.00
83	A5	1527	C	C3'-C2'-C1'	5.81	107.11	101.30
83	A5	1722	U	C1'-O4'-C4'	-5.81	104.09	109.90
83	A5	3694	G	O4'-C1'-N9	5.81	117.22	108.50
1	Az	344	LEU	N-CA-C	5.81	122.64	109.81
2	Ag	67	ILE	N-CA-CB	5.81	118.00	111.21
36	B2	339	U	O4'-C1'-C2'	-5.81	101.79	107.60
37	BC	50	A	O4'-C1'-N9	5.81	117.21	108.50
79	CJ	122	ILE	N-CA-C	5.81	121.42	109.34
83	A5	37	G	O4'-C1'-N9	5.81	117.21	108.50
83	A5	199	U	C1'-O4'-C4'	-5.81	104.09	109.90
83	A5	792	U	O4'-C1'-N1	5.81	117.21	108.50
83	A5	1206	G	O4'-C1'-N9	5.81	116.91	108.20
83	A5	1352	U	O4'-C1'-C2'	-5.81	101.79	107.60
83	A5	1937	G	O4'-C1'-C2'	-5.81	101.79	107.60
85	A7	94	C	N1-C1'-C2'	5.81	120.71	112.00
5	AO	148	GLY	CA-C-N	5.81	132.63	121.54
5	AO	148	GLY	C-N-CA	5.81	132.63	121.54
44	CM	156	ALA	N-CA-CB	5.81	119.11	110.40
63	CB	19	LYS	N-CA-C	5.81	123.17	110.80
83	A5	2581	U	N1-C1'-C2'	5.81	120.71	112.00
1	Az	66	ARG	CA-C-N	5.80	132.63	121.54
1	Az	66	ARG	C-N-CA	5.80	132.63	121.54
10	AN	70	LYS	N-CA-CB	5.80	118.56	110.26
42	CL	26	ASN	CB-CA-C	-5.80	100.40	110.09
57	CY	24	HIS	ND1-CE1-NE2	5.80	114.20	108.40
83	A5	1282	U	O4'-C1'-N1	5.80	117.21	108.50
83	A5	1865	U	P-O5'-C5'	5.80	129.61	120.90
83	A5	3136	U	N1-C1'-C2'	5.80	120.71	112.00
83	A5	3293	G	O4'-C1'-C2'	-5.80	100.00	105.80
83	A5	2480	U	O4'-C1'-N1	5.80	117.20	108.50
1	Az	309	LEU	CA-C-N	5.80	132.62	121.54
1	Az	309	LEU	C-N-CA	5.80	132.62	121.54
36	B2	387	C	N1-C1'-C2'	5.80	120.70	112.00
36	B2	1056	C	C3'-C2'-C1'	5.80	107.10	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	Cz	145	ILE	N-CA-C	-5.80	104.52	113.16
42	CL	151	GLY	CA-C-O	-5.80	113.22	121.52
66	Cd	61	ILE	CA-C-N	5.80	130.67	120.87
66	Cd	61	ILE	C-N-CA	5.80	130.67	120.87
82	CG	223	VAL	CA-C-N	5.80	128.63	120.28
82	CG	223	VAL	C-N-CA	5.80	128.63	120.28
83	A5	1776	U	C1'-O4'-C4'	5.80	115.70	109.90
83	A5	3420	U	O4'-C1'-C2'	-5.80	100.00	105.80
83	A5	3433	A	P-O5'-C5'	5.80	129.60	120.90
83	A5	238	G	N9-C1'-C2'	5.80	120.70	112.00
83	A5	1896	A	O4'-C1'-C2'	-5.80	101.80	107.60
75	Cm	104	HIS	CE1-NE2-CD2	-5.80	103.20	109.00
83	A5	3768	C	C3'-C2'-O2'	-5.80	105.90	114.60
83	A5	3898	C	P-O5'-C5'	5.80	129.60	120.90
1	Az	263	TRP	CA-C-N	5.80	132.61	121.54
1	Az	263	TRP	C-N-CA	5.80	132.61	121.54
31	AH	15	PRO	CA-C-N	5.80	132.13	121.70
31	AH	15	PRO	C-N-CA	5.80	132.13	121.70
40	CK	127	GLY	CA-C-N	5.80	128.52	120.29
40	CK	127	GLY	C-N-CA	5.80	128.52	120.29
70	Ci	90	HIS	ND1-CE1-NE2	5.80	114.20	108.40
83	A5	2181	A	N9-C1'-C2'	5.80	120.69	112.00
83	A5	3457	C	O4'-C1'-C2'	-5.80	101.80	107.60
59	CZ	79	HIS	CA-CB-CG	-5.79	108.00	113.80
83	A5	3834	A	O4'-C1'-C2'	-5.79	101.81	107.60
33	AI	121	LEU	O-C-N	-5.79	116.00	122.55
46	CN	181	SER	N-CA-CB	5.79	118.64	110.12
47	CI	92	HIS	ND1-CE1-NE2	5.79	114.19	108.40
83	A5	483	U	O4'-C1'-N1	5.79	117.19	108.50
83	A5	1864	U	O4'-C1'-C2'	-5.79	100.01	105.80
5	AO	142	ARG	N-CA-CB	5.79	118.55	109.69
27	AE	76	VAL	N-CA-CB	-5.79	103.23	110.47
36	B2	190	U	C2'-C3'-O3'	5.79	118.19	109.50
36	B2	1211	C	O4'-C1'-C2'	-5.79	101.81	107.60
83	A5	1869	C	C3'-C2'-C1'	5.79	107.09	101.30
83	A5	2124	G	O4'-C1'-C2'	5.79	113.39	107.60
84	A9	22	A	O3'-P-O5'	5.79	112.69	104.00
33	AI	133	GLU	CA-C-N	5.79	132.12	121.70
33	AI	133	GLU	C-N-CA	5.79	132.12	121.70
36	B2	85	A	O4'-C1'-C2'	-5.79	101.81	107.60
83	A5	1360	U	O4'-C1'-C2'	-5.79	101.81	107.60
29	AG	131	ARG	CA-C-N	5.79	132.60	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	AG	131	ARG	C-N-CA	5.79	132.60	121.54
36	B2	404	A	C1'-O4'-C4'	5.79	115.49	109.70
70	Ci	23	VAL	CB-CA-C	5.79	117.85	111.08
83	A5	671	A	P-O5'-C5'	5.79	129.58	120.90
83	A5	1007	A	C1'-C2'-O2'	5.79	117.08	108.40
83	A5	1019	U	O4'-C1'-N1	5.79	117.18	108.50
83	A5	1882	G	O4'-C1'-N9	5.79	117.18	108.50
83	A5	2243	G	O4'-C1'-C2'	5.79	113.39	107.60
83	A5	3812	C	O4'-C1'-C2'	-5.79	101.81	107.60
86	A8	101	A	O4'-C1'-C2'	-5.79	101.81	107.60
36	B2	306	A	O4'-C1'-C2'	-5.79	101.81	107.60
44	CM	125	ILE	CB-CA-C	5.79	119.51	110.95
54	CP	117	ILE	N-CA-C	-5.79	99.89	108.45
63	CB	175	GLN	N-CA-CB	5.79	118.36	109.91
74	CC	140	VAL	CA-C-N	5.79	128.03	120.28
74	CC	140	VAL	C-N-CA	5.79	128.03	120.28
83	A5	73	U	O4'-C1'-N1	5.79	117.18	108.50
83	A5	661	G	O4'-C1'-C2'	5.79	113.39	107.60
83	A5	662	A	P-O3'-C3'	5.79	128.88	120.20
83	A5	2038	A	O4'-C1'-C2'	-5.79	101.81	107.60
83	A5	3696	C	P-O3'-C3'	5.79	128.88	120.20
83	A5	2064	G	C2'-C3'-O3'	5.78	118.17	109.50
19	AZ	61	VAL	CA-C-N	5.78	127.07	119.84
19	AZ	61	VAL	C-N-CA	5.78	127.07	119.84
36	B2	1886	G	C4'-C3'-C2'	-5.78	96.82	102.60
83	A5	587	U	C4'-C3'-O3'	-5.78	104.33	113.00
83	A5	3842	A	C2'-C3'-O3'	5.78	122.37	113.70
16	AA	131	HIS	CG-CD2-NE2	5.78	112.98	107.20
36	B2	171	U	P-O5'-C5'	5.78	129.57	120.90
25	Af	152	LYS	CB-CA-C	5.78	121.08	110.10
83	A5	179	C	O4'-C1'-C2'	-5.78	101.82	107.60
83	A5	488	U	C1'-O4'-C4'	-5.78	104.12	109.90
83	A5	1684	G	C1'-O4'-C4'	-5.78	104.12	109.90
83	A5	2812	U	C1'-O4'-C4'	5.78	115.48	109.70
1	Az	47	ALA	CA-C-N	5.78	132.10	121.70
1	Az	47	ALA	C-N-CA	5.78	132.10	121.70
22	Ac	30	PHE	N-CA-CB	5.78	118.91	109.95
36	B2	276	A	N9-C1'-C2'	-5.78	103.33	112.00
36	B2	1183	U	P-O5'-C5'	-5.78	112.23	120.90
47	CI	95	HIS	CE1-NE2-CD2	-5.78	103.22	109.00
49	CQ	186	TYR	N-CA-C	5.78	118.82	109.40
74	CC	369	HIS	CE1-NE2-CD2	-5.78	103.22	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
79	CJ	107	THR	N-CA-C	-5.78	106.13	112.72
83	A5	1453	U	O3'-P-O5'	-5.78	95.33	104.00
83	A5	2603	U	O4'-C1'-N1	5.78	117.17	108.50
11	AL	6	GLU	N-CA-C	-5.78	100.57	109.52
36	B2	30	G	O4'-C1'-C2'	5.78	113.38	107.60
36	B2	1374	A	O3'-P-O5'	-5.78	95.34	104.00
50	CR	61	TYR	CA-C-N	5.78	128.02	120.28
50	CR	61	TYR	C-N-CA	5.78	128.02	120.28
71	Cj	77	GLY	CA-C-N	5.78	132.57	121.54
71	Cj	77	GLY	C-N-CA	5.78	132.57	121.54
83	A5	187	A	O4'-C1'-C2'	5.78	111.58	105.80
83	A5	866	C	C4'-C3'-O3'	5.78	121.66	113.00
86	A8	83	A	C4'-C3'-O3'	5.78	118.06	109.40
27	AE	73	ASP	CA-CB-CG	-5.77	106.83	112.60
51	CA	18	ALA	N-CA-C	5.77	118.70	110.10
74	CC	317	ARG	N-CA-C	5.77	123.10	110.80
83	A5	36	U	C1'-O4'-C4'	5.77	115.67	109.90
83	A5	901	U	O4'-C1'-N1	5.77	117.16	108.50
32	AW	5	ASN	N-CA-CB	5.77	119.61	110.84
36	B2	553	A	P-O3'-C3'	5.77	128.86	120.20
36	B2	1036	C	C1'-O4'-C4'	-5.77	104.13	109.90
48	CD	166	ALA	CA-C-N	5.77	127.83	120.56
48	CD	166	ALA	C-N-CA	5.77	127.83	120.56
55	CU	246	ASP	CA-C-N	5.77	132.36	121.97
55	CU	246	ASP	C-N-CA	5.77	132.36	121.97
68	Cf	62	GLY	CA-C-N	5.77	129.48	120.82
68	Cf	62	GLY	C-N-CA	5.77	129.48	120.82
75	Cm	123	PRO	CA-C-N	5.77	129.92	120.63
75	Cm	123	PRO	C-N-CA	5.77	129.92	120.63
83	A5	3495	G	C3'-C2'-C1'	-5.77	95.53	101.30
18	AY	83	ALA	CA-C-N	5.77	132.83	121.58
18	AY	83	ALA	C-N-CA	5.77	132.83	121.58
36	B2	646	U	O4'-C1'-C2'	5.77	111.57	105.80
74	CC	343	ALA	CA-C-N	5.77	128.49	120.29
74	CC	343	ALA	C-N-CA	5.77	128.49	120.29
77	Cp	47	MET	N-CA-C	5.77	118.14	108.96
83	A5	301	U	N1-C1'-C2'	5.77	120.66	112.00
4	AK	25	LYS	N-CA-CB	5.77	119.00	109.88
31	AH	50	ILE	CA-C-O	-5.77	115.98	121.64
36	B2	441	A	O4'-C1'-N9	5.77	117.15	108.50
36	B2	577	C	O4'-C1'-C2'	-5.77	101.83	107.60
36	B2	859	C	C5'-C4'-C3'	-5.77	107.35	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1991	C	P-O3'-C3'	5.77	128.85	120.20
83	A5	894	U	P-O3'-C3'	5.77	128.85	120.20
83	A5	2684	C	O4'-C1'-C2'	5.77	111.57	105.80
83	A5	2817	G	O4'-C1'-N9	5.77	117.15	108.50
18	AY	34	SER	CA-C-N	5.77	132.55	121.54
18	AY	34	SER	C-N-CA	5.77	132.55	121.54
28	AC	80	PHE	CA-C-N	5.77	131.85	122.39
28	AC	80	PHE	C-N-CA	5.77	131.85	122.39
28	AC	248	PRO	CA-C-N	5.77	127.94	120.44
28	AC	248	PRO	C-N-CA	5.77	127.94	120.44
36	B2	1905	U	C4'-C3'-C2'	-5.77	96.83	102.60
81	CE	39	TYR	CA-C-N	5.77	132.56	121.54
81	CE	39	TYR	C-N-CA	5.77	132.56	121.54
83	A5	227	A	O3'-P-O5'	-5.77	95.35	104.00
83	A5	2893	U	O4'-C1'-N1	5.77	117.15	108.50
36	B2	1776	G	O4'-C1'-C2'	-5.77	100.03	105.80
83	A5	3711	G	C5'-C4'-O4'	5.77	117.75	109.10
5	AO	37	PHE	N-CA-CB	5.76	118.44	109.85
14	AT	46	ALA	CA-C-N	5.76	127.05	119.84
14	AT	46	ALA	C-N-CA	5.76	127.05	119.84
83	A5	910	C	O3'-P-O5'	5.76	112.65	104.00
83	A5	923	U	O4'-C1'-N1	5.76	117.15	108.50
83	A5	3585	A	C3'-C2'-C1'	5.76	107.06	101.30
86	A8	1	A	O4'-C1'-C2'	-5.76	101.84	107.60
36	B2	340	A	N9-C1'-C2'	5.76	120.64	112.00
28	AC	128	LYS	N-CA-C	5.76	118.34	111.71
34	AQ	14	VAL	N-CA-CB	5.76	119.52	111.05
36	B2	1854	U	O4'-C1'-N1	5.76	117.14	108.50
78	Co	48	PHE	N-CA-CB	5.76	121.09	111.53
83	A5	932	G	C1'-C2'-O2'	5.76	117.04	108.40
83	A5	3234	A	C3'-C2'-C1'	5.76	107.26	101.50
83	A5	3397	U	C4'-C3'-C2'	-5.76	96.84	102.60
83	A5	3555	U	P-O3'-C3'	-5.76	111.56	120.20
85	A7	109	U	C3'-C2'-C1'	5.76	107.26	101.50
86	A8	72	C	N1-C1'-C2'	5.76	120.64	112.00
17	AV	40	ASP	CA-C-N	5.76	127.04	119.84
17	AV	40	ASP	C-N-CA	5.76	127.04	119.84
19	AZ	93	LYS	N-CA-CB	5.76	120.22	110.49
36	B2	502	C	O4'-C1'-C2'	-5.76	101.84	107.60
46	CN	123	GLN	CB-CA-C	-5.76	100.01	109.80
83	A5	1087	G	O4'-C1'-C2'	5.76	113.36	107.60
86	A8	47	A	O4'-C1'-C2'	-5.76	100.04	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	629	VAL	CB-CA-C	-5.76	104.37	112.14
28	AC	215	THR	CA-C-N	5.76	132.54	121.54
28	AC	215	THR	C-N-CA	5.76	132.54	121.54
49	CQ	172	ARG	N-CA-CB	5.76	118.53	109.83
51	CA	249	GLY	CA-C-N	5.76	132.54	121.54
51	CA	249	GLY	C-N-CA	5.76	132.54	121.54
83	A5	267	C	C4'-C3'-C2'	-5.76	96.84	102.60
14	AT	43	LYS	CA-C-N	5.76	129.45	120.82
14	AT	43	LYS	C-N-CA	5.76	129.45	120.82
34	AQ	145	LYS	N-CA-CB	5.76	120.22	110.49
36	B2	1314	G	O5'-C5'-C4'	5.76	120.33	111.70
63	CB	258	HIS	ND1-CE1-NE2	5.76	114.16	108.40
20	Aa	97	PRO	CA-N-CD	-5.75	103.94	112.00
50	CR	84	THR	N-CA-C	5.75	118.41	110.35
51	CA	211	HIS	ND1-CE1-NE2	5.75	114.16	108.40
68	Cf	106	GLN	N-CA-C	5.75	118.29	111.33
83	A5	318	G	O4'-C1'-C2'	-5.75	101.84	107.60
83	A5	544	U	N1-C1'-C2'	5.75	120.63	112.00
83	A5	643	U	O4'-C1'-N1	5.75	117.13	108.50
86	A8	85	G	O3'-P-O5'	-5.75	95.37	104.00
4	AK	7	ASN	CA-C-N	5.75	127.92	120.44
4	AK	7	ASN	C-N-CA	5.75	127.92	120.44
4	AK	87	ILE	CA-C-O	-5.75	113.49	118.96
36	B2	933	C	N1-C1'-C2'	5.75	120.63	112.00
46	CN	10	LEU	CA-C-N	5.75	128.46	120.29
46	CN	10	LEU	C-N-CA	5.75	128.46	120.29
83	A5	138	A	C3'-C2'-C1'	-5.75	95.55	101.30
83	A5	143	G	C1'-O4'-C4'	-5.75	104.15	109.90
83	A5	1162	A	P-O3'-C3'	-5.75	111.57	120.20
83	A5	1892	C	N1-C1'-C2'	5.75	120.63	112.00
83	A5	2785	C	N1-C1'-C2'	5.75	120.63	112.00
83	A5	3392	U	C4'-C3'-O3'	5.75	121.63	113.00
1	Az	423	GLY	CA-C-N	5.75	129.52	121.24
1	Az	423	GLY	C-N-CA	5.75	129.52	121.24
36	B2	996	U	C3'-C2'-C1'	5.75	107.05	101.30
83	A5	784	G	C4'-C3'-C2'	-5.75	96.85	102.60
83	A5	1139	U	N1-C1'-C2'	5.75	120.63	112.00
83	A5	2499	U	O4'-C1'-C2'	-5.75	101.85	107.60
83	A5	3598	U	O4'-C1'-N1	5.75	117.13	108.50
83	A5	1571	U	O4'-C1'-N1	5.75	117.12	108.50
83	A5	1982	U	O4'-C1'-N1	5.75	117.12	108.50
83	A5	2503	G	C1'-O4'-C4'	-5.75	104.15	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AX	89	GLY	CA-C-N	5.75	132.52	121.54
6	AX	89	GLY	C-N-CA	5.75	132.52	121.54
18	AY	59	PHE	CA-CB-CG	-5.75	108.05	113.80
83	A5	45	G	N9-C1'-C2'	5.75	120.62	112.00
83	A5	2060	A	O4'-C1'-C2'	-5.75	101.85	107.60
83	A5	3877	G	O4'-C1'-C2'	-5.75	100.05	105.80
24	Ae	81	ALA	CA-C-N	5.75	128.79	120.11
24	Ae	81	ALA	C-N-CA	5.75	128.79	120.11
34	AQ	131	PRO	CA-C-N	5.75	128.87	120.71
34	AQ	131	PRO	C-N-CA	5.75	128.87	120.71
36	B2	115	U	O4'-C1'-C2'	-5.75	101.85	107.60
36	B2	1634	U	O4'-C1'-N1	5.75	117.12	108.50
40	CK	48	LYS	O-C-N	5.75	127.99	122.07
42	CL	163	VAL	CA-C-N	5.75	132.04	121.70
42	CL	163	VAL	C-N-CA	5.75	132.04	121.70
63	CB	226	LYS	CB-CA-C	-5.75	101.52	110.37
83	A5	1547	A	C3'-C2'-C1'	5.75	107.05	101.30
83	A5	1860	A	C1'-O4'-C4'	5.75	115.65	109.90
83	A5	3487	A	C3'-C2'-C1'	5.75	107.05	101.30
48	CD	142	PHE	CB-CA-C	-5.75	98.99	110.42
1	Az	83	GLU	CB-CA-C	-5.74	101.25	110.79
36	B2	1795	U	O4'-C1'-C2'	-5.74	101.86	107.60
36	B2	1869	C	N1-C1'-C2'	5.74	120.62	112.00
42	CL	127	PRO	CA-C-N	5.74	132.31	121.97
42	CL	127	PRO	C-N-CA	5.74	132.31	121.97
55	CU	220	LYS	CB-CA-C	-5.74	101.18	110.77
71	Cj	88	LYS	CA-C-N	5.74	132.04	121.70
71	Cj	88	LYS	C-N-CA	5.74	132.04	121.70
83	A5	1477	G	C3'-C2'-C1'	5.74	107.04	101.30
83	A5	2013	C	O4'-C1'-C2'	-5.74	101.86	107.60
83	A5	2059	U	O4'-C1'-C2'	-5.74	101.86	107.60
36	B2	86	C	N1-C1'-C2'	5.74	120.61	112.00
83	A5	217	G	C1'-O4'-C4'	-5.74	104.16	109.90
83	A5	459	U	O4'-C1'-C2'	-5.74	101.86	107.60
13	AP	96	ILE	N-CA-CB	5.74	119.06	111.25
36	B2	1583	A	O4'-C1'-C2'	-5.74	101.86	107.60
83	A5	2789	U	C4'-C3'-O3'	-5.74	104.39	113.00
83	A5	3218	C	O4'-C1'-C2'	-5.74	101.86	107.60
1	Az	721	THR	CA-C-N	5.74	132.50	121.54
1	Az	721	THR	C-N-CA	5.74	132.50	121.54
16	AA	193	VAL	CA-C-N	5.74	132.50	121.54
16	AA	193	VAL	C-N-CA	5.74	132.50	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	419	C	P-O5'-C5'	-5.74	112.29	120.90
36	B2	971	A	C1'-O4'-C4'	-5.74	104.16	109.90
36	B2	1323	A	C3'-C2'-C1'	5.74	107.04	101.30
58	CW	72	THR	N-CA-CB	5.74	120.19	110.49
83	A5	1585	U	P-O3'-C3'	5.74	128.81	120.20
83	A5	3180	G	O4'-C1'-C2'	-5.74	101.86	107.60
86	A8	77	G	O5'-C5'-C4'	-5.74	102.89	111.50
30	AF	154	ARG	CA-C-N	5.74	132.50	121.54
30	AF	154	ARG	C-N-CA	5.74	132.50	121.54
36	B2	1664	A	O4'-C1'-N9	5.74	116.81	108.20
80	CH	38	PHE	CA-C-N	5.74	130.30	120.72
80	CH	38	PHE	C-N-CA	5.74	130.30	120.72
36	B2	1679	U	O4'-C1'-N1	5.74	117.10	108.50
41	CO	56	PHE	CA-CB-CG	-5.74	108.06	113.80
41	CO	176	LEU	CA-C-N	5.74	129.03	120.31
41	CO	176	LEU	C-N-CA	5.74	129.03	120.31
56	CX	202	LEU	CB-CA-C	-5.74	101.88	110.88
83	A5	196	C	O4'-C1'-C2'	-5.74	101.86	107.60
83	A5	2061	G	N9-C1'-C2'	5.74	120.60	112.00
83	A5	2150	U	O4'-C1'-N1	5.74	116.80	108.20
36	B2	1968	C	C3'-C2'-C1'	5.73	107.03	101.30
68	Cf	134	ARG	N-CA-C	-5.73	100.36	109.59
83	A5	2259	C	O4'-C1'-C2'	-5.73	101.87	107.60
83	A5	3713	C	O4'-C1'-C2'	-5.73	101.87	107.60
3	AU	77	LYS	N-CA-C	5.73	123.01	110.80
28	AC	119	HIS	CA-CB-CG	-5.73	108.07	113.80
36	B2	1211	C	C3'-C2'-C1'	5.73	107.03	101.30
49	CQ	72	ALA	CA-C-N	5.73	128.97	120.95
49	CQ	72	ALA	C-N-CA	5.73	128.97	120.95
55	CU	212	GLU	N-CA-CB	5.73	119.17	110.28
83	A5	573	U	O4'-C1'-C2'	-5.73	101.87	107.60
83	A5	2118	U	O4'-C1'-N1	5.73	117.10	108.50
83	A5	3841	C	C2'-C3'-O3'	5.73	118.10	109.50
1	Az	32	LYS	CB-CA-C	-5.73	101.88	110.88
36	B2	184	U	O4'-C1'-C2'	-5.73	101.87	107.60
36	B2	932	U	C2'-C3'-O3'	-5.73	105.11	113.70
36	B2	1293	C	N1-C1'-C2'	5.73	120.60	112.00
36	B2	1759	U	N1-C1'-C2'	5.73	120.60	112.00
42	CL	80	LEU	CA-C-O	-5.73	114.77	120.90
47	CI	111	LEU	CA-C-N	5.73	132.49	121.54
47	CI	111	LEU	C-N-CA	5.73	132.49	121.54
47	CI	181	TYR	CA-CB-CG	5.73	124.21	113.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	CF	167	ARG	N-CA-CB	5.73	120.17	110.49
67	Ce	20	ILE	N-CA-C	5.73	121.26	109.34
83	A5	1378	A	O4'-C1'-C2'	-5.73	101.87	107.60
83	A5	773	G	O4'-C1'-C2'	-5.73	101.87	107.60
83	A5	1690	U	P-O3'-C3'	-5.73	111.61	120.20
83	A5	2663	C	O4'-C1'-C2'	-5.73	101.87	107.60
36	B2	280	U	O4'-C1'-N1	5.73	117.09	108.50
41	CO	78	PRO	CA-C-N	5.73	128.42	120.29
41	CO	78	PRO	C-N-CA	5.73	128.42	120.29
42	CL	76	THR	N-CA-C	5.73	119.25	111.17
45	Ca	40	HIS	CE1-NE2-CD2	-5.73	103.27	109.00
52	CS	164	ARG	CA-C-N	5.73	130.26	122.19
52	CS	164	ARG	C-N-CA	5.73	130.26	122.19
67	Ce	19	PHE	CA-CB-CG	-5.73	108.07	113.80
80	CH	126	MET	CA-C-N	5.73	130.19	121.03
80	CH	126	MET	C-N-CA	5.73	130.19	121.03
83	A5	569	U	C2'-C3'-O3'	-5.73	105.11	113.70
83	A5	962	U	O4'-C1'-N1	5.73	117.09	108.50
83	A5	2775	A	O4'-C1'-C2'	5.73	113.33	107.60
83	A5	2820	G	O4'-C1'-C2'	-5.73	101.87	107.60
48	CD	101	THR	CA-C-N	5.73	126.30	120.00
48	CD	101	THR	C-N-CA	5.73	126.30	120.00
83	A5	991	A	O4'-C4'-C3'	-5.73	98.27	104.00
2	Ag	117	ASP	CA-CB-CG	-5.72	106.88	112.60
30	AF	111	LEU	CA-C-N	5.72	127.95	120.28
30	AF	111	LEU	C-N-CA	5.72	127.95	120.28
36	B2	326	U	O4'-C1'-N1	5.72	116.79	108.20
50	CR	170	ARG	CA-C-N	5.72	128.42	120.29
50	CR	170	ARG	C-N-CA	5.72	128.42	120.29
83	A5	23	U	C4'-C3'-O3'	-5.72	104.41	113.00
83	A5	1054	A	O4'-C1'-C2'	-5.72	101.88	107.60
83	A5	1401	C	P-O3'-C3'	-5.72	111.61	120.20
83	A5	3335	A	N9-C1'-C2'	-5.72	105.41	114.00
83	A5	3771	A	P-O3'-C3'	-5.72	111.61	120.20
36	B2	1096	C	C3'-C2'-C1'	5.72	107.02	101.30
37	BC	61	C	N1-C1'-C2'	5.72	120.58	112.00
44	CM	93	VAL	CA-C-N	5.72	129.01	120.31
44	CM	93	VAL	C-N-CA	5.72	129.01	120.31
50	CR	109	TYR	CA-C-N	5.72	127.95	120.28
50	CR	109	TYR	C-N-CA	5.72	127.95	120.28
86	A8	45	G	C5'-C4'-C3'	5.72	124.58	116.00
2	Ag	105	HIS	CE1-NE2-CD2	-5.72	103.28	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1357	G	C5'-C4'-C3'	-5.72	107.42	116.00
40	CK	39	PRO	CB-CA-C	-5.72	102.12	111.56
83	A5	1282	U	O4'-C1'-C2'	-5.72	101.88	107.60
83	A5	1722	U	O4'-C1'-C2'	5.72	113.32	107.60
83	A5	1946	G	O4'-C1'-N9	5.72	117.08	108.50
86	A8	83	A	P-O3'-C3'	-5.72	111.62	120.20
11	AL	78	LYS	N-CA-C	5.72	117.51	111.28
34	AQ	12	VAL	N-CA-C	5.72	116.82	108.53
36	B2	574	C	C1'-O4'-C4'	-5.72	104.18	109.90
74	CC	72	THR	O-C-N	-5.72	115.78	122.81
83	A5	2231	A	N9-C1'-C2'	5.72	120.58	112.00
83	A5	3656	A	N9-C1'-C2'	5.72	120.58	112.00
83	A5	2701	G	N9-C1'-C2'	-5.72	105.42	114.00
85	A7	59	G	N9-C1'-C2'	5.72	120.58	112.00
1	Az	14	ASP	CA-C-N	5.72	132.46	121.54
1	Az	14	ASP	C-N-CA	5.72	132.46	121.54
36	B2	1083	C	N1-C1'-C2'	5.72	120.58	112.00
36	B2	1622	U	C1'-O4'-C4'	5.72	115.62	109.90
42	CL	53	ALA	CA-C-N	5.72	132.46	121.54
42	CL	53	ALA	C-N-CA	5.72	132.46	121.54
47	CI	151	ALA	CA-C-N	5.72	127.94	120.28
47	CI	151	ALA	C-N-CA	5.72	127.94	120.28
63	CB	1	MET	CG-SD-CE	-5.72	88.32	100.90
83	A5	2690	A	O3'-P-O5'	-5.72	95.43	104.00
5	AO	146	ARG	N-CA-C	5.71	122.97	110.80
26	AJ	159	ASP	CA-C-N	5.71	129.22	121.05
26	AJ	159	ASP	C-N-CA	5.71	129.22	121.05
36	B2	194	G	C4'-C3'-C2'	-5.71	96.89	102.60
36	B2	780	A	O3'-P-O5'	-5.71	95.43	104.00
36	B2	879	U	N1-C1'-C2'	5.71	120.57	112.00
45	Ca	52	GLY	N-CA-C	5.71	129.87	113.30
83	A5	457	A	P-O3'-C3'	5.71	128.77	120.20
83	A5	3515	C	C3'-C2'-C1'	5.71	107.02	101.30
83	A5	3882	C	O3'-P-O5'	5.71	112.57	104.00
1	Az	311	HIS	N-CA-CB	5.71	120.14	110.49
36	B2	1908	U	O4'-C1'-C2'	-5.71	101.89	107.60
83	A5	508	U	O4'-C1'-N1	5.71	117.07	108.50
83	A5	1227	C	C4'-C3'-O3'	-5.71	104.43	113.00
83	A5	2006	U	C4'-C3'-O3'	-5.71	104.43	113.00
36	B2	193	U	C3'-C2'-C1'	5.71	107.01	101.30
36	B2	285	U	C2'-C3'-O3'	5.71	122.27	113.70
36	B2	613	A	C3'-C2'-C1'	5.71	107.01	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
65	Cc	17	ARG	N-CA-C	5.71	117.31	111.14
83	A5	1567	G	O4'-C1'-C2'	5.71	113.31	107.60
83	A5	1908	A	O4'-C1'-C2'	-5.71	101.89	107.60
83	A5	3613	G	O3'-P-O5'	5.71	112.57	104.00
6	AX	118	VAL	N-CA-C	5.71	112.32	106.21
16	AA	216	ALA	N-CA-CB	5.71	120.14	110.49
19	AZ	75	ARG	CA-C-N	5.71	132.45	121.54
19	AZ	75	ARG	C-N-CA	5.71	132.45	121.54
29	AG	165	LYS	N-CA-CB	5.71	120.14	110.49
83	A5	1117	A	C3'-C2'-C1'	5.71	107.01	101.30
25	Af	148	PHE	N-CA-CB	5.71	120.14	110.49
36	B2	1440	U	O4'-C1'-C2'	-5.71	101.89	107.60
36	B2	1791	U	O4'-C1'-N1	5.71	117.06	108.50
67	Ce	42	ASN	CA-CB-CG	-5.71	106.89	112.60
83	A5	173	A	O4'-C1'-C2'	-5.71	101.89	107.60
83	A5	828	G	C1'-O4'-C4'	5.71	115.61	109.90
83	A5	2154	A	C3'-C2'-C1'	5.71	107.01	101.30
1	Az	696	HIS	CE1-NE2-CD2	-5.71	103.29	109.00
36	B2	51	A	O4'-C1'-C2'	-5.71	101.89	107.60
36	B2	171	U	O4'-C1'-N1	5.71	117.06	108.50
36	B2	1584	A	C3'-C2'-C1'	5.71	107.01	101.30
36	B2	1697	A	O4'-C1'-C2'	-5.71	101.89	107.60
47	CI	202	GLU	CA-C-N	5.71	131.47	122.34
47	CI	202	GLU	C-N-CA	5.71	131.47	122.34
48	CD	258	LYS	N-CA-C	5.71	119.88	111.04
58	CW	57	ARG	CA-C-N	5.71	127.93	120.28
58	CW	57	ARG	C-N-CA	5.71	127.93	120.28
60	Cr	19	LEU	N-CA-CB	5.71	118.85	110.35
83	A5	631	A	N9-C1'-C2'	-5.71	103.44	112.00
83	A5	1099	U	O4'-C1'-N1	5.71	117.06	108.50
83	A5	1569	U	O4'-C1'-N1	5.71	117.06	108.50
83	A5	3406	G	O5'-C5'-C4'	5.71	120.26	111.70
86	A8	4	U	C1'-C2'-O2'	5.71	116.96	108.40
10	AN	17	PRO	CA-C-N	5.71	128.24	120.54
10	AN	17	PRO	C-N-CA	5.71	128.24	120.54
36	B2	1448	A	O3'-P-O5'	5.71	112.56	104.00
83	A5	1397	A	C1'-C2'-O2'	5.71	116.96	108.40
35	Ah	138	ARG	N-CA-CB	5.70	120.13	110.49
36	B2	1568	G	C2'-C3'-O3'	-5.70	105.14	113.70
36	B2	1853	U	O4'-C1'-N1	5.70	117.06	108.50
41	CO	75	PHE	CA-C-N	5.70	128.24	120.54
41	CO	75	PHE	C-N-CA	5.70	128.24	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	479	U	O4'-C1'-N1	5.70	117.05	108.50
83	A5	1567	G	C4'-C3'-C2'	-5.70	96.90	102.60
83	A5	2548	G	O4'-C1'-N9	5.70	117.06	108.50
83	A5	3486	U	C4'-C3'-C2'	-5.70	96.90	102.60
9	Ad	28	HIS	ND1-CE1-NE2	5.70	114.10	108.40
83	A5	514	A	C3'-C2'-C1'	-5.70	95.60	101.30
83	A5	2636	U	O4'-C1'-N1	5.70	117.05	108.50
83	A5	3553	C	O4'-C1'-C2'	-5.70	101.90	107.60
84	A9	30	A	C1'-O4'-C4'	5.70	115.60	109.90
21	Ab	60	ALA	CA-C-N	5.70	127.92	120.28
21	Ab	60	ALA	C-N-CA	5.70	127.92	120.28
36	B2	64	U	O4'-C1'-C2'	-5.70	101.90	107.60
36	B2	493	A	P-O3'-C3'	5.70	128.75	120.20
36	B2	1339	C	O4'-C1'-C2'	-5.70	101.90	107.60
54	CP	128	ARG	N-CA-CB	5.70	120.17	110.71
70	Ci	8	ALA	CA-C-N	5.70	128.51	120.42
70	Ci	8	ALA	C-N-CA	5.70	128.51	120.42
78	Co	51	GLN	CA-C-N	5.70	132.43	121.54
78	Co	51	GLN	C-N-CA	5.70	132.43	121.54
83	A5	2557	C	C3'-C2'-C1'	5.70	107.20	101.50
36	B2	1030	C	C3'-C2'-C1'	5.70	107.00	101.30
43	CV	14	PHE	N-CA-CB	5.70	118.34	109.85
49	CQ	59	PRO	CA-C-N	5.70	126.96	119.84
49	CQ	59	PRO	C-N-CA	5.70	126.96	119.84
63	CB	140	ASP	N-CA-C	5.70	122.94	110.80
83	A5	2129	C	O4'-C1'-C2'	-5.70	100.10	105.80
74	CC	333	PRO	CA-C-N	5.70	132.42	121.54
74	CC	333	PRO	C-N-CA	5.70	132.42	121.54
30	AF	68	LYS	N-CA-C	-5.70	105.26	114.09
36	B2	1347	U	O4'-C1'-N1	5.70	117.04	108.50
36	B2	1906	U	P-O5'-C5'	5.70	129.44	120.90
39	Cq	62	ARG	N-CA-C	-5.70	105.92	112.92
47	CI	181	TYR	CB-CG-CD1	-5.70	112.26	120.80
83	A5	296	C	C3'-C2'-C1'	5.70	107.00	101.30
83	A5	344	U	O4'-C1'-N1	5.70	117.04	108.50
83	A5	575	A	O4'-C1'-C2'	-5.70	101.90	107.60
83	A5	977	C	P-O5'-C5'	5.70	129.44	120.90
83	A5	1473	U	P-O5'-C5'	5.70	129.44	120.90
85	A7	50	A	P-O3'-C3'	5.70	128.74	120.20
86	A8	41	G	O4'-C1'-C2'	-5.70	101.91	107.60
36	B2	643	A	O3'-P-O5'	-5.69	95.46	104.00
52	CS	34	ALA	CA-C-N	5.69	125.31	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	CS	34	ALA	C-N-CA	5.69	125.31	119.56
83	A5	1480	U	P-O5'-C5'	-5.69	112.36	120.90
83	A5	3871	U	O4'-C1'-N1	5.69	117.04	108.50
1	Az	255	PHE	CA-C-N	5.69	132.41	121.54
1	Az	255	PHE	C-N-CA	5.69	132.41	121.54
2	Ag	189	HIS	CE1-NE2-CD2	-5.69	103.31	109.00
36	B2	199	G	O5'-C5'-C4'	5.69	120.04	111.50
36	B2	468	U	O4'-C1'-N1	5.69	117.04	108.50
83	A5	2655	C	C1'-O4'-C4'	-5.69	104.21	109.90
42	CL	6	ASN	N-CA-C	5.69	118.33	107.75
83	A5	1531	U	O4'-C1'-C2'	-5.69	101.91	107.60
36	B2	1970	U	O4'-C1'-C2'	-5.69	101.91	107.60
50	CR	67	THR	N-CA-CB	5.69	118.58	110.16
2	Ag	88	LEU	N-CA-C	-5.69	99.63	108.90
36	B2	215	C	C2'-C3'-O3'	5.69	118.03	109.50
36	B2	1084	G	C3'-C2'-C1'	5.69	106.99	101.30
36	B2	1818	U	C2'-C3'-O3'	5.69	122.23	113.70
66	Cd	31	HIS	CA-CB-CG	-5.69	108.11	113.80
83	A5	1525	G	O4'-C1'-N9	5.69	117.03	108.50
83	A5	1664	C	O4'-C1'-C2'	-5.69	101.91	107.60
83	A5	2726	A	O4'-C1'-C2'	-5.69	101.91	107.60
83	A5	3943	G	N9-C1'-C2'	5.69	120.53	112.00
36	B2	951	A	C1'-O4'-C4'	5.69	115.59	109.90
36	B2	1329	A	N9-C1'-C2'	5.69	120.53	112.00
36	B2	1544	G	C3'-C2'-C1'	-5.69	95.61	101.30
37	BC	74	C	O4'-C1'-C2'	-5.69	101.91	107.60
42	CL	76	THR	CA-C-O	-5.69	115.67	122.27
50	CR	188	HIS	ND1-CE1-NE2	5.69	114.09	108.40
52	CS	101	THR	CB-CA-C	5.69	119.61	109.38
83	A5	438	G	C1'-O4'-C4'	-5.69	104.21	109.90
12	AR	86	PRO	CA-C-N	5.68	131.93	121.70
12	AR	86	PRO	C-N-CA	5.68	131.93	121.70
34	AQ	45	GLU	N-CA-C	5.68	124.73	112.23
36	B2	13	C	N1-C1'-C2'	5.68	120.53	112.00
36	B2	1572	C	C4'-C3'-O3'	-5.68	104.47	113.00
77	Cp	14	TYR	CA-C-N	5.68	132.55	121.41
77	Cp	14	TYR	C-N-CA	5.68	132.55	121.41
79	CJ	69	ARG	CA-C-N	5.68	130.20	122.07
79	CJ	69	ARG	C-N-CA	5.68	130.20	122.07
83	A5	34	C	N1-C1'-C2'	5.68	120.53	112.00
83	A5	1317	A	C1'-O4'-C4'	5.68	115.58	109.90
83	A5	3495	G	O4'-C1'-N9	5.68	117.03	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
82	CG	75	LEU	CA-C-N	5.68	127.89	120.28
82	CG	75	LEU	C-N-CA	5.68	127.89	120.28
83	A5	985	G	C3'-C2'-C1'	-5.68	95.62	101.30
83	A5	1051	C	O4'-C1'-C2'	-5.68	101.92	107.60
36	B2	1162	U	N1-C1'-C2'	-5.68	103.48	112.00
53	CT	6	GLY	N-CA-C	5.68	129.77	113.30
55	CU	234	PHE	CA-CB-CG	-5.68	108.12	113.80
83	A5	1107	G	C4'-C3'-O3'	5.68	117.92	109.40
36	B2	463	G	O4'-C1'-N9	5.68	117.02	108.50
36	B2	656	U	C1'-O4'-C4'	5.68	115.38	109.70
37	BC	50	A	O4'-C1'-C2'	-5.68	101.92	107.60
38	Cz	175	LYS	CA-C-N	5.68	128.16	120.38
38	Cz	175	LYS	C-N-CA	5.68	128.16	120.38
79	CJ	72	LYS	CA-C-N	5.68	128.54	120.53
79	CJ	72	LYS	C-N-CA	5.68	128.54	120.53
83	A5	2792	G	C1'-O4'-C4'	-5.68	104.22	109.90
83	A5	3512	U	N1-C1'-C2'	5.68	120.52	112.00
49	CQ	104	HIS	CA-CB-CG	5.68	119.48	113.80
83	A5	3165	U	O4'-C1'-N1	5.68	117.02	108.50
21	Ab	62	ILE	N-CA-CB	5.68	120.60	111.23
83	A5	1361	G	C1'-O4'-C4'	-5.68	104.22	109.90
83	A5	3970	A	P-O5'-C5'	5.68	129.41	120.90
86	A8	24	G	C4'-C3'-C2'	-5.68	96.92	102.60
15	AB	177	ASN	CB-CA-C	-5.67	101.20	110.85
83	A5	1417	G	C3'-C2'-C1'	-5.67	95.62	101.30
83	A5	3591	A	O3'-P-O5'	5.67	112.51	104.00
86	A8	70	A	O4'-C1'-C2'	5.67	111.47	105.80
5	AO	54	ALA	N-CA-C	5.67	117.55	110.91
48	CD	28	THR	CA-CB-OG1	5.67	118.11	109.60
56	CX	185	SER	CA-C-N	5.67	132.63	122.13
56	CX	185	SER	C-N-CA	5.67	132.63	122.13
83	A5	69	A	C2'-C3'-O3'	5.67	118.01	109.50
83	A5	2674	A	P-O5'-C5'	-5.67	112.39	120.90
83	A5	3369	A	C1'-O4'-C4'	5.67	115.37	109.70
2	Ag	284	GLN	CA-C-O	-5.67	115.06	119.99
54	CP	125	LEU	N-CA-CB	5.67	119.42	110.23
78	Co	94	ASP	CA-C-N	5.67	129.41	121.02
78	Co	94	ASP	C-N-CA	5.67	129.41	121.02
82	CG	177	ALA	CA-C-N	5.67	127.81	120.44
82	CG	177	ALA	C-N-CA	5.67	127.81	120.44
83	A5	726	U	O4'-C1'-N1	5.67	117.01	108.50
83	A5	849	U	N1-C1'-C2'	5.67	120.51	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3699	U	P-O3'-C3'	-5.67	111.69	120.20
83	A5	3721	C	C3'-C2'-C1'	5.67	106.97	101.30
36	B2	1097	C	O4'-C1'-C2'	-5.67	101.93	107.60
83	A5	677	G	N9-C1'-C2'	5.67	120.50	112.00
83	A5	1308	U	C4'-C3'-O3'	5.67	117.91	109.40
83	A5	2881	U	O4'-C1'-N1	5.67	116.70	108.20
83	A5	3392	U	C2'-C3'-O3'	-5.67	105.19	113.70
1	Az	70	ILE	CA-C-O	-5.67	115.16	121.17
15	AB	24	PRO	CA-C-N	5.67	127.88	120.28
15	AB	24	PRO	C-N-CA	5.67	127.88	120.28
31	AH	100	PRO	N-CA-C	5.67	124.15	112.47
48	CD	81	HIS	CE1-NE2-CD2	-5.67	103.33	109.00
62	Cb	30	GLU	CA-C-N	5.67	129.84	120.94
62	Cb	30	GLU	C-N-CA	5.67	129.84	120.94
63	CB	156	TYR	CA-CB-CG	-5.67	103.70	113.90
68	Cf	4	THR	N-CA-CB	5.67	118.55	110.16
83	A5	1326	A	N9-C1'-C2'	5.67	120.50	112.00
83	A5	1864	U	O3'-P-O5'	-5.67	95.50	104.00
83	A5	2720	U	O4'-C1'-N1	5.67	117.00	108.50
83	A5	3682	U	O4'-C1'-C2'	-5.67	101.93	107.60
86	A8	96	U	O4'-C1'-N1	5.67	117.00	108.50
7	AM	78	GLU	N-CA-C	-5.67	100.92	108.34
15	AB	80	PRO	O-C-N	5.67	126.75	122.73
52	CS	36	ASP	CA-CB-CG	-5.67	106.93	112.60
59	CZ	51	ARG	CA-C-N	5.67	131.77	121.97
59	CZ	51	ARG	C-N-CA	5.67	131.77	121.97
83	A5	134	G	O3'-P-O5'	-5.67	95.50	104.00
83	A5	2062	A	C1'-C2'-O2'	-5.67	103.30	111.80
83	A5	2501	G	C4'-C3'-C2'	-5.67	96.93	102.60
83	A5	2927	U	O4'-C1'-C2'	-5.67	101.93	107.60
83	A5	3876	U	C1'-C2'-O2'	5.67	116.90	108.40
2	Ag	145	GLU	CA-C-N	5.67	132.36	121.54
2	Ag	145	GLU	C-N-CA	5.67	132.36	121.54
16	AA	99	ILE	N-CA-CB	5.67	119.35	112.10
52	CS	42	SER	CA-C-N	5.67	128.33	120.29
52	CS	42	SER	C-N-CA	5.67	128.33	120.29
83	A5	2831	U	O4'-C1'-C2'	-5.67	100.14	105.80
7	AM	39	VAL	CA-C-O	-5.66	113.70	120.78
26	AJ	163	LYS	CA-C-N	5.66	129.29	120.68
26	AJ	163	LYS	C-N-CA	5.66	129.29	120.68
27	AE	114	ILE	CA-C-N	5.66	129.30	120.75
27	AE	114	ILE	C-N-CA	5.66	129.30	120.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	142	A	O4'-C1'-N9	5.66	116.69	108.20
45	Ca	36	ALA	CA-C-O	-5.66	114.52	120.80
63	CB	402	ALA	CA-C-N	5.66	127.87	120.28
63	CB	402	ALA	C-N-CA	5.66	127.87	120.28
71	Cj	39	TYR	CA-C-N	5.66	126.92	119.84
71	Cj	39	TYR	C-N-CA	5.66	126.92	119.84
74	CC	63	HIS	CA-CB-CG	-5.66	108.14	113.80
83	A5	989	A	C3'-C2'-C1'	5.66	106.96	101.30
83	A5	1068	C	C3'-C2'-C1'	5.66	106.96	101.30
48	CD	271	LYS	CA-C-N	5.66	132.35	121.54
48	CD	271	LYS	C-N-CA	5.66	132.35	121.54
36	B2	1329	A	C2'-C3'-O3'	5.66	122.19	113.70
36	B2	1926	A	O4'-C1'-C2'	-5.66	101.94	107.60
57	CY	52	ASP	N-CA-CB	5.66	118.87	110.49
83	A5	205	U	C3'-C2'-C1'	5.66	106.96	101.30
83	A5	624	A	C1'-O4'-C4'	5.66	115.56	109.90
83	A5	1338	U	O4'-C1'-N1	5.66	116.99	108.50
83	A5	3651	C	C4'-C3'-C2'	-5.66	96.94	102.60
83	A5	3718	A	O3'-P-O5'	5.66	112.49	104.00
13	AP	18	PHE	N-CA-C	5.66	122.85	110.80
29	AG	79	LYS	CA-C-N	5.66	131.88	121.70
29	AG	79	LYS	C-N-CA	5.66	131.88	121.70
36	B2	780	A	C4'-C3'-O3'	-5.66	101.51	110.00
36	B2	1002	A	C3'-C2'-C1'	5.66	106.96	101.30
36	B2	1170	G	C5'-C4'-C3'	-5.66	107.51	116.00
36	B2	1345	U	O3'-P-O5'	5.66	112.49	104.00
36	B2	1544	G	O4'-C1'-C2'	5.66	113.26	107.60
41	CO	204	GLU	N-CA-CB	5.66	118.58	111.79
44	CM	51	ARG	N-CA-CB	5.66	118.60	110.06
83	A5	754	A	C3'-C2'-C1'	5.66	106.96	101.30
83	A5	872	A	C1'-C2'-O2'	5.66	120.29	111.80
83	A5	2531	A	C4'-C3'-C2'	-5.66	96.94	102.60
83	A5	620	U	C1'-O4'-C4'	5.66	115.56	109.90
83	A5	650	A	O3'-P-O5'	5.66	112.48	104.00
83	A5	3751	C	C3'-C2'-C1'	5.66	106.96	101.30
1	Az	842	ASP	N-CA-CB	5.66	119.16	110.79
13	AP	66	ALA	CA-C-N	5.66	127.86	120.28
13	AP	66	ALA	C-N-CA	5.66	127.86	120.28
16	AA	203	PHE	N-CA-CB	5.66	121.29	111.39
29	AG	8	PRO	N-CA-C	-5.66	108.19	114.92
36	B2	242	A	O4'-C1'-C2'	-5.66	101.94	107.60
36	B2	1018	C	C3'-C2'-C1'	5.66	106.96	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1453	G	O4'-C1'-N9	5.66	116.98	108.50
36	B2	1965	U	N1-C1'-C2'	5.66	120.48	112.00
83	A5	365	A	C3'-C2'-C1'	5.66	106.95	101.30
83	A5	557	G	C1'-O4'-C4'	-5.66	104.24	109.90
83	A5	2473	C	N1-C1'-C2'	5.66	120.48	112.00
10	AN	135	LEU	CA-C-N	5.65	126.20	120.38
10	AN	135	LEU	C-N-CA	5.65	126.20	120.38
47	CI	86	HIS	CE1-NE2-CD2	-5.65	103.35	109.00
48	CD	140	GLY	CA-C-N	5.65	132.34	121.54
48	CD	140	GLY	C-N-CA	5.65	132.34	121.54
70	Ci	67	THR	CA-C-N	5.65	127.86	120.28
70	Ci	67	THR	C-N-CA	5.65	127.86	120.28
82	CG	50	VAL	CA-C-N	5.65	129.27	120.68
82	CG	50	VAL	C-N-CA	5.65	129.27	120.68
83	A5	477	C	C3'-C2'-C1'	5.65	106.95	101.30
36	B2	565	G	P-O3'-C3'	5.65	128.68	120.20
36	B2	1583	A	O4'-C1'-N9	5.65	116.98	108.50
44	CM	153	ALA	CA-C-N	5.65	131.88	121.70
44	CM	153	ALA	C-N-CA	5.65	131.88	121.70
50	CR	84	THR	CA-C-O	-5.65	114.97	121.07
58	CW	59	HIS	CG-CD2-NE2	5.65	112.85	107.20
2	Ag	275	VAL	CA-C-N	5.65	132.14	121.97
2	Ag	275	VAL	C-N-CA	5.65	132.14	121.97
36	B2	1406	A	C3'-C2'-C1'	5.65	106.95	101.30
36	B2	1942	G	O4'-C1'-N9	5.65	116.98	108.50
65	Cc	52	THR	CA-C-O	-5.65	114.29	120.17
83	A5	1277	A	C2'-C3'-O3'	5.65	117.97	109.50
83	A5	1750	G	N9-C1'-C2'	-5.65	105.52	114.00
36	B2	881	U	O4'-C1'-N1	5.65	116.97	108.50
36	B2	1521	U	O4'-C1'-N1	5.65	116.97	108.50
83	A5	699	U	C4'-C3'-O3'	5.65	121.47	113.00
86	A8	73	U	C3'-C2'-C1'	5.65	106.95	101.30
14	AT	144	ASP	N-CA-CB	5.65	118.52	110.16
36	B2	641	U	C5'-C4'-C3'	-5.65	107.53	116.00
46	CN	51	LEU	N-CA-C	-5.65	103.22	111.30
74	CC	92	GLN	N-CA-C	5.65	122.83	110.80
83	A5	255	C	P-O5'-C5'	-5.65	112.43	120.90
23	AD	211	SER	CA-C-N	5.65	129.54	122.43
23	AD	211	SER	C-N-CA	5.65	129.54	122.43
36	B2	94	G	N9-C1'-C2'	5.65	120.47	112.00
36	B2	580	C	C4'-C3'-O3'	-5.65	104.53	113.00
42	CL	158	ASN	CA-C-N	5.65	131.86	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	CL	158	ASN	C-N-CA	5.65	131.86	121.70
48	CD	238	ASP	CA-CB-CG	-5.65	106.95	112.60
64	CF	180	ARG	N-CA-CB	5.65	120.03	110.49
10	AN	59	GLY	N-CA-C	5.64	129.67	113.30
25	Af	101	ALA	CA-C-N	5.64	132.13	121.97
25	Af	101	ALA	C-N-CA	5.64	132.13	121.97
30	AF	166	SER	CA-C-N	5.64	125.34	119.64
30	AF	166	SER	C-N-CA	5.64	125.34	119.64
31	AH	16	ASP	CA-CB-CG	-5.64	106.96	112.60
36	B2	1243	G	C1'-C2'-O2'	5.64	116.87	108.40
67	Ce	8	ARG	CA-C-N	5.64	125.93	119.83
67	Ce	8	ARG	C-N-CA	5.64	125.93	119.83
83	A5	643	U	C4'-C3'-C2'	-5.64	96.96	102.60
83	A5	1161	C	O4'-C1'-C2'	-5.64	100.16	105.80
83	A5	3528	A	C3'-C2'-C1'	5.64	106.94	101.30
1	Az	409	THR	CA-C-N	5.64	131.86	121.70
1	Az	409	THR	C-N-CA	5.64	131.86	121.70
36	B2	1825	A	N9-C1'-C2'	-5.64	105.53	114.00
83	A5	3902	G	C1'-O4'-C4'	-5.64	104.26	109.90
4	AK	11	ILE	N-CA-CB	5.64	117.15	110.55
37	BC	46	U	P-O3'-C3'	-5.64	111.74	120.20
83	A5	681	G	N9-C1'-C2'	-5.64	103.54	112.00
83	A5	1891	U	C2'-C3'-O3'	5.64	117.96	109.50
36	B2	448	C	O4'-C1'-C2'	-5.64	101.96	107.60
36	B2	978	C	O4'-C1'-C2'	-5.64	101.96	107.60
83	A5	908	C	N1-C1'-C2'	5.64	120.46	112.00
83	A5	1680	U	O4'-C1'-N1	5.64	116.96	108.50
83	A5	1748	C	C3'-C2'-C1'	5.64	106.94	101.30
83	A5	1946	G	C5'-C4'-C3'	5.64	124.46	116.00
83	A5	3428	A	C4'-C3'-O3'	-5.64	104.54	113.00
83	A5	3662	G	O4'-C1'-C2'	-5.64	101.96	107.60
83	A5	3724	U	O4'-C1'-N1	5.64	116.96	108.50
36	B2	391	G	N9-C1'-C2'	5.64	120.46	112.00
36	B2	885	U	O4'-C1'-N1	5.64	116.95	108.50
74	CC	5	ASN	CA-C-N	5.64	132.41	122.66
74	CC	5	ASN	C-N-CA	5.64	132.41	122.66
81	CE	188	LYS	CA-CB-CG	5.64	125.37	114.10
82	CG	133	GLU	CA-C-O	-5.64	112.44	120.16
83	A5	1296	U	C3'-C2'-C1'	-5.64	95.66	101.30
83	A5	1558	A	N9-C1'-C2'	5.64	120.45	112.00
83	A5	2587	U	P-O3'-C3'	5.64	128.66	120.20
1	Az	780	PHE	CA-C-N	5.63	131.84	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	780	PHE	C-N-CA	5.63	131.84	121.70
68	Cf	102	LYS	N-CA-CB	5.63	120.01	110.49
82	CG	212	VAL	N-CA-C	5.63	121.06	109.34
83	A5	571	U	C4'-C3'-O3'	-5.63	104.55	113.00
83	A5	1717	A	O4'-C1'-N9	5.63	116.95	108.50
83	A5	2214	G	O4'-C1'-N9	5.63	116.95	108.50
83	A5	2666	G	C2'-C3'-O3'	5.63	122.15	113.70
83	A5	3419	A	O5'-C5'-C4'	-5.63	103.25	111.70
1	Az	809	ASP	CA-C-N	5.63	125.25	119.56
1	Az	809	ASP	C-N-CA	5.63	125.25	119.56
41	CO	48	HIS	CE1-NE2-CD2	-5.63	103.37	109.00
48	CD	162	ALA	N-CA-CB	5.63	118.50	110.16
74	CC	323	THR	N-CA-C	-5.63	106.29	114.12
85	A7	118	C	N1-C1'-C2'	5.63	120.45	112.00
45	Ca	63	HIS	ND1-CE1-NE2	5.63	114.03	108.40
83	A5	1691	A	P-O3'-C3'	5.63	128.65	120.20
83	A5	3002	U	P-O3'-C3'	5.63	128.65	120.20
83	A5	3346	G	O4'-C1'-N9	5.63	116.95	108.50
83	A5	3417	C	O3'-P-O5'	-5.63	95.55	104.00
83	A5	3853	C	O4'-C1'-C2'	-5.63	101.97	107.60
36	B2	1813	U	N1-C1'-C2'	5.63	120.44	112.00
81	CE	230	PHE	CA-C-N	5.63	130.91	122.47
81	CE	230	PHE	C-N-CA	5.63	130.91	122.47
83	A5	310	A	O4'-C1'-C2'	-5.63	101.97	107.60
83	A5	966	U	C3'-C2'-C1'	5.63	106.93	101.30
83	A5	3659	G	C3'-C2'-C1'	-5.63	95.67	101.30
86	A8	62	A	P-O5'-C5'	-5.63	112.45	120.90
2	Ag	187	ASN	CA-CB-CG	5.63	118.23	112.60
37	BC	23	G	N9-C1'-C2'	5.63	120.44	112.00
64	CF	104	VAL	CA-C-N	5.63	129.21	120.60
64	CF	104	VAL	C-N-CA	5.63	129.21	120.60
64	CF	151	LYS	CB-CA-C	-5.63	102.04	110.88
65	Cc	62	TYR	CA-CB-CG	-5.63	103.77	113.90
83	A5	1013	G	C1'-O4'-C4'	-5.63	104.27	109.90
83	A5	1018	C	C3'-C2'-C1'	5.63	106.93	101.30
83	A5	1386	U	O4'-C1'-C2'	-5.63	101.97	107.60
83	A5	2689	G	C1'-O4'-C4'	-5.63	104.27	109.90
83	A5	3418	U	O3'-P-O5'	-5.63	95.56	104.00
83	A5	3711	G	O4'-C1'-N9	5.63	116.64	108.20
83	A5	3775	A	C2'-C3'-O3'	5.63	117.94	109.50
1	Az	212	LYS	CA-C-N	5.63	132.44	121.41
1	Az	212	LYS	C-N-CA	5.63	132.44	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	CQ	30	LYS	CA-CB-CG	5.63	125.35	114.10
56	CX	173	LEU	N-CA-C	5.63	122.78	110.80
81	CE	108	HIS	CA-CB-CG	-5.63	108.17	113.80
83	A5	1297	G	C5'-C4'-C3'	-5.63	107.56	116.00
23	AD	158	LEU	N-CA-C	-5.62	98.58	108.20
36	B2	1404	C	N1-C1'-C2'	5.62	120.44	112.00
81	CE	36	ALA	CA-C-N	5.62	127.82	120.28
81	CE	36	ALA	C-N-CA	5.62	127.82	120.28
83	A5	172	C	N1-C1'-C2'	5.62	120.44	112.00
83	A5	1812	C	P-O5'-C5'	-5.62	112.46	120.90
36	B2	1571	U	C3'-C2'-C1'	-5.62	95.68	101.30
54	CP	40	PRO	CA-C-N	5.62	127.81	120.28
54	CP	40	PRO	C-N-CA	5.62	127.81	120.28
67	Ce	32	HIS	CE1-NE2-CD2	-5.62	103.38	109.00
83	A5	78	A	O4'-C4'-C3'	5.62	109.62	104.00
83	A5	1004	C	O3'-P-O5'	-5.62	95.56	104.00
83	A5	1283	A	O4'-C1'-N9	5.62	116.94	108.50
83	A5	1907	U	C4'-C3'-C2'	-5.62	96.98	102.60
83	A5	2031	C	C3'-C2'-C1'	5.62	106.92	101.30
3	AU	54	GLY	N-CA-C	5.62	123.81	112.34
19	AZ	95	LEU	N-CA-CB	5.62	119.99	110.49
25	Af	128	ALA	N-CA-C	5.62	122.77	110.80
36	B2	66	C	P-O3'-C3'	5.62	128.63	120.20
36	B2	1688	U	O4'-C1'-C2'	-5.62	101.98	107.60
79	CJ	100	ARG	NE-CZ-NH2	-5.62	114.14	119.20
83	A5	3207	C	O4'-C4'-C3'	-5.62	98.38	104.00
83	A5	3460	C	C5'-C4'-C3'	-5.62	107.57	116.00
36	B2	312	G	P-O5'-C5'	-5.62	112.47	120.90
63	CB	390	GLY	O-C-N	5.62	127.39	121.77
83	A5	2038	A	C4'-C3'-C2'	-5.62	96.98	102.60
83	A5	3688	A	C3'-C2'-C1'	5.62	106.92	101.30
1	Az	696	HIS	CA-C-N	5.62	129.25	120.82
1	Az	696	HIS	C-N-CA	5.62	129.25	120.82
15	AB	233	GLU	CA-C-N	5.62	128.37	120.28
15	AB	233	GLU	C-N-CA	5.62	128.37	120.28
16	AA	30	VAL	CB-CA-C	-5.62	104.47	112.22
36	B2	1829	C	C3'-C2'-C1'	5.62	107.12	101.50
70	Ci	14	GLY	CA-C-N	5.62	127.74	120.44
70	Ci	14	GLY	C-N-CA	5.62	127.74	120.44
83	A5	441	A	O4'-C1'-C2'	-5.62	101.98	107.60
83	A5	508	U	O4'-C1'-C2'	-5.62	101.98	107.60
83	A5	1102	G	C1'-O4'-C4'	-5.62	104.28	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1476	G	C4'-C3'-O3'	-5.62	104.57	113.00
83	A5	3131	C	C3'-C2'-C1'	5.62	106.92	101.30
82	CG	134	PRO	CA-C-N	5.62	128.26	120.29
82	CG	134	PRO	C-N-CA	5.62	128.26	120.29
6	AX	88	ASP	N-CA-C	5.62	118.69	109.76
10	AN	123	HIS	CE1-NE2-CD2	-5.62	103.38	109.00
29	AG	186	LEU	CA-C-N	5.62	128.84	120.31
29	AG	186	LEU	C-N-CA	5.62	128.84	120.31
36	B2	840	U	N1-C1'-C2'	5.62	120.42	112.00
36	B2	1388	U	N1-C1'-C2'	5.62	120.42	112.00
51	CA	83	HIS	ND1-CE1-NE2	5.62	114.02	108.40
52	CS	117	HIS	ND1-CE1-NE2	5.62	114.02	108.40
83	A5	127	U	O4'-C1'-N1	5.62	116.92	108.50
83	A5	1293	A	O3'-P-O5'	5.62	112.42	104.00
83	A5	2822	C	C4'-C3'-C2'	-5.62	96.98	102.60
1	Az	112	HIS	CE1-NE2-CD2	-5.61	103.39	109.00
2	Ag	36	ARG	CB-CA-C	-5.61	98.58	110.31
30	AF	56	ASP	CA-C-N	5.61	129.66	121.80
30	AF	56	ASP	C-N-CA	5.61	129.66	121.80
83	A5	1522	G	C1'-O4'-C4'	5.61	115.31	109.70
83	A5	3376	C	C3'-C2'-C1'	5.61	106.91	101.30
83	A5	3499	G	O5'-C5'-C4'	-5.61	103.08	111.50
36	B2	442	A	O4'-C1'-N9	5.61	116.92	108.50
66	Cd	25	HIS	CA-C-N	5.61	127.80	120.28
66	Cd	25	HIS	C-N-CA	5.61	127.80	120.28
83	A5	1207	G	C3'-C2'-C1'	5.61	107.11	101.50
83	A5	1673	C	O4'-C4'-C3'	-5.61	100.49	106.10
83	A5	1926	A	C2'-C3'-O3'	-5.61	105.28	113.70
83	A5	2001	U	C4'-C3'-O3'	-5.61	104.58	113.00
83	A5	3124	G	C1'-O4'-C4'	-5.61	104.29	109.90
1	Az	351	GLN	CA-C-N	5.61	128.12	120.54
1	Az	351	GLN	C-N-CA	5.61	128.12	120.54
36	B2	1234	G	P-O3'-C3'	5.61	128.62	120.20
39	Cq	131	GLY	CA-C-N	5.61	126.85	119.84
39	Cq	131	GLY	C-N-CA	5.61	126.85	119.84
60	Cr	94	LEU	CB-CA-C	-5.61	99.25	110.42
83	A5	103	A	O4'-C1'-C2'	-5.61	101.99	107.60
83	A5	154	A	P-O3'-C3'	5.61	128.62	120.20
83	A5	1049	C	N1-C1'-C2'	5.61	120.42	112.00
83	A5	1728	G	O4'-C1'-C2'	5.61	113.21	107.60
7	AM	121	PHE	N-CA-CB	5.61	119.97	110.49
27	AE	247	SER	N-CA-C	-5.61	100.88	109.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	421	A	O4'-C1'-C2'	-5.61	100.19	105.80
45	Ca	27	ARG	CA-C-N	5.61	132.25	121.54
45	Ca	27	ARG	C-N-CA	5.61	132.25	121.54
83	A5	3919	G	O4'-C1'-C2'	5.61	113.21	107.60
12	AR	46	LEU	CA-C-N	5.61	127.73	120.44
12	AR	46	LEU	C-N-CA	5.61	127.73	120.44
20	Aa	102	PHE	CB-CA-C	5.61	121.22	110.17
26	AJ	11	SER	CA-C-N	5.61	132.25	121.54
26	AJ	11	SER	C-N-CA	5.61	132.25	121.54
30	AF	153	GLY	N-CA-C	5.61	126.47	113.18
36	B2	292	G	O4'-C1'-C2'	5.61	111.41	105.80
36	B2	343	A	O4'-C1'-C2'	-5.61	101.99	107.60
36	B2	1187	U	C2'-C3'-O3'	5.61	117.91	109.50
83	A5	465	U	C4'-C3'-C2'	-5.61	96.99	102.60
83	A5	754	A	O5'-C5'-C4'	-5.61	103.09	111.50
1	Az	816	LYS	O-C-N	-5.61	115.95	120.38
7	AM	24	ALA	CA-C-N	5.61	127.79	120.28
7	AM	24	ALA	C-N-CA	5.61	127.79	120.28
36	B2	1567	A	P-O3'-C3'	5.61	128.61	120.20
36	B2	1705	G	C4'-C3'-C2'	-5.61	97.00	102.60
40	CK	102	GLY	N-CA-C	5.61	126.46	113.18
83	A5	121	A	O4'-C1'-N9	5.61	116.61	108.20
83	A5	240	G	O4'-C1'-N9	5.61	116.61	108.20
83	A5	1660	G	P-O5'-C5'	5.61	129.31	120.90
83	A5	1971	C	O4'-C1'-C2'	-5.61	102.00	107.60
83	A5	2987	A	O4'-C1'-C2'	-5.61	101.99	107.60
2	Ag	94	ALA	O-C-N	-5.60	115.72	123.12
10	AN	118	VAL	N-CA-CB	5.60	118.99	110.58
24	Ae	75	HIS	CA-C-N	5.60	126.31	120.03
24	Ae	75	HIS	C-N-CA	5.60	126.31	120.03
83	A5	1253	A	O4'-C1'-N9	5.60	116.91	108.50
83	A5	2837	A	P-O3'-C3'	5.60	128.60	120.20
36	B2	868	C	O4'-C1'-N1	5.60	116.90	108.50
36	B2	1564	A	P-O3'-C3'	5.60	128.60	120.20
58	CW	25	ASP	CA-CB-CG	-5.60	107.00	112.60
69	Cg	86	ARG	CA-C-N	5.60	127.79	120.28
69	Cg	86	ARG	C-N-CA	5.60	127.79	120.28
83	A5	152	A	O3'-P-O5'	5.60	112.40	104.00
83	A5	1339	U	O4'-C1'-C2'	-5.60	102.00	107.60
83	A5	1491	U	C2'-C3'-O3'	5.60	122.10	113.70
83	A5	3706	U	O4'-C1'-C2'	-5.60	102.00	107.60
83	A5	3813	C	O4'-C1'-C2'	-5.60	102.00	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	924	U	C4'-C3'-C2'	-5.60	97.00	102.60
83	A5	3768	C	C3'-C2'-C1'	5.60	107.10	101.50
19	AZ	79	ARG	NE-CZ-NH2	5.60	124.24	119.20
33	AI	144	SER	O-C-N	-5.60	115.14	122.59
36	B2	1144	C	C3'-C2'-C1'	5.60	107.10	101.50
58	CW	117	ARG	CA-C-N	5.60	127.78	120.28
58	CW	117	ARG	C-N-CA	5.60	127.78	120.28
67	Ce	51	GLN	CA-C-N	5.60	132.24	121.54
67	Ce	51	GLN	C-N-CA	5.60	132.24	121.54
83	A5	492	A	O4'-C1'-N9	5.60	116.90	108.50
83	A5	2788	U	O4'-C1'-C2'	-5.60	102.00	107.60
85	A7	8	A	C1'-O4'-C4'	-5.60	104.30	109.90
12	AR	115	ARG	CA-C-N	5.60	125.46	121.65
12	AR	115	ARG	C-N-CA	5.60	125.46	121.65
36	B2	218	A	C3'-C2'-C1'	5.60	106.90	101.30
36	B2	1832	C	N1-C1'-C2'	5.60	120.39	112.00
83	A5	82	U	O4'-C1'-N1	5.60	116.90	108.50
83	A5	443	G	O4'-C1'-C2'	-5.60	102.00	107.60
83	A5	806	A	N9-C1'-C2'	5.60	120.40	112.00
83	A5	1139	U	C1'-O4'-C4'	-5.60	104.30	109.90
83	A5	1641	U	N1-C1'-C2'	5.60	120.40	112.00
85	A7	75	G	C1'-O4'-C4'	-5.60	104.10	109.70
7	AM	79	HIS	CE1-NE2-CD2	-5.60	103.40	109.00
54	CP	11	VAL	N-CA-C	5.60	120.98	109.34
36	B2	1695	A	N9-C1'-C2'	-5.59	103.61	112.00
64	CF	193	ASP	CA-CB-CG	5.59	118.19	112.60
70	Ci	49	PHE	CA-C-N	5.59	127.78	120.28
70	Ci	49	PHE	C-N-CA	5.59	127.78	120.28
74	CC	102	GLY	CA-C-N	5.59	128.66	120.71
74	CC	102	GLY	C-N-CA	5.59	128.66	120.71
83	A5	1695	A	P-O5'-C5'	5.59	129.29	120.90
83	A5	3130	G	C1'-O4'-C4'	-5.59	104.31	109.90
83	A5	3630	C	N1-C1'-C2'	5.59	120.39	112.00
83	A5	3639	U	P-O5'-C5'	-5.59	112.51	120.90
63	CB	327	ASN	CA-CB-CG	-5.59	107.01	112.60
83	A5	1413	C	C3'-C2'-C1'	5.59	106.89	101.30
20	Aa	106	MET	N-CA-CB	5.59	119.94	110.49
42	CL	149	LEU	N-CA-C	5.59	122.71	110.80
82	CG	257	LYS	CA-C-N	5.59	128.23	120.29
82	CG	257	LYS	C-N-CA	5.59	128.23	120.29
83	A5	777	C	C4'-C3'-O3'	-5.59	104.61	113.00
83	A5	1299	A	P-O3'-C3'	-5.59	111.81	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1731	G	O4'-C1'-N9	5.59	116.89	108.50
83	A5	2164	G	N9-C1'-C2'	5.59	122.39	114.00
83	A5	2679	U	O4'-C1'-C2'	-5.59	102.01	107.60
83	A5	3136	U	C1'-O4'-C4'	-5.59	104.31	109.90
83	A5	3390	U	C4'-C3'-O3'	-5.59	104.61	113.00
83	A5	3406	G	N9-C1'-C2'	-5.59	105.61	114.00
12	AR	112	HIS	CE1-NE2-CD2	-5.59	103.41	109.00
36	B2	459	U	C3'-C2'-C1'	5.59	107.09	101.50
36	B2	1576	A	C3'-C2'-C1'	5.59	106.89	101.30
38	Cz	96	ASN	CA-C-N	5.59	130.36	122.09
38	Cz	96	ASN	C-N-CA	5.59	130.36	122.09
83	A5	567	A	O4'-C1'-C2'	-5.59	102.01	107.60
84	A9	19	U	O4'-C1'-N1	5.59	116.89	108.50
31	AH	167	LYS	CA-C-N	5.59	128.12	120.46
31	AH	167	LYS	C-N-CA	5.59	128.12	120.46
83	A5	2747	G	C1'-O4'-C4'	-5.59	104.31	109.90
13	AP	75	LYS	CA-C-O	-5.59	114.73	119.59
27	AE	214	GLN	N-CA-C	-5.59	106.32	113.02
36	B2	867	G	N9-C1'-C2'	5.59	120.38	112.00
36	B2	956	C	N1-C1'-C2'	5.59	120.38	112.00
67	Ce	32	HIS	ND1-CE1-NE2	5.59	113.99	108.40
83	A5	1001	A	O4'-C1'-C2'	-5.59	100.21	105.80
83	A5	1536	U	O4'-C1'-C2'	-5.59	102.01	107.60
83	A5	1665	C	C3'-C2'-C1'	5.59	106.89	101.30
83	A5	2270	G	C3'-C2'-C1'	-5.59	95.71	101.30
85	A7	64	G	C5'-C4'-O4'	5.59	118.18	109.80
1	Az	830	LEU	CA-C-N	5.58	131.63	121.97
1	Az	830	LEU	C-N-CA	5.58	131.63	121.97
36	B2	313	C	C3'-C2'-C1'	-5.58	95.72	101.30
36	B2	1276	G	C1'-C2'-O2'	5.58	116.78	108.40
36	B2	1361	C	N1-C1'-C2'	5.58	122.38	114.00
83	A5	3720	A	N9-C1'-C2'	5.58	120.38	112.00
11	AL	122	ILE	N-CA-CB	5.58	116.62	110.53
36	B2	1801	U	C4'-C3'-C2'	-5.58	97.02	102.60
83	A5	1520	U	O4'-C1'-N1	5.58	116.58	108.20
36	B2	158	U	N1-C1'-C2'	-5.58	103.63	112.00
36	B2	1642	C	N1-C1'-C2'	5.58	120.37	112.00
50	CR	136	ARG	N-CA-C	5.58	118.90	111.75
62	Cb	72	LYS	CA-C-N	5.58	126.82	119.84
62	Cb	72	LYS	C-N-CA	5.58	126.82	119.84
63	CB	193	LYS	CA-C-N	5.58	128.35	120.42
63	CB	193	LYS	C-N-CA	5.58	128.35	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	211	U	O4'-C1'-C2'	-5.58	102.02	107.60
83	A5	3438	C	N1-C1'-C2'	5.58	120.37	112.00
83	A5	3745	U	C3'-C2'-C1'	5.58	106.88	101.30
39	Cq	123	VAL	CA-C-O	-5.58	116.05	119.51
46	CN	56	LYS	CA-C-N	5.58	129.81	121.72
46	CN	56	LYS	C-N-CA	5.58	129.81	121.72
52	CS	159	HIS	CA-CB-CG	5.58	119.38	113.80
58	CW	119	VAL	CA-C-N	5.58	127.76	120.28
58	CW	119	VAL	C-N-CA	5.58	127.76	120.28
83	A5	1177	U	P-O5'-C5'	5.58	129.27	120.90
83	A5	3687	A	C4'-C3'-O3'	5.58	117.77	109.40
83	A5	3918	A	O4'-C1'-N9	5.58	116.87	108.50
29	AG	135	PRO	N-CA-C	5.58	122.06	113.75
34	AQ	144	GLN	N-CA-CB	5.58	119.92	110.49
36	B2	1171	G	O4'-C1'-N9	5.58	116.87	108.50
63	CB	291	ILE	CA-C-O	-5.58	113.81	120.78
81	CE	106	GLY	CA-C-N	5.58	132.19	121.54
81	CE	106	GLY	C-N-CA	5.58	132.19	121.54
83	A5	493	A	O4'-C1'-C2'	-5.58	102.02	107.60
83	A5	2907	U	C2'-C3'-O3'	5.58	117.87	109.50
83	A5	121	A	O4'-C1'-C2'	5.58	111.38	105.80
83	A5	207	C	N1-C1'-C2'	5.58	120.37	112.00
83	A5	833	U	P-O3'-C3'	5.58	128.57	120.20
83	A5	2520	U	O4'-C1'-N1	-5.58	100.14	108.50
1	Az	548	GLU	N-CA-C	5.58	117.04	111.07
2	Ag	189	HIS	ND1-CE1-NE2	5.58	113.98	108.40
11	AL	12	GLN	N-CA-CB	5.58	118.59	109.95
36	B2	927	U	O4'-C1'-N1	5.58	116.86	108.50
36	B2	1525	A	N9-C1'-C2'	-5.58	103.64	112.00
63	CB	12	GLY	CA-C-N	5.58	129.02	121.05
63	CB	12	GLY	C-N-CA	5.58	129.02	121.05
83	A5	1328	U	O3'-P-O5'	5.58	112.36	104.00
83	A5	1700	U	O4'-C1'-N1	5.58	116.86	108.50
83	A5	3410	G	P-O5'-C5'	5.58	129.26	120.90
85	A7	53	U	O4'-C1'-C2'	-5.58	100.22	105.80
36	B2	1316	G	O4'-C1'-N9	5.57	116.56	108.20
83	A5	169	C	C3'-C2'-C1'	5.57	106.87	101.30
83	A5	315	G	C1'-O4'-C4'	5.57	115.27	109.70
83	A5	2499	U	C3'-C2'-C1'	5.57	106.87	101.30
83	A5	3825	U	O4'-C1'-N1	5.57	116.86	108.50
36	B2	1529	G	C3'-C2'-C1'	5.57	107.07	101.50
83	A5	90	G	C1'-C2'-O2'	-5.57	103.44	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	586	C	P-O3'-C3'	5.57	128.56	120.20
83	A5	3225	C	N1-C1'-C2'	5.57	120.36	112.00
29	AG	166	ASP	O-C-N	-5.57	116.42	123.05
36	B2	710	C	O4'-C1'-C2'	-5.57	102.03	107.60
36	B2	1271	A	C3'-C2'-C1'	5.57	106.87	101.30
36	B2	1467	U	O4'-C1'-C2'	-5.57	102.03	107.60
36	B2	1599	U	P-O5'-C5'	-5.57	112.54	120.90
81	CE	180	GLY	N-CA-C	-5.57	99.98	113.18
83	A5	134	G	O5'-C5'-C4'	5.57	119.86	111.50
83	A5	375	C	N1-C1'-C2'	5.57	120.36	112.00
83	A5	513	G	O4'-C1'-N9	5.57	116.85	108.50
83	A5	571	U	P-O3'-C3'	5.57	128.56	120.20
83	A5	1036	A	C3'-C2'-C1'	5.57	106.87	101.30
83	A5	1195	U	C1'-O4'-C4'	-5.57	104.33	109.90
83	A5	2993	G	C3'-C2'-C1'	5.57	106.87	101.30
83	A5	3272	A	C1'-O4'-C4'	-5.57	104.33	109.90
83	A5	3783	A	N9-C1'-C2'	5.57	120.36	112.00
33	AI	156	LYS	N-CA-C	-5.57	105.84	113.30
36	B2	1196	G	N9-C1'-C2'	5.57	120.35	112.00
36	B2	1581	A	O4'-C1'-C2'	-5.57	100.23	105.80
83	A5	460	A	C2'-C3'-O3'	5.57	117.85	109.50
36	B2	1255	G	N9-C1'-C2'	5.57	120.35	112.00
36	B2	1623	C	C5'-C4'-C3'	5.57	123.55	115.20
62	Cb	40	LEU	N-CA-CB	5.57	118.40	110.16
81	CE	63	LYS	N-CA-C	5.57	122.66	110.80
83	A5	3183	G	O4'-C1'-N9	5.57	116.55	108.20
83	A5	3351	A	C1'-O4'-C4'	-5.57	104.33	109.90
1	Az	265	LYS	CA-C-N	5.57	132.17	121.54
1	Az	265	LYS	C-N-CA	5.57	132.17	121.54
28	AC	172	GLY	CA-C-N	5.57	132.17	121.54
28	AC	172	GLY	C-N-CA	5.57	132.17	121.54
30	AF	130	GLU	N-CA-CB	5.57	119.90	110.49
36	B2	339	U	P-O5'-C5'	-5.57	112.55	120.90
36	B2	932	U	O4'-C4'-C3'	-5.57	98.43	104.00
43	CV	47	GLY	CA-C-N	5.57	129.68	120.94
43	CV	47	GLY	C-N-CA	5.57	129.68	120.94
54	CP	184	ARG	CA-C-O	-5.57	114.83	120.84
59	CZ	47	ASP	N-CA-C	-5.57	105.99	112.89
83	A5	1394	U	N1-C1'-C2'	-5.57	105.65	114.00
83	A5	3792	A	O4'-C4'-C3'	-5.57	98.44	104.00
36	B2	1021	A	O4'-C1'-C2'	5.56	113.16	107.60
36	B2	1434	U	P-O5'-C5'	5.56	129.25	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
74	CC	225	ARG	CA-C-N	5.56	127.73	120.28
74	CC	225	ARG	C-N-CA	5.56	127.73	120.28
83	A5	3255	G	O4'-C1'-N9	5.56	116.85	108.50
9	Ad	15	GLY	CA-C-N	5.56	132.16	121.54
9	Ad	15	GLY	C-N-CA	5.56	132.16	121.54
36	B2	412	A	O4'-C1'-C2'	-5.56	102.04	107.60
36	B2	1591	U	C5'-C4'-C3'	-5.56	106.86	115.20
39	Cq	108	PRO	CA-N-CD	-5.56	104.21	112.00
83	A5	503	A	C1'-O4'-C4'	-5.56	104.34	109.90
83	A5	1336	U	C4'-C3'-O3'	-5.56	104.66	113.00
6	AX	114	ASP	CA-CB-CG	-5.56	107.04	112.60
27	AE	88	ASP	CA-CB-CG	-5.56	107.04	112.60
36	B2	313	C	O4'-C1'-C2'	5.56	113.16	107.60
83	A5	928	U	P-O5'-C5'	5.56	129.24	120.90
83	A5	1493	A	P-O3'-C3'	-5.56	111.86	120.20
83	A5	1493	A	C4'-C3'-O3'	5.56	121.34	113.00
83	A5	3004	A	O4'-C1'-C2'	-5.56	100.24	105.80
83	A5	3545	C	N1-C1'-C2'	5.56	120.34	112.00
83	A5	3779	U	C1'-O4'-C4'	-5.56	104.34	109.90
83	A5	3925	G	O4'-C1'-C2'	5.56	111.36	105.80
23	AD	14	VAL	CA-C-N	5.56	127.73	120.28
23	AD	14	VAL	C-N-CA	5.56	127.73	120.28
29	AG	30	LYS	N-CA-CB	5.56	119.74	110.85
36	B2	101	U	O4'-C1'-N1	5.56	116.84	108.50
36	B2	107	A	N9-C1'-C2'	5.56	120.34	112.00
36	B2	1824	C	C1'-O4'-C4'	-5.56	104.34	109.90
37	BC	3	C	C4'-C3'-O3'	-5.56	104.66	113.00
83	A5	3335	A	O4'-C1'-C2'	-5.56	100.24	105.80
36	B2	475	G	C5'-C4'-C3'	-5.56	107.67	116.00
69	Cg	24	ARG	N-CA-CB	5.56	118.71	109.60
83	A5	1030	A	O4'-C1'-C2'	-5.56	102.04	107.60
1	Az	473	THR	CA-C-N	5.55	132.15	121.54
1	Az	473	THR	C-N-CA	5.55	132.15	121.54
1	Az	666	VAL	CA-C-N	5.55	127.72	120.28
1	Az	666	VAL	C-N-CA	5.55	127.72	120.28
15	AB	37	ASN	N-CA-C	5.55	117.03	110.97
33	AI	7	SER	CA-C-N	5.55	132.15	121.54
33	AI	7	SER	C-N-CA	5.55	132.15	121.54
36	B2	1221	A	O4'-C1'-N9	5.55	116.83	108.50
83	A5	406	G	O4'-C1'-N9	5.55	116.83	108.50
83	A5	3533	U	O4'-C1'-N1	5.55	116.83	108.50
83	A5	3700	U	C2'-C3'-O3'	-5.55	105.37	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
85	A7	95	U	O4'-C1'-C2'	-5.55	102.05	107.60
2	Ag	175	VAL	N-CA-C	-5.55	100.33	108.11
31	AH	141	ARG	CA-CB-CG	5.55	125.21	114.10
36	B2	357	A	O3'-P-O5'	-5.55	95.67	104.00
83	A5	854	U	O4'-C1'-C2'	-5.55	102.05	107.60
83	A5	2156	U	O4'-C1'-C2'	-5.55	100.25	105.80
83	A5	3418	U	O5'-C5'-C4'	-5.55	103.17	111.50
83	A5	3820	C	C3'-C2'-C1'	5.55	106.85	101.30
1	Az	93	ASP	CA-C-N	5.55	132.15	121.54
1	Az	93	ASP	C-N-CA	5.55	132.15	121.54
2	Ag	2	SER	N-CA-C	5.55	117.33	111.28
6	AX	67	ARG	N-CA-C	5.55	119.05	112.72
36	B2	57	G	O4'-C1'-N9	5.55	116.83	108.50
36	B2	114	G	N9-C1'-C2'	-5.55	105.67	114.00
52	CS	159	HIS	N-CA-C	5.55	122.62	110.80
83	A5	1559	A	O4'-C1'-C2'	-5.55	102.05	107.60
83	A5	2029	G	C2'-C3'-O3'	5.55	117.83	109.50
83	A5	3011	C	O4'-C1'-C2'	-5.55	102.05	107.60
83	A5	3324	A	O4'-C1'-N9	5.55	116.83	108.50
83	A5	3774	U	O4'-C1'-C2'	-5.55	102.05	107.60
28	AC	73	GLU	CA-C-N	5.55	128.17	120.29
28	AC	73	GLU	C-N-CA	5.55	128.17	120.29
36	B2	1763	C	O4'-C1'-C2'	-5.55	102.05	107.60
36	B2	1767	G	N9-C1'-C2'	5.55	120.33	112.00
53	CT	5	LYS	O-C-N	-5.55	115.21	122.59
53	CT	98	HIS	CG-CD2-NE2	5.55	112.75	107.20
63	CB	281	ASN	CA-CB-CG	-5.55	107.05	112.60
64	CF	226	LYS	CA-C-N	5.55	132.14	121.54
64	CF	226	LYS	C-N-CA	5.55	132.14	121.54
83	A5	699	U	C2'-C3'-O3'	-5.55	105.38	113.70
83	A5	3368	C	C1'-C2'-O2'	5.55	116.72	108.40
12	AR	84	TYR	CA-C-N	5.55	132.39	122.13
12	AR	84	TYR	C-N-CA	5.55	132.39	122.13
36	B2	1958	A	N9-C1'-C2'	5.55	120.32	112.00
44	CM	124	THR	CA-C-N	5.55	129.43	121.55
44	CM	124	THR	C-N-CA	5.55	129.43	121.55
67	Ce	110	ILE	CA-C-N	5.55	128.30	120.42
67	Ce	110	ILE	C-N-CA	5.55	128.30	120.42
83	A5	356	A	P-O5'-C5'	5.55	129.22	120.90
83	A5	1264	U	O4'-C1'-C2'	-5.55	102.05	107.60
83	A5	1594	U	O4'-C1'-C2'	-5.55	102.05	107.60
8	AS	139	THR	CA-C-O	-5.55	115.74	119.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AA	131	HIS	ND1-CE1-NE2	5.55	113.95	108.40
29	AG	181	ILE	N-CA-CB	5.55	120.38	111.23
32	AW	41	MET	CB-CA-C	-5.55	101.58	110.79
36	B2	518	G	C4'-C3'-C2'	-5.55	97.05	102.60
48	CD	95	TYR	N-CA-CB	5.55	118.27	110.12
58	CW	127	ALA	CA-C-N	5.55	125.64	119.32
58	CW	127	ALA	C-N-CA	5.55	125.64	119.32
83	A5	3701	U	O4'-C4'-C3'	-5.55	98.45	104.00
36	B2	530	U	O4'-C1'-N1	5.54	116.82	108.50
46	CN	17	ASP	N-CA-CB	5.54	118.27	110.12
46	CN	182	GLN	O-C-N	-5.54	116.14	123.13
83	A5	2671	C	C3'-C2'-C1'	5.54	106.84	101.30
83	A5	3004	A	C2'-C3'-O3'	5.54	117.82	109.50
83	A5	3510	U	N1-C1'-C2'	5.54	122.32	114.00
1	Az	91	HIS	N-CA-CB	5.54	120.93	109.45
16	AA	199	VAL	N-CA-C	5.54	120.87	109.34
36	B2	61	A	C1'-O4'-C4'	-5.54	104.36	109.90
36	B2	618	G	C1'-C2'-O2'	5.54	116.72	108.40
36	B2	987	A	O4'-C1'-C2'	-5.54	102.06	107.60
36	B2	1006	U	O4'-C1'-C2'	-5.54	102.06	107.60
37	BC	52	G	N9-C1'-C2'	5.54	120.32	112.00
41	CO	94	THR	CA-C-N	5.54	128.74	120.31
41	CO	94	THR	C-N-CA	5.54	128.74	120.31
70	Ci	46	HIS	ND1-CE1-NE2	5.54	113.94	108.40
83	A5	1365	U	N1-C1'-C2'	5.54	120.32	112.00
83	A5	2241	U	O4'-C1'-C2'	-5.54	100.26	105.80
1	Az	345	PRO	N-CA-C	5.54	123.89	112.47
11	AL	28	LYS	CA-C-N	5.54	132.12	121.54
11	AL	28	LYS	C-N-CA	5.54	132.12	121.54
36	B2	335	U	O4'-C1'-C2'	-5.54	102.06	107.60
82	CG	78	ARG	CB-CA-C	-5.54	102.14	110.90
83	A5	3895	A	N9-C1'-C2'	-5.54	103.69	112.00
86	A8	45	G	P-O5'-C5'	5.54	129.21	120.90
83	A5	1864	U	P-O3'-C3'	5.54	128.51	120.20
83	A5	3482	G	C4'-C3'-O3'	-5.54	104.69	113.00
1	Az	261	LYS	CA-C-N	5.54	132.12	121.54
1	Az	261	LYS	C-N-CA	5.54	132.12	121.54
8	AS	83	PHE	CA-CB-CG	-5.54	108.26	113.80
15	AB	152	SER	CA-C-N	5.54	128.26	120.28
15	AB	152	SER	C-N-CA	5.54	128.26	120.28
32	AW	20	ARG	CB-CA-C	-5.54	100.04	110.67
48	CD	193	ASP	CA-C-N	5.54	128.05	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	CD	193	ASP	C-N-CA	5.54	128.05	120.46
83	A5	317	G	C1'-O4'-C4'	-5.54	104.36	109.90
83	A5	1446	A	O4'-C1'-C2'	-5.54	102.06	107.60
83	A5	3357	C	C1'-C2'-O2'	5.54	116.71	108.40
36	B2	1911	C	C2'-C3'-O3'	5.54	117.81	109.50
36	B2	1826	C	C5'-C4'-O4'	5.54	117.40	109.10
59	CZ	103	PRO	CA-C-N	5.54	127.53	120.56
59	CZ	103	PRO	C-N-CA	5.54	127.53	120.56
62	Cb	17	HIS	CG-CD2-NE2	5.54	112.74	107.20
68	Cf	75	ILE	N-CA-C	-5.54	100.61	108.58
83	A5	16	A	C4'-C3'-O3'	-5.54	104.70	113.00
83	A5	1340	G	C1'-O4'-C4'	-5.54	104.36	109.90
83	A5	1347	A	O4'-C1'-C2'	-5.54	102.06	107.60
83	A5	1933	U	O4'-C1'-C2'	-5.54	102.06	107.60
83	A5	2240	U	O4'-C1'-C2'	-5.54	102.06	107.60
85	A7	36	C	C5'-C4'-C3'	5.54	124.30	116.00
1	Az	648	ILE	N-CA-C	-5.53	100.45	108.36
15	AB	119	LYS	CA-C-N	5.53	132.11	121.54
15	AB	119	LYS	C-N-CA	5.53	132.11	121.54
36	B2	634	U	O4'-C1'-C2'	-5.53	102.07	107.60
36	B2	1635	U	O4'-C1'-C2'	-5.53	102.07	107.60
36	B2	1739	U	N1-C1'-C2'	5.53	120.30	112.00
79	CJ	154	GLY	CA-C-N	5.53	129.77	122.30
79	CJ	154	GLY	C-N-CA	5.53	129.77	122.30
83	A5	227	A	C3'-C2'-C1'	5.53	106.83	101.30
83	A5	1796	A	C4'-C3'-O3'	5.53	117.70	109.40
18	AY	98	PHE	CA-CB-CG	-5.53	108.27	113.80
36	B2	1251	A	N9-C1'-C2'	5.53	120.30	112.00
42	CL	124	ILE	CA-C-N	5.53	132.11	121.54
42	CL	124	ILE	C-N-CA	5.53	132.11	121.54
46	CN	201	HIS	CA-CB-CG	-5.53	108.27	113.80
81	CE	193	VAL	CB-CA-C	5.53	121.43	111.36
83	A5	794	G	O4'-C1'-C2'	-5.53	102.07	107.60
83	A5	1154	U	O4'-C1'-N1	5.53	116.80	108.50
83	A5	285	G	O4'-C1'-C2'	-5.53	100.27	105.80
83	A5	1938	C	C1'-O4'-C4'	-5.53	104.37	109.90
18	AY	111	ARG	CA-C-N	5.53	127.69	120.28
18	AY	111	ARG	C-N-CA	5.53	127.69	120.28
21	Ab	83	PRO	CA-C-N	5.53	131.65	121.70
21	Ab	83	PRO	C-N-CA	5.53	131.65	121.70
27	AE	188	ASN	CA-C-N	5.53	129.10	120.75
27	AE	188	ASN	C-N-CA	5.53	129.10	120.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	CO	201	TYR	N-CA-C	-5.53	104.89	111.69
83	A5	3560	C	N1-C1'-C2'	-5.53	103.71	112.00
14	AT	152	ILE	O-C-N	-5.53	116.14	121.83
36	B2	178	A	O4'-C1'-C2'	-5.53	102.07	107.60
36	B2	849	U	O4'-C1'-N1	5.53	116.79	108.50
37	BC	63	U	C4'-C3'-C2'	-5.53	97.07	102.60
58	CW	125	ALA	CA-C-N	5.53	128.71	120.31
58	CW	125	ALA	C-N-CA	5.53	128.71	120.31
74	CC	5	ASN	CA-CB-CG	5.53	118.13	112.60
83	A5	2194	G	C1'-O4'-C4'	-5.53	104.37	109.90
83	A5	3384	C	O4'-C1'-C2'	-5.53	102.07	107.60
36	B2	1284	A	C1'-O4'-C4'	5.53	115.22	109.70
80	CH	106	ASN	O-C-N	-5.53	114.16	123.00
83	A5	617	U	C3'-C2'-C1'	5.53	106.83	101.30
83	A5	1868	A	P-O3'-C3'	5.53	128.49	120.20
83	A5	1885	U	O4'-C1'-C2'	-5.53	102.07	107.60
83	A5	3240	U	O4'-C1'-N1	5.53	116.79	108.50
4	AK	64	HIS	ND1-CE1-NE2	5.52	113.92	108.40
20	Aa	72	HIS	CE1-NE2-CD2	-5.52	103.48	109.00
36	B2	625	U	O4'-C1'-C2'	-5.52	102.08	107.60
26	AJ	171	PRO	N-CA-C	5.52	123.84	112.47
36	B2	617	U	O4'-C1'-C2'	-5.52	100.28	105.80
36	B2	640	U	P-O5'-C5'	-5.52	112.62	120.90
83	A5	462	C	P-O5'-C5'	-5.52	112.62	120.90
83	A5	2234	C	O4'-C1'-C2'	-5.52	102.08	107.60
36	B2	607	A	O4'-C1'-C2'	-5.52	102.08	107.60
36	B2	1812	C	C3'-C2'-C1'	5.52	106.82	101.30
46	CN	144	ARG	N-CA-C	5.52	120.48	111.37
51	CA	132	ASN	CA-CB-CG	-5.52	107.08	112.60
83	A5	618	U	O4'-C1'-C2'	-5.52	102.08	107.60
4	AK	64	HIS	CE1-NE2-CD2	-5.52	103.48	109.00
26	AJ	170	ARG	CA-C-N	5.52	126.74	119.84
26	AJ	170	ARG	C-N-CA	5.52	126.74	119.84
36	B2	340	A	C4'-C3'-C2'	-5.52	97.08	102.60
36	B2	1770	U	O4'-C1'-N1	5.52	116.78	108.50
58	CW	17	HIS	ND1-CE1-NE2	5.52	113.92	108.40
83	A5	530	U	N1-C1'-C2'	-5.52	103.72	112.00
83	A5	753	U	O5'-C5'-C4'	-5.52	103.42	111.70
83	A5	3157	U	O4'-C1'-N1	5.52	116.48	108.20
1	Az	488	SER	N-CA-C	5.52	115.94	109.60
15	AB	118	LYS	CA-C-N	5.52	132.08	121.54
15	AB	118	LYS	C-N-CA	5.52	132.08	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	Ca	29	HIS	CA-CB-CG	-5.52	108.28	113.80
83	A5	211	U	O4'-C1'-N1	5.52	116.78	108.50
83	A5	957	A	C5'-C4'-C3'	5.52	123.18	114.90
85	A7	53	U	O4'-C1'-N1	5.52	116.48	108.20
74	CC	25	ILE	CA-C-N	5.52	128.60	120.82
74	CC	25	ILE	C-N-CA	5.52	128.60	120.82
83	A5	214	A	P-O5'-C5'	-5.52	112.63	120.90
36	B2	819	G	C5'-C4'-C3'	-5.51	107.73	116.00
36	B2	1021	A	C5'-C4'-C3'	-5.51	107.73	116.00
36	B2	1923	C	O4'-C1'-C2'	-5.51	102.09	107.60
47	CI	199	TYR	O-C-N	-5.51	116.93	123.22
63	CB	143	LYS	N-CA-C	-5.51	106.22	113.17
83	A5	231	A	C4'-C3'-O3'	-5.51	104.73	113.00
83	A5	1144	C	O4'-C1'-C2'	-5.51	102.08	107.60
83	A5	2926	G	C1'-C2'-O2'	5.51	116.67	108.40
83	A5	3916	U	C1'-C2'-O2'	5.51	116.67	108.40
1	Az	599	LEU	O-C-N	-5.51	115.57	120.48
63	CB	404	THR	CA-C-N	5.51	128.12	120.29
63	CB	404	THR	C-N-CA	5.51	128.12	120.29
83	A5	110	A	P-O5'-C5'	-5.51	112.63	120.90
83	A5	835	G	C1'-O4'-C4'	-5.51	104.39	109.90
83	A5	1631	U	N1-C1'-C2'	-5.51	105.73	114.00
1	Az	113	VAL	CA-C-N	5.51	132.07	121.54
1	Az	113	VAL	C-N-CA	5.51	132.07	121.54
11	AL	147	GLY	N-CA-C	-5.51	100.12	113.18
12	AR	96	ILE	CA-CB-CG1	5.51	119.77	110.40
36	B2	651	C	N1-C1'-C2'	5.51	120.27	112.00
36	B2	1734	G	O3'-P-O5'	-5.51	95.73	104.00
53	CT	53	PRO	CA-C-N	5.51	132.07	121.54
53	CT	53	PRO	C-N-CA	5.51	132.07	121.54
83	A5	1738	U	O4'-C1'-C2'	-5.51	102.09	107.60
83	A5	2926	G	O4'-C1'-C2'	5.51	113.11	107.60
83	A5	3788	G	O4'-C4'-C3'	-5.51	98.49	104.00
83	A5	3961	G	N9-C1'-C2'	5.51	120.27	112.00
8	AS	113	ARG	CB-CA-C	-5.51	102.23	110.88
28	AC	42	GLU	CA-C-N	5.51	130.16	121.56
28	AC	42	GLU	C-N-CA	5.51	130.16	121.56
36	B2	1295	U	P-O3'-C3'	5.51	128.47	120.20
70	Ci	61	ALA	CA-C-O	-5.51	114.44	120.17
83	A5	1941	A	P-O5'-C5'	-5.51	112.64	120.90
16	AA	171	ILE	CA-C-N	5.51	126.05	119.94
16	AA	171	ILE	C-N-CA	5.51	126.05	119.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1378	A	C3'-C2'-C1'	5.51	106.81	101.30
36	B2	401	G	O4'-C1'-C2'	-5.51	102.09	107.60
36	B2	1581	A	C3'-C2'-C1'	5.51	107.01	101.50
51	CA	183	GLY	CA-C-N	5.51	128.68	120.31
51	CA	183	GLY	C-N-CA	5.51	128.68	120.31
52	CS	166	LEU	CA-C-N	5.51	132.06	121.54
52	CS	166	LEU	C-N-CA	5.51	132.06	121.54
82	CG	41	PRO	CB-CA-C	5.51	120.65	111.56
83	A5	1289	C	C3'-C2'-C1'	5.51	106.81	101.30
83	A5	1299	A	C4'-C3'-O3'	-5.51	104.74	113.00
84	A9	23	G	O3'-P-O5'	5.51	112.26	104.00
23	AD	44	THR	O-C-N	-5.50	118.19	121.71
34	AQ	9	VAL	N-CA-CB	5.50	120.31	111.23
83	A5	625	C	O4'-C1'-C2'	-5.50	102.09	107.60
83	A5	2469	U	N1-C1'-C2'	5.50	120.26	112.00
83	A5	2488	U	O4'-C1'-N1	5.50	116.76	108.50
1	Az	480	MET	N-CA-C	5.50	118.71	111.28
1	Az	755	HIS	N-CA-CB	5.50	119.79	110.49
16	AA	55	TRP	CB-CA-C	-5.50	102.24	110.88
31	AH	65	PRO	CA-C-N	5.50	128.68	120.31
31	AH	65	PRO	C-N-CA	5.50	128.68	120.31
36	B2	281	C	O5'-C5'-C4'	5.50	119.95	111.70
36	B2	493	A	C1'-O4'-C4'	-5.50	104.40	109.90
36	B2	936	G	O4'-C1'-C2'	5.50	113.10	107.60
36	B2	1756	C	N1-C1'-C2'	5.50	120.26	112.00
37	BC	75	A	O4'-C1'-N9	5.50	116.46	108.20
83	A5	573	U	C4'-C3'-C2'	-5.50	97.10	102.60
83	A5	681	G	O4'-C1'-N9	5.50	116.76	108.50
83	A5	1263	U	O4'-C1'-N1	5.50	116.76	108.50
83	A5	3561	G	P-O5'-C5'	-5.50	112.64	120.90
83	A5	3644	C	N1-C1'-C2'	5.50	120.26	112.00
3	AU	44	GLY	CA-C-N	5.50	127.92	120.44
3	AU	44	GLY	C-N-CA	5.50	127.92	120.44
36	B2	1269	U	O4'-C1'-C2'	-5.50	102.10	107.60
36	B2	1654	G	N9-C1'-C2'	-5.50	103.75	112.00
40	CK	99	LYS	N-CA-CB	5.50	119.79	110.49
41	CO	112	SER	CA-C-N	5.50	126.72	119.84
41	CO	112	SER	C-N-CA	5.50	126.72	119.84
56	CX	227	LYS	N-CA-CB	5.50	119.79	110.49
63	CB	225	GLY	CA-C-O	-5.50	116.34	121.18
83	A5	541	A	C4'-C3'-O3'	5.50	121.25	113.00
83	A5	666	A	O4'-C1'-C2'	-5.50	102.10	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1213	C	P-O3'-C3'	-5.50	111.95	120.20
83	A5	3857	G	P-O3'-C3'	5.50	128.45	120.20
86	A8	25	C	N1-C1'-C2'	5.50	120.25	112.00
83	A5	64	A	O4'-C1'-C2'	-5.50	102.10	107.60
83	A5	1595	G	O4'-C1'-N9	5.50	116.75	108.50
83	A5	1797	A	C3'-C2'-C1'	5.50	107.00	101.50
1	Az	346	SER	O-C-N	-5.50	115.00	121.32
21	Ab	61	THR	CA-C-O	-5.50	114.72	120.55
36	B2	1842	U	O4'-C1'-C2'	-5.50	102.10	107.60
53	CT	58	HIS	CE1-NE2-CD2	-5.50	103.50	109.00
83	A5	123	U	C3'-C2'-C1'	5.50	107.00	101.50
83	A5	1790	A	O4'-C1'-C2'	-5.50	102.10	107.60
83	A5	2098	C	C1'-O4'-C4'	5.50	115.40	109.90
83	A5	2559	C	O4'-C1'-C2'	-5.50	102.10	107.60
83	A5	3660	U	O4'-C1'-N1	5.50	116.75	108.50
85	A7	72	U	C4'-C3'-C2'	-5.50	97.10	102.60
86	A8	122	U	O4'-C1'-N1	5.50	116.75	108.50
15	AB	134	ASP	N-CA-CB	5.50	119.14	110.56
23	AD	14	VAL	N-CA-CB	5.50	118.82	110.58
28	AC	127	SER	CA-C-N	5.50	128.19	120.28
28	AC	127	SER	C-N-CA	5.50	128.19	120.28
29	AG	162	LEU	CA-C-O	-5.50	115.30	119.59
36	B2	868	C	O4'-C1'-C2'	-5.50	102.10	107.60
36	B2	1068	U	O4'-C1'-N1	5.50	116.74	108.50
36	B2	1992	A	O4'-C1'-N9	5.50	116.74	108.50
47	CI	14	ASN	CA-CB-CG	-5.50	107.10	112.60
83	A5	71	A	N9-C1'-C2'	5.50	120.24	112.00
83	A5	1079	U	N1-C1'-C2'	5.50	120.25	112.00
83	A5	2646	U	O4'-C1'-N1	5.50	116.74	108.50
26	AJ	166	PHE	CA-CB-CG	-5.50	108.31	113.80
54	CP	90	PHE	CA-CB-CG	-5.50	108.31	113.80
81	CE	129	PRO	CA-C-N	5.50	132.04	121.54
81	CE	129	PRO	C-N-CA	5.50	132.04	121.54
83	A5	393	A	O4'-C1'-C2'	-5.50	102.11	107.60
30	AF	150	THR	CA-C-N	5.49	130.34	122.21
30	AF	150	THR	C-N-CA	5.49	130.34	122.21
34	AQ	84	TYR	N-CA-CB	5.49	118.19	110.12
74	CC	77	ALA	CA-C-N	5.49	132.03	121.54
74	CC	77	ALA	C-N-CA	5.49	132.03	121.54
81	CE	17	GLY	CA-C-N	5.49	132.03	121.54
81	CE	17	GLY	C-N-CA	5.49	132.03	121.54
82	CG	86	HIS	ND1-CE1-NE2	5.49	113.89	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	424	G	N9-C1'-C2'	-5.49	105.76	114.00
83	A5	1029	C	C1'-C2'-O2'	5.49	116.64	108.40
83	A5	1300	G	C2'-C3'-O3'	-5.49	105.46	113.70
83	A5	1342	U	O4'-C1'-N1	5.49	116.74	108.50
83	A5	1683	U	N1-C1'-C2'	5.49	120.24	112.00
83	A5	2091	A	C2'-C3'-O3'	-5.49	101.26	109.50
83	A5	2203	A	C3'-C2'-C1'	5.49	106.79	101.30
1	Az	560	ASP	CA-CB-CG	-5.49	107.11	112.60
10	AN	65	PHE	CB-CA-C	-5.49	101.51	110.85
36	B2	1239	A	O4'-C1'-C2'	-5.49	102.11	107.60
63	CB	356	LYS	CA-C-O	-5.49	115.71	122.36
83	A5	24	G	C1'-O4'-C4'	-5.49	104.41	109.90
30	AF	208	SER	N-CA-C	5.49	119.24	112.54
36	B2	1438	U	C3'-C2'-C1'	5.49	106.79	101.30
36	B2	1666	G	P-O5'-C5'	5.49	129.13	120.90
42	CL	172	ASP	N-CA-C	5.49	117.07	111.14
51	CA	226	LYS	N-CA-CB	5.49	118.11	110.26
83	A5	2749	G	O4'-C1'-N9	5.49	116.73	108.50
21	Ab	46	VAL	N-CA-C	-5.49	100.43	108.99
26	AJ	68	ASP	N-CA-CB	5.49	118.46	109.95
36	B2	1021	A	C4'-C3'-O3'	-5.49	104.77	113.00
36	B2	1338	U	O4'-C4'-C3'	5.49	109.49	104.00
36	B2	1856	U	O4'-C1'-N1	5.49	116.73	108.50
47	CI	55	ASP	CA-CB-CG	-5.49	107.11	112.60
16	AA	108	PHE	N-CA-C	-5.49	105.63	112.93
36	B2	390	A	O4'-C1'-C2'	-5.49	102.11	107.60
53	CT	80	VAL	N-CA-C	-5.49	101.89	109.46
83	A5	257	U	N1-C1'-C2'	5.49	120.23	112.00
1	Az	84	LYS	CA-C-N	5.48	128.65	120.31
1	Az	84	LYS	C-N-CA	5.48	128.65	120.31
23	AD	110	LYS	CA-C-N	5.48	127.90	120.44
23	AD	110	LYS	C-N-CA	5.48	127.90	120.44
63	CB	395	ASP	CA-C-N	5.48	128.18	120.28
63	CB	395	ASP	C-N-CA	5.48	128.18	120.28
85	A7	49	A	C5'-C4'-C3'	5.48	124.22	116.00
1	Az	554	ILE	CA-C-N	5.48	126.69	119.84
1	Az	554	ILE	C-N-CA	5.48	126.69	119.84
15	AB	214	TYR	CA-C-N	5.48	131.84	121.97
15	AB	214	TYR	C-N-CA	5.48	131.84	121.97
36	B2	1252	G	C4'-C3'-C2'	-5.48	97.12	102.60
36	B2	1644	U	O4'-C1'-C2'	-5.48	102.12	107.60
43	CV	112	MET	CA-C-O	-5.48	114.88	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	Ca	15	HIS	CG-CD2-NE2	5.48	112.68	107.20
47	CI	86	HIS	ND1-CE1-NE2	5.48	113.88	108.40
1	Az	246	LEU	N-CA-CB	5.48	118.77	110.28
30	AF	134	GLN	CA-C-N	5.48	127.97	120.46
30	AF	134	GLN	C-N-CA	5.48	127.97	120.46
36	B2	240	U	C4'-C3'-C2'	-5.48	97.12	102.60
36	B2	1246	C	C1'-C2'-O2'	-5.48	103.58	111.80
46	CN	33	LEU	CA-C-N	5.48	131.45	121.97
46	CN	33	LEU	C-N-CA	5.48	131.45	121.97
52	CS	61	ILE	CA-C-N	5.48	131.84	121.97
52	CS	61	ILE	C-N-CA	5.48	131.84	121.97
77	Cp	77	ALA	CA-C-N	5.48	127.62	120.28
77	Cp	77	ALA	C-N-CA	5.48	127.62	120.28
83	A5	746	G	C4'-C3'-C2'	-5.48	97.12	102.60
83	A5	1055	U	N1-C1'-C2'	5.48	120.22	112.00
83	A5	1128	C	O4'-C1'-C2'	-5.48	102.12	107.60
83	A5	3124	G	N9-C1'-C2'	5.48	120.22	112.00
83	A5	3260	G	C4'-C3'-C2'	5.48	108.08	102.60
84	A9	21	G	O4'-C1'-C2'	5.48	113.08	107.60
86	A8	67	G	O4'-C1'-N9	5.48	116.72	108.50
36	B2	194	G	O4'-C1'-C2'	-5.48	102.12	107.60
41	CO	49	PHE	CA-CB-CG	5.48	119.28	113.80
74	CC	3	LEU	CA-C-N	5.48	132.15	121.41
74	CC	3	LEU	C-N-CA	5.48	132.15	121.41
83	A5	3812	C	C3'-C2'-C1'	5.48	106.78	101.30
7	AM	43	HIS	CE1-NE2-CD2	-5.48	103.52	109.00
12	AR	29	HIS	CE1-NE2-CD2	-5.48	103.52	109.00
36	B2	78	A	O4'-C1'-C2'	-5.48	102.12	107.60
36	B2	298	U	C1'-O4'-C4'	-5.48	104.42	109.90
36	B2	1229	G	P-O3'-C3'	-5.48	111.98	120.20
36	B2	1383	A	O4'-C1'-C2'	5.48	113.08	107.60
36	B2	1569	C	O4'-C1'-C2'	-5.48	102.12	107.60
36	B2	1753	U	P-O5'-C5'	-5.48	112.68	120.90
37	BC	21	G	C1'-O4'-C4'	-5.48	104.42	109.90
40	CK	159	SER	N-CA-C	5.48	117.68	111.11
47	CI	85	PHE	CA-CB-CG	-5.48	108.32	113.80
63	CB	274	TYR	N-CA-C	-5.48	99.14	110.80
83	A5	727	G	P-O5'-C5'	-5.48	112.68	120.90
83	A5	1078	G	N9-C1'-C2'	-5.48	103.78	112.00
7	AM	72	VAL	CB-CA-C	-5.48	104.66	112.22
47	CI	205	PRO	CA-C-N	5.48	128.20	120.42
47	CI	205	PRO	C-N-CA	5.48	128.20	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	CZ	99	ASP	CA-CB-CG	5.48	118.08	112.60
63	CB	397	LEU	CA-C-N	5.48	128.07	120.29
63	CB	397	LEU	C-N-CA	5.48	128.07	120.29
1	Az	175	ALA	N-CA-C	5.47	117.68	111.11
36	B2	485	A	O4'-C4'-C3'	5.47	109.47	104.00
36	B2	663	A	C4'-C3'-O3'	-5.47	101.79	110.00
36	B2	1037	C	O4'-C1'-C2'	-5.47	102.12	107.60
36	B2	1627	G	O4'-C1'-N9	5.47	116.41	108.20
60	Cr	84	VAL	CA-C-N	5.47	131.22	121.75
60	Cr	84	VAL	C-N-CA	5.47	131.22	121.75
64	CF	66	LYS	CA-C-N	5.47	127.61	120.28
64	CF	66	LYS	C-N-CA	5.47	127.61	120.28
81	CE	237	TYR	N-CA-CB	-5.47	99.99	110.17
83	A5	4	U	C3'-C2'-C1'	5.47	106.97	101.50
83	A5	600	C	C4'-C3'-O3'	5.47	118.21	110.00
83	A5	2593	A	C3'-C2'-C1'	5.47	106.77	101.30
83	A5	2895	U	O4'-C1'-N1	5.47	116.71	108.50
1	Az	163	LYS	CA-C-N	5.47	127.61	120.28
1	Az	163	LYS	C-N-CA	5.47	127.61	120.28
18	AY	56	VAL	CA-C-N	5.47	131.99	121.54
18	AY	56	VAL	C-N-CA	5.47	131.99	121.54
31	AH	111	LYS	CA-C-N	5.47	131.99	121.54
31	AH	111	LYS	C-N-CA	5.47	131.99	121.54
36	B2	263	A	O4'-C1'-C2'	-5.47	102.13	107.60
36	B2	714	U	O4'-C1'-C2'	-5.47	100.33	105.80
36	B2	1224	U	N1-C1'-C2'	5.47	120.21	112.00
39	Cq	189	ILE	N-CA-C	-5.47	100.53	108.36
50	CR	121	HIS	ND1-CE1-NE2	5.47	113.87	108.40
53	CT	68	THR	N-CA-C	-5.47	101.09	109.41
83	A5	1470	C	C1'-O4'-C4'	-5.47	104.43	109.90
83	A5	1811	A	C4'-C3'-O3'	-5.47	104.79	113.00
83	A5	1902	U	O4'-C1'-N1	5.47	116.71	108.50
83	A5	1928	G	P-O5'-C5'	-5.47	112.69	120.90
83	A5	2045	U	O4'-C1'-N1	5.47	116.71	108.50
83	A5	2667	U	O5'-C5'-C4'	-5.47	103.29	111.50
36	B2	1526	G	C1'-O4'-C4'	-5.47	104.43	109.90
58	CW	15	PRO	CA-C-N	5.47	132.13	121.41
58	CW	15	PRO	C-N-CA	5.47	132.13	121.41
83	A5	1927	U	C2'-C3'-O3'	-5.47	105.49	113.70
12	AR	96	ILE	CB-CA-C	-5.47	104.67	112.22
14	AT	46	ALA	CA-C-O	-5.47	115.68	120.60
36	B2	1330	U	O4'-C1'-N1	5.47	116.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1470	A	O4'-C1'-C2'	-5.47	102.13	107.60
36	B2	1641	U	N1-C1'-C2'	5.47	120.20	112.00
45	Ca	51	PRO	O-C-N	-5.47	115.25	122.64
83	A5	171	U	O4'-C1'-C2'	-5.47	102.13	107.60
83	A5	264	U	O4'-C1'-N1	5.47	116.70	108.50
83	A5	352	U	O4'-C1'-N1	5.47	116.70	108.50
83	A5	1114	A	O4'-C1'-C2'	-5.47	100.33	105.80
83	A5	1805	A	O4'-C4'-C3'	-5.47	98.53	104.00
83	A5	2798	C	C1'-O4'-C4'	-5.47	104.43	109.90
1	Az	354	ARG	CA-C-N	5.47	127.92	120.54
1	Az	354	ARG	C-N-CA	5.47	127.92	120.54
26	AJ	163	LYS	N-CA-C	-5.47	107.86	114.75
36	B2	1940	G	C1'-O4'-C4'	-5.47	104.43	109.90
45	Ca	97	THR	N-CA-C	-5.47	102.24	110.06
59	CZ	65	LYS	CA-C-N	5.47	129.85	120.72
59	CZ	65	LYS	C-N-CA	5.47	129.85	120.72
83	A5	577	A	P-O3'-C3'	5.47	128.40	120.20
36	B2	167	U	O4'-C1'-N1	5.47	116.40	108.20
36	B2	290	A	C3'-C2'-C1'	5.47	106.77	101.30
36	B2	401	G	O4'-C1'-N9	5.47	116.70	108.50
36	B2	1649	U	O4'-C1'-N1	5.47	116.40	108.20
36	B2	1695	A	O4'-C1'-C2'	5.47	113.07	107.60
82	CG	116	LYS	CA-C-N	5.47	127.55	120.44
82	CG	116	LYS	C-N-CA	5.47	127.55	120.44
83	A5	1704	A	C1'-O4'-C4'	5.47	115.37	109.90
83	A5	1770	C	O4'-C1'-C2'	-5.47	102.13	107.60
83	A5	2014	C	C1'-O4'-C4'	-5.47	104.43	109.90
83	A5	3148	C	O4'-C1'-C2'	-5.47	102.13	107.60
83	A5	3505	U	O4'-C1'-C2'	-5.47	102.13	107.60
6	AX	60	LYS	CA-C-N	5.46	128.43	120.51
6	AX	60	LYS	C-N-CA	5.46	128.43	120.51
13	AP	22	GLY	CA-C-N	5.46	130.09	122.93
13	AP	22	GLY	C-N-CA	5.46	130.09	122.93
28	AC	224	TYR	N-CA-CB	5.46	118.25	110.16
36	B2	1362	A	O4'-C1'-C2'	-5.46	102.14	107.60
54	CP	60	PHE	CA-CB-CG	-5.46	108.33	113.80
68	Cf	10	THR	CA-C-N	5.46	126.92	120.09
68	Cf	10	THR	C-N-CA	5.46	126.92	120.09
83	A5	2620	C	C1'-O4'-C4'	5.46	115.36	109.90
83	A5	2907	U	C4'-C3'-C2'	5.46	108.06	102.60
83	A5	3258	C	C3'-C2'-C1'	-5.46	95.83	101.30
83	A5	3394	U	O4'-C1'-C2'	-5.46	102.14	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	539	HIS	CG-CD2-NE2	5.46	112.66	107.20
36	B2	1111	U	N1-C1'-C2'	5.46	120.19	112.00
1	Az	223	GLY	N-CA-C	5.46	126.12	113.18
2	Ag	105	HIS	ND1-CE1-NE2	5.46	113.86	108.40
22	Ac	58	GLU	CA-C-N	5.46	131.97	121.54
22	Ac	58	GLU	C-N-CA	5.46	131.97	121.54
51	CA	244	GLY	CA-C-N	5.46	131.97	121.54
51	CA	244	GLY	C-N-CA	5.46	131.97	121.54
52	CS	154	LEU	N-CA-CB	5.46	119.72	110.49
67	Ce	22	HIS	ND1-CE1-NE2	5.46	113.86	108.40
83	A5	197	G	O4'-C1'-C2'	-5.46	102.14	107.60
83	A5	711	A	O4'-C1'-C2'	-5.46	102.14	107.60
83	A5	1028	U	C5'-C4'-C3'	-5.46	107.81	116.00
83	A5	2857	C	C4'-C3'-C2'	-5.46	97.14	102.60
36	B2	306	A	N9-C1'-C2'	5.46	120.19	112.00
36	B2	1702	C	P-O3'-C3'	5.46	128.39	120.20
41	CO	192	GLU	CA-C-O	-5.46	112.68	120.16
83	A5	3131	C	O4'-C1'-C2'	-5.46	102.14	107.60
16	AA	156	TYR	N-CA-C	5.46	119.24	112.58
24	Ae	116	ASN	O-C-N	-5.46	115.57	122.17
36	B2	463	G	C3'-C2'-C1'	-5.46	95.84	101.30
60	Cr	99	ASN	CA-C-N	5.46	128.61	120.31
60	Cr	99	ASN	C-N-CA	5.46	128.61	120.31
83	A5	1284	A	C1'-O4'-C4'	5.46	115.16	109.70
83	A5	1905	A	O4'-C1'-C2'	-5.46	102.14	107.60
83	A5	2639	G	P-O3'-C3'	-5.46	112.01	120.20
83	A5	3911	G	C1'-O4'-C4'	-5.46	104.44	109.90
86	A8	116	C	N1-C1'-C2'	5.46	120.19	112.00
10	AN	87	ASP	CA-C-N	5.46	127.59	120.28
10	AN	87	ASP	C-N-CA	5.46	127.59	120.28
63	CB	395	ASP	CA-CB-CG	-5.46	107.14	112.60
83	A5	3642	G	N9-C1'-C2'	5.46	120.18	112.00
83	A5	3715	U	O4'-C1'-N1	5.46	116.69	108.50
36	B2	1591	U	C1'-C2'-O2'	5.46	119.98	111.80
83	A5	2149	G	C4'-C3'-O3'	-5.46	104.82	113.00
83	A5	3806	C	C1'-O4'-C4'	-5.46	104.25	109.70
36	B2	662	U	C4'-C3'-O3'	-5.45	96.14	112.50
46	CN	142	ILE	N-CA-C	-5.45	107.48	113.43
59	CZ	81	MET	CG-SD-CE	-5.45	88.90	100.90
83	A5	514	A	O4'-C1'-C2'	5.45	113.05	107.60
83	A5	1583	G	C3'-C2'-C1'	-5.45	95.85	101.30
83	A5	2061	G	O4'-C1'-C2'	5.45	113.05	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3618	A	C1'-O4'-C4'	-5.45	104.45	109.90
10	AN	6	ALA	CA-C-N	5.45	125.93	120.04
10	AN	6	ALA	C-N-CA	5.45	125.93	120.04
10	AN	143	SER	N-CA-C	5.45	117.22	111.28
36	B2	1753	U	O4'-C1'-N1	5.45	116.68	108.50
43	CV	38	TYR	N-CA-C	-5.45	100.29	109.07
83	A5	1182	A	P-O3'-C3'	5.45	128.38	120.20
5	AO	34	TYR	N-CA-C	-5.45	98.48	108.02
23	AD	105	GLU	CA-C-N	5.45	127.58	120.28
23	AD	105	GLU	C-N-CA	5.45	127.58	120.28
31	AH	73	ILE	CA-C-N	5.45	131.95	121.54
31	AH	73	ILE	C-N-CA	5.45	131.95	121.54
36	B2	500	U	O4'-C1'-C2'	-5.45	102.15	107.60
66	Cd	84	ARG	N-CA-C	-5.45	99.53	108.41
83	A5	540	G	C2'-C3'-O3'	5.45	121.88	113.70
83	A5	1987	G	P-O3'-C3'	5.45	128.38	120.20
83	A5	2887	U	C1'-O4'-C4'	-5.45	104.45	109.90
1	Az	814	SER	CA-C-N	5.45	131.95	121.54
1	Az	814	SER	C-N-CA	5.45	131.95	121.54
1	Az	825	ARG	CB-CA-C	-5.45	102.33	110.88
74	CC	326	ARG	N-CA-C	5.45	117.30	111.36
83	A5	856	A	O4'-C1'-C2'	-5.45	102.15	107.60
83	A5	1303	C	C3'-C2'-C1'	5.45	106.75	101.30
83	A5	2888	A	P-O5'-C5'	5.45	129.07	120.90
83	A5	3279	A	O3'-P-O5'	-5.45	95.83	104.00
83	A5	3308	A	O4'-C1'-N9	5.45	116.67	108.50
83	A5	3485	U	O4'-C1'-C2'	-5.45	100.35	105.80
83	A5	3962	A	O4'-C1'-C2'	5.45	111.25	105.80
86	A8	92	G	C4'-C3'-O3'	5.45	117.57	109.40
36	B2	535	A	O4'-C1'-C2'	-5.45	102.15	107.60
36	B2	596	U	O4'-C1'-N1	5.45	116.67	108.50
43	CV	27	ASN	CA-CB-CG	-5.45	107.15	112.60
58	CW	104	GLN	CA-C-N	5.45	128.36	120.79
58	CW	104	GLN	C-N-CA	5.45	128.36	120.79
81	CE	26	LEU	CA-C-N	5.45	131.50	121.70
81	CE	26	LEU	C-N-CA	5.45	131.50	121.70
12	AR	56	HIS	ND1-CE1-NE2	5.45	113.84	108.40
26	AJ	103	ILE	CA-C-N	5.45	127.58	120.28
26	AJ	103	ILE	C-N-CA	5.45	127.58	120.28
36	B2	885	U	O4'-C4'-C3'	-5.45	98.55	104.00
36	B2	1020	U	C3'-C2'-C1'	5.45	106.94	101.50
44	CM	157	LYS	N-CA-C	5.45	122.40	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	CR	89	MET	N-CA-CB	5.45	120.06	110.37
81	CE	224	LYS	CA-C-O	5.45	125.66	119.18
83	A5	428	C	C4'-C3'-O3'	-5.45	104.83	113.00
83	A5	678	U	O4'-C1'-C2'	-5.45	102.15	107.60
83	A5	1886	C	O4'-C1'-C2'	-5.45	102.15	107.60
83	A5	3006	A	C3'-C2'-C1'	5.45	106.75	101.30
85	A7	33	U	N1-C1'-C2'	5.44	120.17	112.00
36	B2	619	U	O4'-C1'-C2'	-5.44	102.16	107.60
74	CC	145	HIS	CE1-NE2-CD2	-5.44	103.56	109.00
83	A5	684	A	N9-C1'-C2'	5.44	120.17	112.00
83	A5	2003	U	O4'-C1'-C2'	-5.44	102.16	107.60
83	A5	2214	G	O4'-C1'-C2'	5.44	113.04	107.60
83	A5	2234	C	N1-C1'-C2'	5.44	120.16	112.00
83	A5	2827	G	O4'-C1'-N9	5.44	116.66	108.50
83	A5	3522	A	C5'-C4'-C3'	-5.44	107.84	116.00
36	B2	33	U	C1'-O4'-C4'	5.44	115.34	109.90
36	B2	1240	A	C4'-C3'-C2'	-5.44	97.16	102.60
45	Ca	48	LYS	N-CA-C	5.44	126.23	111.00
49	CQ	3	ILE	CA-C-N	5.44	131.39	123.12
49	CQ	3	ILE	C-N-CA	5.44	131.39	123.12
83	A5	2869	U	O4'-C1'-N1	5.44	116.66	108.50
83	A5	3306	U	O4'-C1'-N1	5.44	116.66	108.50
51	CA	170	ALA	CA-C-N	5.44	132.07	121.41
51	CA	170	ALA	C-N-CA	5.44	132.07	121.41
68	Cf	127	ASN	N-CA-C	-5.44	105.43	111.36
83	A5	1	U	O4'-C1'-N1	5.44	116.66	108.50
83	A5	3655	U	O4'-C1'-C2'	-5.44	100.36	105.80
26	AJ	36	TYR	CA-C-N	5.44	132.07	121.41
26	AJ	36	TYR	C-N-CA	5.44	132.07	121.41
27	AE	77	ARG	CA-C-N	5.44	129.39	120.63
27	AE	77	ARG	C-N-CA	5.44	129.39	120.63
36	B2	344	C	O4'-C1'-C2'	-5.44	102.16	107.60
49	CQ	145	ALA	CB-CA-C	-5.44	100.23	110.67
70	Ci	46	HIS	CB-CG-CD2	-5.44	124.13	131.20
83	A5	25	G	O4'-C1'-C2'	5.44	111.24	105.80
83	A5	2605	C	O4'-C1'-N1	5.44	116.66	108.50
7	AM	36	ASP	CA-C-N	5.44	131.48	121.70
7	AM	36	ASP	C-N-CA	5.44	131.48	121.70
11	AL	25	ILE	N-CA-C	5.44	120.65	109.34
48	CD	253	HIS	ND1-CE1-NE2	5.44	113.84	108.40
77	Cp	54	ILE	CB-CA-C	5.44	118.87	110.28
1	Az	764	GLY	N-CA-C	5.43	126.06	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	AP	83	LEU	CA-C-N	5.43	129.30	120.60
13	AP	83	LEU	C-N-CA	5.43	129.30	120.60
36	B2	288	C	O4'-C1'-C2'	-5.43	100.37	105.80
36	B2	1210	G	O4'-C1'-N9	5.43	116.65	108.50
80	CH	11	LYS	N-CA-CB	5.43	118.08	109.71
83	A5	462	C	O4'-C1'-C2'	-5.43	102.17	107.60
83	A5	620	U	C4'-C3'-O3'	5.43	121.15	113.00
83	A5	678	U	O4'-C1'-N1	5.43	116.65	108.50
83	A5	1466	A	N9-C1'-C2'	5.43	120.15	112.00
83	A5	3319	A	P-O3'-C3'	5.43	128.35	120.20
83	A5	3844	U	C1'-O4'-C4'	-5.43	104.27	109.70
83	A5	3893	A	C3'-C2'-C1'	-5.43	95.87	101.30
84	A9	2	G	C1'-O4'-C4'	-5.43	104.47	109.90
1	Az	726	LEU	CA-C-N	5.43	131.53	122.73
1	Az	726	LEU	C-N-CA	5.43	131.53	122.73
2	Ag	192	HIS	ND1-CE1-NE2	5.43	113.83	108.40
36	B2	256	C	C2'-C3'-O3'	5.43	121.85	113.70
36	B2	319	C	O4'-C1'-C2'	-5.43	102.17	107.60
41	CO	71	GLY	CA-C-N	5.43	126.63	119.84
41	CO	71	GLY	C-N-CA	5.43	126.63	119.84
42	CL	169	VAL	CA-C-O	-5.43	113.99	120.78
57	CY	18	HIS	CE1-NE2-CD2	-5.43	103.57	109.00
83	A5	836	G	O4'-C1'-N9	5.43	116.65	108.50
83	A5	2875	A	C1'-O4'-C4'	5.43	115.33	109.90
83	A5	2912	U	O4'-C1'-N1	5.43	116.65	108.50
36	B2	1786	G	C4'-C3'-O3'	-5.43	104.85	113.00
83	A5	3416	C	C5'-C4'-C3'	5.43	124.15	116.00
85	A7	19	C	C3'-C2'-C1'	5.43	106.73	101.30
1	Az	184	ARG	CB-CA-C	-5.43	102.36	110.88
6	AX	10	ALA	N-CA-CB	-5.43	102.14	110.12
35	Ah	215	PRO	N-CA-C	-5.43	101.29	112.47
36	B2	36	C	N1-C1'-C2'	5.43	120.15	112.00
36	B2	1131	U	O5'-C5'-C4'	-5.43	103.36	111.50
36	B2	1342	G	O4'-C4'-C3'	-5.43	100.67	106.10
70	Ci	113	HIS	CB-CG-CD2	-5.43	124.14	131.20
83	A5	1323	C	C3'-C2'-C1'	5.43	106.73	101.30
83	A5	1959	A	N9-C1'-C2'	5.43	120.14	112.00
83	A5	2595	U	C1'-O4'-C4'	5.43	115.33	109.90
85	A7	10	C	N1-C1'-C2'	-5.43	105.86	114.00
17	AV	33	GLN	N-CA-CB	5.43	119.43	110.69
59	CZ	89	ASP	CA-C-N	5.43	129.82	121.19
59	CZ	89	ASP	C-N-CA	5.43	129.82	121.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	Cr	47	ILE	CA-C-N	5.43	131.47	121.70
60	Cr	47	ILE	C-N-CA	5.43	131.47	121.70
28	AC	252	TYR	CA-C-N	5.43	127.55	120.28
28	AC	252	TYR	C-N-CA	5.43	127.55	120.28
29	AG	69	THR	N-CA-C	5.43	126.20	111.00
36	B2	49	C	C3'-C2'-C1'	5.43	106.73	101.30
36	B2	960	U	O4'-C1'-C2'	-5.43	102.17	107.60
48	CD	47	PRO	CA-C-N	5.43	127.81	120.38
48	CD	47	PRO	C-N-CA	5.43	127.81	120.38
81	CE	217	PRO	N-CA-C	5.43	119.71	111.19
83	A5	1015	G	P-O5'-C5'	-5.43	112.76	120.90
86	A8	86	A	P-O3'-C3'	5.43	128.34	120.20
1	Az	257	ASN	CA-C-N	5.42	127.81	120.38
1	Az	257	ASN	C-N-CA	5.42	127.81	120.38
31	AH	29	LEU	CA-C-N	5.42	128.09	120.28
31	AH	29	LEU	C-N-CA	5.42	128.09	120.28
34	AQ	24	VAL	N-CA-CB	-5.42	101.95	111.39
36	B2	509	C	O4'-C1'-N1	5.42	116.64	108.50
68	Cf	104	VAL	O-C-N	-5.42	114.92	121.10
83	A5	323	U	C2'-C3'-O3'	5.42	117.64	109.50
83	A5	1179	U	C1'-C2'-O2'	5.42	116.54	108.40
83	A5	2489	G	N9-C1'-C2'	-5.42	105.86	114.00
83	A5	3441	C	C3'-C2'-C1'	5.42	106.72	101.30
36	B2	331	G	O4'-C1'-C2'	5.42	113.02	107.60
36	B2	1153	C	O4'-C1'-C2'	-5.42	102.18	107.60
36	B2	1898	G	O4'-C1'-N9	5.42	116.64	108.50
80	CH	175	ASP	CA-CB-CG	-5.42	107.18	112.60
83	A5	570	U	O5'-C5'-C4'	-5.42	103.37	111.50
83	A5	1034	U	C1'-O4'-C4'	-5.42	104.48	109.90
26	AJ	102	LYS	CA-C-N	5.42	128.18	120.53
26	AJ	102	LYS	C-N-CA	5.42	128.18	120.53
36	B2	365	A	O4'-C1'-C2'	-5.42	102.18	107.60
36	B2	1246	C	O4'-C1'-N1	-5.42	100.07	108.20
50	CR	189	ALA	CA-C-N	5.42	127.55	120.28
50	CR	189	ALA	C-N-CA	5.42	127.55	120.28
83	A5	2129	C	C2'-C3'-O3'	5.42	117.63	109.50
83	A5	2595	U	O4'-C1'-N1	5.42	116.63	108.50
83	A5	3842	A	C5'-C4'-C3'	5.42	124.13	116.00
40	CK	78	ALA	CA-C-N	5.42	127.86	120.54
40	CK	78	ALA	C-N-CA	5.42	127.86	120.54
83	A5	388	U	C1'-O4'-C4'	-5.42	104.48	109.90
83	A5	3218	C	N1-C1'-C2'	5.42	120.13	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3405	U	O3'-P-O5'	-5.42	95.87	104.00
36	B2	1	A	P-O3'-C3'	5.42	128.33	120.20
39	Cq	57	LYS	N-CA-C	5.42	118.94	110.32
83	A5	272	U	C2'-C3'-O3'	5.42	121.83	113.70
83	A5	582	A	O4'-C1'-N9	5.42	116.63	108.50
83	A5	775	U	O3'-P-O5'	5.42	112.13	104.00
83	A5	1082	A	O3'-P-O5'	-5.42	95.87	104.00
83	A5	1696	A	O4'-C1'-C2'	-5.42	102.18	107.60
83	A5	2625	G	N9-C1'-C2'	5.42	120.13	112.00
83	A5	2788	U	C4'-C3'-C2'	-5.42	97.18	102.60
1	Az	742	VAL	CA-C-N	5.42	126.11	119.99
1	Az	742	VAL	C-N-CA	5.42	126.11	119.99
16	AA	31	ASN	CA-C-N	5.42	128.29	120.38
16	AA	31	ASN	C-N-CA	5.42	128.29	120.38
28	AC	262	ARG	CA-C-N	5.42	130.02	120.87
28	AC	262	ARG	C-N-CA	5.42	130.02	120.87
34	AQ	133	LYS	CA-C-N	5.42	130.01	121.56
34	AQ	133	LYS	C-N-CA	5.42	130.01	121.56
49	CQ	41	LYS	N-CA-CB	-5.42	101.34	110.49
54	CP	30	HIS	CA-CB-CG	5.42	119.22	113.80
57	CY	65	ASN	N-CA-CB	5.42	119.64	110.49
78	Co	33	LYS	O-C-N	-5.42	117.15	123.27
83	A5	84	U	O4'-C1'-N1	5.42	116.62	108.50
83	A5	596	A	P-O3'-C3'	5.42	128.33	120.20
83	A5	2878	A	N9-C1'-C2'	5.42	120.12	112.00
85	A7	57	C	C1'-O4'-C4'	-5.42	104.48	109.90
6	AX	46	HIS	ND1-CE1-NE2	5.42	113.81	108.40
18	AY	65	PHE	CA-C-N	5.42	132.02	121.41
18	AY	65	PHE	C-N-CA	5.42	132.02	121.41
36	B2	1102	U	P-O3'-C3'	5.42	128.32	120.20
4	AK	51	ASN	N-CA-C	5.41	117.26	111.36
9	Ad	10	HIS	N-CA-CB	5.41	120.01	110.37
23	AD	114	GLY	CA-C-N	5.41	131.88	121.54
23	AD	114	GLY	C-N-CA	5.41	131.88	121.54
36	B2	563	A	O4'-C1'-C2'	-5.41	102.19	107.60
36	B2	1347	U	O4'-C1'-C2'	-5.41	102.19	107.60
41	CO	197	ILE	CB-CA-C	-5.41	102.41	111.29
61	Ch	109	ARG	CA-C-N	5.41	127.48	120.44
61	Ch	109	ARG	C-N-CA	5.41	127.48	120.44
78	Co	40	ARG	CA-C-N	5.41	127.53	120.28
78	Co	40	ARG	C-N-CA	5.41	127.53	120.28
83	A5	213	A	C3'-C2'-C1'	5.41	106.71	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	751	A	P-O3'-C3'	5.41	128.32	120.20
85	A7	3	C	N1-C1'-C2'	5.41	120.12	112.00
36	B2	1647	G	N9-C1'-C2'	5.41	120.12	112.00
83	A5	304	U	O3'-P-O5'	-5.41	95.88	104.00
1	Az	26	ALA	CA-C-N	5.41	128.55	120.87
1	Az	26	ALA	C-N-CA	5.41	128.55	120.87
1	Az	426	GLU	CA-C-N	5.41	131.87	121.54
1	Az	426	GLU	C-N-CA	5.41	131.87	121.54
36	B2	1177	C	C4'-C3'-C2'	-5.41	97.19	102.60
52	CS	45	TRP	N-CA-CB	5.41	118.07	110.12
52	CS	58	THR	N-CA-C	-5.41	106.71	113.15
80	CH	144	VAL	N-CA-C	-5.41	99.85	107.75
83	A5	31	C	N1-C1'-C2'	5.41	120.12	112.00
83	A5	48	U	N1-C1'-C2'	5.41	120.12	112.00
83	A5	163	A	O4'-C1'-N9	-5.41	100.38	108.50
83	A5	1376	U	O4'-C1'-N1	5.41	116.62	108.50
83	A5	1471	G	C1'-C2'-O2'	5.41	116.52	108.40
83	A5	3294	A	O4'-C1'-C2'	-5.41	102.19	107.60
23	AD	18	ILE	N-CA-C	-5.41	105.23	110.42
36	B2	631	C	O4'-C1'-C2'	5.41	111.21	105.80
64	CF	172	ILE	CA-C-N	5.41	130.04	122.36
64	CF	172	ILE	C-N-CA	5.41	130.04	122.36
83	A5	1077	C	C1'-O4'-C4'	-5.41	104.49	109.90
26	AJ	126	HIS	CA-C-N	5.41	127.53	120.28
26	AJ	126	HIS	C-N-CA	5.41	127.53	120.28
32	AW	22	LYS	N-CA-C	5.41	118.02	109.96
36	B2	302	U	O4'-C1'-C2'	-5.41	102.19	107.60
36	B2	1385	U	N1-C1'-C2'	5.41	120.11	112.00
39	Cq	17	ILE	CA-C-O	-5.41	114.92	120.71
83	A5	316	U	O4'-C1'-C2'	-5.41	102.19	107.60
83	A5	701	U	O4'-C1'-N1	5.41	116.61	108.50
83	A5	1633	G	P-O3'-C3'	5.41	128.31	120.20
36	B2	398	C	C1'-O4'-C4'	5.41	115.31	109.90
36	B2	521	U	C1'-O4'-C4'	5.41	115.31	109.90
36	B2	1254	A	C1'-O4'-C4'	5.41	115.31	109.90
38	Cz	125	GLY	O-C-N	-5.41	116.36	121.77
46	CN	125	ALA	N-CA-C	5.41	122.31	110.80
79	CJ	54	VAL	CB-CA-C	5.41	119.47	111.31
83	A5	2078	C	O4'-C1'-C2'	-5.41	102.19	107.60
83	A5	3301	U	O4'-C1'-N1	5.41	116.61	108.50
36	B2	1003	C	C3'-C2'-C1'	5.40	106.70	101.30
36	B2	1733	G	O3'-P-O5'	-5.40	95.89	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	CN	93	LYS	CA-C-N	5.40	125.67	119.83
46	CN	93	LYS	C-N-CA	5.40	125.67	119.83
82	CG	46	ILE	CA-C-N	5.40	132.00	121.41
82	CG	46	ILE	C-N-CA	5.40	132.00	121.41
83	A5	1585	U	O4'-C1'-N1	5.40	116.61	108.50
83	A5	3214	C	C4'-C3'-O3'	-5.40	104.89	113.00
1	Az	328	THR	N-CA-CB	5.40	118.16	110.16
5	AO	115	ALA	CA-C-N	5.40	127.79	120.44
5	AO	115	ALA	C-N-CA	5.40	127.79	120.44
27	AE	259	LYS	N-CA-CB	5.40	119.23	110.32
36	B2	87	C	O4'-C1'-C2'	-5.40	102.20	107.60
83	A5	366	A	C3'-C2'-C1'	5.40	106.70	101.30
83	A5	1863	U	C4'-C3'-O3'	-5.40	104.90	113.00
83	A5	3778	U	N1-C1'-C2'	-5.40	103.89	112.00
86	A8	85	G	N9-C1'-C2'	5.40	120.10	112.00
13	AP	71	PRO	CA-C-N	5.40	125.30	119.85
13	AP	71	PRO	C-N-CA	5.40	125.30	119.85
31	AH	128	LEU	CA-C-N	5.40	127.52	120.28
31	AH	128	LEU	C-N-CA	5.40	127.52	120.28
36	B2	830	U	O4'-C1'-N1	5.40	116.60	108.50
36	B2	845	G	O4'-C1'-N9	5.40	116.60	108.50
36	B2	1138	U	C4'-C3'-O3'	-5.40	104.90	113.00
36	B2	1677	C	C1'-O4'-C4'	-5.40	104.50	109.90
61	Ch	43	LYS	N-CA-C	-5.40	101.08	109.72
71	Cj	7	SER	CA-C-N	5.40	128.52	120.31
71	Cj	7	SER	C-N-CA	5.40	128.52	120.31
83	A5	772	G	O4'-C1'-N9	5.40	116.60	108.50
83	A5	773	G	C2'-C3'-O3'	5.40	121.80	113.70
83	A5	1293	A	C5'-C4'-O4'	5.40	117.90	109.80
1	Az	284	TYR	CA-C-N	5.40	127.51	120.28
1	Az	284	TYR	C-N-CA	5.40	127.51	120.28
36	B2	859	C	C3'-C2'-C1'	5.40	106.70	101.30
83	A5	2461	A	C1'-O4'-C4'	5.40	115.30	109.90
1	Az	525	GLU	CA-C-N	5.40	128.05	120.28
1	Az	525	GLU	C-N-CA	5.40	128.05	120.28
2	Ag	248	TRP	CA-CB-CG	5.40	123.86	113.60
36	B2	1049	C	C3'-C2'-C1'	5.40	106.70	101.30
36	B2	1430	U	C4'-C3'-O3'	-5.40	104.90	113.00
37	BC	33	C	C1'-O4'-C4'	-5.40	104.50	109.90
46	CN	159	ARG	CA-C-N	5.40	128.51	120.31
46	CN	159	ARG	C-N-CA	5.40	128.51	120.31
46	CN	201	HIS	CE1-NE2-CD2	-5.40	103.60	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	353	G	O4'-C1'-N9	5.40	116.59	108.50
83	A5	367	A	O4'-C1'-C2'	-5.40	100.40	105.80
83	A5	537	A	C1'-C2'-O2'	5.40	116.50	108.40
83	A5	852	C	O4'-C1'-C2'	-5.40	102.20	107.60
83	A5	1976	G	C3'-C2'-C1'	-5.40	95.90	101.30
36	B2	955	G	C1'-O4'-C4'	-5.40	104.50	109.90
1	Az	487	VAL	CA-C-N	5.39	128.33	120.51
1	Az	487	VAL	C-N-CA	5.39	128.33	120.51
39	Cq	22	ASP	N-CA-CB	5.39	118.46	110.53
43	CV	97	TYR	CA-C-N	5.39	128.53	120.87
43	CV	97	TYR	C-N-CA	5.39	128.53	120.87
48	CD	49	TYR	N-CA-CB	5.39	119.61	110.49
83	A5	286	A	O4'-C1'-C2'	-5.39	100.41	105.80
83	A5	1272	G	N9-C1'-C2'	5.39	120.09	112.00
83	A5	1310	A	C3'-C2'-C1'	5.39	106.69	101.30
83	A5	2141	A	C1'-O4'-C4'	5.39	115.30	109.90
83	A5	3116	A	O3'-P-O5'	-5.39	95.91	104.00
86	A8	76	A	O3'-P-O5'	5.39	112.09	104.00
5	AO	82	ALA	CA-C-N	5.39	127.51	120.28
5	AO	82	ALA	C-N-CA	5.39	127.51	120.28
11	AL	152	PHE	CA-C-N	5.39	130.07	121.66
11	AL	152	PHE	C-N-CA	5.39	130.07	121.66
14	AT	64	LEU	CA-C-N	5.39	127.51	120.28
14	AT	64	LEU	C-N-CA	5.39	127.51	120.28
36	B2	1027	A	C1'-O4'-C4'	5.39	115.29	109.90
36	B2	1391	G	O4'-C1'-C2'	5.39	112.99	107.60
36	B2	1821	G	C1'-C2'-O2'	5.39	116.49	108.40
67	Ce	98	ILE	CB-CA-C	-5.39	102.45	111.29
83	A5	329	C	N1-C1'-C2'	5.39	120.09	112.00
83	A5	1284	A	O4'-C1'-N9	5.39	116.29	108.20
83	A5	1367	A	C1'-O4'-C4'	-5.39	104.51	109.90
83	A5	1726	G	O4'-C1'-N9	5.39	116.29	108.20
16	AA	44	ASP	N-CA-CB	5.39	119.60	110.49
36	B2	1495	A	P-O3'-C3'	-5.39	112.11	120.20
83	A5	391	A	N9-C1'-C2'	5.39	120.09	112.00
36	B2	964	G	C1'-O4'-C4'	5.39	115.29	109.90
39	Cq	199	PHE	CA-CB-CG	5.39	119.19	113.80
42	CL	35	HIS	CE1-NE2-CD2	-5.39	103.61	109.00
48	CD	189	SER	N-CA-CB	5.39	119.66	110.50
83	A5	2070	G	O4'-C1'-N9	5.39	116.58	108.50
83	A5	2508	C	O4'-C1'-C2'	-5.39	102.21	107.60
14	AT	12	HIS	CB-CG-ND1	5.39	130.78	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	AU	52	VAL	N-CA-C	5.39	120.55	109.34
4	AK	32	HIS	ND1-CE1-NE2	5.39	113.79	108.40
29	AG	162	LEU	CA-C-N	5.39	125.65	119.83
29	AG	162	LEU	C-N-CA	5.39	125.65	119.83
32	AW	120	HIS	CA-CB-CG	-5.39	108.41	113.80
36	B2	627	A	C1'-O4'-C4'	-5.39	104.51	109.90
36	B2	1963	G	N9-C1'-C2'	5.39	120.08	112.00
62	Cb	19	ASN	CA-CB-CG	-5.39	107.21	112.60
63	CB	180	VAL	N-CA-CB	5.39	116.59	110.72
63	CB	341	LYS	N-CA-C	5.39	118.28	110.42
86	A8	3	C	N1-C1'-C2'	5.39	120.08	112.00
1	Az	539	HIS	CE1-NE2-CD2	-5.38	103.61	109.00
19	AZ	77	LYS	N-CA-CB	5.38	119.59	110.49
36	B2	348	C	O4'-C1'-C2'	-5.38	102.22	107.60
50	CR	131	VAL	CA-C-N	5.38	131.82	121.54
50	CR	131	VAL	C-N-CA	5.38	131.82	121.54
83	A5	378	G	N9-C1'-C2'	5.38	120.08	112.00
83	A5	883	U	O4'-C1'-C2'	-5.38	102.22	107.60
83	A5	1050	C	O4'-C1'-C2'	-5.38	102.22	107.60
83	A5	1328	U	C4'-C3'-O3'	-5.38	104.92	113.00
83	A5	3103	U	O4'-C1'-C2'	-5.38	102.22	107.60
1	Az	287	PHE	CA-C-N	5.38	127.49	120.28
1	Az	287	PHE	C-N-CA	5.38	127.49	120.28
8	AS	127	TRP	CA-C-N	5.38	131.02	121.01
8	AS	127	TRP	C-N-CA	5.38	131.02	121.01
27	AE	76	VAL	CA-CB-CG1	5.38	119.55	110.40
36	B2	1571	U	P-O5'-C5'	-5.38	112.83	120.90
36	B2	1868	U	O4'-C1'-N1	5.38	116.57	108.50
83	A5	1547	A	C5'-C4'-C3'	-5.38	107.93	116.00
83	A5	1906	G	N9-C1'-C2'	5.38	120.08	112.00
83	A5	3929	U	O5'-C5'-C4'	5.38	119.57	111.50
8	AS	9	PHE	N-CA-C	5.38	122.26	110.80
26	AJ	73	PHE	CA-CB-CG	5.38	119.18	113.80
29	AG	62	PRO	CA-C-O	-5.38	115.21	121.34
36	B2	1843	A	C4'-C3'-C2'	-5.38	97.22	102.60
42	CL	187	THR	N-CA-CB	5.38	118.03	110.12
63	CB	308	ASP	CB-CA-C	-5.38	99.94	110.11
83	A5	552	U	O4'-C1'-C2'	-5.38	102.22	107.60
83	A5	879	U	N1-C1'-C2'	5.38	120.07	112.00
83	A5	1410	A	C1'-O4'-C4'	5.38	115.28	109.90
83	A5	1756	G	C3'-C2'-C1'	5.38	106.68	101.30
83	A5	2671	C	C1'-O4'-C4'	5.38	115.28	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	597	ASP	N-CA-C	5.38	117.90	111.71
38	Cz	142	GLU	CA-C-N	5.38	131.81	121.54
38	Cz	142	GLU	C-N-CA	5.38	131.81	121.54
83	A5	1795	A	C4'-C3'-O3'	-5.38	104.93	113.00
83	A5	2467	A	P-O3'-C3'	5.38	128.27	120.20
5	AO	112	ALA	N-CA-C	5.38	116.82	111.07
36	B2	422	A	N9-C1'-C2'	-5.38	105.93	114.00
36	B2	888	G	C1'-O4'-C4'	-5.38	104.32	109.70
36	B2	1223	U	O4'-C1'-N1	5.38	116.57	108.50
37	BC	3	C	O3'-P-O5'	-5.38	95.93	104.00
47	CI	31	ILE	CB-CA-C	-5.38	104.45	110.96
77	Cp	76	ALA	N-CA-C	5.38	117.14	111.28
83	A5	1920	U	C1'-C2'-O2'	5.38	116.47	108.40
83	A5	2141	A	C4'-C3'-C2'	-5.38	97.22	102.60
83	A5	2208	G	C3'-C2'-C1'	-5.38	95.92	101.30
83	A5	2994	C	C3'-C2'-C1'	5.38	106.88	101.50
28	AC	100	ARG	N-CA-C	5.38	122.25	110.80
36	B2	473	A	O4'-C1'-C2'	-5.38	100.42	105.80
49	CQ	28	LEU	N-CA-CB	5.38	118.02	110.12
49	CQ	141	GLY	CA-C-N	5.38	131.21	122.07
49	CQ	141	GLY	C-N-CA	5.38	131.21	122.07
83	A5	28	C	C4'-C3'-C2'	-5.38	97.22	102.60
83	A5	328	U	O4'-C1'-N1	5.38	116.56	108.50
83	A5	1164	G	O4'-C1'-C2'	5.38	112.98	107.60
83	A5	1368	A	C1'-O4'-C4'	5.38	115.08	109.70
83	A5	2130	G	O4'-C1'-N9	5.38	116.56	108.50
25	Af	131	PHE	CA-CB-CG	-5.38	108.42	113.80
36	B2	76	A	O4'-C1'-C2'	-5.38	102.22	107.60
83	A5	208	U	O4'-C1'-N1	5.38	116.56	108.50
83	A5	2234	C	C3'-C2'-C1'	5.38	106.67	101.30
6	AX	91	LEU	N-CA-C	-5.37	106.23	112.89
36	B2	295	A	C1'-O4'-C4'	-5.37	104.53	109.90
36	B2	925	U	N1-C1'-C2'	-5.37	105.94	114.00
36	B2	1139	A	O4'-C1'-N9	5.37	116.56	108.50
36	B2	1363	U	O4'-C1'-C2'	-5.37	102.23	107.60
39	Cq	78	LEU	CA-C-N	5.37	126.81	120.09
39	Cq	78	LEU	C-N-CA	5.37	126.81	120.09
41	CO	116	LYS	CA-C-N	5.37	128.50	120.87
41	CO	116	LYS	C-N-CA	5.37	128.50	120.87
82	CG	255	ILE	CA-C-N	5.37	127.48	120.28
82	CG	255	ILE	C-N-CA	5.37	127.48	120.28
83	A5	1960	C	P-O3'-C3'	5.37	128.26	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	2529	G	N9-C1'-C2'	5.37	120.06	112.00
11	AL	125	ILE	CA-C-N	5.37	126.25	122.33
11	AL	125	ILE	C-N-CA	5.37	126.25	122.33
23	AD	225	GLU	N-CA-C	5.37	122.24	110.80
34	AQ	125	ASP	CA-C-N	5.37	124.98	119.56
34	AQ	125	ASP	C-N-CA	5.37	124.98	119.56
36	B2	1752	U	N1-C1'-C2'	-5.37	103.94	112.00
64	CF	96	VAL	CA-C-N	5.37	129.55	122.30
64	CF	96	VAL	C-N-CA	5.37	129.55	122.30
83	A5	47	A	P-O5'-C5'	-5.37	112.84	120.90
83	A5	966	U	N1-C1'-C2'	5.37	120.06	112.00
83	A5	1139	U	C4'-C3'-C2'	-5.37	97.23	102.60
83	A5	1173	U	C3'-C2'-C1'	5.37	106.67	101.30
83	A5	2124	G	C3'-C2'-C1'	-5.37	95.93	101.30
83	A5	2613	C	O4'-C1'-C2'	-5.37	102.23	107.60
83	A5	3787	A	O4'-C1'-N9	5.37	116.56	108.50
30	AF	132	PRO	CA-C-N	5.37	127.92	120.29
30	AF	132	PRO	C-N-CA	5.37	127.92	120.29
36	B2	928	C	N1-C1'-C2'	5.37	120.06	112.00
36	B2	1445	A	C1'-O4'-C4'	5.37	115.27	109.90
36	B2	1884	G	O4'-C1'-N9	5.37	116.56	108.50
47	CI	17	TYR	CB-CA-C	-5.37	105.61	110.44
83	A5	2921	G	O4'-C1'-C2'	5.37	112.97	107.60
36	B2	224	A	C4'-C3'-O3'	5.37	121.05	113.00
36	B2	951	A	O4'-C1'-C2'	-5.37	102.23	107.60
48	CD	215	ASP	CA-CB-CG	-5.37	107.23	112.60
83	A5	34	C	C3'-C2'-C1'	5.37	106.67	101.30
83	A5	567	A	C4'-C3'-C2'	-5.37	97.23	102.60
83	A5	3227	A	C1'-O4'-C4'	5.37	115.07	109.70
32	AW	79	PHE	CB-CA-C	-5.37	102.60	110.06
36	B2	1149	A	P-O5'-C5'	5.37	128.95	120.90
47	CI	24	ARG	N-CA-C	5.37	122.23	110.80
83	A5	1452	A	O4'-C1'-C2'	-5.37	102.23	107.60
83	A5	2755	G	N9-C1'-C2'	-5.37	105.95	114.00
83	A5	2907	U	C3'-C2'-C1'	5.37	106.86	101.50
83	A5	3107	G	O4'-C1'-N9	5.37	116.55	108.50
83	A5	3723	A	O4'-C1'-C2'	-5.37	102.23	107.60
83	A5	3895	A	O4'-C1'-N9	5.37	116.55	108.50
1	Az	790	THR	O-C-N	-5.36	116.03	122.15
10	AN	149	LEU	CA-C-N	5.36	127.42	120.56
10	AN	149	LEU	C-N-CA	5.36	127.42	120.56
11	AL	22	LYS	CA-C-N	5.36	126.55	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AL	22	LYS	C-N-CA	5.36	126.55	119.84
28	AC	190	ALA	N-CA-C	-5.36	102.73	110.40
36	B2	1328	G	O4'-C1'-C2'	5.36	112.96	107.60
36	B2	1889	G	O4'-C1'-C2'	5.36	112.96	107.60
36	B2	1924	C	N1-C1'-C2'	5.36	120.05	112.00
40	CK	41	LYS	CA-C-N	5.36	128.03	120.42
40	CK	41	LYS	C-N-CA	5.36	128.03	120.42
47	CI	176	TYR	CA-C-N	5.36	128.46	120.90
47	CI	176	TYR	C-N-CA	5.36	128.46	120.90
81	CE	72	LYS	CA-C-N	5.36	131.79	121.54
81	CE	72	LYS	C-N-CA	5.36	131.79	121.54
83	A5	363	G	O4'-C1'-N9	5.36	116.54	108.50
83	A5	3358	U	P-O3'-C3'	-5.36	112.15	120.20
83	A5	3858	A	C4'-C3'-O3'	-5.36	104.95	113.00
33	AI	152	LEU	CA-C-N	5.36	127.47	120.28
33	AI	152	LEU	C-N-CA	5.36	127.47	120.28
36	B2	256	C	O5'-C5'-C4'	-5.36	103.46	111.50
63	CB	68	ASN	CB-CA-C	-5.36	101.10	109.84
83	A5	113	A	C5'-C4'-C3'	-5.36	107.16	115.20
83	A5	2030	U	C1'-O4'-C4'	-5.36	104.54	109.90
6	AX	110	HIS	ND1-CE1-NE2	5.36	113.76	108.40
10	AN	77	SER	CA-C-N	5.36	129.82	121.35
10	AN	77	SER	C-N-CA	5.36	129.82	121.35
16	AA	203	PHE	CB-CA-C	-5.36	100.35	110.16
31	AH	40	ARG	CA-C-N	5.36	128.00	120.28
31	AH	40	ARG	C-N-CA	5.36	128.00	120.28
36	B2	155	U	C1'-O4'-C4'	5.36	115.26	109.90
36	B2	880	G	O4'-C1'-C2'	5.36	112.96	107.60
36	B2	1706	U	O4'-C1'-N1	5.36	116.24	108.20
40	CK	107	GLU	N-CA-C	5.36	117.56	111.02
81	CE	148	THR	CA-C-N	5.36	129.26	120.63
81	CE	148	THR	C-N-CA	5.36	129.26	120.63
83	A5	618	U	O4'-C1'-N1	5.36	116.54	108.50
83	A5	1355	C	C1'-O4'-C4'	-5.36	104.54	109.90
36	B2	1982	C	O4'-C1'-C2'	-5.36	102.24	107.60
83	A5	455	U	C1'-O4'-C4'	-5.36	104.54	109.90
83	A5	2736	A	C3'-C2'-C1'	5.36	106.66	101.30
36	B2	105	U	O4'-C1'-N1	5.36	116.54	108.50
36	B2	252	A	C1'-O4'-C4'	-5.36	104.34	109.70
36	B2	1314	G	C3'-C2'-C1'	5.36	106.86	101.50
36	B2	1543	G	P-O5'-C5'	-5.36	112.86	120.90
36	B2	1580	G	C3'-C2'-C1'	5.36	106.66	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1648	C	O4'-C1'-C2'	5.36	112.96	107.60
36	B2	1740	G	C1'-O4'-C4'	5.36	115.26	109.90
46	CN	83	LYS	CA-C-N	5.36	126.54	119.84
46	CN	83	LYS	C-N-CA	5.36	126.54	119.84
49	CQ	7	HIS	CE1-NE2-CD2	-5.36	103.64	109.00
49	CQ	39	THR	CA-C-N	5.36	131.77	121.54
49	CQ	39	THR	C-N-CA	5.36	131.77	121.54
57	CY	49	ILE	N-CA-C	5.36	116.32	109.30
63	CB	276	HIS	ND1-CE1-NE2	5.36	113.76	108.40
74	CC	354	VAL	CB-CA-C	-5.36	104.83	112.22
83	A5	720	G	O4'-C1'-N9	5.36	116.54	108.50
83	A5	964	C	O4'-C1'-C2'	-5.36	102.24	107.60
83	A5	1331	G	O4'-C1'-C2'	5.36	112.96	107.60
83	A5	2010	U	O4'-C1'-N1	5.36	116.54	108.50
16	AA	191	ARG	CA-C-N	5.36	131.77	121.54
16	AA	191	ARG	C-N-CA	5.36	131.77	121.54
30	AF	192	THR	CA-C-N	5.36	127.51	120.60
30	AF	192	THR	C-N-CA	5.36	127.51	120.60
36	B2	500	U	O4'-C1'-N1	5.36	116.53	108.50
39	Cq	95	LEU	N-CA-C	5.36	119.94	113.41
50	CR	78	PHE	N-CA-C	5.36	117.87	111.71
64	CF	235	GLY	CA-C-N	5.36	132.10	122.89
64	CF	235	GLY	C-N-CA	5.36	132.10	122.89
83	A5	62	G	O4'-C1'-N9	5.36	116.53	108.50
83	A5	514	A	N9-C1'-C2'	5.36	120.03	112.00
83	A5	696	U	P-O5'-C5'	5.36	128.93	120.90
83	A5	727	G	O4'-C1'-N9	5.36	116.53	108.50
83	A5	1342	U	C1'-C2'-O2'	5.36	116.43	108.40
83	A5	2151	A	O4'-C1'-C2'	-5.36	102.25	107.60
86	A8	50	A	N9-C1'-C2'	5.36	122.03	114.00
25	Af	89	LYS	CA-C-N	5.35	131.77	121.54
25	Af	89	LYS	C-N-CA	5.35	131.77	121.54
74	CC	202	ARG	CA-C-N	5.35	131.77	121.54
74	CC	202	ARG	C-N-CA	5.35	131.77	121.54
83	A5	709	U	N1-C1'-C2'	-5.35	103.97	112.00
83	A5	1330	G	O4'-C1'-N9	-5.35	100.17	108.20
83	A5	1384	C	C3'-C2'-C1'	5.35	106.65	101.30
83	A5	1654	C	N1-C1'-C2'	5.35	120.03	112.00
17	AV	3	ASN	CA-CB-CG	5.35	117.95	112.60
36	B2	983	C	C3'-C2'-C1'	5.35	106.65	101.30
36	B2	1687	C	O4'-C1'-C2'	-5.35	102.25	107.60
36	B2	1729	C	C1'-C2'-O2'	-5.35	103.77	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	CO	131	LEU	CA-C-N	5.35	128.83	120.75
41	CO	131	LEU	C-N-CA	5.35	128.83	120.75
56	CX	249	ILE	CA-C-N	5.35	128.81	120.68
56	CX	249	ILE	C-N-CA	5.35	128.81	120.68
81	CE	162	HIS	CE1-NE2-CD2	-5.35	103.65	109.00
83	A5	303	G	P-O5'-C5'	-5.35	112.87	120.90
83	A5	842	A	C4'-C3'-C2'	-5.35	97.25	102.60
83	A5	867	U	C3'-C2'-C1'	5.35	106.65	101.30
36	B2	1026	A	C3'-C2'-C1'	5.35	106.65	101.30
39	Cq	201	PRO	N-CA-C	5.35	120.80	113.84
56	CX	182	PRO	N-CA-C	5.35	123.49	112.47
83	A5	1725	A	N9-C1'-C2'	-5.35	105.97	114.00
28	AC	103	GLN	N-CA-C	5.35	117.98	109.96
41	CO	156	LYS	N-CA-C	-5.35	105.53	111.36
64	CF	87	PRO	CA-C-O	-5.35	114.89	121.31
74	CC	297	LYS	O-C-N	-5.35	115.96	122.22
81	CE	140	VAL	CA-C-O	-5.35	115.68	121.19
83	A5	503	A	O3'-P-O5'	-5.35	95.98	104.00
83	A5	653	U	C5'-C4'-C3'	-5.35	107.97	116.00
83	A5	3294	A	C1'-O4'-C4'	5.35	115.25	109.90
83	A5	3392	U	C5'-C4'-C3'	-5.35	107.98	116.00
83	A5	3572	G	O4'-C1'-N9	5.35	116.52	108.50
1	Az	607	ASP	CA-C-N	5.35	131.59	121.97
1	Az	607	ASP	C-N-CA	5.35	131.59	121.97
1	Az	658	LEU	CB-CA-C	-5.35	101.59	110.68
30	AF	76	SER	CA-C-O	-5.35	115.00	120.99
62	Cb	38	LYS	O-C-N	-5.35	115.89	122.68
83	A5	2	U	P-O3'-C3'	-5.35	112.18	120.20
83	A5	72	C	N1-C1'-C2'	5.35	120.02	112.00
83	A5	487	A	C5'-C4'-C3'	5.35	124.02	116.00
83	A5	1960	C	O4'-C1'-C2'	-5.35	102.25	107.60
83	A5	2729	U	N1-C1'-C2'	-5.35	103.98	112.00
83	A5	3937	U	O4'-C1'-C2'	-5.35	102.25	107.60
5	AO	112	ALA	CB-CA-C	-5.35	102.49	110.88
14	AT	12	HIS	CB-CG-CD2	-5.35	124.25	131.20
36	B2	75	U	C1'-O4'-C4'	5.35	115.25	109.90
36	B2	944	G	O4'-C1'-N9	5.35	116.52	108.50
36	B2	1106	A	C4'-C3'-C2'	-5.35	97.25	102.60
36	B2	1906	U	O4'-C1'-N1	5.35	116.52	108.50
50	CR	118	HIS	ND1-CE1-NE2	5.35	113.75	108.40
83	A5	1193	A	C2'-C3'-O3'	5.35	117.52	109.50
83	A5	2156	U	C4'-C3'-C2'	-5.35	97.25	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	44	GLY	N-CA-C	5.34	125.85	113.18
3	AU	31	VAL	CA-C-N	5.34	127.88	120.29
3	AU	31	VAL	C-N-CA	5.34	127.88	120.29
6	AX	63	ASN	CA-CB-CG	-5.34	107.26	112.60
36	B2	202	U	P-O5'-C5'	5.34	128.92	120.90
36	B2	1216	C	N1-C1'-C2'	5.34	120.02	112.00
36	B2	1636	A	O4'-C1'-N9	5.34	116.22	108.20
64	CF	170	VAL	CA-C-N	5.34	126.52	119.84
64	CF	170	VAL	C-N-CA	5.34	126.52	119.84
74	CC	47	LEU	CA-C-N	5.34	127.44	120.28
74	CC	47	LEU	C-N-CA	5.34	127.44	120.28
83	A5	1401	C	C4'-C3'-O3'	-5.34	104.98	113.00
83	A5	3851	U	C4'-C3'-C2'	-5.34	97.25	102.60
14	AT	33	GLN	CA-C-N	5.34	131.75	121.54
14	AT	33	GLN	C-N-CA	5.34	131.75	121.54
18	AY	52	THR	CA-C-N	5.34	125.67	119.47
18	AY	52	THR	C-N-CA	5.34	125.67	119.47
36	B2	1375	G	O4'-C1'-C2'	-5.34	102.26	107.60
83	A5	3772	U	N1-C1'-C2'	5.34	120.02	112.00
1	Az	387	MET	N-CA-C	-5.34	100.99	109.59
1	Az	799	VAL	O-C-N	-5.34	115.89	122.57
3	AU	72	CYS	CA-C-N	5.34	131.88	121.41
3	AU	72	CYS	C-N-CA	5.34	131.88	121.41
16	AA	180	ARG	CA-C-N	5.34	127.88	120.29
16	AA	180	ARG	C-N-CA	5.34	127.88	120.29
36	B2	999	U	O5'-C5'-C4'	-5.34	103.69	111.70
36	B2	1557	U	C4'-C3'-O3'	5.34	121.01	113.00
78	Co	93	GLY	N-CA-C	5.34	125.84	113.18
83	A5	128	C	C3'-C2'-C1'	5.34	106.64	101.30
83	A5	147	A	O4'-C1'-C2'	-5.34	102.26	107.60
83	A5	273	G	C3'-C2'-C1'	5.34	106.64	101.30
83	A5	371	G	C4'-C3'-C2'	-5.34	97.26	102.60
83	A5	1270	G	N9-C1'-C2'	5.34	120.01	112.00
83	A5	2282	U	P-O3'-C3'	5.34	128.21	120.20
83	A5	2288	G	P-O5'-C5'	-5.34	111.99	120.00
84	A9	19	U	C3'-C2'-C1'	5.34	106.64	101.30
5	AO	94	HIS	CG-CD2-NE2	5.34	112.54	107.20
6	AX	16	HIS	CE1-NE2-CD2	-5.34	103.66	109.00
41	CO	37	VAL	N-CA-CB	5.34	118.78	111.41
47	CI	95	HIS	ND1-CE1-NE2	5.34	113.74	108.40
49	CQ	142	ARG	N-CA-C	5.34	117.17	108.63
58	CW	126	ALA	CA-C-N	5.34	126.40	119.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
58	CW	126	ALA	C-N-CA	5.34	126.40	119.78
74	CC	145	HIS	ND1-CE1-NE2	5.34	113.74	108.40
83	A5	816	A	O4'-C1'-C2'	-5.34	102.26	107.60
83	A5	1230	U	O4'-C1'-N1	5.34	116.51	108.50
83	A5	3237	U	C3'-C2'-C1'	5.34	106.84	101.50
85	A7	19	C	O4'-C1'-C2'	-5.34	102.26	107.60
35	Ah	214	GLU	CB-CA-C	5.34	120.69	110.17
83	A5	805	C	C5'-C4'-C3'	5.34	124.01	116.00
83	A5	1944	C	N1-C1'-C2'	5.34	120.01	112.00
1	Az	219	SER	O-C-N	-5.34	115.49	122.59
16	AA	66	VAL	CA-C-N	5.34	131.73	121.54
16	AA	66	VAL	C-N-CA	5.34	131.73	121.54
36	B2	1855	A	C1'-O4'-C4'	5.34	115.24	109.90
38	Cz	57	HIS	CE1-NE2-CD2	-5.34	103.66	109.00
81	CE	225	TYR	CA-C-N	5.34	127.69	120.38
81	CE	225	TYR	C-N-CA	5.34	127.69	120.38
83	A5	1293	A	O4'-C4'-C3'	-5.34	98.66	104.00
83	A5	1582	U	O4'-C1'-C2'	-5.34	102.26	107.60
83	A5	1893	C	C3'-C2'-C1'	5.34	106.64	101.30
83	A5	3653	U	O4'-C1'-N1	5.34	116.50	108.50
83	A5	3905	U	C1'-O4'-C4'	-5.34	104.56	109.90
36	B2	347	C	C3'-C2'-C1'	5.33	106.64	101.30
82	CG	261	ALA	CA-C-N	5.33	127.43	120.28
82	CG	261	ALA	C-N-CA	5.33	127.43	120.28
83	A5	2995	U	C3'-C2'-C1'	-5.33	95.97	101.30
83	A5	3125	A	C2'-C3'-O3'	5.33	117.50	109.50
83	A5	3244	U	P-O5'-C5'	5.33	128.90	120.90
15	AB	182	ALA	CA-C-N	5.33	131.73	121.54
15	AB	182	ALA	C-N-CA	5.33	131.73	121.54
36	B2	1086	U	C1'-O4'-C4'	-5.33	104.57	109.90
36	B2	1170	G	C2'-C3'-O3'	5.33	121.70	113.70
36	B2	1185	U	O4'-C1'-N1	5.33	116.50	108.50
51	CA	19	HIS	CE1-NE2-CD2	-5.33	103.67	109.00
51	CA	176	ASP	N-CA-C	5.33	117.17	111.36
52	CS	112	ASP	CA-CB-CG	5.33	117.93	112.60
59	CZ	33	THR	CB-CA-C	5.33	117.95	109.52
61	Ch	22	ASP	CA-C-N	5.33	127.86	120.29
61	Ch	22	ASP	C-N-CA	5.33	127.86	120.29
83	A5	225	U	C2'-C3'-O3'	5.33	117.50	109.50
83	A5	2539	G	N9-C1'-C2'	5.33	120.00	112.00
27	AE	183	ILE	N-CA-CB	5.33	117.39	110.99
36	B2	655	A	C1'-O4'-C4'	5.33	115.23	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	658	C	N1-C1'-C2'	5.33	120.00	112.00
36	B2	1591	U	O5'-C5'-C4'	-5.33	103.70	111.70
36	B2	1679	U	C2'-C3'-O3'	5.33	121.70	113.70
36	B2	1746	A	N9-C1'-C2'	5.33	120.00	112.00
63	CB	287	ILE	N-CA-C	-5.33	100.07	107.80
68	Cf	49	ARG	N-CA-C	5.33	122.16	110.80
83	A5	139	U	N1-C1'-C2'	5.33	122.00	114.00
83	A5	2611	A	O4'-C1'-C2'	-5.33	102.27	107.60
83	A5	2707	C	O5'-C5'-C4'	5.33	119.50	111.50
83	A5	3713	C	O4'-C4'-C3'	-5.33	98.67	104.00
10	AN	6	ALA	O-C-N	-5.33	115.19	121.32
79	CJ	39	THR	CA-C-N	5.33	127.86	120.29
79	CJ	39	THR	C-N-CA	5.33	127.86	120.29
81	CE	76	LYS	N-CA-C	-5.33	100.04	108.73
83	A5	2490	G	C5'-C4'-C3'	-5.33	107.20	115.20
83	A5	2573	C	C3'-C2'-C1'	5.33	106.63	101.30
1	Az	820	ILE	CA-C-N	5.33	127.27	120.56
1	Az	820	ILE	C-N-CA	5.33	127.27	120.56
34	AQ	18	LYS	CA-C-N	5.33	131.72	121.54
34	AQ	18	LYS	C-N-CA	5.33	131.72	121.54
34	AQ	101	TYR	CA-CB-CG	-5.33	104.31	113.90
36	B2	1573	U	C5'-C4'-C3'	-5.33	108.01	116.00
42	CL	49	PRO	O-C-N	5.33	129.83	122.64
61	Ch	40	ALA	N-CA-C	5.33	121.59	109.81
63	CB	83	PRO	CA-C-N	5.33	128.44	120.87
63	CB	83	PRO	C-N-CA	5.33	128.44	120.87
82	CG	192	LYS	CA-C-N	5.33	127.42	120.28
82	CG	192	LYS	C-N-CA	5.33	127.42	120.28
83	A5	186	G	C3'-C2'-C1'	5.33	106.83	101.50
83	A5	793	U	C3'-C2'-C1'	5.33	106.63	101.30
83	A5	1145	C	C1'-O4'-C4'	-5.33	104.57	109.90
83	A5	2584	G	C3'-C2'-C1'	5.33	106.63	101.30
83	A5	3161	U	C5'-C4'-C3'	-5.33	108.01	116.00
12	AR	23	ARG	N-CA-CB	5.33	119.49	110.49
53	CT	150	LEU	N-CA-C	5.33	125.91	111.00
79	CJ	96	GLU	N-CA-CB	5.33	119.49	110.49
83	A5	1911	C	C3'-C2'-C1'	5.33	106.63	101.30
85	A7	29	C	O3'-P-O5'	-5.33	96.01	104.00
13	AP	63	LEU	CA-C-N	5.33	128.40	120.31
13	AP	63	LEU	C-N-CA	5.33	128.40	120.31
36	B2	252	A	O5'-C5'-C4'	5.33	119.69	111.70
36	B2	256	C	C5'-C4'-C3'	-5.33	108.01	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	825	A	C4'-C3'-O3'	-5.33	105.01	113.00
36	B2	1431	A	C3'-C2'-C1'	5.33	106.62	101.30
36	B2	1819	U	O5'-C5'-C4'	-5.33	103.51	111.50
61	Ch	76	LYS	CA-C-N	5.33	129.30	120.94
61	Ch	76	LYS	C-N-CA	5.33	129.30	120.94
63	CB	29	VAL	N-CA-C	5.33	120.42	109.34
74	CC	284	GLN	CA-C-N	5.33	125.58	119.83
74	CC	284	GLN	C-N-CA	5.33	125.58	119.83
83	A5	1661	C	C4'-C3'-O3'	-5.33	105.01	113.00
83	A5	1736	G	O4'-C1'-N9	5.33	116.19	108.20
83	A5	1864	U	C5'-C4'-C3'	-5.33	107.21	115.20
83	A5	2109	G	C3'-C2'-C1'	5.33	106.62	101.30
83	A5	2248	A	N9-C1'-C2'	-5.33	104.01	112.00
83	A5	3439	A	O4'-C1'-C2'	-5.33	102.27	107.60
83	A5	3650	G	O4'-C1'-N9	5.33	116.19	108.20
41	CO	59	TYR	CA-C-O	-5.32	114.56	121.11
52	CS	71	SER	CA-C-O	-5.32	115.05	121.22
70	Ci	44	THR	CB-CA-C	5.32	121.02	110.42
83	A5	429	U	O4'-C1'-N1	5.32	116.48	108.50
83	A5	1060	G	O4'-C1'-C2'	5.32	112.92	107.60
83	A5	3869	A	O4'-C4'-C3'	-5.32	98.68	104.00
27	AE	189	LEU	CA-C-N	5.32	131.84	121.41
27	AE	189	LEU	C-N-CA	5.32	131.84	121.41
36	B2	307	U	O4'-C1'-C2'	-5.32	102.28	107.60
53	CT	104	ASP	CA-C-N	5.32	127.36	120.44
53	CT	104	ASP	C-N-CA	5.32	127.36	120.44
6	AX	120	PHE	CA-CB-CG	-5.32	108.48	113.80
15	AB	56	ARG	CB-CA-C	-5.32	100.90	109.89
21	Ab	82	LYS	CA-C-N	5.32	126.49	119.84
21	Ab	82	LYS	C-N-CA	5.32	126.49	119.84
30	AF	154	ARG	N-CA-C	5.32	122.13	110.80
32	AW	117	ARG	CA-C-O	-5.32	114.78	120.42
36	B2	896	A	O4'-C1'-N9	5.32	116.18	108.20
57	CY	112	ASP	CA-C-N	5.32	127.41	120.28
57	CY	112	ASP	C-N-CA	5.32	127.41	120.28
81	CE	49	ASP	N-CA-C	5.32	117.67	111.02
83	A5	122	C	O4'-C1'-C2'	-5.32	102.28	107.60
83	A5	2149	G	P-O5'-C5'	-5.32	112.92	120.90
83	A5	3200	G	O4'-C1'-N9	5.32	116.48	108.50
15	AB	72	ALA	CB-CA-C	-5.32	101.96	110.79
48	CD	187	THR	CA-C-N	5.32	131.70	121.54
48	CD	187	THR	C-N-CA	5.32	131.70	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	CX	160	LYS	N-CA-C	5.32	118.06	110.24
86	A8	58	C	C1'-C2'-O2'	5.32	119.78	111.80
1	Az	571	GLU	CA-C-N	5.32	131.70	121.54
1	Az	571	GLU	C-N-CA	5.32	131.70	121.54
2	Ag	233	HIS	ND1-CE1-NE2	5.32	113.72	108.40
26	AJ	83	VAL	O-C-N	5.32	127.31	121.83
29	AG	78	LYS	CA-C-N	5.32	129.23	121.31
29	AG	78	LYS	C-N-CA	5.32	129.23	121.31
36	B2	373	U	N1-C1'-C2'	-5.32	104.02	112.00
36	B2	1750	U	P-O5'-C5'	5.32	128.88	120.90
44	CM	81	ASP	CA-C-N	5.32	127.41	120.28
44	CM	81	ASP	C-N-CA	5.32	127.41	120.28
47	CI	102	MET	CA-C-N	5.32	131.69	121.54
47	CI	102	MET	C-N-CA	5.32	131.69	121.54
81	CE	217	PRO	CA-C-N	5.32	131.70	121.54
81	CE	217	PRO	C-N-CA	5.32	131.70	121.54
83	A5	1447	C	C4'-C3'-C2'	-5.32	97.28	102.60
83	A5	1910	C	O5'-C5'-C4'	-5.32	103.72	111.70
83	A5	3143	U	O4'-C1'-N1	5.32	116.47	108.50
83	A5	3506	U	O4'-C1'-C2'	-5.32	102.28	107.60
63	CB	403	ALA	CA-C-N	5.32	127.40	120.28
63	CB	403	ALA	C-N-CA	5.32	127.40	120.28
78	Co	57	ARG	CA-C-N	5.32	131.69	121.54
78	Co	57	ARG	C-N-CA	5.32	131.69	121.54
83	A5	728	U	O4'-C1'-C2'	-5.32	102.28	107.60
83	A5	734	U	O4'-C1'-N1	5.32	116.47	108.50
83	A5	850	A	C4'-C3'-O3'	-5.32	105.03	113.00
83	A5	992	U	C3'-C2'-C1'	5.32	106.61	101.30
83	A5	1927	U	P-O5'-C5'	-5.32	112.93	120.90
83	A5	2137	U	C1'-O4'-C4'	5.32	115.22	109.90
83	A5	2693	G	C1'-O4'-C4'	-5.32	104.58	109.90
83	A5	2762	A	C3'-C2'-C1'	5.32	106.62	101.30
83	A5	2811	G	O4'-C1'-N9	5.32	116.47	108.50
83	A5	3597	C	N1-C1'-C2'	5.32	119.97	112.00
83	A5	3954	U	O4'-C1'-N1	5.32	116.47	108.50
86	A8	20	C	P-O3'-C3'	-5.32	112.23	120.20
1	Az	32	LYS	CA-C-N	5.31	127.84	120.29
1	Az	32	LYS	C-N-CA	5.31	127.84	120.29
61	Ch	86	LYS	CA-C-N	5.31	131.69	121.54
61	Ch	86	LYS	C-N-CA	5.31	131.69	121.54
1	Az	802	HIS	ND1-CE1-NE2	5.31	113.71	108.40
5	AO	63	LYS	N-CA-CB	5.31	116.30	110.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	AG	70	HIS	CE1-NE2-CD2	-5.31	103.69	109.00
31	AH	138	VAL	N-CA-C	5.31	116.04	110.62
36	B2	392	A	N9-C1'-C2'	-5.31	106.03	114.00
36	B2	896	A	P-O3'-C3'	5.31	128.17	120.20
38	Cz	28	PHE	CB-CG-CD2	5.31	129.73	120.70
83	A5	2093	U	C2'-C3'-O3'	5.31	117.47	109.50
83	A5	3730	G	O4'-C1'-C2'	-5.31	102.29	107.60
83	A5	3788	G	O4'-C1'-C2'	5.31	112.91	107.60
1	Az	308	THR	CA-C-O	-5.31	112.92	120.51
36	B2	1944	A	C1'-O4'-C4'	5.31	115.21	109.90
37	BC	22	C	N1-C1'-C2'	5.31	119.97	112.00
46	CN	66	VAL	CA-C-N	5.31	128.13	120.38
46	CN	66	VAL	C-N-CA	5.31	128.13	120.38
83	A5	1461	G	N9-C1'-C2'	5.31	119.97	112.00
83	A5	3012	A	N9-C1'-C2'	-5.31	104.03	112.00
36	B2	646	U	O4'-C1'-N1	5.31	116.16	108.20
36	B2	1027	A	P-O3'-C3'	5.31	128.16	120.20
42	CL	141	GLU	CA-C-N	5.31	128.25	120.71
42	CL	141	GLU	C-N-CA	5.31	128.25	120.71
47	CI	116	ARG	CA-C-N	5.31	131.26	121.70
47	CI	116	ARG	C-N-CA	5.31	131.26	121.70
50	CR	143	HIS	ND1-CE1-NE2	5.31	113.71	108.40
63	CB	198	ARG	CB-CA-C	-5.31	102.54	110.88
71	Cj	49	TRP	N-CA-CB	5.31	118.48	110.30
83	A5	1111	C	N1-C1'-C2'	5.31	119.96	112.00
83	A5	2032	U	O4'-C1'-N1	5.31	116.46	108.50
86	A8	54	U	O4'-C1'-N1	5.31	116.47	108.50
86	A8	88	C	O4'-C1'-N1	5.31	116.46	108.50
1	Az	585	HIS	CG-CD2-NE2	5.31	112.51	107.20
13	AP	28	LEU	CB-CA-C	-5.31	101.98	110.79
29	AG	152	ASP	CA-C-N	5.31	131.52	121.97
29	AG	152	ASP	C-N-CA	5.31	131.52	121.97
29	AG	183	PRO	N-CA-CB	5.31	108.82	103.25
36	B2	170	A	O3'-P-O5'	-5.31	96.04	104.00
36	B2	883	C	C1'-O4'-C4'	-5.31	104.59	109.90
36	B2	1632	C	C3'-C2'-C1'	5.31	106.61	101.30
49	CQ	64	GLN	N-CA-C	-5.31	106.31	112.89
65	Cc	73	HIS	CA-C-N	5.31	128.38	120.95
65	Cc	73	HIS	C-N-CA	5.31	128.38	120.95
82	CG	110	GLU	CA-C-N	5.31	128.72	120.60
82	CG	110	GLU	C-N-CA	5.31	128.72	120.60
83	A5	772	G	C4'-C3'-O3'	-5.31	105.04	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1870	G	P-O5'-C5'	5.31	128.86	120.90
83	A5	2030	U	O4'-C1'-N1	5.31	116.46	108.50
83	A5	2530	C	C4'-C3'-O3'	-5.31	105.04	113.00
36	B2	68	C	C2'-C3'-O3'	5.31	117.46	109.50
36	B2	1599	U	C1'-C2'-O2'	5.31	116.36	108.40
42	CL	59	ARG	N-CA-C	5.31	122.10	110.80
50	CR	75	HIS	CE1-NE2-CD2	-5.31	103.69	109.00
83	A5	1415	A	C1'-O4'-C4'	5.31	115.21	109.90
83	A5	2102	G	O4'-C1'-N9	5.31	116.46	108.50
1	Az	566	ARG	CA-C-N	5.30	130.32	123.00
1	Az	566	ARG	C-N-CA	5.30	130.32	123.00
5	AO	46	ASP	N-CA-CB	5.30	118.31	109.56
36	B2	1030	C	N1-C1'-C2'	5.30	119.96	112.00
36	B2	1641	U	P-O5'-C5'	5.30	128.86	120.90
81	CE	240	ARG	N-CA-CB	5.30	118.31	110.56
82	CG	56	LEU	CA-C-N	5.30	127.92	120.28
82	CG	56	LEU	C-N-CA	5.30	127.92	120.28
83	A5	1436	A	C2'-C3'-O3'	5.30	117.46	109.50
83	A5	1862	U	C5'-C4'-C3'	5.30	123.96	116.00
83	A5	1927	U	O4'-C4'-C3'	-5.30	98.70	104.00
83	A5	3428	A	C3'-C2'-C1'	5.30	106.61	101.30
83	A5	3680	A	O4'-C1'-C2'	-5.30	102.30	107.60
83	A5	3931	C	C5'-C4'-C3'	5.30	123.96	116.00
1	Az	42	LYS	CA-C-N	5.30	127.64	120.38
1	Az	42	LYS	C-N-CA	5.30	127.64	120.38
33	AI	70	GLU	CA-C-N	5.30	130.00	120.77
33	AI	70	GLU	C-N-CA	5.30	130.00	120.77
36	B2	274	G	P-O5'-C5'	5.30	128.85	120.90
36	B2	1575	A	P-O5'-C5'	5.30	128.85	120.90
36	B2	1657	C	C4'-C3'-C2'	-5.30	97.30	102.60
70	Ci	30	LYS	CA-C-N	5.30	129.03	120.55
70	Ci	30	LYS	C-N-CA	5.30	129.03	120.55
82	CG	51	GLN	CA-C-N	5.30	126.44	120.66
82	CG	51	GLN	C-N-CA	5.30	126.44	120.66
83	A5	346	U	P-O5'-C5'	-5.30	112.95	120.90
83	A5	1783	A	P-O3'-C3'	5.30	128.16	120.20
1	Az	799	VAL	CA-C-O	-5.30	114.15	120.78
16	AA	179	ALA	CA-C-N	5.30	127.33	120.44
16	AA	179	ALA	C-N-CA	5.30	127.33	120.44
28	AC	75	GLU	CA-C-N	5.30	127.24	120.56
28	AC	75	GLU	C-N-CA	5.30	127.24	120.56
36	B2	1079	A	C3'-C2'-C1'	-5.30	96.00	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	Cz	2	ALA	CA-C-N	5.30	128.75	120.75
38	Cz	2	ALA	C-N-CA	5.30	128.75	120.75
42	CL	172	ASP	CB-CA-C	-5.30	102.53	110.90
44	CM	153	ALA	O-C-N	-5.30	115.58	121.84
82	CG	85	ILE	O-C-N	-5.30	117.89	123.03
83	A5	2781	G	O4'-C1'-C2'	-5.30	100.50	105.80
83	A5	3006	A	O4'-C1'-C2'	-5.30	102.30	107.60
83	A5	3590	C	C3'-C2'-C1'	5.30	106.60	101.30
1	Az	706	GLN	CA-C-N	5.30	129.03	120.55
1	Az	706	GLN	C-N-CA	5.30	129.03	120.55
6	AX	58	GLU	CA-C-N	5.30	128.24	120.71
6	AX	58	GLU	C-N-CA	5.30	128.24	120.71
36	B2	172	G	O4'-C1'-N9	5.30	116.45	108.50
36	B2	1357	G	N9-C1'-C2'	5.30	119.95	112.00
53	CT	111	GLU	CA-C-N	5.30	127.81	120.29
53	CT	111	GLU	C-N-CA	5.30	127.81	120.29
53	CT	140	PHE	CA-CB-CG	5.30	119.10	113.80
57	CY	10	SER	CA-C-N	5.30	127.38	120.28
57	CY	10	SER	C-N-CA	5.30	127.38	120.28
68	Cf	59	TYR	N-CA-C	-5.30	101.48	109.85
69	Cg	10	ARG	NE-CZ-NH1	-5.30	116.20	121.50
75	Cm	78	ILE	N-CA-CB	5.30	119.97	111.23
83	A5	671	A	N9-C1'-C2'	5.30	121.95	114.00
83	A5	859	A	C3'-C2'-C1'	5.30	106.60	101.30
83	A5	3292	C	C3'-C2'-C1'	5.30	106.60	101.30
7	AM	79	HIS	ND1-CE1-NE2	5.30	113.70	108.40
31	AH	147	ASP	CA-C-N	5.30	131.79	121.41
31	AH	147	ASP	C-N-CA	5.30	131.79	121.41
36	B2	1156	U	N1-C1'-C2'	5.30	119.95	112.00
51	CA	65	ASP	CA-C-N	5.30	125.76	120.04
51	CA	65	ASP	C-N-CA	5.30	125.76	120.04
83	A5	148	U	P-O3'-C3'	5.30	128.15	120.20
83	A5	2486	A	N9-C1'-C2'	5.30	119.95	112.00
1	Az	596	PRO	CA-C-N	5.30	127.91	120.28
1	Az	596	PRO	C-N-CA	5.30	127.91	120.28
2	Ag	295	ASP	CA-CB-CG	-5.30	107.30	112.60
20	Aa	96	THR	N-CA-C	5.30	121.52	109.81
36	B2	637	U	N1-C1'-C2'	5.30	119.95	112.00
36	B2	858	G	O4'-C4'-C3'	-5.30	98.70	104.00
40	CK	73	VAL	N-CA-C	-5.30	100.82	108.71
49	CQ	12	LYS	CA-C-N	5.30	131.50	121.97
49	CQ	12	LYS	C-N-CA	5.30	131.50	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	CS	157	ARG	N-CA-CB	5.30	114.91	109.51
82	CG	144	GLY	CA-C-N	5.30	127.64	120.38
82	CG	144	GLY	C-N-CA	5.30	127.64	120.38
83	A5	202	A	C4'-C3'-C2'	-5.30	97.30	102.60
83	A5	1209	A	N9-C1'-C2'	5.30	119.94	112.00
83	A5	1807	U	O4'-C1'-C2'	-5.30	102.30	107.60
83	A5	3848	U	C4'-C3'-O3'	5.30	120.94	113.00
83	A5	581	U	O4'-C1'-C2'	-5.29	102.31	107.60
83	A5	584	A	O4'-C1'-C2'	-5.29	102.31	107.60
83	A5	1907	U	C3'-C2'-C1'	5.29	106.59	101.30
83	A5	2928	G	O4'-C1'-C2'	5.29	112.89	107.60
1	Az	251	TRP	CA-CB-CG	5.29	123.66	113.60
36	B2	1988	G	O3'-P-O5'	-5.29	96.06	104.00
68	Cf	113	ARG	N-CA-C	-5.29	106.82	113.28
71	Cj	84	ALA	CB-CA-C	-5.29	109.49	115.79
82	CG	146	ASN	N-CA-CB	5.29	117.68	110.01
83	A5	1174	G	O4'-C1'-C2'	5.29	112.89	107.60
83	A5	2573	C	O4'-C1'-C2'	-5.29	102.31	107.60
83	A5	2833	U	O3'-P-O5'	-5.29	96.06	104.00
36	B2	515	U	C1'-O4'-C4'	-5.29	104.61	109.90
36	B2	1994	U	O4'-C1'-N1	5.29	116.44	108.50
75	Cm	113	LYS	CA-C-N	5.29	131.65	121.54
75	Cm	113	LYS	C-N-CA	5.29	131.65	121.54
83	A5	1430	U	O4'-C1'-N1	5.29	116.44	108.50
83	A5	1557	U	O4'-C1'-N1	5.29	116.44	108.50
83	A5	2988	U	O4'-C1'-N1	5.29	116.44	108.50
83	A5	3187	C	O4'-C1'-C2'	-5.29	100.51	105.80
83	A5	3801	A	C5'-C4'-O4'	-5.29	101.86	109.80
1	Az	675	GLU	N-CA-C	5.29	122.07	110.80
36	B2	574	C	C3'-C2'-C1'	5.29	106.59	101.30
83	A5	2111	A	O4'-C1'-N9	5.29	116.44	108.50
83	A5	2602	A	C5'-C4'-C3'	5.29	123.94	116.00
8	AS	140	GLY	N-CA-C	5.29	125.71	113.18
14	AT	10	ASP	CB-CA-C	5.29	120.94	110.42
18	AY	53	PRO	N-CA-C	5.29	121.48	113.81
29	AG	133	LEU	CA-C-N	5.29	130.17	121.87
29	AG	133	LEU	C-N-CA	5.29	130.17	121.87
36	B2	954	A	C4'-C3'-O3'	-5.29	105.07	113.00
36	B2	1204	A	N9-C1'-C2'	5.29	119.93	112.00
36	B2	1550	C	C3'-C2'-C1'	5.29	106.59	101.30
45	Ca	68	HIS	CE1-NE2-CD2	-5.29	103.71	109.00
49	CQ	102	ALA	CA-C-N	5.29	127.32	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	CQ	102	ALA	C-N-CA	5.29	127.32	120.44
49	CQ	123	PHE	CA-CB-CG	-5.29	108.51	113.80
83	A5	1666	A	C3'-C2'-C1'	5.29	106.59	101.30
83	A5	3508	G	C3'-C2'-C1'	5.29	106.59	101.30
85	A7	37	G	C3'-C2'-C1'	5.29	106.59	101.30
36	B2	538	C	C3'-C2'-C1'	5.29	106.59	101.30
36	B2	859	C	N1-C1'-C2'	5.29	119.93	112.00
36	B2	877	U	O4'-C1'-N1	5.29	116.43	108.50
42	CL	106	LEU	N-CA-C	5.29	122.06	110.80
68	Cf	108	PRO	CA-N-CD	-5.29	104.60	112.00
83	A5	3418	U	C2'-C3'-O3'	-5.29	105.77	113.70
36	B2	26	A	C4'-C3'-C2'	-5.29	97.31	102.60
36	B2	248	G	O4'-C1'-C2'	-5.29	102.31	107.60
36	B2	362	G	O4'-C1'-N9	5.29	116.43	108.50
36	B2	1462	G	O4'-C1'-N9	5.29	116.43	108.50
36	B2	1544	G	C4'-C3'-C2'	-5.29	97.31	102.60
36	B2	1820	U	P-O5'-C5'	-5.29	112.97	120.90
55	CU	287	ARG	O-C-N	-5.29	116.14	123.12
59	CZ	36	LYS	CA-C-N	5.29	126.45	119.84
59	CZ	36	LYS	C-N-CA	5.29	126.45	119.84
70	Ci	92	ARG	NE-CZ-NH2	5.29	123.96	119.20
83	A5	56	A	O4'-C1'-C2'	-5.29	102.31	107.60
83	A5	654	G	O4'-C1'-N9	5.29	116.43	108.50
83	A5	1409	G	N9-C1'-C2'	5.29	119.93	112.00
83	A5	2127	C	O4'-C1'-C2'	-5.29	102.31	107.60
1	Az	68	ILE	CA-C-O	-5.28	114.17	120.78
23	AD	72	THR	N-CA-CB	5.28	117.89	110.12
46	CN	22	LEU	CA-C-N	5.28	127.36	120.28
46	CN	22	LEU	C-N-CA	5.28	127.36	120.28
52	CS	139	ARG	N-CA-C	5.28	122.05	110.80
61	Ch	35	LYS	CA-C-N	5.28	127.42	120.60
61	Ch	35	LYS	C-N-CA	5.28	127.42	120.60
74	CC	118	VAL	CA-C-N	5.28	129.80	121.56
74	CC	118	VAL	C-N-CA	5.28	129.80	121.56
83	A5	570	U	P-O3'-C3'	-5.28	112.28	120.20
83	A5	1264	U	C3'-C2'-C1'	5.28	106.58	101.30
83	A5	2105	C	N1-C1'-C2'	5.28	119.92	112.00
83	A5	2125	G	O4'-C1'-C2'	-5.28	102.32	107.60
83	A5	3214	C	P-O3'-C3'	-5.28	112.27	120.20
83	A5	3390	U	O3'-P-O5'	-5.28	96.07	104.00
83	A5	3397	U	O4'-C1'-N1	5.28	116.43	108.50
85	A7	4	A	O4'-C1'-C2'	5.28	112.88	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	AD	228	TYR	CB-CA-C	-5.28	102.64	110.67
35	Ah	125	GLN	CB-CA-C	-5.28	101.27	110.09
36	B2	947	U	O4'-C1'-N1	5.28	116.42	108.50
83	A5	825	C	O4'-C1'-C2'	-5.28	102.32	107.60
83	A5	2879	A	C2'-C3'-O3'	5.28	121.62	113.70
1	Az	38	SER	N-CA-CB	5.28	117.88	110.12
1	Az	308	THR	CA-C-N	5.28	131.63	121.54
1	Az	308	THR	C-N-CA	5.28	131.63	121.54
26	AJ	83	VAL	CA-C-O	-5.28	115.25	120.85
48	CD	216	GLU	CA-C-N	5.28	127.36	120.28
48	CD	216	GLU	C-N-CA	5.28	127.36	120.28
64	CF	45	VAL	CA-C-N	5.28	127.69	120.46
64	CF	45	VAL	C-N-CA	5.28	127.69	120.46
76	Cn	9	ARG	N-CA-CB	5.28	117.88	110.12
83	A5	398	U	N1-C1'-C2'	5.28	119.92	112.00
83	A5	709	U	O4'-C1'-N1	5.28	116.42	108.50
83	A5	1581	G	C3'-C2'-C1'	-5.28	96.02	101.30
83	A5	3567	A	C1'-O4'-C4'	5.28	115.18	109.90
86	A8	82	C	C4'-C3'-O3'	-5.28	101.48	109.40
27	AE	37	LYS	CA-C-N	5.28	127.35	120.28
27	AE	37	LYS	C-N-CA	5.28	127.35	120.28
36	B2	541	U	O4'-C1'-N1	5.28	116.42	108.50
83	A5	922	G	C1'-O4'-C4'	-5.28	104.62	109.90
83	A5	1792	G	O4'-C1'-C2'	-5.28	102.32	107.60
83	A5	3733	U	O4'-C1'-C2'	-5.28	102.32	107.60
1	Az	10	ARG	CA-C-N	5.28	125.84	119.98
1	Az	10	ARG	C-N-CA	5.28	125.84	119.98
23	AD	206	LEU	CB-CA-C	-5.28	100.81	109.46
36	B2	1136	U	O4'-C1'-N1	5.28	116.42	108.50
36	B2	1437	A	O4'-C1'-C2'	-5.28	102.32	107.60
36	B2	1780	G	N9-C1'-C2'	5.28	119.92	112.00
39	Cq	110	ALA	CA-C-N	5.28	131.62	121.54
39	Cq	110	ALA	C-N-CA	5.28	131.62	121.54
53	CT	58	HIS	ND1-CE1-NE2	5.28	113.68	108.40
86	A8	43	A	C3'-C2'-C1'	5.28	106.58	101.30
4	AK	14	TYR	CA-C-N	5.28	127.30	120.44
4	AK	14	TYR	C-N-CA	5.28	127.30	120.44
17	AV	26	ALA	N-CA-C	5.28	122.04	110.80
24	Ae	128	ASN	CA-CB-CG	-5.28	107.33	112.60
31	AH	121	THR	CA-C-N	5.28	127.35	120.28
31	AH	121	THR	C-N-CA	5.28	127.35	120.28
34	AQ	120	THR	CA-C-N	5.28	127.88	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	AQ	120	THR	C-N-CA	5.28	127.88	120.28
48	CD	222	GLN	CB-CG-CD	-5.28	103.63	112.60
83	A5	5	A	C3'-C2'-C1'	-5.28	96.02	101.30
83	A5	1348	G	C3'-C2'-C1'	-5.28	96.03	101.30
83	A5	3406	G	C5'-C4'-C3'	-5.28	107.29	115.20
83	A5	3647	A	C3'-C2'-C1'	5.28	106.58	101.30
83	A5	3735	U	O4'-C1'-N1	5.28	116.41	108.50
83	A5	3904	G	C3'-C2'-C1'	5.28	106.58	101.30
86	A8	18	C	O4'-C1'-C2'	-5.28	102.32	107.60
86	A8	110	C	O4'-C1'-N1	5.28	116.41	108.50
50	CR	135	LYS	CA-C-N	5.27	128.08	120.38
50	CR	135	LYS	C-N-CA	5.27	128.08	120.38
83	A5	1892	C	O4'-C1'-C2'	-5.27	102.33	107.60
1	Az	669	PHE	CA-CB-CG	-5.27	108.53	113.80
36	B2	1118	U	N1-C1'-C2'	-5.27	106.09	114.00
36	B2	1321	A	C3'-C2'-C1'	5.27	106.57	101.30
36	B2	1588	G	N9-C1'-C2'	5.27	119.91	112.00
36	B2	1657	C	C4'-C3'-O3'	-5.27	105.09	113.00
42	CL	148	GLN	CA-C-N	5.27	131.61	121.54
42	CL	148	GLN	C-N-CA	5.27	131.61	121.54
83	A5	480	C	P-O5'-C5'	-5.27	112.99	120.90
83	A5	2188	C	N1-C1'-C2'	5.27	119.91	112.00
51	CA	169	VAL	N-CA-C	5.27	115.18	108.12
54	CP	36	ILE	N-CA-C	-5.27	107.68	113.43
83	A5	376	G	P-O3'-C3'	-5.27	112.29	120.20
6	AX	9	THR	CB-CA-C	-5.27	100.61	110.36
28	AC	258	LYS	O-C-N	-5.27	115.26	121.32
29	AG	105	ASN	OD1-CG-ND2	-5.27	117.33	122.60
36	B2	74	U	C1'-O4'-C4'	5.27	114.97	109.70
36	B2	1388	U	O4'-C1'-N1	5.27	116.40	108.50
39	Cq	150	GLY	N-CA-C	5.27	125.67	113.18
63	CB	258	HIS	CG-CD2-NE2	5.27	112.47	107.20
83	A5	2862	U	O4'-C1'-N1	5.27	116.40	108.50
11	AL	18	ASN	CB-CA-C	-5.27	102.88	111.68
16	AA	218	LYS	CA-C-N	5.27	131.60	121.54
16	AA	218	LYS	C-N-CA	5.27	131.60	121.54
36	B2	1406	A	O4'-C1'-C2'	-5.27	102.33	107.60
48	CD	180	PHE	N-CA-C	-5.27	102.49	110.39
54	CP	28	ASN	CA-C-N	5.27	127.34	120.28
54	CP	28	ASN	C-N-CA	5.27	127.34	120.28
66	Cd	95	SER	CA-C-O	-5.27	114.74	120.69
71	Cj	5	THR	N-CA-C	-5.27	106.36	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	397	C	C3'-C2'-C1'	5.27	106.57	101.30
83	A5	2269	A	C2'-C3'-O3'	5.27	121.60	113.70
83	A5	2886	C	C2'-C3'-O3'	5.27	121.60	113.70
83	A5	3296	C	C3'-C2'-C1'	5.27	106.57	101.30
83	A5	3915	U	C5'-C4'-C3'	-5.27	107.30	115.20
37	BC	68	U	O4'-C1'-N1	5.27	116.40	108.50
83	A5	2130	G	C4'-C3'-C2'	-5.27	97.33	102.60
84	A9	3	C	C3'-C2'-C1'	5.27	106.57	101.30
1	Az	161	MET	N-CA-C	-5.26	100.72	109.46
36	B2	1304	G	N9-C1'-C2'	5.26	121.90	114.00
39	Cq	107	VAL	CA-C-N	5.26	126.42	119.84
39	Cq	107	VAL	C-N-CA	5.26	126.42	119.84
83	A5	290	G	O4'-C1'-C2'	5.26	112.86	107.60
83	A5	453	C	O4'-C1'-C2'	-5.26	102.33	107.60
83	A5	1453	U	N1-C1'-C2'	5.26	119.90	112.00
83	A5	1957	C	C3'-C2'-C1'	5.26	106.56	101.30
83	A5	2531	A	O4'-C1'-C2'	-5.26	102.33	107.60
83	A5	3892	A	C1'-O4'-C4'	5.26	114.96	109.70
84	A9	9	C	N1-C1'-C2'	5.26	119.90	112.00
85	A7	40	C	P-O5'-C5'	5.26	128.80	120.90
1	Az	551	HIS	CE1-NE2-CD2	-5.26	103.74	109.00
18	AY	114	ARG	CA-C-N	5.26	127.86	120.28
18	AY	114	ARG	C-N-CA	5.26	127.86	120.28
21	Ab	65	GLN	CA-C-N	5.26	125.02	119.76
21	Ab	65	GLN	C-N-CA	5.26	125.02	119.76
36	B2	635	C	C1'-O4'-C4'	-5.26	104.64	109.90
18	AY	100	GLN	CA-C-N	5.26	131.59	121.54
18	AY	100	GLN	C-N-CA	5.26	131.59	121.54
26	AJ	134	ARG	N-CA-CB	5.26	119.38	110.49
36	B2	1425	U	O4'-C1'-C2'	-5.26	102.34	107.60
57	CY	66	GLN	N-CA-C	-5.26	99.59	110.80
83	A5	3802	U	C2'-C3'-O3'	5.26	117.39	109.50
1	Az	255	PHE	CB-CG-CD2	5.26	129.64	120.70
36	B2	196	G	N9-C1'-C2'	5.26	119.89	112.00
36	B2	457	G	P-O5'-C5'	-5.26	113.01	120.90
36	B2	525	U	O4'-C1'-N1	5.26	116.39	108.50
36	B2	701	G	N9-C1'-C2'	-5.26	104.11	112.00
36	B2	1004	C	O4'-C1'-N1	5.26	116.39	108.50
36	B2	1287	G	N9-C1'-C2'	-5.26	104.11	112.00
83	A5	2726	A	O4'-C4'-C3'	-5.26	98.74	104.00
85	A7	41	G	C2'-C3'-O3'	5.26	117.39	109.50
34	AQ	11	ALA	N-CA-C	5.26	122.00	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	Ca	28	LYS	N-CA-C	5.26	122.00	110.80
83	A5	878	U	C1'-O4'-C4'	-5.26	104.64	109.90
33	AI	11	ARG	N-CA-C	5.26	122.00	110.80
36	B2	113	G	C4'-C3'-O3'	5.26	117.29	109.40
36	B2	396	A	C4'-C3'-C2'	-5.26	97.34	102.60
36	B2	610	U	O4'-C1'-N1	5.26	116.39	108.50
36	B2	921	U	O4'-C1'-C2'	-5.26	102.34	107.60
79	CJ	65	PHE	CA-C-N	5.26	131.71	121.41
79	CJ	65	PHE	C-N-CA	5.26	131.71	121.41
83	A5	1601	U	C4'-C3'-C2'	-5.26	97.34	102.60
83	A5	1937	G	N9-C1'-C2'	-5.26	104.11	112.00
83	A5	3427	G	P-O5'-C5'	-5.26	113.01	120.90
83	A5	3466	A	C1'-O4'-C4'	5.26	115.16	109.90
83	A5	3687	A	O4'-C1'-C2'	5.26	111.06	105.80
82	CG	88	PHE	CA-CB-CG	5.25	119.06	113.80
83	A5	2552	G	C4'-C3'-O3'	5.25	117.28	109.40
83	A5	2635	C	O4'-C1'-C2'	-5.25	102.34	107.60
23	AD	209	ASN	CB-CA-C	-5.25	102.37	111.30
36	B2	77	A	C1'-O4'-C4'	5.25	114.95	109.70
36	B2	319	C	N1-C1'-C2'	5.25	119.88	112.00
36	B2	562	C	O4'-C1'-C2'	-5.25	100.55	105.80
36	B2	885	U	O4'-C1'-C2'	-5.25	102.35	107.60
36	B2	956	C	P-O3'-C3'	5.25	128.08	120.20
54	CP	60	PHE	N-CA-CB	5.25	118.21	110.49
63	CB	33	PRO	CA-C-N	5.25	131.57	121.54
63	CB	33	PRO	C-N-CA	5.25	131.57	121.54
63	CB	185	LEU	N-CA-CB	5.25	118.18	110.35
83	A5	1169	C	O4'-C1'-C2'	-5.25	102.35	107.60
83	A5	3191	G	C1'-O4'-C4'	-5.25	104.65	109.90
83	A5	3624	C	O4'-C1'-C2'	-5.25	102.35	107.60
86	A8	64	C	N1-C1'-C2'	5.25	119.88	112.00
1	Az	243	VAL	CA-C-N	5.25	127.18	120.56
1	Az	243	VAL	C-N-CA	5.25	127.18	120.56
1	Az	344	LEU	CA-C-N	5.25	126.41	119.84
1	Az	344	LEU	C-N-CA	5.25	126.41	119.84
7	AM	43	HIS	CA-CB-CG	5.25	119.05	113.80
36	B2	1521	U	O4'-C1'-C2'	-5.25	102.35	107.60
83	A5	567	A	N9-C1'-C2'	-5.25	104.12	112.00
83	A5	1316	U	O3'-P-O5'	5.25	111.88	104.00
83	A5	2989	G	N9-C1'-C2'	5.25	119.88	112.00
83	A5	3471	A	O3'-P-O5'	-5.25	96.12	104.00
83	A5	3483	G	O4'-C1'-N9	5.25	116.38	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3671	C	C1'-O4'-C4'	-5.25	104.65	109.90
83	A5	3707	G	O4'-C1'-N9	5.25	116.38	108.50
83	A5	3762	G	O4'-C1'-N9	5.25	116.08	108.20
26	AJ	57	ALA	CA-C-N	5.25	127.27	120.44
26	AJ	57	ALA	C-N-CA	5.25	127.27	120.44
60	Cr	10	LEU	CA-C-N	5.25	127.17	120.56
60	Cr	10	LEU	C-N-CA	5.25	127.17	120.56
83	A5	1526	G	O4'-C1'-C2'	5.25	112.85	107.60
31	AH	110	LEU	O-C-N	-5.25	115.61	122.59
36	B2	1300	G	O4'-C1'-C2'	-5.25	102.35	107.60
36	B2	1688	U	O4'-C1'-N1	5.25	116.37	108.50
83	A5	1413	C	N1-C1'-C2'	5.25	119.87	112.00
5	AO	94	HIS	N-CA-C	-5.25	101.98	110.32
36	B2	1090	A	O4'-C1'-C2'	5.25	111.05	105.80
36	B2	1363	U	O4'-C1'-N1	5.25	116.37	108.50
42	CL	157	LYS	N-CA-C	5.25	118.86	111.52
69	Cg	10	ARG	NE-CZ-NH2	5.25	123.92	119.20
83	A5	1431	G	O4'-C1'-N9	5.25	116.37	108.50
83	A5	1601	U	N1-C1'-C2'	-5.25	104.13	112.00
83	A5	1791	A	O4'-C1'-C2'	-5.25	102.35	107.60
83	A5	2486	A	O4'-C1'-C2'	-5.25	102.35	107.60
83	A5	3621	A	C3'-C2'-C1'	5.25	106.55	101.30
84	A9	24	G	C5'-C4'-C3'	5.25	123.87	116.00
13	AP	14	THR	N-CA-C	5.25	121.97	110.80
36	B2	166	A	O4'-C1'-N9	5.25	116.07	108.20
36	B2	216	U	C4'-C3'-C2'	-5.25	97.36	102.60
52	CS	47	PHE	CA-CB-CG	-5.25	108.56	113.80
83	A5	157	C	O4'-C1'-N1	5.25	116.37	108.50
83	A5	3404	A	C2'-C3'-O3'	5.25	117.37	109.50
3	AU	50	LEU	N-CA-C	-5.24	106.39	112.89
31	AH	141	ARG	N-CA-C	-5.24	99.74	108.34
36	B2	656	U	C2'-C3'-O3'	5.24	117.37	109.50
58	CW	25	ASP	N-CA-C	5.24	118.14	111.69
71	Cj	41	ALA	CA-C-N	5.24	131.56	121.54
71	Cj	41	ALA	C-N-CA	5.24	131.56	121.54
83	A5	2	U	O4'-C1'-C2'	-5.24	102.36	107.60
83	A5	724	U	O4'-C1'-C2'	-5.24	102.36	107.60
83	A5	3863	G	O3'-P-O5'	-5.24	96.14	104.00
83	A5	3865	C	O4'-C1'-C2'	-5.24	102.36	107.60
86	A8	33	U	O4'-C1'-N1	5.24	116.36	108.50
18	AY	101	LYS	N-CA-C	5.24	121.97	110.80
36	B2	1125	U	C4'-C3'-O3'	-5.24	105.14	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1635	U	N1-C1'-C2'	-5.24	104.14	112.00
36	B2	1993	U	O4'-C1'-C2'	-5.24	102.36	107.60
47	CI	144	TYR	CA-C-N	5.24	128.08	120.79
47	CI	144	TYR	C-N-CA	5.24	128.08	120.79
56	CX	162	ARG	CB-CA-C	-5.24	101.46	110.16
70	Ci	31	VAL	N-CA-C	5.24	116.71	111.00
1	Az	539	HIS	ND1-CE1-NE2	5.24	113.64	108.40
15	AB	71	LEU	CA-C-N	5.24	127.30	120.28
15	AB	71	LEU	C-N-CA	5.24	127.30	120.28
36	B2	539	U	C1'-C2'-O2'	5.24	116.26	108.40
36	B2	949	A	P-O3'-C3'	5.24	128.06	120.20
36	B2	1579	G	O4'-C1'-N9	5.24	116.36	108.50
59	CZ	74	SER	N-CA-C	-5.24	101.17	109.76
60	Cr	134	LYS	N-CA-C	5.24	121.96	110.80
78	Co	32	ARG	N-CA-C	5.24	121.96	110.80
83	A5	1974	U	O4'-C1'-N1	5.24	116.36	108.50
83	A5	2638	U	O4'-C1'-N1	5.24	116.36	108.50
83	A5	2906	C	O3'-P-O5'	-5.24	96.14	104.00
3	AU	80	ASP	N-CA-CB	5.24	118.79	110.57
60	Cr	2	ALA	N-CA-CB	-5.24	102.54	110.40
60	Cr	112	GLN	CA-C-N	5.24	127.25	120.44
60	Cr	112	GLN	C-N-CA	5.24	127.25	120.44
71	Cj	34	CYS	N-CA-CB	5.24	118.72	110.23
79	CJ	180	LEU	N-CA-C	5.24	121.96	110.80
83	A5	247	C	N1-C1'-C2'	5.24	119.86	112.00
83	A5	571	U	N1-C1'-C2'	5.24	119.86	112.00
4	AK	3	ILE	CA-C-N	5.24	126.39	119.84
4	AK	3	ILE	C-N-CA	5.24	126.39	119.84
36	B2	1875	G	C2'-C3'-O3'	5.24	117.36	109.50
55	CU	251	LYS	N-CA-CB	5.24	117.05	110.45
60	Cr	10	LEU	CB-CA-C	-5.24	102.10	110.79
83	A5	876	G	N9-C1'-C2'	5.24	119.86	112.00
83	A5	1654	C	O4'-C1'-C2'	-5.24	102.36	107.60
83	A5	1711	C	P-O3'-C3'	5.24	128.06	120.20
6	AX	123	VAL	N-CA-C	-5.24	108.40	113.53
9	Ad	54	LYS	CA-C-N	5.24	127.25	120.44
9	Ad	54	LYS	C-N-CA	5.24	127.25	120.44
36	B2	906	C	P-O3'-C3'	5.24	128.05	120.20
42	CL	14	HIS	ND1-CE1-NE2	5.24	113.64	108.40
47	CI	161	GLY	CA-C-N	5.24	131.54	121.54
47	CI	161	GLY	C-N-CA	5.24	131.54	121.54
57	CY	89	ASN	N-CA-CB	5.24	118.84	110.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1355	C	N1-C1'-C2'	5.24	119.85	112.00
83	A5	3535	G	C3'-C2'-C1'	5.24	106.54	101.30
86	A8	82	C	C2'-C3'-O3'	5.24	117.35	109.50
14	AT	101	ARG	NE-CZ-NH2	-5.23	114.49	119.20
36	B2	889	A	C3'-C2'-C1'	5.23	106.53	101.30
83	A5	1136	A	O3'-P-O5'	-5.23	96.15	104.00
32	AW	86	ILE	N-CA-C	-5.23	105.28	110.62
42	CL	3	LYS	N-CA-CB	5.23	118.77	110.55
60	Cr	27	LYS	N-CA-CB	-5.23	100.55	110.49
65	Cc	89	PHE	CA-CB-CG	-5.23	108.57	113.80
83	A5	285	G	C1'-O4'-C4'	5.23	114.93	109.70
83	A5	498	U	O4'-C4'-C3'	-5.23	98.77	104.00
83	A5	593	U	O3'-P-O5'	5.23	111.85	104.00
83	A5	747	U	O4'-C1'-N1	5.23	116.35	108.50
83	A5	1081	C	P-O5'-C5'	-5.23	113.05	120.90
86	A8	108	A	O3'-P-O5'	5.23	111.85	104.00
18	AY	94	ARG	NE-CZ-NH2	5.23	123.91	119.20
36	B2	856	A	C3'-C2'-C1'	-5.23	96.07	101.30
42	CL	197	LYS	N-CA-CB	5.23	117.81	110.12
65	Cc	30	GLY	CA-C-N	5.23	128.67	120.82
65	Cc	30	GLY	C-N-CA	5.23	128.67	120.82
82	CG	41	PRO	CA-C-O	-5.23	111.08	120.60
83	A5	1330	G	C1'-C2'-O2'	-5.23	103.96	111.80
83	A5	1644	C	C3'-C2'-C1'	5.23	106.53	101.30
83	A5	1719	G	O4'-C1'-C2'	5.23	112.83	107.60
83	A5	3829	U	C4'-C3'-C2'	-5.23	97.37	102.60
36	B2	1532	C	C3'-C2'-C1'	5.23	106.53	101.30
36	B2	1684	U	O4'-C1'-C2'	-5.23	100.57	105.80
36	B2	1763	C	N1-C1'-C2'	5.23	119.84	112.00
40	CK	29	ALA	CA-C-O	5.23	123.05	117.98
83	A5	880	A	P-O5'-C5'	-5.23	113.06	120.90
83	A5	3171	A	O4'-C1'-C2'	-5.23	102.37	107.60
83	A5	3297	C	P-O3'-C3'	-5.23	112.36	120.20
1	Az	580	LYS	CA-C-N	5.23	129.39	121.03
1	Az	580	LYS	C-N-CA	5.23	129.39	121.03
18	AY	97	LEU	CA-C-N	5.23	130.53	123.11
18	AY	97	LEU	C-N-CA	5.23	130.53	123.11
44	CM	113	ARG	CA-C-N	5.23	127.23	120.44
44	CM	113	ARG	C-N-CA	5.23	127.23	120.44
59	CZ	123	GLU	CA-C-N	5.23	131.66	121.41
59	CZ	123	GLU	C-N-CA	5.23	131.66	121.41
83	A5	105	A	O3'-P-O5'	5.23	111.84	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	701	U	O4'-C1'-C2'	-5.23	102.37	107.60
83	A5	2491	C	O4'-C1'-C2'	5.23	111.03	105.80
85	A7	76	U	P-O5'-C5'	5.23	128.74	120.90
23	AD	99	CYS	N-CA-C	5.23	121.93	110.80
31	AH	59	ILE	CA-C-N	5.23	129.84	123.10
31	AH	59	ILE	C-N-CA	5.23	129.84	123.10
36	B2	38	C	C3'-C2'-C1'	5.23	106.53	101.30
36	B2	457	G	N9-C1'-C2'	5.23	121.84	114.00
36	B2	1833	C	C3'-C2'-C1'	5.23	106.53	101.30
78	Co	21	HIS	CE1-NE2-CD2	-5.23	103.77	109.00
78	Co	95	LYS	CB-CA-C	-5.23	102.63	110.16
83	A5	404	U	C4'-C3'-C2'	-5.23	97.37	102.60
83	A5	626	A	N9-C1'-C2'	5.23	119.84	112.00
83	A5	653	U	O5'-C5'-C4'	5.23	119.34	111.50
83	A5	1354	G	N9-C1'-C2'	5.23	119.84	112.00
83	A5	2245	G	C3'-C2'-C1'	5.23	106.53	101.30
36	B2	862	C	O4'-C1'-C2'	-5.22	102.38	107.60
36	B2	1123	G	O4'-C1'-C2'	5.22	112.82	107.60
41	CO	48	HIS	CG-CD2-NE2	5.22	112.42	107.20
48	CD	226	TYR	CB-CG-CD2	-5.22	112.96	120.80
54	CP	30	HIS	CE1-NE2-CD2	-5.22	103.78	109.00
60	Cr	118	ALA	CA-C-N	5.22	127.71	120.29
60	Cr	118	ALA	C-N-CA	5.22	127.71	120.29
63	CB	357	ARG	N-CA-C	5.22	121.93	110.80
72	Ck	30	THR	CA-CB-CG2	5.22	119.38	110.50
83	A5	3258	C	O4'-C1'-N1	5.22	116.34	108.50
8	AS	73	ASN	CA-C-N	5.22	124.73	119.19
8	AS	73	ASN	C-N-CA	5.22	124.73	119.19
20	Aa	77	CYS	CB-CA-C	-5.22	102.65	110.90
30	AF	169	ARG	N-CA-C	-5.22	106.82	114.39
36	B2	318	U	O4'-C1'-N1	5.22	116.03	108.20
36	B2	1323	A	P-O5'-C5'	-5.22	113.06	120.90
46	CN	189	ARG	CA-C-N	5.22	127.28	120.28
46	CN	189	ARG	C-N-CA	5.22	127.28	120.28
47	CI	149	ILE	CA-C-N	5.22	127.28	120.28
47	CI	149	ILE	C-N-CA	5.22	127.28	120.28
69	Cg	58	ARG	CA-C-N	5.22	125.28	119.32
69	Cg	58	ARG	C-N-CA	5.22	125.28	119.32
83	A5	2777	A	N9-C1'-C2'	5.22	119.83	112.00
85	A7	105	C	C3'-C2'-C1'	5.22	106.52	101.30
11	AL	9	PHE	N-CA-CB	5.22	118.16	109.60
12	AR	97	GLU	CA-C-N	5.22	130.38	122.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AR	97	GLU	C-N-CA	5.22	130.38	122.91
36	B2	1645	G	O4'-C1'-C2'	-5.22	102.38	107.60
46	CN	87	HIS	ND1-CE1-NE2	5.22	113.62	108.40
69	Cg	20	ARG	N-CA-CB	5.22	119.83	110.80
83	A5	205	U	O4'-C1'-C2'	-5.22	102.38	107.60
83	A5	3684	A	C4'-C3'-C2'	-5.22	97.38	102.60
83	A5	3840	G	C4'-C3'-C2'	-5.22	97.38	102.60
36	B2	25	U	C1'-O4'-C4'	5.22	114.92	109.70
36	B2	164	U	N1-C1'-C2'	5.22	119.83	112.00
36	B2	1473	C	O5'-C5'-C4'	-5.22	102.97	110.80
36	B2	1546	U	C2'-C3'-O3'	5.22	117.33	109.50
36	B2	1708	A	P-O3'-C3'	5.22	128.03	120.20
83	A5	228	C	O4'-C1'-C2'	-5.22	102.38	107.60
83	A5	349	C	N1-C1'-C2'	5.22	119.83	112.00
83	A5	704	U	O4'-C1'-C2'	-5.22	102.38	107.60
83	A5	748	A	O3'-P-O5'	5.22	111.83	104.00
83	A5	853	G	C1'-O4'-C4'	-5.22	104.68	109.90
83	A5	1389	C	N1-C1'-C2'	5.22	119.83	112.00
83	A5	2085	G	C3'-C2'-C1'	-5.22	96.08	101.30
83	A5	2830	G	N9-C1'-C2'	5.22	121.83	114.00
83	A5	3459	C	O4'-C1'-C2'	-5.22	102.38	107.60
7	AM	102	ASP	CA-CB-CG	-5.22	107.38	112.60
15	AB	143	ILE	CB-CA-C	5.22	117.46	110.42
23	AD	220	ILE	N-CA-C	5.22	120.19	109.34
50	CR	188	HIS	CE1-NE2-CD2	-5.22	103.78	109.00
83	A5	1865	U	O3'-P-O5'	-5.22	96.17	104.00
1	Az	270	ASP	N-CA-C	5.22	121.91	110.80
44	CM	155	LYS	CA-C-O	-5.22	114.69	120.38
57	CY	27	ARG	CA-C-N	5.22	127.22	120.44
57	CY	27	ARG	C-N-CA	5.22	127.22	120.44
63	CB	245	HIS	CG-CD2-NE2	5.22	112.42	107.20
83	A5	990	U	C3'-C2'-C1'	5.22	106.52	101.30
83	A5	2200	A	C3'-C2'-C1'	5.22	106.52	101.30
83	A5	2644	U	O4'-C1'-N1	5.22	116.33	108.50
83	A5	3816	A	C1'-O4'-C4'	5.22	115.12	109.90
1	Az	236	SER	N-CA-C	5.21	116.96	111.28
26	AJ	22	GLU	CA-C-N	5.21	131.50	121.54
26	AJ	22	GLU	C-N-CA	5.21	131.50	121.54
27	AE	89	VAL	N-CA-C	-5.21	100.24	107.80
29	AG	182	THR	CA-C-N	5.21	126.36	119.84
29	AG	182	THR	C-N-CA	5.21	126.36	119.84
31	AH	185	PHE	CA-C-N	5.21	130.66	122.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	AH	185	PHE	C-N-CA	5.21	130.66	122.21
39	Cq	183	PHE	CB-CA-C	-5.21	101.74	110.29
63	CB	116	ARG	CA-C-N	5.21	129.50	120.58
63	CB	116	ARG	C-N-CA	5.21	129.50	120.58
68	Cf	142	HIS	CE1-NE2-CD2	-5.21	103.78	109.00
83	A5	1050	C	N1-C1'-C2'	5.21	119.82	112.00
83	A5	2001	U	O4'-C1'-C2'	-5.21	102.39	107.60
83	A5	2984	U	P-O3'-C3'	5.21	128.02	120.20
1	Az	105	ASN	CA-CB-CG	-5.21	107.39	112.60
36	B2	189	C	O4'-C1'-N1	5.21	116.02	108.20
51	CA	231	ALA	O-C-N	-5.21	117.27	123.11
83	A5	1674	A	C5'-C4'-O4'	5.21	116.92	109.10
16	AA	194	GLU	N-CA-C	5.21	121.90	110.80
36	B2	568	U	C1'-C2'-O2'	5.21	116.22	108.40
36	B2	1841	C	O4'-C1'-N1	5.21	116.32	108.50
40	CK	18	VAL	N-CA-CB	5.21	119.83	111.23
50	CR	203	HIS	CE1-NE2-CD2	-5.21	103.79	109.00
78	Co	30	LYS	CA-C-N	5.21	131.49	121.54
78	Co	30	LYS	C-N-CA	5.21	131.49	121.54
83	A5	53	A	C1'-O4'-C4'	-5.21	104.69	109.90
83	A5	1675	G	C1'-O4'-C4'	-5.21	104.49	109.70
1	Az	201	GLY	O-C-N	-5.21	116.56	121.77
18	AY	86	PHE	CA-C-N	5.21	134.51	121.80
18	AY	86	PHE	C-N-CA	5.21	134.51	121.80
28	AC	119	HIS	CE1-NE2-CD2	-5.21	103.79	109.00
36	B2	423	G	C1'-C2'-O2'	5.21	116.21	108.40
36	B2	1126	A	C2'-C3'-O3'	5.21	117.31	109.50
41	CO	9	VAL	N-CA-C	-5.21	100.15	107.75
54	CP	155	GLU	CA-C-N	5.21	131.49	121.54
54	CP	155	GLU	C-N-CA	5.21	131.49	121.54
63	CB	272	LYS	CA-C-N	5.21	130.55	122.01
63	CB	272	LYS	C-N-CA	5.21	130.55	122.01
65	Cc	73	HIS	CE1-NE2-CD2	-5.21	103.79	109.00
83	A5	1540	U	O4'-C1'-C2'	-5.21	102.39	107.60
83	A5	1579	U	O4'-C1'-N1	5.21	116.01	108.20
83	A5	1875	G	N9-C1'-C2'	5.21	119.81	112.00
86	A8	111	G	P-O3'-C3'	-5.21	112.39	120.20
2	Ag	24	ASN	N-CA-CB	5.21	117.92	109.90
7	AM	115	VAL	N-CA-C	-5.21	101.14	108.27
36	B2	614	A	O4'-C1'-C2'	5.21	111.01	105.80
48	CD	227	ILE	N-CA-C	-5.21	106.06	111.58
64	CF	236	ASP	N-CA-C	5.21	116.22	108.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
66	Cd	34	GLY	CA-C-N	5.21	131.48	121.54
66	Cd	34	GLY	C-N-CA	5.21	131.48	121.54
73	Cl	30	ARG	N-CA-CB	5.21	117.69	110.04
83	A5	2140	C	C3'-C2'-C1'	5.21	106.51	101.30
83	A5	2760	G	O4'-C1'-N9	5.21	116.31	108.50
83	A5	3814	U	C1'-O4'-C4'	5.21	115.11	109.90
20	Aa	85	ARG	CA-C-N	5.21	131.48	121.54
20	Aa	85	ARG	C-N-CA	5.21	131.48	121.54
36	B2	1949	A	C4'-C3'-O3'	5.21	117.21	109.40
83	A5	1277	A	C4'-C3'-O3'	5.21	117.21	109.40
83	A5	2150	U	C5'-C4'-O4'	5.21	116.91	109.10
83	A5	2173	C	O4'-C1'-C2'	-5.21	102.39	107.60
83	A5	3538	G	C5'-C4'-C3'	-5.21	108.19	116.00
83	A5	3575	G	O4'-C1'-C2'	5.21	112.81	107.60
1	Az	271	ASN	CB-CA-C	-5.20	100.06	110.42
42	CL	130	GLU	N-CA-C	5.20	121.88	110.80
61	Ch	62	HIS	CE1-NE2-CD2	-5.20	103.80	109.00
67	Ce	19	PHE	CA-C-N	5.20	131.34	121.97
67	Ce	19	PHE	C-N-CA	5.20	131.34	121.97
67	Ce	54	MET	CA-C-O	-5.20	115.39	119.66
83	A5	1067	A	O3'-P-O5'	-5.20	96.20	104.00
83	A5	1407	C	O4'-C1'-C2'	-5.20	102.40	107.60
83	A5	1632	A	P-O5'-C5'	-5.20	113.09	120.90
83	A5	1704	A	O4'-C1'-N9	5.20	116.31	108.50
83	A5	2691	A	O4'-C1'-C2'	-5.20	100.60	105.80
83	A5	3035	A	O3'-P-O5'	5.20	111.80	104.00
83	A5	3537	U	O4'-C1'-N1	5.20	116.31	108.50
85	A7	65	C	O5'-C5'-C4'	-5.20	103.69	111.50
1	Az	802	HIS	CE1-NE2-CD2	-5.20	103.80	109.00
55	CU	289	SER	N-CA-C	5.20	121.88	110.80
83	A5	2138	C	C3'-C2'-C1'	5.20	106.50	101.30
83	A5	3192	C	O4'-C1'-C2'	-5.20	102.40	107.60
83	A5	3341	C	P-O5'-C5'	-5.20	113.10	120.90
20	Aa	82	LYS	CA-C-N	5.20	127.58	120.46
20	Aa	82	LYS	C-N-CA	5.20	127.58	120.46
36	B2	144	A	P-O3'-C3'	-5.20	112.40	120.20
36	B2	413	C	C3'-C2'-C1'	5.20	106.50	101.30
36	B2	971	A	C4'-C3'-O3'	-5.20	105.20	113.00
52	CS	109	CYS	CA-C-N	5.20	127.67	120.29
52	CS	109	CYS	C-N-CA	5.20	127.67	120.29
57	CY	18	HIS	CG-CD2-NE2	5.20	112.40	107.20
68	Cf	44	TYR	CA-C-N	5.20	131.47	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
68	Cf	44	TYR	C-N-CA	5.20	131.47	121.54
80	CH	155	SER	CA-C-N	5.20	127.68	120.29
80	CH	155	SER	C-N-CA	5.20	127.68	120.29
83	A5	1215	A	P-O5'-C5'	-5.20	113.10	120.90
83	A5	1649	G	C3'-C2'-C1'	-5.20	96.10	101.30
83	A5	2273	A	C1'-O4'-C4'	5.20	115.10	109.90
83	A5	2612	G	O4'-C1'-C2'	5.20	112.80	107.60
1	Az	255	PHE	CB-CG-CD1	-5.20	111.86	120.70
12	AR	63	HIS	CA-C-N	5.20	131.47	121.54
12	AR	63	HIS	C-N-CA	5.20	131.47	121.54
34	AQ	93	ALA	N-CA-CB	5.20	117.69	109.94
42	CL	92	THR	O-C-N	5.20	127.63	122.12
47	CI	82	LYS	N-CA-C	5.20	121.87	110.80
63	CB	344	ILE	N-CA-C	-5.20	101.09	108.58
80	CH	68	VAL	N-CA-CB	5.20	118.38	110.58
83	A5	1639	U	O4'-C1'-C2'	-5.20	102.40	107.60
83	A5	2521	A	C4'-C3'-O3'	5.20	117.20	109.40
83	A5	2902	C	O4'-C1'-C2'	-5.20	102.40	107.60
81	CE	52	SER	CA-C-N	5.20	126.34	119.84
81	CE	52	SER	C-N-CA	5.20	126.34	119.84
83	A5	1488	A	O4'-C1'-C2'	-5.20	102.40	107.60
83	A5	2009	A	N9-C1'-C2'	5.20	119.80	112.00
83	A5	3596	A	O4'-C1'-C2'	-5.20	102.40	107.60
36	B2	140	G	C2'-C3'-O3'	5.20	121.49	113.70
36	B2	596	U	C1'-O4'-C4'	5.20	115.10	109.90
36	B2	1031	A	C1'-O4'-C4'	5.20	114.89	109.70
36	B2	1257	G	C1'-O4'-C4'	-5.20	104.70	109.90
36	B2	1820	U	N1-C1'-C2'	5.20	119.79	112.00
46	CN	120	TRP	CE2-CD2-CE3	5.20	124.00	118.80
47	CI	141	SER	CA-C-N	5.20	129.00	120.63
47	CI	141	SER	C-N-CA	5.20	129.00	120.63
48	CD	43	LYS	CA-C-N	5.20	131.47	121.54
48	CD	43	LYS	C-N-CA	5.20	131.47	121.54
51	CA	50	HIS	ND1-CE1-NE2	5.20	113.59	108.40
68	Cf	15	ALA	CA-C-N	5.20	127.24	120.28
68	Cf	15	ALA	C-N-CA	5.20	127.24	120.28
81	CE	195	ASN	CA-C-N	5.20	128.21	120.31
81	CE	195	ASN	C-N-CA	5.20	128.21	120.31
83	A5	550	U	O4'-C1'-N1	5.20	116.29	108.50
83	A5	2719	A	O4'-C1'-N9	5.20	116.29	108.50
83	A5	3860	A	O4'-C1'-C2'	-5.20	102.40	107.60
1	Az	114	ASP	CA-C-N	5.19	131.21	123.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	114	ASP	C-N-CA	5.19	131.21	123.05
15	AB	44	ILE	N-CA-C	-5.19	107.91	112.90
28	AC	216	LEU	N-CA-C	5.19	121.86	110.80
62	Cb	33	LEU	N-CA-C	-5.19	99.74	110.80
66	Cd	74	ILE	N-CA-CB	-5.19	102.66	111.23
83	A5	926	U	O4'-C1'-N1	5.19	116.29	108.50
83	A5	986	A	C5'-C4'-O4'	5.19	116.89	109.10
83	A5	1929	G	P-O5'-C5'	-5.19	113.11	120.90
83	A5	3030	C	P-O3'-C3'	5.19	127.99	120.20
83	A5	3695	G	C1'-O4'-C4'	-5.19	104.51	109.70
2	Ag	27	ASP	CA-CB-CG	-5.19	107.41	112.60
37	BC	10	G	N9-C1'-C2'	5.19	119.79	112.00
47	CI	69	ARG	CB-CA-C	-5.19	102.02	110.85
50	CR	82	LYS	CB-CA-C	-5.19	100.70	110.67
64	CF	165	HIS	CE1-NE2-CD2	-5.19	103.81	109.00
83	A5	880	A	C2'-C3'-O3'	5.19	121.49	113.70
83	A5	3893	A	C4'-C3'-C2'	-5.19	97.41	102.60
83	A5	3933	G	O4'-C1'-C2'	5.19	112.79	107.60
1	Az	282	PRO	CA-C-N	5.19	127.79	120.42
1	Az	282	PRO	C-N-CA	5.19	127.79	120.42
41	CO	48	HIS	CA-CB-CG	5.19	118.99	113.80
46	CN	193	LYS	CA-C-N	5.19	127.19	120.44
46	CN	193	LYS	C-N-CA	5.19	127.19	120.44
74	CC	46	LEU	CA-C-N	5.19	127.23	120.28
74	CC	46	LEU	C-N-CA	5.19	127.23	120.28
77	Cp	29	MET	CG-SD-CE	-5.19	89.48	100.90
78	Co	51	GLN	N-CA-C	5.19	121.86	110.80
83	A5	81	A	N9-C1'-C2'	5.19	119.79	112.00
36	B2	991	G	N9-C1'-C2'	5.19	119.78	112.00
36	B2	1151	G	O4'-C1'-N9	5.19	116.28	108.50
81	CE	188	LYS	N-CA-CB	-5.19	101.72	110.49
83	A5	3183	G	C1'-C2'-O2'	5.19	119.58	111.80
83	A5	3427	G	O4'-C1'-C2'	-5.19	102.41	107.60
20	Aa	56	ALA	CA-C-N	5.19	128.92	121.50
20	Aa	56	ALA	C-N-CA	5.19	128.92	121.50
36	B2	908	G	C4'-C3'-C2'	5.19	107.79	102.60
82	CG	64	LYS	CA-C-N	5.19	128.00	120.79
82	CG	64	LYS	C-N-CA	5.19	128.00	120.79
83	A5	583	U	O4'-C1'-N1	5.19	116.28	108.50
83	A5	1228	C	C1'-O4'-C4'	5.19	114.89	109.70
83	A5	1561	G	O4'-C1'-C2'	-5.19	102.41	107.60
83	A5	2459	C	O4'-C1'-C2'	-5.19	102.41	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3533	U	C1'-C2'-O2'	5.19	116.18	108.40
83	A5	3637	A	O4'-C1'-C2'	-5.19	102.41	107.60
85	A7	105	C	O4'-C1'-C2'	-5.19	102.41	107.60
11	AL	93	VAL	N-CA-CB	5.19	117.28	111.21
36	B2	1033	U	O4'-C1'-N1	5.19	116.28	108.50
67	Ce	94	TYR	CA-C-N	5.19	130.30	122.99
67	Ce	94	TYR	C-N-CA	5.19	130.30	122.99
83	A5	944	G	C5'-C4'-C3'	5.19	122.68	114.90
83	A5	1645	G	P-O5'-C5'	-5.19	113.12	120.90
83	A5	2010	U	O4'-C1'-C2'	-5.19	102.41	107.60
83	A5	2782	A	O4'-C1'-C2'	5.19	112.79	107.60
83	A5	3119	U	O3'-P-O5'	5.19	111.78	104.00
28	AC	195	LYS	CA-C-N	5.18	127.65	120.29
28	AC	195	LYS	C-N-CA	5.18	127.65	120.29
36	B2	823	C	O4'-C1'-C2'	-5.18	102.42	107.60
40	CK	132	VAL	N-CA-C	5.18	115.40	110.42
45	Ca	107	PHE	N-CA-C	-5.18	106.73	113.16
48	CD	157	ALA	CA-C-N	5.18	129.38	120.72
48	CD	157	ALA	C-N-CA	5.18	129.38	120.72
64	CF	79	LYS	CA-C-N	5.18	127.23	120.28
64	CF	79	LYS	C-N-CA	5.18	127.23	120.28
68	Cf	67	HIS	CE1-NE2-CD2	-5.18	103.82	109.00
79	CJ	158	PHE	N-CA-CB	5.18	119.25	110.49
85	A7	90	A	O4'-C1'-C2'	-5.18	102.42	107.60
36	B2	406	A	C1'-C2'-O2'	-5.18	104.03	111.80
36	B2	463	G	O4'-C1'-C2'	5.18	112.78	107.60
36	B2	1631	C	C3'-C2'-C1'	5.18	106.48	101.30
41	CO	76	ARG	N-CA-C	5.18	117.33	111.11
44	CM	130	LEU	CA-C-N	5.18	129.44	120.58
44	CM	130	LEU	C-N-CA	5.18	129.44	120.58
47	CI	207	ALA	CA-C-N	5.18	127.65	120.29
47	CI	207	ALA	C-N-CA	5.18	127.65	120.29
52	CS	171	LYS	N-CA-C	5.18	121.26	109.81
82	CG	65	TYR	CB-CA-C	5.18	119.16	110.92
83	A5	778	C	N1-C1'-C2'	5.18	119.77	112.00
83	A5	1069	A	C5'-C4'-C3'	-5.18	108.23	116.00
83	A5	2070	G	C1'-O4'-C4'	-5.18	104.72	109.90
83	A5	3727	A	C3'-C2'-C1'	-5.18	96.32	101.50
83	A5	1720	A	C2'-C3'-O3'	-5.18	105.93	113.70
83	A5	3713	C	C1'-O4'-C4'	5.18	115.08	109.90
85	A7	63	C	P-O3'-C3'	-5.18	112.43	120.20
5	AO	99	ALA	N-CA-CB	5.18	119.24	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	AJ	14	TYR	N-CA-C	5.18	121.83	110.80
36	B2	932	U	O3'-P-O5'	-5.18	96.23	104.00
36	B2	962	G	O3'-P-O5'	-5.18	96.23	104.00
36	B2	1115	C	N1-C1'-C2'	5.18	121.77	114.00
36	B2	1226	A	N9-C1'-C2'	5.18	119.77	112.00
36	B2	1688	U	P-O5'-C5'	5.18	128.67	120.90
38	Cz	92	LYS	CA-C-N	5.18	127.17	120.44
38	Cz	92	LYS	C-N-CA	5.18	127.17	120.44
83	A5	3482	G	C3'-C2'-C1'	5.18	106.48	101.30
83	A5	3542	C	O4'-C1'-N1	5.18	116.27	108.50
84	A9	2	G	O4'-C1'-C2'	5.18	112.78	107.60
5	AO	45	THR	CA-C-N	5.18	129.03	121.31
5	AO	45	THR	C-N-CA	5.18	129.03	121.31
48	CD	148	VAL	N-CA-C	-5.18	105.05	112.35
81	CE	86	GLU	CA-C-N	5.18	131.43	121.54
81	CE	86	GLU	C-N-CA	5.18	131.43	121.54
1	Az	583	ASN	CA-C-N	5.18	131.43	121.54
1	Az	583	ASN	C-N-CA	5.18	131.43	121.54
23	AD	194	TYR	CA-CB-CG	5.18	123.22	113.90
26	AJ	128	ARG	N-CA-CB	5.18	117.52	110.01
30	AF	62	TYR	N-CA-C	-5.18	107.01	113.38
32	AW	94	LEU	N-CA-CB	5.18	117.28	110.29
36	B2	540	U	O4'-C1'-N1	5.18	116.26	108.50
79	CJ	88	LEU	CA-C-N	5.18	127.22	120.28
79	CJ	88	LEU	C-N-CA	5.18	127.22	120.28
80	CH	70	THR	N-CA-CB	5.18	117.52	110.01
81	CE	171	LEU	CA-C-N	5.18	131.02	121.70
81	CE	171	LEU	C-N-CA	5.18	131.02	121.70
83	A5	842	A	O4'-C1'-C2'	-5.18	102.42	107.60
83	A5	936	U	O4'-C1'-C2'	-5.18	102.42	107.60
83	A5	1772	G	O4'-C1'-C2'	5.18	112.78	107.60
83	A5	2923	A	C1'-O4'-C4'	5.18	115.08	109.90
83	A5	3775	A	O4'-C1'-C2'	-5.18	100.62	105.80
86	A8	62	A	C4'-C3'-O3'	-5.18	105.24	113.00
1	Az	807	PRO	CA-C-N	5.17	131.55	121.41
1	Az	807	PRO	C-N-CA	5.17	131.55	121.41
5	AO	104	LYS	N-CA-C	-5.17	102.53	110.14
13	AP	124	LEU	CB-CA-C	-5.17	102.81	110.67
48	CD	142	PHE	CA-CB-CG	-5.17	108.62	113.80
53	CT	98	HIS	CE1-NE2-CD2	-5.17	103.83	109.00
67	Ce	109	GLU	CA-C-N	5.17	127.08	120.56
67	Ce	109	GLU	C-N-CA	5.17	127.08	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	482	U	O4'-C1'-N1	5.17	116.26	108.50
83	A5	2270	G	C1'-C2'-O2'	5.17	116.16	108.40
83	A5	3727	A	O4'-C1'-C2'	5.17	110.97	105.80
27	AE	163	ASP	CA-C-N	5.17	131.28	121.97
27	AE	163	ASP	C-N-CA	5.17	131.28	121.97
36	B2	1822	U	O4'-C1'-N1	5.17	116.26	108.50
83	A5	290	G	O4'-C1'-N9	5.17	116.26	108.50
83	A5	2258	U	O4'-C1'-N1	5.17	116.26	108.50
83	A5	2682	C	C3'-C2'-C1'	5.17	106.47	101.30
83	A5	2710	A	C1'-O4'-C4'	-5.17	104.73	109.90
85	A7	17	C	C1'-O4'-C4'	5.17	115.07	109.90
42	CL	20	HIS	CE1-NE2-CD2	-5.17	103.83	109.00
44	CM	18	GLY	CA-C-N	5.17	125.25	119.87
44	CM	18	GLY	C-N-CA	5.17	125.25	119.87
54	CP	22	LEU	CA-C-N	5.17	129.86	122.21
54	CP	22	LEU	C-N-CA	5.17	129.86	122.21
66	Cd	50	ALA	CA-C-N	5.17	127.63	120.29
66	Cd	50	ALA	C-N-CA	5.17	127.63	120.29
81	CE	197	GLN	CA-C-N	5.17	127.21	120.28
81	CE	197	GLN	C-N-CA	5.17	127.21	120.28
83	A5	991	A	O4'-C1'-C2'	-5.17	102.43	107.60
1	Az	337	LEU	N-CA-C	5.17	117.00	111.36
1	Az	659	ASN	CA-CB-CG	-5.17	107.43	112.60
28	AC	223	THR	N-CA-CB	5.17	118.29	110.28
36	B2	1	A	C1'-C2'-O2'	-5.17	104.05	111.80
36	B2	216	U	O4'-C1'-N1	5.17	116.25	108.50
83	A5	7	A	O4'-C1'-N9	5.17	116.26	108.50
83	A5	290	G	C3'-C2'-C1'	-5.17	96.13	101.30
83	A5	1029	C	C1'-O4'-C4'	-5.17	104.73	109.90
1	Az	71	LYS	N-CA-CB	5.17	119.23	110.49
10	AN	126	ALA	CA-C-N	5.17	127.21	120.28
10	AN	126	ALA	C-N-CA	5.17	127.21	120.28
31	AH	101	LYS	CA-C-N	5.17	126.30	119.84
31	AH	101	LYS	C-N-CA	5.17	126.30	119.84
44	CM	2	PRO	CA-C-N	5.17	131.41	121.54
44	CM	2	PRO	C-N-CA	5.17	131.41	121.54
55	CU	255	LYS	CA-C-N	5.17	127.63	120.29
55	CU	255	LYS	C-N-CA	5.17	127.63	120.29
57	CY	91	ASN	CB-CA-C	-5.17	103.05	111.06
83	A5	628	A	O4'-C1'-C2'	-5.17	102.43	107.60
83	A5	2816	A	O4'-C4'-C3'	-5.17	98.83	104.00
83	A5	3692	G	P-O5'-C5'	5.17	128.65	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	181	THR	N-CA-CB	5.17	117.81	110.16
10	AN	56	ASP	CB-CA-C	-5.17	102.11	110.79
25	Af	135	HIS	ND1-CE1-NE2	5.17	113.57	108.40
36	B2	176	U	P-O5'-C5'	-5.17	113.15	120.90
36	B2	1087	C	C1'-C2'-O2'	5.17	116.15	108.40
39	Cq	183	PHE	CA-CB-CG	5.17	118.97	113.80
55	CU	247	VAL	CA-C-N	5.17	131.41	121.54
55	CU	247	VAL	C-N-CA	5.17	131.41	121.54
83	A5	361	U	O4'-C1'-C2'	-5.17	100.63	105.80
83	A5	2570	C	O4'-C1'-C2'	-5.17	102.43	107.60
83	A5	1064	G	N9-C1'-C2'	5.17	119.75	112.00
28	AC	129	GLU	CA-C-N	5.16	127.07	120.56
28	AC	129	GLU	C-N-CA	5.16	127.07	120.56
36	B2	12	U	O4'-C1'-C2'	-5.16	102.44	107.60
46	CN	46	ASP	CA-CB-CG	-5.16	107.44	112.60
59	CZ	122	LYS	N-CA-C	5.16	116.72	108.41
60	Cr	35	ASN	CB-CA-C	-5.16	101.25	110.70
61	Ch	65	GLN	N-CA-CB	5.16	117.71	110.12
83	A5	2461	A	N9-C1'-C2'	-5.16	104.26	112.00
85	A7	26	C	P-O5'-C5'	5.16	128.65	120.90
36	B2	1427	U	C1'-C2'-O2'	5.16	116.14	108.40
51	CA	130	SER	CA-C-N	5.16	131.53	121.41
51	CA	130	SER	C-N-CA	5.16	131.53	121.41
19	AZ	59	LYS	CA-C-N	5.16	127.62	120.29
19	AZ	59	LYS	C-N-CA	5.16	127.62	120.29
27	AE	209	HIS	ND1-CE1-NE2	5.16	113.56	108.40
31	AH	141	ARG	N-CA-CB	-5.16	102.67	110.77
33	AI	116	HIS	CB-CG-CD2	-5.16	124.49	131.20
40	CK	31	LYS	N-CA-C	5.16	116.90	111.28
45	Ca	76	LEU	N-CA-C	-5.16	106.76	113.16
49	CQ	58	ARG	O-C-N	-5.16	115.39	121.32
52	CS	159	HIS	CE1-NE2-CD2	-5.16	103.84	109.00
54	CP	110	ASP	CA-CB-CG	-5.16	107.44	112.60
74	CC	230	ILE	N-CA-CB	5.16	117.25	111.21
83	A5	3819	C	P-O5'-C5'	-5.16	113.16	120.90
12	AR	12	ALA	CA-C-N	5.16	127.61	120.29
12	AR	12	ALA	C-N-CA	5.16	127.61	120.29
16	AA	158	ASP	O-C-N	-5.16	114.68	122.93
25	Af	152	LYS	CA-C-O	-5.16	112.03	120.80
28	AC	132	THR	CA-C-N	5.16	127.45	120.44
28	AC	132	THR	C-N-CA	5.16	127.45	120.44
30	AF	57	ILE	N-CA-C	-5.16	100.91	108.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	AH	155	HIS	CG-CD2-NE2	5.16	112.36	107.20
36	B2	73	A	P-O5'-C5'	5.16	128.64	120.90
47	CI	177	GLU	CA-C-O	-5.16	115.48	121.15
83	A5	1228	C	C2'-C3'-O3'	5.16	117.24	109.50
83	A5	2628	G	O4'-C1'-N9	5.16	116.24	108.50
83	A5	3682	U	C4'-C3'-C2'	-5.16	97.44	102.60
16	AA	104	THR	CA-C-N	5.16	126.29	119.84
16	AA	104	THR	C-N-CA	5.16	126.29	119.84
36	B2	1181	G	C1'-O4'-C4'	-5.16	104.74	109.90
68	Cf	142	HIS	ND1-CE1-NE2	5.16	113.56	108.40
83	A5	126	G	P-O5'-C5'	-5.16	113.16	120.90
83	A5	3672	U	C5'-C4'-C3'	5.16	123.73	116.00
83	A5	3716	C	O4'-C4'-C3'	-5.16	98.84	104.00
1	Az	388	VAL	CA-C-N	5.16	126.28	119.84
1	Az	388	VAL	C-N-CA	5.16	126.28	119.84
16	AA	142	ILE	CA-C-N	5.16	126.28	119.84
16	AA	142	ILE	C-N-CA	5.16	126.28	119.84
42	CL	64	ARG	N-CA-CB	5.16	117.88	110.20
51	CA	48	ILE	N-CA-CB	5.16	118.53	111.41
52	CS	176	PHE	N-CA-CB	-5.16	103.59	111.74
60	Cr	23	ARG	CA-CB-CG	5.16	124.41	114.10
73	Cl	15	LYS	CA-C-N	5.16	127.61	120.29
73	Cl	15	LYS	C-N-CA	5.16	127.61	120.29
78	Co	39	ARG	CA-C-N	5.16	127.61	120.29
78	Co	39	ARG	C-N-CA	5.16	127.61	120.29
83	A5	1204	C	N1-C1'-C2'	5.16	119.73	112.00
83	A5	1896	A	C3'-C2'-C1'	5.16	106.45	101.30
83	A5	2535	U	O4'-C1'-C2'	-5.16	102.44	107.60
83	A5	3556	A	O4'-C1'-N9	5.16	115.93	108.20
83	A5	3834	A	C4'-C3'-O3'	-5.16	105.27	113.00
1	Az	405	GLY	N-CA-C	5.15	125.39	113.18
36	B2	515	U	P-O5'-C5'	5.15	128.63	120.90
36	B2	1278	C	P-O3'-C3'	5.15	127.93	120.20
38	Cz	156	LYS	N-CA-C	-5.15	102.43	110.42
43	CV	14	PHE	CA-C-N	5.15	131.38	121.54
43	CV	14	PHE	C-N-CA	5.15	131.38	121.54
63	CB	251	VAL	CA-C-N	5.15	127.95	120.79
63	CB	251	VAL	C-N-CA	5.15	127.95	120.79
83	A5	1192	A	O4'-C1'-C2'	-5.15	102.45	107.60
83	A5	1368	A	N9-C1'-C2'	-5.15	106.27	114.00
83	A5	2171	U	N1-C1'-C2'	5.15	119.73	112.00
83	A5	3144	U	C1'-O4'-C4'	5.15	115.05	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	3729	A	O3'-P-O5'	5.15	111.73	104.00
4	AK	86	GLU	N-CA-CB	5.15	119.20	110.49
22	Ac	59	ARG	N-CA-C	5.15	121.78	110.80
38	Cz	32	VAL	N-CA-CB	5.15	116.34	110.72
42	CL	155	PRO	N-CA-C	5.15	123.08	112.47
52	CS	101	THR	N-CA-CB	5.15	118.98	110.69
60	Cr	6	HIS	CE1-NE2-CD2	-5.15	103.85	109.00
64	CF	95	VAL	N-CA-CB	-5.15	104.30	111.41
83	A5	186	G	O3'-P-O5'	5.15	111.73	104.00
83	A5	771	A	C4'-C3'-O3'	-5.15	105.27	113.00
83	A5	1170	U	O4'-C1'-N1	5.15	116.23	108.50
83	A5	1472	C	O4'-C1'-C2'	-5.15	102.45	107.60
83	A5	1940	C	C3'-C2'-C1'	5.15	106.45	101.30
83	A5	2136	U	C4'-C3'-O3'	-5.15	105.27	113.00
83	A5	2490	G	C2'-C3'-O3'	5.15	117.23	109.50
83	A5	2553	U	O4'-C1'-C2'	-5.15	102.45	107.60
83	A5	2562	U	C4'-C3'-O3'	-5.15	105.27	113.00
83	A5	2789	U	C5'-C4'-C3'	-5.15	108.27	116.00
83	A5	2835	G	C5'-C4'-C3'	5.15	123.73	116.00
83	A5	3695	G	C2'-C3'-O3'	5.15	117.23	109.50
29	AG	22	HIS	ND1-CE1-NE2	5.15	113.55	108.40
36	B2	225	G	C2'-C3'-O3'	-5.15	101.77	109.50
36	B2	1545	U	N1-C1'-C2'	-5.15	104.27	112.00
48	CD	248	ARG	CB-CA-C	-5.15	102.24	110.79
83	A5	1057	G	O3'-P-O5'	-5.15	96.27	104.00
83	A5	2037	C	C1'-O4'-C4'	5.15	114.85	109.70
83	A5	2743	C	C3'-C2'-C1'	5.15	106.45	101.30
83	A5	3269	G	N9-C1'-C2'	5.15	119.72	112.00
1	Az	490	VAL	N-CA-C	5.15	120.05	109.34
39	Cq	90	PHE	CA-CB-CG	-5.15	108.65	113.80
83	A5	744	U	O4'-C1'-N1	5.15	116.22	108.50
83	A5	2706	U	C4'-C3'-C2'	-5.15	97.45	102.60
28	AC	168	THR	CA-CB-OG1	5.15	117.32	109.60
36	B2	1052	U	O4'-C1'-C2'	5.15	112.75	107.60
36	B2	1205	U	P-O5'-C5'	5.15	128.62	120.90
36	B2	1427	U	P-O5'-C5'	5.15	128.62	120.90
36	B2	1836	C	C1'-O4'-C4'	-5.15	104.75	109.90
47	CI	28	ASP	CA-C-N	5.15	125.39	119.83
47	CI	28	ASP	C-N-CA	5.15	125.39	119.83
68	Cf	150	ILE	CB-CA-C	-5.15	104.61	110.73
74	CC	197	GLY	CA-C-N	5.15	127.18	120.28
74	CC	197	GLY	C-N-CA	5.15	127.18	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
79	CJ	11	ASP	CB-CA-C	5.15	120.31	110.17
83	A5	29	U	P-O3'-C3'	5.15	127.92	120.20
83	A5	2546	G	N9-C1'-C2'	5.15	119.72	112.00
86	A8	120	G	N9-C1'-C2'	5.15	119.72	112.00
1	Az	306	GLY	CA-C-N	5.15	131.23	121.97
1	Az	306	GLY	C-N-CA	5.15	131.23	121.97
36	B2	375	A	C1'-O4'-C4'	-5.15	104.75	109.90
36	B2	1218	G	C3'-C2'-C1'	5.15	106.45	101.30
83	A5	444	C	C4'-C3'-O3'	-5.15	105.28	113.00
1	Az	802	HIS	N-CA-CB	5.14	120.34	111.13
34	AQ	80	VAL	CA-C-N	5.14	127.13	120.44
34	AQ	80	VAL	C-N-CA	5.14	127.13	120.44
36	B2	518	G	N9-C1'-C2'	5.14	119.72	112.00
44	CM	49	GLU	N-CA-CB	5.14	118.80	110.41
52	CS	117	HIS	CA-CB-CG	-5.14	108.66	113.80
83	A5	258	U	O4'-C1'-N1	5.14	116.22	108.50
83	A5	2879	A	O4'-C1'-N9	5.14	116.22	108.50
83	A5	3254	U	N1-C1'-C2'	5.14	119.72	112.00
36	B2	1178	A	O5'-C5'-C4'	-5.14	103.99	111.70
36	B2	1358	G	C1'-O4'-C4'	-5.14	104.76	109.90
45	Ca	53	TYR	N-CA-CB	5.14	117.83	110.06
52	CS	26	PRO	N-CA-C	5.14	120.36	114.03
61	Ch	85	LYS	N-CA-CB	5.14	119.18	110.49
63	CB	49	TYR	CA-CB-CG	-5.14	104.64	113.90
83	A5	208	U	C1'-C2'-O2'	5.14	116.11	108.40
83	A5	1127	C	O4'-C1'-C2'	-5.14	102.46	107.60
83	A5	3327	U	O4'-C1'-C2'	-5.14	102.46	107.60
83	A5	3339	U	O4'-C1'-N1	5.14	116.22	108.50
32	AW	28	ARG	O-C-N	-5.14	115.72	121.79
36	B2	951	A	O4'-C1'-N9	5.14	116.21	108.50
36	B2	1987	G	O4'-C1'-N9	5.14	115.91	108.20
48	CD	12	TYR	CA-C-N	5.14	127.17	120.28
48	CD	12	TYR	C-N-CA	5.14	127.17	120.28
31	AH	109	PRO	CA-C-N	5.14	131.36	121.54
31	AH	109	PRO	C-N-CA	5.14	131.36	121.54
36	B2	373	U	C4'-C3'-C2'	-5.14	97.46	102.60
36	B2	1807	C	N1-C1'-C2'	5.14	119.71	112.00
45	Ca	144	VAL	N-CA-CB	5.14	119.71	111.23
47	CI	91	LEU	N-CA-CB	5.14	118.92	110.90
68	Cf	43	LYS	CA-C-O	-5.14	113.16	120.51
81	CE	22	VAL	CA-C-N	5.14	128.82	120.60
81	CE	22	VAL	C-N-CA	5.14	128.82	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	561	A	O4'-C1'-C2'	-5.14	102.46	107.60
83	A5	1496	U	C4'-C3'-O3'	-5.14	105.29	113.00
83	A5	3018	U	O3'-P-O5'	5.14	111.71	104.00
83	A5	3563	G	C1'-O4'-C4'	-5.14	104.76	109.90
6	AX	129	SER	N-CA-CB	5.14	119.17	110.49
83	A5	2224	A	C3'-C2'-C1'	5.14	106.44	101.30
85	A7	57	C	N1-C1'-C2'	5.14	119.71	112.00
1	Az	835	PRO	CA-C-O	-5.14	111.25	120.60
36	B2	1937	U	N1-C1'-C2'	5.14	119.70	112.00
36	B2	1993	U	C1'-O4'-C4'	5.14	115.04	109.90
43	CV	8	GLY	N-CA-C	-5.14	107.45	114.64
43	CV	21	PRO	CA-C-N	5.14	131.22	121.97
43	CV	21	PRO	C-N-CA	5.14	131.22	121.97
44	CM	151	LEU	CA-C-O	5.14	126.19	120.90
49	CQ	48	LEU	CA-C-N	5.14	128.12	120.31
49	CQ	48	LEU	C-N-CA	5.14	128.12	120.31
83	A5	216	U	N1-C1'-C2'	5.14	121.70	114.00
2	Ag	214	ASP	CA-C-N	5.13	131.35	121.54
2	Ag	214	ASP	C-N-CA	5.13	131.35	121.54
26	AJ	101	LEU	N-CA-CB	5.13	118.55	110.23
35	Ah	114	ASN	CA-C-N	5.13	131.47	121.41
35	Ah	114	ASN	C-N-CA	5.13	131.47	121.41
36	B2	81	U	N1-C1'-C2'	5.13	119.70	112.00
36	B2	265	A	O4'-C4'-C3'	-5.13	100.97	106.10
36	B2	1030	C	O4'-C1'-C2'	-5.13	102.47	107.60
36	B2	1188	G	C2'-C3'-O3'	5.13	117.20	109.50
79	CJ	52	GLN	O-C-N	-5.13	116.84	121.31
83	A5	142	G	O3'-P-O5'	-5.13	96.30	104.00
83	A5	1567	G	C3'-C2'-C1'	-5.13	96.17	101.30
83	A5	2994	C	P-O5'-C5'	5.13	128.60	120.90
83	A5	3429	A	O4'-C1'-N9	5.13	116.20	108.50
36	B2	459	U	N1-C1'-C2'	5.13	121.70	114.00
36	B2	1448	A	P-O3'-C3'	5.13	127.90	120.20
42	CL	108	SER	CA-C-N	5.13	127.67	120.28
42	CL	108	SER	C-N-CA	5.13	127.67	120.28
54	CP	174	LYS	CA-C-N	5.13	127.11	120.44
54	CP	174	LYS	C-N-CA	5.13	127.11	120.44
81	CE	120	ALA	N-CA-C	5.13	121.73	110.80
15	AB	223	LYS	CA-C-N	5.13	126.25	119.84
15	AB	223	LYS	C-N-CA	5.13	126.25	119.84
19	AZ	103	HIS	CG-CD2-NE2	5.13	112.33	107.20
36	B2	539	U	O4'-C1'-C2'	-5.13	102.47	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	1050	A	O4'-C1'-N9	5.13	115.90	108.20
37	BC	13	C	O4'-C1'-C2'	-5.13	102.47	107.60
83	A5	568	A	O4'-C1'-C2'	5.13	112.73	107.60
83	A5	2810	A	O4'-C1'-C2'	-5.13	102.47	107.60
83	A5	3600	G	C1'-O4'-C4'	-5.13	104.77	109.90
83	A5	3891	U	C2'-C3'-O3'	5.13	117.20	109.50
2	Ag	318	HIS	CE1-NE2-CD2	-5.13	103.87	109.00
16	AA	97	THR	N-CA-C	5.13	116.34	109.83
36	B2	41	A	C1'-O4'-C4'	5.13	115.03	109.90
36	B2	581	C	O4'-C1'-C2'	-5.13	102.47	107.60
83	A5	685	A	C1'-O4'-C4'	-5.13	104.77	109.90
2	Ag	24	ASN	CA-C-N	5.13	124.82	119.64
2	Ag	24	ASN	C-N-CA	5.13	124.82	119.64
16	AA	175	TRP	CE2-CD2-CE3	5.13	123.93	118.80
18	AY	104	THR	CA-C-N	5.13	131.34	121.54
18	AY	104	THR	C-N-CA	5.13	131.34	121.54
26	AJ	135	HIS	CE1-NE2-CD2	-5.13	103.87	109.00
36	B2	72	A	C1'-O4'-C4'	5.13	114.83	109.70
45	Ca	15	HIS	CE1-NE2-CD2	-5.13	103.87	109.00
62	Cb	17	HIS	ND1-CE1-NE2	5.13	113.53	108.40
83	A5	826	A	C3'-C2'-C1'	5.13	106.43	101.30
83	A5	1521	G	O4'-C1'-C2'	-5.13	100.67	105.80
83	A5	3160	A	C1'-O4'-C4'	-5.13	104.77	109.90
85	A7	65	C	P-O3'-C3'	5.13	127.89	120.20
1	Az	112	HIS	CA-CB-CG	5.13	118.93	113.80
1	Az	360	GLU	CB-CA-C	-5.13	102.14	110.85
16	AA	86	ALA	CA-C-N	5.13	127.70	120.42
16	AA	86	ALA	C-N-CA	5.13	127.70	120.42
36	B2	155	U	N1-C1'-C2'	-5.13	104.31	112.00
36	B2	550	C	N1-C1'-C2'	-5.13	104.31	112.00
36	B2	974	A	O4'-C1'-N9	5.13	116.19	108.50
36	B2	1449	U	C2'-C3'-O3'	-5.13	106.01	113.70
53	CT	126	VAL	CA-C-N	5.13	131.33	121.54
53	CT	126	VAL	C-N-CA	5.13	131.33	121.54
69	Cg	38	ASN	CA-C-N	5.13	125.37	119.83
69	Cg	38	ASN	C-N-CA	5.13	125.37	119.83
70	Ci	15	HIS	CE1-NE2-CD2	-5.13	103.87	109.00
81	CE	108	HIS	CE1-NE2-CD2	-5.13	103.87	109.00
83	A5	738	A	P-O3'-C3'	5.13	127.89	120.20
83	A5	1803	C	O4'-C1'-C2'	-5.13	102.47	107.60
83	A5	3892	A	N9-C1'-C2'	-5.13	106.31	114.00
83	A5	3928	A	C3'-C2'-C1'	-5.13	96.17	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	630	A	O3'-P-O5'	-5.12	96.31	104.00
71	Cj	71	ARG	N-CA-C	5.12	116.55	111.07
82	CG	242	TRP	N-CA-CB	5.12	118.36	110.21
83	A5	554	U	N1-C1'-C2'	5.12	119.69	112.00
86	A8	34	C	C4'-C3'-O3'	-5.12	105.31	113.00
1	Az	642	GLY	N-CA-C	5.12	125.32	113.18
13	AP	31	MET	CA-C-N	5.12	126.24	119.84
13	AP	31	MET	C-N-CA	5.12	126.24	119.84
36	B2	581	C	C3'-C2'-C1'	5.12	106.42	101.30
36	B2	998	U	C5'-C4'-O4'	-5.12	102.11	109.80
36	B2	1701	C	C3'-C2'-C1'	5.12	106.42	101.30
39	Cq	6	ARG	N-CA-CB	5.12	119.15	110.49
52	CS	39	VAL	N-CA-CB	5.12	119.41	110.65
81	CE	29	GLY	N-CA-C	5.12	120.43	111.46
83	A5	893	U	O4'-C1'-N1	5.12	116.19	108.50
83	A5	2122	G	P-O5'-C5'	5.12	128.59	120.90
83	A5	2810	A	C3'-C2'-C1'	5.12	106.42	101.30
83	A5	3732	U	O3'-P-O5'	-5.12	96.31	104.00
83	A5	3738	U	O4'-C1'-C2'	-5.12	102.48	107.60
83	A5	3806	C	C1'-C2'-O2'	-5.12	104.11	111.80
4	AK	33	SER	O-C-N	5.12	129.40	122.59
9	Ad	38	ILE	CA-C-O	-5.12	115.37	121.05
26	AJ	172	GLY	CA-C-N	5.12	130.92	121.70
26	AJ	172	GLY	C-N-CA	5.12	130.92	121.70
36	B2	258	A	O3'-P-O5'	-5.12	96.32	104.00
36	B2	290	A	O4'-C1'-C2'	-5.12	102.48	107.60
48	CD	135	VAL	CA-C-N	5.12	127.98	120.71
48	CD	135	VAL	C-N-CA	5.12	127.98	120.71
67	Ce	32	HIS	CG-CD2-NE2	5.12	112.32	107.20
83	A5	262	G	P-O3'-C3'	5.12	127.88	120.20
16	AA	119	PRO	N-CA-C	5.12	118.92	111.03
20	Aa	7	ASN	N-CA-C	-5.12	106.62	112.92
36	B2	1758	A	N9-C1'-C2'	5.12	119.68	112.00
51	CA	30	ARG	CA-C-N	5.12	131.32	121.54
51	CA	30	ARG	C-N-CA	5.12	131.32	121.54
61	Ch	1	MET	CA-C-N	5.12	131.19	121.97
61	Ch	1	MET	C-N-CA	5.12	131.19	121.97
78	Co	2	VAL	N-CA-CB	5.12	117.91	111.46
79	CJ	177	GLY	O-C-N	5.12	127.28	122.77
83	A5	3225	C	O4'-C1'-N1	5.12	116.18	108.50
8	AS	124	ARG	NE-CZ-NH2	5.12	123.81	119.20
13	AP	113	GLU	N-CA-CB	5.12	118.07	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	30	G	C1'-O4'-C4'	-5.12	104.78	109.90
36	B2	916	U	N1-C1'-C2'	5.12	119.68	112.00
36	B2	1114	A	O4'-C1'-C2'	-5.12	102.48	107.60
36	B2	1140	G	C3'-C2'-C1'	5.12	106.42	101.30
36	B2	1466	A	O4'-C1'-C2'	-5.12	102.48	107.60
44	CM	19	PRO	CA-C-N	5.12	127.56	120.29
44	CM	19	PRO	C-N-CA	5.12	127.56	120.29
83	A5	1129	A	O4'-C1'-C2'	5.12	112.72	107.60
83	A5	2013	C	N1-C1'-C2'	5.12	119.68	112.00
83	A5	2525	C	O4'-C1'-C2'	-5.12	102.48	107.60
83	A5	2714	U	O4'-C1'-C2'	-5.12	102.48	107.60
83	A5	3255	G	C3'-C2'-C1'	-5.12	96.18	101.30
83	A5	3675	A	C3'-C2'-C1'	5.12	106.62	101.50
83	A5	3760	A	O4'-C1'-C2'	-5.12	102.48	107.60
85	A7	29	C	O4'-C1'-C2'	-5.12	102.48	107.60
86	A8	120	G	C1'-C2'-O2'	5.12	116.08	108.40
3	AU	33	SER	N-CA-CB	5.12	117.64	110.12
14	AT	96	ALA	CA-C-N	5.12	127.09	120.44
14	AT	96	ALA	C-N-CA	5.12	127.09	120.44
36	B2	1426	A	O4'-C1'-C2'	-5.12	102.48	107.60
36	B2	1698	G	O4'-C1'-N9	5.12	116.17	108.50
62	Cb	15	LYS	CA-C-N	5.12	127.14	120.28
62	Cb	15	LYS	C-N-CA	5.12	127.14	120.28
64	CF	53	ASN	CB-CA-C	-5.12	102.30	110.79
74	CC	38	ASP	N-CA-CB	5.12	117.73	110.16
83	A5	3925	G	C5'-C4'-O4'	5.12	116.78	109.10
13	AP	67	LYS	CA-C-N	5.12	127.56	120.29
13	AP	67	LYS	C-N-CA	5.12	127.56	120.29
36	B2	142	A	P-O3'-C3'	5.12	127.87	120.20
36	B2	1179	A	O4'-C1'-C2'	5.12	110.92	105.80
53	CT	22	HIS	CG-CD2-NE2	5.12	112.31	107.20
83	A5	5	A	C1'-C2'-O2'	5.12	116.07	108.40
83	A5	1888	A	P-O3'-C3'	5.12	127.87	120.20
83	A5	2683	G	O4'-C1'-C2'	5.12	110.92	105.80
37	BC	53	A	N9-C1'-C2'	5.11	119.67	112.00
38	Cz	140	HIS	CA-CB-CG	5.11	118.91	113.80
46	CN	47	LYS	N-CA-C	-5.11	107.17	113.41
50	CR	33	ALA	CA-C-N	5.11	127.64	120.28
50	CR	33	ALA	C-N-CA	5.11	127.64	120.28
52	CS	132	ILE	CA-C-O	-5.11	116.13	119.15
74	CC	285	PRO	CA-C-N	5.11	127.64	120.28
74	CC	285	PRO	C-N-CA	5.11	127.64	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	559	A	O4'-C1'-N9	5.11	116.17	108.50
83	A5	2479	A	C3'-C2'-C1'	-5.11	96.19	101.30
83	A5	2744	C	C3'-C2'-C1'	5.11	106.41	101.30
83	A5	2847	G	C1'-O4'-C4'	-5.11	104.79	109.90
83	A5	3163	U	N1-C1'-C2'	5.11	119.67	112.00
83	A5	3413	C	O4'-C1'-N1	5.11	116.17	108.50
3	AU	73	GLY	N-CA-C	5.11	125.30	113.18
30	AF	183	ARG	CB-CA-C	-5.11	103.09	110.96
37	BC	51	G	O4'-C1'-N9	5.11	116.17	108.50
57	CY	27	ARG	CB-CA-C	-5.11	102.30	110.79
1	Az	355	MET	CB-CA-C	-5.11	102.63	110.81
25	Af	152	LYS	N-CA-CB	5.11	119.19	110.50
36	B2	1940	G	O4'-C1'-C2'	5.11	112.71	107.60
46	CN	132	VAL	CA-C-N	5.11	129.62	122.93
46	CN	132	VAL	C-N-CA	5.11	129.62	122.93
48	CD	229	LEU	N-CA-C	-5.11	106.29	112.88
83	A5	883	U	C4'-C3'-O3'	-5.11	105.33	113.00
83	A5	1290	U	O4'-C1'-C2'	-5.11	102.49	107.60
83	A5	1911	C	P-O3'-C3'	5.11	127.86	120.20
83	A5	2915	U	P-O5'-C5'	-5.11	113.23	120.90
83	A5	2924	A	O4'-C1'-C2'	-5.11	102.49	107.60
1	Az	4	PHE	CA-C-N	5.11	131.30	121.54
1	Az	4	PHE	C-N-CA	5.11	131.30	121.54
1	Az	319	LYS	CA-C-N	5.11	127.13	120.28
1	Az	319	LYS	C-N-CA	5.11	127.13	120.28
26	AJ	78	LEU	CA-C-N	5.11	127.08	120.44
26	AJ	78	LEU	C-N-CA	5.11	127.08	120.44
31	AH	10	PRO	CA-C-N	5.11	130.90	121.70
31	AH	10	PRO	C-N-CA	5.11	130.90	121.70
36	B2	1345	U	C2'-C3'-O3'	-5.11	106.04	113.70
44	CM	151	LEU	CB-CA-C	-5.11	103.03	110.95
56	CX	239	ASP	CA-CB-CG	-5.11	107.49	112.60
63	CB	74	GLU	CA-C-N	5.11	128.33	120.82
63	CB	74	GLU	C-N-CA	5.11	128.33	120.82
82	CG	40	ARG	CA-C-N	5.11	126.23	119.84
82	CG	40	ARG	C-N-CA	5.11	126.23	119.84
83	A5	2844	G	N9-C1'-C2'	5.11	119.66	112.00
83	A5	3872	C	C4'-C3'-O3'	-5.11	105.34	113.00
86	A8	7	A	O4'-C1'-C2'	-5.11	102.49	107.60
13	AP	28	LEU	N-CA-C	5.11	116.85	111.28
23	AD	20	LYS	CA-C-N	5.11	128.07	120.31
23	AD	20	LYS	C-N-CA	5.11	128.07	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	2	U	N1-C1'-C2'	5.11	121.66	114.00
37	BC	64	G	C4'-C3'-C2'	-5.11	97.49	102.60
63	CB	212	GLY	CA-C-O	-5.11	116.87	121.47
70	Ci	57	VAL	CA-C-N	5.11	127.46	120.46
70	Ci	57	VAL	C-N-CA	5.11	127.46	120.46
83	A5	102	G	N9-C1'-C2'	5.11	119.66	112.00
83	A5	192	U	O3'-P-O5'	5.11	111.66	104.00
83	A5	195	A	O4'-C1'-C2'	-5.11	102.49	107.60
83	A5	669	U	P-O5'-C5'	-5.11	113.24	120.90
83	A5	2114	U	O4'-C1'-N1	5.11	116.16	108.50
1	Az	209	ASP	O-C-N	-5.11	115.45	121.32
13	AP	126	TYR	CA-C-N	5.11	134.26	121.80
13	AP	126	TYR	C-N-CA	5.11	134.26	121.80
34	AQ	107	LYS	CB-CA-C	-5.11	102.86	110.88
2	Ag	233	HIS	CG-CD2-NE2	5.10	112.30	107.20
36	B2	442	A	C1'-O4'-C4'	5.10	115.00	109.90
36	B2	451	C	C5'-C4'-C3'	-5.10	108.34	116.00
40	CK	149	HIS	CE1-NE2-CD2	-5.10	103.90	109.00
83	A5	1139	U	C3'-C2'-C1'	5.10	106.40	101.30
83	A5	1925	U	O4'-C1'-N1	5.10	116.16	108.50
83	A5	3933	G	C1'-O4'-C4'	-5.10	104.80	109.90
19	AZ	62	PRO	O-C-N	-5.10	115.75	122.64
33	AI	107	THR	CA-C-O	-5.10	113.17	120.16
39	Cq	35	VAL	N-CA-C	5.10	115.25	108.11
40	CK	86	LYS	CB-CA-C	-5.10	100.27	110.42
42	CL	40	LYS	CA-C-N	5.10	127.12	120.28
42	CL	40	LYS	C-N-CA	5.10	127.12	120.28
53	CT	154	PRO	N-CA-C	5.10	122.98	112.47
83	A5	925	C	C4'-C3'-C2'	-5.10	97.50	102.60
83	A5	1131	C	C1'-O4'-C4'	-5.10	104.80	109.90
83	A5	1941	A	N9-C1'-C2'	5.10	119.65	112.00
83	A5	2203	A	O4'-C1'-C2'	-5.10	102.50	107.60
36	B2	87	C	C3'-C2'-C1'	5.10	106.40	101.30
49	CQ	33	ARG	N-CA-CB	5.10	117.80	110.20
83	A5	3220	U	C4'-C3'-O3'	5.10	117.05	109.40
36	B2	513	A	C5'-C4'-C3'	-5.10	108.35	116.00
80	CH	91	ARG	N-CA-CB	5.10	118.15	110.30
83	A5	402	A	P-O5'-C5'	-5.10	113.25	120.90
83	A5	937	G	N9-C1'-C2'	5.10	119.65	112.00
83	A5	1182	A	O4'-C1'-N9	5.10	115.85	108.20
83	A5	3698	A	O4'-C1'-C2'	-5.10	102.50	107.60
1	Az	222	HIS	ND1-CE1-NE2	5.10	113.50	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	841	LEU	CB-CA-C	-5.10	100.73	109.65
7	AM	45	ALA	CA-C-N	5.10	128.06	120.31
7	AM	45	ALA	C-N-CA	5.10	128.06	120.31
7	AM	134	HIS	CA-CB-CG	5.10	118.90	113.80
37	BC	12	G	C1'-O4'-C4'	-5.10	104.80	109.90
41	CO	110	ILE	N-CA-C	5.10	119.89	108.88
49	CQ	171	GLY	CA-C-N	5.10	127.95	120.71
49	CQ	171	GLY	C-N-CA	5.10	127.95	120.71
51	CA	64	ARG	CB-CA-C	-5.10	100.92	109.53
82	CG	258	LEU	CA-C-N	5.10	127.53	120.29
82	CG	258	LEU	C-N-CA	5.10	127.53	120.29
83	A5	1630	G	O4'-C1'-C2'	5.10	112.70	107.60
83	A5	2393	A	O3'-P-O5'	5.10	111.65	104.00
83	A5	3517	U	O4'-C1'-C2'	-5.10	102.50	107.60
83	A5	3776	A	O4'-C1'-C2'	-5.10	102.50	107.60
85	A7	111	U	N1-C1'-C2'	5.10	119.65	112.00
17	AV	68	SER	CA-C-N	5.10	127.44	120.46
17	AV	68	SER	C-N-CA	5.10	127.44	120.46
23	AD	129	MET	CA-C-N	5.10	127.11	120.28
23	AD	129	MET	C-N-CA	5.10	127.11	120.28
36	B2	950	U	P-O5'-C5'	5.10	128.54	120.90
9	Ad	14	TYR	N-CA-CB	5.09	119.10	110.49
36	B2	1945	A	C3'-C2'-C1'	5.09	106.39	101.30
71	Cj	27	TYR	CA-C-N	5.09	128.58	121.24
71	Cj	27	TYR	C-N-CA	5.09	128.58	121.24
71	Cj	73	ARG	CA-C-N	5.09	127.11	120.28
71	Cj	73	ARG	C-N-CA	5.09	127.11	120.28
81	CE	78	ARG	CA-C-N	5.09	126.21	119.84
81	CE	78	ARG	C-N-CA	5.09	126.21	119.84
83	A5	112	C	O4'-C1'-N1	5.09	116.14	108.50
83	A5	126	G	O4'-C1'-N9	5.09	116.14	108.50
83	A5	300	A	C3'-C2'-C1'	5.09	106.39	101.30
83	A5	372	U	C3'-C2'-C1'	5.09	106.39	101.30
83	A5	567	A	O4'-C1'-N9	5.09	116.14	108.50
83	A5	1591	U	O4'-C1'-N1	5.09	116.14	108.50
83	A5	1912	G	O4'-C1'-C2'	-5.09	102.50	107.60
83	A5	2084	U	O4'-C1'-N1	5.09	116.14	108.50
36	B2	397	G	O4'-C1'-C2'	-5.09	102.51	107.60
36	B2	767	C	P-O5'-C5'	5.09	127.64	120.00
36	B2	1199	G	C1'-O4'-C4'	-5.09	104.81	109.90
40	CK	113	ALA	CA-C-N	5.09	127.52	120.29
40	CK	113	ALA	C-N-CA	5.09	127.52	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
80	CH	78	MET	N-CA-CB	5.09	117.70	110.16
83	A5	2391	G	P-O3'-C3'	5.09	127.84	120.20
36	B2	110	U	P-O5'-C5'	5.09	128.54	120.90
36	B2	554	U	O4'-C1'-N1	5.09	116.14	108.50
36	B2	1528	G	P-O3'-C3'	5.09	127.84	120.20
39	Cq	68	HIS	CG-CD2-NE2	5.09	112.29	107.20
52	CS	100	LEU	CA-C-N	5.09	130.31	122.93
52	CS	100	LEU	C-N-CA	5.09	130.31	122.93
83	A5	360	A	O4'-C1'-N9	5.09	115.84	108.20
83	A5	568	A	N9-C1'-C2'	5.09	119.64	112.00
83	A5	663	U	O4'-C1'-N1	5.09	116.14	108.50
83	A5	1324	C	C2'-C3'-O3'	5.09	117.14	109.50
83	A5	1501	A	C1'-O4'-C4'	5.09	114.79	109.70
85	A7	4	A	P-O5'-C5'	-5.09	113.26	120.90
1	Az	131	VAL	N-CA-CB	5.09	118.17	111.25
1	Az	470	THR	CA-CB-OG1	5.09	117.23	109.60
16	AA	198	VAL	CA-C-N	5.09	131.13	121.97
16	AA	198	VAL	C-N-CA	5.09	131.13	121.97
18	AY	30	HIS	CE1-NE2-CD2	-5.09	103.91	109.00
18	AY	48	MET	N-CA-C	-5.09	107.73	114.04
28	AC	155	ASN	CA-CB-CG	-5.09	107.51	112.60
36	B2	427	G	P-O3'-C3'	5.09	127.83	120.20
37	BC	18	G	P-O3'-C3'	5.09	127.84	120.20
83	A5	77	A	N9-C1'-C2'	-5.09	106.37	114.00
83	A5	1001	A	C3'-C2'-C1'	5.09	106.59	101.50
83	A5	2814	U	O4'-C1'-N1	5.09	116.13	108.50
83	A5	3157	U	O4'-C1'-C2'	-5.09	100.71	105.80
19	AZ	63	ALA	N-CA-C	5.09	125.25	111.00
36	B2	1075	U	O4'-C1'-C2'	-5.09	102.51	107.60
36	B2	1102	U	O4'-C1'-C2'	-5.09	102.51	107.60
53	CT	92	ARG	CA-C-N	5.09	129.09	120.64
53	CT	92	ARG	C-N-CA	5.09	129.09	120.64
83	A5	1241	C	C2'-C3'-O3'	5.09	117.13	109.50
83	A5	1576	U	O4'-C1'-C2'	-5.09	102.51	107.60
16	AA	158	ASP	CB-CA-C	-5.09	104.04	111.77
26	AJ	149	VAL	CB-CA-C	5.09	119.63	111.29
36	B2	1617	A	O4'-C1'-C2'	-5.09	102.51	107.60
57	CY	7	VAL	CB-CA-C	5.09	116.74	111.09
57	CY	110	LYS	CB-CA-C	-5.09	102.21	109.84
80	CH	102	VAL	CA-C-N	5.09	131.25	121.54
80	CH	102	VAL	C-N-CA	5.09	131.25	121.54
83	A5	1400	A	O4'-C1'-C2'	-5.09	102.51	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	2604	U	O4'-C1'-N1	5.09	116.13	108.50
83	A5	3296	C	O4'-C1'-C2'	-5.09	102.51	107.60
83	A5	3550	C	C3'-C2'-C1'	5.09	106.39	101.30
83	A5	3687	A	C1'-O4'-C4'	-5.09	104.61	109.70
36	B2	252	A	C4'-C3'-C2'	-5.08	97.52	102.60
36	B2	1282	A	C4'-C3'-C2'	-5.08	97.52	102.60
83	A5	1711	C	C2'-C3'-O3'	5.08	117.13	109.50
83	A5	2482	C	C1'-O4'-C4'	5.08	114.98	109.90
4	AK	53	ARG	CA-C-N	5.08	131.38	121.41
4	AK	53	ARG	C-N-CA	5.08	131.38	121.41
36	B2	1167	U	O4'-C4'-C3'	5.08	109.08	104.00
36	B2	1762	A	O4'-C1'-C2'	-5.08	102.52	107.60
37	BC	34	A	O4'-C1'-C2'	-5.08	102.52	107.60
51	CA	83	HIS	CE1-NE2-CD2	-5.08	103.92	109.00
83	A5	391	A	C3'-C2'-C1'	5.08	106.38	101.30
83	A5	488	U	N1-C1'-C2'	5.08	119.63	112.00
83	A5	741	C	O4'-C1'-C2'	5.08	112.68	107.60
83	A5	1524	U	C1'-O4'-C4'	5.08	114.98	109.90
86	A8	33	U	O4'-C1'-C2'	5.08	112.68	107.60
2	Ag	77	ASN	N-CA-CB	5.08	117.77	110.20
18	AY	118	VAL	N-CA-CB	5.08	117.16	111.21
24	Ae	104	ALA	CB-CA-C	-5.08	102.87	110.90
26	AJ	56	LYS	CA-C-N	5.08	127.50	120.29
26	AJ	56	LYS	C-N-CA	5.08	127.50	120.29
30	AF	107	ASN	N-CA-C	5.08	117.67	110.10
65	Cc	49	ALA	O-C-N	-5.08	116.81	122.75
83	A5	1405	U	O4'-C1'-C2'	-5.08	102.52	107.60
83	A5	2578	U	O4'-C1'-C2'	-5.08	102.52	107.60
83	A5	2631	G	O4'-C1'-C2'	5.08	112.68	107.60
31	AH	64	ILE	CA-C-O	-5.08	113.14	119.95
33	AI	22	ARG	CA-C-N	5.08	131.24	121.54
33	AI	22	ARG	C-N-CA	5.08	131.24	121.54
83	A5	182	G	O4'-C1'-N9	5.08	116.12	108.50
83	A5	940	U	O4'-C1'-N1	5.08	116.12	108.50
2	Ag	308	ILE	N-CA-CB	5.08	117.86	111.46
36	B2	112	U	P-O3'-C3'	5.08	127.82	120.20
36	B2	405	A	O4'-C1'-C2'	-5.08	100.72	105.80
48	CD	163	MET	CG-SD-CE	-5.08	89.73	100.90
64	CF	104	VAL	N-CA-CB	5.08	118.42	111.41
75	Cm	126	LYS	CA-C-N	5.08	131.24	121.54
75	Cm	126	LYS	C-N-CA	5.08	131.24	121.54
80	CH	12	ILE	CA-C-N	5.08	124.98	119.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
80	CH	12	ILE	C-N-CA	5.08	124.98	119.85
82	CG	164	HIS	CE1-NE2-CD2	-5.08	103.92	109.00
83	A5	1288	U	C3'-C2'-C1'	5.08	106.58	101.50
83	A5	2062	A	C1'-O4'-C4'	5.08	114.78	109.70
83	A5	2076	U	P-O5'-C5'	5.08	128.52	120.90
83	A5	2097	U	O4'-C1'-C2'	-5.08	102.52	107.60
83	A5	2532	U	O4'-C1'-N1	5.08	116.12	108.50
36	B2	211	U	O3'-P-O5'	5.08	111.61	104.00
65	Cc	60	ILE	CB-CA-C	5.08	120.48	112.26
83	A5	1383	A	P-O3'-C3'	5.08	127.81	120.20
36	B2	1315	U	O4'-C1'-C2'	-5.08	100.72	105.80
44	CM	119	ARG	CB-CA-C	-5.08	99.38	109.99
58	CW	64	GLU	N-CA-C	5.08	121.61	110.80
63	CB	361	GLU	CB-CA-C	-5.08	101.77	109.89
67	Ce	35	ARG	N-CA-CB	5.08	119.04	110.77
83	A5	1649	G	N9-C1'-C2'	-5.08	104.39	112.00
83	A5	2068	A	O4'-C4'-C3'	-5.08	98.92	104.00
83	A5	3178	G	N9-C1'-C2'	5.08	119.61	112.00
83	A5	3888	U	O4'-C1'-N1	5.08	116.11	108.50
36	B2	962	G	C1'-O4'-C4'	-5.07	104.83	109.90
36	B2	1278	C	C3'-C2'-C1'	5.07	106.57	101.50
46	CN	194	ARG	N-CA-CB	5.07	117.36	110.01
47	CI	108	ALA	O-C-N	5.07	128.62	122.48
51	CA	108	PRO	CA-C-N	5.07	128.87	121.31
51	CA	108	PRO	C-N-CA	5.07	128.87	121.31
52	CS	56	LYS	O-C-N	-5.07	116.26	123.01
74	CC	267	PHE	CB-CA-C	-5.07	104.83	112.09
83	A5	172	C	O4'-C1'-C2'	-5.07	102.53	107.60
83	A5	3184	U	O4'-C1'-C2'	-5.07	102.53	107.60
83	A5	3573	C	P-O5'-C5'	-5.07	113.29	120.90
83	A5	3624	C	N1-C1'-C2'	5.07	119.61	112.00
83	A5	3881	A	N9-C1'-C2'	5.07	119.61	112.00
2	Ag	148	HIS	ND1-CE1-NE2	5.07	113.47	108.40
5	AO	99	ALA	CA-C-O	-5.07	113.26	120.51
36	B2	1446	G	N9-C1'-C2'	5.07	119.61	112.00
83	A5	220	G	C1'-O4'-C4'	-5.07	104.83	109.90
85	A7	24	U	O5'-C5'-C4'	-5.07	103.89	111.50
1	Az	26	ALA	N-CA-CB	5.07	119.42	111.56
8	AS	125	HIS	CB-CA-C	-5.07	101.42	110.70
13	AP	11	LYS	CA-C-N	5.07	131.23	121.54
13	AP	11	LYS	C-N-CA	5.07	131.23	121.54
28	AC	192	VAL	CA-C-O	-5.07	113.16	119.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	AW	85	ASP	N-CA-C	-5.07	106.78	113.17
33	AI	137	ASP	CA-C-N	5.07	127.41	120.46
33	AI	137	ASP	C-N-CA	5.07	127.41	120.46
36	B2	1378	C	C3'-C2'-C1'	5.07	106.37	101.30
36	B2	1915	A	C1'-O4'-C4'	5.07	114.97	109.90
81	CE	63	LYS	CA-C-N	5.07	131.23	121.54
81	CE	63	LYS	C-N-CA	5.07	131.23	121.54
83	A5	138	A	C1'-C2'-O2'	5.07	116.01	108.40
83	A5	452	A	O4'-C1'-N9	5.07	116.11	108.50
83	A5	1739	U	C3'-C2'-C1'	5.07	106.37	101.30
83	A5	2268	G	C4'-C3'-O3'	-5.07	105.39	113.00
83	A5	3371	G	C3'-C2'-C1'	-5.07	96.23	101.30
36	B2	1772	C	C4'-C3'-C2'	-5.07	97.53	102.60
52	CS	24	GLN	N-CA-C	5.07	118.39	111.39
83	A5	498	U	N1-C1'-C2'	5.07	119.60	112.00
83	A5	1953	G	C4'-C3'-O3'	5.07	117.00	109.40
86	A8	87	A	O5'-C5'-C4'	-5.07	103.90	111.50
1	Az	349	VAL	CA-C-N	5.07	127.48	120.29
1	Az	349	VAL	C-N-CA	5.07	127.48	120.29
36	B2	142	A	O4'-C1'-C2'	-5.07	100.73	105.80
36	B2	1686	C	C1'-O4'-C4'	-5.07	104.83	109.90
42	CL	210	LYS	CA-C-N	5.07	130.82	121.70
42	CL	210	LYS	C-N-CA	5.07	130.82	121.70
60	Cr	39	VAL	CB-CA-C	5.07	119.60	111.29
83	A5	102	G	C1'-O4'-C4'	-5.07	104.83	109.90
83	A5	3691	A	N9-C1'-C2'	5.07	119.60	112.00
85	A7	74	A	O3'-P-O5'	-5.07	96.40	104.00
1	Az	745	ILE	N-CA-CB	5.07	116.48	110.55
33	AI	78	ILE	CA-C-N	5.07	127.33	120.44
33	AI	78	ILE	C-N-CA	5.07	127.33	120.44
36	B2	189	C	C2'-C3'-O3'	5.07	117.10	109.50
36	B2	437	G	N9-C1'-C2'	5.07	119.60	112.00
36	B2	600	A	P-O3'-C3'	-5.07	112.60	120.20
36	B2	1706	U	C5'-C4'-C3'	-5.07	107.60	115.20
37	BC	27	U	O4'-C1'-N1	5.07	116.10	108.50
39	Cq	71	ASN	CA-CB-CG	-5.07	107.53	112.60
45	Ca	9	THR	CA-C-N	5.07	127.03	120.44
45	Ca	9	THR	C-N-CA	5.07	127.03	120.44
46	CN	49	ARG	CA-C-O	-5.07	115.97	121.44
68	Cf	91	ARG	CA-C-N	5.07	130.76	122.81
68	Cf	91	ARG	C-N-CA	5.07	130.76	122.81
73	Cl	48	LYS	N-CA-C	5.07	121.59	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
81	CE	178	LYS	CA-C-N	5.07	131.22	121.54
81	CE	178	LYS	C-N-CA	5.07	131.22	121.54
83	A5	2708	C	O4'-C1'-C2'	-5.07	102.53	107.60
83	A5	3499	G	O4'-C4'-C3'	-5.07	98.93	104.00
83	A5	3840	G	P-O3'-C3'	-5.07	112.60	120.20
30	AF	185	ALA	CB-CA-C	-5.06	102.90	110.90
33	AI	202	LYS	CA-C-N	5.06	128.01	120.31
33	AI	202	LYS	C-N-CA	5.06	128.01	120.31
74	CC	129	SER	CA-C-N	5.06	127.48	120.29
74	CC	129	SER	C-N-CA	5.06	127.48	120.29
83	A5	3831	C	O4'-C1'-N1	5.06	116.10	108.50
85	A7	36	C	N1-C1'-C2'	5.06	119.60	112.00
29	AG	138	ALA	CA-C-N	5.06	127.32	120.44
29	AG	138	ALA	C-N-CA	5.06	127.32	120.44
36	B2	266	U	C1'-C2'-O2'	5.06	119.39	111.80
36	B2	420	U	C1'-O4'-C4'	5.06	114.96	109.90
36	B2	1653	C	O4'-C1'-N1	5.06	116.09	108.50
36	B2	1874	C	C5'-C4'-C3'	-5.06	107.61	115.20
37	BC	28	G	O4'-C1'-N9	5.06	116.09	108.50
59	CZ	46	ILE	N-CA-CB	5.06	117.13	111.21
68	Cf	139	LEU	CA-C-N	5.06	125.14	119.87
68	Cf	139	LEU	C-N-CA	5.06	125.14	119.87
69	Cg	32	TYR	CB-CG-CD2	-5.06	113.21	120.80
83	A5	1025	U	O4'-C1'-N1	5.06	116.09	108.50
83	A5	1178	U	C2'-C3'-O3'	5.06	117.09	109.50
83	A5	1765	U	C1'-C2'-O2'	-5.06	104.21	111.80
83	A5	2469	U	C4'-C3'-O3'	-5.06	105.41	113.00
83	A5	2790	G	N9-C1'-C2'	5.06	119.59	112.00
83	A5	3136	U	C3'-C2'-C1'	-5.06	96.24	101.30
83	A5	3666	C	C1'-O4'-C4'	-5.06	104.84	109.90
41	CO	52	ASN	CA-CB-CG	-5.06	107.54	112.60
83	A5	255	C	O4'-C1'-C2'	-5.06	102.54	107.60
83	A5	661	G	C1'-O4'-C4'	-5.06	104.84	109.90
23	AD	214	GLU	CA-C-N	5.06	124.67	119.56
23	AD	214	GLU	C-N-CA	5.06	124.67	119.56
31	AH	123	VAL	CB-CA-C	-5.06	105.39	112.02
36	B2	373	U	O4'-C1'-C2'	-5.06	102.54	107.60
36	B2	857	G	O4'-C1'-N9	5.06	116.09	108.50
36	B2	1551	C	O4'-C1'-C2'	-5.06	102.54	107.60
36	B2	1796	C	C1'-C2'-O2'	5.06	115.99	108.40
47	CI	208	ALA	CA-C-N	5.06	127.06	120.28
47	CI	208	ALA	C-N-CA	5.06	127.06	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	304	U	C3'-C2'-C1'	-5.06	96.24	101.30
83	A5	812	U	C3'-C2'-C1'	5.06	106.36	101.30
83	A5	1416	U	O4'-C1'-C2'	-5.06	102.54	107.60
83	A5	1704	A	O4'-C1'-C2'	-5.06	102.54	107.60
83	A5	2018	C	C1'-O4'-C4'	-5.06	104.84	109.90
83	A5	2938	C	C5'-C4'-C3'	5.06	122.49	114.90
1	Az	298	ILE	CA-C-N	5.06	125.71	119.99
1	Az	298	ILE	C-N-CA	5.06	125.71	119.99
1	Az	663	ASP	CB-CA-C	-5.06	102.40	110.79
28	AC	64	ILE	CB-CA-C	5.06	118.97	112.14
36	B2	156	U	C5'-C4'-C3'	5.06	123.59	116.00
36	B2	953	A	C5'-C4'-C3'	-5.06	108.41	116.00
60	Cr	85	ASP	N-CA-C	-5.06	101.38	109.07
83	A5	473	A	O3'-P-O5'	-5.06	96.42	104.00
83	A5	475	U	O4'-C1'-C2'	-5.06	102.54	107.60
85	A7	94	C	C3'-C2'-C1'	5.06	106.36	101.30
1	Az	843	LYS	N-CA-C	5.06	121.57	110.80
15	AB	211	HIS	CE1-NE2-CD2	-5.06	103.94	109.00
27	AE	57	ASN	CA-C-N	5.06	126.71	120.34
27	AE	57	ASN	C-N-CA	5.06	126.71	120.34
56	CX	182	PRO	CA-C-N	5.06	127.06	120.28
56	CX	182	PRO	C-N-CA	5.06	127.06	120.28
83	A5	815	A	C1'-C2'-O2'	5.06	115.98	108.40
83	A5	1747	A	O4'-C1'-C2'	-5.06	102.54	107.60
83	A5	3421	C	O4'-C1'-C2'	-5.06	102.54	107.60
83	A5	3915	U	C4'-C3'-O3'	5.06	116.98	109.40
1	Az	815	SER	O-C-N	-5.05	115.87	122.59
6	AX	103	ALA	N-CA-C	-5.05	101.69	109.52
24	Ae	77	SER	N-CA-CB	5.05	119.03	110.49
29	AG	153	VAL	CA-C-N	5.05	131.19	121.54
29	AG	153	VAL	C-N-CA	5.05	131.19	121.54
36	B2	465	A	C2'-C3'-O3'	-5.05	106.12	113.70
45	Ca	22	ARG	N-CA-C	5.05	117.45	111.33
63	CB	203	LYS	CA-C-N	5.05	126.88	120.51
63	CB	203	LYS	C-N-CA	5.05	126.88	120.51
74	CC	123	ARG	CA-C-N	5.05	127.47	120.29
74	CC	123	ARG	C-N-CA	5.05	127.47	120.29
80	CH	173	PHE	N-CA-CB	5.05	117.64	110.46
83	A5	188	G	C5'-C4'-C3'	5.05	123.58	116.00
83	A5	1744	U	O4'-C1'-C2'	-5.05	102.55	107.60
83	A5	2888	A	O5'-C5'-C4'	-5.05	103.92	111.50
36	B2	551	C	P-O3'-C3'	5.05	127.78	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	CO	139	GLN	CA-C-N	5.05	127.38	120.46
41	CO	139	GLN	C-N-CA	5.05	127.38	120.46
51	CA	76	PHE	N-CA-C	-5.05	102.71	110.14
1	Az	293	TYR	CA-C-N	5.05	129.53	122.05
1	Az	293	TYR	C-N-CA	5.05	129.53	122.05
23	AD	48	THR	N-CA-C	-5.05	100.67	108.90
36	B2	89	C	O4'-C1'-C2'	-5.05	102.55	107.60
36	B2	441	A	C1'-O4'-C4'	5.05	114.95	109.90
36	B2	826	U	C1'-O4'-C4'	-5.05	104.85	109.90
36	B2	885	U	C1'-O4'-C4'	5.05	114.95	109.90
36	B2	1826	C	C3'-C2'-C1'	5.05	106.55	101.50
38	Cz	17	LEU	CA-C-N	5.05	128.68	120.60
38	Cz	17	LEU	C-N-CA	5.05	128.68	120.60
56	CX	162	ARG	N-CA-C	5.05	116.64	108.41
74	CC	33	ALA	CA-C-N	5.05	126.15	119.84
74	CC	33	ALA	C-N-CA	5.05	126.15	119.84
83	A5	1332	C	O4'-C1'-C2'	-5.05	102.55	107.60
83	A5	1670	G	C1'-C2'-O2'	-5.05	104.22	111.80
83	A5	1881	C	O4'-C1'-C2'	-5.05	102.55	107.60
83	A5	3294	A	N9-C1'-C2'	-5.05	104.42	112.00
83	A5	3837	A	C4'-C3'-C2'	-5.05	97.55	102.60
9	Ad	5	THR	CA-C-N	5.05	131.19	121.54
9	Ad	5	THR	C-N-CA	5.05	131.19	121.54
16	AA	149	ASN	N-CA-C	-5.05	104.02	110.53
36	B2	69	A	O4'-C1'-C2'	-5.05	102.55	107.60
36	B2	297	A	O4'-C1'-C2'	-5.05	102.55	107.60
36	B2	826	U	C5'-C4'-C3'	-5.05	108.43	116.00
41	CO	74	HIS	CE1-NE2-CD2	-5.05	103.95	109.00
42	CL	197	LYS	CB-CA-C	-5.05	102.41	110.79
58	CW	103	ALA	CA-C-N	5.05	127.05	120.28
58	CW	103	ALA	C-N-CA	5.05	127.05	120.28
63	CB	87	VAL	CB-CA-C	5.05	116.07	110.62
68	Cf	38	LYS	N-CA-C	5.05	121.56	110.80
80	CH	40	HIS	CE1-NE2-CD2	-5.05	103.95	109.00
83	A5	17	C	O4'-C1'-C2'	-5.05	102.55	107.60
83	A5	582	A	O4'-C1'-C2'	-5.05	102.55	107.60
83	A5	1481	G	P-O3'-C3'	-5.05	112.62	120.20
83	A5	3299	U	O4'-C1'-C2'	-5.05	102.55	107.60
40	CK	138	SER	N-CA-C	-5.05	106.81	113.12
60	Cr	123	ARG	CA-C-O	-5.05	114.40	120.10
83	A5	1387	G	O4'-C1'-C2'	-5.05	102.55	107.60
83	A5	1451	G	O4'-C1'-N9	5.05	115.77	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	Az	134	ASP	CA-C-N	5.05	127.04	120.28
1	Az	134	ASP	C-N-CA	5.05	127.04	120.28
5	AO	107	THR	CA-C-N	5.05	125.83	119.98
5	AO	107	THR	C-N-CA	5.05	125.83	119.98
6	AX	112	VAL	N-CA-C	5.05	119.84	109.34
13	AP	45	ARG	CA-C-N	5.05	127.04	120.28
13	AP	45	ARG	C-N-CA	5.05	127.04	120.28
26	AJ	58	ALA	CA-C-N	5.05	127.04	120.28
26	AJ	58	ALA	C-N-CA	5.05	127.04	120.28
36	B2	919	A	N9-C1'-C2'	-5.05	104.43	112.00
36	B2	1269	U	O4'-C1'-N1	5.05	116.07	108.50
43	CV	49	LEU	N-CA-CB	5.05	117.56	109.28
58	CW	53	VAL	CA-C-N	5.05	127.00	120.44
58	CW	53	VAL	C-N-CA	5.05	127.00	120.44
83	A5	315	G	P-O5'-C5'	-5.05	113.33	120.90
83	A5	625	C	N1-C1'-C2'	5.05	119.57	112.00
83	A5	1627	U	O4'-C1'-C2'	-5.05	102.55	107.60
83	A5	3752	G	P-O5'-C5'	-5.05	113.33	120.90
1	Az	782	PHE	N-CA-CB	5.04	117.33	110.01
20	Aa	63	VAL	CA-C-N	5.04	134.11	121.80
20	Aa	63	VAL	C-N-CA	5.04	134.11	121.80
63	CB	204	PRO	N-CA-CB	5.04	108.07	102.72
83	A5	152	A	P-O3'-C3'	-5.04	112.63	120.20
83	A5	1428	G	O4'-C1'-N9	5.04	116.07	108.50
3	AU	46	LYS	CA-C-N	5.04	127.00	120.44
3	AU	46	LYS	C-N-CA	5.04	127.00	120.44
8	AS	139	THR	O-C-N	5.04	126.28	120.58
13	AP	112	PRO	N-CA-C	-5.04	108.92	114.92
28	AC	254	ASP	CA-CB-CG	-5.04	107.56	112.60
39	Cq	5	ASP	CA-C-N	5.04	131.18	121.54
39	Cq	5	ASP	C-N-CA	5.04	131.18	121.54
43	CV	140	ALA	N-CA-CB	5.04	117.97	110.40
45	Ca	68	HIS	CG-CD2-NE2	5.04	112.24	107.20
47	CI	92	HIS	CE1-NE2-CD2	-5.04	103.96	109.00
83	A5	438	G	C2'-C3'-O3'	5.04	121.27	113.70
83	A5	1083	A	O3'-P-O5'	-5.04	96.43	104.00
83	A5	1519	A	O4'-C1'-C2'	-5.04	102.56	107.60
83	A5	1706	G	O4'-C1'-N9	5.04	116.06	108.50
83	A5	1724	A	P-O3'-C3'	5.04	127.77	120.20
83	A5	3925	G	P-O3'-C3'	5.04	127.77	120.20
19	AZ	73	SER	CA-C-N	5.04	127.04	120.28
19	AZ	73	SER	C-N-CA	5.04	127.04	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	Ca	113	LEU	CA-C-N	5.04	131.29	121.41
45	Ca	113	LEU	C-N-CA	5.04	131.29	121.41
72	Ck	63	GLY	CA-C-N	5.04	129.55	122.09
72	Ck	63	GLY	C-N-CA	5.04	129.55	122.09
83	A5	354	A	O4'-C1'-C2'	5.04	112.64	107.60
83	A5	496	U	O4'-C1'-N1	5.04	116.06	108.50
83	A5	1043	G	C1'-O4'-C4'	-5.04	104.86	109.90
83	A5	2028	A	P-O3'-C3'	5.04	127.76	120.20
83	A5	2219	U	O4'-C1'-N1	5.04	116.06	108.50
36	B2	1912	G	O4'-C4'-C3'	-5.04	98.96	104.00
36	B2	1960	A	C3'-C2'-C1'	5.04	106.54	101.50
37	BC	19	A	O4'-C1'-C2'	-5.04	102.56	107.60
78	Co	2	VAL	N-CA-C	-5.04	100.49	107.80
83	A5	133	U	O5'-C5'-C4'	5.04	119.06	111.50
19	AZ	48	LEU	N-CA-CB	5.04	119.01	110.49
32	AW	124	LYS	N-CA-C	-5.04	101.19	109.40
36	B2	35	U	N1-C1'-C2'	5.04	119.56	112.00
36	B2	1848	U	O4'-C1'-N1	5.04	116.06	108.50
38	Cz	141	GLN	N-CA-CB	5.04	118.89	110.53
42	CL	151	GLY	O-C-N	-5.04	116.73	121.77
74	CC	56	ALA	CA-C-N	5.04	127.25	120.50
74	CC	56	ALA	C-N-CA	5.04	127.25	120.50
83	A5	203	A	O4'-C4'-C3'	-5.04	98.96	104.00
84	A9	1	U	O4'-C1'-N1	5.04	116.06	108.50
2	Ag	160	ASN	CA-CB-CG	-5.04	107.56	112.60
5	AO	147	ARG	N-CA-C	-5.04	107.29	112.93
36	B2	422	A	C4'-C3'-O3'	5.04	116.96	109.40
41	CO	47	GLY	CA-C-N	5.04	131.16	121.54
41	CO	47	GLY	C-N-CA	5.04	131.16	121.54
83	A5	3514	C	C1'-O4'-C4'	5.04	114.94	109.90
1	Az	115	PHE	CA-CB-CG	5.04	118.84	113.80
7	AM	79	HIS	CA-C-N	5.04	130.10	123.05
7	AM	79	HIS	C-N-CA	5.04	130.10	123.05
16	AA	7	ILE	N-CA-C	-5.04	107.01	112.80
18	AY	57	PHE	N-CA-C	5.04	121.53	110.80
38	Cz	179	LEU	CA-C-N	5.04	127.03	120.28
38	Cz	179	LEU	C-N-CA	5.04	127.03	120.28
46	CN	21	TYR	N-CA-CB	5.04	118.09	110.28
53	CT	58	HIS	CG-CD2-NE2	5.04	112.24	107.20
83	A5	587	U	C1'-C2'-O2'	5.04	115.95	108.40
83	A5	995	G	C3'-C2'-C1'	-5.04	96.26	101.30
83	A5	1018	C	O4'-C1'-C2'	-5.04	102.56	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1217	U	C1'-O4'-C4'	-5.04	104.86	109.90
83	A5	1498	C	O4'-C1'-C2'	-5.04	102.56	107.60
83	A5	2487	C	C1'-O4'-C4'	-5.04	104.86	109.90
83	A5	3425	G	C4'-C3'-C2'	-5.04	97.56	102.60
1	Az	551	HIS	ND1-CE1-NE2	5.03	113.43	108.40
36	B2	231	G	N9-C1'-C2'	-5.03	104.45	112.00
36	B2	381	C	N1-C1'-C2'	5.03	119.55	112.00
45	Ca	15	HIS	CA-CB-CG	-5.03	108.77	113.80
48	CD	94	ASN	N-CA-C	5.03	117.02	110.53
72	Ck	61	PRO	CA-C-N	5.03	124.72	119.64
72	Ck	61	PRO	C-N-CA	5.03	124.72	119.64
83	A5	1406	G	C1'-O4'-C4'	-5.03	104.67	109.70
83	A5	1728	G	C3'-C2'-C1'	-5.03	96.27	101.30
83	A5	2835	G	O4'-C1'-N9	5.03	116.05	108.50
83	A5	3844	U	C2'-C3'-O3'	5.03	117.05	109.50
36	B2	324	U	P-O3'-C3'	-5.03	112.65	120.20
36	B2	651	C	C1'-O4'-C4'	-5.03	104.87	109.90
36	B2	655	A	P-O3'-C3'	5.03	127.75	120.20
42	CL	95	ILE	CA-C-N	5.03	131.15	121.54
42	CL	95	ILE	C-N-CA	5.03	131.15	121.54
50	CR	130	ASN	CA-C-N	5.03	131.03	121.97
50	CR	130	ASN	C-N-CA	5.03	131.03	121.97
63	CB	70	LYS	N-CA-C	-5.03	101.67	109.72
64	CF	141	PRO	N-CA-CB	5.03	108.14	103.41
83	A5	832	U	O4'-C1'-C2'	-5.03	102.57	107.60
83	A5	3028	A	C4'-C3'-O3'	5.03	117.55	110.00
83	A5	3615	G	C1'-O4'-C4'	-5.03	104.87	109.90
16	AA	15	ILE	CA-C-N	5.03	127.02	120.28
16	AA	15	ILE	C-N-CA	5.03	127.02	120.28
36	B2	979	G	C1'-O4'-C4'	-5.03	104.87	109.90
36	B2	1296	A	N9-C1'-C2'	5.03	119.55	112.00
36	B2	1425	U	C1'-O4'-C4'	5.03	114.93	109.90
36	B2	1844	C	C3'-C2'-C1'	5.03	106.33	101.30
40	CK	7	PRO	CA-C-N	5.03	131.15	121.54
40	CK	7	PRO	C-N-CA	5.03	131.15	121.54
83	A5	937	G	P-O5'-C5'	-5.03	113.35	120.90
17	AV	41	PRO	CA-C-N	5.03	127.27	120.38
17	AV	41	PRO	C-N-CA	5.03	127.27	120.38
23	AD	28	THR	CA-C-N	5.03	127.28	120.44
23	AD	28	THR	C-N-CA	5.03	127.28	120.44
54	CP	39	MET	CA-C-N	5.03	125.31	119.93
54	CP	39	MET	C-N-CA	5.03	125.31	119.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	Cr	57	PRO	CA-C-N	5.03	130.75	121.70
60	Cr	57	PRO	C-N-CA	5.03	130.75	121.70
74	CC	95	PHE	CB-CA-C	-5.03	100.41	110.42
83	A5	1183	U	O4'-C1'-C2'	-5.03	102.57	107.60
83	A5	1978	G	O4'-C1'-N9	5.03	116.04	108.50
1	Az	316	LYS	N-CA-CB	5.03	118.99	110.49
13	AP	60	ILE	N-CA-CB	5.03	118.12	110.58
36	B2	718	C	P-O5'-C5'	5.03	128.44	120.90
36	B2	1604	A	C3'-C2'-C1'	5.03	106.33	101.30
46	CN	142	ILE	CA-C-O	5.03	123.74	118.96
48	CD	95	TYR	N-CA-C	-5.03	105.80	111.28
64	CF	50	LYS	N-CA-CB	5.03	117.30	110.01
3	AU	108	ILE	CA-C-N	5.03	134.06	121.80
3	AU	108	ILE	C-N-CA	5.03	134.06	121.80
36	B2	981	C	N1-C1'-C2'	5.03	119.54	112.00
38	Cz	94	ASN	CA-CB-CG	-5.03	107.57	112.60
58	CW	63	ILE	N-CA-C	5.03	119.80	109.34
68	Cf	96	TYR	N-CA-CB	5.03	119.50	111.56
83	A5	1250	C	C3'-C2'-C1'	-5.03	96.27	101.30
86	A8	109	U	P-O5'-C5'	5.03	128.44	120.90
1	Az	534	GLY	CA-C-N	5.02	127.52	120.28
1	Az	534	GLY	C-N-CA	5.02	127.52	120.28
30	AF	69	PHE	CA-C-N	5.02	131.13	121.54
30	AF	69	PHE	C-N-CA	5.02	131.13	121.54
33	AI	106	ALA	N-CA-C	5.02	121.50	110.80
36	B2	438	C	C1'-O4'-C4'	-5.02	104.88	109.90
36	B2	591	C	C1'-C2'-O2'	5.02	115.94	108.40
36	B2	1662	C	C5'-C4'-C3'	5.02	123.54	116.00
83	A5	245	G	O4'-C1'-C2'	5.02	112.62	107.60
83	A5	648	U	O4'-C1'-N1	5.02	116.04	108.50
83	A5	662	A	O4'-C1'-N9	5.02	115.74	108.20
83	A5	1668	U	C5'-C4'-C3'	5.02	123.54	116.00
83	A5	3687	A	C1'-C2'-O2'	5.02	119.34	111.80
1	Az	181	THR	N-CA-C	-5.02	105.89	111.36
1	Az	483	MET	CA-C-N	5.02	131.13	121.54
1	Az	483	MET	C-N-CA	5.02	131.13	121.54
15	AB	216	ARG	N-CA-C	5.02	121.50	110.80
18	AY	6	ALA	CA-C-N	5.02	131.13	121.54
18	AY	6	ALA	C-N-CA	5.02	131.13	121.54
19	AZ	56	LYS	CA-C-N	5.02	126.97	120.44
19	AZ	56	LYS	C-N-CA	5.02	126.97	120.44
36	B2	209	A	O3'-P-O5'	-5.02	96.47	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	B2	496	C	N1-C1'-C2'	5.02	119.53	112.00
36	B2	1113	A	O4'-C1'-C2'	-5.02	100.78	105.80
36	B2	1778	A	O3'-P-O5'	-5.02	96.47	104.00
38	Cz	190	LEU	CA-C-N	5.02	127.55	120.42
38	Cz	190	LEU	C-N-CA	5.02	127.55	120.42
42	CL	82	GLY	N-CA-C	-5.02	108.43	114.66
83	A5	322	G	C2'-C3'-O3'	-5.02	101.97	109.50
83	A5	1757	A	C3'-C2'-C1'	5.02	106.52	101.50
83	A5	3265	C	O4'-C1'-C2'	-5.02	102.58	107.60
83	A5	3353	C	C3'-C2'-C1'	5.02	106.32	101.30
83	A5	3576	G	C3'-C2'-C1'	-5.02	96.28	101.30
83	A5	3695	G	O4'-C1'-N9	5.02	115.73	108.20
83	A5	3811	A	C1'-O4'-C4'	-5.02	104.88	109.90
83	A5	3893	A	C1'-C2'-O2'	5.02	115.93	108.40
85	A7	80	U	C1'-C2'-O2'	5.02	115.94	108.40
36	B2	868	C	C5'-C4'-C3'	5.02	123.53	116.00
36	B2	1582	C	C4'-C3'-C2'	5.02	107.62	102.60
36	B2	1733	G	C3'-C2'-C1'	5.02	106.32	101.30
52	CS	110	TYR	CA-C-N	5.02	126.97	120.44
52	CS	110	TYR	C-N-CA	5.02	126.97	120.44
52	CS	118	ARG	CA-C-N	5.02	131.13	121.54
52	CS	118	ARG	C-N-CA	5.02	131.13	121.54
57	CY	100	HIS	ND1-CE1-NE2	5.02	113.42	108.40
74	CC	126	ALA	CA-C-N	5.02	127.42	120.29
74	CC	126	ALA	C-N-CA	5.02	127.42	120.29
9	Ad	28	HIS	CE1-NE2-CD2	-5.02	103.98	109.00
19	AZ	66	LEU	CA-C-N	5.02	131.00	121.97
19	AZ	66	LEU	C-N-CA	5.02	131.00	121.97
20	Aa	17	HIS	CE1-NE2-CD2	-5.02	103.98	109.00
36	B2	512	U	P-O3'-C3'	5.02	127.73	120.20
36	B2	881	U	C4'-C3'-C2'	-5.02	97.58	102.60
36	B2	1052	U	C3'-C2'-C1'	-5.02	96.28	101.30
36	B2	1189	G	C4'-C3'-O3'	-5.02	105.47	113.00
36	B2	1424	A	N9-C1'-C2'	-5.02	104.47	112.00
36	B2	1829	C	P-O3'-C3'	5.02	127.73	120.20
58	CW	37	GLU	CB-CA-C	-5.02	103.00	110.88
63	CB	25	HIS	CE1-NE2-CD2	-5.02	103.98	109.00
63	CB	388	PHE	CA-CB-CG	-5.02	108.78	113.80
83	A5	823	U	O4'-C1'-C2'	-5.02	102.58	107.60
83	A5	1492	C	N1-C1'-C2'	5.02	119.53	112.00
86	A8	57	G	N9-C1'-C2'	-5.02	106.47	114.00
15	AB	44	ILE	CA-C-N	-5.02	113.39	120.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	AB	44	ILE	C-N-CA	-5.02	113.39	120.97
49	CQ	6	ASN	N-CA-CB	5.02	115.97	110.35
63	CB	320	PHE	N-CA-C	5.02	120.90	109.81
71	Cj	90	VAL	N-CA-CB	5.02	117.78	111.46
82	CG	201	ARG	CA-C-N	5.02	127.31	120.54
82	CG	201	ARG	C-N-CA	5.02	127.31	120.54
83	A5	341	A	O4'-C1'-C2'	-5.02	102.58	107.60
83	A5	466	U	P-O5'-C5'	5.02	128.43	120.90
83	A5	568	A	C1'-O4'-C4'	-5.02	104.88	109.90
83	A5	1755	U	P-O5'-C5'	5.02	128.43	120.90
83	A5	1877	A	C1'-O4'-C4'	-5.02	104.88	109.90
83	A5	1937	G	C1'-O4'-C4'	5.02	114.92	109.90
83	A5	1979	A	N9-C1'-C2'	5.02	119.53	112.00
83	A5	2500	G	C3'-C2'-C1'	5.02	106.32	101.30
83	A5	2902	C	N1-C1'-C2'	5.02	119.53	112.00
14	AT	88	HIS	CA-C-O	-5.02	114.89	119.76
20	Aa	55	GLU	CA-C-N	5.02	127.41	120.29
20	Aa	55	GLU	C-N-CA	5.02	127.41	120.29
79	CJ	69	ARG	N-CA-C	5.02	117.31	110.24
27	AE	94	LYS	CA-C-N	5.01	130.73	121.70
27	AE	94	LYS	C-N-CA	5.01	130.73	121.70
36	B2	37	U	N1-C1'-C2'	5.01	119.52	112.00
36	B2	1387	A	O4'-C1'-C2'	-5.01	102.59	107.60
37	BC	49	G	C3'-C2'-C1'	-5.01	96.29	101.30
83	A5	1301	A	O3'-P-O5'	-5.01	96.48	104.00
83	A5	1888	A	C1'-C2'-O2'	5.01	115.92	108.40
83	A5	2082	U	O4'-C1'-C2'	-5.01	102.59	107.60
36	B2	24	U	C4'-C3'-O3'	-5.01	105.48	113.00
36	B2	1099	U	N1-C1'-C2'	5.01	119.52	112.00
63	CB	3	HIS	ND1-CE1-NE2	5.01	113.41	108.40
83	A5	1793	C	O4'-C4'-C3'	-5.01	101.09	106.10
83	A5	2503	G	P-O3'-C3'	-5.01	112.68	120.20
83	A5	2724	C	C3'-C2'-C1'	5.01	106.31	101.30
83	A5	3882	C	P-O3'-C3'	-5.01	112.68	120.20
1	Az	451	PRO	N-CA-C	5.01	118.96	111.14
25	Af	146	LEU	CA-C-N	5.01	127.97	120.90
25	Af	146	LEU	C-N-CA	5.01	127.97	120.90
36	B2	1724	U	O4'-C1'-N1	5.01	116.02	108.50
51	CA	139	HIS	CE1-NE2-CD2	-5.01	103.99	109.00
60	Cr	14	ASN	N-CA-C	-5.01	107.56	113.97
82	CG	263	ALA	CA-C-N	5.01	127.00	120.28
82	CG	263	ALA	C-N-CA	5.01	127.00	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	398	U	C1'-O4'-C4'	-5.01	104.89	109.90
83	A5	1416	U	O4'-C1'-N1	5.01	116.02	108.50
83	A5	1715	G	C1'-O4'-C4'	-5.01	104.89	109.90
83	A5	2081	U	O4'-C1'-N1	5.01	116.02	108.50
83	A5	3538	G	C1'-O4'-C4'	-5.01	104.89	109.90
83	A5	3772	U	O4'-C1'-N1	5.01	116.02	108.50
2	Ag	295	ASP	CA-C-N	5.01	131.23	121.41
2	Ag	295	ASP	C-N-CA	5.01	131.23	121.41
28	AC	104	ARG	CA-C-N	5.01	130.56	122.29
28	AC	104	ARG	C-N-CA	5.01	130.56	122.29
36	B2	604	C	C3'-C2'-C1'	5.01	106.31	101.30
36	B2	1612	C	O4'-C1'-N1	5.01	116.01	108.50
41	CO	192	GLU	O-C-N	-5.01	115.56	121.32
53	CT	12	ARG	N-CA-CB	5.01	117.48	110.12
63	CB	227	GLY	N-CA-C	-5.01	103.82	110.58
83	A5	984	U	C1'-C2'-O2'	5.01	119.31	111.80
83	A5	2898	U	O4'-C1'-C2'	-5.01	102.59	107.60
83	A5	3878	U	C5'-C4'-C3'	-5.01	107.69	115.20
9	Ad	20	CYS	CA-C-N	5.01	131.10	121.54
9	Ad	20	CYS	C-N-CA	5.01	131.10	121.54
49	CQ	106	THR	N-CA-CB	5.01	117.39	109.83
83	A5	3481	G	O4'-C1'-N9	5.01	115.71	108.20
85	A7	39	C	C2'-C3'-O3'	5.01	121.21	113.70
4	AK	64	HIS	CG-CD2-NE2	5.01	112.21	107.20
13	AP	68	LYS	CA-C-N	5.01	127.40	120.29
13	AP	68	LYS	C-N-CA	5.01	127.40	120.29
28	AC	207	THR	N-CA-CB	5.01	120.84	111.53
33	AI	95	THR	CA-C-N	5.01	128.98	121.72
33	AI	95	THR	C-N-CA	5.01	128.98	121.72
33	AI	140	THR	CA-C-N	5.01	131.10	121.54
33	AI	140	THR	C-N-CA	5.01	131.10	121.54
36	B2	1313	U	C2'-C3'-O3'	5.01	121.21	113.70
36	B2	1332	G	C5'-C4'-C3'	-5.01	107.69	115.20
36	B2	1371	C	C4'-C3'-O3'	5.01	116.91	109.40
46	CN	164	LEU	N-CA-C	-5.01	107.22	113.38
49	CQ	160	HIS	CG-CD2-NE2	5.01	112.21	107.20
59	CZ	102	ASP	N-CA-CB	5.01	116.09	110.03
78	Co	21	HIS	CG-CD2-NE2	5.01	112.21	107.20
83	A5	724	U	O4'-C1'-N1	5.01	116.01	108.50
83	A5	1970	G	N9-C1'-C2'	5.01	119.51	112.00
83	A5	2039	G	C1'-O4'-C4'	-5.01	104.89	109.90
85	A7	107	C	C4'-C3'-O3'	-5.01	105.49	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	AN	41	GLY	CA-C-N	5.00	127.92	120.31
10	AN	41	GLY	C-N-CA	5.00	127.92	120.31
83	A5	3001	A	O4'-C4'-C3'	5.00	109.00	104.00
23	AD	146	GLY	CA-C-N	5.00	128.32	120.82
23	AD	146	GLY	C-N-CA	5.00	128.32	120.82
31	AH	116	ARG	CA-C-N	5.00	127.92	120.31
31	AH	116	ARG	C-N-CA	5.00	127.92	120.31
36	B2	538	C	N1-C1'-C2'	5.00	119.50	112.00
41	CO	155	ILE	CA-CB-CG1	5.00	118.91	110.40
44	CM	134	THR	CA-C-N	5.00	130.71	121.70
44	CM	134	THR	C-N-CA	5.00	130.71	121.70
51	CA	109	GLU	N-CA-C	5.00	117.36	110.35
68	Cf	40	SER	N-CA-C	5.00	121.46	110.80
74	CC	291	ASP	CA-C-N	5.00	127.91	120.31
74	CC	291	ASP	C-N-CA	5.00	127.91	120.31
83	A5	1283	A	O4'-C1'-C2'	-5.00	102.60	107.60
83	A5	1774	C	O4'-C1'-C2'	-5.00	102.60	107.60
83	A5	2088	G	O4'-C1'-N9	5.00	116.00	108.50
83	A5	2409	U	P-O3'-C3'	5.00	127.71	120.20
83	A5	2506	U	C1'-O4'-C4'	5.00	114.90	109.90
83	A5	2733	G	O4'-C1'-C2'	-5.00	102.60	107.60
85	A7	89	G	N9-C1'-C2'	5.00	119.50	112.00
1	Az	188	ASN	N-CA-CB	5.00	118.69	110.39
6	AX	52	LEU	CB-CA-C	-5.00	102.61	110.86
8	AS	6	PRO	CA-C-N	5.00	131.09	121.54
8	AS	6	PRO	C-N-CA	5.00	131.09	121.54
12	AR	7	LYS	N-CA-C	5.00	117.38	111.33
17	AV	81	LYS	CB-CG-CD	5.00	122.80	111.30
25	Af	118	ARG	N-CA-CB	5.00	118.94	110.49
36	B2	656	U	O4'-C4'-C3'	-5.00	101.10	106.10
36	B2	853	A	C1'-O4'-C4'	-5.00	104.90	109.90
36	B2	1536	A	O4'-C1'-C2'	-5.00	102.60	107.60
46	CN	62	TYR	CA-CB-CG	-5.00	104.90	113.90
54	CP	145	HIS	CB-CA-C	-5.00	102.64	110.79
55	CU	295	ASP	N-CA-C	5.00	117.34	109.39
56	CX	250	ARG	CA-C-N	5.00	126.09	119.84
56	CX	250	ARG	C-N-CA	5.00	126.09	119.84
69	Cg	18	ASN	CA-CB-CG	-5.00	107.60	112.60
74	CC	44	HIS	CA-CB-CG	-5.00	108.80	113.80
74	CC	369	HIS	ND1-CE1-NE2	5.00	113.40	108.40
81	CE	33	TYR	CB-CA-C	-5.00	103.03	110.88
83	A5	843	A	O4'-C1'-C2'	-5.00	102.60	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	A5	1041	A	O4'-C1'-C2'	-5.00	102.60	107.60
83	A5	1137	G	O4'-C1'-N9	5.00	115.70	108.20

All (208) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	Az	4	PHE	CA
1	Az	15	LYS	CA
1	Az	49	ALA	CA
1	Az	55	ARG	CA
1	Az	68	ILE	CA
1	Az	71	LYS	CA
1	Az	72	SER	CA
1	Az	74	ALA	CA
1	Az	81	VAL	CA
1	Az	82	GLU	CA
1	Az	91	HIS	CA
1	Az	92	PRO	CA
1	Az	108	ASP	CA
1	Az	109	SER	CA
1	Az	112	HIS	CA
1	Az	116	SER	CA
1	Az	126	THR	CA
1	Az	140	CYS	CA
1	Az	155	ILE	CA
1	Az	173	LEU	CA
1	Az	174	ASP	CA
1	Az	199	ASP	CA
1	Az	207	ARG	CA
1	Az	219	SER	CA
1	Az	224	TRP	CA
1	Az	225	ALA	CA
1	Az	226	PHE	CA
1	Az	227	THR	CA
1	Az	241	ILE	CA
1	Az	242	ASP	CA
1	Az	251	TRP	CA
1	Az	254	ASN	CA
1	Az	255	PHE	CA
1	Az	256	PHE	CA
1	Az	262	LYS	CA
1	Az	264	GLN	CA

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Mol	Chain	Res	Type	Atom
1	Az	266	GLN	CA
1	Az	268	GLU	CA
1	Az	271	ASN	CA
1	Az	272	LYS	CA
1	Az	307	VAL	CA
1	Az	308	THR	CA
1	Az	309	LEU	CA
1	Az	310	LYS	CA
1	Az	330	LEU	CA
1	Az	331	PRO	CA
1	Az	344	LEU	CA
1	Az	345	PRO	CA
1	Az	346	SER	CA
1	Az	362	PRO	CA
1	Az	385	SER	CA
1	Az	389	PRO	CA
1	Az	395	ARG	CA
1	Az	396	PHE	CA
1	Az	404	ALA	CA
1	Az	407	VAL	CA
1	Az	408	ALA	CA
1	Az	420	TYR	CA
1	Az	424	LYS	CA
1	Az	450	VAL	CA
1	Az	465	LEU	CA
1	Az	467	LYS	CA
1	Az	468	THR	CA
1	Az	474	PHE	CA
1	Az	478	HIS	CA
1	Az	480	MET	CA
1	Az	483	MET	CA
1	Az	499	ASN	CA
1	Az	520	VAL	CA
1	Az	554	ILE	CA
1	Az	555	PRO	CA
1	Az	564	SER	CA
1	Az	565	TYR	CA
1	Az	572	GLU	CA
1	Az	575	GLN	CA
1	Az	576	MET	CA
1	Az	586	ASN	CA
1	Az	595	MET	CA

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Mol	Chain	Res	Type	Atom
1	Az	608	VAL	CA
1	Az	609	SER	CA
1	Az	612	ASP	CA
1	Az	625	TYR	CA
1	Az	627	TYR	CA
1	Az	636	TRP	CA
1	Az	637	CYS	CA
1	Az	657	TYR	CA
1	Az	675	GLU	CA
1	Az	681	GLU	CA
1	Az	683	LEU	CA
1	Az	684	ARG	CA
1	Az	691	TYR	CA
1	Az	695	LEU	CA
1	Az	722	ALA	CA
1	Az	755	HIS	CA
1	Az	757	PHE	CA
1	Az	766	PRO	CA
1	Az	794	ALA	CA
1	Az	802	HIS	CA
1	Az	814	SER	CA
1	Az	815	SER	CA
1	Az	830	LEU	CA
1	Az	834	LEU	CA
1	Az	835	PRO	CA
1	Az	842	ASP	CA
1	Az	843	LYS	CA
5	AO	138	ASP	CA
5	AO	140	THR	CB
7	AM	40	HIS	CA
13	AP	128	PRO	CA
14	AT	7	LYS	CA
14	AT	153	VAL	CA
19	AZ	112	THR	CA
20	Aa	88	SER	CA
23	AD	198	ASN	CA
31	AH	104	ARG	CA
31	AH	106	ALA	CA
36	B2	713	A	C1'
38	Cz	28	PHE	CA
39	Cq	57	LYS	CA
42	CL	3	LYS	CA

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Mol	Chain	Res	Type	Atom
42	CL	5	ASN	CA
42	CL	6	ASN	CA
42	CL	7	MET	CA
42	CL	46	PHE	CA
42	CL	48	ARG	CA
42	CL	53	ALA	CA
42	CL	55	ARG	CA
42	CL	56	PRO	CA
42	CL	62	THR	CA
42	CL	68	LYS	CA
42	CL	69	LEU	CA
42	CL	75	PHE	CA
42	CL	76	THR	CA
42	CL	85	ILE	CA
42	CL	95	ILE	CA
42	CL	96	ALA	CA
42	CL	97	VAL	CA
42	CL	102	LYS	CA
42	CL	125	LEU	CA
42	CL	126	PHE	CA
42	CL	127	PRO	CA
42	CL	132	LYS	CA
42	CL	134	ARG	CA
42	CL	138	SER	CA
42	CL	157	LYS	CA
42	CL	167	ARG	CA
42	CL	171	LYS	CA
42	CL	176	PHE	CA
44	CM	140	PRO	CA
44	CM	156	ALA	CA
45	Ca	98	LYS	CA
46	CN	144	ARG	CA
48	CD	189	SER	CA
52	CS	6	LEU	CA
52	CS	7	LEU	CA
52	CS	18	PRO	CA
52	CS	22	GLU	CA
52	CS	23	PRO	CA
52	CS	36	ASP	CA
52	CS	52	LYS	CA
52	CS	55	LYS	CA
52	CS	60	GLU	CA

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Mol	Chain	Res	Type	Atom
52	CS	62	VAL	CA
52	CS	68	TYR	CA
52	CS	74	LYS	CA
52	CS	75	ILE	CA
52	CS	101	THR	CA
52	CS	119	ALA	CA
52	CS	120	ARG	CA
52	CS	127	ILE	CA
52	CS	134	ALA	CA
52	CS	139	ARG	CA
52	CS	154	LEU	CA
52	CS	155	VAL	CA
52	CS	158	VAL	CA
52	CS	159	HIS	CA
52	CS	163	ASN	CA
52	CS	165	LYS	CA
52	CS	167	PHE	CA
52	CS	173	ARG	CA
52	CS	176	PHE	CA
53	CT	157	PHE	CA
54	CP	168	LYS	CA
56	CX	186	VAL	CA
63	CB	103	VAL	CA
64	CF	180	ARG	CA
66	Cd	122	SER	CA
68	Cf	19	LYS	CA
68	Cf	20	ALA	CA
68	Cf	22	LYS	CA
68	Cf	23	ALA	CA
68	Cf	41	ALA	CA
68	Cf	43	LYS	CA
68	Cf	45	LYS	CA
74	CC	362	ASN	CA
79	CJ	158	PHE	CA
80	CH	190	SER	CA
81	CE	71	THR	CA
81	CE	105	ALA	CA
81	CE	176	ASP	CA
82	CG	65	TYR	CA
83	A5	1594	U	C1’
83	A5	1668	U	C1’
83	A5	2077	A	C2’

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Mol	Chain	Res	Type	Atom
83	A5	3258	C	C1'
83	A5	3714	U	C1'
83	A5	3768	C	C2'
83	A5	3846	U	C1'

All (716) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	AA	152	SER	Peptide
16	AA	158	ASP	Peptide
16	AA	163	CYS	Peptide
16	AA	206	ASP	Peptide
16	AA	66	VAL	Peptide
16	AA	67	ALA	Peptide
15	AB	27	ARG	Sidechain
15	AB	31	TYR	Sidechain
15	AB	39	PHE	Peptide
15	AB	40	GLN	Peptide
28	AC	102	GLY	Peptide
28	AC	115	ASP	Peptide
28	AC	150	ARG	Sidechain
28	AC	152	TYR	Sidechain
28	AC	153	TRP	Peptide
28	AC	186	GLY	Peptide
28	AC	210	ARG	Peptide
28	AC	224	TYR	Sidechain
28	AC	258	LYS	Peptide
28	AC	260	THR	Peptide
28	AC	261	PRO	Peptide
28	AC	39	ASP	Peptide
28	AC	65	TYR	Sidechain
28	AC	99	THR	Peptide
23	AD	114	GLY	Peptide
23	AD	175	ARG	Sidechain
23	AD	181	GLN	Peptide
23	AD	194	TYR	Sidechain
23	AD	196	PRO	Peptide
23	AD	197	LYS	Peptide
23	AD	200	ILE	Peptide
23	AD	220	ILE	Peptide
23	AD	228	TYR	Sidechain
23	AD	6	PRO	Peptide

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Mol	Chain	Res	Type	Group
27	AE	109	PHE	Sidechain
27	AE	135	GLY	Peptide
27	AE	148	ARG	Sidechain
27	AE	177	SER	Peptide
27	AE	185	GLY	Peptide
27	AE	189	LEU	Peptide
27	AE	240	LYS	Peptide
27	AE	258	ALA	Peptide
27	AE	259	LYS	Peptide
27	AE	3	ARG	Peptide,Sidechain
27	AE	54	TYR	Sidechain
27	AE	95	THR	Peptide
30	AF	103	LYS	Peptide
30	AF	160	ARG	Sidechain
30	AF	41	ILE	Peptide
30	AF	45	GLY	Peptide
30	AF	62	TYR	Sidechain
30	AF	71	ARG	Peptide
30	AF	95	ARG	Sidechain
29	AG	129	ILE	Peptide
29	AG	150	GLU	Peptide
29	AG	153	VAL	Peptide
29	AG	166	ASP	Peptide
29	AG	167	ASN	Peptide
29	AG	192	ARG	Sidechain
29	AG	57	ASP	Peptide
29	AG	60	GLY	Peptide
29	AG	79	LYS	Peptide
29	AG	84	TYR	Sidechain
29	AG	99	GLY	Peptide
31	AH	10	PRO	Peptide
31	AH	103	THR	Peptide
31	AH	104	ARG	Sidechain
31	AH	112	GLN	Peptide
31	AH	113	LYS	Peptide
31	AH	116	ARG	Sidechain
31	AH	157	ASP	Peptide
31	AH	187	PHE	Peptide
33	AI	113	TYR	Sidechain
33	AI	145	GLU	Peptide
33	AI	146	LYS	Peptide
33	AI	155	GLN	Peptide

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Mol	Chain	Res	Type	Group
33	AI	190	TYR	Sidechain
33	AI	22	ARG	Peptide
33	AI	23	LYS	Peptide
33	AI	25	ARG	Sidechain
33	AI	49	ARG	Peptide,Sidechain
33	AI	5	ARG	Sidechain
33	AI	98	LYS	Peptide
26	AJ	128	ARG	Sidechain
26	AJ	13	THR	Peptide
26	AJ	14	TYR	Peptide
26	AJ	164	SER	Peptide
26	AJ	170	ARG	Peptide
26	AJ	19	ARG	Sidechain
26	AJ	7	PRO	Peptide
4	AK	2	PHE	Sidechain
4	AK	27	SER	Peptide
4	AK	54	GLY	Peptide
4	AK	61	ALA	Peptide
4	AK	63	ARG	Sidechain
4	AK	83	LEU	Peptide
4	AK	85	PRO	Peptide
4	AK	92	LEU	Peptide
11	AL	129	ARG	Peptide
11	AL	130	PRO	Peptide
11	AL	145	GLY	Peptide
11	AL	146	GLN	Peptide
11	AL	24	GLY	Peptide
11	AL	38	GLY	Peptide
11	AL	66	ARG	Peptide
11	AL	96	TYR	Sidechain
11	AL	99	PHE	Peptide
7	AM	125	THR	Peptide
7	AM	38	LEU	Peptide
7	AM	51	LYS	Peptide
7	AM	64	ASP	Peptide
7	AM	68	TYR	Sidechain
7	AM	88	SER	Peptide
7	AM	89	HIS	Sidechain
10	AN	114	ARG	Sidechain
10	AN	141	TYR	Sidechain
10	AN	18	TYR	Sidechain
10	AN	19	ARG	Sidechain

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Mol	Chain	Res	Type	Group
10	AN	22	VAL	Peptide
10	AN	73	ARG	Sidechain
5	AO	25	GLU	Peptide
13	AP	21	ARG	Peptide
13	AP	30	ASP	Peptide
13	AP	31	MET	Peptide
13	AP	93	THR	Peptide
34	AQ	13	GLN	Peptide
34	AQ	140	ARG	Sidechain
34	AQ	143	TYR	Peptide
34	AQ	144	GLN	Peptide
34	AQ	23	ALA	Peptide
34	AQ	26	TYR	Sidechain
34	AQ	30	GLY	Peptide
34	AQ	33	LEU	Peptide
34	AQ	45	GLU	Peptide
34	AQ	5	ARG	Peptide
34	AQ	8	PRO	Peptide
34	AQ	9	VAL	Peptide
12	AR	118	GLN	Peptide
12	AR	2	GLY	Peptide
12	AR	86	PRO	Peptide
12	AR	89	SER	Peptide
12	AR	90	ALA	Peptide
8	AS	15	ILE	Peptide
8	AS	40	TYR	Sidechain
8	AS	8	LYS	Peptide
8	AS	86	ARG	Peptide
8	AS	88	LYS	Peptide
8	AS	9	PHE	Peptide
14	AT	101	ARG	Sidechain
14	AT	151	PRO	Peptide
14	AT	152	ILE	Peptide
14	AT	2	PRO	Peptide
14	AT	3	GLY	Peptide
14	AT	39	THR	Peptide
14	AT	40	ALA	Peptide
14	AT	6	VAL	Peptide
14	AT	65	TYR	Sidechain
14	AT	8	ASP	Peptide
14	AT	81	GLY	Peptide
3	AU	106	ILE	Peptide

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Mol	Chain	Res	Type	Group
3	AU	54	GLY	Peptide
3	AU	70	THR	Peptide
17	AV	48	ASP	Peptide
17	AV	9	VAL	Peptide
32	AW	3	ARG	Sidechain
32	AW	54	ASP	Peptide
6	AX	107	ARG	Sidechain
6	AX	87	ARG	Peptide
6	AX	9	THR	Peptide
18	AY	100	GLN	Peptide
18	AY	103	GLN	Peptide
18	AY	104	THR	Peptide
18	AY	105	ARG	Sidechain
18	AY	119	ARG	Sidechain
18	AY	23	GLN	Peptide
18	AY	30	HIS	Peptide
18	AY	60	GLY	Peptide
18	AY	67	GLY	Peptide
18	AY	87	GLU	Peptide
18	AY	96	GLY	Peptide
19	AZ	54	TYR	Sidechain
19	AZ	79	ARG	Sidechain
20	Aa	105	ASP	Peptide
20	Aa	107	ALA	Peptide
20	Aa	108	ARG	Sidechain
20	Aa	5	ARG	Sidechain
20	Aa	87	ARG	Peptide
20	Aa	95	ARG	Sidechain
21	Ab	47	PHE	Sidechain
21	Ab	49	HIS	Peptide
21	Ab	5	LYS	Peptide
21	Ab	53	VAL	Peptide
22	Ac	40	ARG	Sidechain
22	Ac	49	GLY	Peptide
22	Ac	62	ARG	Peptide
9	Ad	20	CYS	Peptide
9	Ad	33	LYS	Peptide
9	Ad	34	TYR	Sidechain
9	Ad	8	TYR	Sidechain
24	Ae	110	TYR	Sidechain
24	Ae	119	GLN	Peptide
25	Af	102	VAL	Peptide

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Mol	Chain	Res	Type	Group
25	Af	116	ARG	Sidechain
25	Af	128	ALA	Peptide
25	Af	136	GLU	Peptide
25	Af	144	CYS	Peptide
25	Af	151	SER	Peptide
25	Af	80	ARG	Sidechain
25	Af	84	ASN	Peptide
25	Af	93	HIS	Peptide
25	Af	95	ARG	Peptide
2	Ag	145	GLU	Peptide
2	Ag	214	ASP	Peptide
2	Ag	277	SER	Peptide
2	Ag	89	ARG	Sidechain
35	Ah	109	GLY	Peptide
35	Ah	110	ASN	Peptide
35	Ah	118	GLY	Peptide
35	Ah	132	ARG	Sidechain
35	Ah	134	PRO	Peptide
35	Ah	214	GLU	Peptide
1	Az	107	ILE	Peptide
1	Az	111	GLY	Peptide
1	Az	115	PHE	Peptide
1	Az	125	VAL	Peptide
1	Az	139	VAL	Peptide
1	Az	14	ASP	Peptide
1	Az	154	ARG	Peptide
1	Az	172	GLN	Peptide
1	Az	173	LEU	Peptide
1	Az	179	TYR	Sidechain
1	Az	196	TYR	Sidechain
1	Az	20	ARG	Sidechain
1	Az	200	GLY	Peptide
1	Az	206	VAL	Peptide
1	Az	207	ARG	Sidechain
1	Az	212	LYS	Peptide
1	Az	223	GLY	Peptide
1	Az	241	ILE	Peptide
1	Az	251	TRP	Peptide
1	Az	252	GLY	Peptide
1	Az	255	PHE	Peptide
1	Az	263	TRP	Peptide
1	Az	265	LYS	Peptide

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Mol	Chain	Res	Type	Group
1	Az	27	HIS	Peptide
1	Az	270	ASP	Peptide
1	Az	271	ASN	Peptide
1	Az	309	LEU	Peptide
1	Az	317	ASP	Peptide
1	Az	330	LEU	Peptide
1	Az	344	LEU	Peptide
1	Az	345	PRO	Peptide
1	Az	361	GLY	Peptide
1	Az	384	ILE	Peptide
1	Az	388	VAL	Peptide
1	Az	395	ARG	Peptide
1	Az	406	LYS	Peptide
1	Az	408	ALA	Peptide
1	Az	420	TYR	Sidechain
1	Az	436	THR	Peptide
1	Az	440	MET	Peptide
1	Az	459	VAL	Peptide
1	Az	47	ALA	Peptide
1	Az	477	ALA	Peptide
1	Az	479	ASN	Peptide
1	Az	486	SER	Peptide
1	Az	487	VAL	Peptide
1	Az	49	ALA	Peptide
1	Az	55	ARG	Peptide
1	Az	554	ILE	Peptide
1	Az	560	ASP	Peptide
1	Az	563	VAL	Peptide
1	Az	575	GLN	Peptide
1	Az	594	PRO	Peptide
1	Az	626	ASP	Peptide
1	Az	635	ILE	Peptide
1	Az	636	TRP	Peptide
1	Az	641	ASP	Peptide
1	Az	647	PHE	Sidechain
1	Az	653	LYS	Peptide
1	Az	67	CYS	Peptide
1	Az	680	ASP	Peptide
1	Az	682	ASN	Peptide
1	Az	690	ILE	Peptide
1	Az	70	ILE	Peptide
1	Az	701	HIS	Peptide

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Mol	Chain	Res	Type	Group
1	Az	72	SER	Peptide
1	Az	73	THR	Peptide
1	Az	746	TYR	Sidechain
1	Az	754	GLY	Peptide
1	Az	756	VAL	Peptide
1	Az	763	VAL	Peptide
1	Az	765	THR	Peptide
1	Az	773	TYR	Sidechain
1	Az	791	GLY	Peptide
1	Az	799	VAL	Peptide
1	Az	80	GLU	Peptide
1	Az	801	ASP	Peptide
1	Az	807	PRO	Peptide
1	Az	81	VAL	Peptide
1	Az	813	PRO	Peptide
1	Az	829	GLY	Peptide
1	Az	833	GLY	Peptide
1	Az	834	LEU	Peptide
1	Az	91	HIS	Peptide
1	Az	96	GLU	Peptide
1	Az	97	LYS	Peptide
51	CA	125	ARG	Sidechain
51	CA	133	TYR	Sidechain
51	CA	170	ALA	Peptide
51	CA	212	GLY	Peptide
51	CA	213	GLY	Peptide
51	CA	216	HIS	Peptide,Sidechain
51	CA	54	ARG	Sidechain
63	CB	117	ARG	Sidechain
63	CB	156	TYR	Sidechain
63	CB	226	LYS	Peptide
63	CB	227	GLY	Peptide
63	CB	255	GLY	Peptide
63	CB	268	ARG	Sidechain
63	CB	270	GLY	Peptide
63	CB	274	TYR	Sidechain
63	CB	277	ARG	Sidechain
63	CB	290	GLY	Peptide
63	CB	292	HIS	Peptide
63	CB	320	PHE	Peptide,Sidechain
63	CB	323	TYR	Peptide,Sidechain
63	CB	327	ASN	Peptide

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Mol	Chain	Res	Type	Group
63	CB	334	LYS	Peptide
63	CB	359	ALA	Peptide
63	CB	374	MET	Peptide
63	CB	378	ARG	Sidechain
63	CB	39	LYS	Peptide
63	CB	49	TYR	Sidechain
63	CB	55	HIS	Sidechain
63	CB	63	PRO	Peptide
74	CC	104	MET	Peptide
74	CC	105	PHE	Peptide
74	CC	113	ARG	Sidechain
74	CC	214	TYR	Sidechain
74	CC	218	GLU	Peptide
74	CC	297	LYS	Peptide
74	CC	298	SER	Peptide
74	CC	308	PRO	Peptide
74	CC	310	LYS	Peptide
74	CC	318	ARG	Peptide
74	CC	321	PRO	Peptide
74	CC	332	ASN	Peptide
74	CC	362	ASN	Peptide
74	CC	364	GLU	Peptide
74	CC	390	LYS	Peptide
74	CC	4	GLY	Peptide
74	CC	48	ARG	Sidechain
74	CC	55	TYR	Sidechain
74	CC	72	THR	Peptide
74	CC	91	GLY	Peptide
74	CC	92	GLN	Peptide
48	CD	143	ARG	Sidechain
48	CD	187	THR	Peptide
48	CD	219	PHE	Sidechain
48	CD	221	ARG	Sidechain
48	CD	267	ARG	Peptide
48	CD	278	ARG	Sidechain
48	CD	57	ASN	Peptide
48	CD	95	TYR	Sidechain
81	CE	104	LEU	Peptide
81	CE	128	GLY	Peptide
81	CE	144	TYR	Sidechain
81	CE	157	PHE	Sidechain
81	CE	174	LYS	Peptide

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Mol	Chain	Res	Type	Group
81	CE	175	LYS	Peptide
81	CE	184	ILE	Peptide
81	CE	186	ALA	Peptide
81	CE	187	ALA	Peptide
81	CE	192	PHE	Peptide
81	CE	193	VAL	Peptide
81	CE	20	HIS	Peptide
81	CE	222	PHE	Sidechain
81	CE	227	GLN	Peptide
81	CE	231	ALA	Peptide
81	CE	236	GLN	Peptide
81	CE	28	GLY	Peptide
81	CE	30	ILE	Peptide
81	CE	33	TYR	Sidechain
81	CE	56	GLU	Peptide
81	CE	60	VAL	Peptide
81	CE	69	TYR	Peptide
81	CE	70	PRO	Peptide
81	CE	73	THR	Peptide
81	CE	84	PHE	Sidechain
81	CE	92	ARG	Peptide
64	CF	100	GLY	Peptide
64	CF	158	TYR	Sidechain
64	CF	180	ARG	Sidechain
64	CF	181	LYS	Peptide
64	CF	220	PRO	Peptide
64	CF	235	GLY	Peptide
64	CF	38	ARG	Sidechain
82	CG	131	ASP	Peptide
82	CG	168	PRO	Peptide
82	CG	213	ASP	Peptide
82	CG	33	VAL	Peptide
82	CG	58	ARG	Sidechain
82	CG	65	TYR	Sidechain
82	CG	85	ILE	Peptide
80	CH	105	GLU	Peptide
80	CH	108	THR	Peptide
80	CH	115	PHE	Peptide,Sidechain
80	CH	178	TYR	Sidechain
80	CH	187	LYS	Peptide
80	CH	2	ARG	Sidechain
80	CH	23	ARG	Sidechain

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Mol	Chain	Res	Type	Group
80	CH	48	PRO	Peptide
80	CH	50	LYS	Peptide
80	CH	94	TYR	Sidechain
47	CI	112	GLN	Peptide
47	CI	116	ARG	Peptide
47	CI	166	TYR	Sidechain
47	CI	185	ARG	Sidechain
47	CI	193	ASP	Peptide
47	CI	199	TYR	Peptide
47	CI	200	ARG	Peptide
47	CI	201	PRO	Peptide
47	CI	203	HIS	Peptide
47	CI	7	ARG	Sidechain
47	CI	9	TYR	Sidechain
79	CJ	11	ASP	Peptide
79	CJ	124	TYR	Sidechain
79	CJ	136	TYR	Sidechain
79	CJ	156	VAL	Peptide
79	CJ	157	GLY	Peptide
79	CJ	160	HIS	Peptide
79	CJ	175	TYR	Sidechain
79	CJ	18	ARG	Peptide
79	CJ	37	ARG	Sidechain
79	CJ	6	LYS	Peptide
40	CK	100	HIS	Sidechain
40	CK	117	ARG	Peptide
40	CK	147	HIS	Peptide
40	CK	148	PRO	Peptide
40	CK	29	ALA	Peptide
40	CK	30	PRO	Peptide
40	CK	38	SER	Peptide
40	CK	54	LYS	Peptide
40	CK	87	GLU	Peptide
40	CK	88	PRO	Peptide
40	CK	89	PRO	Peptide
40	CK	93	LYS	Peptide
40	CK	94	LYS	Peptide
42	CL	109	ARG	Sidechain
42	CL	118	GLU	Peptide
42	CL	119	TYR	Sidechain
42	CL	124	ILE	Peptide
42	CL	128	ILE	Peptide

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Mol	Chain	Res	Type	Group
42	CL	129	ASN	Peptide
42	CL	13	TYR	Sidechain
42	CL	130	GLU	Peptide
42	CL	137	GLU	Peptide
42	CL	151	GLY	Peptide
42	CL	152	PRO	Peptide
42	CL	154	LEU	Peptide
42	CL	167	ARG	Peptide
42	CL	4	GLY	Peptide
42	CL	49	PRO	Peptide
42	CL	55	ARG	Peptide
42	CL	58	VAL	Peptide
42	CL	6	ASN	Peptide
42	CL	70	ARG	Peptide
42	CL	75	PHE	Peptide,Sidechain
44	CM	101	ARG	Peptide
44	CM	105	ASN	Peptide
44	CM	130	LEU	Peptide
44	CM	132	LYS	Peptide
44	CM	135	LYS	Peptide
44	CM	139	THR	Peptide
44	CM	140	PRO	Peptide
44	CM	141	ARG	Peptide
44	CM	151	LEU	Peptide
44	CM	153	ALA	Peptide
44	CM	155	LYS	Peptide
44	CM	156	ALA	Peptide
44	CM	17	ALA	Peptide
44	CM	47	ARG	Sidechain
44	CM	65	PRO	Peptide
46	CN	108	ARG	Sidechain
46	CN	119	TYR	Sidechain
46	CN	145	ASP	Peptide
46	CN	178	TYR	Sidechain
46	CN	187	SER	Peptide
46	CN	202	ARG	Sidechain
46	CN	30	TYR	Sidechain
46	CN	38	ARG	Peptide
46	CN	50	ARG	Sidechain
46	CN	65	ARG	Sidechain
46	CN	68	ARG	Peptide
46	CN	71	ARG	Sidechain

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Mol	Chain	Res	Type	Group
46	CN	95	TYR	Sidechain
41	CO	111	PRO	Peptide
41	CO	112	SER	Peptide
41	CO	118	ARG	Sidechain
41	CO	127	ARG	Sidechain
41	CO	137	TYR	Sidechain
41	CO	4	LEU	Peptide
41	CO	50	TYR	Sidechain
41	CO	59	TYR	Peptide
41	CO	7	ARG	Sidechain
54	CP	162	ASP	Peptide
54	CP	165	PRO	Peptide
54	CP	20	PRO	Peptide
54	CP	5	SER	Peptide
49	CQ	11	ARG	Sidechain
49	CQ	12	LYS	Peptide
49	CQ	160	HIS	Peptide
49	CQ	166	TYR	Sidechain
49	CQ	186	TYR	Sidechain
49	CQ	26	ARG	Sidechain
49	CQ	8	LYS	Peptide
50	CR	112	SER	Peptide
50	CR	124	TYR	Sidechain
50	CR	129	GLY	Peptide
50	CR	132	PHE	Sidechain
50	CR	16	ARG	Sidechain
52	CS	118	ARG	Peptide
52	CS	119	ALA	Peptide
52	CS	126	ILE	Peptide
52	CS	133	PRO	Peptide
52	CS	149	LYS	Peptide
52	CS	153	PRO	Peptide
52	CS	154	LEU	Peptide
52	CS	157	ARG	Peptide,Sidechain
52	CS	158	VAL	Peptide
52	CS	162	GLY	Peptide
52	CS	17	LEU	Peptide
52	CS	172	PRO	Peptide
52	CS	176	PHE	Sidechain
52	CS	23	PRO	Peptide
52	CS	25	THR	Peptide
52	CS	46	TYR	Sidechain

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Mol	Chain	Res	Type	Group
52	CS	56	LYS	Peptide
52	CS	61	ILE	Peptide
52	CS	67	VAL	Peptide
52	CS	74	LYS	Peptide
52	CS	88	SER	Peptide
53	CT	124	GLN	Peptide
53	CT	136	LYS	Peptide
53	CT	145	GLU	Peptide
53	CT	147	PRO	Peptide
53	CT	148	ILE	Peptide
53	CT	152	PRO	Peptide
53	CT	153	ILE	Peptide
53	CT	154	PRO	Peptide
53	CT	155	TYR	Sidechain
53	CT	157	PHE	Peptide
53	CT	2	THR	Peptide
53	CT	5	LYS	Peptide
55	CU	186	LYS	Peptide
55	CU	237	SER	Peptide
55	CU	251	LYS	Peptide
55	CU	297	ASP	Peptide
43	CV	29	ALA	Peptide
43	CV	46	ARG	Sidechain
43	CV	83	ARG	Sidechain
43	CV	89	ARG	Peptide
58	CW	101	ARG	Sidechain
58	CW	15	PRO	Peptide
58	CW	18	GLY	Peptide
58	CW	32	LEU	Peptide
58	CW	38	ARG	Sidechain
58	CW	40	TYR	Sidechain
58	CW	71	ARG	Peptide
58	CW	77	LYS	Peptide
58	CW	80	ARG	Sidechain
58	CW	81	ALA	Peptide
56	CX	159	ARG	Sidechain
56	CX	162	ARG	Peptide
56	CX	166	HIS	Peptide
56	CX	191	ARG	Peptide
57	CY	6	PHE	Peptide
57	CY	60	GLY	Peptide
57	CY	61	HIS	Peptide

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Mol	Chain	Res	Type	Group
57	CY	83	GLU	Peptide
59	CZ	114	ARG	Sidechain
59	CZ	134	ARG	Sidechain
59	CZ	38	PHE	Sidechain
59	CZ	4	ILE	Peptide
59	CZ	49	TYR	Sidechain
59	CZ	51	ARG	Sidechain
45	Ca	10	ARG	Sidechain
45	Ca	110	TYR	Sidechain
45	Ca	114	GLY	Peptide
45	Ca	115	ARG	Sidechain
45	Ca	130	PHE	Peptide
45	Ca	14	GLY	Peptide
45	Ca	147	LEU	Peptide
45	Ca	51	PRO	Peptide
45	Ca	58	GLY	Peptide
45	Ca	92	GLU	Peptide
45	Ca	93	LYS	Peptide
45	Ca	97	THR	Peptide
62	Cb	52	SER	Peptide
62	Cb	53	ARG	Sidechain
62	Cb	67	GLN	Peptide
62	Cb	68	LYS	Peptide
65	Cc	102	SER	Peptide
65	Cc	11	LEU	Peptide
65	Cc	12	GLU	Peptide
65	Cc	62	TYR	Sidechain
65	Cc	74	TYR	Sidechain
66	Cd	119	VAL	Peptide
66	Cd	38	ARG	Peptide
66	Cd	87	ARG	Sidechain
67	Ce	113	ARG	Sidechain
67	Ce	124	PRO	Peptide
67	Ce	129	ARG	Peptide
67	Ce	14	LYS	Peptide
67	Ce	27	TYR	Sidechain
67	Ce	52	TYR	Sidechain
67	Ce	59	TYR	Sidechain
67	Ce	7	TYR	Sidechain
68	Cf	107	HIS	Peptide
68	Cf	108	PRO	Peptide
68	Cf	137	ARG	Peptide

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Mol	Chain	Res	Type	Group
68	Cf	148	ILE	Peptide
68	Cf	17	ALA	Peptide
68	Cf	18	GLN	Peptide
68	Cf	21	PRO	Peptide
68	Cf	22	LYS	Peptide
68	Cf	24	VAL	Peptide
68	Cf	26	ALA	Peptide
68	Cf	28	LYS	Peptide
68	Cf	29	ALA	Peptide
68	Cf	30	GLU	Peptide
68	Cf	34	ALA	Peptide
68	Cf	37	ALA	Peptide
68	Cf	38	LYS	Peptide
68	Cf	41	ALA	Peptide
68	Cf	44	TYR	Peptide,Sidechain
68	Cf	48	GLY	Peptide
68	Cf	49	ARG	Peptide
68	Cf	61	ARG	Peptide
69	Cg	10	ARG	Sidechain
69	Cg	24	ARG	Sidechain
69	Cg	32	TYR	Sidechain
69	Cg	45	GLY	Peptide
69	Cg	74	ARG	Sidechain
69	Cg	8	ARG	Sidechain
69	Cg	80	LEU	Peptide
61	Ch	121	VAL	Peptide
61	Ch	48	ARG	Sidechain
61	Ch	89	ARG	Sidechain
70	Ci	10	GLY	Peptide
70	Ci	16	LYS	Peptide
70	Ci	24	LYS	Peptide
70	Ci	37	SER	Peptide
70	Ci	88	GLY	Peptide
71	Cj	27	TYR	Sidechain
71	Cj	43	LYS	Peptide
71	Cj	63	ARG	Sidechain
72	Ck	1	MET	Peptide
72	Ck	38	CYS	Peptide
73	Cl	41	ARG	Sidechain
73	Cl	47	THR	Peptide
73	Cl	48	LYS	Peptide
73	Cl	50	LYS	Peptide

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Mol	Chain	Res	Type	Group
75	Cm	112	LYS	Peptide
75	Cm	113	LYS	Peptide
76	Cn	11	ARG	Sidechain
76	Cn	9	ARG	Sidechain
78	Co	101	MET	Peptide
78	Co	46	GLN	Peptide
78	Co	48	PHE	Peptide
78	Co	91	LEU	Peptide
78	Co	97	ARG	Sidechain
77	Cp	52	VAL	Peptide
77	Cp	59	ARG	Peptide
39	Cq	107	VAL	Peptide
39	Cq	13	TYR	Sidechain
39	Cq	14	PHE	Sidechain
39	Cq	142	GLY	Peptide
39	Cq	148	SER	Peptide
39	Cq	149	ARG	Peptide
39	Cq	183	PHE	Peptide
39	Cq	25	PRO	Peptide
39	Cq	36	GLY	Peptide
39	Cq	55	MET	Peptide
39	Cq	56	GLY	Peptide
39	Cq	57	LYS	Peptide
39	Cq	6	ARG	Peptide
39	Cq	71	ASN	Peptide
39	Cq	83	ARG	Peptide
39	Cq	86	VAL	Peptide
60	Cr	110	LEU	Peptide
60	Cr	132	GLY	Peptide
60	Cr	133	LYS	Peptide
60	Cr	24	ASP	Peptide
60	Cr	27	LYS	Peptide
60	Cr	28	PRO	Peptide
60	Cr	39	VAL	Peptide
60	Cr	42	TYR	Sidechain
60	Cr	46	GLY	Peptide
60	Cr	49	HIS	Peptide
60	Cr	72	LYS	Peptide
60	Cr	75	GLN	Peptide
60	Cr	79	LYS	Peptide
60	Cr	92	ARG	Sidechain
38	Cz	210	MET	Peptide

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Mol	Chain	Res	Type	Group
38	Cz	41	TYR	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	Az	6574	0	6616	45	0
2	Ag	2511	0	2438	12	0
3	AU	815	0	871	1	0
4	AK	797	0	817	7	0
5	AO	1003	0	1035	9	0
6	AX	1131	0	1190	5	0
7	AM	924	0	960	17	0
8	AS	1128	0	1177	13	0
9	Ad	433	0	424	4	0
10	AN	1202	0	1291	4	0
11	AL	1274	0	1351	10	0
12	AR	981	0	1038	1	0
13	AP	1016	0	1086	6	0
14	AT	1203	0	1250	7	0
15	AB	1798	0	1867	11	0
16	AA	1737	0	1750	7	0
17	AV	617	0	613	2	0
18	AY	1016	0	1073	17	0
19	AZ	608	0	658	5	0
20	Aa	867	0	920	7	0
21	Ab	653	0	680	7	0
22	Ac	498	0	525	0	0
23	AD	1782	0	1862	5	0
24	Ae	469	0	503	1	0
25	Af	659	0	695	7	0
26	AJ	1503	0	1620	34	0
27	AE	2054	0	2165	11	0
28	AC	1746	0	1827	12	0
29	AG	1866	0	2028	17	0
30	AF	1497	0	1556	7	0
31	AH	1566	0	1664	9	0
32	AW	1028	0	1071	9	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
33	AI	1665	0	1746	4	0
34	AQ	1183	0	1255	11	0
35	Ah	486	0	458	6	0
36	B2	39523	0	19572	381	0
37	BC	1605	0	814	15	0
38	Cz	1702	0	1814	17	0
39	Cq	1710	0	1777	10	0
40	CK	1180	0	1246	8	0
41	CO	1668	0	1783	13	0
42	CL	1695	0	1790	24	0
43	CV	998	0	1046	2	0
44	CM	1302	0	1388	22	0
45	Ca	1204	0	1260	9	0
46	CN	1710	0	1778	13	0
47	CI	1785	0	1805	17	0
48	CD	2334	0	2354	27	0
49	CQ	1518	0	1626	10	0
50	CR	1683	0	1827	5	0
51	CA	1935	0	2037	24	0
52	CS	1454	0	1503	24	0
53	CT	1297	0	1364	8	0
54	CP	1505	0	1556	6	0
55	CU	961	0	975	3	0
56	CX	984	0	1058	4	0
57	CY	1078	0	1159	8	0
58	CW	1047	0	1140	4	0
59	CZ	1115	0	1199	9	0
60	Cr	1051	0	1148	7	0
61	Ch	1015	0	1163	5	0
62	Cb	619	0	650	5	0
63	CB	3287	0	3432	55	0
64	CF	1921	0	2039	11	0
65	Cc	770	0	802	7	0
66	Cd	924	0	942	4	0
67	Ce	1110	0	1181	9	0
68	Cf	1244	0	1316	36	0
69	Cg	926	0	1013	4	0
70	Ci	934	0	1029	19	0
71	Cj	737	0	770	4	0
72	Ck	576	0	634	1	0
73	Cl	437	0	483	6	0
74	CC	3109	0	3298	25	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
75	Cm	429	0	472	3	0
76	Cn	236	0	286	1	0
77	Cp	710	0	756	3	0
78	Co	874	0	956	0	0
79	CJ	1468	0	1507	10	0
80	CH	1499	0	1569	12	0
81	CE	1845	0	1981	28	0
82	CG	1936	0	2103	5	0
83	A5	77967	0	38740	862	0
84	A9	639	0	321	5	0
85	A7	2554	0	1296	37	0
86	A8	2621	0	1328	53	0
All	All	230721	0	173166	1848	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 5.

All (1848) 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)
18:AY:77:TYR:CE1	18:AY:77:TYR:CZ	1.77	1.73
18:AY:77:TYR:CG	18:AY:77:TYR:CD1	1.74	1.64
18:AY:77:TYR:CZ	18:AY:77:TYR:CE2	1.76	1.63
83:A5:3843:U:C1'	83:A5:3843:U:C2'	1.74	1.47
42:CL:59:ARG:HG2	83:A5:77:A:N3	1.17	1.44
83:A5:1940:C:C1'	83:A5:1940:C:O4'	1.63	1.35
29:AG:149:LYS:NZ	36:B2:139:U:OP1	1.57	1.34
83:A5:623:C:C1'	83:A5:623:C:O4'	1.64	1.34
83:A5:3384:C:C1'	83:A5:3384:C:O4'	1.63	1.33
83:A5:864:G:C1'	83:A5:864:G:O4'	1.64	1.32
83:A5:1803:C:C1'	83:A5:1803:C:O4'	1.63	1.31
83:A5:3357:C:C1'	83:A5:3357:C:O4'	1.63	1.30
26:AJ:147:SER:CB	36:B2:479:A:OP1	1.79	1.29
36:B2:1833:C:C1'	36:B2:1833:C:O4'	1.64	1.29
83:A5:669:U:OP1	83:A5:1592:U:H5"	1.21	1.28
36:B2:651:C:C1'	36:B2:651:C:O4'	1.63	1.28
83:A5:542:C:C1'	83:A5:542:C:O4'	1.67	1.27
83:A5:1886:C:C1'	83:A5:1886:C:O4'	1.63	1.27
36:B2:1674:C:C1'	36:B2:1674:C:O4'	1.64	1.26
29:AG:149:LYS:CE	36:B2:139:U:OP1	1.82	1.26
26:AJ:147:SER:HB3	36:B2:479:A:OP1	1.12	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CL:59:ARG:CG	83:A5:77:A:N3	1.98	1.25
36:B2:1569:C:O4'	36:B2:1569:C:C1'	1.66	1.23
83:A5:2487:C:C1'	83:A5:2487:C:O4'	1.63	1.22
83:A5:117:C:C1'	83:A5:117:C:O4'	1.65	1.21
83:A5:2066:G:O4'	83:A5:2066:G:C1'	1.63	1.20
83:A5:959:U:C1'	83:A5:959:U:O4'	1.64	1.19
83:A5:2767:U:C1'	83:A5:2767:U:O4'	1.66	1.18
36:B2:458:C:C1'	36:B2:458:C:O4'	1.63	1.17
83:A5:1689:G:C1'	83:A5:1689:G:O4'	1.63	1.17
14:AT:87:VAL:HB	36:B2:1735:A:OP1	1.41	1.17
86:A8:109:U:O2'	86:A8:111:G:H5'	1.44	1.17
26:AJ:132:ARG:NE	36:B2:480:A:OP2	1.80	1.13
47:CI:205:PRO:CB	85:A7:63:C:H5"	1.79	1.09
48:CD:81:HIS:HE1	85:A7:25:A:OP1	1.34	1.09
83:A5:973:G:C1'	83:A5:973:G:O4'	1.68	1.08
48:CD:81:HIS:CE1	85:A7:25:A:OP1	2.07	1.07
47:CI:205:PRO:HB3	85:A7:63:C:H5"	1.33	1.07
83:A5:669:U:OP1	83:A5:1592:U:C5'	2.01	1.06
18:AY:21:ARG:CD	18:AY:77:TYR:CZ	2.38	1.06
26:AJ:42:ARG:HG2	36:B2:601:U:OP1	1.54	1.06
83:A5:3801:A:H8	83:A5:3801:A:H5"	1.20	1.04
18:AY:21:ARG:CD	18:AY:77:TYR:CE1	2.41	1.04
18:AY:21:ARG:CD	18:AY:77:TYR:CE2	2.41	1.03
38:Cz:26:ARG:HB3	83:A5:2849:U:OP1	1.58	1.03
73:Cl:8:ARG:NH1	86:A8:110:C:OP2	1.91	1.02
18:AY:21:ARG:CD	18:AY:77:TYR:CG	2.43	1.02
18:AY:21:ARG:CD	18:AY:77:TYR:CD2	2.42	1.01
83:A5:3801:A:H5"	83:A5:3801:A:C8	1.95	1.01
18:AY:21:ARG:CD	18:AY:77:TYR:CD1	2.44	1.00
83:A5:322:G:OP1	83:A5:3310:G:OP1	1.83	0.97
83:A5:2269:A:N6	83:A5:2468:A:H61	1.62	0.95
42:CL:59:ARG:O	83:A5:79:G:OP1	1.85	0.95
36:B2:998:U:H6	36:B2:998:U:H5"	1.32	0.94
86:A8:69:G:H22	86:A8:85:G:H2'	1.31	0.94
83:A5:1926:A:H61	83:A5:2128:A:H61	1.15	0.92
63:CB:1:MET:HE3	83:A5:3472:A:C8	2.03	0.92
36:B2:1338:U:H2'	36:B2:1339:C:C6	2.04	0.92
63:CB:156:TYR:CZ	83:A5:3801:A:OP2	2.23	0.92
83:A5:3791:A:H61	83:A5:3818:G:H1	1.16	0.92
83:A5:2842:U:H3	83:A5:2885:A:H61	1.13	0.91
83:A5:1811:A:H5"	83:A5:1812:C:OP2	1.71	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3790:A:H2'	83:A5:3791:A:H5"	1.51	0.91
14:AT:87:VAL:CB	36:B2:1735:A:OP1	2.19	0.90
26:AJ:42:ARG:CG	36:B2:601:U:OP1	2.19	0.90
83:A5:1926:A:H2'	83:A5:1927:U:H5'	1.54	0.90
29:AG:149:LYS:CD	36:B2:139:U:OP1	2.19	0.89
83:A5:2269:A:H61	83:A5:2468:A:H61	0.97	0.89
83:A5:1073:C:H4'	83:A5:1074:U:OP2	1.69	0.89
36:B2:998:U:H5"	36:B2:998:U:C6	2.07	0.88
83:A5:3843:U:C2'	83:A5:3843:U:N1	2.35	0.88
83:A5:1926:A:C2'	83:A5:1927:U:H5'	2.04	0.88
86:A8:69:G:N2	86:A8:85:G:H2'	1.88	0.87
70:Ci:37:SER:HA	70:Ci:39:LEU:H	1.40	0.87
83:A5:3771:A:OP2	83:A5:3826:A:OP1	1.92	0.87
36:B2:479:A:N6	36:B2:602:A:H3'	1.91	0.86
73:Cl:8:ARG:CZ	86:A8:110:C:H5'	2.05	0.86
83:A5:2838:U:O2'	83:A5:2839:A:H5'	1.75	0.86
86:A8:84:U:H4'	86:A8:85:G:C8	2.10	0.86
83:A5:2998:U:H5"	83:A5:2999:U:OP2	1.76	0.85
83:A5:1813:A:H5"	83:A5:1859:U:H5"	1.56	0.85
36:B2:160:G:OP2	36:B2:160:G:N2	2.09	0.85
83:A5:3418:U:O2'	83:A5:3419:A:H2'	1.76	0.84
36:B2:226:C:N4	36:B2:239:G:O6	2.10	0.84
83:A5:425:A:OP2	83:A5:1637:U:O2'	1.94	0.84
83:A5:3116:A:H2'	83:A5:3117:A:H5"	1.59	0.84
63:CB:1:MET:CB	83:A5:3472:A:OP2	2.26	0.84
83:A5:1947:G:N2	83:A5:1950:A:OP2	2.10	0.84
70:Ci:15:HIS:HB3	83:A5:77:A:H8	1.42	0.83
63:CB:1:MET:HB2	83:A5:3472:A:OP2	1.79	0.83
67:Ce:107:ARG:NH2	83:A5:1653:G:OP1	2.11	0.83
42:CL:59:ARG:O	83:A5:79:G:P	2.37	0.83
83:A5:302:A:H61	83:A5:3317:U:H1'	1.44	0.83
83:A5:1119:C:OP1	83:A5:2517:A:N6	2.12	0.83
83:A5:3495:G:N2	83:A5:3498:A:OP2	2.11	0.82
83:A5:2585:A:H3'	83:A5:2586:A:H5"	1.60	0.82
83:A5:3790:A:C2'	83:A5:3791:A:H5"	2.09	0.82
36:B2:1455:U:C6	36:B2:1455:U:H5"	2.14	0.82
83:A5:640:U:H2'	83:A5:641:A:C8	2.15	0.81
83:A5:1989:A:H61	83:A5:2003:U:H3	1.27	0.81
83:A5:2041:G:H4'	83:A5:2042:A:H5'	1.60	0.81
36:B2:1332:G:H1	36:B2:1337:U:H3	1.28	0.81
39:Cq:59:THR:HG22	83:A5:1436:A:O2'	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2041:G:H5"	83:A5:2042:A:H5"	1.63	0.81
86:A8:70:A:N6	86:A8:85:G:O2'	2.13	0.81
83:A5:302:A:N6	83:A5:3317:U:H1'	1.96	0.81
36:B2:94:G:N2	36:B2:465:A:OP1	2.14	0.80
83:A5:748:A:H2'	83:A5:749:U:H5'	1.62	0.80
83:A5:3415:U:H3	83:A5:3471:A:H61	1.28	0.80
83:A5:3712:G:C4	83:A5:3775:A:C2	2.69	0.80
38:Cz:26:ARG:CB	83:A5:2849:U:OP1	2.28	0.80
83:A5:1782:C:N4	83:A5:1798:A:H61	1.79	0.80
83:A5:2269:A:H61	83:A5:2468:A:N6	1.77	0.80
86:A8:61:C:H5"	86:A8:62:A:H5'	1.64	0.79
63:CB:156:TYR:CE2	83:A5:3801:A:OP2	2.35	0.79
83:A5:134:G:H5"	83:A5:134:G:C8	2.18	0.79
47:CI:205:PRO:HG2	85:A7:63:C:OP1	1.83	0.79
41:CO:1:MET:HG2	83:A5:3718:A:OP2	1.82	0.79
83:A5:1176:A:N1	83:A5:1318:A:N1	2.31	0.78
83:A5:3414:U:H3	83:A5:3472:A:H61	1.31	0.78
36:B2:485:A:H61	36:B2:516:U:H3	1.31	0.78
42:CL:59:ARG:CG	83:A5:77:A:C2	2.66	0.78
83:A5:3876:U:H3	83:A5:3886:U:H3	1.32	0.78
52:CS:174:THR:C	83:A5:3729:A:N6	2.43	0.77
86:A8:61:C:H5"	86:A8:62:A:C5'	2.13	0.77
36:B2:1455:U:H5"	36:B2:1455:U:H6	1.48	0.77
49:CQ:143:ARG:HB2	83:A5:912:A:OP1	1.85	0.77
83:A5:2854:G:H1	83:A5:2863:U:H3	1.33	0.77
37:BC:18:G:H4'	37:BC:19:A:OP2	1.85	0.77
83:A5:865:A:H5'	83:A5:866:C:H5'	1.67	0.77
41:CO:60:LEU:H	41:CO:60:LEU:HD12	1.49	0.76
83:A5:1780:U:H3'	83:A5:1796:A:H61	1.51	0.76
29:AG:149:LYS:HD2	36:B2:139:U:OP1	1.85	0.76
86:A8:76:A:H5"	86:A8:76:A:C8	2.20	0.76
36:B2:984:G:O2'	36:B2:985:A:H5'	1.85	0.76
42:CL:59:ARG:HG2	83:A5:77:A:C4	2.19	0.76
36:B2:255:U:H4'	36:B2:256:C:OP2	1.85	0.76
42:CL:66:HIS:HB3	83:A5:77:A:C6	2.21	0.75
36:B2:998:U:H6	36:B2:998:U:C5'	1.98	0.75
70:Ci:15:HIS:CG	83:A5:77:A:N7	2.54	0.75
83:A5:586:C:H42	83:A5:624:A:H61	1.34	0.75
26:AJ:147:SER:OG	36:B2:479:A:OP1	2.04	0.75
36:B2:103:U:H4'	36:B2:104:A:O5'	1.86	0.75
83:A5:1908:A:H61	83:A5:2132:A:H62	1.33	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1160:A:H2'	36:B2:1161:G:H5"	1.69	0.75
83:A5:3923:C:H42	83:A5:3930:A:H61	1.33	0.75
36:B2:200:U:C5'	36:B2:200:U:H6	2.00	0.75
38:Cz:26:ARG:C	83:A5:2849:U:OP1	2.29	0.75
38:Cz:160:LYS:HG2	83:A5:2842:U:O2'	1.87	0.75
83:A5:1199:C:H42	83:A5:1311:U:H3	1.34	0.75
48:CD:10:LYS:HE2	85:A7:65:C:H5"	1.67	0.75
83:A5:1927:U:H2'	83:A5:1928:G:H8	1.52	0.75
29:AG:149:LYS:NZ	36:B2:139:U:P	2.59	0.74
42:CL:59:ARG:O	83:A5:78:A:O3'	2.04	0.74
83:A5:1172:G:H1	83:A5:1322:U:H3	1.35	0.74
83:A5:3116:A:C2'	83:A5:3117:A:H5"	2.18	0.74
30:AF:176:TRP:HE1	36:B2:1804:U:H4'	1.53	0.74
26:AJ:132:ARG:HG2	36:B2:480:A:OP2	1.88	0.73
37:BC:49:G:H1	37:BC:63:U:H3	1.37	0.73
47:CI:205:PRO:HB2	85:A7:63:C:H5"	1.68	0.73
36:B2:199:G:H2'	36:B2:200:U:C6	2.23	0.73
68:Cf:49:ARG:HH11	81:CE:232:LEU:H	1.35	0.73
83:A5:3117:A:H2'	84:A9:24:G:O6	1.89	0.73
36:B2:1573:U:O2	36:B2:1708:A:N1	2.21	0.73
70:Ci:44:THR:HG23	70:Ci:45:ARG:H	1.52	0.73
36:B2:1338:U:O2'	36:B2:1339:C:O4'	2.06	0.73
83:A5:2041:G:H4'	83:A5:2042:A:C5'	2.18	0.73
83:A5:3535:G:H1	83:A5:3682:U:H3	1.35	0.73
81:CE:184:ILE:HG23	81:CE:185:PHE:H	1.52	0.72
29:AG:149:LYS:HE3	36:B2:139:U:OP1	1.88	0.72
83:A5:623:C:OP1	83:A5:623:C:H4'	1.89	0.72
85:A7:25:A:H2'	85:A7:26:C:C6	2.24	0.72
32:AW:31:SER:HA	36:B2:644:A:H5"	1.72	0.72
83:A5:1985:C:H42	83:A5:2087:C:H42	1.38	0.72
83:A5:2070:G:H1	83:A5:2082:U:H3	1.38	0.71
83:A5:777:C:O2'	83:A5:778:C:H5'	1.91	0.71
26:AJ:132:ARG:HA	36:B2:480:A:OP1	1.89	0.71
36:B2:280:U:H3	36:B2:286:A:H61	1.38	0.70
36:B2:193:U:N1	36:B2:226:C:H5'	2.06	0.70
83:A5:1722:U:H3	83:A5:2190:A:H61	1.38	0.70
83:A5:1926:A:H2'	83:A5:1927:U:C5'	2.21	0.70
83:A5:2041:G:H5"	83:A5:2042:A:C5'	2.21	0.70
83:A5:154:A:H5"	83:A5:156:G:H1'	1.73	0.70
36:B2:198:C:H2'	36:B2:199:G:H8	1.57	0.70
83:A5:3800:G:H1	83:A5:3809:U:H3	1.37	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:Cq:59:THR:HG22	83:A5:1436:A:HO2'	1.55	0.70
83:A5:632:A:C5'	83:A5:633:A:OP1	2.40	0.70
83:A5:1813:A:C5'	83:A5:1859:U:H5"	2.21	0.70
83:A5:3790:A:H2'	83:A5:3791:A:C5'	2.20	0.70
83:A5:425:A:P	83:A5:1637:U:O2'	2.49	0.69
83:A5:3791:A:N6	83:A5:3818:G:H1	1.89	0.69
36:B2:145:A:OP2	36:B2:146:C:C5	2.45	0.69
83:A5:570:U:O2'	83:A5:571:U:H5'	1.92	0.69
83:A5:458:A:H61	83:A5:761:C:H1'	1.55	0.69
63:CB:225:GLY:C	83:A5:3880:A:OP2	2.36	0.69
67:Ce:99:ALA:HA	83:A5:1652:U:OP1	1.90	0.69
83:A5:3906:U:H3	83:A5:3945:A:H61	1.40	0.69
36:B2:1336:U:H2'	36:B2:1337:U:H5'	1.75	0.69
42:CL:59:ARG:HG3	83:A5:77:A:C2	2.28	0.69
51:CA:213:GLY:O	83:A5:3498:A:H5"	1.92	0.69
83:A5:3887:U:H2'	83:A5:3888:U:C5'	2.23	0.69
83:A5:3532:G:N3	83:A5:3969:G:O2'	2.26	0.69
83:A5:1290:U:H3	83:A5:1297:G:H1	1.40	0.68
83:A5:1722:U:OP2	83:A5:1723:G:N7	2.26	0.68
26:AJ:39:ARG:NH2	36:B2:479:A:O2'	2.26	0.68
29:AG:185:VAL:HG12	36:B2:138:U:O4	1.92	0.68
36:B2:1824:C:H2'	36:B2:1824:C:O2	1.94	0.68
70:Ci:15:HIS:HB3	83:A5:77:A:C8	2.27	0.68
83:A5:3722:C:H42	83:A5:3731:U:H5"	1.58	0.68
74:CC:195:GLY:HA3	74:CC:197:GLY:H	1.58	0.68
83:A5:1812:C:H4'	83:A5:1813:A:OP2	1.94	0.68
36:B2:939:G:H2'	36:B2:940:U:H5'	1.75	0.68
36:B2:1435:A:C2	36:B2:1572:C:O2	2.47	0.68
83:A5:1769:U:H4'	83:A5:1878:A:C5	2.28	0.68
36:B2:958:G:H1	36:B2:1043:U:H3	1.41	0.68
74:CC:191:ARG:HH12	83:A5:1628:G:H3'	1.59	0.68
83:A5:682:U:H4'	83:A5:682:U:OP1	1.94	0.68
63:CB:1:MET:HB3	83:A5:3472:A:OP2	1.93	0.67
83:A5:1926:A:O2'	83:A5:1927:U:H5'	1.92	0.67
1:Az:231:PHE:CE2	1:Az:279:ILE:HG23	2.28	0.67
36:B2:479:A:H61	36:B2:602:A:H3'	1.59	0.67
83:A5:1337:U:H3	83:A5:1349:A:H61	1.42	0.67
83:A5:134:G:H5"	83:A5:134:G:H8	1.58	0.67
83:A5:2820:G:H1	83:A5:2899:U:H3	1.42	0.67
36:B2:484:C:H2'	36:B2:485:A:C8	2.30	0.67
36:B2:1319:A:C2	36:B2:1320:G:C5	2.83	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2091:A:H1'	83:A5:2092:U:C6	2.30	0.67
83:A5:2177:G:H1	83:A5:2185:U:H3	1.42	0.67
26:AJ:172:GLY:HA3	26:AJ:175:LYS:H	1.59	0.67
38:Cz:26:ARG:HD3	83:A5:2849:U:H5"	1.75	0.67
36:B2:200:U:C6	36:B2:200:U:H5"	2.28	0.67
36:B2:984:G:H1	36:B2:1003:C:H42	1.41	0.67
26:AJ:132:ARG:CG	36:B2:480:A:OP2	2.42	0.67
36:B2:856:A:H61	36:B2:870:U:H3	1.43	0.67
36:B2:1233:U:H3	36:B2:1825:A:H61	1.42	0.67
83:A5:3601:U:H3	83:A5:3610:A:H61	1.43	0.67
86:A8:55:G:N2	86:A8:61:C:C6	2.62	0.67
36:B2:1159:C:H3'	36:B2:1160:A:C8	2.30	0.67
36:B2:1971:A:H61	36:B2:1980:U:H3	1.43	0.67
83:A5:632:A:H5"	83:A5:633:A:OP1	1.93	0.67
83:A5:3701:U:H2'	83:A5:3702:G:C5'	2.25	0.66
47:CI:203:HIS:HA	85:A7:64:G:OP1	1.94	0.66
83:A5:748:A:C2'	83:A5:749:U:H5'	2.25	0.66
86:A8:109:U:O2'	86:A8:111:G:C5'	2.34	0.66
83:A5:3754:C:H2'	83:A5:3755:A:C8	2.31	0.66
83:A5:1975:C:H42	83:A5:2099:C:H42	1.42	0.66
86:A8:107:U:O2'	86:A8:109:U:OP1	2.12	0.66
83:A5:429:U:H3	86:A8:11:G:H1	1.44	0.65
83:A5:1073:C:C4'	83:A5:1074:U:OP2	2.42	0.65
36:B2:1552:C:H42	36:B2:1559:A:H61	1.44	0.65
83:A5:2852:U:H3	83:A5:2865:G:H1	1.43	0.65
36:B2:1336:U:C2'	36:B2:1337:U:H5'	2.26	0.65
68:Cf:107:HIS:H	83:A5:3846:U:H6	1.44	0.65
48:CD:64:ILE:HD12	48:CD:109:VAL:HG21	1.78	0.65
83:A5:1924:A:H3'	83:A5:1925:U:H5"	1.78	0.65
18:AY:21:ARG:CG	18:AY:77:TYR:CG	2.79	0.65
36:B2:55:A:O2'	36:B2:465:A:OP1	2.09	0.65
64:CF:183:ARG:HB3	83:A5:1189:A:OP1	1.97	0.64
68:Cf:54:ALA:HB1	68:Cf:73:LEU:HD11	1.79	0.64
83:A5:1178:U:C5	83:A5:1181:A:C8	2.85	0.64
83:A5:1791:A:C5	83:A5:1792:G:H1'	2.33	0.64
83:A5:2851:U:H3	83:A5:2866:G:H1	1.45	0.64
36:B2:1961:A:C8	36:B2:1989:A:C2	2.85	0.64
11:AL:133:LYS:HE2	33:AI:18:ARG:HH22	1.62	0.64
36:B2:1883:U:H3	36:B2:1903:G:H1	1.44	0.64
7:AM:39:VAL:HG13	7:AM:41:GLY:H	1.62	0.64
50:CR:105:LEU:HD13	83:A5:2471:A:H61	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:1565:A:H1'	83:A5:1567:G:C4	2.33	0.64
83:A5:1782:C:H42	83:A5:1798:A:H61	1.46	0.64
15:AB:35:ALA:HB1	15:AB:36:PRO:HD2	1.79	0.64
26:AJ:132:ARG:HB3	36:B2:480:A:P	2.38	0.64
79:CJ:80:ARG:HG3	85:A7:40:C:O2'	1.98	0.64
83:A5:154:A:H4'	83:A5:156:G:N9	2.13	0.64
83:A5:2585:A:C3'	83:A5:2586:A:H5"	2.28	0.64
83:A5:2885:A:H3'	83:A5:2886:C:C5	2.33	0.64
70:Ci:15:HIS:CG	83:A5:77:A:C8	2.86	0.63
83:A5:706:G:H1	83:A5:731:U:H3	1.46	0.63
83:A5:3751:C:H2'	83:A5:3751:C:O2	1.98	0.63
36:B2:940:U:O2'	36:B2:941:A:H5'	1.99	0.63
63:CB:3:HIS:CE1	83:A5:3470:G:C5	2.85	0.63
83:A5:1784:A:H1'	83:A5:1799:U:C4	2.33	0.63
44:CM:125:ILE:HG23	83:A5:3789:U:H5'	1.81	0.63
36:B2:224:A:H5"	36:B2:224:A:C8	2.34	0.63
79:CJ:80:ARG:HB2	85:A7:40:C:O2'	1.97	0.63
83:A5:1476:G:H1'	83:A5:1493:A:H61	1.62	0.63
83:A5:2091:A:H1'	83:A5:2092:U:H6	1.63	0.63
83:A5:2886:C:O5'	83:A5:2886:C:H6	1.81	0.63
52:CS:174:THR:HG22	83:A5:3727:A:H61	1.63	0.63
43:CV:40:ILE:HG23	83:A5:2673:A:C2	2.33	0.63
49:CQ:160:HIS:CG	49:CQ:161:SER:HA	2.33	0.63
54:CP:178:GLN:OE1	83:A5:3850:A:H5'	1.99	0.63
83:A5:1813:A:H2'	83:A5:1813:A:N3	2.12	0.63
86:A8:76:A:H5"	86:A8:76:A:H8	1.62	0.63
83:A5:541:A:H5'	83:A5:542:C:C5	2.34	0.63
20:Aa:84:VAL:HG11	36:B2:1990:U:H4'	1.80	0.63
47:CI:205:PRO:CG	85:A7:63:C:OP1	2.47	0.63
83:A5:3958:C:H2'	83:A5:3959:U:O4'	1.99	0.63
36:B2:479:A:N6	36:B2:603:G:OP1	2.32	0.62
36:B2:831:U:H3	36:B2:885:U:H3	1.46	0.62
36:B2:1455:U:H6	36:B2:1455:U:C5'	2.11	0.62
83:A5:568:A:H5"	83:A5:569:U:OP1	1.99	0.62
83:A5:3887:U:H2'	83:A5:3888:U:H5"	1.81	0.62
83:A5:3840:G:H1'	83:A5:3843:U:C4	2.34	0.62
83:A5:642:A:H3'	83:A5:643:U:H5"	1.81	0.62
83:A5:1196:A:O2'	83:A5:1197:A:H5'	1.99	0.62
83:A5:1799:U:O2	83:A5:1799:U:H2'	2.00	0.62
83:A5:1801:U:H3'	83:A5:1802:U:H5'	1.80	0.62
26:AJ:132:ARG:HB3	36:B2:480:A:O5'	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:576:U:H3	83:A5:635:G:H1	1.47	0.62
83:A5:3712:G:O6	83:A5:3771:A:C2	2.53	0.62
36:B2:200:U:C5'	36:B2:200:U:C6	2.83	0.62
36:B2:258:A:O2'	36:B2:259:G:H5'	1.99	0.61
86:A8:22:C:O5'	86:A8:22:C:H6	1.83	0.61
36:B2:248:G:H2'	36:B2:249:U:C5	2.35	0.61
83:A5:631:A:C2	83:A5:633:A:H5'	2.35	0.61
83:A5:3794:U:H3	83:A5:3815:G:H1	1.47	0.61
63:CB:225:GLY:O	83:A5:3880:A:OP2	2.18	0.61
83:A5:3701:U:C2'	83:A5:3702:G:H5"	2.30	0.61
83:A5:1173:U:H3	83:A5:1321:G:H1	1.48	0.61
83:A5:2212:A:H61	83:A5:2717:C:H42	1.48	0.61
36:B2:1319:A:C4	36:B2:1341:C:O2	2.54	0.61
48:CD:183:TYR:CE2	48:CD:195:HIS:CE1	2.88	0.61
83:A5:3712:G:N3	83:A5:3775:A:C2	2.69	0.61
36:B2:1290:A:H1'	36:B2:1648:C:N4	2.15	0.61
83:A5:132:U:H2'	83:A5:133:U:O4'	2.01	0.61
83:A5:803:A:H61	83:A5:1683:U:H3	1.48	0.61
83:A5:481:A:H61	83:A5:519:U:H3	1.48	0.61
83:A5:2839:A:H4'	83:A5:2840:A:OP2	2.01	0.61
26:AJ:41:LYS:HB2	36:B2:601:U:OP2	2.01	0.61
35:Ah:125:GLN:HA	36:B2:1361:C:H42	1.64	0.61
51:CA:87:PHE:HD2	83:A5:2998:U:OP2	1.83	0.61
26:AJ:42:ARG:CB	36:B2:601:U:OP1	2.49	0.61
36:B2:485:A:N6	36:B2:516:U:H3	1.98	0.61
36:B2:1425:U:H3	36:B2:1579:G:H1	1.48	0.61
83:A5:1576:U:H3	83:A5:1583:G:H1	1.48	0.61
83:A5:1809:A:H2'	83:A5:1810:A:H5"	1.83	0.61
83:A5:3887:U:C2'	83:A5:3888:U:H5"	2.30	0.61
36:B2:970:U:H3	36:B2:1032:U:H3	1.49	0.60
83:A5:2091:A:C1'	83:A5:2092:U:C6	2.84	0.60
83:A5:938:U:H3	83:A5:963:G:H1	1.49	0.60
33:AI:67:TRP:CD1	33:AI:113:TYR:HH	2.19	0.60
36:B2:1429:U:H3	36:B2:1576:A:H61	1.48	0.60
83:A5:304:U:H2'	83:A5:305:G:C8	2.36	0.60
83:A5:490:G:H1	83:A5:510:U:H3	1.49	0.60
83:A5:3422:A:H61	83:A5:3445:C:H42	1.47	0.60
56:CX:165:VAL:HG12	83:A5:2916:U:C6	2.36	0.60
83:A5:1022:A:H61	83:A5:1103:U:H3	1.47	0.60
83:A5:2842:U:H3	83:A5:2885:A:N6	1.93	0.60
86:A8:22:C:OP1	86:A8:22:C:C6	2.54	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:212:A:O2'	36:B2:246:U:O5'	2.20	0.60
83:A5:2016:U:O2'	83:A5:2017:A:H5"	2.02	0.60
36:B2:489:C:H42	36:B2:511:G:H1	1.50	0.60
1:Az:27:HIS:CD2	1:Az:27:HIS:H	2.19	0.60
83:A5:3841:C:O3'	83:A5:3842:A:C8	2.55	0.60
37:BC:47:C:OP1	37:BC:49:G:OP1	2.20	0.60
83:A5:1284:A:N1	83:A5:1301:A:C2	2.70	0.60
36:B2:121:A:H61	36:B2:300:U:H3	1.50	0.60
36:B2:1160:A:C2'	36:B2:1161:G:H5"	2.32	0.60
37:BC:19:A:N6	37:BC:47:C:H42	2.00	0.60
63:CB:234:ARG:HH21	63:CB:272:LYS:H	1.50	0.60
83:A5:652:G:H4'	83:A5:653:U:H5'	1.83	0.60
83:A5:1798:A:OP1	83:A5:1798:A:H4'	2.01	0.59
36:B2:140:G:C8	36:B2:140:G:OP2	2.55	0.59
36:B2:193:U:C2	36:B2:226:C:C5'	2.86	0.59
36:B2:1855:A:H61	36:B2:1933:U:H3	1.49	0.59
52:CS:175:TYR:N	83:A5:3729:A:N6	2.50	0.59
83:A5:482:U:H3	83:A5:518:G:H1	1.48	0.59
83:A5:2130:G:H2'	83:A5:2131:C:C6	2.36	0.59
81:CE:174:LYS:HB2	81:CE:176:ASP:H	1.66	0.59
83:A5:2030:U:H3	83:A5:2040:A:H61	1.49	0.59
36:B2:199:G:H3'	36:B2:200:U:C5	2.38	0.59
68:Cf:51:PHE:CG	68:Cf:149:ARG:HB3	2.38	0.59
81:CE:223:ALA:H	81:CE:225:TYR:HB3	1.68	0.59
83:A5:591:A:H2'	83:A5:592:G:C8	2.37	0.59
36:B2:1727:U:OP1	36:B2:1727:U:H4'	2.02	0.59
36:B2:1727:U:H1'	36:B2:1728:G:C5	2.37	0.59
48:CD:115:LEU:HD21	83:A5:1293:A:C2	2.38	0.59
83:A5:3795:G:H1	83:A5:3814:U:H3	1.50	0.59
83:A5:3917:G:H1'	83:A5:3936:A:H61	1.68	0.59
26:AJ:136:ILE:HG23	26:AJ:143:VAL:HG23	1.84	0.59
36:B2:193:U:O5'	36:B2:226:C:OP1	2.20	0.59
36:B2:1802:G:H2'	36:B2:1803:A:O5'	2.02	0.59
37:BC:18:G:C8	37:BC:56:G:N2	2.71	0.59
46:CN:18:VAL:HA	82:CG:82:PRO:HG3	1.84	0.59
83:A5:3427:G:H2'	83:A5:3428:A:H5"	1.84	0.59
36:B2:65:A:H2	36:B2:67:A:C8	2.20	0.59
83:A5:3418:U:HO2'	83:A5:3419:A:H2'	1.68	0.59
83:A5:3701:U:H2'	83:A5:3702:G:H5'	1.85	0.59
83:A5:1910:C:H5'	83:A5:2128:A:C2	2.38	0.58
85:A7:26:C:O5'	85:A7:26:C:H6	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:Cz:27:GLY:N	83:A5:2849:U:OP1	2.35	0.58
83:A5:1721:C:H2'	83:A5:1722:U:C6	2.38	0.58
83:A5:866:C:O2	83:A5:866:C:H2'	2.03	0.58
83:A5:1797:A:H2'	83:A5:1798:A:C8	2.39	0.58
36:B2:200:U:H6	36:B2:200:U:H5"	1.61	0.58
36:B2:1338:U:C2'	36:B2:1339:C:C6	2.84	0.58
38:Cz:26:ARG:HB3	83:A5:2849:U:P	2.43	0.58
83:A5:3701:U:H2'	83:A5:3702:G:H5"	1.85	0.58
5:AO:99:ALA:HB3	5:AO:101:GLY:H	1.68	0.58
38:Cz:26:ARG:CA	83:A5:2849:U:OP1	2.50	0.58
83:A5:1969:A:H61	83:A5:2111:A:H62	1.51	0.58
83:A5:2041:G:C4'	83:A5:2042:A:H5'	2.31	0.58
60:Cr:110:LEU:H	60:Cr:110:LEU:HD12	1.68	0.58
83:A5:2885:A:H2'	83:A5:2886:C:C6	2.38	0.58
65:Cc:49:ALA:HB1	65:Cc:51:ASN:HD22	1.68	0.58
73:Cl:7:PHE:N	86:A8:110:C:OP1	2.35	0.58
83:A5:3116:A:C3'	83:A5:3117:A:H5"	2.34	0.58
26:AJ:146:PRO:CG	36:B2:479:A:H5'	2.34	0.58
36:B2:227:G:O6	36:B2:238:C:N4	2.36	0.58
6:AX:13:HIS:CE1	11:AL:98:ARG:HH11	2.22	0.58
36:B2:193:U:C2	36:B2:226:C:H5'	2.39	0.58
41:CO:1:MET:H3	41:CO:7:ARG:HE	1.52	0.58
56:CX:162:ARG:HB2	83:A5:1813:A:C2	2.39	0.58
83:A5:1508:U:O2'	83:A5:1509:A:H5'	2.04	0.58
83:A5:1738:U:C5	83:A5:2151:A:N1	2.72	0.58
83:A5:3117:A:H5'	83:A5:3117:A:H8	1.69	0.58
83:A5:3732:U:H5'	83:A5:3742:C:O2	2.04	0.58
83:A5:3771:A:O2'	83:A5:3779:U:H5'	2.04	0.58
36:B2:1245:A:H61	36:B2:1813:U:H3	1.52	0.58
64:CF:183:ARG:NH1	83:A5:1189:A:OP1	2.37	0.58
83:A5:3418:U:C5	83:A5:3443:A:C8	2.90	0.58
81:CE:194:PRO:HA	83:A5:3839:A:H61	1.69	0.57
47:CI:205:PRO:HB3	85:A7:63:C:C5'	2.21	0.57
36:B2:107:A:H61	36:B2:311:U:H3	1.50	0.57
36:B2:140:G:OP2	36:B2:140:G:H8	1.86	0.57
42:CL:61:PRO:HB3	83:A5:78:A:O2'	2.04	0.57
70:Ci:15:HIS:ND1	83:A5:77:A:N7	2.53	0.57
83:A5:3593:A:C5	83:A5:3614:U:H4'	2.40	0.57
26:AJ:42:ARG:N	36:B2:601:U:OP1	2.37	0.57
83:A5:561:A:N1	83:A5:650:A:N1	2.52	0.57
83:A5:3499:G:O2'	83:A5:3500:A:H5'	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3771:A:H5”	83:A5:3772:U:OP2	2.04	0.57
63:CB:1:MET:HE3	83:A5:3472:A:H5”	1.87	0.57
63:CB:156:TYR:OH	83:A5:3800:G:H5’	2.05	0.57
79:CJ:80:ARG:CG	85:A7:40:C:O2’	2.53	0.57
23:AD:198:ASN:HB2	23:AD:201:GLY:HA2	1.86	0.57
36:B2:258:A:OP1	36:B2:299:C:H5’	2.05	0.57
36:B2:1585:A:N6	36:B2:1598:A:H61	2.01	0.57
36:B2:1874:C:O2’	36:B2:1875:G:H5’	2.04	0.57
42:CL:61:PRO:HB3	83:A5:78:A:H1’	1.85	0.57
74:CC:204:ARG:HG2	74:CC:205:ILE:H	1.69	0.57
81:CE:109:GLN:HB3	83:A5:3714:U:H3	1.69	0.57
36:B2:896:A:C4	36:B2:944:G:H1’	2.40	0.57
81:CE:188:LYS:HG2	81:CE:189:LYS:H	1.69	0.57
83:A5:748:A:H2’	83:A5:749:U:C5’	2.33	0.57
83:A5:2125:G:H3’	83:A5:2126:A:H5”	1.87	0.57
83:A5:3655:U:C4	83:A5:3658:G:O6	2.58	0.57
1:Az:683:LEU:HD23	1:Az:683:LEU:H	1.70	0.57
29:AG:181:ILE:HD11	36:B2:139:U:P	2.45	0.57
36:B2:486:A:H2	36:B2:515:U:H3	1.52	0.57
48:CD:35:ARG:HB2	83:A5:3280:A:C2	2.39	0.57
83:A5:541:A:H5’	83:A5:542:C:H5	1.69	0.57
83:A5:3898:C:H2’	83:A5:3899:A:C8	2.40	0.57
36:B2:84:A:N3	36:B2:145:A:O2’	2.36	0.57
68:Cf:46:ARG:CG	68:Cf:47:HIS:H	2.18	0.57
68:Cf:49:ARG:HH22	81:CE:230:PHE:HB3	1.70	0.57
83:A5:425:A:OP1	83:A5:425:A:H4’	2.04	0.57
83:A5:640:U:H2’	83:A5:641:A:H8	1.66	0.57
83:A5:3338:U:O2’	83:A5:3499:G:H4’	2.05	0.57
6:AX:67:ARG:HH22	6:AX:114:ASP:HB2	1.69	0.56
36:B2:939:G:C2’	36:B2:940:U:H5’	2.35	0.56
83:A5:3418:U:C4	83:A5:3443:A:C5	2.92	0.56
83:A5:3887:U:C2’	83:A5:3888:U:C5’	2.82	0.56
1:Az:356:GLU:HA	1:Az:363:HIS:CE1	2.40	0.56
34:AQ:15:PHE:CZ	36:B2:1571:U:H6	2.23	0.56
37:BC:19:A:H62	37:BC:47:C:H42	1.50	0.56
48:CD:179:ARG:NH2	83:A5:3278:A:OP1	2.38	0.56
59:CZ:134:ARG:HE	83:A5:2120:G:H4’	1.70	0.56
83:A5:302:A:N6	83:A5:3317:U:O2’	2.38	0.56
83:A5:705:G:H1	83:A5:732:U:H3	1.50	0.56
83:A5:3822:C:H3’	83:A5:3823:G:H5”	1.88	0.56
86:A8:61:C:H5”	86:A8:62:A:O4’	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AC:82:GLY:H	28:AC:85:LEU:HG	1.70	0.56
36:B2:156:U:O2'	36:B2:157:C:H5'	2.05	0.56
63:CB:3:HIS:HE1	83:A5:3470:G:C6	2.23	0.56
83:A5:2041:G:C5'	83:A5:2042:A:H5'	2.35	0.56
27:AE:248:ILE:H	27:AE:248:ILE:HD12	1.69	0.56
83:A5:651:A:C2	83:A5:653:U:C6	2.94	0.56
83:A5:74:A:H2'	83:A5:75:A:C8	2.40	0.56
83:A5:3418:U:H3	83:A5:3468:G:H1	1.52	0.56
83:A5:3726:U:H1'	83:A5:3729:A:H2'	1.87	0.56
12:AR:24:LEU:HB2	12:AR:58:MET:HE3	1.86	0.56
53:CT:12:ARG:HH21	83:A5:3230:G:H4'	1.70	0.56
83:A5:89:A:H61	83:A5:103:A:H3'	1.70	0.56
9:Ad:34:TYR:H	9:Ad:36:LEU:H	1.54	0.56
36:B2:65:A:C2	36:B2:67:A:C8	2.94	0.56
44:CM:67:THR:HG21	83:A5:633:A:O2'	2.05	0.56
83:A5:2843:G:H1	83:A5:2884:C:H42	1.54	0.56
83:A5:3726:U:HO2'	83:A5:3729:A:C2'	2.18	0.56
83:A5:3887:U:H2'	83:A5:3888:U:H5'	1.87	0.56
36:B2:451:C:N4	36:B2:466:G:H21	2.03	0.56
83:A5:837:A:C2	83:A5:843:A:N6	2.69	0.56
83:A5:1630:G:C2	83:A5:1660:G:C6	2.94	0.56
83:A5:1633:G:H1'	83:A5:1659:A:N6	2.21	0.56
5:AO:43:HIS:HE1	36:B2:982:G:H21	1.54	0.56
45:Ca:116:GLY:HA3	83:A5:866:C:H5"	1.87	0.55
49:CQ:8:LYS:HB2	49:CQ:9:TYR:HA	1.88	0.55
70:Ci:15:HIS:CB	83:A5:77:A:H8	2.17	0.55
81:CE:101:LEU:HD22	81:CE:145:VAL:HG11	1.86	0.55
83:A5:1927:U:O2'	83:A5:1928:G:O4'	2.14	0.55
86:A8:76:A:C8	86:A8:76:A:C5'	2.89	0.55
36:B2:1319:A:C2	36:B2:1340:U:O2	2.59	0.55
45:Ca:29:HIS:CD2	45:Ca:33:ARG:HE	2.25	0.55
54:CP:142:SER:HB3	83:A5:1688:A:H62	1.70	0.55
83:A5:2584:G:H1	83:A5:2615:C:H42	1.53	0.55
83:A5:3010:U:H3	83:A5:3107:G:H1	1.52	0.55
83:A5:3801:A:H2'	83:A5:3807:G:N1	2.21	0.55
84:A9:22:A:H2'	84:A9:23:G:C8	2.41	0.55
85:A7:61:G:O2'	85:A7:62:U:H5'	2.06	0.55
36:B2:198:C:O2'	36:B2:199:G:O4'	2.17	0.55
46:CN:10:LEU:HD23	70:Ci:54:VAL:HG13	1.88	0.55
63:CB:117:ARG:HH22	63:CB:165:HIS:HB3	1.70	0.55
86:A8:76:A:H2	86:A8:77:G:O6	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:600:A:H2'	36:B2:601:U:H5'	1.87	0.55
46:CN:50:ARG:HB2	46:CN:51:LEU:HD22	1.88	0.55
83:A5:2091:A:C4	83:A5:2092:U:C6	2.94	0.55
36:B2:145:A:OP2	36:B2:146:C:H5	1.88	0.55
36:B2:1168:C:O2'	36:B2:1169:C:H3'	2.07	0.55
83:A5:2269:A:H3'	83:A5:2270:G:H8	1.72	0.55
83:A5:3731:U:O2	83:A5:3731:U:H2'	2.05	0.55
36:B2:226:C:N4	36:B2:239:G:C6	2.73	0.55
36:B2:554:U:H3	36:B2:600:A:H61	1.55	0.55
56:CX:165:VAL:HG12	83:A5:2916:U:C5	2.41	0.55
83:A5:3354:U:H5'	83:A5:3473:C:C6	2.42	0.55
86:A8:82:C:O3'	86:A8:85:G:N2	2.39	0.55
18:AY:21:ARG:HG2	18:AY:77:TYR:HA	1.89	0.55
36:B2:1434:U:H2'	36:B2:1435:A:C5'	2.36	0.55
63:CB:3:HIS:CE1	83:A5:3471:A:N7	2.75	0.55
83:A5:2041:G:C5'	83:A5:2042:A:C5'	2.84	0.55
36:B2:142:A:HO2'	36:B2:143:U:H6	1.54	0.55
59:CZ:84:ARG:HH21	69:Cg:97:GLU:HB3	1.71	0.55
73:Cl:38:ASN:HD21	86:A8:51:A:H1'	1.72	0.55
83:A5:458:A:N6	83:A5:761:C:H1'	2.21	0.55
83:A5:1121:A:H1'	83:A5:2518:A:H61	1.72	0.55
83:A5:2191:G:H2'	83:A5:2192:U:H5"	1.89	0.55
83:A5:2810:A:H61	83:A5:3129:U:H3	1.55	0.55
20:Aa:88:SER:HB3	36:B2:1820:U:OP1	2.05	0.55
28:AC:115:ASP:CB	28:AC:117:ASN:H	2.19	0.55
31:AH:96:ARG:HB2	31:AH:123:VAL:HG13	1.89	0.55
36:B2:155:U:H3'	36:B2:156:U:H5"	1.88	0.55
30:AF:176:TRP:NE1	36:B2:1804:U:H4'	2.21	0.54
68:Cf:47:HIS:CE1	68:Cf:50:LEU:O	2.60	0.54
83:A5:1926:A:H61	83:A5:2128:A:N6	1.97	0.54
83:A5:3532:G:H21	83:A5:3969:G:H1'	1.73	0.54
18:AY:21:ARG:CG	18:AY:77:TYR:CD1	2.90	0.54
31:AH:93:ILE:HD12	31:AH:94:ALA:H	1.73	0.54
52:CS:173:ARG:HG3	52:CS:175:TYR:H	1.73	0.54
83:A5:2803:A:H61	83:A5:3136:U:H3	1.54	0.54
83:A5:3801:A:C8	83:A5:3807:G:N2	2.75	0.54
36:B2:198:C:O2'	36:B2:199:G:H5'	2.08	0.54
36:B2:521:U:H2'	36:B2:522:G:C8	2.42	0.54
52:CS:174:THR:CB	83:A5:3729:A:H61	2.20	0.54
74:CC:191:ARG:NH2	83:A5:1629:C:OP2	2.40	0.54
83:A5:2933:A:C8	83:A5:2982:U:OP2	2.60	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3774:U:H4'	83:A5:3775:A:C8	2.42	0.54
86:A8:76:A:H8	86:A8:76:A:C5'	2.19	0.54
67:Ce:98:ILE:HG13	67:Ce:121:LEU:HD21	1.89	0.54
85:A7:65:C:H2'	85:A7:66:G:O4'	2.07	0.54
36:B2:216:U:C5	36:B2:915:U:C5	2.95	0.54
62:Cb:53:ARG:HB2	62:Cb:53:ARG:HH11	1.72	0.54
63:CB:229:LYS:H	63:CB:234:ARG:CZ	2.20	0.54
83:A5:1927:U:H2'	83:A5:1928:G:C8	2.38	0.54
7:AM:47:LYS:HA	25:Af:129:GLY:H	1.72	0.54
36:B2:998:U:C6	36:B2:998:U:C5'	2.82	0.54
50:CR:136:ARG:HA	83:A5:2471:A:C8	2.43	0.54
61:Ch:45:SER:HB2	86:A8:77:G:H2'	1.90	0.54
61:Ch:48:ARG:NH2	86:A8:62:A:OP1	2.40	0.54
83:A5:489:U:H3	83:A5:511:G:H1	1.54	0.54
85:A7:28:U:H1'	85:A7:54:A:H61	1.73	0.54
36:B2:1779:A:H61	36:B2:1801:U:H3	1.56	0.54
44:CM:135:LYS:H	44:CM:136:ALA:HB2	1.73	0.54
46:CN:28:TRP:HA	46:CN:28:TRP:CE3	2.43	0.54
62:Cb:42:ASN:ND2	83:A5:1287:U:O2'	2.41	0.54
83:A5:541:A:OP1	83:A5:542:C:N4	2.40	0.54
83:A5:2839:A:N6	83:A5:2880:A:H1'	2.23	0.54
83:A5:3497:G:C6	83:A5:3498:A:C6	2.96	0.54
16:AA:54:THR:HG22	16:AA:162:PRO:HG2	1.89	0.54
36:B2:187:A:H3'	36:B2:188:C:H5"	1.89	0.54
36:B2:305:A:H2'	36:B2:306:A:C8	2.43	0.54
83:A5:777:C:H2'	83:A5:778:C:C6	2.43	0.54
36:B2:1209:U:H3	36:B2:1214:A:H61	1.56	0.54
83:A5:154:A:H4'	83:A5:156:G:C8	2.43	0.54
83:A5:291:U:H3	83:A5:310:A:H61	1.56	0.54
86:A8:22:C:H6	86:A8:22:C:OP1	1.90	0.54
25:Af:100:LEU:O	25:Af:102:VAL:HG22	2.08	0.54
36:B2:947:U:C5	36:B2:948:A:N7	2.76	0.54
39:Cq:95:LEU:H	39:Cq:95:LEU:CD2	2.21	0.54
48:CD:28:THR:HG22	48:CD:33:ARG:HH21	1.72	0.54
66:Cd:25:HIS:CE1	66:Cd:27:ALA:HB3	2.42	0.54
83:A5:2593:A:H61	83:A5:2608:G:H22	1.55	0.54
36:B2:1420:U:H3	36:B2:1610:A:H61	1.56	0.53
49:CQ:156:PRO:HG2	49:CQ:157:GLY:H	1.72	0.53
81:CE:220:LYS:CE	81:CE:231:ALA:H	2.21	0.53
83:A5:1689:G:O4'	83:A5:1689:G:N9	2.37	0.53
83:A5:1812:C:N1	83:A5:1812:C:H5'	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2255:G:H4'	83:A5:2495:G:H22	1.73	0.53
83:A5:2268:G:C6	83:A5:2473:C:N4	2.75	0.53
83:A5:3117:A:H4'	83:A5:3118:U:OP1	2.08	0.53
7:AM:41:GLY:HA3	36:B2:1316:G:C6	2.42	0.53
63:CB:79:LEU:HD13	63:CB:347:LEU:HD21	1.88	0.53
67:Ce:73:PHE:CD1	67:Ce:120:ARG:HD3	2.43	0.53
79:CJ:80:ARG:CB	85:A7:40:C:O2'	2.55	0.53
83:A5:3969:G:C2'	83:A5:3970:A:N7	2.72	0.53
36:B2:1979:C:H2'	36:B2:1980:U:O4'	2.08	0.53
83:A5:1448:G:H1	83:A5:1470:C:H42	1.56	0.53
83:A5:3017:U:H3	83:A5:3101:A:H61	1.56	0.53
2:Ag:192:HIS:CG	2:Ag:196:LEU:HD11	2.43	0.53
34:AQ:15:PHE:CZ	36:B2:1571:U:C6	2.96	0.53
51:CA:207:VAL:HG13	51:CA:208:GLU:HG3	1.91	0.53
83:A5:3486:U:C5	83:A5:3508:G:N2	2.76	0.53
26:AJ:146:PRO:HG2	36:B2:479:A:H5'	1.90	0.53
46:CN:27:VAL:HG11	46:CN:124:ASP:HB2	1.90	0.53
83:A5:1979:A:H61	83:A5:2095:U:H3	1.55	0.53
86:A8:101:A:C8	86:A8:102:A:C8	2.97	0.53
7:AM:71:LEU:HA	7:AM:74:ALA:HB3	1.91	0.53
36:B2:917:U:H2'	36:B2:918:C:H5"	1.91	0.53
60:Cr:47:ILE:HA	60:Cr:49:HIS:H	1.73	0.53
83:A5:404:U:C4	83:A5:405:A:H1'	2.43	0.53
52:CS:174:THR:C	83:A5:3729:A:H61	2.16	0.53
70:Ci:15:HIS:CB	83:A5:77:A:C8	2.90	0.53
80:CH:40:HIS:CG	83:A5:3658:G:H4'	2.44	0.53
83:A5:815:A:H61	83:A5:997:U:H3	1.57	0.53
32:AW:47:ILE:HG23	32:AW:65:LEU:HD23	1.89	0.53
83:A5:167:A:H61	83:A5:280:C:H42	1.57	0.53
83:A5:3810:C:H2'	83:A5:3811:A:H5"	1.89	0.53
36:B2:1226:A:C4	36:B2:1227:A:C8	2.97	0.53
36:B2:1338:U:H2'	36:B2:1339:C:C5	2.44	0.53
36:B2:1455:U:H3	36:B2:1531:G:H1	1.57	0.53
44:CM:67:THR:CG2	83:A5:633:A:O2'	2.57	0.53
63:CB:262:VAL:HG23	83:A5:2772:G:C4	2.43	0.53
83:A5:1372:A:H2'	83:A5:1373:A:H4'	1.91	0.53
83:A5:2041:G:C4'	83:A5:2042:A:C5'	2.85	0.53
1:Az:223:GLY:C	1:Az:332:ALA:HB2	2.34	0.53
8:AS:122:GLY:HA2	8:AS:125:HIS:CD2	2.44	0.53
31:AH:15:PRO:HB2	31:AH:16:ASP:HA	1.90	0.53
36:B2:599:A:H2'	36:B2:600:A:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1666:G:H8	36:B2:1666:G:O5'	1.92	0.53
63:CB:142:GLY:HA2	63:CB:147:GLU:H	1.74	0.53
65:Cc:51:ASN:HD21	65:Cc:77:THR:HA	1.74	0.53
69:Cg:1:MET:HG3	83:A5:1724:A:H61	1.75	0.53
28:AC:107:PHE:CE1	28:AC:130:VAL:HG22	2.44	0.52
41:CO:60:LEU:H	41:CO:60:LEU:CD1	2.18	0.52
57:CY:2:LYS:HG2	83:A5:250:U:H5"	1.91	0.52
83:A5:594:U:H3	83:A5:615:C:H42	1.56	0.52
83:A5:1294:U:C5	83:A5:1296:U:C5	2.97	0.52
83:A5:1519:A:H62	83:A5:3391:U:H5"	1.74	0.52
83:A5:3801:A:C8	83:A5:3801:A:C5'	2.83	0.52
83:A5:3899:A:H61	83:A5:3955:U:H3	1.55	0.52
36:B2:266:U:O2	36:B2:267:G:N7	2.42	0.52
37:BC:53:A:C2	37:BC:57:A:N7	2.77	0.52
83:A5:201:U:O2	83:A5:233:A:C2	2.62	0.52
83:A5:2843:G:H2'	83:A5:2844:G:O4'	2.09	0.52
84:A9:20:U:H3'	84:A9:21:G:H5"	1.91	0.52
36:B2:1336:U:C5	36:B2:1337:U:C4	2.97	0.52
83:A5:474:A:N6	83:A5:527:U:H3	2.06	0.52
83:A5:2904:U:H2'	83:A5:2905:A:H5"	1.91	0.52
36:B2:138:U:H2'	36:B2:138:U:O2	2.09	0.52
36:B2:212:A:H2'	36:B2:246:U:H5"	1.91	0.52
36:B2:650:G:H2'	36:B2:651:C:C6	2.44	0.52
36:B2:1557:U:H2'	36:B2:1558:A:O4'	2.10	0.52
36:B2:1696:G:H22	36:B2:1741:A:H1'	1.74	0.52
83:A5:74:A:O2'	83:A5:75:A:H5'	2.10	0.52
83:A5:302:A:N6	83:A5:3317:U:HO2'	2.07	0.52
83:A5:709:U:H3	83:A5:727:G:H1	1.58	0.52
83:A5:1634:A:C8	83:A5:1659:A:C6	2.97	0.52
83:A5:3774:U:C6	83:A5:3774:U:H5'	2.45	0.52
83:A5:3880:A:H1'	83:A5:3884:A:N6	2.24	0.52
1:Az:578:LEU:H	1:Az:841:LEU:HD22	1.73	0.52
36:B2:224:A:H5"	36:B2:224:A:H8	1.74	0.52
36:B2:509:C:H2'	36:B2:510:U:C6	2.45	0.52
51:CA:87:PHE:HD2	83:A5:2998:U:P	2.33	0.52
83:A5:3556:A:H8	83:A5:3569:C:H41	1.57	0.52
57:CY:48:PRO:HG2	57:CY:50:ARG:HH21	1.74	0.52
83:A5:1197:A:C2	83:A5:1198:U:C4	2.98	0.52
83:A5:3700:U:H3	83:A5:3862:A:H61	1.58	0.52
36:B2:1421:C:H2'	36:B2:1422:A:C8	2.44	0.52
58:CW:87:LEU:H	58:CW:87:LEU:HD12	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:50:LYS:HA	83:A5:591:A:C5'	2.39	0.52
81:CE:195:ASN:H	83:A5:3839:A:H61	1.57	0.52
26:AJ:132:ARG:CB	36:B2:480:A:P	2.98	0.52
14:AT:6:VAL:HG22	14:AT:7:LYS:H	1.75	0.52
36:B2:243:U:H3	36:B2:920:U:H5"	1.75	0.52
51:CA:69:TYR:CD2	83:A5:3003:C:H4'	2.44	0.52
57:CY:2:LYS:HB3	57:CY:7:VAL:CG1	2.40	0.52
86:A8:86:A:H3'	86:A8:87:A:C8	2.45	0.52
36:B2:1455:U:C6	36:B2:1455:U:C5'	2.88	0.52
41:CO:124:ILE:HD11	83:A5:1394:U:C6	2.45	0.52
83:A5:3887:U:C3'	83:A5:3888:U:C5'	2.88	0.52
83:A5:3969:G:H2'	83:A5:3970:A:N7	2.25	0.52
11:AL:14:GLY:HA2	36:B2:210:U:OP2	2.10	0.51
46:CN:114:ARG:HH12	46:CN:154:HIS:HA	1.75	0.51
57:CY:2:LYS:HD2	83:A5:235:A:C2	2.45	0.51
83:A5:1633:G:H1'	83:A5:1659:A:H61	1.75	0.51
83:A5:1926:A:C2'	83:A5:1927:U:C5'	2.81	0.51
1:Az:40:VAL:HG11	1:Az:55:ARG:HA	1.92	0.51
28:AC:104:ARG:HG2	28:AC:105:THR:H	1.74	0.51
49:CQ:161:SER:HB3	49:CQ:163:THR:HB	1.92	0.51
68:Cf:46:ARG:HG2	68:Cf:47:HIS:H	1.76	0.51
68:Cf:137:ARG:HB3	83:A5:449:U:OP1	2.11	0.51
83:A5:201:U:O2	83:A5:233:A:H2	1.93	0.51
83:A5:1446:A:C2	83:A5:1492:C:C5	2.99	0.51
28:AC:112:ALA:HB2	28:AC:122:LEU:HD23	1.91	0.51
36:B2:985:A:N7	36:B2:1001:G:N2	2.58	0.51
36:B2:1570:U:O2'	36:B2:1572:C:N4	2.44	0.51
36:B2:1977:A:H4'	76:Cn:1:MET:HE3	1.91	0.51
58:CW:51:TRP:CZ2	83:A5:3907:G:C2	2.97	0.51
70:Ci:46:HIS:O	70:Ci:50:MET:HE2	2.10	0.51
80:CH:50:LYS:HG3	83:A5:591:A:H5'	1.92	0.51
80:CH:170:ILE:HD13	80:CH:170:ILE:H	1.75	0.51
83:A5:816:A:H61	83:A5:996:C:H42	1.58	0.51
85:A7:22:A:H2'	85:A7:23:A:C8	2.45	0.51
34:AQ:8:PRO:HA	34:AQ:9:VAL:HG13	1.92	0.51
36:B2:1159:C:H3'	36:B2:1160:A:H8	1.74	0.51
81:CE:20:HIS:HB2	81:CE:35:LYS:HZ3	1.75	0.51
83:A5:3818:G:OP1	83:A5:3818:G:H4'	2.11	0.51
25:Af:102:VAL:HB	25:Af:103:LEU:HA	1.92	0.51
83:A5:3712:G:C2	83:A5:3775:A:N1	2.78	0.51
38:Cz:36:ILE:O	83:A5:2886:C:O2'	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CP:27:LYS:HB3	54:CP:63:PHE:CD2	2.46	0.51
83:A5:3390:U:C4	83:A5:3391:U:C4	2.99	0.51
85:A7:64:G:H2'	85:A7:64:G:N3	2.26	0.51
11:AL:82:THR:HA	11:AL:110:CYS:H	1.75	0.51
14:AT:87:VAL:CG1	36:B2:1735:A:OP1	2.59	0.51
36:B2:41:A:H61	36:B2:471:U:H3	1.59	0.51
74:CC:358:ALA:HA	74:CC:363:VAL:HG22	1.91	0.51
83:A5:910:C:C5	83:A5:911:A:C8	2.99	0.51
36:B2:827:U:H3	36:B2:891:A:H61	1.57	0.51
48:CD:142:PHE:CZ	62:Cb:76:LEU:HD23	2.45	0.51
74:CC:65:THR:HG22	74:CC:67:ALA:H	1.75	0.51
75:Cm:96:CYS:SG	75:Cm:101:ALA:HB3	2.51	0.51
83:A5:1491:U:O2	83:A5:1491:U:H2'	2.10	0.51
83:A5:3159:C:C2	83:A5:3329:U:H5'	2.46	0.51
1:Az:737:CYS:SG	1:Az:745:ILE:HD11	2.51	0.51
36:B2:1022:A:H4'	36:B2:1131:U:O2'	2.11	0.51
48:CD:13:PHE:CD2	85:A7:65:C:O2'	2.64	0.51
52:CS:175:TYR:HA	83:A5:3729:A:H62	1.76	0.51
63:CB:275:HIS:CD2	63:CB:277:ARG:HH21	2.29	0.51
83:A5:1631:U:O4	83:A5:1659:A:O2'	2.29	0.51
83:A5:3117:A:H5'	83:A5:3117:A:C8	2.46	0.51
10:AN:15:ALA:HA	32:AW:57:ARG:HH22	1.76	0.51
1:Az:27:HIS:CE1	1:Az:140:CYS:HA	2.46	0.50
28:AC:122:LEU:HD22	28:AC:224:TYR:CE1	2.46	0.50
83:A5:634:U:O5'	83:A5:634:U:H6	1.94	0.50
83:A5:1316:U:H3'	83:A5:1317:A:H5'	1.93	0.50
83:A5:3420:U:C6	83:A5:3443:A:N6	2.79	0.50
85:A7:24:U:O4'	85:A7:118:C:H4'	2.11	0.50
85:A7:25:A:H2'	85:A7:26:C:C5	2.47	0.50
8:AS:135:HIS:CD2	8:AS:135:HIS:H	2.29	0.50
36:B2:1049:C:C4	36:B2:1050:A:C2	2.99	0.50
36:B2:1435:A:H61	36:B2:1570:U:H3	1.57	0.50
38:Cz:111:LEU:HD22	38:Cz:112:ALA:N	2.27	0.50
83:A5:173:A:H2'	83:A5:174:A:C8	2.45	0.50
83:A5:837:A:H2	83:A5:843:A:H61	1.49	0.50
83:A5:1492:C:C2	83:A5:1493:A:C8	2.99	0.50
83:A5:3792:A:O2'	83:A5:3793:U:H5'	2.12	0.50
45:Ca:137:LYS:NZ	83:A5:866:C:H4'	2.26	0.50
83:A5:2269:A:N6	83:A5:2468:A:N6	2.45	0.50
83:A5:3417:C:H2'	83:A5:3418:U:C6	2.47	0.50
83:A5:3840:G:H1'	83:A5:3843:U:O4	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:CK:117:ARG:NH2	40:CK:121:MET:HE2	2.27	0.50
83:A5:1212:G:C6	83:A5:1213:C:N4	2.79	0.50
83:A5:1242:G:H2'	83:A5:1243:A:C8	2.46	0.50
83:A5:2091:A:N9	83:A5:2092:U:C6	2.80	0.50
2:Ag:14:HIS:CD2	2:Ag:18:VAL:HG22	2.46	0.50
5:AO:47:LEU:H	15:AB:47:THR:HG21	1.76	0.50
11:AL:16:ASN:OD1	36:B2:210:U:OP1	2.29	0.50
15:AB:35:ALA:HB1	15:AB:36:PRO:CD	2.42	0.50
36:B2:94:G:N2	36:B2:465:A:H5'	2.26	0.50
47:CI:41:ALA:HB3	47:CI:86:HIS:CE1	2.47	0.50
63:CB:175:GLN:O	83:A5:3887:U:O3'	2.30	0.50
83:A5:1638:G:H2'	83:A5:1639:U:O4'	2.12	0.50
86:A8:76:A:H2'	86:A8:77:G:C8	2.46	0.50
31:AH:10:PRO:HA	31:AH:12:GLY:H	1.77	0.50
36:B2:413:C:H2'	36:B2:414:C:C6	2.46	0.50
42:CL:66:HIS:HB3	83:A5:77:A:N1	2.27	0.50
66:Cd:20:ARG:HH12	66:Cd:87:ARG:HH21	1.60	0.50
83:A5:3587:U:H3	83:A5:3626:A:H61	1.59	0.50
11:AL:43:THR:HG22	11:AL:59:TRP:HE1	1.77	0.50
14:AT:40:ALA:HB1	14:AT:43:LYS:H	1.75	0.50
26:AJ:23:LYS:HA	26:AJ:26:LEU:HD12	1.93	0.50
41:CO:4:LEU:HD11	68:Cf:55:VAL:HG22	1.94	0.50
68:Cf:118:TRP:CZ2	83:A5:3847:U:C5	2.99	0.50
83:A5:1267:A:H5"	83:A5:3169:A:H61	1.77	0.50
83:A5:3701:U:C2'	83:A5:3702:G:C5'	2.89	0.50
36:B2:217:A:H61	36:B2:927:U:H3	1.60	0.50
51:CA:20:VAL:HB	83:A5:2553:U:C5	2.47	0.50
63:CB:75:ALA:HB2	83:A5:3585:A:C6	2.47	0.50
63:CB:229:LYS:H	63:CB:234:ARG:NH2	2.10	0.50
83:A5:455:U:H3	83:A5:771:A:H61	1.60	0.50
36:B2:93:A:H2'	36:B2:94:G:H8	1.77	0.50
36:B2:1690:G:H2'	36:B2:1691:A:H5'	1.93	0.50
36:B2:1783:U:H3	36:B2:1797:G:H1	1.60	0.50
44:CM:15:ALA:HB3	44:CM:20:LEU:HD22	1.94	0.50
61:Ch:5:LYS:HE3	86:A8:85:G:OP1	2.12	0.50
83:A5:651:A:H2'	83:A5:653:U:H5"	1.94	0.50
83:A5:3244:U:H2'	83:A5:3245:U:C6	2.46	0.50
86:A8:109:U:H2'	86:A8:110:C:H5"	1.92	0.50
18:AY:21:ARG:HG2	18:AY:77:TYR:CG	2.46	0.49
46:CN:64:ILE:HD12	46:CN:132:VAL:HG21	1.94	0.49
63:CB:46:PHE:CE2	63:CB:207:VAL:HA	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:420:A:H3'	83:A5:421:C:H5'	1.94	0.49
83:A5:1300:G:H2'	83:A5:1301:A:O4'	2.13	0.49
83:A5:1600:U:C4	83:A5:1601:U:C5	2.99	0.49
83:A5:3969:G:O2'	83:A5:3970:A:N7	2.36	0.49
32:AW:102:VAL:HB	32:AW:113:HIS:CD2	2.46	0.49
36:B2:199:G:H2'	36:B2:200:U:C5	2.46	0.49
36:B2:211:U:H3	36:B2:259:G:H1	1.59	0.49
36:B2:317:A:C2	36:B2:320:A:C8	2.99	0.49
36:B2:822:A:H3'	36:B2:823:C:H5"	1.94	0.49
63:CB:108:GLN:HG2	63:CB:137:TRP:CD2	2.48	0.49
83:A5:973:G:O4'	83:A5:973:G:N9	2.40	0.49
36:B2:199:G:H3'	36:B2:200:U:H5	1.75	0.49
36:B2:493:A:H62	36:B2:506:G:H21	1.61	0.49
74:CC:286:LYS:H	74:CC:286:LYS:CE	2.25	0.49
81:CE:101:LEU:HD22	81:CE:145:VAL:CG1	2.42	0.49
2:Ag:148:HIS:CD2	2:Ag:152:VAL:HG22	2.47	0.49
23:AD:176:HIS:CD2	36:B2:1364:G:H21	2.30	0.49
36:B2:483:A:H62	36:B2:547:G:H22	1.60	0.49
49:CQ:40:ASN:HD22	74:CC:306:ARG:HD3	1.77	0.49
70:Ci:15:HIS:CE1	83:A5:77:A:N7	2.80	0.49
48:CD:13:PHE:HD2	85:A7:65:C:O2'	1.96	0.49
83:A5:3777:U:C5	83:A5:3835:U:H1'	2.47	0.49
83:A5:3900:A:H61	83:A5:3954:U:H3	1.59	0.49
28:AC:174:VAL:HG11	28:AC:219:PHE:HA	1.94	0.49
36:B2:111:A:H61	36:B2:306:A:N6	2.10	0.49
36:B2:155:U:H3'	36:B2:156:U:C5'	2.42	0.49
36:B2:1803:A:C6	36:B2:1804:U:C4	3.00	0.49
81:CE:220:LYS:HE2	81:CE:231:ALA:H	1.77	0.49
36:B2:371:A:H61	36:B2:380:U:H3	1.58	0.49
36:B2:1468:G:H1	36:B2:1521:U:H3	1.60	0.49
81:CE:222:PHE:HB2	81:CE:225:TYR:CD2	2.47	0.49
83:A5:134:G:H2'	83:A5:135:U:O4'	2.12	0.49
83:A5:2999:U:H1'	83:A5:3000:G:OP1	2.12	0.49
40:CK:105:GLY:HA2	40:CK:144:ASP:H	1.78	0.49
51:CA:233:ARG:HH22	83:A5:2802:A:H61	1.60	0.49
83:A5:3712:G:N2	83:A5:3770:A:H62	2.10	0.49
83:A5:3929:U:H4'	83:A5:3929:U:OP1	2.13	0.49
36:B2:193:U:C1'	36:B2:226:C:H5'	2.42	0.49
70:Ci:44:THR:HG23	70:Ci:45:ARG:N	2.24	0.49
83:A5:3376:C:H42	83:A5:3430:G:H22	1.59	0.49
83:A5:3390:U:O2'	83:A5:3391:U:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1377:U:H3	36:B2:1412:A:H61	1.60	0.49
36:B2:1434:U:H2'	36:B2:1435:A:O5'	2.12	0.49
51:CA:82:MET:HA	51:CA:82:MET:HE3	1.94	0.49
54:CP:169:LYS:HB3	81:CE:191:ARG:HE	1.78	0.49
68:Cf:118:TRP:CE2	83:A5:3847:U:H5	2.30	0.49
71:Cj:28:HIS:CE1	71:Cj:30:GLN:HB2	2.48	0.49
83:A5:668:A:N6	83:A5:1599:C:O2'	2.46	0.49
1:Az:187:GLU:HA	1:Az:190:ASN:HD22	1.77	0.48
26:AJ:39:ARG:CZ	36:B2:479:A:O2'	2.61	0.48
36:B2:1195:G:H3'	36:B2:1196:G:H21	1.77	0.48
36:B2:1435:A:H2	36:B2:1572:C:C2	2.31	0.48
44:CM:24:LEU:HD23	44:CM:86:TRP:CE2	2.48	0.48
51:CA:19:HIS:CE1	83:A5:1023:C:H5'	2.48	0.48
83:A5:74:A:H2	83:A5:76:C:H42	1.61	0.48
83:A5:559:A:H2	83:A5:653:U:H3	1.61	0.48
83:A5:777:C:H5'	86:A8:7:A:H4'	1.94	0.48
83:A5:2776:A:H61	83:A5:3512:U:H3	1.59	0.48
25:Af:130:VAL:O	36:B2:1340:U:OP1	2.31	0.48
36:B2:1691:A:H61	36:B2:1700:U:H3	1.60	0.48
50:CR:62:ARG:HH12	83:A5:3603:C:H5	1.61	0.48
67:Ce:107:ARG:HH21	67:Ce:126:GLY:HA3	1.76	0.48
68:Cf:43:LYS:HG2	68:Cf:79:ARG:HB2	1.94	0.48
83:A5:1005:G:H2'	83:A5:1136:A:H61	1.78	0.48
83:A5:1927:U:O2'	83:A5:1928:G:H5'	2.13	0.48
83:A5:2998:U:H5"	83:A5:2999:U:P	2.53	0.48
1:Az:161:MET:HE1	1:Az:185:ILE:HG21	1.95	0.48
1:Az:538:LEU:HD23	1:Az:538:LEU:H	1.77	0.48
18:AY:56:VAL:O	18:AY:56:VAL:HG12	2.14	0.48
36:B2:140:G:O2'	36:B2:141:G:H5'	2.13	0.48
41:CO:197:ILE:HD12	44:CM:119:ARG:HE	1.78	0.48
63:CB:179:HIS:CE1	63:CB:344:ILE:HD11	2.48	0.48
83:A5:903:A:H2'	83:A5:904:U:H5'	1.95	0.48
83:A5:2847:G:H1	83:A5:2870:C:H42	1.60	0.48
83:A5:3622:C:C5	83:A5:3623:G:C8	3.01	0.48
83:A5:3843:U:H4'	83:A5:3844:U:H4'	1.95	0.48
86:A8:61:C:C5'	86:A8:62:A:H5'	2.40	0.48
48:CD:56:SER:HB3	85:A7:26:C:H5"	1.95	0.48
51:CA:3:ARG:H	51:CA:207:VAL:HG22	1.79	0.48
83:A5:170:G:H1	83:A5:277:U:H3	1.60	0.48
85:A7:12:U:C4'	85:A7:13:A:OP2	2.59	0.48
2:Ag:190:HIS:CG	2:Ag:191:GLY:H	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1149:A:OP2	36:B2:1149:A:C2	2.67	0.48
36:B2:1167:U:H2'	36:B2:1168:C:H5"	1.94	0.48
36:B2:1781:U:H3	36:B2:1799:A:H61	1.61	0.48
36:B2:1825:A:H4'	36:B2:1826:C:H5"	1.96	0.48
47:CI:95:HIS:CD2	47:CI:128:ARG:HG3	2.49	0.48
68:Cf:87:TYR:CD2	81:CE:239:HIS:CE1	3.01	0.48
82:CG:161:VAL:HG11	82:CG:195:LEU:HD21	1.95	0.48
83:A5:168:G:H2'	83:A5:169:C:H5"	1.96	0.48
86:A8:75:C:H2'	86:A8:76:A:O4'	2.13	0.48
1:Az:669:PHE:CZ	1:Az:715:LEU:HD21	2.48	0.48
1:Az:743:GLY:HA2	83:A5:1485:A:C8	2.48	0.48
36:B2:1371:C:H4'	36:B2:1372:U:H5'	1.96	0.48
44:CM:1:MET:H3	80:CH:46:TYR:HB2	1.78	0.48
83:A5:1384:C:N4	83:A5:1543:C:H42	2.10	0.48
83:A5:1709:A:H1'	83:A5:1712:C:H42	1.78	0.48
83:A5:3431:C:H1'	83:A5:3435:A:H61	1.78	0.48
83:A5:3594:A:H61	83:A5:3619:U:H3	1.61	0.48
28:AC:67:TYR:CD1	28:AC:247:THR:HG22	2.48	0.48
36:B2:525:U:H3	36:B2:543:A:H61	1.62	0.48
40:CK:99:LYS:HB2	83:A5:1454:C:H5'	1.95	0.48
45:Ca:58:GLY:O	83:A5:3319:A:H4'	2.14	0.48
63:CB:291:ILE:O	63:CB:292:HIS:CG	2.67	0.48
83:A5:424:G:H1'	86:A8:16:A:N6	2.27	0.48
83:A5:474:A:H61	83:A5:527:U:H3	1.60	0.48
83:A5:2742:G:H22	83:A5:2774:G:H1'	1.78	0.48
83:A5:3686:A:C8	83:A5:3687:A:C8	3.02	0.48
86:A8:111:G:O2'	86:A8:112:C:H5'	2.14	0.48
8:AS:15:ILE:HG22	8:AS:16:MET:H	1.78	0.48
36:B2:93:A:H2'	36:B2:94:G:C8	2.49	0.48
63:CB:1:MET:HE1	83:A5:3474:G:O4'	2.14	0.48
83:A5:520:G:OP2	83:A5:523:C:C5	2.67	0.48
83:A5:775:U:OP2	83:A5:775:U:H4'	2.13	0.48
83:A5:2591:A:H2'	83:A5:2592:A:C8	2.49	0.48
11:AL:82:THR:HG21	36:B2:330:G:H4'	1.95	0.48
36:B2:1166:U:H2'	36:B2:1167:U:O4'	2.13	0.48
36:B2:1371:C:H4'	36:B2:1372:U:C5'	2.44	0.48
79:CJ:3:ALA:HB2	85:A7:61:G:H21	1.79	0.48
83:A5:539:G:H4'	83:A5:540:G:H5'	1.96	0.48
83:A5:1809:A:C2	83:A5:1859:U:O2	2.67	0.48
83:A5:3429:A:H2'	83:A5:3431:C:H5'	1.95	0.48
4:AK:51:ASN:HA	4:AK:56:VAL:HG13	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:141:PHE:HB3	15:AB:216:ARG:HH21	1.79	0.48
25:Af:93:HIS:H	25:Af:93:HIS:CD2	2.32	0.48
36:B2:53:G:H2'	36:B2:54:C:C6	2.49	0.48
36:B2:1570:U:O2	36:B2:1572:C:N3	2.47	0.48
53:CT:151:ALA:HB1	53:CT:152:PRO:CD	2.44	0.48
59:CZ:96:SER:HB2	59:CZ:109:HIS:CD2	2.48	0.48
81:CE:223:ALA:N	81:CE:225:TYR:HB3	2.28	0.48
83:A5:1631:U:C4	83:A5:1659:A:O2'	2.67	0.48
18:AY:77:TYR:CD1	18:AY:77:TYR:CB	2.81	0.47
36:B2:477:A:H2'	36:B2:478:A:H8	1.79	0.47
50:CR:121:HIS:CE1	83:A5:2031:C:C5	3.02	0.47
63:CB:171:ILE:HG22	63:CB:173:GLN:H	1.79	0.47
64:CF:108:VAL:HG11	64:CF:142:TYR:CD2	2.49	0.47
83:A5:2839:A:H61	83:A5:2880:A:C1'	2.27	0.47
83:A5:3896:G:H1	83:A5:3959:U:H3	1.62	0.47
84:A9:8:A:H61	86:A8:115:U:H3	1.61	0.47
2:Ag:167:VAL:HG23	2:Ag:177:VAL:HG22	1.96	0.47
7:AM:108:ARG:C	7:AM:110:VAL:H	2.23	0.47
29:AG:191:ARG:HH22	36:B2:277:U:H3	1.61	0.47
36:B2:1886:G:H1	36:B2:1900:U:H3	1.60	0.47
63:CB:87:VAL:HB	63:CB:165:HIS:CE1	2.49	0.47
74:CC:7:ARG:H	74:CC:8:PRO:HD3	1.78	0.47
83:A5:1225:G:H2'	83:A5:1226:G:O4'	2.14	0.47
83:A5:1969:A:C8	83:A5:2110:A:H5"	2.49	0.47
83:A5:2091:A:C1'	83:A5:2092:U:H6	2.25	0.47
83:A5:2216:A:H61	83:A5:2224:A:H61	1.62	0.47
36:B2:1213:A:C5	36:B2:1214:A:H1'	2.49	0.47
55:CU:262:LEU:HD22	55:CU:271:ILE:HD11	1.96	0.47
1:Az:585:HIS:CD2	1:Az:696:HIS:CD2	3.02	0.47
15:AB:36:PRO:HG2	15:AB:39:PHE:CD1	2.49	0.47
36:B2:53:G:H2'	36:B2:54:C:H6	1.80	0.47
63:CB:156:TYR:OH	83:A5:3801:A:OP2	2.32	0.47
74:CC:161:VAL:O	74:CC:164:VAL:HG12	2.14	0.47
83:A5:1395:U:H4'	83:A5:1396:A:OP1	2.14	0.47
83:A5:2586:A:H4'	83:A5:2587:U:OP2	2.15	0.47
1:Az:27:HIS:CD2	1:Az:143:THR:HG23	2.49	0.47
13:AP:129:VAL:HG13	13:AP:130:LYS:H	1.79	0.47
37:BC:8:U:C2	37:BC:15:G:O6	2.68	0.47
68:Cf:156:ARG:H	68:Cf:156:ARG:HE	1.63	0.47
83:A5:485:A:H61	83:A5:514:A:H61	1.63	0.47
83:A5:568:A:C5'	83:A5:569:U:OP1	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3261:U:H3	83:A5:3331:A:H61	1.62	0.47
83:A5:3844:U:H2'	83:A5:3847:U:H3	1.80	0.47
83:A5:3887:U:C3'	83:A5:3888:U:H5'	2.44	0.47
23:AD:117:VAL:HG21	35:Ah:143:PHE:HA	1.96	0.47
44:CM:7:VAL:H	52:CS:154:LEU:H	1.63	0.47
68:Cf:50:LEU:HG	83:A5:3714:U:C4	2.50	0.47
77:Cp:51:VAL:HG12	77:Cp:52:VAL:H	1.80	0.47
80:CH:70:THR:CG2	83:A5:3656:A:H61	2.28	0.47
83:A5:1455:A:H3'	83:A5:1456:U:C5'	2.45	0.47
83:A5:1912:G:OP2	83:A5:1913:U:C5	2.67	0.47
83:A5:2116:U:H2'	83:A5:2117:A:H8	1.79	0.47
7:AM:40:HIS:HA	7:AM:44:GLN:NE2	2.30	0.47
8:AS:125:HIS:ND1	8:AS:131:VAL:HG21	2.29	0.47
34:AQ:127:ARG:HB3	36:B2:1776:G:C8	2.49	0.47
36:B2:254:C:N4	36:B2:256:C:H1'	2.30	0.47
44:CM:11:ARG:HH12	44:CM:61:ARG:HE	1.63	0.47
46:CN:16:SER:HB3	70:Ci:58:VAL:HG13	1.97	0.47
83:A5:401:G:H21	83:A5:404:U:H5	1.61	0.47
83:A5:542:C:O4'	83:A5:542:C:C6	2.68	0.47
83:A5:1565:A:H1'	83:A5:1567:G:N3	2.30	0.47
83:A5:2268:G:O6	83:A5:2473:C:N4	2.47	0.47
86:A8:48:G:C8	86:A8:77:G:C2	3.03	0.47
36:B2:193:U:O2	36:B2:226:C:H4'	2.15	0.47
66:Cd:80:ARG:HH21	83:A5:3899:A:H5"	1.78	0.47
68:Cf:47:HIS:HB3	68:Cf:48:GLY:HA2	1.96	0.47
83:A5:756:C:O2	83:A5:3842:A:C2	2.68	0.47
83:A5:1118:C:H2'	83:A5:1119:C:C6	2.50	0.47
83:A5:1555:G:H22	83:A5:1605:U:H3	1.61	0.47
83:A5:1924:A:H3'	83:A5:1925:U:C5'	2.44	0.47
83:A5:3602:U:H3	83:A5:3609:A:H61	1.63	0.47
2:Ag:192:HIS:CD2	2:Ag:196:LEU:HD11	2.50	0.47
5:AO:141:ARG:HH12	36:B2:1982:C:H5"	1.80	0.47
29:AG:189:LYS:HZ3	36:B2:138:U:H5	1.62	0.47
36:B2:514:A:C2	36:B2:548:G:H5'	2.50	0.47
42:CL:165:GLU:C	42:CL:167:ARG:H	2.23	0.47
63:CB:268:ARG:HH11	63:CB:268:ARG:HG3	1.79	0.47
83:A5:653:U:H5"	83:A5:653:U:H6	1.80	0.47
86:A8:22:C:OP1	86:A8:22:C:C5	2.68	0.47
4:AK:86:GLU:HB3	35:Ah:213:GLU:HA	1.96	0.47
26:AJ:42:ARG:HG2	36:B2:601:U:P	2.50	0.47
29:AG:65:GLN:CD	36:B2:1874:C:H5'	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:1020:A:N6	83:A5:1104:A:H61	2.13	0.47
83:A5:1941:A:H2'	83:A5:1942:U:C6	2.50	0.47
83:A5:3418:U:C5	83:A5:3443:A:N7	2.83	0.47
83:A5:3767:G:C4	83:A5:3768:C:O2'	2.64	0.47
2:Ag:65:HIS:CG	2:Ag:66:PHE:H	2.31	0.46
27:AE:7:LYS:HD3	27:AE:7:LYS:H	1.79	0.46
51:CA:201:GLY:HA3	51:CA:209:HIS:CD2	2.50	0.46
68:Cf:122:THR:HG21	68:Cf:134:ARG:HG2	1.98	0.46
70:Ci:15:HIS:CD2	83:A5:77:A:N7	2.83	0.46
83:A5:547:U:H2'	83:A5:548:A:C8	2.50	0.46
83:A5:3736:A:N6	83:A5:3745:U:H3	2.13	0.46
83:A5:3967:U:O2'	83:A5:3968:C:H5'	2.15	0.46
36:B2:575:A:H61	36:B2:588:A:H61	1.62	0.46
36:B2:1195:G:H3'	36:B2:1196:G:N2	2.29	0.46
83:A5:154:A:C5'	83:A5:156:G:H1'	2.43	0.46
83:A5:400:U:H3	83:A5:405:A:H61	1.63	0.46
83:A5:1074:U:O4	83:A5:3481:G:H2'	2.15	0.46
83:A5:1227:C:H2'	83:A5:1228:C:H5'	1.97	0.46
83:A5:2901:C:H2'	83:A5:2902:C:C6	2.50	0.46
1:Az:490:VAL:HG22	1:Az:490:VAL:O	2.14	0.46
8:AS:26:VAL:HB	8:AS:45:LEU:HD11	1.97	0.46
32:AW:31:SER:CA	36:B2:644:A:H5"	2.44	0.46
36:B2:1735:A:H62	36:B2:1760:G:H1'	1.80	0.46
40:CK:86:LYS:HZ1	40:CK:139:VAL:HG11	1.80	0.46
63:CB:258:HIS:O	83:A5:3472:A:O2'	2.19	0.46
64:CF:172:ILE:HG23	64:CF:173:THR:N	2.30	0.46
81:CE:221:PHE:HA	81:CE:226:LEU:HA	1.97	0.46
83:A5:177:U:H3'	83:A5:178:U:H5'	1.96	0.46
83:A5:1094:A:C2	83:A5:1972:C:H5'	2.51	0.46
83:A5:1908:A:H2'	83:A5:1909:U:C5'	2.45	0.46
86:A8:82:C:OP2	86:A8:85:G:H1'	2.16	0.46
8:AS:136:THR:HG23	8:AS:140:GLY:HA3	1.96	0.46
34:AQ:45:GLU:HA	34:AQ:47:LYS:H	1.81	0.46
36:B2:198:C:O2'	36:B2:199:G:C5'	2.64	0.46
36:B2:255:U:C4'	36:B2:256:C:OP2	2.57	0.46
36:B2:1434:U:C4	36:B2:1435:A:C5	3.03	0.46
44:CM:51:ARG:O	44:CM:55:LEU:HD13	2.15	0.46
74:CC:383:LYS:O	74:CC:386:ALA:HB3	2.16	0.46
83:A5:697:U:H2'	83:A5:698:A:O5'	2.16	0.46
83:A5:1783:A:H3'	83:A5:1784:A:C5'	2.45	0.46
83:A5:3760:A:H2'	83:A5:3762:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AM:25:LEU:HD11	7:AM:58:ILE:HD13	1.98	0.46
7:AM:59:LEU:H	7:AM:59:LEU:HD23	1.80	0.46
14:AT:88:HIS:CG	36:B2:1793:A:C5	3.03	0.46
21:Ab:43:ILE:H	21:Ab:43:ILE:HD13	1.79	0.46
27:AE:132:GLY:HA3	36:B2:258:A:C4'	2.46	0.46
36:B2:985:A:C8	36:B2:1001:G:N2	2.84	0.46
39:Cq:6:ARG:HD2	83:A5:1495:C:OP1	2.16	0.46
51:CA:218:HIS:CE1	83:A5:3497:G:H5"	2.51	0.46
52:CS:30:MET:HE3	53:CT:152:PRO:CG	2.45	0.46
63:CB:243:LYS:HA	83:A5:1074:U:OP1	2.15	0.46
63:CB:271:GLN:H	83:A5:3521:A:H4'	1.81	0.46
64:CF:183:ARG:CZ	83:A5:1189:A:OP1	2.64	0.46
67:Ce:34:TRP:CZ2	67:Ce:36:LYS:HA	2.50	0.46
68:Cf:107:HIS:O	83:A5:3846:U:C5	2.69	0.46
74:CC:48:ARG:HH22	83:A5:1667:U:H1'	1.81	0.46
83:A5:2090:U:H3	83:A5:2091:A:N6	2.13	0.46
86:A8:22:C:H6	86:A8:22:C:P	2.38	0.46
1:Az:275:PHE:CE2	1:Az:279:ILE:HG21	2.50	0.46
26:AJ:132:ARG:CA	36:B2:480:A:OP1	2.61	0.46
39:Cq:82:ILE:HA	39:Cq:86:VAL:HG21	1.98	0.46
48:CD:22:ARG:HH12	85:A7:9:C:H41	1.64	0.46
55:CU:272:ARG:HH22	55:CU:284:ARG:HH21	1.62	0.46
57:CY:4:ASN:O	57:CY:7:VAL:HB	2.15	0.46
83:A5:117:C:O4'	83:A5:117:C:C6	2.68	0.46
83:A5:211:U:H2'	83:A5:212:U:C6	2.51	0.46
83:A5:1908:A:H2'	83:A5:1909:U:H5'	1.98	0.46
36:B2:1434:U:O2'	36:B2:1435:A:H5'	2.15	0.46
39:Cq:58:ASN:HB3	83:A5:1437:A:OP2	2.15	0.46
63:CB:1:MET:CE	83:A5:3472:A:H5"	2.45	0.46
83:A5:386:G:C6	83:A5:387:U:C4	3.04	0.46
83:A5:1780:U:H2'	83:A5:1781:U:C6	2.51	0.46
83:A5:2017:A:N6	83:A5:2054:U:C6	2.83	0.46
14:AT:6:VAL:HG23	34:AQ:39:ARG:HG2	1.98	0.46
36:B2:256:C:O5'	36:B2:256:C:C6	2.69	0.46
52:CS:45:TRP:HE1	52:CS:61:ILE:HD11	1.81	0.46
63:CB:3:HIS:CE1	83:A5:3470:G:C6	3.04	0.46
68:Cf:104:VAL:HB	68:Cf:105:PRO:CD	2.45	0.46
81:CE:42:ARG:HD3	83:A5:738:A:C2	2.51	0.46
83:A5:202:A:C5	83:A5:233:A:C2	3.04	0.46
83:A5:2841:G:H2'	83:A5:2842:U:C6	2.50	0.46
1:Az:95:ARG:HB2	1:Az:97:LYS:H	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Az:159:LEU:HD21	1:Az:189:VAL:HG11	1.98	0.46
32:AW:3:ARG:HH21	36:B2:1123:G:H4'	1.80	0.46
36:B2:200:U:H6	36:B2:200:U:O5'	1.98	0.46
36:B2:484:C:H2'	36:B2:485:A:H8	1.79	0.46
41:CO:66:VAL:HG23	41:CO:67:ASN:H	1.81	0.46
59:CZ:107:LYS:HB3	83:A5:1926:A:O2'	2.16	0.46
81:CE:184:ILE:HG23	81:CE:185:PHE:N	2.27	0.46
83:A5:586:C:N4	83:A5:624:A:H61	2.08	0.46
83:A5:1227:C:O2'	83:A5:1228:C:H5'	2.16	0.46
83:A5:1790:A:H2'	83:A5:1791:A:C8	2.50	0.46
83:A5:1793:C:H3'	83:A5:1795:A:C8	2.51	0.46
83:A5:1910:C:H5'	83:A5:2128:A:N1	2.31	0.46
83:A5:3319:A:H2'	83:A5:3320:C:C6	2.50	0.46
5:AO:47:LEU:N	15:AB:47:THR:HG21	2.31	0.46
8:AS:124:ARG:HH12	13:AP:124:LEU:HD22	1.81	0.46
36:B2:1761:A:H2'	36:B2:1762:A:C8	2.51	0.46
59:CZ:13:VAL:HG12	59:CZ:15:SER:H	1.81	0.46
83:A5:2032:U:C5	83:A5:2033:U:C5	3.04	0.46
36:B2:393:G:H4'	36:B2:430:A:N6	2.31	0.45
74:CC:49:ARG:HH22	74:CC:52:ARG:HH11	1.64	0.45
81:CE:125:LEU:HD23	81:CE:126:VAL:H	1.80	0.45
83:A5:2017:A:N6	83:A5:2054:U:H6	2.14	0.45
83:A5:2929:U:H3	83:A5:2989:G:H1	1.64	0.45
83:A5:3727:A:H4'	83:A5:3728:A:OP1	2.16	0.45
83:A5:3798:A:C6	83:A5:3811:A:N6	2.84	0.45
83:A5:3858:A:HO2'	83:A5:3859:C:H6	1.61	0.45
36:B2:1138:U:H4'	36:B2:1139:A:OP1	2.16	0.45
64:CF:181:LYS:O	83:A5:1190:U:OP2	2.35	0.45
68:Cf:117:VAL:HG13	68:Cf:137:ARG:HB2	1.97	0.45
83:A5:300:A:O2'	83:A5:304:U:OP1	2.32	0.45
83:A5:1986:G:H1	83:A5:2086:U:H3	1.64	0.45
83:A5:3517:U:H2'	83:A5:3518:A:C8	2.52	0.45
83:A5:3726:U:O2	83:A5:3729:A:C2	2.69	0.45
83:A5:3958:C:H2'	83:A5:3959:U:C6	2.52	0.45
26:AJ:135:HIS:HE1	26:AJ:160:PHE:HA	1.81	0.45
28:AC:115:ASP:HB2	28:AC:117:ASN:H	1.81	0.45
37:BC:46:U:H2'	37:BC:47:C:OP1	2.17	0.45
47:CI:204:GLY:HA2	47:CI:205:PRO:HA	1.82	0.45
52:CS:30:MET:SD	52:CS:47:PHE:HB2	2.57	0.45
63:CB:291:ILE:HG23	63:CB:292:HIS:H	1.81	0.45
83:A5:566:A:H61	83:A5:645:U:H3	1.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2920:U:H3	83:A5:3116:A:H61	1.63	0.45
83:A5:3728:A:OP2	83:A5:3728:A:C8	2.70	0.45
36:B2:938:G:H2'	36:B2:939:G:C8	2.52	0.45
36:B2:1147:U:H3'	36:B2:1148:U:H5"	1.98	0.45
36:B2:1434:U:O4	36:B2:1435:A:C6	2.69	0.45
36:B2:1844:C:H2'	36:B2:1845:C:C6	2.51	0.45
74:CC:171:VAL:HG11	83:A5:227:A:C2	2.52	0.45
83:A5:1433:U:H3	83:A5:1502:A:H61	1.64	0.45
83:A5:3876:U:C2	83:A5:3887:U:C2	3.05	0.45
4:AK:60:PHE:CE2	4:AK:63:ARG:HA	2.52	0.45
30:AF:147:GLU:H	30:AF:221:GLU:HG2	1.82	0.45
37:BC:71:U:H2'	37:BC:72:A:C8	2.51	0.45
47:CI:201:PRO:C	47:CI:203:HIS:H	2.24	0.45
49:CQ:158:VAL:HG22	83:A5:3261:U:OP1	2.16	0.45
83:A5:132:U:H2'	83:A5:133:U:C6	2.51	0.45
83:A5:760:G:N7	83:A5:761:C:C5	2.84	0.45
83:A5:1011:U:H3	83:A5:1129:A:H61	1.64	0.45
86:A8:61:C:H5"	86:A8:62:A:C4'	2.46	0.45
31:AH:110:LEU:O	36:B2:713:A:C5	2.70	0.45
36:B2:1259:A:C2	36:B2:1661:A:C2	3.04	0.45
36:B2:1905:U:H3'	36:B2:1906:U:H5'	1.99	0.45
46:CN:55:ALA:O	83:A5:153:G:H5'	2.16	0.45
63:CB:279:GLU:HB2	63:CB:282:LYS:HZ1	1.81	0.45
68:Cf:51:PHE:CD1	68:Cf:149:ARG:HB3	2.51	0.45
80:CH:23:ARG:HH11	80:CH:42:ALA:HA	1.81	0.45
83:A5:3596:A:H61	83:A5:3617:U:H3	1.65	0.45
83:A5:3843:U:C1'	83:A5:3843:U:O2'	2.52	0.45
83:A5:3843:U:C2'	83:A5:3843:U:C6	2.98	0.45
83:A5:135:U:H3	83:A5:143:G:H1	1.63	0.45
83:A5:631:A:H3'	83:A5:632:A:C5'	2.46	0.45
83:A5:2004:G:C6	83:A5:2005:U:O4	2.70	0.45
83:A5:2843:G:H8	83:A5:2843:G:O5'	1.99	0.45
83:A5:3759:G:H2'	83:A5:3760:A:C8	2.51	0.45
86:A8:72:C:C5	86:A8:73:U:C4	3.04	0.45
27:AE:146:THR:HB	36:B2:122:G:H21	1.82	0.45
36:B2:1672:A:N6	36:B2:1719:C:H42	2.15	0.45
65:Cc:89:PHE:CE2	83:A5:2028:A:C6	3.04	0.45
67:Ce:100:HIS:N	83:A5:1652:U:OP1	2.42	0.45
83:A5:78:A:H2'	83:A5:79:G:O4'	2.16	0.45
83:A5:2656:C:H42	83:A5:2683:G:H2'	1.81	0.45
83:A5:3728:A:C8	83:A5:3728:A:P	3.10	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:912:U:H3	36:B2:931:A:H61	1.65	0.45
42:CL:169:VAL:CG2	45:Ca:101:VAL:HG21	2.47	0.45
46:CN:7:MET:HE1	82:CG:170:GLU:CB	2.47	0.45
51:CA:211:HIS:CG	51:CA:219:ILE:HG23	2.52	0.45
56:CX:166:HIS:CE1	83:A5:1864:U:C5	3.04	0.45
63:CB:1:MET:CE	83:A5:3472:A:C8	2.89	0.45
68:Cf:118:TRP:CE2	83:A5:3847:U:C5	3.05	0.45
72:Ck:58:GLN:HA	72:Ck:60:LEU:H	1.82	0.45
83:A5:570:U:H2'	83:A5:571:U:H6	1.82	0.45
83:A5:1659:A:H4'	83:A5:1660:G:O5'	2.17	0.45
86:A8:84:U:C4'	86:A8:85:G:C8	2.92	0.45
1:Az:752:ARG:HH12	1:Az:782:PHE:HB3	1.82	0.45
2:Ag:65:HIS:CG	2:Ag:66:PHE:N	2.85	0.45
5:AO:94:HIS:CD2	5:AO:127:GLY:O	2.70	0.45
15:AB:211:HIS:CG	15:AB:212:ASP:H	2.35	0.45
36:B2:24:U:H3	36:B2:609:A:H61	1.65	0.45
59:CZ:100:LEU:H	59:CZ:100:LEU:HD12	1.80	0.45
75:Cm:104:HIS:HE1	83:A5:3654:C:C6	2.36	0.45
80:CH:16:ILE:HD13	80:CH:27:ILE:CD1	2.47	0.45
86:A8:62:A:N1	86:A8:95:A:C2	2.85	0.45
8:AS:85:ASN:H	8:AS:97:GLN:HG2	1.81	0.44
28:AC:153:TRP:HA	28:AC:153:TRP:CE3	2.52	0.44
36:B2:910:U:H3	36:B2:933:C:H42	1.64	0.44
41:CO:192:GLU:H	41:CO:193:PRO:CD	2.30	0.44
44:CM:107:PHE:HA	81:CE:220:LYS:HB3	1.99	0.44
70:Ci:34:LEU:H	70:Ci:34:LEU:HD23	1.82	0.44
83:A5:323:U:OP1	83:A5:323:U:H3'	2.17	0.44
83:A5:669:U:P	83:A5:1592:U:C5'	3.03	0.44
36:B2:35:U:C4	36:B2:479:A:H2	2.35	0.44
36:B2:1435:A:C2	36:B2:1572:C:C2	3.06	0.44
37:BC:19:A:OP2	37:BC:19:A:C8	2.70	0.44
63:CB:3:HIS:HB3	63:CB:5:LYS:H	1.82	0.44
64:CF:95:VAL:CG1	64:CF:117:LEU:HD11	2.47	0.44
68:Cf:107:HIS:O	83:A5:3846:U:C6	2.70	0.44
83:A5:169:C:H42	83:A5:278:U:H3	1.65	0.44
83:A5:653:U:H6	83:A5:653:U:C5'	2.30	0.44
83:A5:927:A:H3'	83:A5:928:U:H5"	1.98	0.44
85:A7:8:A:H61	85:A7:111:U:H3	1.64	0.44
6:AX:100:VAL:HG13	6:AX:122:VAL:HG13	1.99	0.44
35:Ah:136:ARG:HH21	36:B2:1826:C:H5'	1.83	0.44
36:B2:984:G:C5	36:B2:1001:G:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1110:A:H4'	36:B2:1111:U:O4'	2.16	0.44
36:B2:1786:G:H2'	36:B2:1787:U:C6	2.52	0.44
38:Cz:111:LEU:HD12	38:Cz:143:SER:HB3	1.99	0.44
38:Cz:160:LYS:CG	83:A5:2842:U:O2'	2.63	0.44
39:Cq:53:VAL:HG22	39:Cq:89:VAL:HG13	1.99	0.44
44:CM:24:LEU:O	44:CM:43:THR:HG21	2.16	0.44
48:CD:10:LYS:HB3	85:A7:66:G:OP1	2.17	0.44
57:CY:2:LYS:HA	83:A5:250:U:O3'	2.17	0.44
83:A5:515:A:H2'	83:A5:516:U:C6	2.52	0.44
83:A5:698:A:C2'	83:A5:699:U:OP2	2.61	0.44
83:A5:2091:A:O2'	83:A5:2092:U:C6	2.70	0.44
83:A5:2566:A:N6	83:A5:2698:A:N6	2.65	0.44
83:A5:3552:G:C6	83:A5:3553:C:C4	3.05	0.44
83:A5:3767:G:C5	83:A5:3768:C:O2'	2.69	0.44
83:A5:3790:A:C2'	83:A5:3791:A:C5'	2.86	0.44
30:AF:112:MET:CE	36:B2:1666:G:OP1	2.66	0.44
36:B2:143:U:C5	36:B2:164:U:C4	3.05	0.44
36:B2:1759:U:H2'	36:B2:1760:G:H5'	1.99	0.44
36:B2:1777:U:H3	36:B2:1803:A:H2	1.65	0.44
36:B2:1807:C:H4'	36:B2:1808:G:O5'	2.17	0.44
48:CD:14:LYS:HG2	85:A7:66:G:H5"	2.00	0.44
83:A5:322:G:P	83:A5:3310:G:OP1	2.74	0.44
83:A5:593:U:H3	83:A5:616:A:H61	1.66	0.44
83:A5:1555:G:H1	83:A5:1605:U:H3	1.65	0.44
83:A5:2842:U:OP2	83:A5:2879:A:H1'	2.18	0.44
83:A5:3781:U:H2'	83:A5:3782:A:C5'	2.47	0.44
83:A5:3841:C:O3'	83:A5:3842:A:N7	2.50	0.44
1:Az:790:THR:HG21	1:Az:794:ALA:HB3	1.98	0.44
26:AJ:10:PHE:CE2	36:B2:25:U:H2'	2.52	0.44
26:AJ:33:ILE:HG23	26:AJ:38:LEU:O	2.18	0.44
36:B2:1452:U:H3	36:B2:1534:G:H1	1.66	0.44
40:CK:123:ARG:HE	40:CK:125:LEU:H	1.65	0.44
48:CD:48:LYS:H	48:CD:48:LYS:CD	2.30	0.44
49:CQ:156:PRO:CG	49:CQ:157:GLY:H	2.30	0.44
67:Ce:120:ARG:HE	67:Ce:122:THR:HG22	1.83	0.44
68:Cf:54:ALA:HB1	68:Cf:73:LEU:CD1	2.45	0.44
73:Cl:44:TRP:CD1	73:Cl:44:TRP:H	2.36	0.44
83:A5:83:U:C2	83:A5:343:A:C2	3.05	0.44
83:A5:1911:C:H42	83:A5:1941:A:N6	2.15	0.44
83:A5:1952:A:N6	83:A5:1953:G:O6	2.51	0.44
83:A5:2042:A:H3'	83:A5:2043:G:H5"	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2222:G:H21	83:A5:2225:A:H61	1.64	0.44
83:A5:2767:U:O4'	83:A5:2767:U:C6	2.70	0.44
1:Az:26:ALA:HB2	1:Az:132:VAL:HB	2.00	0.44
4:AK:20:VAL:HG21	23:AD:73:ALA:HB3	1.99	0.44
7:AM:43:HIS:NE2	36:B2:1341:C:OP2	2.51	0.44
11:AL:58:PRO:HG2	11:AL:59:TRP:CE3	2.53	0.44
36:B2:71:G:H3'	36:B2:72:A:H5"	1.99	0.44
36:B2:1273:U:H4'	36:B2:1274:U:H5"	1.99	0.44
60:Cr:37:ALA:HB1	60:Cr:39:VAL:HG23	1.99	0.44
83:A5:154:A:C4'	83:A5:156:G:C4	3.00	0.44
83:A5:3774:U:H6	83:A5:3774:U:C5'	2.31	0.44
4:AK:54:GLY:HA2	4:AK:56:VAL:H	1.83	0.44
29:AG:192:ARG:NH1	36:B2:272:U:C5	2.86	0.44
36:B2:106:C:H2'	36:B2:107:A:C8	2.52	0.44
36:B2:999:U:OP2	36:B2:999:U:C6	2.70	0.44
42:CL:12:HIS:CE1	83:A5:101:C:C6	3.05	0.44
48:CD:41:LYS:HZ3	53:CT:93:ILE:H	1.66	0.44
52:CS:39:VAL:HB	64:CF:232:VAL:HG23	1.99	0.44
83:A5:1573:U:H3	83:A5:1586:A:H61	1.66	0.44
83:A5:1801:U:C3'	83:A5:1802:U:H5'	2.45	0.44
23:AD:110:LYS:HB3	23:AD:115:LEU:HD13	2.00	0.44
36:B2:72:A:C2	36:B2:78:A:OP2	2.71	0.44
36:B2:155:U:C5	36:B2:156:U:C2	3.06	0.44
36:B2:214:G:H4'	36:B2:215:C:OP2	2.18	0.44
37:BC:19:A:H62	37:BC:47:C:N4	2.16	0.44
52:CS:150:ILE:HD11	52:CS:152:PHE:CZ	2.52	0.44
52:CS:174:THR:HB	83:A5:3729:A:N1	2.33	0.44
63:CB:175:GLN:O	83:A5:3888:U:P	2.76	0.44
83:A5:2669:A:H61	83:A5:2679:U:H3	1.63	0.44
83:A5:3583:C:H2'	83:A5:3584:C:H5"	1.99	0.44
16:AA:93:TYR:HB3	16:AA:183:LEU:HD11	1.99	0.44
17:AV:15:ARG:HH12	17:AV:33:GLN:HB3	1.83	0.44
18:AY:6:ALA:HB2	18:AY:30:HIS:CE1	2.53	0.44
27:AE:65:VAL:HG22	27:AE:70:VAL:HG21	1.98	0.44
36:B2:1664:A:C2	36:B2:1726:A:C4	3.06	0.44
42:CL:12:HIS:CD2	42:CL:12:HIS:N	2.86	0.44
44:CM:15:ALA:HB2	44:CM:55:LEU:HB3	2.00	0.44
64:CF:183:ARG:HG2	64:CF:186:HIS:CE1	2.53	0.44
69:Cg:26:PRO:HB3	83:A5:2066:G:H21	1.82	0.44
83:A5:316:U:H4'	83:A5:317:G:OP2	2.18	0.44
83:A5:1287:U:O3'	83:A5:1289:C:OP2	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:1300:G:O6	83:A5:1301:A:C2	2.70	0.44
83:A5:3432:A:H61	83:A5:3564:A:H61	1.64	0.44
83:A5:3672:U:H2'	83:A5:3673:G:H5"	2.00	0.44
1:Az:70:ILE:HG22	1:Az:71:LYS:HG3	1.99	0.43
1:Az:480:MET:HE3	1:Az:480:MET:H	1.83	0.43
7:AM:41:GLY:O	7:AM:45:ALA:HB2	2.18	0.43
36:B2:226:C:N3	36:B2:239:G:N1	2.66	0.43
36:B2:1398:U:C2	36:B2:1400:A:OP2	2.71	0.43
39:Cq:57:LYS:HA	39:Cq:60:MET:HB2	2.00	0.43
40:CK:97:ASN:HA	40:CK:98:ILE:HG23	2.00	0.43
50:CR:18:GLY:HA3	83:A5:2190:A:H5"	2.00	0.43
63:CB:251:VAL:HG21	63:CB:267:ALA:HB3	1.99	0.43
70:Ci:37:SER:HB2	70:Ci:40:LYS:H	1.83	0.43
80:CH:40:HIS:CD2	83:A5:3658:G:H4'	2.53	0.43
83:A5:147:A:O3'	83:A5:148:U:H4'	2.18	0.43
83:A5:243:A:C2	83:A5:246:C:C5	3.06	0.43
83:A5:624:A:C2	83:A5:626:A:C8	3.06	0.43
7:AM:48:ALA:HB3	7:AM:117:VAL:HG11	1.99	0.43
9:Ad:31:ILE:HG22	9:Ad:33:LYS:H	1.84	0.43
21:Ab:27:HIS:CD2	21:Ab:28:PRO:HD2	2.54	0.43
30:AF:80:TYR:CZ	30:AF:90:CYS:HB3	2.53	0.43
36:B2:599:A:H2'	36:B2:600:A:H8	1.82	0.43
36:B2:1113:A:C2	36:B2:1987:G:C4	3.06	0.43
36:B2:1373:U:C5	36:B2:1374:A:C5	3.06	0.43
55:CU:195:ILE:HG22	55:CU:251:LYS:HZ3	1.83	0.43
81:CE:237:TYR:CE2	81:CE:240:ARG:HB2	2.53	0.43
83:A5:837:A:H2	83:A5:843:A:N6	2.11	0.43
83:A5:1084:A:C2	83:A5:2518:A:H4'	2.53	0.43
83:A5:1798:A:H2'	83:A5:1865:U:C2	2.53	0.43
83:A5:3329:U:H4'	83:A5:3330:C:OP2	2.18	0.43
83:A5:3390:U:C4	83:A5:3391:U:O4	2.71	0.43
1:Az:27:HIS:H	1:Az:27:HIS:HD2	1.63	0.43
1:Az:578:LEU:HD13	1:Az:844:LEU:HG	1.99	0.43
5:AO:20:GLN:HG2	5:AO:21:VAL:H	1.83	0.43
9:Ad:6:LEU:O	9:Ad:7:TRP:CD2	2.72	0.43
36:B2:825:A:OP2	36:B2:825:A:H4'	2.18	0.43
36:B2:1804:U:O5'	36:B2:1804:U:H6	2.01	0.43
47:CI:139:ARG:HH21	47:CI:173:PHE:H	1.66	0.43
51:CA:208:GLU:CD	83:A5:1112:G:H22	2.26	0.43
83:A5:667:U:H2'	83:A5:669:U:OP2	2.18	0.43
83:A5:1630:G:N1	83:A5:1660:G:O6	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2614:G:C5	83:A5:2615:C:C5	3.06	0.43
83:A5:2672:U:C2	83:A5:2675:U:C5	3.06	0.43
16:AA:50:ASN:O	16:AA:54:THR:HG23	2.18	0.43
36:B2:848:C:N4	36:B2:851:A:C8	2.86	0.43
36:B2:896:A:N3	36:B2:944:G:H1'	2.33	0.43
49:CQ:62:SER:H	49:CQ:142:ARG:HH22	1.65	0.43
63:CB:268:ARG:HH12	83:A5:3519:C:H1'	1.84	0.43
68:Cf:105:PRO:HD2	83:A5:769:U:H5"	2.00	0.43
79:CJ:117:HIS:CD2	79:CJ:131:TYR:H	2.36	0.43
83:A5:1651:C:H2'	83:A5:1652:U:O4'	2.18	0.43
83:A5:3156:G:C6	83:A5:3157:U:C4	3.06	0.43
83:A5:3189:A:C2	83:A5:3226:A:C8	3.06	0.43
86:A8:43:A:H2'	86:A8:44:C:C6	2.52	0.43
35:Ah:129:ARG:HG2	36:B2:1361:C:C5	2.54	0.43
36:B2:217:A:N7	36:B2:915:U:C5	2.86	0.43
36:B2:1376:U:H4'	36:B2:1615:U:O2	2.17	0.43
39:Cq:22:ASP:CG	39:Cq:66:ARG:HE	2.27	0.43
83:A5:208:U:H3	83:A5:218:A:H61	1.66	0.43
83:A5:302:A:C6	83:A5:3317:U:H1'	2.53	0.43
83:A5:3766:U:C2	83:A5:3767:G:H1'	2.52	0.43
3:AU:84:MET:HE3	3:AU:85:ARG:H	1.84	0.43
7:AM:118:ILE:HG21	7:AM:121:PHE:CD2	2.53	0.43
36:B2:1138:U:O2'	36:B2:1139:A:OP1	2.29	0.43
63:CB:54:THR:HG23	63:CB:78:VAL:HG21	2.01	0.43
68:Cf:50:LEU:HD23	68:Cf:50:LEU:HA	1.95	0.43
69:Cg:13:TYR:C	69:Cg:15:THR:H	2.27	0.43
74:CC:49:ARG:HH22	74:CC:52:ARG:NH1	2.17	0.43
83:A5:154:A:H4'	83:A5:156:G:C4	2.52	0.43
83:A5:425:A:OP1	83:A5:1637:U:O2'	2.36	0.43
83:A5:698:A:H2'	83:A5:699:U:OP2	2.19	0.43
83:A5:903:A:C2'	83:A5:904:U:H5'	2.49	0.43
83:A5:1960:C:H4'	83:A5:1961:C:OP1	2.18	0.43
83:A5:3728:A:H3'	83:A5:3728:A:H8	1.83	0.43
83:A5:3887:U:C2'	83:A5:3888:U:H5'	2.46	0.43
6:AX:124:LYS:HA	6:AX:129:SER:HA	2.00	0.43
20:Aa:88:SER:HB3	36:B2:1819:U:O3'	2.18	0.43
21:Ab:27:HIS:CG	21:Ab:28:PRO:HD2	2.53	0.43
30:AF:115:ARG:O	30:AF:119:HIS:CD2	2.72	0.43
36:B2:511:G:H2'	36:B2:512:U:C5	2.54	0.43
36:B2:1170:G:H2'	36:B2:1171:G:O5'	2.19	0.43
36:B2:1979:C:O2'	36:B2:1980:U:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:CS:175:TYR:N	83:A5:3729:A:H62	2.16	0.43
71:Cj:4:GLY:HA2	83:A5:2518:A:H62	1.83	0.43
83:A5:395:A:H1'	83:A5:410:G:C2	2.54	0.43
83:A5:1358:U:C5	83:A5:1607:A:C2	3.07	0.43
83:A5:1930:G:H22	83:A5:1937:G:H1	1.67	0.43
83:A5:2842:U:H2'	83:A5:2843:G:C8	2.54	0.43
83:A5:3567:A:H3'	83:A5:3569:C:C6	2.53	0.43
83:A5:3607:C:H4'	83:A5:3910:A:H4'	2.00	0.43
36:B2:633:U:H3	36:B2:1061:A:H61	1.67	0.43
63:CB:326:VAL:HG12	63:CB:330:PHE:CE1	2.54	0.43
75:Cm:96:CYS:SG	75:Cm:103:LEU:HD11	2.59	0.43
83:A5:875:G:C6	83:A5:876:G:C5	3.07	0.43
83:A5:1227:C:H2'	83:A5:1228:C:C5'	2.48	0.43
83:A5:1299:A:H2'	83:A5:1300:G:C8	2.53	0.43
83:A5:1484:U:C4	83:A5:1486:A:H5"	2.54	0.43
83:A5:1921:U:H2'	83:A5:1922:A:O4'	2.19	0.43
83:A5:1950:A:H5"	83:A5:1951:C:OP2	2.18	0.43
83:A5:3797:G:C6	83:A5:3798:A:C6	3.07	0.43
17:AV:64:GLU:HB3	21:Ab:1:MET:HA	2.01	0.43
21:Ab:51:GLN:HA	36:B2:957:A:H1'	2.01	0.43
65:Cc:89:PHE:CE2	83:A5:2041:G:N2	2.86	0.43
83:A5:1073:C:H3'	83:A5:1074:U:H4'	2.00	0.43
83:A5:1120:A:OP1	83:A5:1122:U:H5	2.00	0.43
83:A5:3722:C:H42	83:A5:3731:U:C5'	2.28	0.43
86:A8:108:A:H5"	86:A8:109:U:P	2.59	0.43
1:Az:482:VAL:CG1	1:Az:485:PHE:CZ	3.02	0.43
8:AS:124:ARG:HD2	36:B2:1750:U:OP1	2.18	0.43
20:Aa:88:SER:HA	20:Aa:91:ALA:HB3	2.00	0.43
36:B2:1683:U:H4'	36:B2:1684:U:C6	2.54	0.43
47:CI:206:ILE:HD13	48:CD:285:HIS:CD2	2.54	0.43
48:CD:41:LYS:NZ	53:CT:93:ILE:H	2.17	0.43
63:CB:103:VAL:HG23	63:CB:104:ASN:N	2.33	0.43
83:A5:2999:U:O2'	83:A5:3000:G:OP1	2.23	0.43
83:A5:3736:A:H61	83:A5:3745:U:H3	1.66	0.43
83:A5:3781:U:H2'	83:A5:3782:A:H5'	2.01	0.43
29:AG:172:SER:H	36:B2:73:A:N6	2.17	0.42
31:AH:64:ILE:CG1	31:AH:94:ALA:HB1	2.49	0.42
34:AQ:10:GLN:HG2	34:AQ:11:ALA:H	1.84	0.42
36:B2:30:G:H2'	36:B2:31:C:C6	2.54	0.42
83:A5:154:A:O4'	83:A5:156:G:C4	2.72	0.42
83:A5:542:C:N4	83:A5:760:G:C6	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:1073:C:C5’	83:A5:1074:U:OP2	2.67	0.42
83:A5:1249:A:H3’	83:A5:1250:C:H6	1.83	0.42
83:A5:2091:A:N9	83:A5:2092:U:C5	2.87	0.42
83:A5:2128:A:C8	83:A5:2130:G:C2	3.07	0.42
83:A5:3879:A:H2’	83:A5:3880:A:O4’	2.19	0.42
21:Ab:23:ARG:HG2	21:Ab:25:VAL:H	1.84	0.42
28:AC:236:PRO:HA	28:AC:239:TRP:CE2	2.54	0.42
36:B2:1585:A:H61	36:B2:1598:A:N6	2.17	0.42
38:Cz:160:LYS:HD3	83:A5:2842:U:H1’	2.01	0.42
52:CS:32:ILE:HG21	52:CS:40:ALA:HA	2.01	0.42
53:CT:44:GLY:HA3	53:CT:58:HIS:CE1	2.54	0.42
83:A5:1782:C:H42	83:A5:1798:A:N6	2.14	0.42
83:A5:2037:C:H1’	83:A5:2038:A:C8	2.54	0.42
83:A5:3444:G:C6	83:A5:3664:A:C5	3.07	0.42
31:AH:64:ILE:HG12	31:AH:94:ALA:HB1	2.01	0.42
36:B2:17:C:OP1	36:B2:1196:G:O2’	2.36	0.42
36:B2:1828:C:H4’	36:B2:1829:C:H5’	2.01	0.42
38:Cz:137:LEU:HD23	38:Cz:137:LEU:H	1.85	0.42
38:Cz:160:LYS:HE3	83:A5:2842:U:O2’	2.19	0.42
42:CL:56:PRO:HA	42:CL:72:GLY:HA3	2.01	0.42
65:Cc:89:PHE:CZ	83:A5:2041:G:N2	2.87	0.42
83:A5:449:U:H2’	83:A5:450:G:H8	1.84	0.42
83:A5:539:G:C3’	83:A5:540:G:H5’	2.50	0.42
83:A5:669:U:O5’	83:A5:1592:U:H4’	2.19	0.42
83:A5:1798:A:HO2’	83:A5:1799:U:H5	1.60	0.42
83:A5:2741:A:H2’	83:A5:2742:G:C8	2.54	0.42
83:A5:3200:G:C6	83:A5:3219:A:C2	3.07	0.42
86:A8:76:A:C2	86:A8:77:G:O6	2.70	0.42
1:Az:754:GLY:O	1:Az:755:HIS:CG	2.72	0.42
6:AX:10:ALA:HB1	11:AL:99:PHE:C	2.45	0.42
20:Aa:96:THR:HB	20:Aa:97:PRO:HD3	2.02	0.42
26:AJ:132:ARG:CD	36:B2:480:A:OP2	2.62	0.42
36:B2:273:C:H2’	36:B2:274:G:C8	2.54	0.42
36:B2:901:G:H1	36:B2:941:A:H2	1.68	0.42
36:B2:1804:U:C6	36:B2:1804:U:OP2	2.72	0.42
38:Cz:93:LEU:HD22	38:Cz:124:LEU:HD21	2.01	0.42
44:CM:136:ALA:HB1	44:CM:137:ASP:HB2	2.00	0.42
45:Ca:65:ARG:HH21	83:A5:322:G:H21	1.67	0.42
73:Cl:8:ARG:NH2	86:A8:110:C:H5’	2.32	0.42
83:A5:1289:C:C5	83:A5:1290:U:C4	3.08	0.42
83:A5:1603:A:C2	83:A5:1604:G:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:1809:A:H2	83:A5:1859:U:O2	2.01	0.42
83:A5:1911:C:C2	83:A5:1927:U:C5	3.08	0.42
83:A5:2823:A:C2	83:A5:2896:U:N3	2.87	0.42
4:AK:60:PHE:CE2	36:B2:1627:G:C4	3.08	0.42
20:Aa:80:HIS:CE1	36:B2:1989:A:H61	2.38	0.42
21:Ab:47:PHE:CD1	21:Ab:48:SER:N	2.88	0.42
34:AQ:132:LYS:HA	34:AQ:139:ALA:HA	2.01	0.42
36:B2:924:U:H2'	36:B2:925:U:H5'	2.01	0.42
36:B2:1436:G:O2'	36:B2:1437:A:H5'	2.20	0.42
43:CV:43:HIS:CE1	83:A5:3463:U:H5"	2.54	0.42
49:CQ:30:LYS:HE2	83:A5:1596:A:C2	2.55	0.42
79:CJ:80:ARG:NE	85:A7:40:C:O2	2.42	0.42
83:A5:1949:A:C6	83:A5:1950:A:C6	3.08	0.42
83:A5:1987:G:H2'	83:A5:1988:A:C5'	2.50	0.42
83:A5:2091:A:O2'	83:A5:2092:U:H6	2.02	0.42
83:A5:2116:U:H2'	83:A5:2117:A:C8	2.54	0.42
83:A5:2845:G:H21	83:A5:2883:C:H42	1.67	0.42
19:AZ:79:ARG:HB3	19:AZ:79:ARG:HH21	1.85	0.42
36:B2:142:A:O2'	36:B2:143:U:H6	2.02	0.42
36:B2:183:A:H3'	36:B2:184:U:C6	2.54	0.42
36:B2:853:A:H2'	36:B2:854:G:C8	2.55	0.42
36:B2:1664:A:C2	36:B2:1726:A:C5	3.07	0.42
36:B2:1749:C:O2	36:B2:1749:C:C2'	2.67	0.42
44:CM:7:VAL:HA	44:CM:57:LEU:HD22	2.01	0.42
46:CN:67:ARG:HE	83:A5:1787:C:H5"	1.84	0.42
47:CI:7:ARG:H	47:CI:7:ARG:HD2	1.84	0.42
52:CS:176:PHE:HA	83:A5:3753:A:H4'	2.00	0.42
59:CZ:107:LYS:CB	83:A5:1926:A:O2'	2.67	0.42
74:CC:77:ALA:HA	83:A5:1677:U:C4	2.54	0.42
74:CC:210:PRO:HD2	74:CC:230:ILE:HG22	2.02	0.42
77:Cp:29:MET:HA	77:Cp:32:THR:HG22	2.00	0.42
80:CH:87:GLN:HB2	80:CH:185:VAL:HG22	2.02	0.42
83:A5:129:A:H61	83:A5:150:U:H3	1.67	0.42
83:A5:200:U:H5"	83:A5:201:U:OP2	2.20	0.42
83:A5:3587:U:H3	83:A5:3626:A:N6	2.17	0.42
83:A5:3751:C:O2	83:A5:3751:C:C2'	2.60	0.42
83:A5:3810:C:H2'	83:A5:3811:A:C5'	2.49	0.42
84:A9:15:A:H2'	84:A9:16:U:C6	2.55	0.42
1:Az:227:THR:HG22	1:Az:228:LEU:H	1.85	0.42
10:AN:30:ALA:HB1	10:AN:67:ASN:HD22	1.84	0.42
19:AZ:96:ILE:HD12	19:AZ:108:TYR:CD1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AF:79:ARG:HH22	34:AQ:127:ARG:H	1.67	0.42
36:B2:155:U:H2'	36:B2:156:U:O4'	2.19	0.42
36:B2:483:A:C2	36:B2:519:A:C2	3.08	0.42
36:B2:1274:U:H3	36:B2:1624:U:H3	1.66	0.42
36:B2:1727:U:H1'	36:B2:1728:G:C6	2.54	0.42
44:CM:134:THR:HA	44:CM:135:LYS:HB2	2.01	0.42
51:CA:95:THR:HG22	83:A5:2996:U:C5	2.55	0.42
74:CC:282:LEU:HD23	74:CC:282:LEU:H	1.85	0.42
83:A5:134:G:C6	83:A5:135:U:C4	3.07	0.42
83:A5:251:A:H2'	83:A5:252:U:C5'	2.50	0.42
83:A5:303:G:H5"	83:A5:304:U:OP1	2.19	0.42
83:A5:741:C:H2'	83:A5:742:A:C8	2.54	0.42
83:A5:3726:U:O2	83:A5:3729:A:N3	2.53	0.42
86:A8:108:A:C5'	86:A8:109:U:P	3.07	0.42
2:Ag:232:GLU:H	2:Ag:232:GLU:CD	2.27	0.42
16:AA:140:VAL:O	16:AA:140:VAL:HG12	2.19	0.42
27:AE:109:PHE:CD2	27:AE:109:PHE:C	2.98	0.42
33:AI:132:LYS:HA	33:AI:135:GLU:H	1.85	0.42
36:B2:94:G:H21	36:B2:465:A:H5'	1.85	0.42
36:B2:199:G:C2'	36:B2:200:U:C6	2.98	0.42
36:B2:1866:U:H2'	36:B2:1867:C:C6	2.55	0.42
38:Cz:94:ASN:HD21	38:Cz:124:LEU:HG	1.84	0.42
48:CD:251:PRO:HB2	48:CD:253:HIS:CE1	2.55	0.42
52:CS:57:THR:C	52:CS:59:GLY:H	2.28	0.42
63:CB:79:LEU:CD1	63:CB:347:LEU:HD21	2.50	0.42
71:Cj:65:GLN:H	71:Cj:65:GLN:CD	2.28	0.42
83:A5:88:U:H1'	83:A5:105:A:H61	1.85	0.42
83:A5:1784:A:H1'	83:A5:1799:U:N3	2.34	0.42
83:A5:1787:C:H1'	83:A5:2546:G:H21	1.85	0.42
83:A5:2767:U:O4'	83:A5:2767:U:N1	2.43	0.42
83:A5:3726:U:H1'	83:A5:3729:A:O2'	2.20	0.42
83:A5:3904:G:H2'	83:A5:3905:U:C6	2.55	0.42
13:AP:127:LYS:H	13:AP:127:LYS:HD3	1.84	0.42
16:AA:169:HIS:HA	16:AA:203:PHE:CE1	2.55	0.42
29:AG:65:GLN:NE2	36:B2:1874:C:H5"	2.34	0.42
41:CO:1:MET:HB3	83:A5:3717:U:OP1	2.20	0.42
42:CL:12:HIS:CE1	83:A5:101:C:C5	3.08	0.42
42:CL:85:ILE:HG22	42:CL:86:GLY:HA3	2.02	0.42
46:CN:7:MET:SD	82:CG:171:LEU:HA	2.60	0.42
60:Cr:130:VAL:HG13	60:Cr:131:LYS:H	1.85	0.42
79:CJ:109:ASN:HD22	79:CJ:139:LEU:H	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2706:U:C2'	83:A5:2707:C:H5"	2.50	0.42
83:A5:3524:G:H2'	83:A5:3676:C:H41	1.85	0.42
83:A5:3731:U:O4	83:A5:3750:A:N1	2.53	0.42
1:Az:661:ILE:HG22	1:Az:665:VAL:HG23	2.02	0.42
1:Az:752:ARG:HH22	1:Az:782:PHE:HA	1.84	0.42
5:AO:28:PHE:CD1	5:AO:92:ALA:HB1	2.54	0.42
20:Aa:84:VAL:HG13	36:B2:1992:A:H62	1.85	0.42
32:AW:6:VAL:HG13	32:AW:29:PRO:HD2	2.02	0.42
36:B2:644:A:C2	36:B2:947:U:C2	3.08	0.42
36:B2:1099:U:H4'	51:CA:247:ARG:HB3	2.01	0.42
36:B2:1341:C:OP2	36:B2:1342:G:O6	2.37	0.42
36:B2:1716:A:H2'	36:B2:1717:A:C8	2.54	0.42
44:CM:6:PHE:HA	52:CS:153:PRO:HA	2.02	0.42
44:CM:20:LEU:HD11	44:CM:25:VAL:HG21	2.02	0.42
44:CM:143:LEU:HB2	83:A5:3790:A:C6	2.55	0.42
68:Cf:73:LEU:HD13	68:Cf:148:ILE:HD11	2.02	0.42
70:Ci:5:TYR:CE1	70:Ci:7:LEU:HB2	2.55	0.42
83:A5:134:G:H8	83:A5:134:G:C5'	2.28	0.42
83:A5:873:U:H1'	83:A5:983:U:C2	2.55	0.42
83:A5:1156:U:H3	83:A5:1165:A:H61	1.68	0.42
83:A5:1927:U:O2'	83:A5:1928:G:C5'	2.68	0.42
83:A5:1961:C:H2'	83:A5:1962:A:O4'	2.20	0.42
83:A5:2920:U:H3	83:A5:3116:A:N6	2.18	0.42
83:A5:3689:U:H1'	83:A5:3691:A:C5	2.55	0.42
1:Az:155:ILE:HG22	1:Az:156:LYS:N	2.35	0.41
5:AO:102:GLY:C	5:AO:104:LYS:H	2.28	0.41
10:AN:22:VAL:HG22	10:AN:23:PRO:HA	2.02	0.41
15:AB:29:ASP:H	15:AB:51:ARG:HG3	1.85	0.41
19:AZ:79:ARG:HD2	19:AZ:79:ARG:HA	1.76	0.41
27:AE:248:ILE:HD11	36:B2:874:U:H5'	2.01	0.41
29:AG:172:SER:H	36:B2:73:A:H61	1.66	0.41
36:B2:159:A:H3'	36:B2:160:G:H21	1.84	0.41
37:BC:53:A:C2	37:BC:57:A:C8	3.08	0.41
40:CK:110:LEU:HD11	40:CK:137:GLN:HE22	1.85	0.41
61:Ch:117:ARG:HB2	61:Ch:119:PHE:CE1	2.55	0.41
81:CE:220:LYS:HE3	81:CE:231:ALA:H	1.85	0.41
81:CE:223:ALA:H	81:CE:225:TYR:CB	2.33	0.41
83:A5:833:U:H3	83:A5:847:A:N6	2.18	0.41
83:A5:1148:C:H2'	83:A5:1149:C:C6	2.55	0.41
83:A5:3843:U:C6	83:A5:3843:U:H3'	2.55	0.41
1:Az:307:VAL:HB	1:Az:329:TRP:CZ3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AP:78:ILE:HD12	13:AP:107:GLN:HG2	2.02	0.41
16:AA:82:ILE:HA	16:AA:204:TYR:HB2	2.01	0.41
29:AG:131:ARG:H	58:CW:82:ILE:HG13	1.85	0.41
31:AH:62:VAL:H	31:AH:94:ALA:HA	1.85	0.41
36:B2:259:G:H2'	36:B2:260:A:H8	1.86	0.41
36:B2:953:A:H61	36:B2:1048:U:H3	1.68	0.41
36:B2:1342:G:C1'	36:B2:1342:G:O5'	2.68	0.41
36:B2:1988:G:H1'	36:B2:1989:A:H2'	2.02	0.41
37:BC:18:G:O6	83:A5:2832:G:C5	2.73	0.41
40:CK:21:GLU:O	40:CK:22:VAL:HG13	2.20	0.41
41:CO:119:ARG:HD3	41:CO:119:ARG:H	1.85	0.41
47:CI:168:SER:C	47:CI:170:LYS:H	2.27	0.41
52:CS:155:VAL:HG22	52:CS:156:GLN:H	1.85	0.41
65:Cc:21:VAL:HG11	65:Cc:96:ILE:HG23	2.01	0.41
83:A5:211:U:OP2	83:A5:211:U:H6	2.02	0.41
83:A5:365:A:H2'	83:A5:366:A:C8	2.56	0.41
83:A5:1711:C:C5	83:A5:1752:G:C2	3.08	0.41
83:A5:1977:A:H61	83:A5:2097:U:H3	1.67	0.41
83:A5:2016:U:O2'	83:A5:2017:A:C8	2.70	0.41
83:A5:3352:A:C8	83:A5:3353:C:C5	3.07	0.41
85:A7:26:C:H2'	85:A7:27:A:O4'	2.21	0.41
85:A7:41:G:N2	85:A7:45:A:C4	2.88	0.41
86:A8:61:C:H4'	86:A8:62:A:O5'	2.20	0.41
1:Az:513:LEU:HD11	1:Az:547:LEU:HB3	2.01	0.41
1:Az:582:PRO:HB3	83:A5:2634:A:H5"	2.01	0.41
7:AM:89:HIS:CE1	7:AM:114:SER:N	2.88	0.41
13:AP:60:ILE:HD11	13:AP:64:ARG:HH22	1.86	0.41
24:Ae:106:ARG:O	24:Ae:110:TYR:CE2	2.73	0.41
31:AH:3:ILE:O	31:AH:27:VAL:HG21	2.20	0.41
36:B2:15:U:H3	36:B2:1227:A:N6	2.18	0.41
36:B2:1672:A:N7	36:B2:1673:U:C5	2.88	0.41
36:B2:1697:A:C5	36:B2:1698:G:H1'	2.55	0.41
63:CB:258:HIS:HB2	83:A5:3472:A:O2'	2.20	0.41
68:Cf:110:ARG:C	68:Cf:112:THR:H	2.28	0.41
70:Ci:90:HIS:CE1	83:A5:2601:A:H4'	2.54	0.41
79:CJ:102:GLU:HA	79:CJ:104:PHE:H	1.85	0.41
83:A5:125:A:N6	83:A5:153:G:O2'	2.53	0.41
83:A5:1798:A:O2'	83:A5:1799:U:C5	2.70	0.41
83:A5:2030:U:H3	83:A5:2040:A:N6	2.17	0.41
83:A5:2091:A:HO2'	83:A5:2092:U:H5	1.61	0.41
83:A5:3555:U:C5	83:A5:3556:A:C8	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3726:U:H1'	83:A5:3729:A:C2'	2.48	0.41
1:Az:217:PHE:H	1:Az:226:PHE:HA	1.83	0.41
1:Az:699:ALA:H	35:Ah:129:ARG:HD3	1.85	0.41
2:Ag:34:ALA:HB2	2:Ag:70:VAL:HG23	2.02	0.41
7:AM:45:ALA:HB1	7:AM:117:VAL:CG2	2.50	0.41
7:AM:47:LYS:HA	25:Af:129:GLY:N	2.36	0.41
8:AS:28:ILE:H	8:AS:28:ILE:HD12	1.86	0.41
26:AJ:13:THR:HA	26:AJ:49:TYR:CD2	2.55	0.41
42:CL:149:LEU:HD22	61:Ch:122:LYS:O	2.20	0.41
45:Ca:80:TRP:CZ2	45:Ca:123:VAL:HG22	2.56	0.41
54:CP:122:ALA:HA	54:CP:145:HIS:CE1	2.56	0.41
54:CP:182:MET:HE1	83:A5:3850:A:N3	2.35	0.41
60:Cr:58:ALA:H	60:Cr:59:ALA:HA	1.85	0.41
62:Cb:44:ARG:HE	83:A5:917:G:H5'	1.86	0.41
68:Cf:20:ALA:N	68:Cf:21:PRO:HD3	2.35	0.41
7:AM:100:LYS:H	7:AM:108:ARG:HH11	1.67	0.41
13:AP:41:HIS:CE1	13:AP:44:ALA:HB2	2.56	0.41
15:AB:215:ILE:HD13	15:AB:215:ILE:H	1.85	0.41
19:AZ:57:LEU:O	19:AZ:61:VAL:HG23	2.21	0.41
26:AJ:6:ILE:HA	26:AJ:7:PRO:HD2	1.91	0.41
36:B2:479:A:C6	36:B2:602:A:H3'	2.53	0.41
36:B2:974:A:H2'	36:B2:975:U:C6	2.55	0.41
36:B2:1553:A:H61	36:B2:1557:U:H5"	1.85	0.41
36:B2:1825:A:H4'	36:B2:1826:C:C5'	2.49	0.41
41:CO:118:ARG:NH2	83:A5:3721:C:C6	2.88	0.41
47:CI:59:GLN:HB3	47:CI:126:VAL:HG22	2.02	0.41
48:CD:192:ALA:HA	48:CD:195:HIS:CD2	2.56	0.41
48:CD:221:ARG:C	85:A7:49:A:H1'	2.45	0.41
52:CS:164:ARG:HE	68:Cf:42:LYS:H	1.68	0.41
74:CC:194:ALA:HA	83:A5:1661:C:C5	2.55	0.41
79:CJ:171:PHE:CE2	79:CJ:177:GLY:HA3	2.55	0.41
81:CE:60:VAL:H	81:CE:62:ILE:H	1.67	0.41
83:A5:1387:G:C6	83:A5:1533:A:C2	3.09	0.41
83:A5:2926:G:C6	83:A5:2927:U:C5	3.08	0.41
83:A5:3296:C:C5	83:A5:3297:C:C5	3.09	0.41
83:A5:3354:U:C5'	83:A5:3473:C:C6	3.02	0.41
27:AE:132:GLY:HA3	36:B2:258:A:H5'	2.03	0.41
29:AG:131:ARG:HB3	58:CW:80:ARG:HA	2.01	0.41
32:AW:7:LEU:HD11	32:AW:78:ARG:HH21	1.85	0.41
36:B2:1673:U:HO2'	36:B2:1674:C:H6	1.64	0.41
53:CT:31:MET:HA	53:CT:31:MET:HE3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:86:VAL:HG13	63:CB:162:VAL:HG13	2.03	0.41
68:Cf:50:LEU:N	83:A5:3714:U:C5	2.89	0.41
83:A5:444:C:C2	83:A5:785:A:C2	3.09	0.41
83:A5:986:A:H4'	83:A5:987:G:H5'	2.02	0.41
83:A5:1227:C:C2'	83:A5:1228:C:H5'	2.51	0.41
83:A5:1957:C:N3	83:A5:2123:G:C6	2.89	0.41
83:A5:2227:U:C5	83:A5:2228:U:C5	3.09	0.41
8:AS:86:ARG:HE	8:AS:98:LEU:HD11	1.85	0.41
26:AJ:132:ARG:HH22	36:B2:481:U:H5	1.68	0.41
36:B2:209:A:O2'	36:B2:210:U:H5'	2.21	0.41
36:B2:495:U:H2'	36:B2:496:C:C6	2.55	0.41
36:B2:1170:G:C2'	36:B2:1171:G:O5'	2.68	0.41
48:CD:115:LEU:HA	48:CD:115:LEU:HD23	1.81	0.41
52:CS:38:ILE:HG21	64:CF:231:TYR:HB3	2.03	0.41
66:Cd:29:ARG:HH22	83:A5:3897:G:H4'	1.86	0.41
74:CC:309:ARG:NH2	74:CC:311:ARG:H	2.19	0.41
83:A5:927:A:H3'	83:A5:928:U:C5'	2.51	0.41
83:A5:1580:U:H3'	83:A5:1581:G:C8	2.56	0.41
83:A5:2120:G:N2	83:A5:3003:C:H42	2.19	0.41
83:A5:2566:A:C6	83:A5:2698:A:N6	2.89	0.41
83:A5:3293:G:C2	83:A5:3327:U:C5	3.08	0.41
83:A5:3358:U:C4	83:A5:3359:U:C4	3.09	0.41
83:A5:3712:G:N3	83:A5:3775:A:N1	2.68	0.41
83:A5:3769:C:H5'	83:A5:3771:A:H61	1.85	0.41
85:A7:14:C:N4	85:A7:66:G:C2	2.89	0.41
26:AJ:43:GLU:HA	26:AJ:46:ARG:HE	1.85	0.41
36:B2:905:U:H2'	36:B2:906:C:C6	2.55	0.41
44:CM:13:ALA:CB	44:CM:55:LEU:HD23	2.51	0.41
57:CY:2:LYS:HB3	57:CY:7:VAL:HG13	2.03	0.41
59:CZ:76:ASN:HB3	59:CZ:79:HIS:CD2	2.56	0.41
63:CB:17:TYR:HA	63:CB:19:LYS:H	1.85	0.41
67:Ce:58:GLY:HA2	83:A5:1375:G:H21	1.86	0.41
74:CC:212:VAL:HG21	74:CC:224:PHE:CE2	2.56	0.41
83:A5:1926:A:H2'	83:A5:1927:U:O5'	2.20	0.41
83:A5:2904:U:C2'	83:A5:2905:A:H5"	2.51	0.41
83:A5:3315:U:C5	83:A5:3316:U:C5	3.08	0.41
83:A5:3338:U:HO2'	83:A5:3499:G:H4'	1.84	0.41
83:A5:3700:U:O2	83:A5:3862:A:N1	2.53	0.41
83:A5:3774:U:C6	83:A5:3774:U:C5'	3.03	0.41
83:A5:3906:U:H3	83:A5:3945:A:N6	2.15	0.41
1:Az:225:ALA:HA	1:Az:332:ALA:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Az:226:PHE:CZ	1:Az:330:LEU:HD11	2.55	0.41
1:Az:661:ILE:HD13	1:Az:695:LEU:HD21	2.03	0.41
2:Ag:279:THR:HG23	2:Ag:280:SER:H	1.86	0.41
4:AK:11:ILE:HD11	4:AK:38:ILE:CD1	2.51	0.41
11:AL:45:ARG:NH2	36:B2:932:U:O2'	2.54	0.41
27:AE:102:VAL:HG22	27:AE:103:TYR:H	1.86	0.41
32:AW:93:LEU:HB2	32:AW:128:PHE:CE1	2.55	0.41
33:AI:23:LYS:HB3	33:AI:24:LYS:H	1.82	0.41
36:B2:103:U:H4'	36:B2:104:A:C5'	2.50	0.41
36:B2:479:A:H61	36:B2:603:G:P	2.44	0.41
36:B2:1168:C:O5'	36:B2:1169:C:OP1	2.38	0.41
36:B2:1320:G:C6	36:B2:1321:A:C6	3.08	0.41
36:B2:1467:U:H3	36:B2:1522:G:H1	1.69	0.41
39:Cq:161:ILE:HD13	39:Cq:167:VAL:HG22	2.03	0.41
42:CL:125:LEU:C	42:CL:127:PRO:HD3	2.45	0.41
45:Ca:97:THR:H	45:Ca:98:LYS:HG2	1.86	0.41
46:CN:47:LYS:O	46:CN:51:LEU:HD23	2.20	0.41
51:CA:29:LEU:HB3	51:CA:163:ARG:HH12	1.85	0.41
51:CA:177:LYS:HB2	77:Cp:69:TRP:CZ2	2.56	0.41
51:CA:213:GLY:O	83:A5:3499:G:OP2	2.38	0.41
71:Cj:91:ALA:HA	86:A8:84:U:C5	2.56	0.41
74:CC:82:VAL:HG23	74:CC:92:GLN:O	2.21	0.41
74:CC:104:MET:HE1	83:A5:1670:G:C6	2.56	0.41
74:CC:123:ARG:CZ	83:A5:831:A:H61	2.33	0.41
83:A5:93:G:C6	83:A5:102:G:C2	3.09	0.41
83:A5:203:A:C6	83:A5:245:G:H4'	2.56	0.41
83:A5:539:G:C4'	83:A5:540:G:H5'	2.51	0.41
83:A5:688:U:H3	83:A5:693:G:H1	1.68	0.41
83:A5:1721:C:H2'	83:A5:1722:U:H6	1.84	0.41
83:A5:2014:C:H2'	83:A5:2015:G:O4'	2.20	0.41
83:A5:2505:A:C2	83:A5:2706:U:C2	3.09	0.41
83:A5:2581:U:H2'	83:A5:2582:C:C6	2.56	0.41
83:A5:2754:G:C6	83:A5:2755:G:C6	3.08	0.41
83:A5:2900:U:H2'	83:A5:2901:C:H5'	2.03	0.41
83:A5:3358:U:C5	83:A5:3359:U:O4	2.74	0.41
83:A5:3390:U:C5	83:A5:3391:U:C4	3.09	0.41
83:A5:3625:U:H2'	83:A5:3626:A:H8	1.85	0.41
83:A5:3633:U:H3	83:A5:3669:U:H3	1.69	0.41
83:A5:3702:G:H2'	83:A5:3703:C:H5'	2.01	0.41
83:A5:3756:A:N3	83:A5:3756:A:H2'	2.36	0.41
8:AS:11:HIS:CE1	8:AS:55:ARG:NH1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AB:100:LEU:HD13	15:AB:235:HIS:CD2	2.56	0.41
16:AA:42:ARG:HE	16:AA:48:ILE:HG12	1.85	0.41
27:AE:107:GLY:HA2	27:AE:189:LEU:HG	2.03	0.41
34:AQ:13:GLN:O	34:AQ:14:VAL:HG22	2.21	0.41
36:B2:24:U:H2'	36:B2:26:A:C8	2.56	0.41
36:B2:446:A:H61	36:B2:468:U:H3	1.69	0.41
36:B2:1661:A:H2'	36:B2:1662:C:C6	2.55	0.41
47:CI:171:TRP:HB3	47:CI:181:TYR:CE1	2.55	0.41
48:CD:267:ARG:HB3	48:CD:268:TRP:HA	2.03	0.41
60:Cr:6:HIS:CE1	74:CC:292:LEU:HD22	2.56	0.41
83:A5:449:U:H2'	83:A5:450:G:C8	2.56	0.41
83:A5:755:A:H5"	83:A5:756:C:C5	2.56	0.41
83:A5:1419:A:C8	83:A5:1420:A:C8	3.09	0.41
83:A5:1618:A:C2	83:A5:1672:A:C5	3.09	0.41
83:A5:2528:A:C8	83:A5:2529:G:C8	3.09	0.41
1:Az:70:ILE:HG23	1:Az:542:ILE:HD13	2.02	0.40
1:Az:201:GLY:H	1:Az:202:PRO:HD2	1.87	0.40
7:AM:38:LEU:HD23	7:AM:38:LEU:HA	1.89	0.40
18:AY:26:CYS:SG	18:AY:74:ALA:HB2	2.61	0.40
36:B2:944:G:OP2	36:B2:944:G:N2	2.49	0.40
42:CL:182:LEU:HD11	45:Ca:147:LEU:HD11	2.03	0.40
64:CF:178:ILE:HD13	64:CF:178:ILE:HA	1.96	0.40
83:A5:1523:A:H61	83:A5:2759:G:H1'	1.86	0.40
83:A5:2159:C:H2'	83:A5:2160:C:C6	2.56	0.40
83:A5:2840:A:H61	83:A5:2887:U:H3	1.68	0.40
1:Az:58:ASP:HB3	1:Az:63:GLU:HB3	2.03	0.40
26:AJ:145:ILE:O	26:AJ:148:PHE:CE2	2.73	0.40
27:AE:15:PRO:HG2	27:AE:18:TRP:CE2	2.56	0.40
36:B2:149:U:H3	36:B2:159:A:H61	1.70	0.40
42:CL:56:PRO:HG2	42:CL:75:PHE:CE2	2.56	0.40
44:CM:20:LEU:HD12	44:CM:45:VAL:HG21	2.03	0.40
51:CA:179:ILE:HG23	51:CA:180:LEU:N	2.36	0.40
52:CS:164:ARG:NE	68:Cf:42:LYS:H	2.19	0.40
57:CY:52:ASP:H	57:CY:110:LYS:HD2	1.86	0.40
59:CZ:103:PRO:C	83:A5:1926:A:H4'	2.46	0.40
65:Cc:28:CYS:HB3	65:Cc:33:GLN:HB3	2.03	0.40
68:Cf:50:LEU:HB2	83:A5:3714:U:C6	2.56	0.40
83:A5:736:A:C5	83:A5:737:U:C5	3.09	0.40
83:A5:1226:G:H1	83:A5:1250:C:H42	1.69	0.40
83:A5:1599:C:H2'	83:A5:1600:U:C6	2.56	0.40
83:A5:1689:G:O4'	83:A5:1689:G:C8	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:1782:C:N4	83:A5:1798:A:N6	2.60	0.40
83:A5:3686:A:H3'	83:A5:3687:A:C2	2.56	0.40
83:A5:3843:U:C6	83:A5:3843:U:C3'	3.04	0.40
1:Az:159:LEU:HB2	1:Az:215:VAL:HG22	2.04	0.40
2:Ag:250:CYS:SG	2:Ag:290:LEU:HD13	2.61	0.40
8:AS:58:GLU:HG2	19:AZ:48:LEU:HD11	2.03	0.40
9:Ad:10:HIS:CD2	9:Ad:11:PRO:HD2	2.56	0.40
10:AN:2:GLY:HA3	36:B2:952:G:H5"	2.03	0.40
25:Af:87:THR:H	36:B2:1637:G:H22	1.68	0.40
28:AC:153:TRP:CH2	28:AC:181:ALA:O	2.74	0.40
36:B2:1049:C:C5	36:B2:1050:A:C2	3.10	0.40
36:B2:1434:U:C2'	36:B2:1435:A:O5'	2.70	0.40
36:B2:1833:C:H2'	36:B2:1834:G:C8	2.56	0.40
37:BC:18:G:O6	83:A5:2832:G:C4	2.74	0.40
41:CO:60:LEU:HD22	83:A5:3667:C:H5"	2.04	0.40
48:CD:35:ARG:CB	83:A5:3280:A:C2	3.05	0.40
51:CA:1:MET:HG3	83:A5:1108:G:N3	2.36	0.40
51:CA:6:ARG:HA	51:CA:9:ARG:HE	1.87	0.40
51:CA:216:HIS:CE1	83:A5:3492:G:N7	2.89	0.40
63:CB:3:HIS:CE1	83:A5:3470:G:N7	2.89	0.40
63:CB:228:PHE:HA	63:CB:234:ARG:HH22	1.86	0.40
68:Cf:47:HIS:CG	68:Cf:51:PHE:O	2.74	0.40
80:CH:28:THR:HG22	80:CH:33:THR:HG22	2.03	0.40
83:A5:81:A:H61	83:A5:341:A:N6	2.20	0.40
83:A5:1249:A:H3'	83:A5:1250:C:C6	2.57	0.40
83:A5:1463:C:C5	83:A5:1464:G:C8	3.09	0.40
83:A5:1556:C:H2'	83:A5:1557:U:C6	2.56	0.40
83:A5:1639:U:H2'	83:A5:1641:U:OP2	2.22	0.40
83:A5:2091:A:C4	83:A5:2092:U:C5	3.09	0.40
83:A5:2630:A:H61	83:A5:2642:U:H3	1.68	0.40
83:A5:2845:G:H22	83:A5:2880:A:H3'	1.87	0.40
83:A5:2926:G:H3'	83:A5:2927:U:H5"	2.04	0.40
83:A5:3712:G:N2	83:A5:3770:A:N6	2.69	0.40
36:B2:193:U:O4'	36:B2:226:C:H5'	2.22	0.40
36:B2:1377:U:H2'	36:B2:1378:C:C6	2.56	0.40
48:CD:259:LYS:HA	48:CD:260:SER:CB	2.51	0.40
51:CA:240:ALA:HB2	83:A5:2533:U:H4'	2.03	0.40
52:CS:30:MET:HE2	52:CS:30:MET:HB3	1.99	0.40
62:Cb:52:SER:HA	62:Cb:53:ARG:HB2	2.03	0.40
80:CH:43:LEU:HA	83:A5:3728:A:H62	1.86	0.40
81:CE:165:ASP:HA	83:A5:3841:C:H2'	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:CG:78:ARG:HG3	83:A5:2908:U:C6	2.57	0.40
83:A5:191:A:N6	83:A5:261:U:H3	2.20	0.40
83:A5:777:C:H2'	83:A5:778:C:H6	1.83	0.40
83:A5:1176:A:C2	83:A5:1318:A:C2	3.09	0.40
83:A5:1801:U:H5	83:A5:1802:U:C2	2.39	0.40
83:A5:2194:G:H3'	83:A5:2195:A:H5"	2.04	0.40
83:A5:3194:A:H61	83:A5:3240:U:H3	1.69	0.40
83:A5:3263:C:H2'	83:A5:3264:A:C8	2.56	0.40
83:A5:3799:G:H2'	83:A5:3800:G:O4'	2.22	0.40
83:A5:3817:U:H2'	83:A5:3818:G:C1'	2.52	0.40
15:AB:35:ALA:HB2	15:AB:44:ILE:HG23	2.03	0.40
26:AJ:132:ARG:HB3	36:B2:480:A:C5'	2.51	0.40
34:AQ:10:GLN:CD	34:AQ:10:GLN:H	2.29	0.40
36:B2:1822:U:H2'	36:B2:1824:C:C5	2.57	0.40
42:CL:58:VAL:HG11	42:CL:108:SER:HA	2.03	0.40
53:CT:19:PHE:HA	53:CT:22:HIS:CE1	2.57	0.40
60:Cr:37:ALA:C	60:Cr:39:VAL:H	2.29	0.40
63:CB:234:ARG:HG2	63:CB:272:LYS:HB2	2.03	0.40
63:CB:256:ALA:HB2	83:A5:3472:A:C2	2.57	0.40
68:Cf:18:GLN:HA	68:Cf:20:ALA:H	1.87	0.40
83:A5:1871:A:H3'	83:A5:1872:A:H5'	2.02	0.40
83:A5:2933:A:O2'	83:A5:2934:U:H5'	2.21	0.40
83:A5:3415:U:H3	83:A5:3471:A:N6	2.06	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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	Az	835/844 (99%)	647 (78%)	96 (12%)	92 (11%)	0 5
2	Ag	316/318 (99%)	274 (87%)	25 (8%)	17 (5%)	1 14

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	AU	100/120 (83%)	84 (84%)	6 (6%)	10 (10%)	0 7
4	AK	93/163 (57%)	75 (81%)	7 (8%)	11 (12%)	0 4
5	AO	132/151 (87%)	104 (79%)	13 (10%)	15 (11%)	0 5
6	AX	141/143 (99%)	118 (84%)	15 (11%)	8 (6%)	1 14
7	AM	117/139 (84%)	85 (73%)	16 (14%)	16 (14%)	0 4
8	AS	135/152 (89%)	107 (79%)	16 (12%)	12 (9%)	0 8
9	Ad	50/56 (89%)	30 (60%)	10 (20%)	10 (20%)	0 2
10	AN	148/151 (98%)	136 (92%)	7 (5%)	5 (3%)	3 21
11	AL	153/155 (99%)	128 (84%)	16 (10%)	9 (6%)	1 13
12	AR	118/131 (90%)	99 (84%)	12 (10%)	7 (6%)	1 13
13	AP	122/148 (82%)	95 (78%)	13 (11%)	14 (12%)	0 5
14	AT	152/156 (97%)	125 (82%)	17 (11%)	10 (7%)	1 12
15	AB	218/268 (81%)	179 (82%)	23 (11%)	16 (7%)	1 10
16	AA	216/313 (69%)	174 (81%)	22 (10%)	20 (9%)	0 8
17	AV	80/83 (96%)	64 (80%)	6 (8%)	10 (12%)	0 4
18	AY	124/131 (95%)	96 (77%)	10 (8%)	18 (14%)	0 3
19	AZ	72/117 (62%)	49 (68%)	11 (15%)	12 (17%)	0 2
20	Aa	105/114 (92%)	75 (71%)	14 (13%)	16 (15%)	0 3
21	Ab	82/84 (98%)	64 (78%)	12 (15%)	6 (7%)	1 10
22	Ac	60/65 (92%)	53 (88%)	1 (2%)	6 (10%)	0 7
23	AD	225/246 (92%)	183 (81%)	29 (13%)	13 (6%)	1 13
24	Ae	56/132 (42%)	37 (66%)	10 (18%)	9 (16%)	0 2
25	Af	78/80 (98%)	46 (59%)	15 (19%)	17 (22%)	0 1
26	AJ	179/195 (92%)	148 (83%)	17 (10%)	14 (8%)	1 9
27	AE	259/261 (99%)	204 (79%)	37 (14%)	18 (7%)	1 11
28	AC	225/267 (84%)	186 (83%)	17 (8%)	22 (10%)	0 7
29	AG	229/248 (92%)	196 (86%)	20 (9%)	13 (6%)	1 14
30	AF	188/228 (82%)	152 (81%)	20 (11%)	16 (8%)	0 9
31	AH	192/194 (99%)	147 (77%)	28 (15%)	17 (9%)	0 8
32	AW	127/130 (98%)	114 (90%)	10 (8%)	3 (2%)	4 27
33	AI	205/208 (99%)	164 (80%)	12 (6%)	29 (14%)	0 3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
34	AQ	146/148 (99%)	114 (78%)	14 (10%)	18 (12%)	0 4
35	Ah	54/121 (45%)	31 (57%)	6 (11%)	17 (32%)	0 0
38	Cz	215/218 (99%)	186 (86%)	17 (8%)	12 (6%)	1 14
39	Cq	221/223 (99%)	183 (83%)	21 (10%)	17 (8%)	1 9
40	CK	156/165 (94%)	95 (61%)	29 (19%)	32 (20%)	0 2
41	CO	203/205 (99%)	183 (90%)	12 (6%)	8 (4%)	2 18
42	CL	208/218 (95%)	141 (68%)	28 (14%)	39 (19%)	0 2
43	CV	132/140 (94%)	116 (88%)	13 (10%)	3 (2%)	5 28
44	CM	157/166 (95%)	123 (78%)	20 (13%)	14 (9%)	0 8
45	Ca	147/149 (99%)	116 (79%)	17 (12%)	14 (10%)	0 8
46	CN	201/204 (98%)	175 (87%)	20 (10%)	6 (3%)	3 22
47	CI	215/218 (99%)	176 (82%)	19 (9%)	20 (9%)	0 8
48	CD	288/299 (96%)	242 (84%)	20 (7%)	26 (9%)	0 8
49	CQ	185/188 (98%)	153 (83%)	18 (10%)	14 (8%)	1 10
50	CR	201/203 (99%)	187 (93%)	7 (4%)	7 (4%)	3 20
51	CA	251/256 (98%)	205 (82%)	27 (11%)	19 (8%)	1 10
52	CS	171/177 (97%)	131 (77%)	18 (10%)	22 (13%)	0 4
53	CT	156/159 (98%)	122 (78%)	17 (11%)	17 (11%)	0 6
54	CP	183/186 (98%)	154 (84%)	16 (9%)	13 (7%)	1 10
55	CU	114/299 (38%)	88 (77%)	18 (16%)	8 (7%)	1 11
56	CX	118/277 (43%)	96 (81%)	15 (13%)	7 (6%)	1 13
57	CY	129/149 (87%)	113 (88%)	9 (7%)	7 (5%)	1 14
58	CW	128/155 (83%)	102 (80%)	12 (9%)	14 (11%)	0 6
59	CZ	132/135 (98%)	111 (84%)	15 (11%)	6 (4%)	2 16
60	Cr	132/144 (92%)	88 (67%)	22 (17%)	22 (17%)	0 2
61	Ch	121/123 (98%)	99 (82%)	10 (8%)	12 (10%)	0 7
62	Cb	73/76 (96%)	53 (73%)	11 (15%)	9 (12%)	0 4
63	CB	412/416 (99%)	325 (79%)	56 (14%)	31 (8%)	1 10
64	CF	227/252 (90%)	195 (86%)	17 (8%)	15 (7%)	1 12
65	Cc	98/111 (88%)	91 (93%)	3 (3%)	4 (4%)	2 17
66	Cd	109/124 (88%)	91 (84%)	14 (13%)	4 (4%)	2 19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
67	Ce	130/134 (97%)	101 (78%)	16 (12%)	13 (10%)	0 7
68	Cf	155/157 (99%)	115 (74%)	14 (9%)	26 (17%)	0 2
69	Cg	111/162 (68%)	92 (83%)	12 (11%)	7 (6%)	1 12
70	Ci	111/115 (96%)	82 (74%)	16 (14%)	13 (12%)	0 4
71	Cj	90/93 (97%)	75 (83%)	9 (10%)	6 (7%)	1 11
72	Ck	68/70 (97%)	61 (90%)	4 (6%)	3 (4%)	2 17
73	Cl	48/51 (94%)	40 (83%)	4 (8%)	4 (8%)	0 9
74	CC	390/401 (97%)	309 (79%)	36 (9%)	45 (12%)	0 5
75	Cm	50/52 (96%)	38 (76%)	6 (12%)	6 (12%)	0 4
76	Cn	23/25 (92%)	22 (96%)	0	1 (4%)	2 17
77	Cp	89/92 (97%)	77 (86%)	8 (9%)	4 (4%)	2 16
78	Co	102/104 (98%)	79 (78%)	10 (10%)	13 (13%)	0 4
79	CJ	180/184 (98%)	139 (77%)	17 (9%)	24 (13%)	0 4
80	CH	188/190 (99%)	160 (85%)	16 (8%)	12 (6%)	1 12
81	CE	226/243 (93%)	149 (66%)	34 (15%)	43 (19%)	0 2
82	CG	239/271 (88%)	197 (82%)	22 (9%)	20 (8%)	0 9
All	All	13015/14439 (90%)	10459 (80%)	1348 (10%)	1208 (9%)	1 8

All (1208) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	Az	5	THR
1	Az	15	LYS
1	Az	44	GLY
1	Az	54	THR
1	Az	82	GLU
1	Az	89	ILE
1	Az	92	PRO
1	Az	100	LYS
1	Az	116	SER
1	Az	140	CYS
1	Az	174	ASP
1	Az	204	GLY
1	Az	209	ASP
1	Az	210	PRO
1	Az	213	GLY

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Mol	Chain	Res	Type
1	Az	218	GLY
1	Az	223	GLY
1	Az	256	PHE
1	Az	266	GLN
1	Az	270	ASP
1	Az	272	LYS
1	Az	307	VAL
1	Az	308	THR
1	Az	309	LEU
1	Az	311	HIS
1	Az	331	PRO
1	Az	345	PRO
1	Az	389	PRO
1	Az	395	ARG
1	Az	405	GLY
1	Az	427	ASP
1	Az	450	VAL
1	Az	467	LYS
1	Az	481	LYS
1	Az	484	LYS
1	Az	487	VAL
1	Az	520	VAL
1	Az	528	GLY
1	Az	555	PRO
1	Az	560	ASP
1	Az	584	LYS
1	Az	636	TRP
1	Az	642	GLY
1	Az	675	GLU
1	Az	691	TYR
1	Az	722	ALA
1	Az	739	GLU
1	Az	762	VAL
1	Az	766	PRO
1	Az	792	GLY
1	Az	794	ALA
1	Az	814	SER
1	Az	834	LEU
1	Az	835	PRO
2	Ag	137	ALA
2	Ag	146	ASP
2	Ag	215	SER

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Mol	Chain	Res	Type
2	Ag	277	SER
2	Ag	279	THR
3	AU	49	ASN
3	AU	54	GLY
3	AU	73	GLY
3	AU	77	LYS
3	AU	96	PRO
3	AU	109	GLU
4	AK	28	PRO
4	AK	34	GLU
4	AK	62	TRP
4	AK	88	VAL
4	AK	89	PRO
5	AO	20	GLN
5	AO	56	VAL
5	AO	100	THR
5	AO	101	GLY
5	AO	128	ARG
5	AO	140	THR
5	AO	148	GLY
5	AO	149	ARG
6	AX	90	SER
6	AX	95	GLU
6	AX	110	HIS
6	AX	112	VAL
6	AX	142	ARG
7	AM	40	HIS
7	AM	85	ARG
7	AM	86	VAL
7	AM	87	ASP
7	AM	121	PHE
7	AM	123	GLU
7	AM	124	GLU
8	AS	11	HIS
8	AS	129	LEU
8	AS	140	GLY
9	Ad	13	LYS
9	Ad	16	GLN
9	Ad	21	CYS
9	Ad	52	PHE
11	AL	22	LYS
11	AL	24	GLY

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Mol	Chain	Res	Type
11	AL	27	LYS
11	AL	28	LYS
11	AL	133	LYS
12	AR	6	THR
12	AR	23	ARG
12	AR	64	SER
12	AR	86	PRO
12	AR	114	ILE
13	AP	10	LYS
13	AP	14	THR
13	AP	17	LYS
13	AP	18	PHE
13	AP	94	GLY
13	AP	128	PRO
14	AT	6	VAL
14	AT	32	ASP
14	AT	34	MET
14	AT	68	SER
15	AB	21	VAL
15	AB	22	VAL
15	AB	29	ASP
15	AB	35	ALA
15	AB	40	GLN
15	AB	119	LYS
15	AB	120	TRP
15	AB	183	ASP
15	AB	212	ASP
15	AB	216	ARG
15	AB	221	LEU
16	AA	10	LEU
16	AA	67	ALA
16	AA	165	ASN
16	AA	167	SER
16	AA	190	SER
16	AA	192	SER
16	AA	194	GLU
16	AA	206	ASP
16	AA	216	ALA
16	AA	217	ALA
16	AA	221	LEU
16	AA	222	PRO
17	AV	4	ASP

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Mol	Chain	Res	Type
17	AV	10	ASP
17	AV	23	ILE
17	AV	40	ASP
17	AV	41	PRO
18	AY	34	SER
18	AY	35	SER
18	AY	36	VAL
18	AY	37	ASN
18	AY	52	THR
18	AY	57	PHE
18	AY	61	PHE
18	AY	64	ASN
18	AY	87	GLU
19	AZ	45	ASN
19	AZ	48	LEU
19	AZ	67	ILE
19	AZ	76	LEU
19	AZ	77	LYS
19	AZ	93	LYS
19	AZ	112	THR
20	Aa	28	ARG
20	Aa	46	GLU
20	Aa	86	ASN
20	Aa	88	SER
20	Aa	96	THR
20	Aa	97	PRO
20	Aa	98	PRO
20	Aa	102	PHE
20	Aa	103	PRO
20	Aa	106	MET
21	Ab	5	LYS
21	Ab	18	LYS
21	Ab	57	ALA
21	Ab	62	ILE
22	Ac	35	ASN
22	Ac	62	ARG
23	AD	6	PRO
23	AD	96	ARG
23	AD	204	LYS
23	AD	205	PRO
23	AD	225	GLU
24	Ae	77	SER

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Mol	Chain	Res	Type
24	Ae	94	GLN
24	Ae	95	GLU
24	Ae	100	LYS
24	Ae	119	GLN
25	Af	90	LYS
25	Af	93	HIS
25	Af	99	LYS
25	Af	100	LEU
25	Af	102	VAL
25	Af	103	LEU
25	Af	137	ASP
25	Af	148	PHE
25	Af	152	LYS
25	Af	153	PRO
26	AJ	7	PRO
26	AJ	12	LYS
26	AJ	14	TYR
26	AJ	119	GLY
26	AJ	134	ARG
26	AJ	139	ARG
26	AJ	167	GLY
26	AJ	170	ARG
26	AJ	171	PRO
27	AE	33	THR
27	AE	136	VAL
27	AE	171	ASP
27	AE	190	GLY
27	AE	232	ASN
27	AE	241	GLY
28	AC	41	LYS
28	AC	60	SER
28	AC	116	ASN
28	AC	186	GLY
28	AC	216	LEU
28	AC	241	GLU
28	AC	242	MET
28	AC	247	THR
28	AC	258	LYS
28	AC	259	PRO
28	AC	260	THR
28	AC	261	PRO
29	AG	60	GLY

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Mol	Chain	Res	Type
29	AG	69	THR
29	AG	117	GLY
29	AG	148	SER
29	AG	149	LYS
29	AG	152	ASP
29	AG	154	ARG
30	AF	42	LYS
30	AF	65	VAL
30	AF	70	ALA
30	AF	103	LYS
30	AF	130	GLU
30	AF	154	ARG
30	AF	207	GLY
31	AH	64	ILE
31	AH	104	ARG
31	AH	110	LEU
31	AH	111	LYS
31	AH	112	GLN
31	AH	114	ARG
31	AH	157	ASP
31	AH	188	PRO
32	AW	30	CYS
33	AI	6	ASP
33	AI	8	ALA
33	AI	23	LYS
33	AI	41	GLY
33	AI	52	ASN
33	AI	99	ASN
33	AI	105	ASP
33	AI	120	PRO
33	AI	141	LYS
33	AI	144	SER
33	AI	145	GLU
33	AI	155	GLN
34	AQ	4	LYS
34	AQ	31	ASN
34	AQ	47	LYS
34	AQ	61	GLY
34	AQ	102	VAL
34	AQ	144	GLN
34	AQ	145	LYS
35	Ah	114	ASN

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Mol	Chain	Res	Type
35	Ah	115	GLY
35	Ah	119	ASN
35	Ah	122	PRO
35	Ah	124	ARG
35	Ah	136	ARG
35	Ah	137	VAL
35	Ah	140	GLY
35	Ah	142	LYS
35	Ah	143	PHE
35	Ah	144	GLY
35	Ah	215	PRO
35	Ah	225	ALA
38	Cz	19	GLU
38	Cz	58	ILE
38	Cz	71	GLN
38	Cz	98	LYS
38	Cz	143	SER
38	Cz	196	LYS
39	Cq	27	CYS
39	Cq	70	GLU
39	Cq	73	PRO
39	Cq	108	PRO
39	Cq	150	GLY
39	Cq	156	SER
40	CK	8	THR
40	CK	30	PRO
40	CK	39	PRO
40	CK	40	LYS
40	CK	75	PRO
40	CK	77	ALA
40	CK	86	LYS
40	CK	87	GLU
40	CK	88	PRO
40	CK	106	PHE
40	CK	119	ARG
40	CK	121	MET
40	CK	124	GLU
40	CK	144	ASP
40	CK	147	HIS
40	CK	148	PRO
41	CO	112	SER
41	CO	113	PRO

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Mol	Chain	Res	Type
41	CO	192	GLU
41	CO	202	GLY
41	CO	203	TYR
42	CL	21	VAL
42	CL	46	PHE
42	CL	50	ALA
42	CL	53	ALA
42	CL	54	LEU
42	CL	56	PRO
42	CL	58	VAL
42	CL	95	ILE
42	CL	96	ALA
42	CL	106	LEU
42	CL	125	LEU
42	CL	128	ILE
42	CL	133	ILE
42	CL	137	GLU
42	CL	138	SER
42	CL	149	LEU
42	CL	152	PRO
42	CL	155	PRO
42	CL	160	GLN
42	CL	161	PRO
42	CL	171	LYS
42	CL	173	GLU
43	CV	15	ARG
43	CV	139	ILE
44	CM	3	PHE
44	CM	31	ILE
44	CM	128	ASN
44	CM	135	LYS
44	CM	140	PRO
44	CM	157	LYS
45	Ca	21	GLY
45	Ca	25	LYS
45	Ca	48	LYS
45	Ca	54	PHE
45	Ca	79	LEU
45	Ca	100	PRO
46	CN	81	TYR
46	CN	125	ALA
46	CN	178	TYR

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Mol	Chain	Res	Type
47	CI	4	ARG
47	CI	5	PRO
47	CI	105	CYS
47	CI	110	ARG
47	CI	112	GLN
47	CI	178	ARG
47	CI	202	GLU
47	CI	205	PRO
48	CD	20	PHE
48	CD	44	TYR
48	CD	121	GLY
48	CD	122	CYS
48	CD	129	GLU
48	CD	189	SER
48	CD	232	ARG
48	CD	260	SER
48	CD	264	THR
48	CD	272	LYS
48	CD	274	THR
49	CQ	13	VAL
49	CQ	40	ASN
49	CQ	41	LYS
49	CQ	98	LEU
49	CQ	156	PRO
49	CQ	159	PRO
50	CR	113	LYS
50	CR	131	VAL
50	CR	132	PHE
51	CA	32	LEU
51	CA	138	ALA
51	CA	170	ALA
51	CA	179	ILE
51	CA	230	SER
52	CS	6	LEU
52	CS	18	PRO
52	CS	53	LYS
52	CS	119	ALA
52	CS	120	ARG
52	CS	134	ALA
52	CS	154	LEU
52	CS	155	VAL
52	CS	158	VAL

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Mol	Chain	Res	Type
52	CS	163	ASN
53	CT	3	ASN
53	CT	84	ILE
53	CT	127	SER
53	CT	128	LEU
53	CT	144	LEU
53	CT	148	ILE
53	CT	149	ALA
53	CT	150	LEU
53	CT	151	ALA
53	CT	152	PRO
53	CT	154	PRO
54	CP	7	GLU
54	CP	11	VAL
54	CP	163	ASP
54	CP	168	LYS
55	CU	248	HIS
55	CU	278	LYS
55	CU	288	ILE
56	CX	173	LEU
56	CX	182	PRO
56	CX	186	VAL
56	CX	267	ALA
57	CY	60	GLY
57	CY	63	LYS
57	CY	65	ASN
57	CY	66	GLN
57	CY	84	LYS
58	CW	16	GLY
58	CW	34	LYS
58	CW	63	ILE
58	CW	64	GLU
58	CW	70	LYS
58	CW	71	ARG
58	CW	72	THR
58	CW	78	PHE
58	CW	87	LEU
59	CZ	5	MET
59	CZ	97	PRO
59	CZ	100	LEU
59	CZ	124	GLY
60	Cr	23	ARG

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Mol	Chain	Res	Type
60	Cr	28	PRO
60	Cr	33	PRO
60	Cr	39	VAL
60	Cr	70	LYS
60	Cr	74	ALA
60	Cr	78	ALA
60	Cr	134	LYS
61	Ch	39	GLY
61	Ch	87	LYS
61	Ch	118	LYS
61	Ch	122	LYS
62	Cb	5	LYS
62	Cb	24	PRO
62	Cb	33	LEU
62	Cb	36	ASP
62	Cb	37	VAL
62	Cb	51	LEU
62	Cb	52	SER
62	Cb	68	LYS
63	CB	3	HIS
63	CB	19	LYS
63	CB	30	LYS
63	CB	34	LYS
63	CB	112	GLU
63	CB	140	ASP
63	CB	242	ARG
63	CB	248	LEU
63	CB	274	TYR
63	CB	281	ASN
63	CB	291	ILE
63	CB	292	HIS
63	CB	298	VAL
63	CB	311	ASP
63	CB	320	PHE
63	CB	335	GLY
63	CB	391	PRO
63	CB	394	LYS
64	CF	171	PRO
64	CF	172	ILE
64	CF	174	ASP
64	CF	180	ARG
64	CF	186	HIS

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Mol	Chain	Res	Type
64	CF	218	ASN
64	CF	224	TRP
64	CF	227	LYS
64	CF	237	PHE
65	Cc	11	LEU
65	Cc	12	GLU
66	Cd	73	GLY
66	Cd	74	ILE
67	Ce	14	LYS
67	Ce	20	ILE
67	Ce	21	ARG
67	Ce	52	TYR
67	Ce	129	ARG
68	Cf	19	LYS
68	Cf	21	PRO
68	Cf	23	ALA
68	Cf	25	LYS
68	Cf	45	LYS
68	Cf	101	LYS
68	Cf	102	LYS
68	Cf	104	VAL
68	Cf	108	PRO
68	Cf	112	THR
68	Cf	129	GLY
69	Cg	45	GLY
69	Cg	50	LYS
69	Cg	62	ARG
69	Cg	63	PRO
70	Ci	4	ARG
70	Ci	11	LEU
70	Ci	28	ASP
70	Ci	38	ARG
70	Ci	44	THR
71	Cj	36	GLN
71	Cj	38	GLY
71	Cj	39	TYR
71	Cj	40	PRO
71	Cj	42	ALA
72	Ck	59	SER
73	Cl	39	ALA
73	Cl	48	LYS
74	CC	7	ARG

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Mol	Chain	Res	Type
74	CC	20	ALA
74	CC	73	GLY
74	CC	83	ARG
74	CC	84	GLY
74	CC	178	LYS
74	CC	186	VAL
74	CC	187	TYR
74	CC	196	ARG
74	CC	269	THR
74	CC	290	THR
74	CC	310	LYS
74	CC	315	SER
74	CC	316	VAL
74	CC	332	ASN
74	CC	333	PRO
74	CC	364	GLU
74	CC	365	LEU
74	CC	392	VAL
77	Cp	19	GLY
77	Cp	60	CYS
78	Co	30	LYS
78	Co	31	GLU
78	Co	32	ARG
78	Co	58	LYS
78	Co	61	LYS
78	Co	93	GLY
78	Co	102	ILE
79	CJ	2	ALA
79	CJ	9	LYS
79	CJ	11	ASP
79	CJ	16	PRO
79	CJ	20	LEU
79	CJ	103	ASN
79	CJ	122	ILE
79	CJ	156	VAL
79	CJ	160	HIS
79	CJ	180	LEU
80	CH	49	ASP
80	CH	61	THR
80	CH	103	THR
80	CH	104	SER
80	CH	110	ILE

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Mol	Chain	Res	Type
80	CH	163	THR
81	CE	20	HIS
81	CE	21	PRO
81	CE	31	LEU
81	CE	41	ARG
81	CE	52	SER
81	CE	64	LYS
81	CE	65	SER
81	CE	69	TYR
81	CE	70	PRO
81	CE	73	THR
81	CE	75	VAL
81	CE	84	PHE
81	CE	176	ASP
81	CE	181	GLU
81	CE	183	ASP
81	CE	187	ALA
81	CE	188	LYS
81	CE	193	VAL
81	CE	218	GLU
82	CG	34	ASN
82	CG	41	PRO
82	CG	43	ASN
82	CG	45	GLY
82	CG	64	LYS
82	CG	109	PRO
82	CG	168	PRO
82	CG	212	VAL
1	Az	72	SER
1	Az	97	LYS
1	Az	138	GLY
1	Az	155	ILE
1	Az	205	GLU
1	Az	242	ASP
1	Az	255	PHE
1	Az	262	LYS
1	Az	310	LYS
1	Az	346	SER
1	Az	362	PRO
1	Az	420	TYR
1	Az	468	THR
1	Az	563	VAL

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Mol	Chain	Res	Type
1	Az	573	SER
1	Az	627	TYR
1	Az	764	GLY
1	Az	808	GLY
1	Az	815	SER
1	Az	843	LYS
2	Ag	47	ARG
2	Ag	95	ALA
2	Ag	145	GLU
2	Ag	162	SER
2	Ag	265	LYS
2	Ag	276	VAL
2	Ag	296	GLY
3	AU	31	VAL
3	AU	52	VAL
3	AU	76	SER
3	AU	97	SER
4	AK	30	GLN
4	AK	54	GLY
4	AK	55	TRP
4	AK	61	ALA
5	AO	32	HIS
5	AO	99	ALA
5	AO	145	GLY
6	AX	113	GLY
6	AX	136	GLU
7	AM	39	VAL
7	AM	82	PRO
7	AM	101	ILE
7	AM	114	SER
8	AS	7	GLU
8	AS	12	ILE
8	AS	16	MET
9	Ad	15	GLY
9	Ad	39	CYS
10	AN	10	GLY
11	AL	29	LYS
11	AL	54	ASP
13	AP	11	LYS
13	AP	12	LYS
13	AP	32	PRO
13	AP	129	VAL

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Mol	Chain	Res	Type
14	AT	31	PRO
14	AT	153	VAL
15	AB	19	LYS
15	AB	96	ASP
15	AB	157	CYS
16	AA	11	LYS
16	AA	31	ASN
16	AA	96	THR
16	AA	191	ARG
17	AV	9	VAL
17	AV	26	ALA
17	AV	44	GLY
18	AY	66	GLY
18	AY	88	PRO
18	AY	96	GLY
18	AY	121	THR
19	AZ	78	ILE
19	AZ	95	LEU
20	Aa	3	LYS
20	Aa	16	GLY
22	Ac	34	GLN
22	Ac	59	ARG
23	AD	200	ILE
23	AD	220	ILE
23	AD	221	TYR
25	Af	89	LYS
25	Af	98	VAL
26	AJ	37	GLY
26	AJ	93	MET
26	AJ	173	ARG
27	AE	73	ASP
27	AE	98	PHE
27	AE	186	GLY
27	AE	205	PHE
27	AE	246	LEU
28	AC	172	GLY
30	AF	41	ILE
30	AF	44	PHE
30	AF	155	ALA
30	AF	227	ASN
31	AH	33	SER
31	AH	53	GLY

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Mol	Chain	Res	Type
31	AH	74	GLN
31	AH	102	PRO
31	AH	105	LYS
32	AW	83	ILE
33	AI	5	ARG
33	AI	11	ARG
33	AI	19	LYS
33	AI	22	ARG
33	AI	40	SER
33	AI	51	GLY
33	AI	123	ARG
33	AI	124	LYS
33	AI	147	VAL
33	AI	160	VAL
34	AQ	8	PRO
34	AQ	9	VAL
34	AQ	44	ILE
34	AQ	77	GLY
34	AQ	129	CYS
35	Ah	130	ASP
35	Ah	138	ARG
38	Cz	95	LYS
38	Cz	153	SER
39	Cq	84	GLY
39	Cq	85	ASN
39	Cq	109	ALA
39	Cq	125	ALA
39	Cq	149	ARG
39	Cq	163	THR
40	CK	7	PRO
40	CK	34	PRO
40	CK	54	LYS
40	CK	89	PRO
40	CK	96	LYS
40	CK	99	LYS
40	CK	123	ARG
41	CO	48	HIS
42	CL	7	MET
42	CL	59	ARG
42	CL	72	GLY
42	CL	74	GLY
42	CL	100	ARG

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Mol	Chain	Res	Type
42	CL	119	TYR
42	CL	124	ILE
42	CL	169	VAL
44	CM	21	LYS
44	CM	103	SER
44	CM	136	ALA
44	CM	142	VAL
44	CM	158	GLY
45	Ca	15	HIS
45	Ca	52	GLY
45	Ca	55	GLY
45	Ca	94	GLU
47	CI	6	ALA
47	CI	103	LEU
47	CI	109	ASP
48	CD	18	VAL
48	CD	30	TYR
48	CD	188	LYS
48	CD	271	LYS
49	CQ	12	LYS
49	CQ	36	GLN
49	CQ	185	GLY
51	CA	4	VAL
51	CA	171	GLY
51	CA	198	LYS
51	CA	238	ILE
51	CA	245	ARG
51	CA	250	LYS
51	CA	251	GLY
52	CS	7	LEU
52	CS	23	PRO
52	CS	62	VAL
52	CS	68	TYR
52	CS	139	ARG
53	CT	5	LYS
53	CT	55	LYS
53	CT	133	GLU
54	CP	3	ARG
54	CP	6	ARG
54	CP	156	LEU
54	CP	165	PRO
55	CU	222	ASN

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Mol	Chain	Res	Type
55	CU	247	VAL
55	CU	289	SER
55	CU	291	ASN
55	CU	292	ASP
56	CX	164	ASN
57	CY	61	HIS
57	CY	67	VAL
58	CW	17	HIS
58	CW	82	ILE
59	CZ	58	GLY
60	Cr	5	SER
60	Cr	32	GLU
60	Cr	47	ILE
60	Cr	81	THR
60	Cr	92	ARG
60	Cr	130	VAL
61	Ch	2	VAL
61	Ch	3	LYS
61	Ch	86	LYS
61	Ch	95	LEU
62	Cb	20	GLY
63	CB	36	ASP
63	CB	38	SER
63	CB	41	VAL
63	CB	141	LEU
63	CB	319	GLY
63	CB	357	ARG
63	CB	375	GLY
64	CF	28	GLN
64	CF	167	ARG
64	CF	168	GLN
67	Ce	6	ALA
67	Ce	7	TYR
67	Ce	15	ARG
67	Ce	124	PRO
67	Ce	125	ASN
68	Cf	28	LYS
68	Cf	40	SER
68	Cf	138	ASN
69	Cg	14	ASN
70	Ci	25	TYR
70	Ci	43	GLN

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Mol	Chain	Res	Type
70	Ci	60	HIS
71	Cj	89	ALA
72	Ck	20	ALA
72	Ck	41	PHE
74	CC	78	ARG
74	CC	92	GLN
74	CC	93	GLY
74	CC	145	HIS
74	CC	146	VAL
74	CC	164	VAL
74	CC	195	GLY
74	CC	204	ARG
74	CC	207	ARG
74	CC	209	GLY
74	CC	210	PRO
74	CC	264	ASN
74	CC	305	LEU
74	CC	362	ASN
75	Cm	78	ILE
75	Cm	125	LYS
77	Cp	15	GLY
78	Co	92	GLY
78	Co	100	GLN
79	CJ	14	LYS
79	CJ	81	GLY
79	CJ	97	TYR
79	CJ	129	GLY
80	CH	22	ALA
80	CH	129	GLY
80	CH	165	VAL
80	CH	189	GLU
81	CE	30	ILE
81	CE	43	ALA
81	CE	44	LEU
81	CE	60	VAL
81	CE	90	ASN
81	CE	93	ARG
81	CE	106	GLY
81	CE	120	ALA
81	CE	130	PHE
81	CE	178	LYS
81	CE	179	THR

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Mol	Chain	Res	Type
81	CE	184	ILE
82	CG	47	GLY
82	CG	89	SER
82	CG	246	ILE
82	CG	248	GLY
1	Az	61	LYS
1	Az	71	LYS
1	Az	113	VAL
1	Az	553	CYS
1	Az	656	GLN
1	Az	799	VAL
2	Ag	278	PRO
8	AS	26	VAL
8	AS	37	GLY
8	AS	135	HIS
10	AN	107	LYS
11	AL	35	ARG
12	AR	100	ALA
13	AP	104	ASP
18	AY	89	LYS
18	AY	101	LYS
18	AY	119	ARG
19	AZ	42	LYS
20	Aa	64	LEU
23	AD	62	GLY
23	AD	213	VAL
23	AD	224	PRO
24	Ae	91	VAL
24	Ae	97	LYS
25	Af	118	ARG
25	Af	124	GLU
25	Af	131	PHE
27	AE	6	LYS
27	AE	85	GLY
27	AE	134	LYS
28	AC	61	LEU
28	AC	183	ARG
29	AG	181	ILE
30	AF	148	ASP
33	AI	17	LYS
34	AQ	6	ARG
34	AQ	37	ASN

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Mol	Chain	Res	Type
34	AQ	62	LYS
38	Cz	29	LEU
39	Cq	111	ALA
40	CK	10	VAL
40	CK	18	VAL
41	CO	115	ASP
42	CL	61	PRO
43	CV	18	LEU
45	Ca	49	TYR
47	CI	24	ARG
47	CI	82	LYS
47	CI	162	ARG
48	CD	142	PHE
48	CD	221	ARG
48	CD	259	LYS
49	CQ	157	GLY
49	CQ	160	HIS
50	CR	2	SER
51	CA	204	MET
52	CS	127	ILE
52	CS	152	PHE
52	CS	175	TYR
54	CP	8	SER
54	CP	20	PRO
54	CP	159	LYS
56	CX	177	ARG
58	CW	33	ASP
58	CW	96	MET
60	Cr	82	VAL
60	Cr	111	THR
60	Cr	132	GLY
61	Ch	81	LEU
63	CB	64	GLY
64	CF	92	LEU
65	Cc	54	ALA
67	Ce	11	ILE
68	Cf	18	GLN
69	Cg	26	PRO
70	Ci	10	GLY
73	Cl	20	ASN
73	Cl	50	LYS
74	CC	5	ASN

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Mol	Chain	Res	Type
74	CC	8	PRO
74	CC	306	ARG
75	Cm	126	LYS
76	Cn	2	ARG
78	Co	29	SER
78	Co	50	GLY
78	Co	51	GLN
79	CJ	130	ILE
79	CJ	161	ARG
79	CJ	173	GLN
80	CH	175	ASP
81	CE	18	LYS
81	CE	53	PRO
81	CE	67	ALA
81	CE	105	ALA
81	CE	129	PRO
81	CE	194	PRO
82	CG	244	GLY
82	CG	247	LEU
1	Az	344	LEU
1	Az	613	GLU
1	Az	767	MET
2	Ag	138	GLU
4	AK	83	LEU
4	AK	92	LEU
5	AO	65	ASP
5	AO	138	ASP
5	AO	146	ARG
7	AM	96	SER
7	AM	113	CYS
7	AM	125	THR
8	AS	59	CYS
8	AS	60	THR
9	Ad	6	LEU
9	Ad	10	HIS
10	AN	3	ARG
10	AN	14	SER
12	AR	65	GLN
14	AT	69	PRO
16	AA	103	PHE
17	AV	43	THR
18	AY	6	ALA

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Mol	Chain	Res	Type
18	AY	120	GLY
19	AZ	49	PHE
22	Ac	61	ALA
23	AD	57	THR
23	AD	223	THR
25	Af	87	THR
28	AC	159	LYS
28	AC	243	PRO
28	AC	244	LEU
29	AG	68	LEU
29	AG	175	PRO
33	AI	161	GLU
34	AQ	19	LYS
34	AQ	124	GLY
35	Ah	133	GLY
38	Cz	99	LEU
39	Cq	33	ASP
39	Cq	182	PRO
40	CK	28	LEU
40	CK	67	ARG
41	CO	60	LEU
42	CL	85	ILE
42	CL	120	ARG
44	CM	134	THR
45	Ca	28	LYS
45	Ca	115	ARG
47	CI	81	GLY
47	CI	201	PRO
48	CD	251	PRO
48	CD	265	LYS
49	CQ	166	TYR
50	CR	53	LYS
52	CS	54	PHE
52	CS	156	GLN
52	CS	171	LYS
54	CP	162	ASP
59	CZ	16	GLY
61	Ch	40	ALA
63	CB	189	SER
65	Cc	88	TYR
67	Ce	67	HIS
68	Cf	24	VAL

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Mol	Chain	Res	Type
68	Cf	38	LYS
68	Cf	43	LYS
68	Cf	47	HIS
68	Cf	111	LYS
68	Cf	139	LEU
70	Ci	87	LEU
74	CC	17	ASN
74	CC	18	GLU
74	CC	238	LEU
74	CC	311	ARG
74	CC	319	LEU
78	Co	56	PHE
79	CJ	6	LYS
79	CJ	34	SER
79	CJ	96	GLU
80	CH	109	VAL
81	CE	22	VAL
81	CE	107	ARG
81	CE	159	VAL
82	CG	44	PHE
82	CG	131	ASP
82	CG	213	ASP
82	CG	243	GLY
1	Az	112	HIS
1	Az	114	ASP
1	Az	139	VAL
1	Az	316	LYS
1	Az	683	LEU
2	Ag	104	GLY
5	AO	25	GLU
6	AX	129	SER
7	AM	110	VAL
7	AM	126	PRO
9	Ad	34	TYR
10	AN	23	PRO
13	AP	15	PHE
13	AP	31	MET
14	AT	10	ASP
14	AT	47	PRO
15	AB	184	LEU
16	AA	104	THR
16	AA	168	ALA

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Mol	Chain	Res	Type
19	AZ	62	PRO
20	Aa	62	TYR
20	Aa	63	VAL
20	Aa	100	ARG
21	Ab	2	PRO
21	Ab	83	PRO
22	Ac	45	PRO
24	Ae	102	GLY
24	Ae	130	ASN
25	Af	111	ASN
27	AE	7	LYS
27	AE	245	LYS
28	AC	45	PRO
28	AC	145	VAL
29	AG	164	ALA
29	AG	165	LYS
30	AF	156	GLY
33	AI	10	LYS
33	AI	50	GLY
33	AI	142	LYS
34	AQ	118	ASP
39	Cq	74	ALA
40	CK	22	VAL
40	CK	155	LEU
42	CL	97	VAL
42	CL	158	ASN
45	Ca	51	PRO
46	CN	50	ARG
46	CN	68	ARG
46	CN	158	HIS
47	CI	12	CYS
47	CI	119	PHE
47	CI	171	TRP
48	CD	38	PHE
48	CD	58	LYS
48	CD	254	LYS
49	CQ	164	ARG
51	CA	26	ALA
51	CA	130	SER
53	CT	146	GLU
60	Cr	76	ARG
60	Cr	90	PRO

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Mol	Chain	Res	Type
61	Ch	42	SER
63	CB	33	PRO
63	CB	377	GLY
67	Ce	19	PHE
68	Cf	26	ALA
68	Cf	37	ALA
68	Cf	51	PHE
70	Ci	30	LYS
74	CC	4	GLY
74	CC	135	GLY
74	CC	322	LEU
75	Cm	114	LYS
75	Cm	127	LEU
79	CJ	99	LEU
79	CJ	144	TYR
79	CJ	158	PHE
8	AS	133	GLY
14	AT	26	GLY
15	AB	223	LYS
26	AJ	11	SER
28	AC	160	PRO
30	AF	72	TYR
31	AH	98	ILE
31	AH	187	PHE
33	AI	106	ALA
38	Cz	13	GLY
38	Cz	49	PHE
40	CK	58	ILE
40	CK	60	VAL
40	CK	92	ARG
42	CL	9	PRO
42	CL	168	GLU
44	CM	28	VAL
47	CI	169	LYS
48	CD	9	ASN
48	CD	273	LEU
51	CA	5	ILE
51	CA	33	ASP
51	CA	239	ALA
52	CS	17	LEU
54	CP	164	GLU
58	CW	98	PRO

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Mol	Chain	Res	Type
60	Cr	57	PRO
60	Cr	131	LYS
61	Ch	80	PRO
64	CF	220	PRO
64	CF	230	HIS
66	Cd	91	ASP
68	Cf	27	PRO
74	CC	136	VAL
77	Cp	53	GLY
82	CG	40	ARG
1	Az	81	VAL
2	Ag	191	GLY
2	Ag	315	VAL
11	AL	147	GLY
27	AE	195	VAL
28	AC	164	PRO
30	AF	153	GLY
32	AW	82	PRO
33	AI	104	ILE
81	CE	61	PRO
1	Az	490	VAL
1	Az	817	PRO
13	AP	56	PRO
16	AA	199	VAL
29	AG	153	VAL
31	AH	15	PRO
50	CR	18	GLY
51	CA	196	TRP
53	CT	126	VAL
60	Cr	48	VAL
66	Cd	39	ALA
70	Ci	36	GLY
70	Ci	59	GLY
79	CJ	125	ASP
1	Az	68	ILE
31	AH	115	PRO
42	CL	55	ARG
50	CR	55	VAL
75	Cm	116	GLY
81	CE	160	PRO
9	Ad	50	ILE
17	AV	49	GLY

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Mol	Chain	Res	Type
26	AJ	6	ILE
27	AE	193	GLY
30	AF	129	GLY
44	CM	89	SER
48	CD	125	VAL
53	CT	135	PRO
56	CX	165	VAL
63	CB	338	ILE
68	Cf	154	PRO
81	CE	54	VAL
39	Cq	107	VAL
42	CL	60	CYS
49	CQ	58	ARG
69	Cg	2	VAL
82	CG	33	VAL
35	Ah	134	PRO
63	CB	18	PRO

5.3.2 Protein sidechains (i)

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.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	Az	721/726 (99%)	670 (93%)	51 (7%)	13 35
2	Ag	280/280 (100%)	271 (97%)	9 (3%)	34 56
3	AU	95/108 (88%)	91 (96%)	4 (4%)	26 48
4	AK	88/132 (67%)	79 (90%)	9 (10%)	7 23
5	AO	103/118 (87%)	92 (89%)	11 (11%)	6 21
6	AX	116/116 (100%)	110 (95%)	6 (5%)	21 42
7	AM	104/119 (87%)	97 (93%)	7 (7%)	15 36
8	AS	123/136 (90%)	118 (96%)	5 (4%)	27 48
9	Ad	45/47 (96%)	45 (100%)	0	100 100
10	AN	130/131 (99%)	122 (94%)	8 (6%)	16 38
11	AL	138/138 (100%)	127 (92%)	11 (8%)	11 31

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
12	AR	108/118 (92%)	97 (90%)	11 (10%)	7 23
13	AP	111/130 (85%)	106 (96%)	5 (4%)	24 46
14	AT	125/127 (98%)	116 (93%)	9 (7%)	13 35
15	AB	199/233 (85%)	181 (91%)	18 (9%)	9 28
16	AA	190/271 (70%)	180 (95%)	10 (5%)	20 41
17	AV	67/68 (98%)	60 (90%)	7 (10%)	7 22
18	AY	105/110 (96%)	103 (98%)	2 (2%)	50 67
19	AZ	67/100 (67%)	57 (85%)	10 (15%)	3 12
20	Aa	94/101 (93%)	92 (98%)	2 (2%)	47 65
21	Ab	72/72 (100%)	69 (96%)	3 (4%)	26 48
22	Ac	54/57 (95%)	50 (93%)	4 (7%)	13 33
23	AD	192/210 (91%)	176 (92%)	16 (8%)	10 30
24	Ae	47/108 (44%)	46 (98%)	1 (2%)	47 65
25	Af	70/70 (100%)	61 (87%)	9 (13%)	4 15
26	AJ	161/169 (95%)	154 (96%)	7 (4%)	26 47
27	AE	220/220 (100%)	206 (94%)	14 (6%)	16 37
28	AC	188/209 (90%)	177 (94%)	11 (6%)	18 39
29	AG	200/216 (93%)	190 (95%)	10 (5%)	22 43
30	AF	161/193 (83%)	152 (94%)	9 (6%)	19 40
31	AH	175/175 (100%)	152 (87%)	23 (13%)	4 15
32	AW	113/114 (99%)	106 (94%)	7 (6%)	16 38
33	AI	175/176 (99%)	166 (95%)	9 (5%)	21 42
34	AQ	122/122 (100%)	112 (92%)	10 (8%)	10 31
35	Ah	51/100 (51%)	49 (96%)	2 (4%)	28 49
38	Cz	190/191 (100%)	172 (90%)	18 (10%)	8 25
39	Cq	186/186 (100%)	172 (92%)	14 (8%)	12 33
40	CK	131/137 (96%)	125 (95%)	6 (5%)	24 45
41	CO	175/175 (100%)	157 (90%)	18 (10%)	7 23
42	CL	173/180 (96%)	160 (92%)	13 (8%)	12 33
43	CV	101/106 (95%)	99 (98%)	2 (2%)	48 66
44	CM	138/142 (97%)	124 (90%)	14 (10%)	7 23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
45	Ca	122/122 (100%)	114 (93%)	8 (7%)	15	37
46	CN	174/175 (99%)	167 (96%)	7 (4%)	28	49
47	CI	187/188 (100%)	180 (96%)	7 (4%)	30	51
48	CD	241/248 (97%)	235 (98%)	6 (2%)	42	62
49	CQ	164/165 (99%)	150 (92%)	14 (8%)	10	29
50	CR	176/176 (100%)	170 (97%)	6 (3%)	32	54
51	CA	195/198 (98%)	175 (90%)	20 (10%)	7	23
52	CS	156/159 (98%)	141 (90%)	15 (10%)	8	25
53	CT	137/138 (99%)	130 (95%)	7 (5%)	21	42
54	CP	160/161 (99%)	156 (98%)	4 (2%)	42	62
55	CU	108/203 (53%)	102 (94%)	6 (6%)	19	40
56	CX	106/205 (52%)	101 (95%)	5 (5%)	23	44
57	CY	116/130 (89%)	111 (96%)	5 (4%)	26	47
58	CW	107/124 (86%)	102 (95%)	5 (5%)	23	44
59	CZ	121/122 (99%)	106 (88%)	15 (12%)	4	16
60	Cr	112/120 (93%)	101 (90%)	11 (10%)	7	24
61	Ch	112/112 (100%)	109 (97%)	3 (3%)	39	60
62	Cb	67/68 (98%)	62 (92%)	5 (8%)	12	33
63	CB	349/350 (100%)	330 (95%)	19 (5%)	20	41
64	CF	203/222 (91%)	190 (94%)	13 (6%)	16	37
65	Cc	84/93 (90%)	79 (94%)	5 (6%)	17	39
66	Cd	103/114 (90%)	97 (94%)	6 (6%)	18	40
67	Ce	120/122 (98%)	110 (92%)	10 (8%)	10	30
68	Cf	123/123 (100%)	110 (89%)	13 (11%)	6	21
69	Cg	104/137 (76%)	95 (91%)	9 (9%)	9	29
70	Ci	100/101 (99%)	90 (90%)	10 (10%)	7	24
71	Cj	77/78 (99%)	67 (87%)	10 (13%)	4	15
72	Ck	65/65 (100%)	57 (88%)	8 (12%)	4	17
73	Cl	45/46 (98%)	44 (98%)	1 (2%)	45	64
74	CC	323/329 (98%)	294 (91%)	29 (9%)	9	28
75	Cm	48/48 (100%)	46 (96%)	2 (4%)	26	48

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
76	Cn	23/23 (100%)	22 (96%)	1 (4%)	26 47
77	Cp	74/75 (99%)	68 (92%)	6 (8%)	11 31
78	Co	94/94 (100%)	90 (96%)	4 (4%)	26 47
79	CJ	155/157 (99%)	143 (92%)	12 (8%)	12 32
80	CH	169/169 (100%)	155 (92%)	14 (8%)	10 30
81	CE	197/208 (95%)	179 (91%)	18 (9%)	9 27
82	CG	210/237 (89%)	197 (94%)	13 (6%)	16 38
All	All	11331/12242 (93%)	10564 (93%)	767 (7%)	16 36

All (767) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Az	27	HIS
1	Az	46	ILE
1	Az	68	ILE
1	Az	75	ILE
1	Az	91	HIS
1	Az	126	THR
1	Az	141	VAL
1	Az	143	THR
1	Az	158	ILE
1	Az	162	ASN
1	Az	173	LEU
1	Az	178	LEU
1	Az	192	ILE
1	Az	199	ASP
1	Az	208	VAL
1	Az	255	PHE
1	Az	256	PHE
1	Az	271	ASN
1	Az	309	LEU
1	Az	344	LEU
1	Az	380	LEU
1	Az	383	TYR
1	Az	396	PHE
1	Az	447	ILE
1	Az	450	VAL
1	Az	455	ILE
1	Az	462	ASP
1	Az	470	THR

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Mol	Chain	Res	Type
1	Az	471	ILE
1	Az	506	LEU
1	Az	519	MET
1	Az	531	ILE
1	Az	538	LEU
1	Az	540	LEU
1	Az	547	LEU
1	Az	554	ILE
1	Az	565	TYR
1	Az	569	VAL
1	Az	572	GLU
1	Az	578	LEU
1	Az	586	ASN
1	Az	595	MET
1	Az	599	LEU
1	Az	627	TYR
1	Az	652	THR
1	Az	677	ILE
1	Az	683	LEU
1	Az	755	HIS
1	Az	757	PHE
1	Az	782	PHE
1	Az	801	ASP
2	Ag	20	GLN
2	Ag	32	ILE
2	Ag	75	ASP
2	Ag	114	PHE
2	Ag	171	TRP
2	Ag	201	VAL
2	Ag	237	ILE
2	Ag	259	ILE
2	Ag	278	PRO
3	AU	28	SER
3	AU	31	VAL
3	AU	34	LEU
3	AU	52	VAL
4	AK	3	ILE
4	AK	24	LYS
4	AK	28	PRO
4	AK	41	LEU
4	AK	42	GLN
4	AK	50	LEU

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Mol	Chain	Res	Type
4	AK	57	LYS
4	AK	83	LEU
4	AK	91	THR
5	AO	25	GLU
5	AO	50	ARG
5	AO	51	GLU
5	AO	52	THR
5	AO	55	ARG
5	AO	66	ARG
5	AO	93	LEU
5	AO	100	THR
5	AO	116	LEU
5	AO	117	ARG
5	AO	128	ARG
6	AX	11	ARG
6	AX	22	TRP
6	AX	35	ARG
6	AX	85	VAL
6	AX	105	PHE
6	AX	112	VAL
7	AM	39	VAL
7	AM	40	HIS
7	AM	63	PHE
7	AM	70	LYS
7	AM	116	VAL
7	AM	121	PHE
7	AM	126	PRO
8	AS	25	LYS
8	AS	26	VAL
8	AS	36	VAL
8	AS	40	TYR
8	AS	120	HIS
10	AN	3	ARG
10	AN	11	ILE
10	AN	16	LEU
10	AN	22	VAL
10	AN	107	LYS
10	AN	115	LEU
10	AN	140	LYS
10	AN	149	LEU
11	AL	11	LYS
11	AL	15	VAL

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Mol	Chain	Res	Type
11	AL	22	LYS
11	AL	32	ARG
11	AL	37	VAL
11	AL	64	ARG
11	AL	66	ARG
11	AL	69	ILE
11	AL	93	VAL
11	AL	108	VAL
11	AL	153	LYS
12	AR	4	VAL
12	AR	46	LEU
12	AR	65	GLN
12	AR	69	ILE
12	AR	71	ILE
12	AR	72	LYS
12	AR	95	ILE
12	AR	96	ILE
12	AR	98	VAL
12	AR	101	ASP
12	AR	119	LEU
13	AP	81	THR
13	AP	93	THR
13	AP	99	VAL
13	AP	110	VAL
13	AP	127	LYS
14	AT	5	THR
14	AT	48	TYR
14	AT	52	TRP
14	AT	55	VAL
14	AT	105	GLN
14	AT	111	ARG
14	AT	121	ARG
14	AT	126	ILE
14	AT	153	VAL
15	AB	55	GLN
15	AB	62	LEU
15	AB	65	ARG
15	AB	71	LEU
15	AB	84	PHE
15	AB	99	VAL
15	AB	109	THR
15	AB	112	LYS

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Mol	Chain	Res	Type
15	AB	117	VAL
15	AB	119	LYS
15	AB	143	ILE
15	AB	155	LYS
15	AB	158	TYR
15	AB	213	VAL
15	AB	215	ILE
15	AB	223	LYS
15	AB	226	PHE
15	AB	231	LEU
16	AA	28	GLU
16	AA	30	VAL
16	AA	51	LEU
16	AA	66	VAL
16	AA	103	PHE
16	AA	116	PHE
16	AA	121	LEU
16	AA	165	ASN
16	AA	198	VAL
16	AA	218	LYS
17	AV	11	LEU
17	AV	24	ILE
17	AV	41	PRO
17	AV	43	THR
17	AV	78	ILE
17	AV	79	VAL
17	AV	81	LYS
18	AY	51	VAL
18	AY	55	VAL
19	AZ	53	THR
19	AZ	67	ILE
19	AZ	81	SER
19	AZ	93	LYS
19	AZ	102	HIS
19	AZ	103	HIS
19	AZ	106	VAL
19	AZ	107	ILE
19	AZ	109	THR
19	AZ	112	THR
20	Aa	15	ARG
20	Aa	62	TYR
21	Ab	33	MET

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Mol	Chain	Res	Type
21	Ab	43	ILE
21	Ab	51	GLN
22	Ac	26	VAL
22	Ac	31	LEU
22	Ac	46	VAL
22	Ac	60	GLU
23	AD	6	PRO
23	AD	39	VAL
23	AD	47	ARG
23	AD	50	ILE
23	AD	68	ILE
23	AD	93	VAL
23	AD	96	ARG
23	AD	125	LEU
23	AD	134	LYS
23	AD	144	LEU
23	AD	170	VAL
23	AD	183	VAL
23	AD	194	TYR
23	AD	200	ILE
23	AD	220	ILE
23	AD	226	THR
24	Ae	108	ILE
25	Af	79	LYS
25	Af	80	ARG
25	Af	87	THR
25	Af	102	VAL
25	Af	104	LYS
25	Af	105	TYR
25	Af	141	CYS
25	Af	143	LYS
25	Af	154	GLU
26	AJ	6	ILE
26	AJ	13	THR
26	AJ	41	LYS
26	AJ	103	ILE
26	AJ	143	VAL
26	AJ	171	PRO
26	AJ	175	LYS
27	AE	1	MET
27	AE	7	LYS
27	AE	9	LEU

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Mol	Chain	Res	Type
27	AE	16	LYS
27	AE	37	LYS
27	AE	38	LEU
27	AE	75	LYS
27	AE	76	VAL
27	AE	110	VAL
27	AE	127	LYS
27	AE	149	TYR
27	AE	183	ILE
27	AE	222	LEU
27	AE	259	LYS
28	AC	71	ILE
28	AC	74	PHE
28	AC	92	ILE
28	AC	95	VAL
28	AC	97	LYS
28	AC	108	LYS
28	AC	120	ILE
28	AC	122	LEU
28	AC	140	LEU
28	AC	210	ARG
28	AC	249	TYR
29	AG	68	LEU
29	AG	106	MET
29	AG	121	ILE
29	AG	145	TYR
29	AG	165	LYS
29	AG	168	LYS
29	AG	180	LEU
29	AG	185	VAL
29	AG	186	LEU
29	AG	189	LYS
30	AF	42	LYS
30	AF	84	ARG
30	AF	115	ARG
30	AF	146	ARG
30	AF	148	ASP
30	AF	190	ILE
30	AF	192	THR
30	AF	193	ILE
30	AF	202	ILE
31	AH	8	ILE

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Mol	Chain	Res	Type
31	AH	26	LEU
31	AH	35	LEU
31	AH	36	LYS
31	AH	68	LYS
31	AH	73	ILE
31	AH	77	LEU
31	AH	85	PHE
31	AH	93	ILE
31	AH	108	ASN
31	AH	116	ARG
31	AH	118	ARG
31	AH	120	LEU
31	AH	145	LYS
31	AH	152	VAL
31	AH	158	LYS
31	AH	168	VAL
31	AH	170	THR
31	AH	179	THR
31	AH	188	PRO
31	AH	191	TYR
31	AH	192	LEU
31	AH	194	VAL
32	AW	6	VAL
32	AW	25	VAL
32	AW	37	PHE
32	AW	53	VAL
32	AW	75	ILE
32	AW	83	ILE
32	AW	105	THR
33	AI	29	LEU
33	AI	97	VAL
33	AI	102	VAL
33	AI	103	VAL
33	AI	120	PRO
33	AI	125	ARG
33	AI	132	LYS
33	AI	146	LYS
33	AI	169	THR
34	AQ	9	VAL
34	AQ	10	GLN
34	AQ	12	VAL
34	AQ	14	VAL

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Mol	Chain	Res	Type
34	AQ	44	ILE
34	AQ	53	LEU
34	AQ	71	ARG
34	AQ	104	GLU
34	AQ	134	PHE
34	AQ	143	TYR
35	Ah	214	GLU
35	Ah	216	LYS
38	Cz	35	GLN
38	Cz	63	MET
38	Cz	95	LYS
38	Cz	111	LEU
38	Cz	117	ILE
38	Cz	120	ILE
38	Cz	121	PRO
38	Cz	122	ARG
38	Cz	141	GLN
38	Cz	154	THR
38	Cz	155	ILE
38	Cz	157	PHE
38	Cz	161	LYS
38	Cz	162	VAL
38	Cz	163	LEU
38	Cz	164	CYS
38	Cz	200	ASN
38	Cz	203	SER
39	Cq	35	VAL
39	Cq	50	LYS
39	Cq	61	MET
39	Cq	78	LEU
39	Cq	86	VAL
39	Cq	95	LEU
39	Cq	97	GLU
39	Cq	108	PRO
39	Cq	141	LEU
39	Cq	183	PHE
39	Cq	191	GLN
39	Cq	199	PHE
39	Cq	201	PRO
39	Cq	205	ASP
40	CK	22	VAL
40	CK	30	PRO

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Mol	Chain	Res	Type
40	CK	44	ASP
40	CK	98	ILE
40	CK	104	ILE
40	CK	123	ARG
41	CO	4	LEU
41	CO	18	LEU
41	CO	41	GLU
41	CO	48	HIS
41	CO	60	LEU
41	CO	115	ASP
41	CO	117	ARG
41	CO	119	ARG
41	CO	120	VAL
41	CO	124	ILE
41	CO	162	ARG
41	CO	166	LEU
41	CO	172	HIS
41	CO	176	LEU
41	CO	182	LYS
41	CO	189	LYS
41	CO	197	ILE
41	CO	205	VAL
42	CL	6	ASN
42	CL	46	PHE
42	CL	47	PRO
42	CL	59	ARG
42	CL	63	ILE
42	CL	85	ILE
42	CL	125	LEU
42	CL	127	PRO
42	CL	128	ILE
42	CL	150	LYS
42	CL	164	VAL
42	CL	176	PHE
42	CL	182	LEU
43	CV	51	ARG
43	CV	106	VAL
44	CM	5	ARG
44	CM	14	LYS
44	CM	25	VAL
44	CM	50	TYR
44	CM	55	LEU

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Mol	Chain	Res	Type
44	CM	62	ILE
44	CM	97	ASN
44	CM	114	TYR
44	CM	117	ARG
44	CM	127	PHE
44	CM	130	LEU
44	CM	142	VAL
44	CM	147	ARG
44	CM	157	LYS
45	Ca	10	ARG
45	Ca	57	VAL
45	Ca	70	PHE
45	Ca	73	GLU
45	Ca	79	LEU
45	Ca	100	PRO
45	Ca	110	TYR
45	Ca	147	LEU
46	CN	37	HIS
46	CN	39	SER
46	CN	46	ASP
46	CN	53	TYR
46	CN	62	TYR
46	CN	144	ARG
46	CN	184	ILE
47	CI	7	ARG
47	CI	89	MET
47	CI	93	PRO
47	CI	113	THR
47	CI	119	PHE
47	CI	181	TYR
47	CI	200	ARG
48	CD	15	ARG
48	CD	48	LYS
48	CD	146	LEU
48	CD	164	LYS
48	CD	190	PHE
48	CD	223	PHE
49	CQ	12	LYS
49	CQ	13	VAL
49	CQ	14	ARG
49	CQ	41	LYS
49	CQ	46	ILE

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Mol	Chain	Res	Type
49	CQ	61	LEU
49	CQ	68	ARG
49	CQ	92	LEU
49	CQ	101	CYS
49	CQ	108	THR
49	CQ	135	ASN
49	CQ	142	ARG
49	CQ	144	THR
49	CQ	159	PRO
50	CR	41	ILE
50	CR	62	ARG
50	CR	80	LYS
50	CR	115	ILE
50	CR	138	LEU
50	CR	163	ARG
51	CA	45	VAL
51	CA	49	ILE
51	CA	82	MET
51	CA	101	VAL
51	CA	107	MET
51	CA	109	GLU
51	CA	112	ILE
51	CA	113	ILE
51	CA	136	VAL
51	CA	166	VAL
51	CA	169	VAL
51	CA	177	LYS
51	CA	190	LYS
51	CA	193	ARG
51	CA	209	HIS
51	CA	221	LYS
51	CA	224	THR
51	CA	226	LYS
51	CA	233	ARG
51	CA	245	ARG
52	CS	7	LEU
52	CS	36	ASP
52	CS	39	VAL
52	CS	48	LEU
52	CS	54	PHE
52	CS	64	ILE
52	CS	68	TYR

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Mol	Chain	Res	Type
52	CS	75	ILE
52	CS	93	MET
52	CS	120	ARG
52	CS	127	ILE
52	CS	157	ARG
52	CS	167	PHE
52	CS	175	TYR
52	CS	176	PHE
53	CT	17	ARG
53	CT	24	VAL
53	CT	96	ILE
53	CT	126	VAL
53	CT	128	LEU
53	CT	150	LEU
53	CT	157	PHE
54	CP	11	VAL
54	CP	139	TYR
54	CP	168	LYS
54	CP	182	MET
55	CU	185	LYS
55	CU	192	ARG
55	CU	234	PHE
55	CU	271	ILE
55	CU	274	VAL
55	CU	276	ASN
56	CX	161	ILE
56	CX	165	VAL
56	CX	218	VAL
56	CX	240	ILE
56	CX	248	LEU
57	CY	7	VAL
57	CY	55	VAL
57	CY	57	VAL
57	CY	79	VAL
57	CY	104	VAL
58	CW	32	LEU
58	CW	34	LYS
58	CW	70	LYS
58	CW	72	THR
58	CW	77	LYS
59	CZ	5	MET
59	CZ	7	GLN

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Mol	Chain	Res	Type
59	CZ	10	ILE
59	CZ	11	VAL
59	CZ	17	ARG
59	CZ	21	ARG
59	CZ	24	ILE
59	CZ	34	PRO
59	CZ	46	ILE
59	CZ	52	LYS
59	CZ	59	LYS
59	CZ	63	LYS
59	CZ	116	LYS
59	CZ	125	LYS
59	CZ	126	ASN
60	Cr	9	TRP
60	Cr	23	ARG
60	Cr	33	PRO
60	Cr	52	THR
60	Cr	62	LYS
60	Cr	84	VAL
60	Cr	86	PHE
60	Cr	100	LEU
60	Cr	107	ARG
60	Cr	110	LEU
60	Cr	112	GLN
61	Ch	28	LEU
61	Ch	77	LYS
61	Ch	121	VAL
62	Cb	29	HIS
62	Cb	51	LEU
62	Cb	53	ARG
62	Cb	70	LYS
62	Cb	73	PRO
63	CB	26	ARG
63	CB	29	VAL
63	CB	41	VAL
63	CB	56	ILE
63	CB	77	THR
63	CB	122	TRP
63	CB	123	TYR
63	CB	128	LYS
63	CB	162	VAL
63	CB	168	ILE

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Mol	Chain	Res	Type
63	CB	217	ILE
63	CB	245	HIS
63	CB	248	LEU
63	CB	264	THR
63	CB	352	LEU
63	CB	365	LEU
63	CB	391	PRO
63	CB	393	LYS
63	CB	394	LYS
64	CF	95	VAL
64	CF	118	ARG
64	CF	130	LYS
64	CF	149	ASN
64	CF	160	ARG
64	CF	162	PHE
64	CF	171	PRO
64	CF	219	THR
64	CF	221	THR
64	CF	232	VAL
64	CF	248	LEU
64	CF	250	LYS
64	CF	252	VAL
65	Cc	29	LEU
65	Cc	46	VAL
65	Cc	55	LEU
65	Cc	92	CYS
65	Cc	93	THR
66	Cd	89	ARG
66	Cd	98	LYS
66	Cd	106	VAL
66	Cd	112	LYS
66	Cd	116	THR
66	Cd	119	VAL
67	Ce	5	PRO
67	Ce	12	VAL
67	Ce	20	ILE
67	Ce	63	LYS
67	Ce	84	LEU
67	Ce	88	LEU
67	Ce	92	ARG
67	Ce	93	VAL
67	Ce	121	LEU

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Mol	Chain	Res	Type
67	Ce	129	ARG
68	Cf	22	LYS
68	Cf	32	PRO
68	Cf	44	TYR
68	Cf	45	LYS
68	Cf	46	ARG
68	Cf	49	ARG
68	Cf	50	LEU
68	Cf	55	VAL
68	Cf	138	ASN
68	Cf	151	MET
68	Cf	154	PRO
68	Cf	156	ARG
68	Cf	157	ILE
69	Cg	4	ARG
69	Cg	14	ASN
69	Cg	26	PRO
69	Cg	30	LEU
69	Cg	32	TYR
69	Cg	74	ARG
69	Cg	81	CYS
69	Cg	85	LEU
69	Cg	93	PHE
70	Ci	21	ARG
70	Ci	26	THR
70	Ci	39	LEU
70	Ci	40	LYS
70	Ci	44	THR
70	Ci	58	VAL
70	Ci	70	LEU
70	Ci	71	LEU
70	Ci	81	LYS
70	Ci	96	LYS
71	Cj	5	THR
71	Cj	15	THR
71	Cj	27	TYR
71	Cj	40	PRO
71	Cj	43	LYS
71	Cj	52	LYS
71	Cj	67	LEU
71	Cj	83	GLN
71	Cj	85	LYS

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Mol	Chain	Res	Type
71	Cj	87	LYS
72	Ck	7	GLU
72	Ck	9	LYS
72	Ck	27	LYS
72	Ck	41	PHE
72	Ck	47	VAL
72	Ck	55	LYS
72	Ck	64	LEU
72	Ck	69	VAL
73	Cl	48	LYS
74	CC	7	ARG
74	CC	21	LYS
74	CC	32	LYS
74	CC	39	VAL
74	CC	83	ARG
74	CC	87	THR
74	CC	92	GLN
74	CC	123	ARG
74	CC	152	GLU
74	CC	153	PHE
74	CC	157	VAL
74	CC	165	GLN
74	CC	173	PHE
74	CC	179	ILE
74	CC	183	ILE
74	CC	185	LYS
74	CC	186	VAL
74	CC	211	LEU
74	CC	226	ASN
74	CC	230	ILE
74	CC	237	LYS
74	CC	251	ARG
74	CC	266	LEU
74	CC	282	LEU
74	CC	286	LYS
74	CC	287	MET
74	CC	332	ASN
74	CC	363	VAL
74	CC	365	LEU
75	Cm	111	ARG
75	Cm	127	LEU
76	Cn	1	MET

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Mol	Chain	Res	Type
77	Cp	16	THR
77	Cp	51	VAL
77	Cp	52	VAL
77	Cp	73	THR
77	Cp	79	VAL
77	Cp	90	LYS
78	Co	36	GLN
78	Co	64	LYS
78	Co	76	LYS
78	Co	102	ILE
79	CJ	5	THR
79	CJ	6	LYS
79	CJ	14	LYS
79	CJ	20	LEU
79	CJ	24	LYS
79	CJ	38	LEU
79	CJ	60	TYR
79	CJ	68	ARG
79	CJ	92	LEU
79	CJ	107	THR
79	CJ	120	LEU
79	CJ	180	LEU
80	CH	10	VAL
80	CH	16	ILE
80	CH	34	LEU
80	CH	54	LYS
80	CH	57	LYS
80	CH	84	PHE
80	CH	97	PHE
80	CH	105	GLU
80	CH	110	ILE
80	CH	130	VAL
80	CH	161	GLN
80	CH	170	ILE
80	CH	171	ARG
80	CH	177	LEU
81	CE	30	ILE
81	CE	47	LEU
81	CE	54	VAL
81	CE	75	VAL
81	CE	101	LEU
81	CE	102	ILE

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Mol	Chain	Res	Type
81	CE	109	GLN
81	CE	117	LYS
81	CE	125	LEU
81	CE	126	VAL
81	CE	127	THR
81	CE	140	VAL
81	CE	145	VAL
81	CE	154	LEU
81	CE	176	ASP
81	CE	213	ILE
81	CE	226	LEU
81	CE	236	GLN
82	CG	41	PRO
82	CG	65	TYR
82	CG	66	ILE
82	CG	75	LEU
82	CG	81	VAL
82	CG	88	PHE
82	CG	104	LEU
82	CG	113	LEU
82	CG	126	LYS
82	CG	130	LYS
82	CG	135	LYS
82	CG	150	LYS
82	CG	178	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (296) such sidechains are listed below:

Mol	Chain	Res	Type
1	Az	21	ASN
1	Az	27	HIS
1	Az	30	HIS
1	Az	64	GLN
1	Az	162	ASN
1	Az	183	GLN
1	Az	190	ASN
1	Az	230	GLN
1	Az	257	ASN
1	Az	343	HIS
1	Az	363	HIS
1	Az	478	HIS
1	Az	479	ASN

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Mol	Chain	Res	Type
1	Az	530	HIS
1	Az	539	HIS
1	Az	585	HIS
1	Az	696	HIS
1	Az	760	ASN
1	Az	777	ASN
1	Az	822	GLN
1	Az	839	GLN
2	Ag	15	ASN
2	Ag	52	ASN
2	Ag	77	ASN
2	Ag	118	ASN
2	Ag	160	ASN
2	Ag	189	HIS
2	Ag	192	HIS
2	Ag	193	ASN
2	Ag	312	GLN
3	AU	49	ASN
3	AU	87	HIS
4	AK	64	HIS
4	AK	94	GLN
5	AO	32	HIS
5	AO	43	HIS
5	AO	94	HIS
6	AX	13	HIS
6	AX	110	HIS
7	AM	26	GLN
7	AM	43	HIS
7	AM	44	GLN
7	AM	77	ASN
8	AS	10	GLN
8	AS	11	HIS
8	AS	19	ASN
8	AS	81	ASN
8	AS	87	GLN
8	AS	134	GLN
8	AS	135	HIS
10	AN	29	ASN
10	AN	58	HIS
10	AN	67	ASN
11	AL	5	ASN
11	AL	91	HIS

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Mol	Chain	Res	Type
11	AL	103	HIS
11	AL	138	ASN
11	AL	146	GLN
12	AR	63	HIS
13	AP	27	GLN
13	AP	41	HIS
13	AP	85	ASN
13	AP	107	GLN
13	AP	117	HIS
13	AP	131	HIS
14	AT	12	HIS
14	AT	91	HIS
14	AT	105	GLN
14	AT	109	HIS
14	AT	136	ASN
15	AB	75	GLN
15	AB	102	ASN
15	AB	160	GLN
15	AB	161	GLN
16	AA	24	HIS
17	AV	33	GLN
17	AV	35	ASN
18	AY	30	HIS
18	AY	95	HIS
19	AZ	45	ASN
19	AZ	98	GLN
19	AZ	102	HIS
19	AZ	105	GLN
20	Aa	43	ASN
20	Aa	72	HIS
21	Ab	27	HIS
22	Ac	20	GLN
22	Ac	35	ASN
22	Ac	37	GLN
23	AD	176	HIS
24	Ae	130	ASN
25	Af	93	HIS
26	AJ	135	HIS
26	AJ	182	ASN
26	AJ	183	GLN
27	AE	36	HIS
27	AE	155	HIS

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Mol	Chain	Res	Type
27	AE	201	HIS
27	AE	209	HIS
27	AE	214	GLN
27	AE	261	HIS
28	AC	96	GLN
28	AC	218	ASN
28	AC	250	GLN
29	AG	34	GLN
29	AG	56	ASN
29	AG	178	GLN
29	AG	190	HIS
29	AG	216	GLN
30	AF	119	HIS
30	AF	173	GLN
31	AH	66	GLN
31	AH	150	GLN
32	AW	44	HIS
32	AW	56	HIS
32	AW	113	HIS
33	AI	87	ASN
33	AI	129	HIS
33	AI	167	GLN
33	AI	183	GLN
34	AQ	2	GLN
35	Ah	110	ASN
35	Ah	125	GLN
38	Cz	35	GLN
38	Cz	40	ASN
38	Cz	44	GLN
38	Cz	80	ASN
38	Cz	119	GLN
38	Cz	141	GLN
38	Cz	171	HIS
38	Cz	181	GLN
38	Cz	184	ASN
39	Cq	41	GLN
39	Cq	58	ASN
40	CK	137	GLN
41	CO	44	ASN
41	CO	65	ASN
41	CO	98	GLN
41	CO	172	HIS

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Mol	Chain	Res	Type
42	CL	11	GLN
42	CL	12	HIS
42	CL	66	HIS
42	CL	158	ASN
43	CV	43	HIS
43	CV	101	ASN
43	CV	108	ASN
44	CM	8	GLN
44	CM	33	GLN
44	CM	34	ASN
44	CM	56	HIS
44	CM	105	ASN
45	Ca	3	ASN
45	Ca	20	HIS
45	Ca	29	HIS
45	Ca	35	ASN
46	CN	117	ASN
46	CN	139	HIS
46	CN	154	HIS
46	CN	199	HIS
47	CI	14	ASN
47	CI	86	HIS
47	CI	95	HIS
47	CI	100	ASN
47	CI	188	ASN
48	CD	45	ASN
48	CD	81	HIS
48	CD	172	ASN
48	CD	195	HIS
48	CD	203	HIS
48	CD	253	HIS
48	CD	269	ASN
48	CD	285	HIS
49	CQ	7	HIS
49	CQ	64	GLN
49	CQ	104	HIS
49	CQ	135	ASN
50	CR	99	GLN
50	CR	118	HIS
50	CR	121	HIS
50	CR	130	ASN
50	CR	182	GLN

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Mol	Chain	Res	Type
50	CR	188	HIS
50	CR	203	HIS
51	CA	83	HIS
51	CA	106	GLN
51	CA	132	ASN
51	CA	141	GLN
51	CA	205	ASN
51	CA	209	HIS
51	CA	215	ASN
51	CA	216	HIS
51	CA	218	HIS
52	CS	37	ASN
53	CT	22	HIS
53	CT	49	GLN
53	CT	58	HIS
53	CT	70	HIS
53	CT	77	ASN
53	CT	131	GLN
54	CP	64	ASN
54	CP	120	ASN
54	CP	133	HIS
54	CP	145	HIS
55	CU	276	ASN
56	CX	166	HIS
56	CX	222	HIS
56	CX	228	ASN
56	CX	246	ASN
57	CY	20	GLN
57	CY	61	HIS
57	CY	65	ASN
57	CY	66	GLN
57	CY	100	HIS
58	CW	17	HIS
58	CW	59	HIS
58	CW	76	GLN
59	CZ	40	HIS
59	CZ	60	ASN
59	CZ	76	ASN
59	CZ	78	ASN
59	CZ	79	HIS
60	Cr	34	ASN
60	Cr	49	HIS

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Mol	Chain	Res	Type
60	Cr	99	ASN
60	Cr	125	GLN
61	Ch	62	HIS
61	Ch	75	ASN
62	Cb	7	HIS
62	Cb	67	GLN
63	CB	3	HIS
63	CB	11	HIS
63	CB	55	HIS
63	CB	109	HIS
63	CB	165	HIS
63	CB	179	HIS
63	CB	184	GLN
63	CB	200	HIS
63	CB	258	HIS
63	CB	271	GLN
63	CB	275	HIS
63	CB	276	HIS
63	CB	376	HIS
64	CF	102	ASN
64	CF	165	HIS
64	CF	186	HIS
64	CF	218	ASN
65	Cc	40	GLN
65	Cc	51	ASN
65	Cc	72	GLN
65	Cc	73	HIS
66	Cd	25	HIS
66	Cd	90	ASN
66	Cd	97	ASN
66	Cd	118	ASN
67	Ce	22	HIS
67	Ce	32	HIS
67	Ce	79	HIS
67	Ce	80	ASN
67	Ce	91	ASN
67	Ce	100	HIS
68	Cf	47	HIS
68	Cf	136	ASN
68	Cf	138	ASN
68	Cf	142	HIS
69	Cg	3	GLN

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Mol	Chain	Res	Type
69	Cg	82	HIS
70	Ci	46	HIS
70	Ci	113	HIS
71	Cj	12	HIS
71	Cj	66	HIS
73	Cl	38	ASN
73	Cl	43	HIS
74	CC	41	ASN
74	CC	44	HIS
74	CC	145	HIS
74	CC	372	ASN
75	Cm	104	HIS
78	Co	18	HIS
78	Co	21	HIS
78	Co	46	GLN
78	Co	80	GLN
79	CJ	51	GLN
79	CJ	76	HIS
79	CJ	103	ASN
79	CJ	181	ASN
80	CH	5	ASN
80	CH	114	ASN
81	CE	142	GLN
81	CE	216	HIS
81	CE	233	HIS
81	CE	239	HIS
82	CG	35	GLN
82	CG	51	GLN
82	CG	87	GLN
82	CG	158	GLN
82	CG	241	HIS

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
36	B2	1791/1995 (89%)	506 (28%)	117 (6%)
37	BC	74/75 (98%)	13 (17%)	3 (4%)
83	A5	3562/3970 (89%)	954 (26%)	263 (7%)
84	A9	29/30 (96%)	7 (24%)	2 (6%)
85	A7	119/120 (99%)	23 (19%)	5 (4%)
86	A8	122/123 (99%)	18 (14%)	4 (3%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
All	All	5697/6313 (90%)	1521 (26%)	394 (6%)

All (1521) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
36	B2	2	U
36	B2	3	U
36	B2	4	C
36	B2	8	U
36	B2	16	G
36	B2	25	U
36	B2	26	A
36	B2	27	U
36	B2	34	G
36	B2	42	G
36	B2	46	A
36	B2	47	A
36	B2	57	G
36	B2	63	G
36	B2	66	C
36	B2	67	A
36	B2	68	C
36	B2	69	A
36	B2	72	A
36	B2	73	A
36	B2	74	U
36	B2	75	U
36	B2	76	A
36	B2	77	A
36	B2	78	A
36	B2	80	G
36	B2	110	U
36	B2	113	G
36	B2	114	G
36	B2	126	G
36	B2	127	U
36	B2	136	A
36	B2	137	C
36	B2	138	U
36	B2	142	A
36	B2	143	U
36	B2	150	G

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Mol	Chain	Res	Type
36	B2	155	U
36	B2	156	U
36	B2	157	C
36	B2	165	A
36	B2	170	A
36	B2	173	C
36	B2	174	A
36	B2	175	A
36	B2	176	U
36	B2	184	U
36	B2	185	G
36	B2	186	A
36	B2	188	C
36	B2	189	C
36	B2	190	U
36	B2	191	U
36	B2	193	U
36	B2	194	G
36	B2	195	G
36	B2	196	G
36	B2	197	A
36	B2	198	C
36	B2	214	G
36	B2	215	C
36	B2	216	U
36	B2	217	A
36	B2	218	A
36	B2	220	A
36	B2	221	C
36	B2	223	A
36	B2	225	G
36	B2	227	G
36	B2	235	G
36	B2	237	U
36	B2	238	C
36	B2	240	U
36	B2	246	U
36	B2	247	G
36	B2	248	G
36	B2	249	U
36	B2	250	U
36	B2	251	G

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Mol	Chain	Res	Type
36	B2	252	A
36	B2	253	A
36	B2	254	C
36	B2	255	U
36	B2	257	U
36	B2	266	U
36	B2	267	G
36	B2	270	G
36	B2	271	A
36	B2	274	G
36	B2	276	A
36	B2	277	U
36	B2	279	G
36	B2	280	U
36	B2	281	C
36	B2	282	U
36	B2	283	U
36	B2	284	G
36	B2	285	U
36	B2	286	A
36	B2	289	G
36	B2	293	A
36	B2	299	C
36	B2	304	A
36	B2	319	C
36	B2	321	A
36	B2	327	G
36	B2	328	A
36	B2	330	G
36	B2	338	C
36	B2	339	U
36	B2	340	A
36	B2	342	G
36	B2	343	A
36	B2	346	A
36	B2	349	A
36	B2	357	A
36	B2	364	A
36	B2	365	A
36	B2	366	C
36	B2	374	C
36	B2	379	U

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Mol	Chain	Res	Type
36	B2	382	G
36	B2	383	A
36	B2	405	A
36	B2	406	A
36	B2	407	C
36	B2	408	G
36	B2	409	G
36	B2	416	C
36	B2	421	A
36	B2	423	G
36	B2	427	G
36	B2	428	G
36	B2	429	C
36	B2	430	A
36	B2	431	G
36	B2	433	A
36	B2	439	G
36	B2	444	U
36	B2	449	C
36	B2	451	C
36	B2	453	C
36	B2	464	G
36	B2	475	G
36	B2	482	A
36	B2	489	C
36	B2	490	A
36	B2	491	G
36	B2	494	C
36	B2	496	C
36	B2	497	A
36	B2	498	U
36	B2	499	A
36	B2	510	U
36	B2	511	G
36	B2	512	U
36	B2	513	A
36	B2	514	A
36	B2	515	U
36	B2	516	U
36	B2	518	G
36	B2	519	A
36	B2	520	A

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Mol	Chain	Res	Type
36	B2	521	U
36	B2	523	A
36	B2	524	G
36	B2	535	A
36	B2	540	U
36	B2	547	G
36	B2	549	A
36	B2	551	C
36	B2	552	A
36	B2	555	U
36	B2	563	A
36	B2	564	A
36	B2	565	G
36	B2	566	U
36	B2	567	C
36	B2	569	G
36	B2	573	C
36	B2	578	A
36	B2	587	A
36	B2	588	A
36	B2	593	A
36	B2	600	A
36	B2	602	A
36	B2	603	G
36	B2	615	G
36	B2	616	U
36	B2	618	G
36	B2	619	U
36	B2	627	A
36	B2	628	A
36	B2	630	A
36	B2	632	G
36	B2	638	A
36	B2	647	U
36	B2	648	G
36	B2	649	U
36	B2	655	A
36	B2	656	U
36	B2	657	A
36	B2	702	U
36	B2	703	A
36	B2	704	U

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Mol	Chain	Res	Type
36	B2	705	G
36	B2	709	G
36	B2	711	G
36	B2	712	U
36	B2	713	A
36	B2	714	U
36	B2	715	U
36	B2	717	C
36	B2	718	C
36	B2	719	G
36	B2	823	C
36	B2	824	U
36	B2	825	A
36	B2	826	U
36	B2	833	G
36	B2	836	C
36	B2	837	A
36	B2	838	A
36	B2	847	G
36	B2	848	C
36	B2	853	A
36	B2	856	A
36	B2	857	G
36	B2	858	G
36	B2	866	U
36	B2	867	G
36	B2	868	C
36	B2	869	C
36	B2	873	A
36	B2	879	U
36	B2	891	A
36	B2	895	A
36	B2	896	A
36	B2	897	A
36	B2	898	U
36	B2	900	A
36	B2	901	G
36	B2	903	C
36	B2	904	C
36	B2	905	U
36	B2	906	C
36	B2	908	G

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Mol	Chain	Res	Type
36	B2	909	U
36	B2	916	U
36	B2	918	C
36	B2	922	G
36	B2	923	G
36	B2	925	U
36	B2	926	U
36	B2	929	A
36	B2	930	G
36	B2	940	U
36	B2	942	A
36	B2	948	A
36	B2	949	A
36	B2	950	U
36	B2	958	G
36	B2	963	G
36	B2	996	U
36	B2	999	U
36	B2	1000	G
36	B2	1001	G
36	B2	1002	A
36	B2	1008	G
36	B2	1020	U
36	B2	1022	A
36	B2	1029	G
36	B2	1031	A
36	B2	1047	U
36	B2	1053	A
36	B2	1055	U
36	B2	1061	A
36	B2	1069	U
36	B2	1079	A
36	B2	1080	A
36	B2	1081	G
36	B2	1084	G
36	B2	1090	A
36	B2	1091	U
36	B2	1092	A
36	B2	1102	U
36	B2	1103	U
36	B2	1107	A
36	B2	1108	C

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Mol	Chain	Res	Type
36	B2	1113	A
36	B2	1115	C
36	B2	1116	G
36	B2	1117	A
36	B2	1118	U
36	B2	1126	A
36	B2	1127	G
36	B2	1139	A
36	B2	1140	G
36	B2	1141	C
36	B2	1145	U
36	B2	1146	U
36	B2	1147	U
36	B2	1148	U
36	B2	1153	C
36	B2	1161	G
36	B2	1166	U
36	B2	1168	C
36	B2	1169	C
36	B2	1171	G
36	B2	1173	A
36	B2	1178	A
36	B2	1179	A
36	B2	1180	A
36	B2	1183	U
36	B2	1184	U
36	B2	1185	U
36	B2	1186	U
36	B2	1187	U
36	B2	1188	G
36	B2	1189	G
36	B2	1192	U
36	B2	1197	G
36	B2	1199	G
36	B2	1201	A
36	B2	1226	A
36	B2	1227	A
36	B2	1234	G
36	B2	1237	G
36	B2	1239	A
36	B2	1240	A
36	B2	1243	G

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Mol	Chain	Res	Type
36	B2	1245	A
36	B2	1246	C
36	B2	1247	C
36	B2	1248	A
36	B2	1252	G
36	B2	1255	G
36	B2	1267	G
36	B2	1268	C
36	B2	1273	U
36	B2	1276	G
36	B2	1279	U
36	B2	1281	A
36	B2	1282	A
36	B2	1283	C
36	B2	1284	A
36	B2	1285	C
36	B2	1287	G
36	B2	1288	G
36	B2	1290	A
36	B2	1291	A
36	B2	1295	U
36	B2	1296	A
36	B2	1305	A
36	B2	1308	A
36	B2	1313	U
36	B2	1314	G
36	B2	1315	U
36	B2	1316	G
36	B2	1317	U
36	B2	1320	G
36	B2	1330	U
36	B2	1331	A
36	B2	1332	G
36	B2	1337	U
36	B2	1339	C
36	B2	1342	G
36	B2	1344	A
36	B2	1345	U
36	B2	1347	U
36	B2	1354	G
36	B2	1359	U
36	B2	1372	U

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Mol	Chain	Res	Type
36	B2	1373	U
36	B2	1375	G
36	B2	1378	C
36	B2	1385	U
36	B2	1388	U
36	B2	1401	U
36	B2	1402	U
36	B2	1403	C
36	B2	1408	A
36	B2	1425	U
36	B2	1427	U
36	B2	1428	A
36	B2	1430	U
36	B2	1431	A
36	B2	1433	A
36	B2	1434	U
36	B2	1435	A
36	B2	1437	A
36	B2	1448	A
36	B2	1449	U
36	B2	1531	G
36	B2	1537	C
36	B2	1547	U
36	B2	1548	G
36	B2	1551	C
36	B2	1565	C
36	B2	1566	U
36	B2	1567	A
36	B2	1569	C
36	B2	1570	U
36	B2	1572	C
36	B2	1574	U
36	B2	1575	A
36	B2	1581	A
36	B2	1583	A
36	B2	1585	A
36	B2	1588	G
36	B2	1591	U
36	B2	1592	C
36	B2	1594	A
36	B2	1605	G
36	B2	1606	A

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Mol	Chain	Res	Type
36	B2	1619	A
36	B2	1620	G
36	B2	1623	C
36	B2	1626	U
36	B2	1638	A
36	B2	1640	G
36	B2	1646	G
36	B2	1649	U
36	B2	1650	G
36	B2	1651	C
36	B2	1654	G
36	B2	1663	A
36	B2	1665	U
36	B2	1667	A
36	B2	1670	G
36	B2	1673	U
36	B2	1674	C
36	B2	1680	G
36	B2	1681	U
36	B2	1682	A
36	B2	1683	U
36	B2	1684	U
36	B2	1691	A
36	B2	1692	C
36	B2	1698	G
36	B2	1703	G
36	B2	1706	U
36	B2	1708	A
36	B2	1710	C
36	B2	1713	C
36	B2	1715	G
36	B2	1716	A
36	B2	1727	U
36	B2	1729	C
36	B2	1730	U
36	B2	1732	G
36	B2	1739	U
36	B2	1749	C
36	B2	1751	G
36	B2	1756	C
36	B2	1758	A
36	B2	1760	G

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Mol	Chain	Res	Type
36	B2	1761	A
36	B2	1765	U
36	B2	1766	G
36	B2	1767	G
36	B2	1776	G
36	B2	1782	G
36	B2	1793	A
36	B2	1807	C
36	B2	1808	G
36	B2	1810	C
36	B2	1816	C
36	B2	1823	A
36	B2	1826	C
36	B2	1829	C
36	B2	1830	G
36	B2	1849	U
36	B2	1850	G
36	B2	1855	A
36	B2	1857	U
36	B2	1875	G
36	B2	1876	U
36	B2	1882	C
36	B2	1905	U
36	B2	1906	U
36	B2	1911	C
36	B2	1912	G
36	B2	1913	C
36	B2	1922	A
36	B2	1924	C
36	B2	1931	G
36	B2	1949	A
36	B2	1950	A
36	B2	1951	A
36	B2	1952	G
36	B2	1954	C
36	B2	1955	G
36	B2	1957	A
36	B2	1958	A
36	B2	1964	U
36	B2	1965	U
36	B2	1977	A
36	B2	1978	C

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Mol	Chain	Res	Type
36	B2	1984	G
36	B2	1987	G
36	B2	1988	G
36	B2	1989	A
36	B2	1991	C
36	B2	1992	A
36	B2	1993	U
37	BC	9	G
37	BC	16	U
37	BC	17	G
37	BC	19	A
37	BC	20	A
37	BC	21	G
37	BC	45	G
37	BC	46	U
37	BC	48	C
37	BC	53	A
37	BC	57	A
37	BC	59	A
37	BC	75	A
83	A5	2	U
83	A5	3	A
83	A5	4	U
83	A5	5	A
83	A5	6	U
83	A5	10	A
83	A5	17	C
83	A5	18	U
83	A5	20	A
83	A5	44	A
83	A5	49	A
83	A5	53	A
83	A5	63	G
83	A5	64	A
83	A5	69	A
83	A5	70	A
83	A5	80	G
83	A5	87	U
83	A5	96	G
83	A5	97	C
83	A5	100	G
83	A5	103	A

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Mol	Chain	Res	Type
83	A5	113	A
83	A5	114	G
83	A5	117	C
83	A5	120	C
83	A5	121	A
83	A5	122	C
83	A5	124	A
83	A5	125	A
83	A5	127	U
83	A5	131	U
83	A5	138	A
83	A5	139	U
83	A5	140	A
83	A5	148	U
83	A5	149	G
83	A5	155	U
83	A5	156	G
83	A5	158	A
83	A5	162	U
83	A5	163	A
83	A5	164	U
83	A5	165	G
83	A5	169	C
83	A5	176	A
83	A5	177	U
83	A5	178	U
83	A5	179	C
83	A5	182	G
83	A5	185	U
83	A5	186	G
83	A5	187	A
83	A5	188	G
83	A5	189	A
83	A5	190	A
83	A5	191	A
83	A5	193	U
83	A5	195	A
83	A5	201	U
83	A5	202	A
83	A5	205	U
83	A5	206	C
83	A5	207	C

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Mol	Chain	Res	Type
83	A5	211	U
83	A5	212	U
83	A5	213	A
83	A5	216	U
83	A5	226	U
83	A5	228	C
83	A5	229	C
83	A5	232	U
83	A5	236	G
83	A5	240	G
83	A5	241	C
83	A5	246	C
83	A5	252	U
83	A5	262	G
83	A5	263	A
83	A5	271	A
83	A5	273	G
83	A5	283	A
83	A5	284	A
83	A5	285	G
83	A5	286	A
83	A5	287	G
83	A5	293	U
83	A5	301	U
83	A5	313	A
83	A5	316	U
83	A5	317	G
83	A5	323	U
83	A5	325	A
83	A5	333	C
83	A5	341	A
83	A5	347	A
83	A5	356	A
83	A5	357	C
83	A5	364	U
83	A5	367	A
83	A5	369	A
83	A5	370	A
83	A5	388	U
83	A5	394	G
83	A5	405	A
83	A5	412	U

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Mol	Chain	Res	Type
83	A5	413	A
83	A5	415	A
83	A5	416	C
83	A5	417	A
83	A5	419	U
83	A5	421	C
83	A5	425	A
83	A5	440	U
83	A5	441	A
83	A5	453	C
83	A5	459	U
83	A5	460	A
83	A5	462	C
83	A5	464	G
83	A5	465	U
83	A5	466	U
83	A5	471	A
83	A5	476	U
83	A5	477	C
83	A5	478	A
83	A5	479	U
83	A5	485	A
83	A5	488	U
83	A5	494	U
83	A5	498	U
83	A5	514	A
83	A5	516	U
83	A5	521	U
83	A5	522	G
83	A5	523	C
83	A5	524	A
83	A5	525	U
83	A5	526	U
83	A5	536	U
83	A5	540	G
83	A5	542	C
83	A5	565	C
83	A5	568	A
83	A5	569	U
83	A5	572	A
83	A5	574	C
83	A5	578	A

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Mol	Chain	Res	Type
83	A5	579	A
83	A5	580	A
83	A5	581	U
83	A5	584	A
83	A5	587	U
83	A5	588	U
83	A5	591	A
83	A5	616	A
83	A5	619	U
83	A5	621	A
83	A5	623	C
83	A5	625	C
83	A5	626	A
83	A5	632	A
83	A5	633	A
83	A5	638	A
83	A5	641	A
83	A5	642	A
83	A5	643	U
83	A5	644	U
83	A5	652	G
83	A5	653	U
83	A5	654	G
83	A5	663	U
83	A5	664	U
83	A5	667	U
83	A5	668	A
83	A5	669	U
83	A5	670	G
83	A5	671	A
83	A5	672	U
83	A5	673	U
83	A5	676	A
83	A5	681	G
83	A5	682	U
83	A5	691	C
83	A5	707	C
83	A5	718	U
83	A5	719	U
83	A5	739	U
83	A5	741	C
83	A5	746	G

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Mol	Chain	Res	Type
83	A5	747	U
83	A5	749	U
83	A5	751	A
83	A5	752	U
83	A5	755	A
83	A5	763	A
83	A5	765	A
83	A5	766	G
83	A5	772	G
83	A5	774	A
83	A5	775	U
83	A5	776	A
83	A5	786	C
83	A5	798	C
83	A5	799	A
83	A5	806	A
83	A5	808	G
83	A5	810	A
83	A5	811	G
83	A5	812	U
83	A5	818	A
83	A5	827	A
83	A5	831	A
83	A5	832	U
83	A5	833	U
83	A5	841	A
83	A5	842	A
83	A5	843	A
83	A5	847	A
83	A5	858	U
83	A5	862	U
83	A5	865	A
83	A5	867	U
83	A5	868	A
83	A5	869	A
83	A5	870	U
83	A5	872	A
83	A5	873	U
83	A5	878	U
83	A5	879	U
83	A5	880	A
83	A5	881	G

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Mol	Chain	Res	Type
83	A5	891	U
83	A5	894	U
83	A5	909	A
83	A5	923	U
83	A5	926	U
83	A5	928	U
83	A5	929	A
83	A5	930	U
83	A5	937	G
83	A5	966	U
83	A5	967	C
83	A5	968	U
83	A5	977	C
83	A5	980	A
83	A5	981	C
83	A5	984	U
83	A5	986	A
83	A5	1001	A
83	A5	1006	A
83	A5	1016	A
83	A5	1017	A
83	A5	1030	A
83	A5	1037	A
83	A5	1049	C
83	A5	1051	C
83	A5	1061	A
83	A5	1062	C
83	A5	1070	G
83	A5	1074	U
83	A5	1079	U
83	A5	1091	G
83	A5	1095	G
83	A5	1096	A
83	A5	1097	A
83	A5	1107	G
83	A5	1108	G
83	A5	1113	A
83	A5	1114	A
83	A5	1116	G
83	A5	1117	A
83	A5	1124	G
83	A5	1125	A

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Mol	Chain	Res	Type
83	A5	1137	G
83	A5	1138	C
83	A5	1143	U
83	A5	1144	C
83	A5	1147	U
83	A5	1159	C
83	A5	1160	U
83	A5	1161	C
83	A5	1163	G
83	A5	1174	G
83	A5	1176	A
83	A5	1178	U
83	A5	1179	U
83	A5	1180	U
83	A5	1181	A
83	A5	1182	A
83	A5	1183	U
83	A5	1193	A
83	A5	1194	A
83	A5	1195	U
83	A5	1196	A
83	A5	1199	C
83	A5	1207	G
83	A5	1214	G
83	A5	1215	A
83	A5	1219	A
83	A5	1223	G
83	A5	1226	G
83	A5	1228	C
83	A5	1229	U
83	A5	1230	U
83	A5	1231	A
83	A5	1232	G
83	A5	1233	G
83	A5	1234	G
83	A5	1237	G
83	A5	1243	A
83	A5	1249	A
83	A5	1250	C
83	A5	1260	A
83	A5	1262	C
83	A5	1265	U

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Mol	Chain	Res	Type
83	A5	1270	G
83	A5	1277	A
83	A5	1278	A
83	A5	1285	C
83	A5	1288	U
83	A5	1289	C
83	A5	1293	A
83	A5	1294	U
83	A5	1295	A
83	A5	1296	U
83	A5	1297	G
83	A5	1298	A
83	A5	1307	G
83	A5	1308	U
83	A5	1309	U
83	A5	1311	U
83	A5	1316	U
83	A5	1317	A
83	A5	1324	C
83	A5	1325	C
83	A5	1326	A
83	A5	1330	G
83	A5	1331	G
83	A5	1345	G
83	A5	1347	A
83	A5	1367	A
83	A5	1373	A
83	A5	1378	A
83	A5	1383	A
83	A5	1384	C
83	A5	1393	A
83	A5	1394	U
83	A5	1395	U
83	A5	1396	A
83	A5	1397	A
83	A5	1399	A
83	A5	1406	G
83	A5	1407	C
83	A5	1408	A
83	A5	1416	U
83	A5	1421	G
83	A5	1423	C

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Mol	Chain	Res	Type
83	A5	1424	G
83	A5	1428	G
83	A5	1435	A
83	A5	1436	A
83	A5	1438	A
83	A5	1440	A
83	A5	1442	C
83	A5	1447	C
83	A5	1448	G
83	A5	1449	G
83	A5	1452	A
83	A5	1454	C
83	A5	1456	U
83	A5	1457	G
83	A5	1458	G
83	A5	1460	A
83	A5	1461	G
83	A5	1462	U
83	A5	1463	C
83	A5	1464	G
83	A5	1467	A
83	A5	1472	C
83	A5	1473	U
83	A5	1477	G
83	A5	1478	A
83	A5	1479	G
83	A5	1480	U
83	A5	1481	G
83	A5	1484	U
83	A5	1486	A
83	A5	1487	C
83	A5	1489	A
83	A5	1497	G
83	A5	1500	G
83	A5	1501	A
83	A5	1502	A
83	A5	1516	A
83	A5	1517	A
83	A5	1519	A
83	A5	1520	U
83	A5	1523	A
83	A5	1524	U

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Mol	Chain	Res	Type
83	A5	1528	G
83	A5	1545	A
83	A5	1557	U
83	A5	1558	A
83	A5	1562	U
83	A5	1563	A
83	A5	1564	G
83	A5	1565	A
83	A5	1566	U
83	A5	1567	G
83	A5	1574	A
83	A5	1579	U
83	A5	1581	G
83	A5	1582	U
83	A5	1586	A
83	A5	1593	U
83	A5	1594	U
83	A5	1595	G
83	A5	1596	A
83	A5	1598	A
83	A5	1601	U
83	A5	1606	G
83	A5	1627	U
83	A5	1628	G
83	A5	1632	A
83	A5	1640	U
83	A5	1641	U
83	A5	1642	G
83	A5	1659	A
83	A5	1663	G
83	A5	1674	A
83	A5	1675	G
83	A5	1676	A
83	A5	1678	C
83	A5	1681	G
83	A5	1686	A
83	A5	1687	U
83	A5	1688	A
83	A5	1689	G
83	A5	1692	G
83	A5	1695	A
83	A5	1696	A

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Mol	Chain	Res	Type
83	A5	1697	U
83	A5	1699	A
83	A5	1703	A
83	A5	1712	C
83	A5	1713	U
83	A5	1718	G
83	A5	1724	A
83	A5	1725	A
83	A5	1727	U
83	A5	1728	G
83	A5	1738	U
83	A5	1739	U
83	A5	1745	G
83	A5	1746	A
83	A5	1751	U
83	A5	1753	G
83	A5	1766	U
83	A5	1770	C
83	A5	1771	G
83	A5	1772	G
83	A5	1776	U
83	A5	1781	U
83	A5	1782	C
83	A5	1783	A
83	A5	1784	A
83	A5	1792	G
83	A5	1794	G
83	A5	1795	A
83	A5	1797	A
83	A5	1798	A
83	A5	1800	U
83	A5	1801	U
83	A5	1802	U
83	A5	1803	C
83	A5	1804	A
83	A5	1805	A
83	A5	1809	A
83	A5	1810	A
83	A5	1811	A
83	A5	1813	A
83	A5	1863	U
83	A5	1864	U

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Mol	Chain	Res	Type
83	A5	1865	U
83	A5	1866	G
83	A5	1867	A
83	A5	1872	A
83	A5	1873	A
83	A5	1877	A
83	A5	1889	A
83	A5	1891	U
83	A5	1892	C
83	A5	1909	U
83	A5	1911	C
83	A5	1912	G
83	A5	1913	U
83	A5	1924	A
83	A5	1925	U
83	A5	1926	A
83	A5	1937	G
83	A5	1940	C
83	A5	1943	C
83	A5	1955	A
83	A5	1956	A
83	A5	1957	C
83	A5	1958	G
83	A5	1959	A
83	A5	1961	C
83	A5	1967	G
83	A5	1970	G
83	A5	1988	A
83	A5	1989	A
83	A5	1995	U
83	A5	1996	U
83	A5	2004	G
83	A5	2028	A
83	A5	2030	U
83	A5	2037	C
83	A5	2038	A
83	A5	2042	A
83	A5	2043	G
83	A5	2049	G
83	A5	2059	U
83	A5	2063	A
83	A5	2064	G

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Mol	Chain	Res	Type
83	A5	2065	A
83	A5	2066	G
83	A5	2083	G
83	A5	2093	U
83	A5	2094	U
83	A5	2095	U
83	A5	2106	C
83	A5	2107	U
83	A5	2110	A
83	A5	2117	A
83	A5	2123	G
83	A5	2124	G
83	A5	2125	G
83	A5	2126	A
83	A5	2127	C
83	A5	2128	A
83	A5	2129	C
83	A5	2130	G
83	A5	2132	A
83	A5	2135	C
83	A5	2136	U
83	A5	2138	C
83	A5	2150	U
83	A5	2155	A
83	A5	2156	U
83	A5	2157	A
83	A5	2158	U
83	A5	2162	C
83	A5	2166	U
83	A5	2171	U
83	A5	2174	A
83	A5	2175	A
83	A5	2182	G
83	A5	2192	U
83	A5	2195	A
83	A5	2196	U
83	A5	2202	A
83	A5	2209	G
83	A5	2221	G
83	A5	2222	G
83	A5	2267	U
83	A5	2270	G

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Mol	Chain	Res	Type
83	A5	2467	A
83	A5	2468	A
83	A5	2469	U
83	A5	2471	A
83	A5	2472	A
83	A5	2480	U
83	A5	2481	U
83	A5	2490	G
83	A5	2491	C
83	A5	2492	A
83	A5	2500	G
83	A5	2501	G
83	A5	2509	G
83	A5	2510	A
83	A5	2512	U
83	A5	2519	U
83	A5	2537	A
83	A5	2553	U
83	A5	2554	U
83	A5	2565	G
83	A5	2571	U
83	A5	2572	G
83	A5	2582	C
83	A5	2583	U
83	A5	2587	U
83	A5	2588	G
83	A5	2601	A
83	A5	2603	U
83	A5	2606	A
83	A5	2622	A
83	A5	2626	C
83	A5	2627	G
83	A5	2628	G
83	A5	2630	A
83	A5	2631	G
83	A5	2633	A
83	A5	2634	A
83	A5	2635	C
83	A5	2641	C
83	A5	2650	G
83	A5	2651	G
83	A5	2652	U

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Mol	Chain	Res	Type
83	A5	2658	A
83	A5	2659	A
83	A5	2660	U
83	A5	2666	G
83	A5	2673	A
83	A5	2683	G
83	A5	2684	C
83	A5	2685	G
83	A5	2687	A
83	A5	2688	U
83	A5	2691	A
83	A5	2692	U
83	A5	2693	G
83	A5	2704	A
83	A5	2707	C
83	A5	2708	C
83	A5	2712	U
83	A5	2714	U
83	A5	2740	C
83	A5	2749	G
83	A5	2751	A
83	A5	2752	C
83	A5	2753	G
83	A5	2755	G
83	A5	2756	C
83	A5	2764	A
83	A5	2766	U
83	A5	2771	G
83	A5	2775	A
83	A5	2780	A
83	A5	2781	G
83	A5	2782	A
83	A5	2784	C
83	A5	2789	U
83	A5	2796	G
83	A5	2797	A
83	A5	2811	G
83	A5	2813	G
83	A5	2821	A
83	A5	2823	A
83	A5	2829	G
83	A5	2832	G

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Mol	Chain	Res	Type
83	A5	2834	A
83	A5	2836	A
83	A5	2838	U
83	A5	2840	A
83	A5	2846	A
83	A5	2847	G
83	A5	2848	A
83	A5	2861	G
83	A5	2869	U
83	A5	2870	C
83	A5	2876	U
83	A5	2877	G
83	A5	2880	A
83	A5	2881	U
83	A5	2882	A
83	A5	2883	C
83	A5	2884	C
83	A5	2885	A
83	A5	2887	U
83	A5	2901	C
83	A5	2905	A
83	A5	2907	U
83	A5	2908	U
83	A5	2909	A
83	A5	2914	A
83	A5	2916	U
83	A5	2917	A
83	A5	2918	A
83	A5	2920	U
83	A5	2923	A
83	A5	2925	C
83	A5	2927	U
83	A5	2930	A
83	A5	2989	G
83	A5	2990	C
83	A5	2991	A
83	A5	2992	A
83	A5	2993	G
83	A5	2994	C
83	A5	2995	U
83	A5	2997	C
83	A5	2999	U

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Mol	Chain	Res	Type
83	A5	3000	G
83	A5	3004	A
83	A5	3005	A
83	A5	3011	C
83	A5	3012	A
83	A5	3013	C
83	A5	3014	G
83	A5	3108	U
83	A5	3113	U
83	A5	3114	C
83	A5	3116	A
83	A5	3118	U
83	A5	3119	U
83	A5	3125	A
83	A5	3126	C
83	A5	3128	U
83	A5	3130	G
83	A5	3138	G
83	A5	3139	G
83	A5	3146	G
83	A5	3167	A
83	A5	3169	A
83	A5	3184	U
83	A5	3187	C
83	A5	3188	A
83	A5	3193	C
83	A5	3204	G
83	A5	3206	A
83	A5	3207	C
83	A5	3208	A
83	A5	3209	G
83	A5	3210	A
83	A5	3213	C
83	A5	3220	U
83	A5	3221	A
83	A5	3222	G
83	A5	3223	A
83	A5	3225	C
83	A5	3226	A
83	A5	3228	A
83	A5	3231	G
83	A5	3235	A

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Mol	Chain	Res	Type
83	A5	3236	A
83	A5	3240	U
83	A5	3241	G
83	A5	3246	G
83	A5	3251	C
83	A5	3258	C
83	A5	3260	G
83	A5	3269	G
83	A5	3283	U
83	A5	3284	C
83	A5	3285	G
83	A5	3286	G
83	A5	3287	C
83	A5	3294	A
83	A5	3302	G
83	A5	3303	G
83	A5	3304	U
83	A5	3305	U
83	A5	3311	A
83	A5	3328	G
83	A5	3331	A
83	A5	3332	G
83	A5	3333	A
83	A5	3334	A
83	A5	3338	U
83	A5	3342	C
83	A5	3348	G
83	A5	3349	A
83	A5	3350	U
83	A5	3351	A
83	A5	3361	U
83	A5	3374	U
83	A5	3377	A
83	A5	3381	C
83	A5	3393	U
83	A5	3399	C
83	A5	3403	G
83	A5	3404	A
83	A5	3405	U
83	A5	3406	G
83	A5	3407	U
83	A5	3410	G

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Mol	Chain	Res	Type
83	A5	3411	C
83	A5	3419	A
83	A5	3421	C
83	A5	3428	A
83	A5	3429	A
83	A5	3430	G
83	A5	3431	C
83	A5	3455	U
83	A5	3459	C
83	A5	3465	C
83	A5	3467	A
83	A5	3468	G
83	A5	3473	C
83	A5	3476	G
83	A5	3478	G
83	A5	3481	G
83	A5	3482	G
83	A5	3486	U
83	A5	3488	G
83	A5	3502	A
83	A5	3504	G
83	A5	3514	C
83	A5	3521	A
83	A5	3523	U
83	A5	3528	A
83	A5	3529	A
83	A5	3530	A
83	A5	3531	C
83	A5	3532	G
83	A5	3547	U
83	A5	3556	A
83	A5	3558	U
83	A5	3568	A
83	A5	3592	C
83	A5	3593	A
83	A5	3594	A
83	A5	3613	G
83	A5	3615	G
83	A5	3621	A
83	A5	3623	G
83	A5	3626	A
83	A5	3627	C

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Mol	Chain	Res	Type
83	A5	3628	G
83	A5	3647	A
83	A5	3650	G
83	A5	3651	C
83	A5	3653	U
83	A5	3662	G
83	A5	3664	A
83	A5	3665	U
83	A5	3668	G
83	A5	3673	G
83	A5	3674	G
83	A5	3676	C
83	A5	3677	U
83	A5	3678	G
83	A5	3685	U
83	A5	3686	A
83	A5	3687	A
83	A5	3688	A
83	A5	3690	A
83	A5	3691	A
83	A5	3692	G
83	A5	3693	G
83	A5	3696	C
83	A5	3697	A
83	A5	3698	A
83	A5	3699	U
83	A5	3702	G
83	A5	3703	C
83	A5	3709	A
83	A5	3710	U
83	A5	3711	G
83	A5	3712	G
83	A5	3713	C
83	A5	3714	U
83	A5	3715	U
83	A5	3716	C
83	A5	3720	A
83	A5	3723	A
83	A5	3727	A
83	A5	3728	A
83	A5	3742	C
83	A5	3743	U

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Mol	Chain	Res	Type
83	A5	3751	C
83	A5	3752	G
83	A5	3753	A
83	A5	3756	A
83	A5	3757	U
83	A5	3758	G
83	A5	3759	G
83	A5	3761	U
83	A5	3763	U
83	A5	3764	G
83	A5	3765	A
83	A5	3766	U
83	A5	3767	G
83	A5	3769	C
83	A5	3772	U
83	A5	3773	G
83	A5	3774	U
83	A5	3775	A
83	A5	3776	A
83	A5	3777	U
83	A5	3778	U
83	A5	3779	U
83	A5	3782	A
83	A5	3783	A
83	A5	3785	A
83	A5	3790	A
83	A5	3791	A
83	A5	3802	U
83	A5	3803	C
83	A5	3805	U
83	A5	3806	C
83	A5	3807	G
83	A5	3808	A
83	A5	3809	U
83	A5	3811	A
83	A5	3818	G
83	A5	3820	C
83	A5	3821	G
83	A5	3822	C
83	A5	3823	G
83	A5	3824	C
83	A5	3836	A

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Mol	Chain	Res	Type
83	A5	3837	A
83	A5	3838	A
83	A5	3839	A
83	A5	3840	G
83	A5	3841	C
83	A5	3842	A
83	A5	3843	U
83	A5	3844	U
83	A5	3846	U
83	A5	3847	U
83	A5	3849	A
83	A5	3854	A
83	A5	3860	A
83	A5	3863	G
83	A5	3864	C
83	A5	3868	G
83	A5	3869	A
83	A5	3877	G
83	A5	3878	U
83	A5	3881	A
83	A5	3888	U
83	A5	3891	U
83	A5	3892	A
83	A5	3893	A
83	A5	3894	C
83	A5	3904	G
83	A5	3905	U
83	A5	3906	U
83	A5	3909	A
83	A5	3915	U
83	A5	3916	U
83	A5	3919	G
83	A5	3921	A
83	A5	3922	G
83	A5	3923	C
83	A5	3925	G
83	A5	3926	C
83	A5	3927	C
83	A5	3929	U
83	A5	3930	A
83	A5	3943	G
83	A5	3944	A

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Mol	Chain	Res	Type
83	A5	3949	U
83	A5	3950	A
83	A5	3952	C
83	A5	3957	G
83	A5	3963	U
83	A5	3964	G
83	A5	3968	C
83	A5	3970	A
84	A9	11	A
84	A9	21	G
84	A9	22	A
84	A9	23	G
84	A9	24	G
84	A9	25	G
84	A9	30	A
85	A7	11	A
85	A7	21	G
85	A7	22	A
85	A7	29	C
85	A7	33	U
85	A7	41	G
85	A7	42	A
85	A7	45	A
85	A7	48	G
85	A7	50	A
85	A7	52	U
85	A7	53	U
85	A7	54	A
85	A7	72	U
85	A7	73	U
85	A7	74	A
85	A7	76	U
85	A7	93	G
85	A7	100	A
85	A7	110	G
85	A7	112	U
85	A7	113	G
85	A7	120	U
86	A8	33	U
86	A8	34	C
86	A8	45	G
86	A8	47	A

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Mol	Chain	Res	Type
86	A8	50	A
86	A8	51	A
86	A8	58	C
86	A8	60	U
86	A8	74	G
86	A8	75	C
86	A8	80	C
86	A8	81	A
86	A8	88	C
86	A8	90	U
86	A8	92	G
86	A8	101	A
86	A8	102	A
86	A8	103	C

All (394) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
36	B2	3	U
36	B2	25	U
36	B2	66	C
36	B2	67	A
36	B2	68	C
36	B2	73	A
36	B2	74	U
36	B2	77	A
36	B2	113	G
36	B2	126	G
36	B2	135	U
36	B2	137	C
36	B2	154	A
36	B2	155	U
36	B2	172	G
36	B2	197	A
36	B2	214	G
36	B2	215	C
36	B2	216	U
36	B2	226	C
36	B2	239	G
36	B2	248	G
36	B2	250	U
36	B2	251	G

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Mol	Chain	Res	Type
36	B2	252	A
36	B2	253	A
36	B2	256	C
36	B2	266	U
36	B2	276	A
36	B2	278	G
36	B2	282	U
36	B2	283	U
36	B2	285	U
36	B2	327	G
36	B2	339	U
36	B2	378	G
36	B2	381	C
36	B2	405	A
36	B2	422	A
36	B2	473	A
36	B2	488	A
36	B2	509	C
36	B2	511	G
36	B2	520	A
36	B2	549	A
36	B2	563	A
36	B2	565	G
36	B2	566	U
36	B2	631	C
36	B2	646	U
36	B2	647	U
36	B2	701	G
36	B2	703	A
36	B2	704	U
36	B2	713	A
36	B2	718	C
36	B2	824	U
36	B2	825	A
36	B2	835	A
36	B2	837	A
36	B2	857	G
36	B2	866	U
36	B2	878	C
36	B2	896	A
36	B2	897	A
36	B2	904	C

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Mol	Chain	Res	Type
36	B2	905	U
36	B2	907	U
36	B2	908	G
36	B2	929	A
36	B2	1000	G
36	B2	1091	U
36	B2	1116	G
36	B2	1117	A
36	B2	1118	U
36	B2	1138	U
36	B2	1145	U
36	B2	1168	C
36	B2	1185	U
36	B2	1186	U
36	B2	1187	U
36	B2	1188	G
36	B2	1245	A
36	B2	1246	C
36	B2	1284	A
36	B2	1295	U
36	B2	1313	U
36	B2	1316	G
36	B2	1329	A
36	B2	1330	U
36	B2	1331	A
36	B2	1342	G
36	B2	1371	C
36	B2	1408	A
36	B2	1426	A
36	B2	1427	U
36	B2	1434	U
36	B2	1448	A
36	B2	1530	A
36	B2	1546	U
36	B2	1547	U
36	B2	1550	C
36	B2	1649	U
36	B2	1673	U
36	B2	1679	U
36	B2	1729	C
36	B2	1760	G
36	B2	1765	U

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Mol	Chain	Res	Type
36	B2	1792	A
36	B2	1807	C
36	B2	1829	C
36	B2	1849	U
36	B2	1881	A
36	B2	1949	A
36	B2	1956	U
36	B2	1991	C
36	B2	1992	A
37	BC	18	G
37	BC	45	G
37	BC	74	C
83	A5	9	A
83	A5	17	C
83	A5	69	A
83	A5	116	U
83	A5	121	A
83	A5	123	U
83	A5	130	C
83	A5	147	A
83	A5	157	C
83	A5	164	U
83	A5	175	U
83	A5	176	A
83	A5	178	U
83	A5	181	A
83	A5	186	G
83	A5	187	A
83	A5	188	G
83	A5	189	A
83	A5	190	A
83	A5	201	U
83	A5	211	U
83	A5	225	U
83	A5	227	A
83	A5	228	C
83	A5	245	G
83	A5	262	G
83	A5	270	G
83	A5	272	U
83	A5	300	A
83	A5	303	G

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Mol	Chain	Res	Type
83	A5	316	U
83	A5	323	U
83	A5	346	U
83	A5	368	C
83	A5	415	A
83	A5	420	A
83	A5	452	A
83	A5	460	A
83	A5	461	U
83	A5	463	C
83	A5	470	G
83	A5	475	U
83	A5	478	A
83	A5	484	A
83	A5	493	A
83	A5	513	G
83	A5	523	C
83	A5	535	A
83	A5	573	U
83	A5	580	A
83	A5	583	U
83	A5	615	C
83	A5	618	U
83	A5	620	U
83	A5	624	A
83	A5	631	A
83	A5	632	A
83	A5	640	U
83	A5	641	A
83	A5	643	U
83	A5	652	G
83	A5	662	A
83	A5	667	U
83	A5	675	C
83	A5	680	C
83	A5	740	G
83	A5	745	U
83	A5	746	G
83	A5	751	A
83	A5	764	A
83	A5	773	G
83	A5	774	A

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Mol	Chain	Res	Type
83	A5	798	C
83	A5	831	A
83	A5	841	A
83	A5	871	A
83	A5	872	A
83	A5	880	A
83	A5	929	A
83	A5	967	C
83	A5	1016	A
83	A5	1073	C
83	A5	1096	A
83	A5	1107	G
83	A5	1116	G
83	A5	1137	G
83	A5	1143	U
83	A5	1177	U
83	A5	1178	U
83	A5	1180	U
83	A5	1181	A
83	A5	1182	A
83	A5	1183	U
83	A5	1193	A
83	A5	1195	U
83	A5	1229	U
83	A5	1231	A
83	A5	1248	A
83	A5	1277	A
83	A5	1288	U
83	A5	1293	A
83	A5	1294	U
83	A5	1297	G
83	A5	1306	G
83	A5	1308	U
83	A5	1310	A
83	A5	1323	C
83	A5	1324	C
83	A5	1394	U
83	A5	1395	U
83	A5	1406	G
83	A5	1407	C
83	A5	1411	U
83	A5	1423	C

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Mol	Chain	Res	Type
83	A5	1436	A
83	A5	1488	A
83	A5	1501	A
83	A5	1516	A
83	A5	1522	G
83	A5	1544	U
83	A5	1562	U
83	A5	1565	A
83	A5	1573	U
83	A5	1581	G
83	A5	1593	U
83	A5	1594	U
83	A5	1600	U
83	A5	1639	U
83	A5	1640	U
83	A5	1675	G
83	A5	1688	A
83	A5	1698	A
83	A5	1709	A
83	A5	1717	A
83	A5	1724	A
83	A5	1727	U
83	A5	1744	U
83	A5	1745	G
83	A5	1780	U
83	A5	1782	C
83	A5	1793	C
83	A5	1801	U
83	A5	1808	A
83	A5	1810	A
83	A5	1812	C
83	A5	1862	U
83	A5	1863	U
83	A5	1864	U
83	A5	1872	A
83	A5	1889	A
83	A5	1891	U
83	A5	1960	C
83	A5	2003	U
83	A5	2029	G
83	A5	2064	G
83	A5	2093	U

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Mol	Chain	Res	Type
83	A5	2094	U
83	A5	2106	C
83	A5	2107	U
83	A5	2124	G
83	A5	2126	A
83	A5	2128	A
83	A5	2129	C
83	A5	2134	A
83	A5	2137	U
83	A5	2155	A
83	A5	2200	A
83	A5	2471	A
83	A5	2480	U
83	A5	2491	C
83	A5	2552	G
83	A5	2571	U
83	A5	2587	U
83	A5	2605	C
83	A5	2627	G
83	A5	2634	A
83	A5	2651	G
83	A5	2658	A
83	A5	2659	A
83	A5	2683	G
83	A5	2750	A
83	A5	2751	A
83	A5	2762	A
83	A5	2781	G
83	A5	2796	G
83	A5	2820	G
83	A5	2833	U
83	A5	2837	A
83	A5	2846	A
83	A5	2868	A
83	A5	2879	A
83	A5	2904	U
83	A5	2907	U
83	A5	2908	U
83	A5	2916	U
83	A5	2917	A
83	A5	2919	A
83	A5	2988	U

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Mol	Chain	Res	Type
83	A5	2990	C
83	A5	2993	G
83	A5	2994	C
83	A5	2999	U
83	A5	3004	A
83	A5	3017	U
83	A5	3117	A
83	A5	3118	U
83	A5	3125	A
83	A5	3284	C
83	A5	3303	G
83	A5	3304	U
83	A5	3350	U
83	A5	3404	A
83	A5	3405	U
83	A5	3481	G
83	A5	3514	C
83	A5	3527	A
83	A5	3529	A
83	A5	3530	A
83	A5	3531	C
83	A5	3567	A
83	A5	3591	A
83	A5	3592	C
83	A5	3621	A
83	A5	3626	A
83	A5	3627	C
83	A5	3673	G
83	A5	3676	C
83	A5	3687	A
83	A5	3692	G
83	A5	3695	G
83	A5	3697	A
83	A5	3708	U
83	A5	3712	G
83	A5	3727	A
83	A5	3758	G
83	A5	3760	A
83	A5	3762	G
83	A5	3765	A
83	A5	3774	U
83	A5	3775	A

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Mol	Chain	Res	Type
83	A5	3790	A
83	A5	3802	U
83	A5	3803	C
83	A5	3806	C
83	A5	3808	A
83	A5	3819	C
83	A5	3838	A
83	A5	3839	A
83	A5	3841	C
83	A5	3842	A
83	A5	3843	U
83	A5	3844	U
83	A5	3846	U
83	A5	3848	U
83	A5	3853	C
83	A5	3890	G
83	A5	3891	U
83	A5	3904	G
83	A5	3915	U
83	A5	3924	U
83	A5	3925	G
83	A5	3949	U
83	A5	3962	A
84	A9	21	G
84	A9	22	A
85	A7	47	C
85	A7	49	A
85	A7	71	G
85	A7	72	U
85	A7	119	C
86	A8	44	C
86	A8	45	G
86	A8	79	A
86	A8	108	A

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)

There are no chain breaks in this entry.

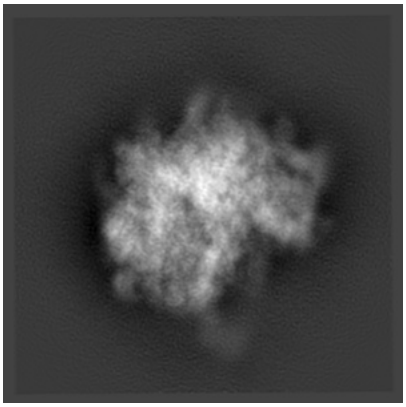
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-5591. These allow visual inspection of the internal detail of the map and identification of artifacts.

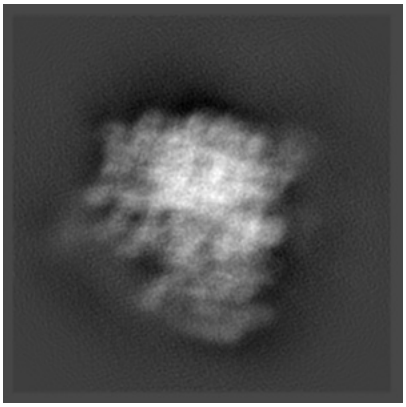
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

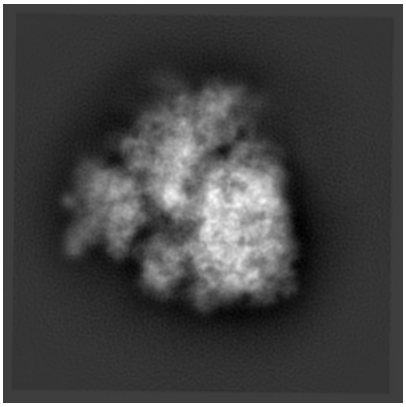
6.1.1 Primary map



X



Y

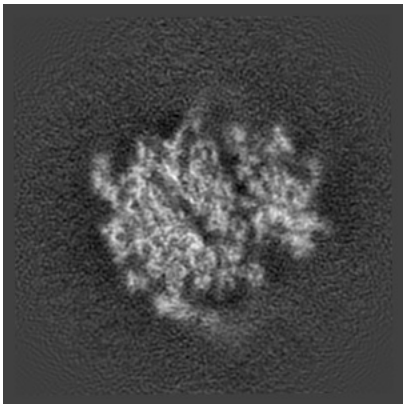


Z

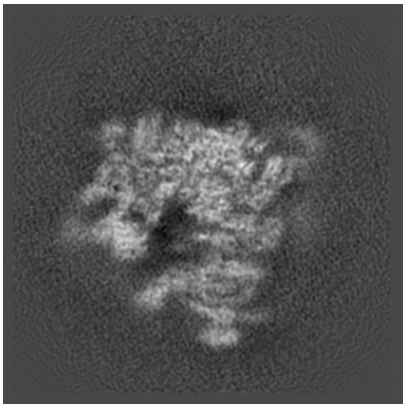
The images above show the map projected in three orthogonal directions.

6.2 Central slices

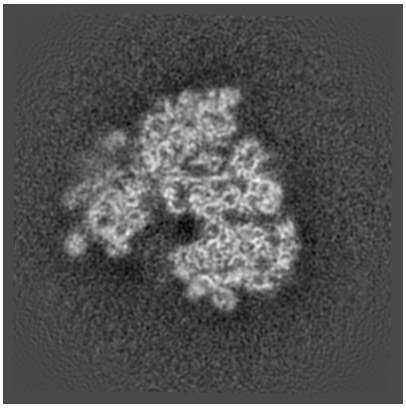
6.2.1 Primary map



X Index: 184



Y Index: 184

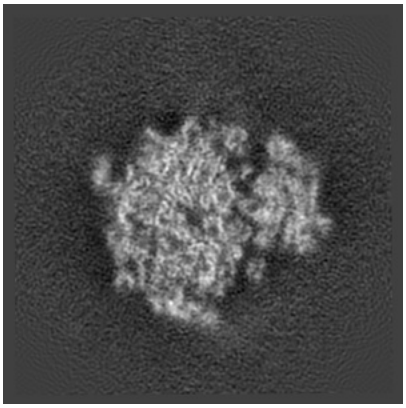


Z Index: 184

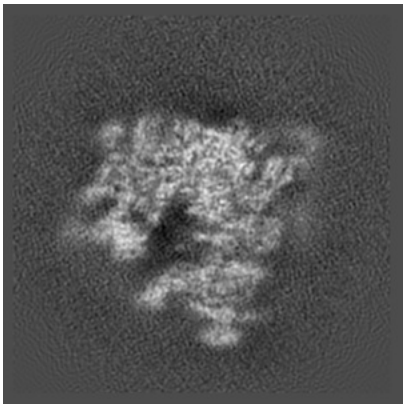
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

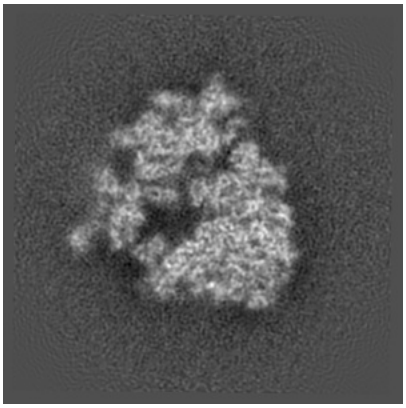
6.3.1 Primary map



X Index: 190



Y Index: 183

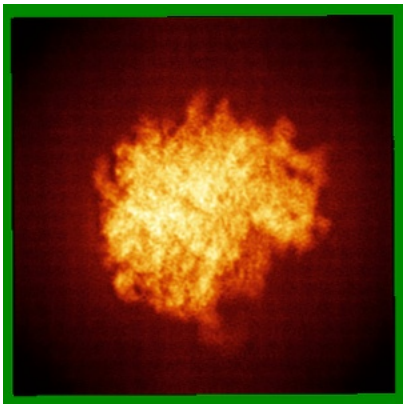


Z Index: 172

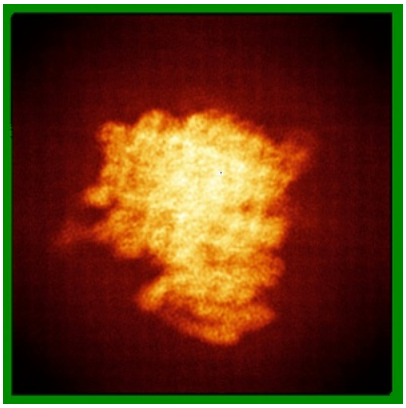
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

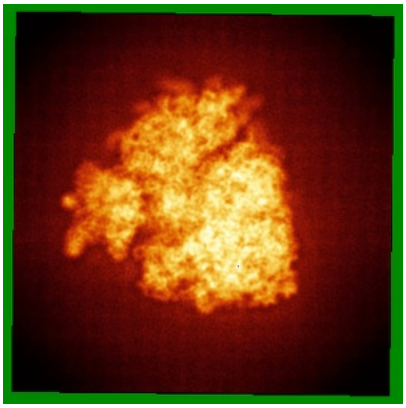
6.4.1 Primary map



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

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.49. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

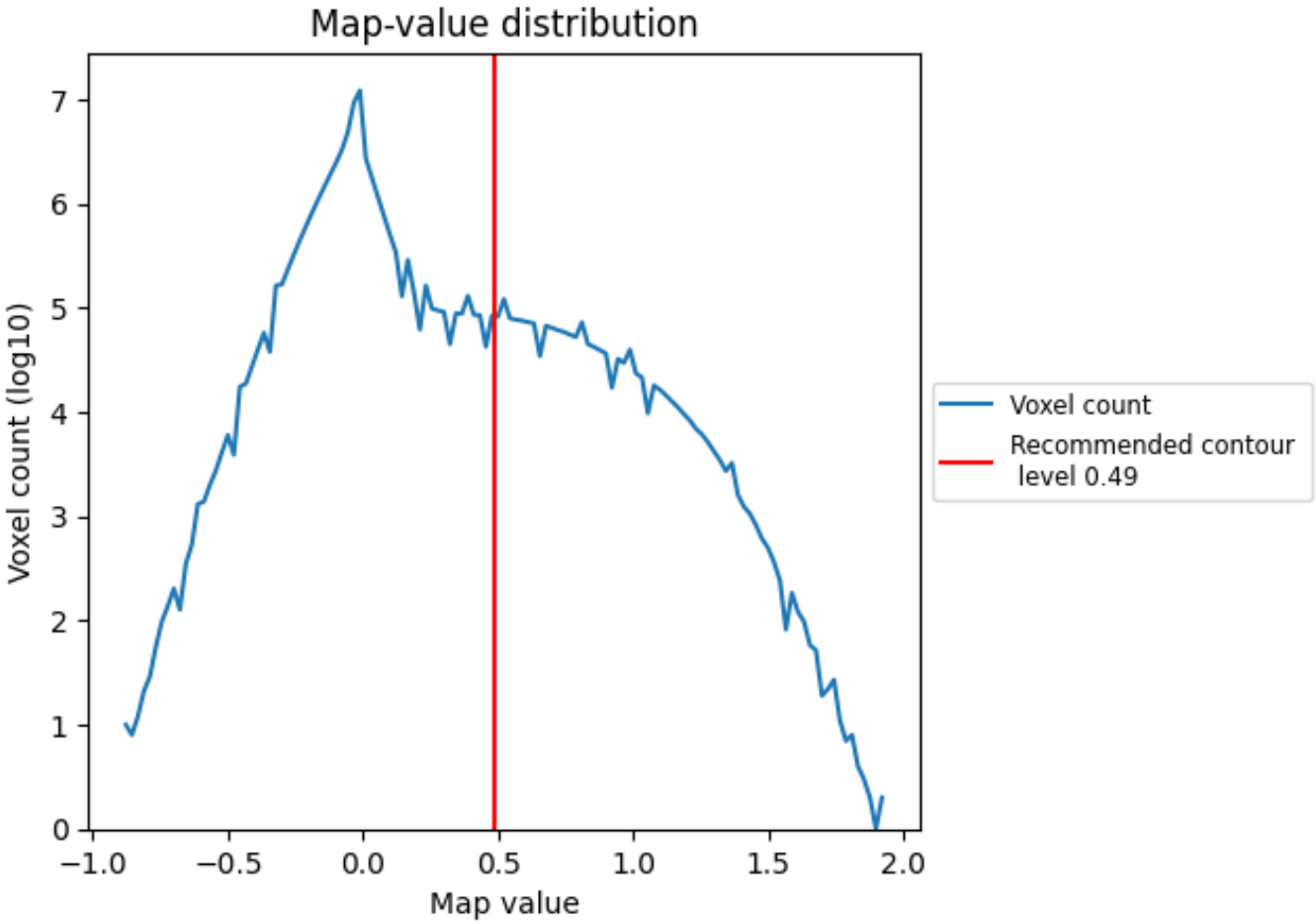
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

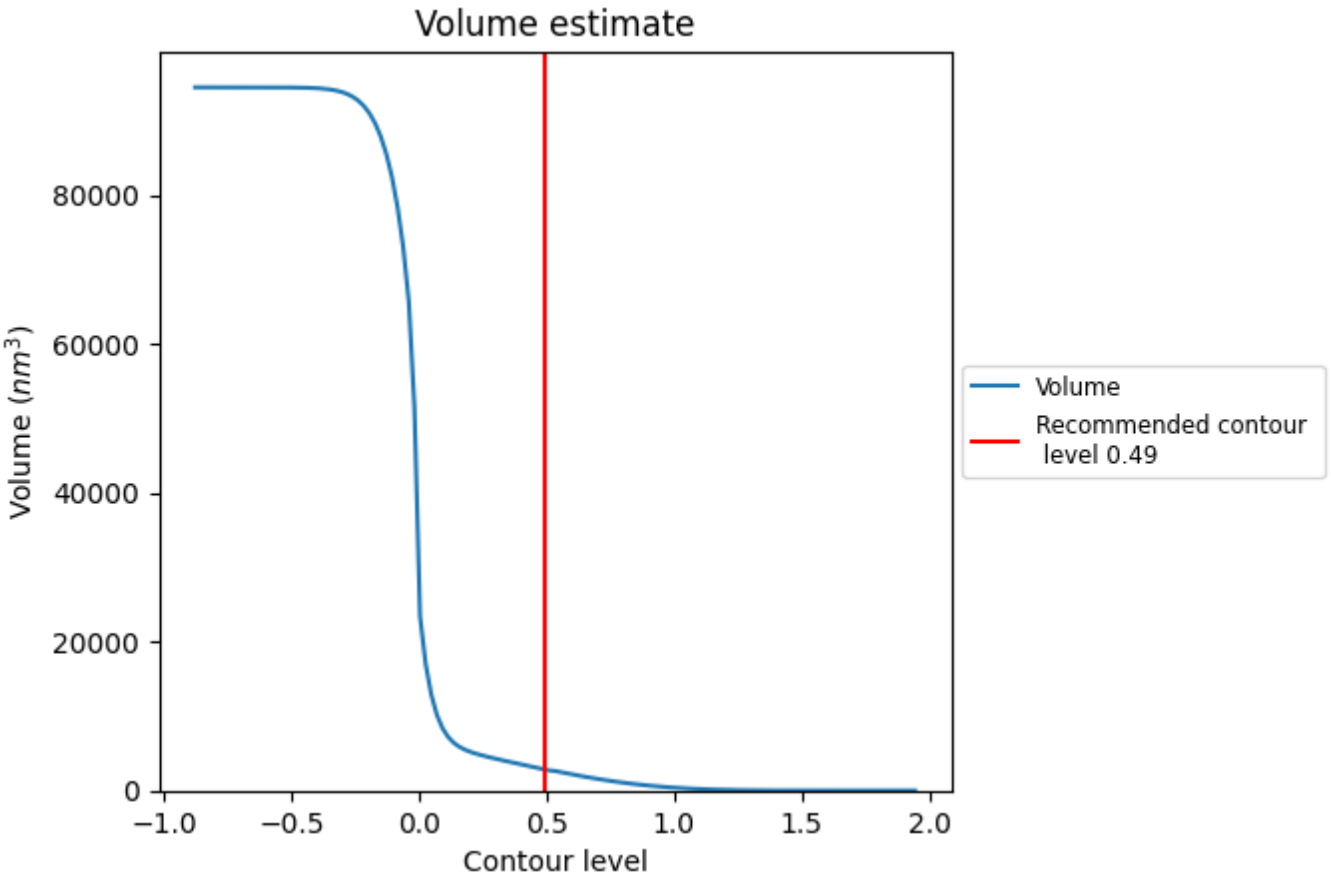
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

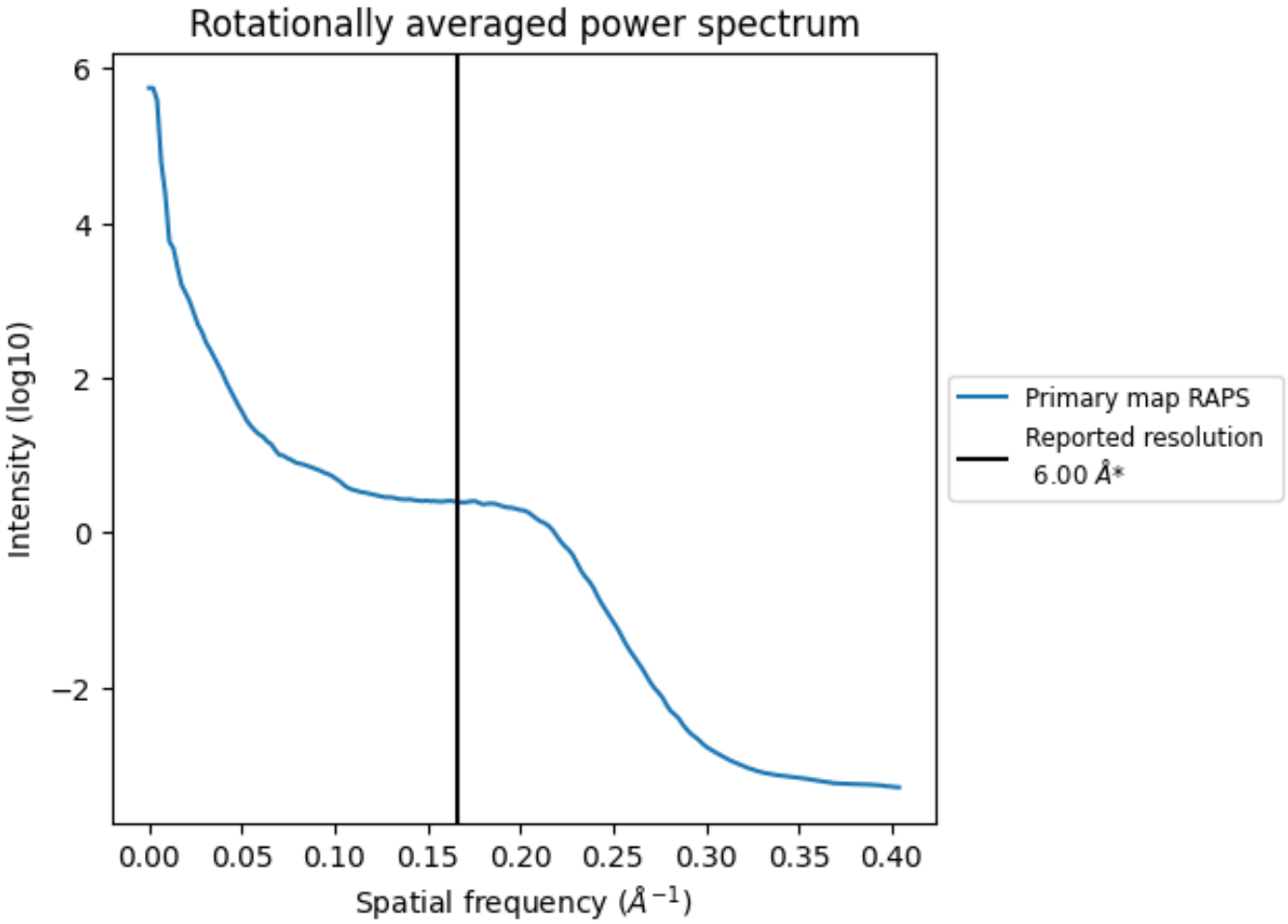
7.2 Volume estimate



The volume at the recommended contour level is 2852 nm^3; this corresponds to an approximate mass of 2576 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 (i)



*Reported resolution corresponds to spatial frequency of 0.167 Å^{-1}

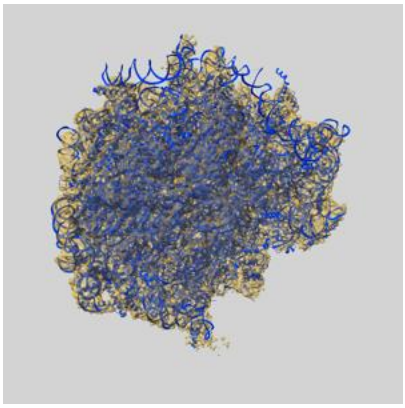
8 Fourier-Shell correlation (i)

This section was not generated. No FSC curve or half-maps provided.

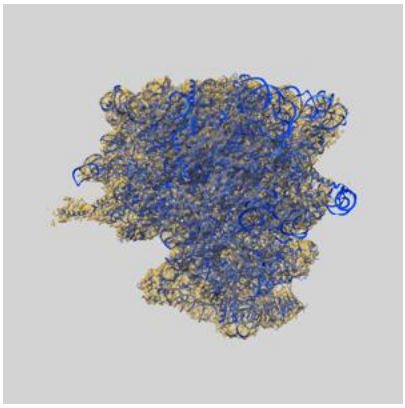
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-5591 and PDB model 4V6W. Per-residue inclusion information can be found in section 3 on page 21.

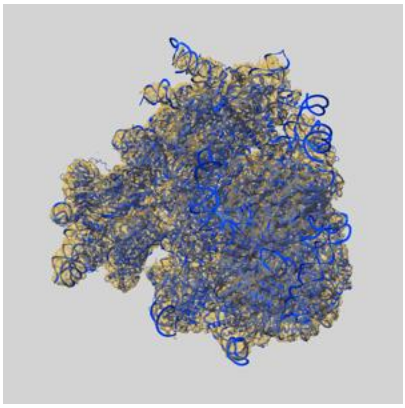
9.1 Map-model overlay



X



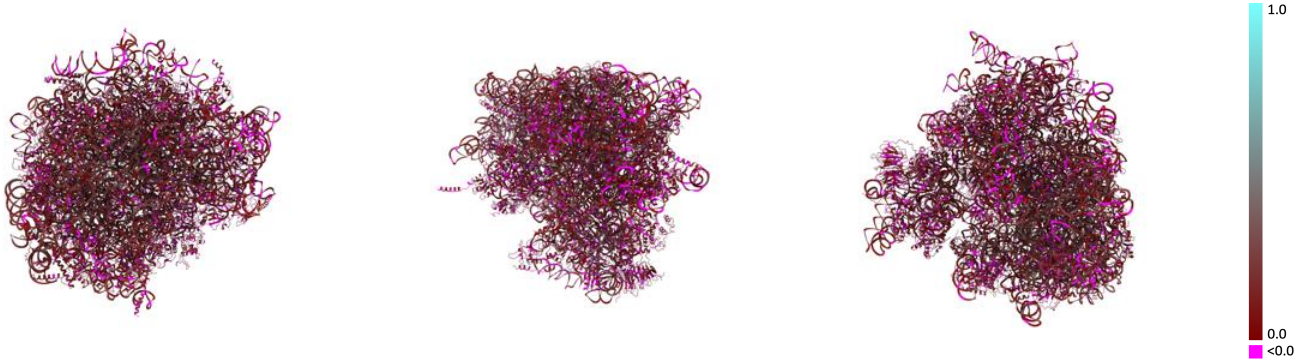
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.49 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.

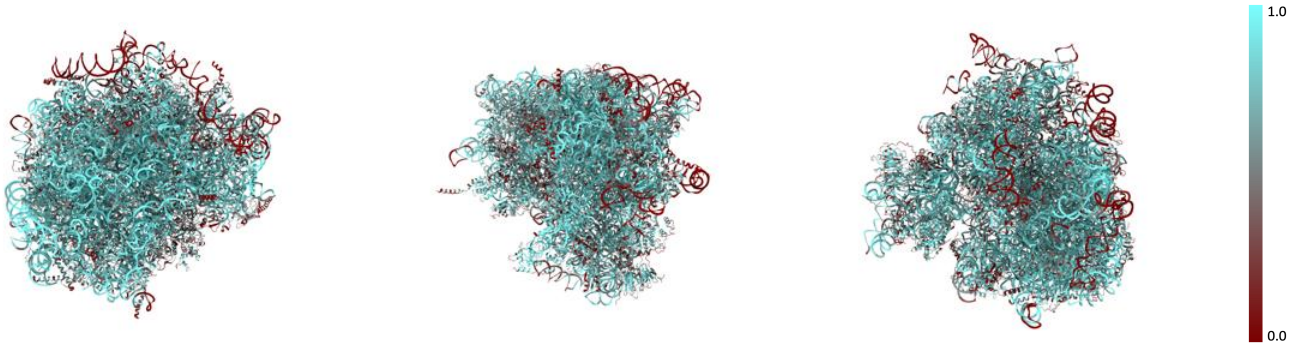
9.2 Q-score mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according 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.

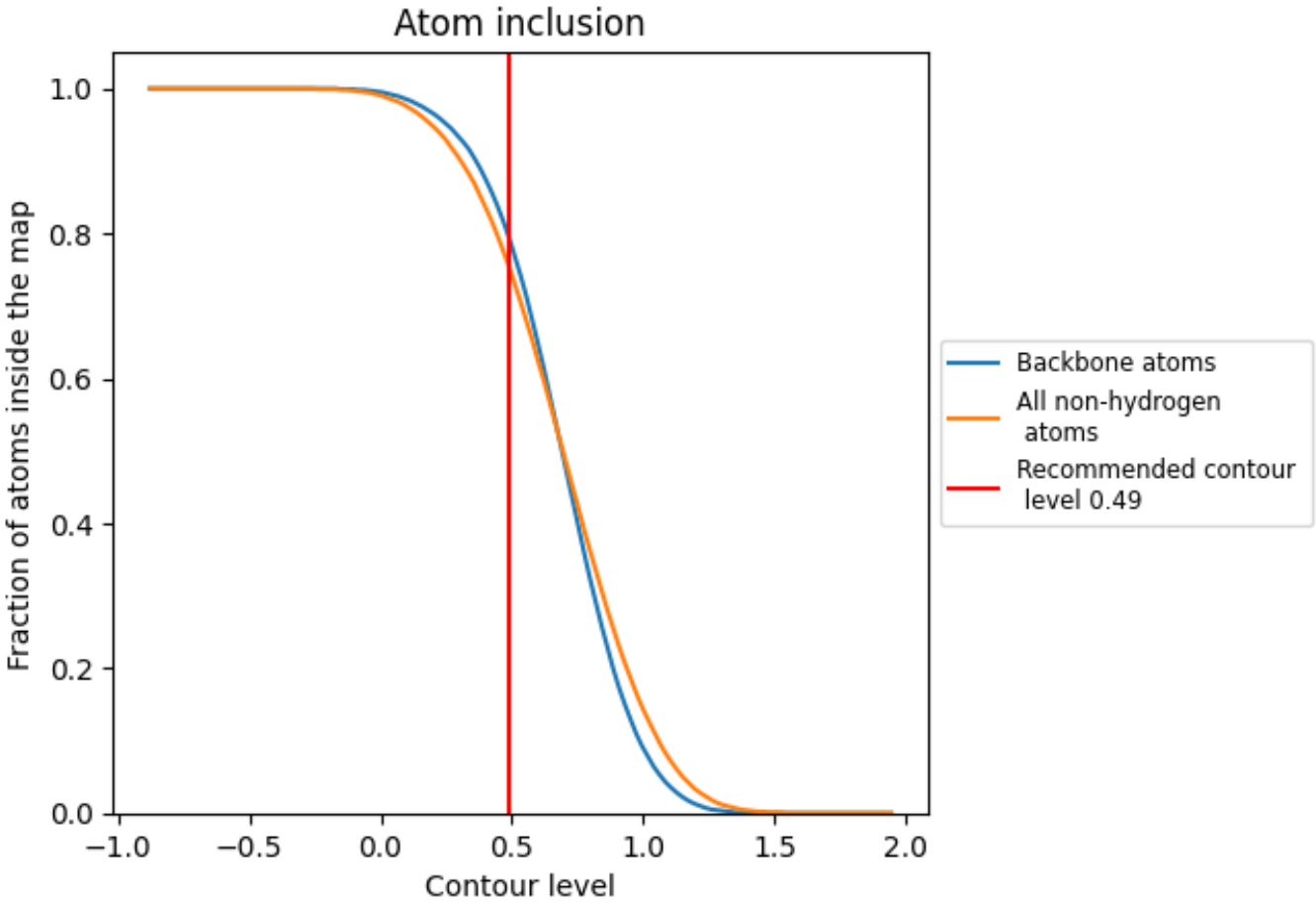
9.3 Atom inclusion mapped to coordinate model



X Y Z

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 (0.49).

9.4 Atom inclusion (i)



At the recommended contour level, 79% of all backbone atoms, 75% 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 (0.49) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7530	0.1570
A5	0.8870	0.2040
A7	0.9450	0.2030
A8	0.9250	0.2330
A9	0.8220	0.2100
AA	0.6570	0.1060
AB	0.5770	0.0940
AC	0.5680	0.1340
AD	0.4870	0.1230
AE	0.6540	0.1060
AF	0.5940	0.0880
AG	0.5120	0.0690
AH	0.6120	0.1000
AI	0.4730	0.0910
AJ	0.7220	0.1220
AK	0.8140	0.1170
AL	0.5220	0.0890
AM	0.7370	0.0940
AN	0.5950	0.1050
AO	0.5890	0.0500
AP	0.4210	0.0960
AQ	0.5710	0.0960
AR	0.4410	0.1060
AS	0.5940	0.1060
AT	0.5530	0.0950
AU	0.6190	0.1120
AV	0.5740	0.1020
AW	0.6500	0.1020
AX	0.6130	0.1020
AY	0.5320	0.0900
AZ	0.6270	0.1060
Aa	0.6380	0.1240
Ab	0.6450	0.1240
Ac	0.6660	0.0940
Ad	0.7100	0.0920

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Chain	Atom inclusion	Q-score
Ae	0.4380	0.1370
Af	0.5770	0.0610
Ag	0.5920	0.1010
Ah	0.4280	0.0890
Az	0.4650	0.1100
B2	0.8710	0.1770
BC	0.7150	0.1770
CA	0.7250	0.1370
CB	0.6330	0.1340
CC	0.6910	0.1210
CD	0.6850	0.1110
CE	0.6220	0.1160
CF	0.6430	0.1340
CG	0.5220	0.1280
CH	0.4970	0.1400
CI	0.5550	0.1330
CJ	0.5230	0.1410
CK	0.5290	0.1020
CL	0.6260	0.1150
CM	0.6610	0.1170
CN	0.8290	0.1090
CO	0.6450	0.1390
CP	0.6660	0.1160
CQ	0.7570	0.1090
CR	0.6420	0.1390
CS	0.5930	0.1190
CT	0.6330	0.1250
CU	0.4220	0.1090
CV	0.4170	0.1400
CW	0.3250	0.1040
CX	0.4050	0.1310
CY	0.6930	0.1370
CZ	0.5870	0.1250
Ca	0.7410	0.1160
Cb	0.7360	0.1450
Cc	0.6720	0.1420
Cd	0.7280	0.1300
Ce	0.7180	0.1490
Cf	0.5730	0.0630
Cg	0.6800	0.1540
Ch	0.5370	0.1190
Ci	0.7090	0.1360

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Chain	Atom inclusion	Q-score
Cj	0.7400	0.1370
Ck	0.5590	0.0880
Cl	0.7210	0.1180
Cm	0.5200	0.1570
Cn	0.6740	0.1080
Co	0.6710	0.0950
Cp	0.6270	0.1340
Cq	0.6170	0.0900
Cr	0.6140	0.1170
Cz	0.3550	0.0350