Full wwPDB EM Validation Report ⓘ

Mar 7, 2026 – 12:49 AM UTC

PDB ID	:	4V8Y / pdb_00004v8y
EMDB ID	:	EMD-2421
Title	:	Cryo-EM reconstruction of the 80S-eIF5B-Met-itRNAMet Eukaryotic Translation Initiation Complex
Authors	:	Fernandez, I.S.; Bai, X.C.; Hussain, T.; Kelley, A.C.; Lorsch, J.R.; Ramakrishnan, V.; Scheres, S.H.W.
Deposited on	:	2013-07-20
Resolution	:	4.30 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:

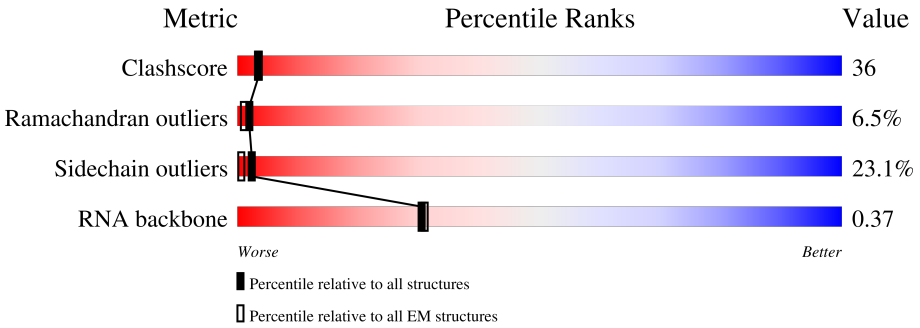
EMDB validation analysis	:	0.0.1.dev132
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4-5-2 with Phenix2.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data 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

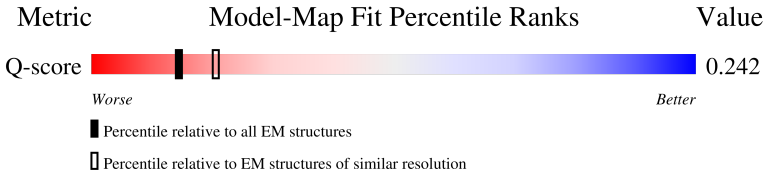
1 Overall quality at a glance

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

The reported resolution of this entry is 4.30 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	4585 (3.80 - 4.80)

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	A0	119	68% 28% 34% 15% 5% 18%
2	A1	82	60% 52% 30% 15% ••
3	A2	67	85% 27% 43% 24% 6%

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Mol	Chain	Length	Quality of chain
4	A3	56	64% 39% 43% 11% • 5%
5	A4	63	48% 51% 35% 10% 5%
6	A5	152	44% 18% 18% 7% • 53%
7	A6	319	89% 55% 37% 8% •
8	A7	273	58% 32% 18% 5% • 42%
9	AA	252	47% 28% 33% 19% • 18%
10	AB	255	75% 24% 36% 18% 7% 16%
11	AC	254	38% 41% 32% 10% • 15%
12	AD	240	79% 42% 35% 14% • 7%
13	AE	261	49% 41% 44% 13% •
14	AF	225	80% 42% 37% 11% • 8%
15	AG	236	71% 38% 41% 17% •
16	AH	190	50% 32% 42% 18% 5% •
17	AI	200	56% 38% 41% 14% • 6%
18	AJ	197	43% 45% 32% 15% • 6%
19	AK	105	80% 33% 41% 14% • 9%
20	AL	156	35% 46% 42% 8% • •
21	AM	143	85% 23% 42% 17% • 13%
22	AN	151	40% 46% 36% 14% • •
23	AO	137	87% 35% 41% 13% • 7%
24	AP	142	75% 37% 39% 8% • 13%
25	AQ	143	76% 33% 45% 18% • •
26	AR	136	61% 33% 40% 10% • 12%
27	AS	146	81% 32% 47% 16% • •
28	AT	144	71% 35% 46% 16% • •

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Mol	Chain	Length	Quality of chain
29	AU	121	79% 31% 37% 20% 12%
30	AV	87	54% 40% 38% 20%
31	AW	130	28% 42% 38% 18%
32	AX	145	28% 48% 36% 11%
33	AY	135	56% 50% 30% 16%
34	AZ	108	60% 18% 26% 17% 5% 35%
35	BA	253	53% 47% 40% 11%
36	BB	386	15% 50% 34% 13%
37	BC	361	16% 48% 34% 16%
38	BD	296	32% 48% 38% 12%
39	BE	175	25% 58% 25% 5% 10%
40	BF	243	9% 54% 29% 7% 8%
41	BG	255	35% 37% 36% 16% 9%
42	BH	191	19% 46% 36% 17%
43	BI	220	25% 51% 31% 11%
44	BJ	173	36% 40% 37% 18%
45	BK	174	82% 84% 13%
46	BL	198	37% 48% 37% 11%
47	BM	137	17% 51% 39% 9%
48	BN	203	27% 46% 40% 13%
49	BO	218	11% 59% 29% 10%
50	BP	183	11% 49% 26% 8% 15%
51	BQ	185	23% 57% 34% 8%
52	BR	188	53% 49% 39% 12%
53	BS	172	10% 53% 33% 11%

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Mol	Chain	Length	Quality of chain
54	BT	159	19% 53% 35% 11%
55	BU	120	48% 42% 25% 13% 18%
56	BV	136	27% 63% 31% 6%
57	BW	155	59% 55% 25% 5% 13%
58	BX	141	28% 43% 32% 8% 15%
59	BY	126	21% 49% 35% 15%
60	BZ	135	64% 36% 47% 14%
61	Ba	148	26% 43% 36% 15% 6%
62	Bb	58	24% 41% 29% 21% 9%
63	Bc	104	64% 45% 39% 10%
64	Bd	112	29% 52% 34% 11%
65	Be	129	12% 48% 34% 12%
66	Bf	106	13% 56% 35% 8%
67	Bg	120	52% 41% 39% 12% 7%
68	Bh	119	29% 50% 34% 15%
69	Bi	99	38% 43% 39% 17%
70	Bj	87	25% 38% 52% 10%
71	Bk	77	66% 52% 30% 18%
72	Bl	50	32% 40% 40% 20%
73	Bm	128	8% 22% 12% 5% 59%
74	Bn	25	88% 24% 40% 32%
75	Bo	105	23% 61% 30% 10%
76	Bq	312	40% 27% 13% 5% 54%
77	Br	47	98% 98%
78	Bs	46	100% 100%

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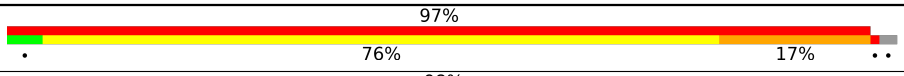
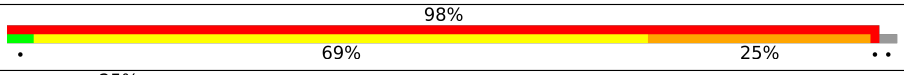
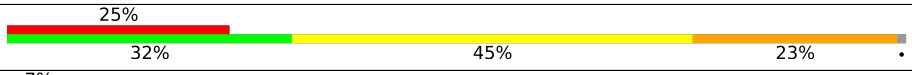
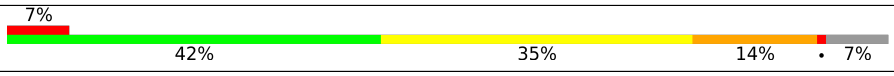
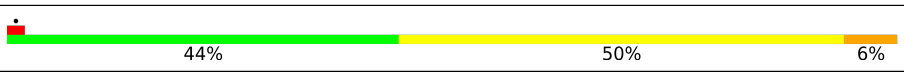
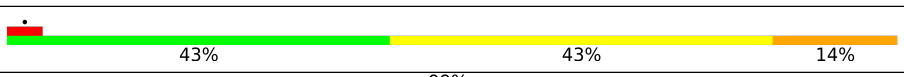
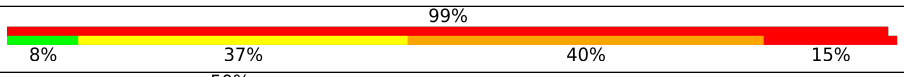
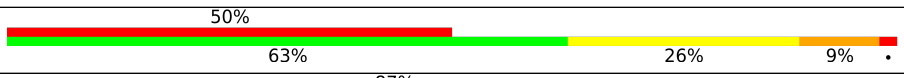
Mol	Chain	Length	Quality of chain
79	By	229	
79	CL	229	
80	B2	1800	
81	B5	3396	
82	B7	121	
83	B8	158	
84	CN	87	
85	CP	339	
86	CW	76	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
89	OHX	A3	102	-	-	X	-
89	OHX	AC	301	-	-	X	-
89	OHX	B2	1907	-	-	X	-
89	OHX	B2	1915	-	-	X	-
89	OHX	B2	1918	-	-	X	-
89	OHX	B2	1921	-	-	X	-
89	OHX	B2	1922	-	-	X	-
89	OHX	B2	1940	-	-	X	-
89	OHX	B2	1954	-	-	X	-
89	OHX	B2	1961	-	-	X	-
89	OHX	B2	1963	-	-	X	-
89	OHX	B2	1964	-	-	X	-
89	OHX	B2	1968	-	-	X	-
89	OHX	B2	1969	-	-	X	-
89	OHX	B2	1974	-	-	X	-
89	OHX	B2	1977	-	-	X	-
89	OHX	B2	1982	-	-	X	-
89	OHX	B2	1988	-	-	X	-
89	OHX	B2	2013	-	-	X	-
89	OHX	B2	2016	-	-	X	-
89	OHX	B2	2027	-	-	X	-
89	OHX	B2	2046	-	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
89	OHX	B2	2050	-	-	X	-
89	OHX	B2	2064	-	-	X	-
89	OHX	B2	2068	-	-	X	-
89	OHX	B2	2071	-	-	X	-
89	OHX	B2	2073	-	-	X	-
89	OHX	B2	2079	-	-	X	-
89	OHX	B2	2083	-	-	X	-
89	OHX	BR	201	-	-	X	-
90	GCP	CP	401	-	-	X	-

2 Entry composition

There are 90 unique types of molecules in this entry. The entry contains 222555 atoms, of which 8300 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 40S RIBOSOMAL PROTEIN S26-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A0	97	769	475	160	129	5	0	0

- Molecule 2 is a protein called 40S RIBOSOMAL PROTEIN S27-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	A1	81	610	382	110	113	5	0	0

- Molecule 3 is a protein called 40S RIBOSOMAL PROTEIN S28-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	A2	63	497	306	99	91	1	0	0

- Molecule 4 is a protein called 40S RIBOSOMAL PROTEIN S29-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	A3	53	442	274	92	72	4	0	0

- Molecule 5 is a protein called 40S RIBOSOMAL PROTEIN S30-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	A4	60	475	299	98	77	1	0	0

- Molecule 6 is a protein called UBIQUITIN-40S RIBOSOMAL PROTEIN S31.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	A5	71	516	328	93	91	4	0	0

There are 20 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A5	82	UNK	LYS	SEE REMARK 999	UNP P05759
A5	83	UNK	LYS	SEE REMARK 999	UNP P05759
A5	84	UNK	VAL	SEE REMARK 999	UNP P05759
A5	85	UNK	TYR	SEE REMARK 999	UNP P05759
A5	86	UNK	THR	SEE REMARK 999	UNP P05759
A5	87	UNK	THR	SEE REMARK 999	UNP P05759
A5	88	UNK	PRO	SEE REMARK 999	UNP P05759
A5	89	UNK	LYS	SEE REMARK 999	UNP P05759
A5	90	UNK	LYS	SEE REMARK 999	UNP P05759
A5	91	UNK	ILE	SEE REMARK 999	UNP P05759
A5	92	UNK	LYS	SEE REMARK 999	UNP P05759
A5	93	UNK	HIS	SEE REMARK 999	UNP P05759
A5	94	UNK	LYS	SEE REMARK 999	UNP P05759
A5	95	UNK	HIS	SEE REMARK 999	UNP P05759
A5	96	UNK	LYS	SEE REMARK 999	UNP P05759
A5	97	UNK	LYS	SEE REMARK 999	UNP P05759
A5	98	UNK	VAL	SEE REMARK 999	UNP P05759
A5	99	UNK	LYS	SEE REMARK 999	UNP P05759
A5	100	UNK	LEU	SEE REMARK 999	UNP P05759
A5	101	UNK	ALA	SEE REMARK 999	UNP P05759

- Molecule 7 is a protein called GUANINE NUCLEOTIDE-BINDING PROTEIN SUBUNIT BETA-LIKE PROTEIN.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	A6	318	2437	1541	418	470	8	0	0

- Molecule 8 is a protein called SUPPRESSOR PROTEIN STM1.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
8	A7	159	1105	653	221	231	0	0

There are 37 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A7	9	UNK	GLY	SEE REMARK 999	UNP P39015
A7	10	UNK	ASN	SEE REMARK 999	UNP P39015
A7	11	UNK	ASP	SEE REMARK 999	UNP P39015
A7	12	UNK	VAL	SEE REMARK 999	UNP P39015

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Chain	Residue	Modelled	Actual	Comment	Reference
A7	13	UNK	GLU	SEE REMARK 999	UNP P39015
A7	14	UNK	ASP	SEE REMARK 999	UNP P39015
A7	15	UNK	ALA	SEE REMARK 999	UNP P39015
A7	16	UNK	ASP	SEE REMARK 999	UNP P39015
A7	17	UNK	VAL	SEE REMARK 999	UNP P39015
A7	18	UNK	VAL	SEE REMARK 999	UNP P39015
A7	19	UNK	VAL	SEE REMARK 999	UNP P39015
A7	20	UNK	LEU	SEE REMARK 999	UNP P39015
A7	151	UNK	LEU	SEE REMARK 999	UNP P39015
A7	152	UNK	GLN	SEE REMARK 999	UNP P39015
A7	153	UNK	ASP	SEE REMARK 999	UNP P39015
A7	154	UNK	TYR	SEE REMARK 999	UNP P39015
A7	155	UNK	LEU	SEE REMARK 999	UNP P39015
A7	156	UNK	ASN	SEE REMARK 999	UNP P39015
A7	157	UNK	GLN	SEE REMARK 999	UNP P39015
A7	158	UNK	GLN	SEE REMARK 999	UNP P39015
A7	159	UNK	ALA	SEE REMARK 999	UNP P39015
A7	160	UNK	ASN	SEE REMARK 999	UNP P39015
A7	161	UNK	ASN	SEE REMARK 999	UNP P39015
A7	162	UNK	GLN	SEE REMARK 999	UNP P39015
A7	163	UNK	PHE	SEE REMARK 999	UNP P39015
A7	164	UNK	ASN	SEE REMARK 999	UNP P39015
A7	165	UNK	LYS	SEE REMARK 999	UNP P39015
A7	166	UNK	VAL	SEE REMARK 999	UNP P39015
A7	167	UNK	PRO	SEE REMARK 999	UNP P39015
A7	168	UNK	GLU	SEE REMARK 999	UNP P39015
A7	169	UNK	ALA	SEE REMARK 999	UNP P39015
A7	170	UNK	LYS	SEE REMARK 999	UNP P39015
A7	171	UNK	LYS	SEE REMARK 999	UNP P39015
A7	172	UNK	VAL	SEE REMARK 999	UNP P39015
A7	173	UNK	GLU	SEE REMARK 999	UNP P39015
A7	174	UNK	LEU	SEE REMARK 999	UNP P39015
A7	175	UNK	ASP	SEE REMARK 999	UNP P39015

- Molecule 9 is a protein called 40S RIBOSOMAL PROTEIN S0-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AA	206	Total	C	N	O	S	0	0
			1577	1014	278	283	2		

- Molecule 10 is a protein called 40S RIBOSOMAL PROTEIN S1-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AB	214	Total	C	N	O	S	0	0
			1709	1084	310	311	4		

- Molecule 11 is a protein called 40S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AC	217	Total	C	N	O	S	0	0
			1635	1047	289	297	2		

- Molecule 12 is a protein called 40S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AD	223	Total	C	N	O	S	0	0
			1734	1101	313	314	6		

- Molecule 13 is a protein called 40S RIBOSOMAL PROTEIN S4-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AE	260	Total	C	N	O	S	0	0
			2068	1316	389	360	3		

- Molecule 14 is a protein called 40S RIBOSOMAL PROTEIN S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AF	206	Total	C	N	O	S	0	0
			1609	1007	300	299	3		

- Molecule 15 is a protein called 40S RIBOSOMAL PROTEIN S6-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AG	226	Total	C	N	O	S	0	0
			1799	1129	346	321	3		

- Molecule 16 is a protein called 40S RIBOSOMAL PROTEIN S7-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
16	AH	184	Total	C	N	O	0	0
			1481	951	265	265		

- Molecule 17 is a protein called 40S RIBOSOMAL PROTEIN S8-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AI	188	Total	C	N	O	S	0	0
			1489	925	298	264	2		

- Molecule 18 is a protein called 40S RIBOSOMAL PROTEIN S9-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AJ	185	Total	C	N	O	S	0	0
			1494	943	289	261	1		

- Molecule 19 is a protein called 40S RIBOSOMAL PROTEIN S10-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AK	96	Total	C	N	O	S	0	0
			772	499	126	145	2		

- Molecule 20 is a protein called 40S RIBOSOMAL PROTEIN S11-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AL	155	Total	C	N	O	S	0	0
			1213	774	230	206	3		

- Molecule 21 is a protein called 40S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AM	124	Total	C	N	O	S	0	0
			890	560	156	172	2		

- Molecule 22 is a protein called 40S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AN	150	Total	C	N	O	S	0	0
			1192	759	224	207	2		

- Molecule 23 is a protein called 40S RIBOSOMAL PROTEIN S14-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AO	127	Total	C	N	O	S	0	0
			891	545	182	163	1		

- Molecule 24 is a protein called 40S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AP	124	Total 977	C 622	N 182	O 166	S 7	0	0

- Molecule 25 is a protein called 40S RIBOSOMAL PROTEIN S16-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
25	AQ	141	Total 1105	C 708	N 203	O 194	0	0

- Molecule 26 is a protein called 40S RIBOSOMAL PROTEIN S17-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AR	120	Total 926	C 577	N 177	O 170	S 2	0	0

- Molecule 27 is a protein called 40S RIBOSOMAL PROTEIN S18-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	AS	145	Total 1192	C 743	N 237	O 210	S 2	0	0

- Molecule 28 is a protein called 40S RIBOSOMAL PROTEIN S19-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	AT	143	Total 1112	C 694	N 208	O 208	S 2	0	0

- Molecule 29 is a protein called 40S RIBOSOMAL PROTEIN S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AU	107	Total 855	C 539	N 156	O 159	S 1	0	0

- Molecule 30 is a protein called 40S RIBOSOMAL PROTEIN S21-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	AV	87	Total 684	C 420	N 125	O 137	S 2	0	0

- Molecule 31 is a protein called 40S RIBOSOMAL PROTEIN S22-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	AW	129	Total	C	N	O	S	0	0
			1021	650	188	180	3		

- Molecule 32 is a protein called 40S RIBOSOMAL PROTEIN S23-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	AX	144	Total	C	N	O	S	0	0
			1121	708	220	191	2		

- Molecule 33 is a protein called 40S RIBOSOMAL PROTEIN S24-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
33	AY	134	Total	C	N	O	0	0
			1073	676	208	189		

- Molecule 34 is a protein called 40S RIBOSOMAL PROTEIN S25-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
34	AZ	70	Total	C	N	O	0	0
			563	360	104	99		

- Molecule 35 is a protein called 60S RIBOSOMAL PROTEIN L2-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BA	252	Total	C	N	O	S	0	0
			1912	1190	388	333	1		

- Molecule 36 is a protein called 60S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BB	386	Total	C	N	O	S	0	0
			3075	1950	584	533	8		

- Molecule 37 is a protein called 60S RIBOSOMAL PROTEIN L4-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BC	361	Total	C	N	O	S	0	0
			2748	1729	522	494	3		

- Molecule 38 is a protein called 60S RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	BD	294	Total	C	N	O	S	0	0
			2359	1489	412	456	2		

- Molecule 39 is a protein called 60S RIBOSOMAL PROTEIN L6-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	BE	157	Total	C	N	O	S	0	0
			1248	806	224	217	1		

- Molecule 40 is a protein called 60S RIBOSOMAL PROTEIN L7-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BF	223	Total	C	N	O	S	0	0
			1791	1155	325	310	1		

- Molecule 41 is a protein called 60S RIBOSOMAL PROTEIN L8-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	BG	231	Total	C	N	O	S	0	0
			1763	1130	316	314	3		

- Molecule 42 is a protein called 60S RIBOSOMAL PROTEIN L9-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	BH	191	Total	C	N	O	S	0	0
			1518	963	274	277	4		

- Molecule 43 is a protein called 60S RIBOSOMAL PROTEIN L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	BI	213	Total	C	N	O	S	0	0
			1722	1094	325	297	6		

- Molecule 44 is a protein called 60S RIBOSOMAL PROTEIN L11-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BJ	169	Total	C	N	O	S	0	0
			1353	847	253	249	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
45	BK	151	Total	C	H	N	O	0	1
			1507	450	756	151	150		

- Molecule 46 is a protein called 60S RIBOSOMAL PROTEIN L13-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
46	BL	194	Total	C	N	O	0	0
			1548	965	316	267		

- Molecule 47 is a protein called 60S RIBOSOMAL PROTEIN L14-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BM	137	Total	C	N	O	S	0	0
			1059	678	200	179	2		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BM	89	ALA	GLY	conflict	UNP P38754

- Molecule 48 is a protein called 60S RIBOSOMAL PROTEIN L15-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	BN	203	Total	C	N	O	S	0	0
			1720	1077	361	281	1		

- Molecule 49 is a protein called 60S RIBOSOMAL PROTEIN L16-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	BO	197	Total	C	N	O	S	197	0
			3119	2008	581	528	2		

There are 20 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BO	3	VAL	SER	microheterogeneity	UNP P26784
BO	4	GLU	GLN	microheterogeneity	UNP P26784
BO	11	GLY	ALA	microheterogeneity	UNP P26784
BO	13	GLY	ASP	microheterogeneity	UNP P26784
BO	16	VAL	LEU	microheterogeneity	UNP P26784
BO	22	VAL	THR	microheterogeneity	UNP P26784
BO	23	VAL	ILE	microheterogeneity	UNP P26784

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Chain	Residue	Modelled	Actual	Comment	Reference
BO	27	LEU	VAL	microheterogeneity	UNP P26784
BO	40	GLU	ALA	microheterogeneity	UNP P26784
BO	80	PHE	LEU	microheterogeneity	UNP P26784
BO	84	LEU	ILE	microheterogeneity	UNP P26784
BO	104	VAL	ILE	microheterogeneity	UNP P26784
BO	158	ALA	ASP	microheterogeneity	UNP P26784
BO	163	SER	ARG	microheterogeneity	UNP P26784
BO	179	ALA	SER	microheterogeneity	UNP P26784
BO	182	ASN	SER	microheterogeneity	UNP P26784
BO	184	THR	ALA	microheterogeneity	UNP P26784
BO	186	ALA	SER	microheterogeneity	UNP P26784
BO	196	ALA	SER	microheterogeneity	UNP P26784
BO	197	LEU	PHE	microheterogeneity	UNP P26784

- Molecule 50 is a protein called 60S RIBOSOMAL PROTEIN L17-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
50	BP	155	Total	C	N	O	0	0
			1227	764	238	225		

- Molecule 51 is a protein called 60S RIBOSOMAL PROTEIN L18-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	BQ	185	Total	C	N	O	S	0	0
			1441	908	290	241	2		

- Molecule 52 is a protein called 60S RIBOSOMAL PROTEIN L19-B.

Mol	Chain	Residues	Atoms				AltConf	Trace
52	BR	188	Total	C	N	O	0	0
			1521	935	326	260		

- Molecule 53 is a protein called 60S RIBOSOMAL PROTEIN L20-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	BS	172	Total	C	N	O	S	0	0
			1445	930	267	244	4		

- Molecule 54 is a protein called 60S RIBOSOMAL PROTEIN L21-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	BT	159	Total	C	N	O	S	0	0
			1276	805	246	221	4		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
55	BU	98	Total	C	N	O	0	0
			778	505	127	146		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
56	BV	136	Total	C	N	O	S	0	0
			1003	628	189	179	7		

- Molecule 57 is a protein called 60S RIBOSOMAL PROTEIN L24-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	BW	135	Total	C	N	O	S	0	0
			1038	651	206	180	1		

- Molecule 58 is a protein called 60S RIBOSOMAL PROTEIN L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	BX	120	Total	C	N	O	S	0	0
			959	617	168	172	2		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
59	BY	126	Total	C	N	O	0	0
			993	625	192	176		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
60	BZ	135	Total	C	N	O	0	0
			1092	710	202	180		

- Molecule 61 is a protein called 60S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Ba	148	Total	C	N	O	S	0	0
			1173	749	231	190	3		

- Molecule 62 is a protein called 60S RIBOSOMAL PROTEIN L29.

Mol	Chain	Residues	Atoms				AltConf	Trace
62	Bb	58	Total	C	N	O	0	0
			462	289	100	73		

- Molecule 63 is a protein called 60S RIBOSOMAL PROTEIN L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	Bc	100	Total	C	N	O	S	0	0
			767	492	128	146	1		

- Molecule 64 is a protein called 60S RIBOSOMAL PROTEIN L31-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Bd	109	Total	C	N	O	S	0	0
			883	559	167	156	1		

- Molecule 65 is a protein called 60S RIBOSOMAL PROTEIN L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	Be	127	Total	C	N	O	S	0	0
			1020	647	205	167	1		

- Molecule 66 is a protein called 60S RIBOSOMAL PROTEIN L33-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Bf	106	Total	C	N	O	S	0	0
			850	540	165	144	1		

- Molecule 67 is a protein called 60S RIBOSOMAL PROTEIN L34-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Bg	112	Total	C	N	O	S	0	0
			880	545	179	152	4		

- Molecule 68 is a protein called 60S RIBOSOMAL PROTEIN L35-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Bh	119	Total	C	N	O	S	0	0
			965	612	185	167	1		

- Molecule 69 is a protein called 60S RIBOSOMAL PROTEIN L36-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	Bi	99	Total	C	N	O	S	0	0
			770	481	156	131	2		

- Molecule 70 is a protein called 60S RIBOSOMAL PROTEIN L37-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Bj	87	Total	C	N	O	S	0	0
			681	414	148	114	5		

- Molecule 71 is a protein called 60S RIBOSOMAL PROTEIN L38.

Mol	Chain	Residues	Atoms				AltConf	Trace
71	Bk	77	Total	C	N	O	0	0
			608	388	114	106		

- Molecule 72 is a protein called 60S RIBOSOMAL PROTEIN L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	Bl	50	Total	C	N	O	S	0	0
			436	272	97	65	2		

- Molecule 73 is a protein called UBIQUITIN-60S RIBOSOMAL PROTEIN L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	Bm	52	Total	C	N	O	S	0	0
			417	259	86	67	5		

- Molecule 74 is a protein called 60S RIBOSOMAL PROTEIN L41-B.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	Bn	25	Total	C	N	O	S	0	0
			233	142	63	27	1		

- Molecule 75 is a protein called 60S RIBOSOMAL PROTEIN L42-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	Bo	105	Total	C	N	O	S	0	0
			847	534	170	138	5		

- Molecule 76 is a protein called 60S ACIDIC RIBOSOMAL PROTEIN P0.

Mol	Chain	Residues	Atoms						AltConf	Trace
76	Bq	143	Total	C	H	N	O	S	0	0
			2187	687	1110	192	195	3		

- Molecule 77 is a protein called 60S ACIDIC RIBOSOMAL PROTEIN P1.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Br	47	Total	C	H	N	O	0	0
			473	141	237	47	48		

- Molecule 78 is a protein called 60S ACIDIC RIBOSOMAL PROTEIN P2.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Bs	46	Total	C	H	N	O	0	0
			463	138	232	46	47		

- Molecule 79 is a protein called 50S RIBOSOMAL PROTEIN L1.

Mol	Chain	Residues	Atoms						AltConf	Trace
79	By	225	Total	C	H	N	O	S	0	0
			3492	1086	1773	315	316	2		
79	CL	225	Total	C	N	O	S		0	0
			1719	1086	315	316	2			

- Molecule 80 is a RNA chain called 18S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	B2	1781	Total	C	N	O	P	1	0
			37835	16910	6661	12482	1782		

- Molecule 81 is a RNA chain called 25S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
81	B5	3147	Total	C	H	N	O	P	0	0
			67972	30066	664	12132	21965	3145		

- Molecule 82 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	B7	121	Total	C	N	O	P	0	0
			2579	1152	461	845	121		

- Molecule 83 is a RNA chain called 5.8S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	B8	158	Total	C	N	O	P	0	0
			3353	1500	586	1109	158		

- Molecule 84 is a RNA chain called EUKARYOTIC RIBOSOMAL L1_RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	CN	87	Total	C	N	O	P	0	0
			1875	832	347	609	87		

- Molecule 85 is a protein called EUKARYOTIC TRANSLATION INITIATION FACTOR 5B.

Mol	Chain	Residues	Atoms						AltConf	Trace
85	CP	339	Total	C	H	N	O	S	0	0
			5380	1679	2725	457	507	12		

- Molecule 86 is a RNA chain called EUKARYOTIC RIBOSOMAL P_E TRNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
86	CW	74	Total	C	H	N	O	P	0	0
			2379	705	803	285	514	72		

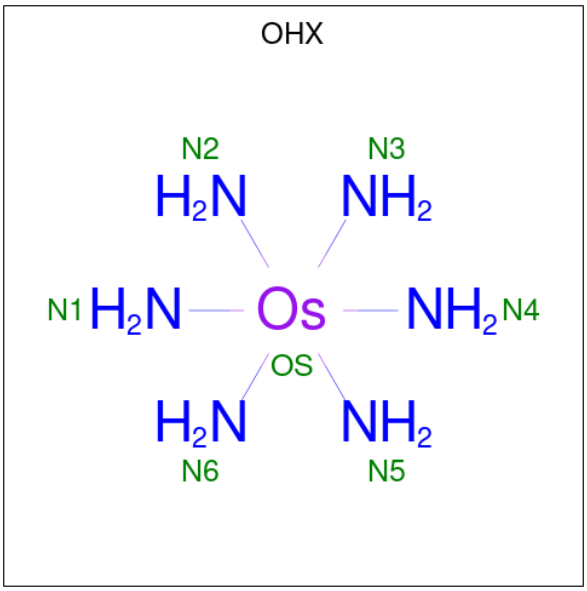
- Molecule 87 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
87	A0	1	Total	Zn	0
			1	1	
87	A1	1	Total	Zn	0
			1	1	
87	A3	1	Total	Zn	0
			1	1	
87	A5	1	Total	Zn	0
			1	1	
87	Bj	1	Total	Zn	0
			1	1	
87	Bm	1	Total	Zn	0
			1	1	

- Molecule 88 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	AltConf
88	A0	2	Total Mg 2 2	0
88	A3	3	Total Mg 3 3	0
88	A5	1	Total Mg 1 1	0
88	AB	1	Total Mg 1 1	0
88	AC	2	Total Mg 2 2	0
88	AE	1	Total Mg 1 1	0
88	AG	1	Total Mg 1 1	0
88	AI	1	Total Mg 1 1	0
88	AJ	1	Total Mg 1 1	0
88	AL	2	Total Mg 2 2	0
88	AN	1	Total Mg 1 1	0
88	AP	1	Total Mg 1 1	0
88	AS	1	Total Mg 1 1	0
88	AU	1	Total Mg 1 1	0
88	B2	169	Total Mg 169 169	0
88	B5	3	Total Mg 3 3	0

- Molecule 89 is osmium (III) hexammine (CCD ID: OHX) (formula: $H_{12}N_6Os$).



Mol	Chain	Residues	Atoms			AltConf
89	A3	1	Total	N	Os	0
			7	6	1	
89	A6	1	Total	N	Os	0
			7	6	1	
89	AC	1	Total	N	Os	0
			7	6	1	
89	AI	1	Total	N	Os	0
			7	6	1	
89	AI	1	Total	N	Os	0
			7	6	1	
89	AL	1	Total	N	Os	0
			7	6	1	
89	AN	1	Total	N	Os	0
			7	6	1	
89	AP	1	Total	N	Os	0
			7	6	1	
89	BR	1	Total	N	Os	0
			7	6	1	
89	Bn	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	

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Mol	Chain	Residues	Atoms			AltConf
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	

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Mol	Chain	Residues	Atoms			AltConf
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	

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Mol	Chain	Residues	Atoms			AltConf
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	

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Mol	Chain	Residues	Atoms			AltConf
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	

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Mol	Chain	Residues	Atoms			AltConf
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	

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Mol	Chain	Residues	Atoms			AltConf
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	

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Mol	Chain	Residues	Atoms			AltConf
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	

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Mol	Chain	Residues	Atoms			AltConf
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	
89	B2	1	Total	N	Os	0
			7	6	1	

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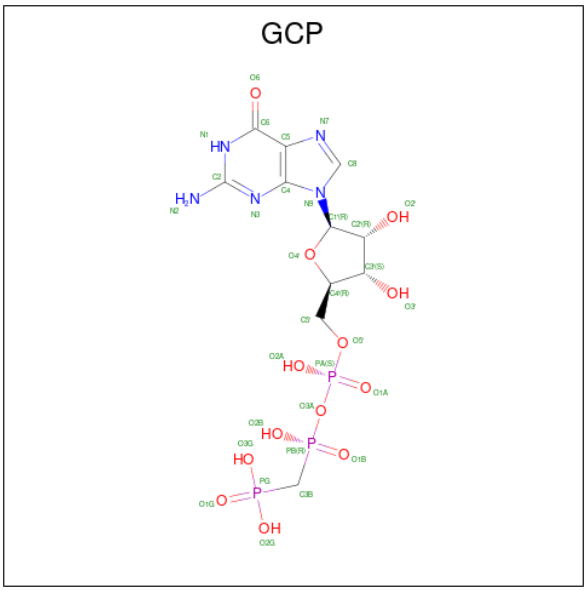
Mol	Chain	Residues	Atoms			AltConf
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B2	1	Total 7	N 6	Os 1	0
89	B5	1	Total 7	N 6	Os 1	0
89	B5	1	Total 7	N 6	Os 1	0
89	B5	1	Total 7	N 6	Os 1	0

- Molecule 90 is PHOSPHOMETHYLPHOSPHONIC ACID GUANYLATE ESTER (CCD ID: GCP) (formula: $C_{11}H_{18}N_5O_{13}P_3$).



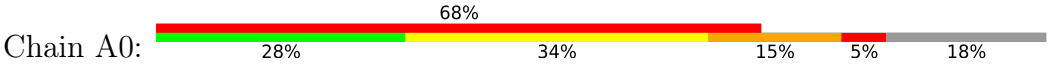
Mol	Chain	Residues	Atoms					AltConf
90	CP	1	Total	C	N	O	P	0
			32	11	5	13	3	

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.

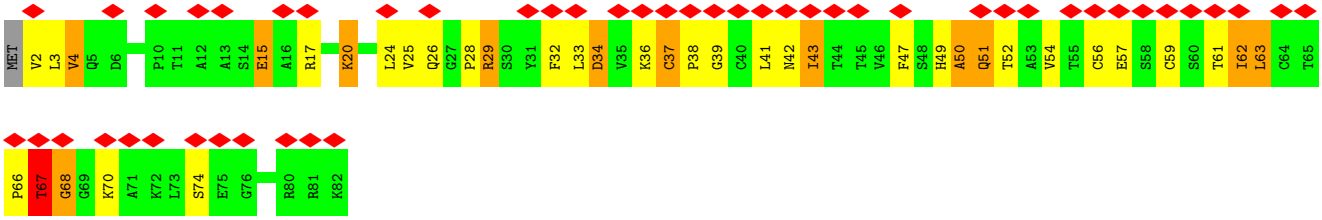
• Molecule 1: 40S RIBOSOMAL PROTEIN S26-A

Chain A0:



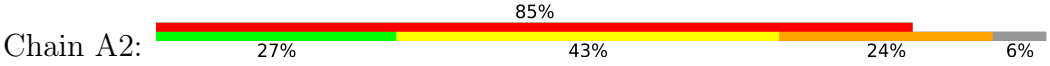
• Molecule 2: 40S RIBOSOMAL PROTEIN S27-A

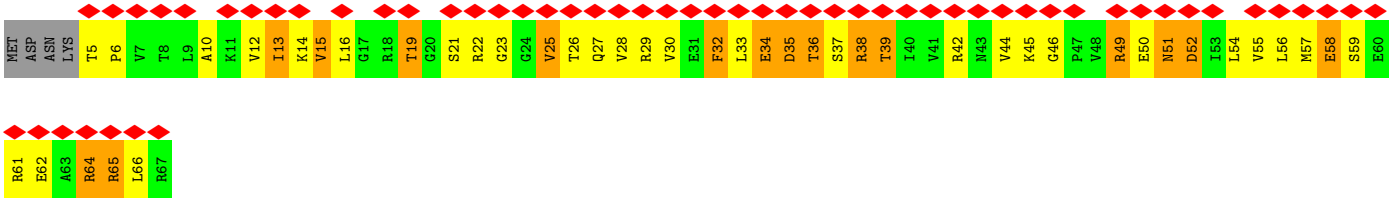
Chain A1:



• Molecule 3: 40S RIBOSOMAL PROTEIN S28-A

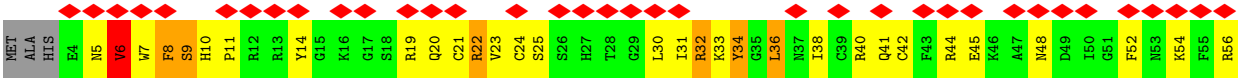
Chain A2:





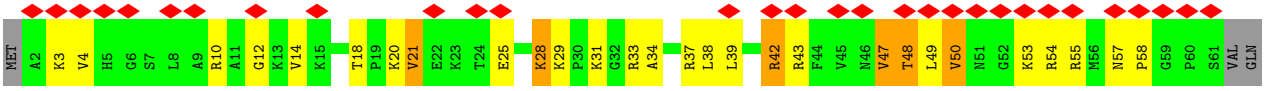
• Molecule 4: 40S RIBOSOMAL PROTEIN S29-A

Chain A3:



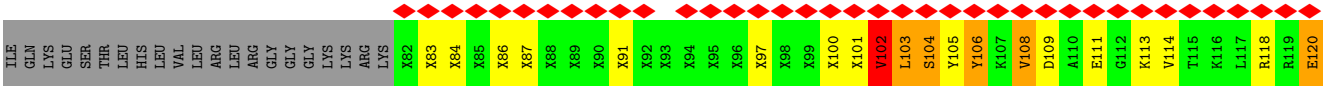
• Molecule 5: 40S RIBOSOMAL PROTEIN S30-A

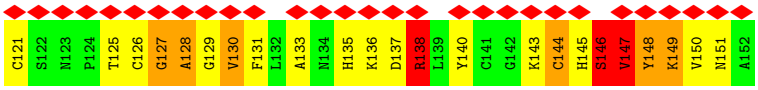
Chain A4:



• Molecule 6: UBIQUITIN-40S RIBOSOMAL PROTEIN S31

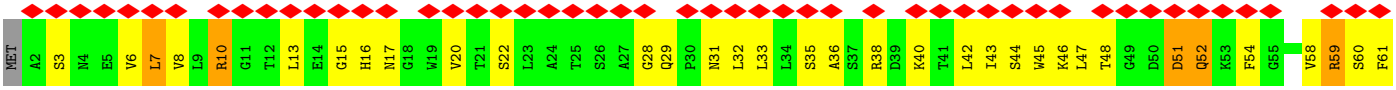
Chain A5:

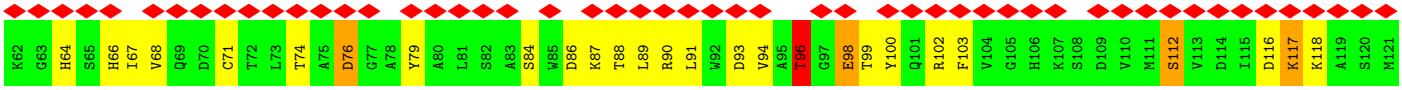


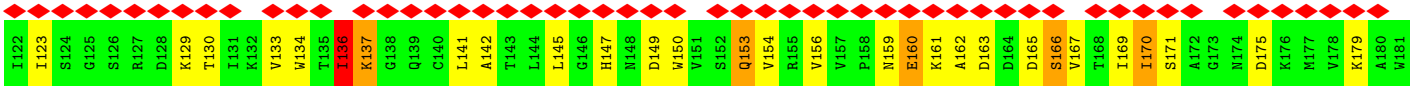


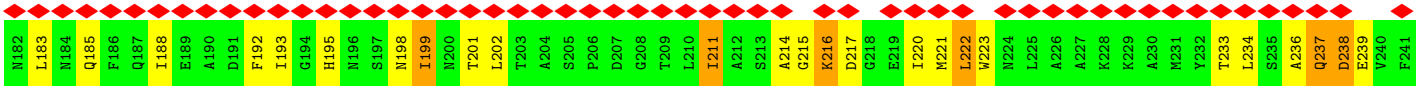
• Molecule 7: GUANINE NUCLEOTIDE-BINDING PROTEIN SUBUNIT BETA-LIKE PROTEIN

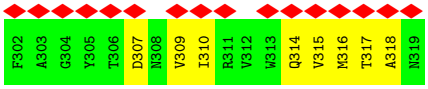
Chain A6:





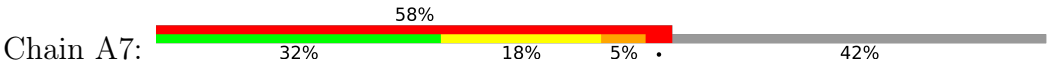


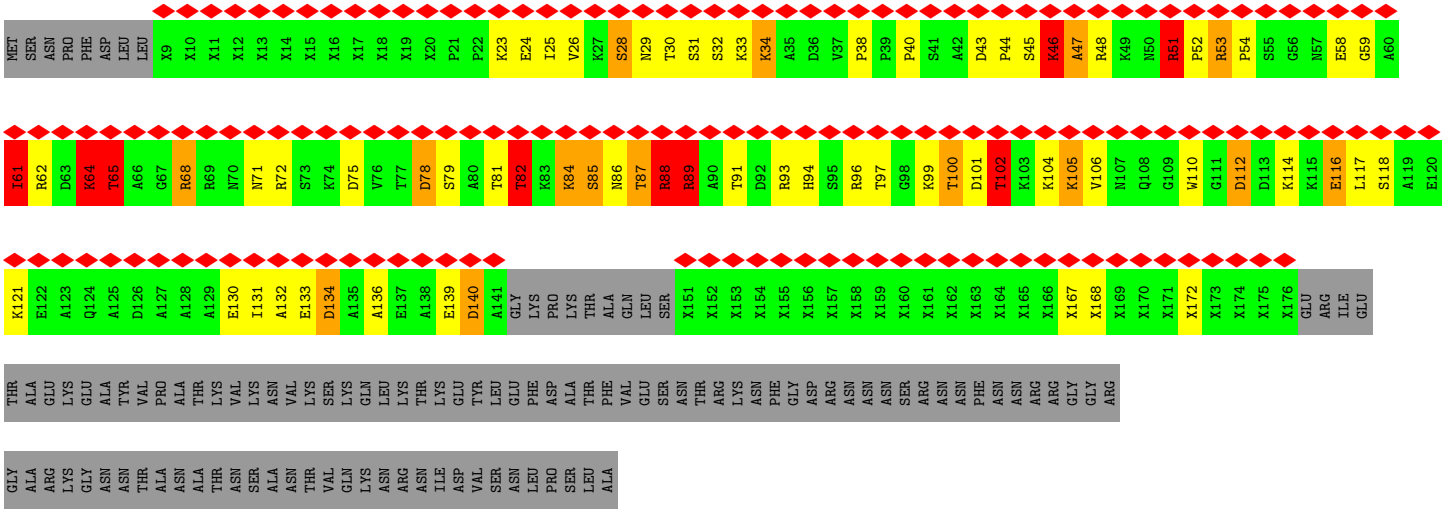




• Molecule 8: SUPPRESSOR PROTEIN STM1

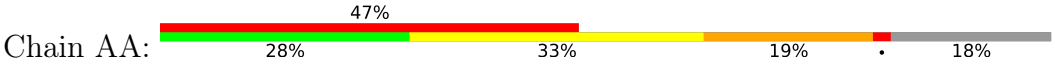
Chain A7:

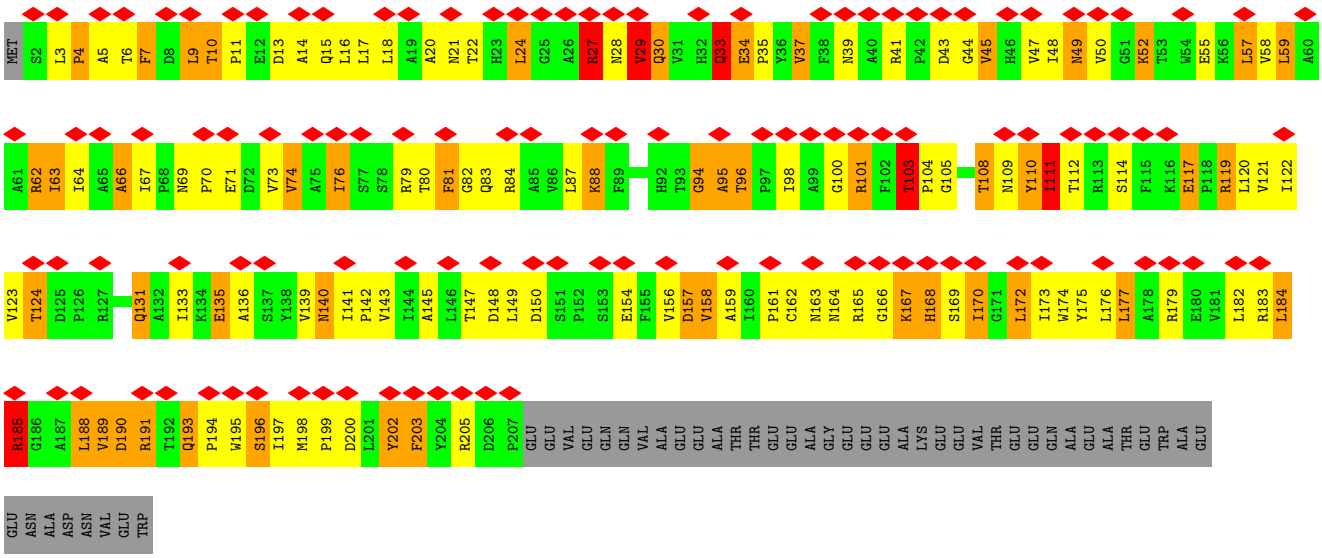




• Molecule 9: 40S RIBOSOMAL PROTEIN S0-A

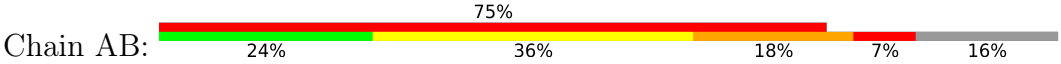
Chain AA:

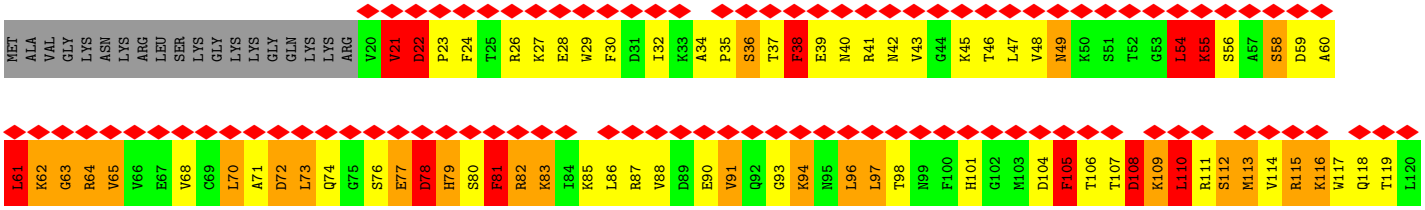


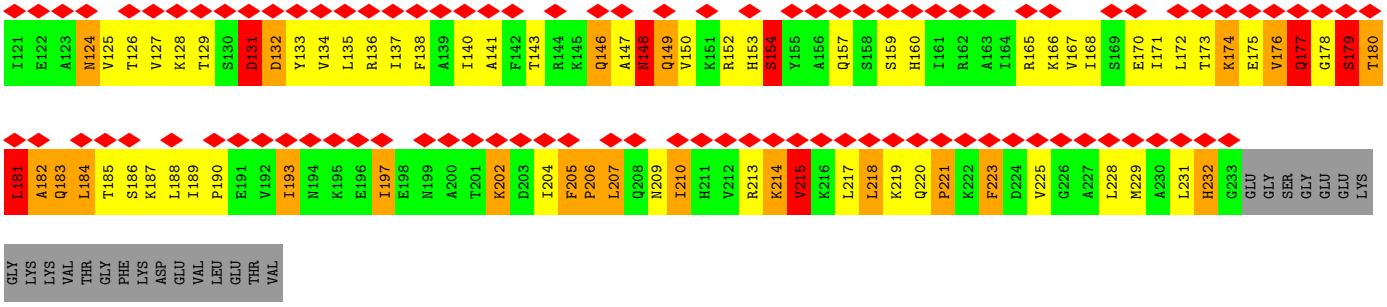


• Molecule 10: 40S RIBOSOMAL PROTEIN S1-A

Chain AB:

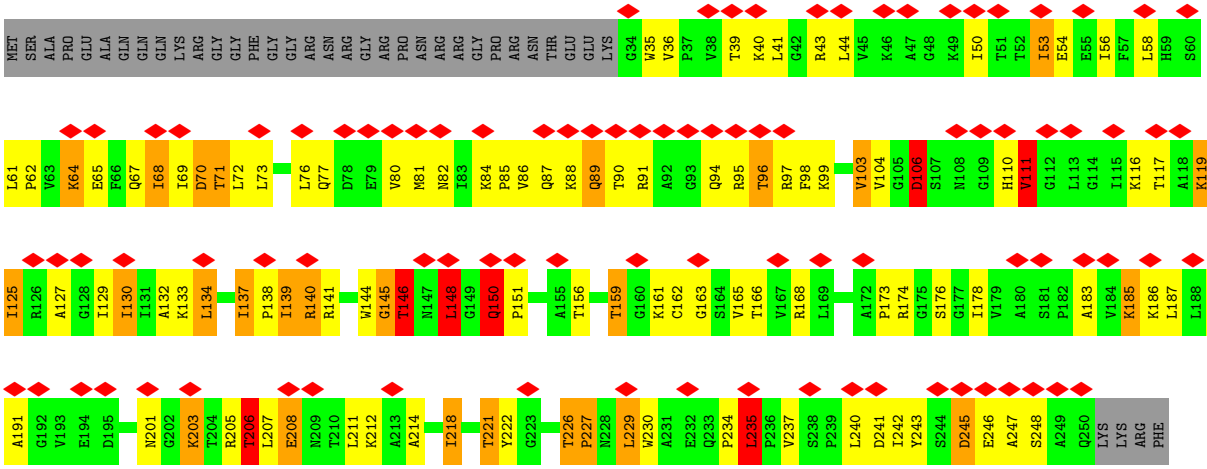






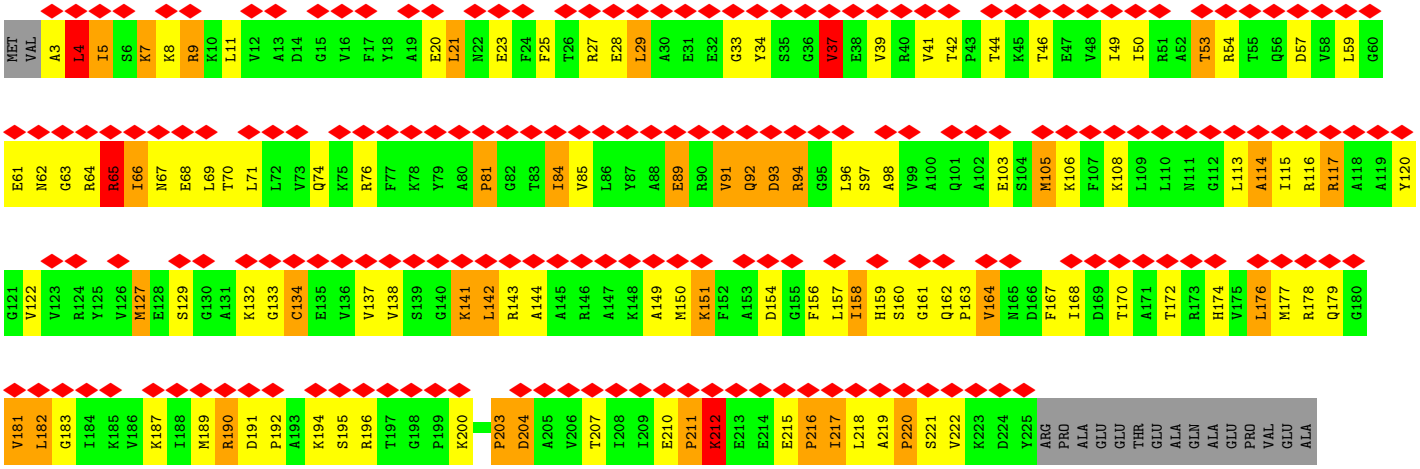
• Molecule 11: 40S RIBOSOMAL PROTEIN S2

Chain AC:



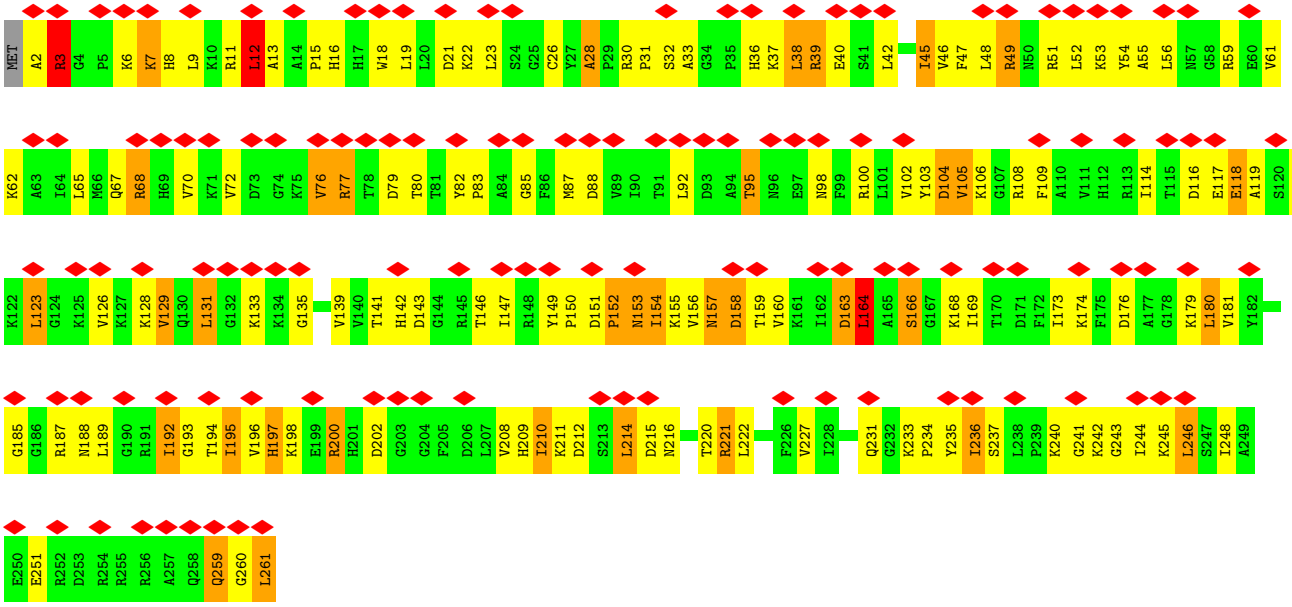
• Molecule 12: 40S RIBOSOMAL PROTEIN S3

Chain AD:



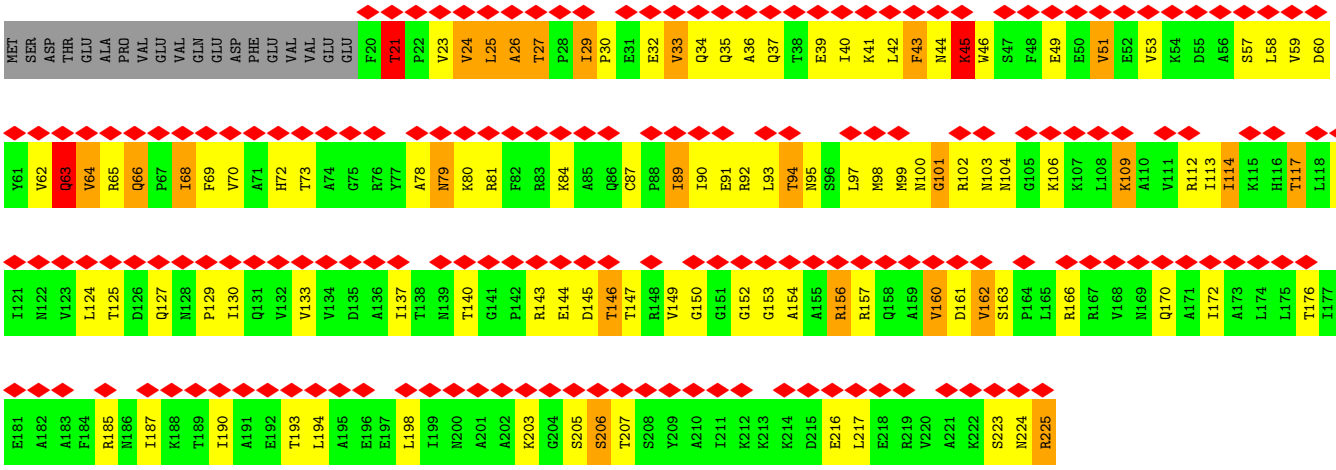
• Molecule 13: 40S RIBOSOMAL PROTEIN S4-A

Chain AE:



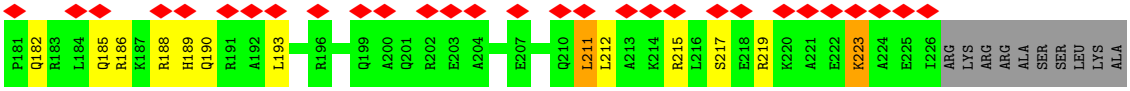
• Molecule 14: 40S RIBOSOMAL PROTEIN S5

Chain AF:



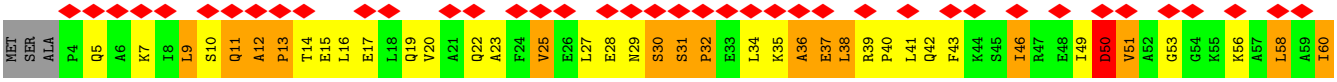
• Molecule 15: 40S RIBOSOMAL PROTEIN S6-A

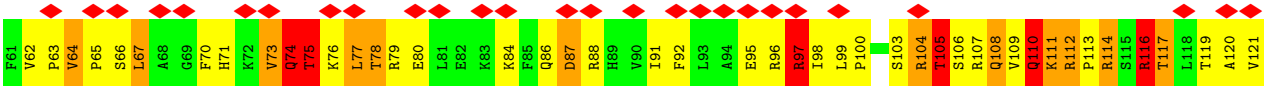
Chain AG:

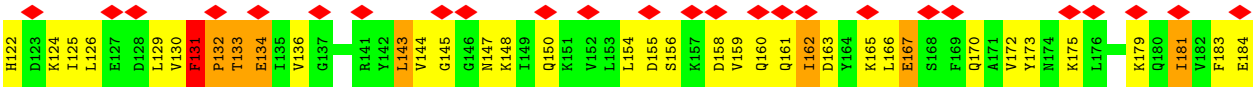


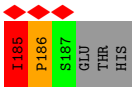
• Molecule 16: 40S RIBOSOMAL PROTEIN S7-A

Chain AH:



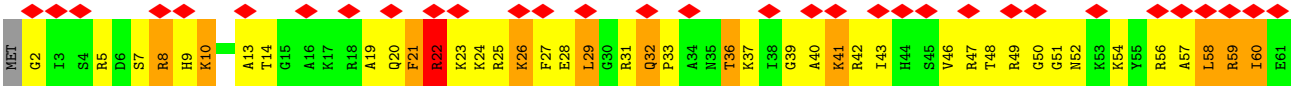


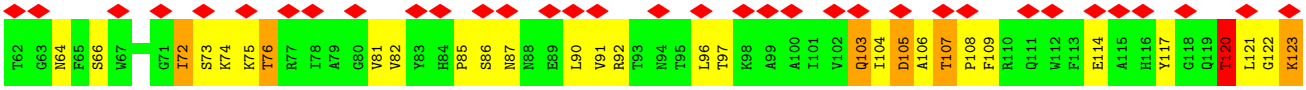


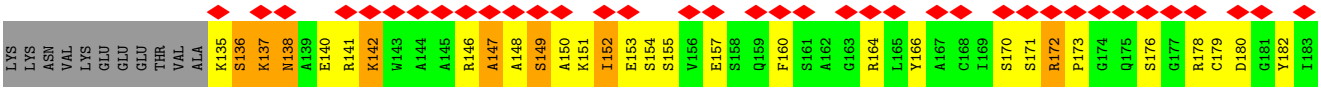


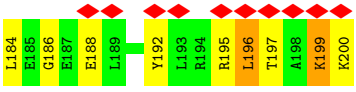
• Molecule 17: 40S RIBOSOMAL PROTEIN S8-A

Chain AI:



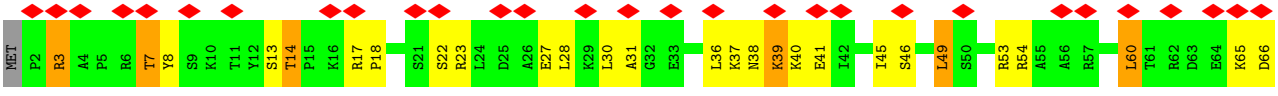


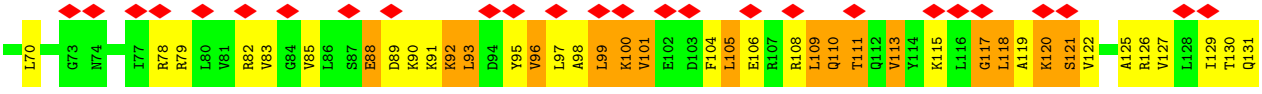


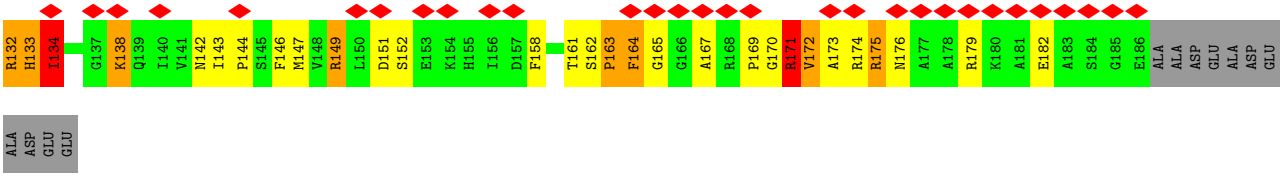


• Molecule 18: 40S RIBOSOMAL PROTEIN S9-A

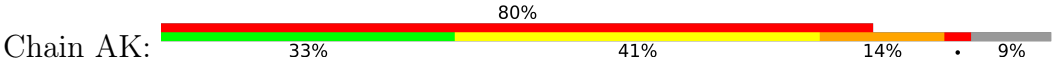
Chain AJ:

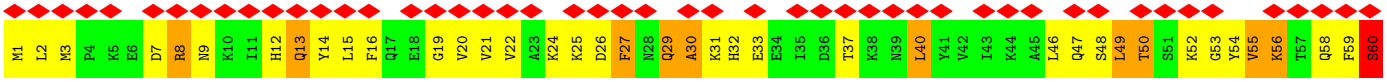


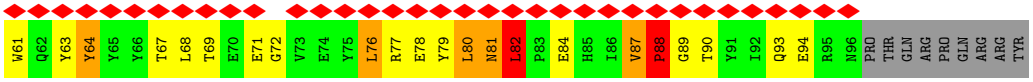




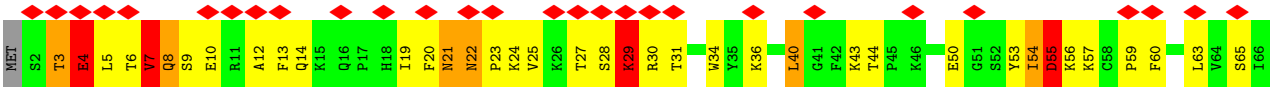
• Molecule 19: 40S RIBOSOMAL PROTEIN S10-A

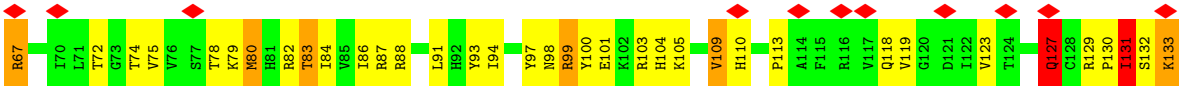


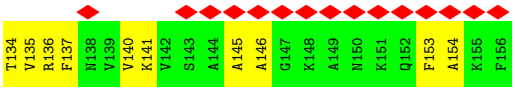




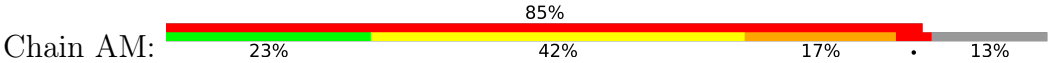
• Molecule 20: 40S RIBOSOMAL PROTEIN S11-A

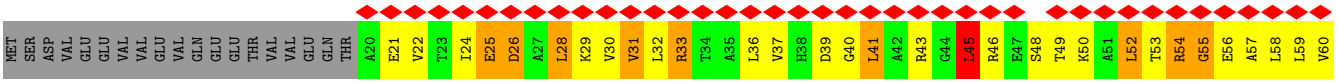


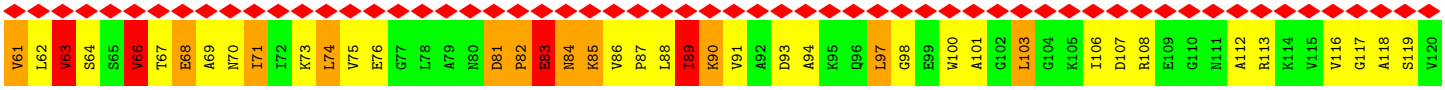


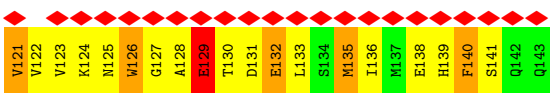


• Molecule 21: 40S RIBOSOMAL PROTEIN S12

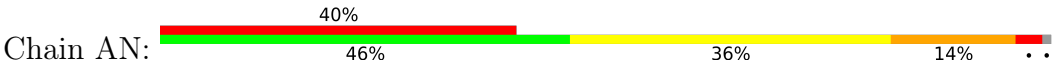


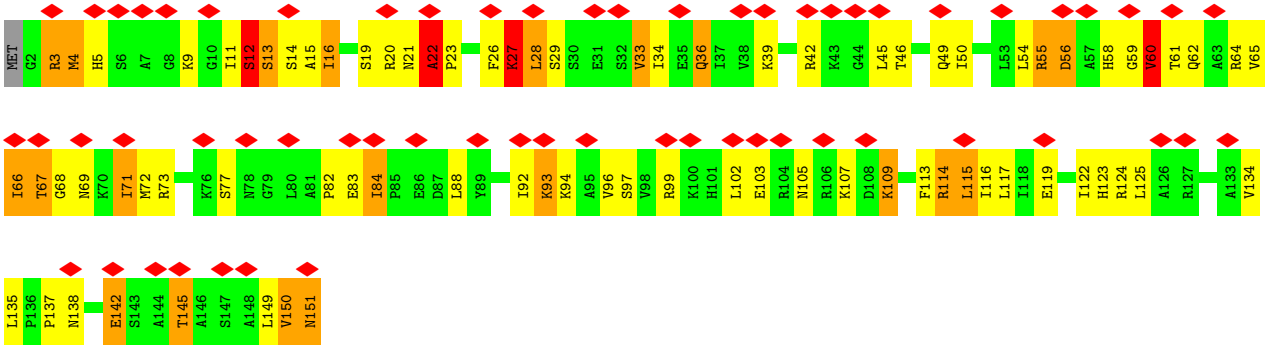






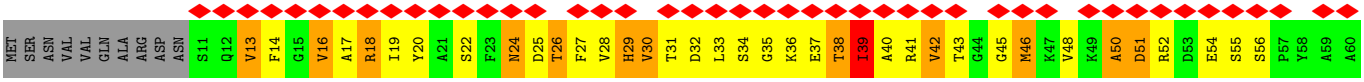
• Molecule 22: 40S RIBOSOMAL PROTEIN S13

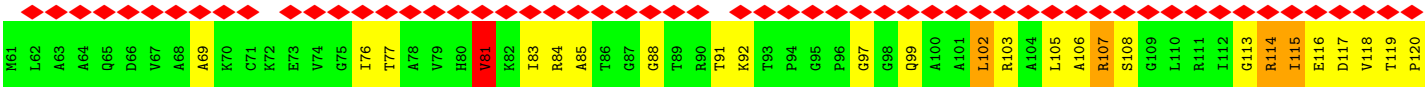




• Molecule 23: 40S RIBOSOMAL PROTEIN S14-A

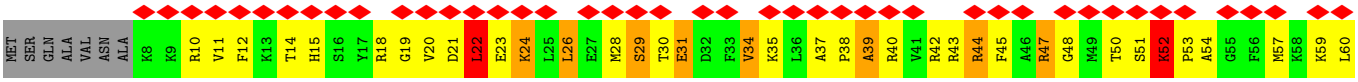
Chain AO:

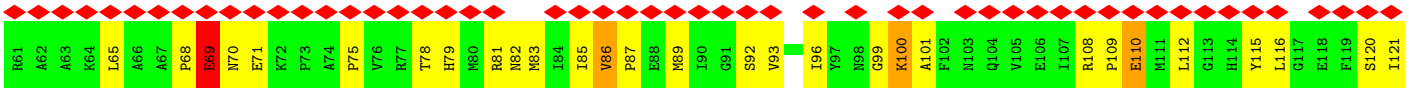


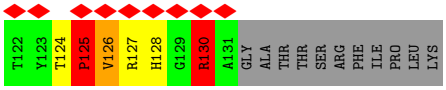


• Molecule 24: 40S RIBOSOMAL PROTEIN S15

Chain AP:

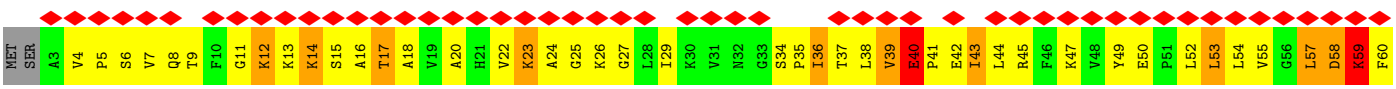


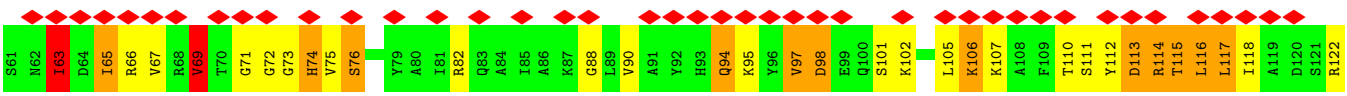


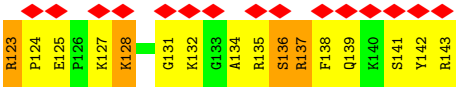


• Molecule 25: 40S RIBOSOMAL PROTEIN S16-A

Chain AQ:

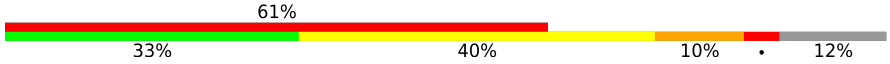


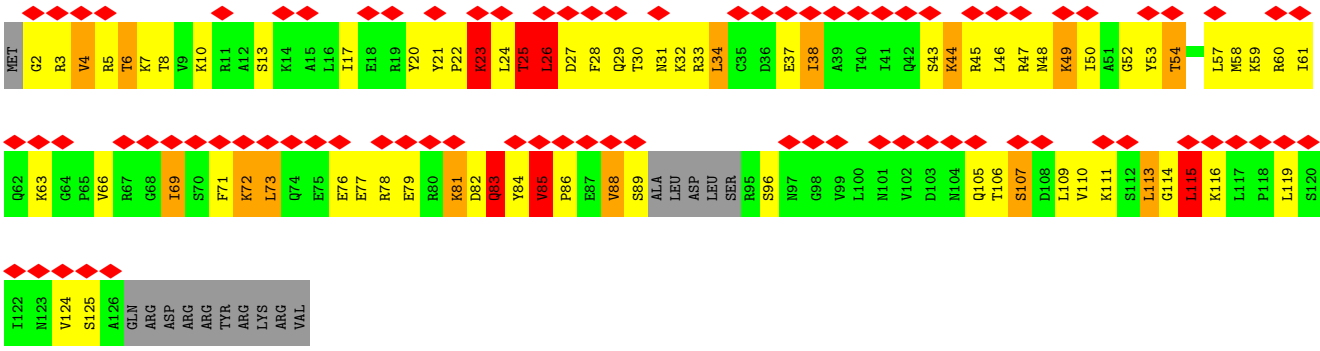




• Molecule 26: 40S RIBOSOMAL PROTEIN S17-A

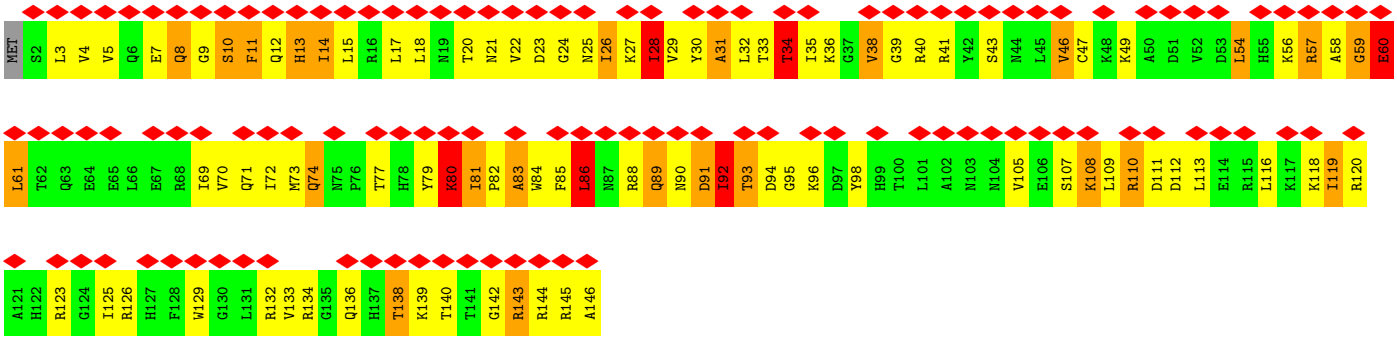
Chain AR:





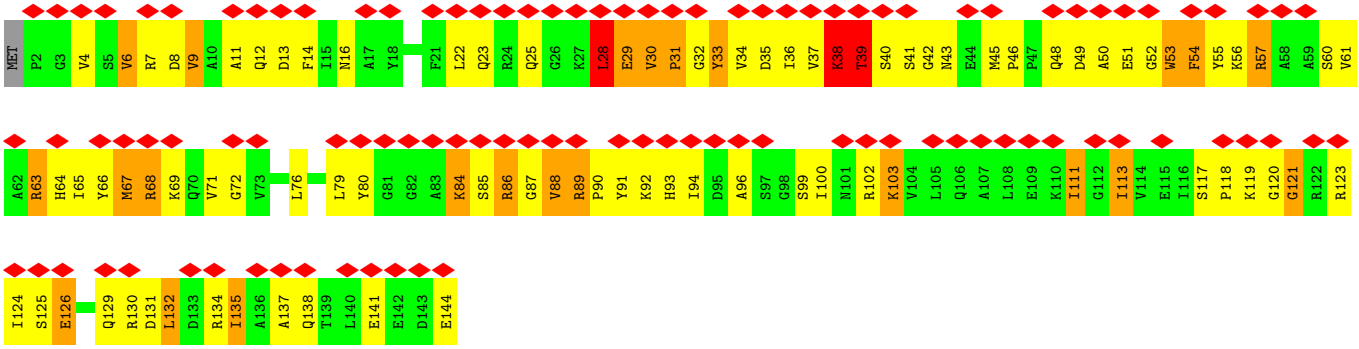
• Molecule 27: 40S RIBOSOMAL PROTEIN S18-A

Chain AS:



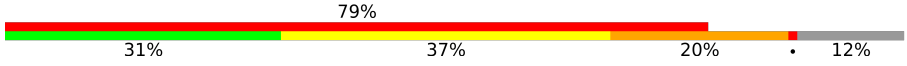
• Molecule 28: 40S RIBOSOMAL PROTEIN S19-A

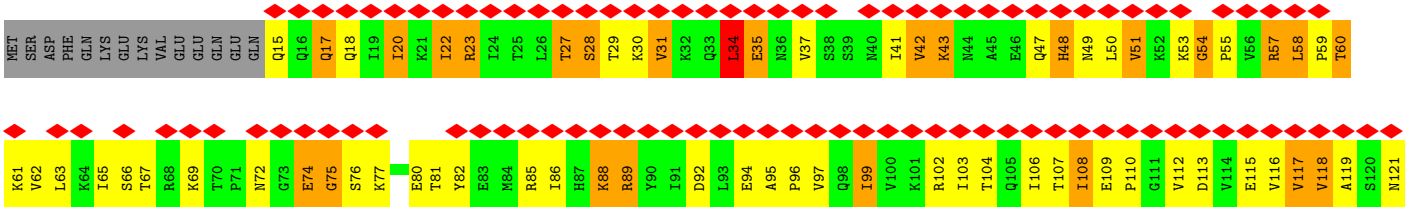
Chain AT:



• Molecule 29: 40S RIBOSOMAL PROTEIN S20

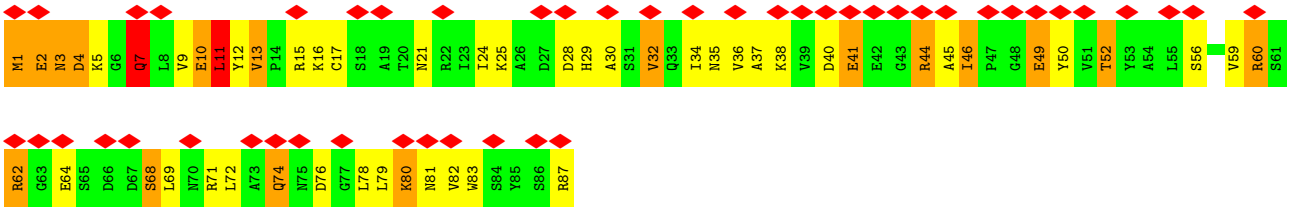
Chain AU:





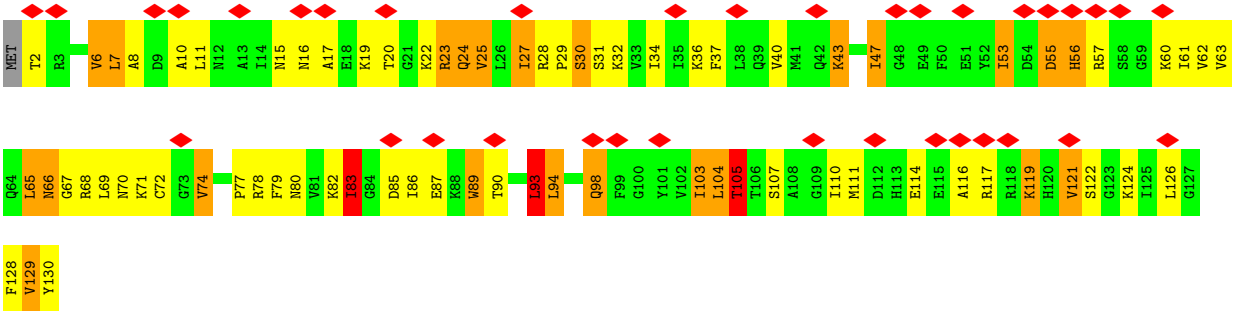
• Molecule 30: 40S RIBOSOMAL PROTEIN S21-A

Chain AV:



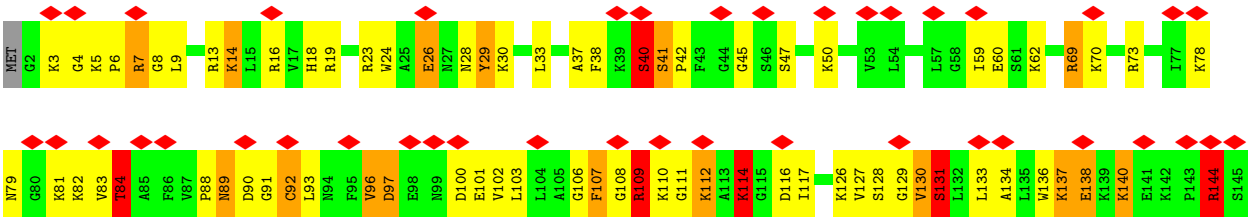
• Molecule 31: 40S RIBOSOMAL PROTEIN S22-A

Chain AW:



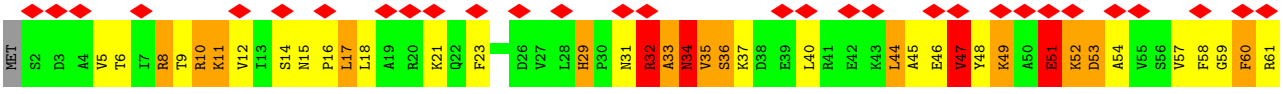
• Molecule 32: 40S RIBOSOMAL PROTEIN S23-A

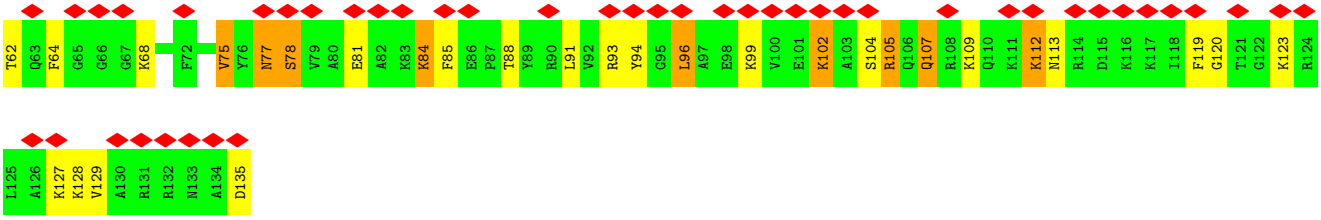
Chain AX:



• Molecule 33: 40S RIBOSOMAL PROTEIN S24-A

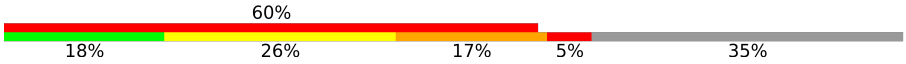
Chain AY:

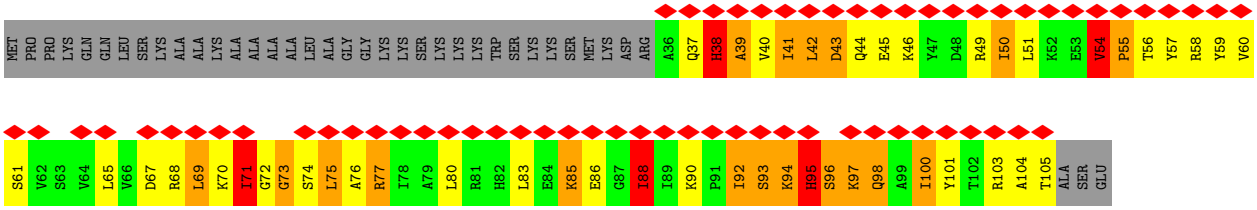




• Molecule 34: 40S RIBOSOMAL PROTEIN S25-A

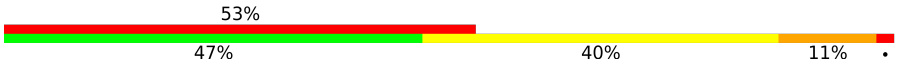
Chain AZ:

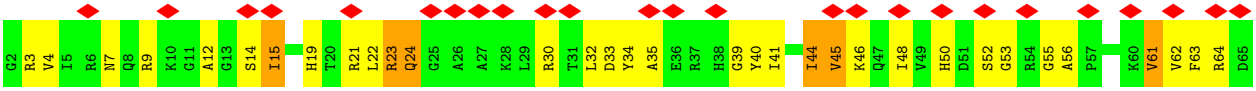


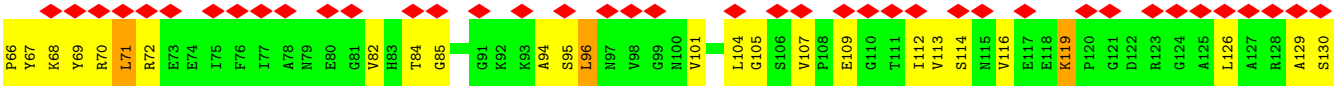


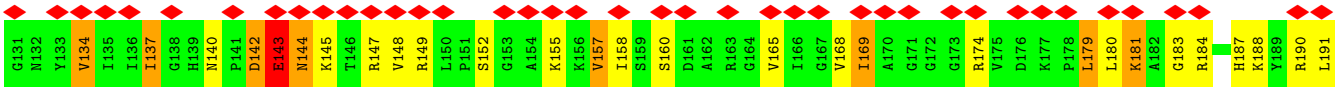
• Molecule 35: 60S RIBOSOMAL PROTEIN L2-B

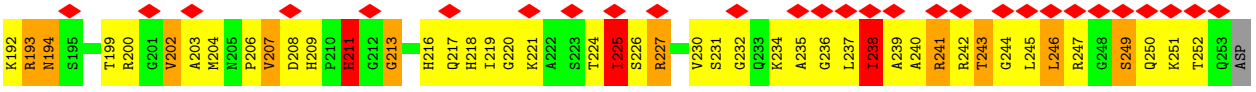
Chain BA:





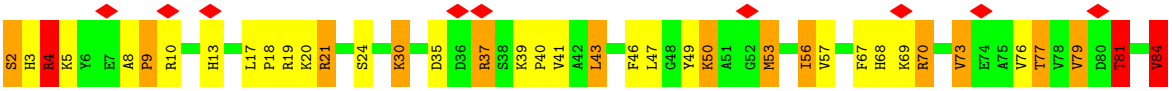


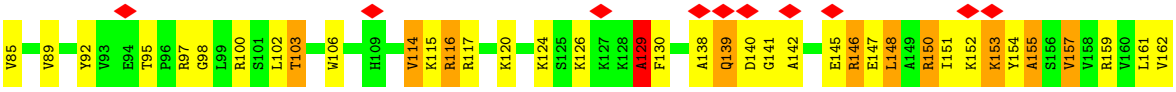


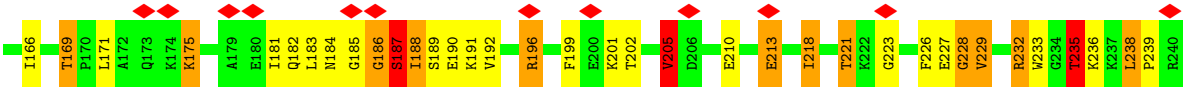


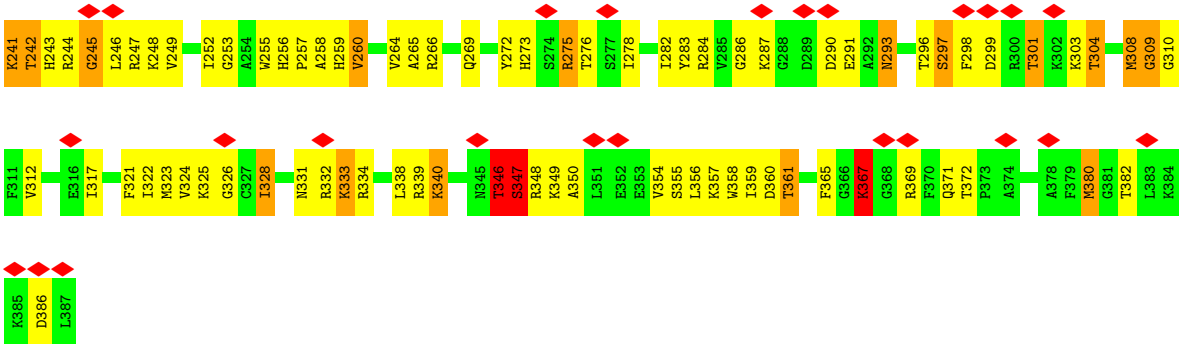
• Molecule 36: 60S RIBOSOMAL PROTEIN L3

Chain BB:



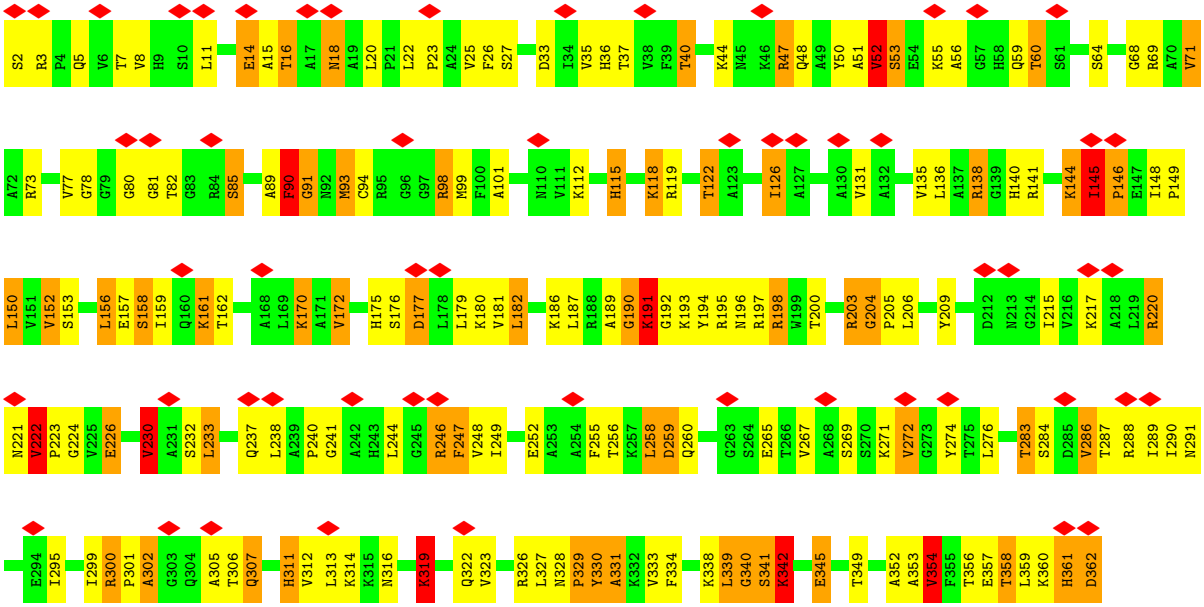






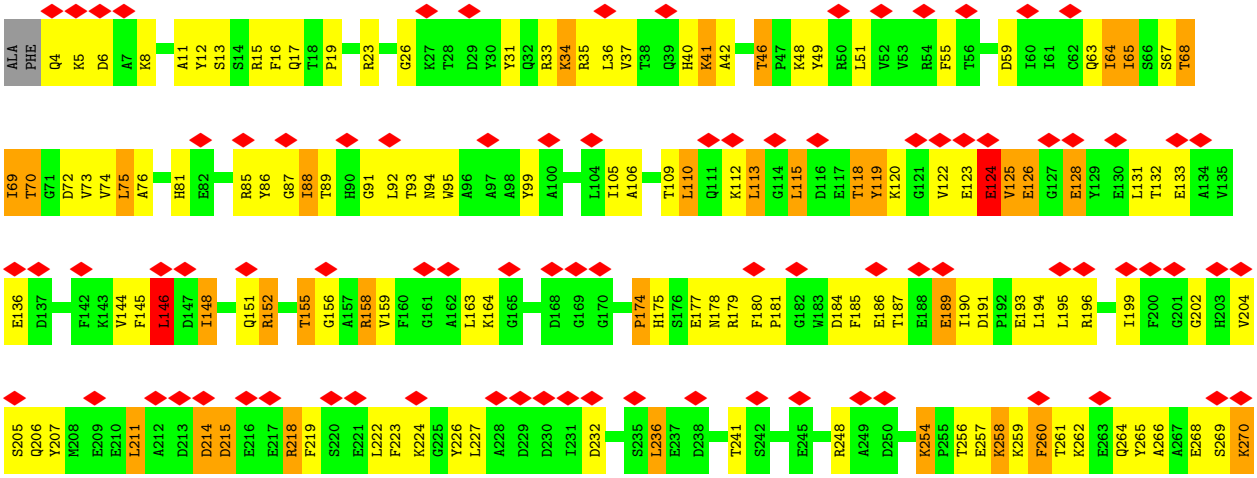
• Molecule 37: 60S RIBOSOMAL PROTEIN L4-A

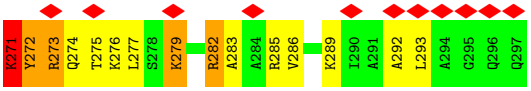
Chain BC:



• Molecule 38: 60S RIBOSOMAL PROTEIN L5

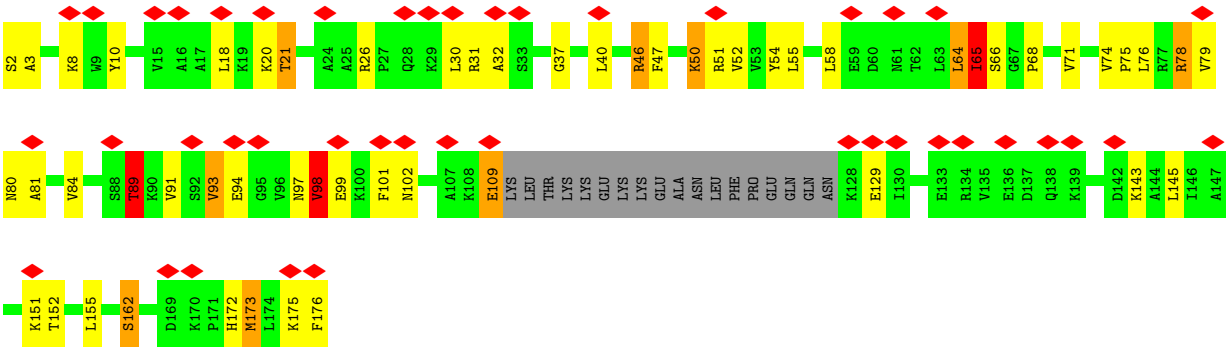
Chain BD:





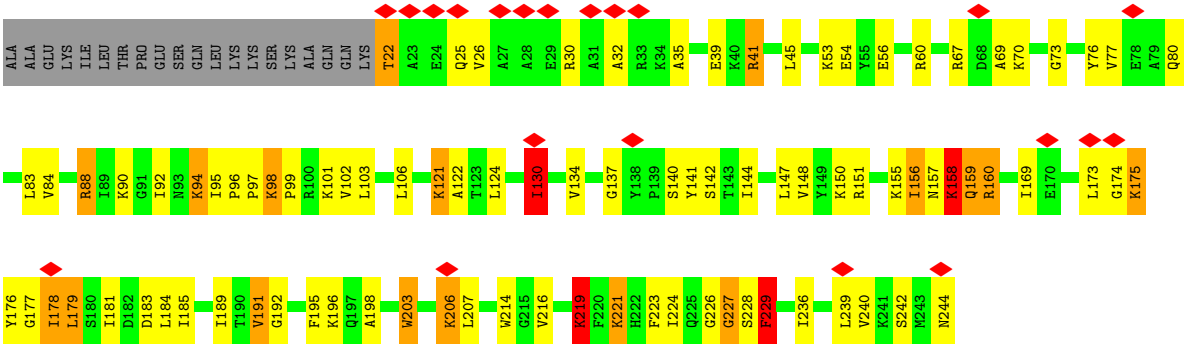
• Molecule 39: 60S RIBOSOMAL PROTEIN L6-A

Chain BE:



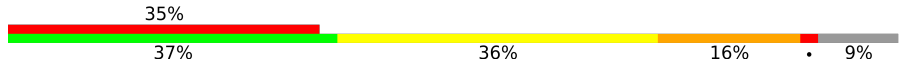
• Molecule 40: 60S RIBOSOMAL PROTEIN L7-A

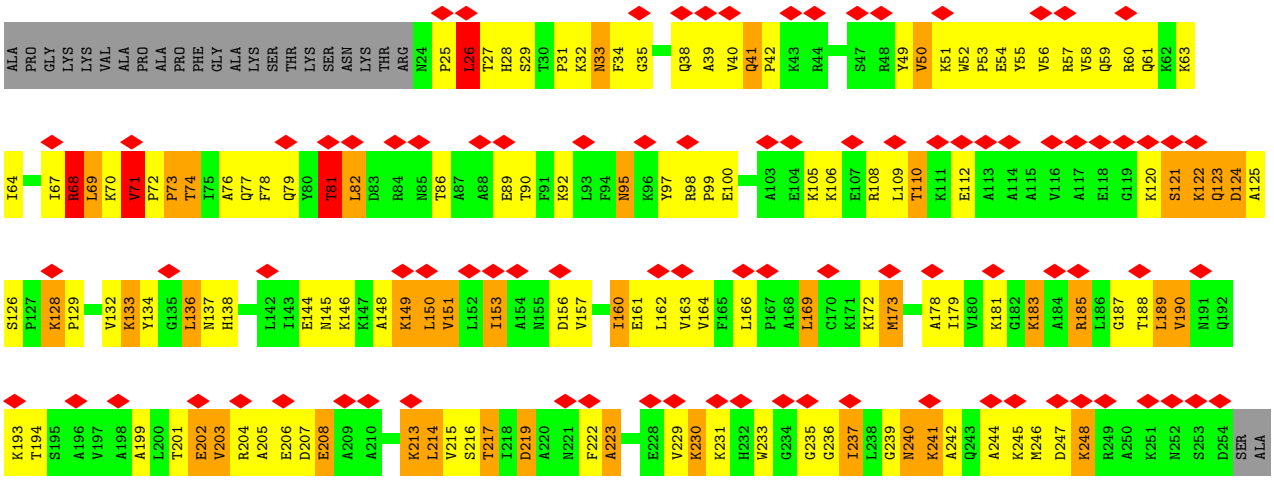
Chain BF:



• Molecule 41: 60S RIBOSOMAL PROTEIN L8-A

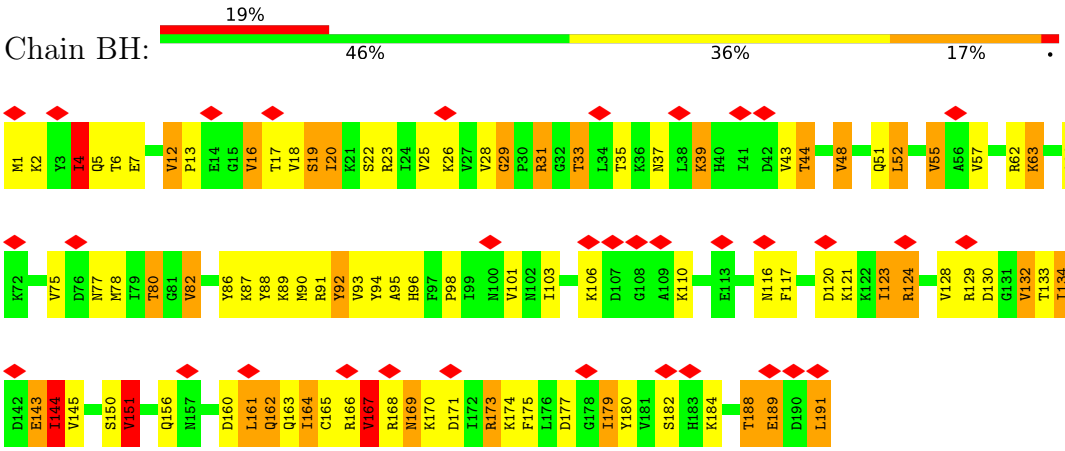
Chain BG:





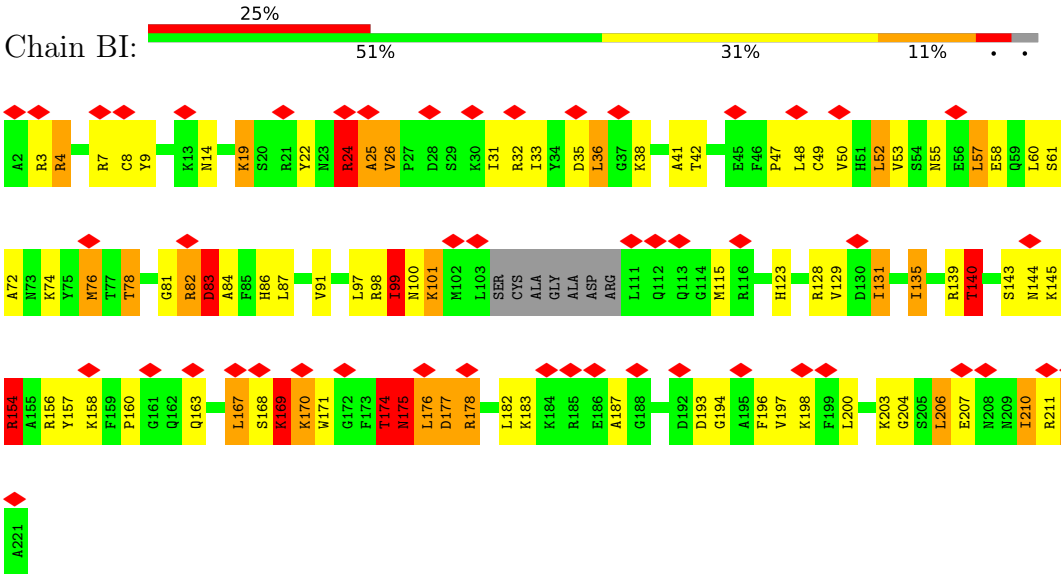
• Molecule 42: 60S RIBOSOMAL PROTEIN L9-A

Chain BH:



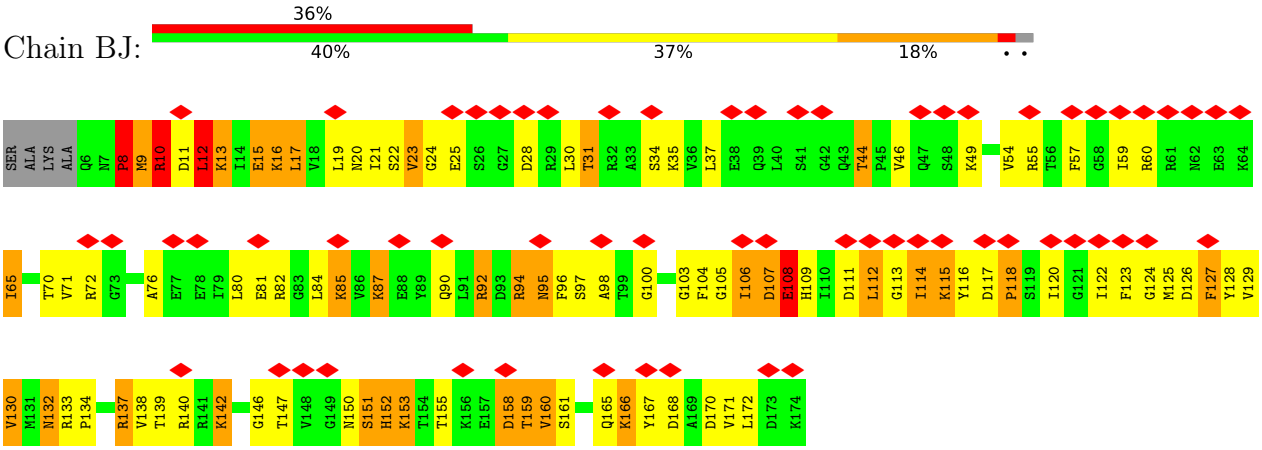
• Molecule 43: 60S RIBOSOMAL PROTEIN L10

Chain BI:



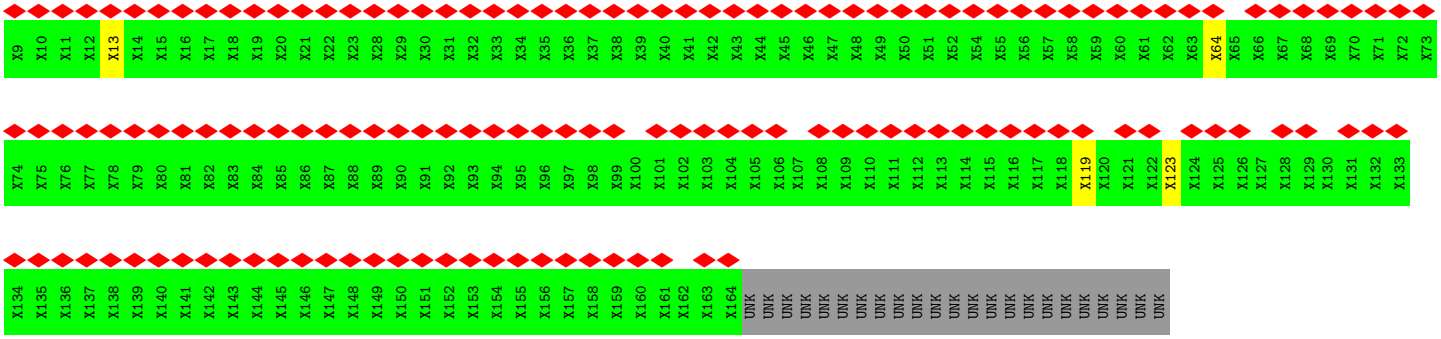
• Molecule 44: 60S RIBOSOMAL PROTEIN L11-A

Chain BJ:



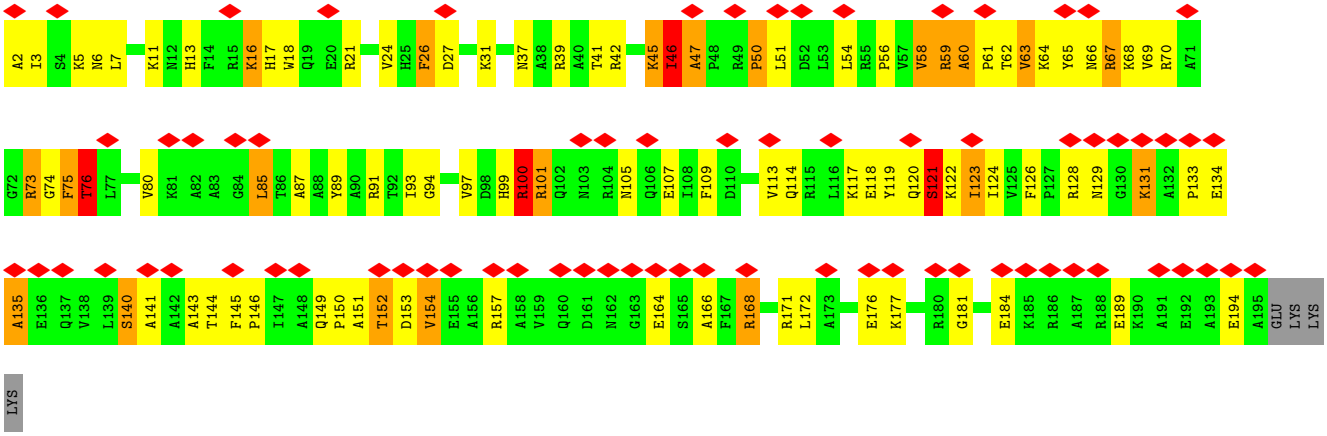
• Molecule 45: 60S RIBOSOMAL PROTEIN L11-A

Chain BK:



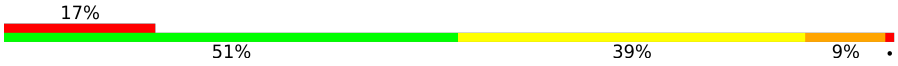
• Molecule 46: 60S RIBOSOMAL PROTEIN L13-A

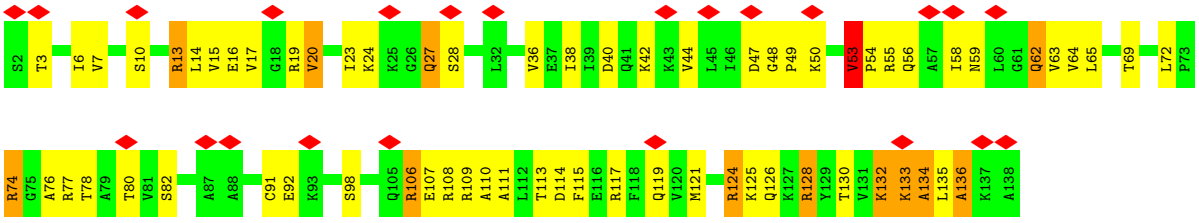
Chain BL:



• Molecule 47: 60S RIBOSOMAL PROTEIN L14-B

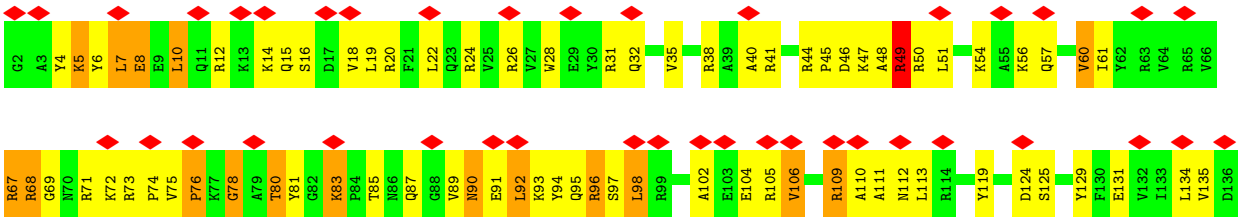
Chain BM:

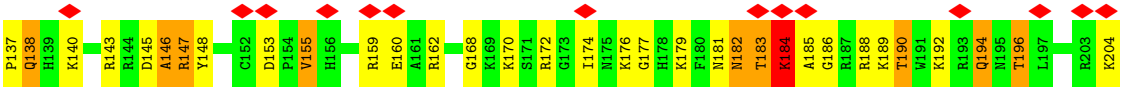




• Molecule 48: 60S RIBOSOMAL PROTEIN L15-A

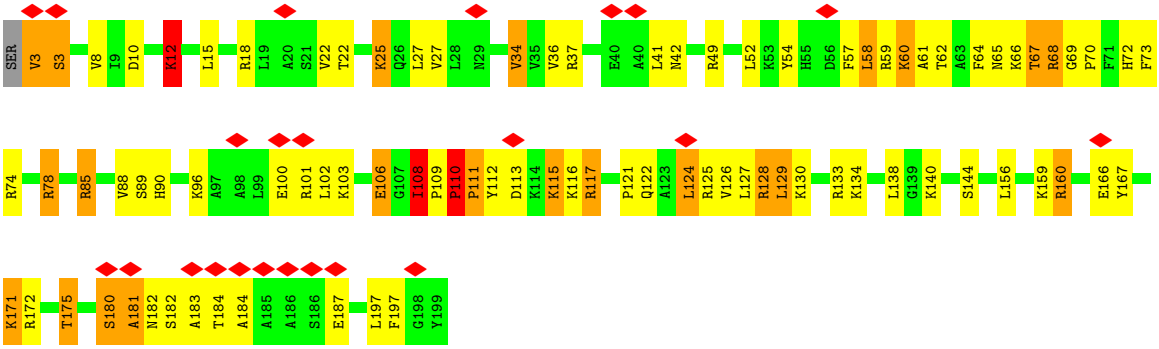
Chain BN:





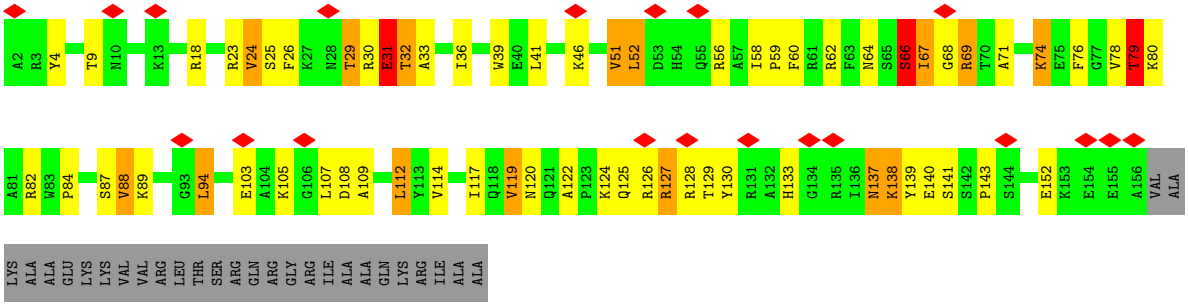
• Molecule 49: 60S RIBOSOMAL PROTEIN L16-A

Chain BO:



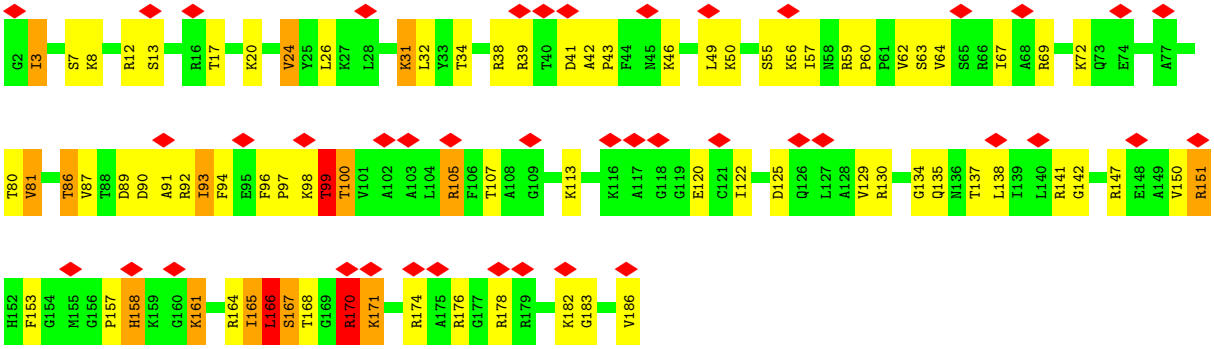
• Molecule 50: 60S RIBOSOMAL PROTEIN L17-A

Chain BP:



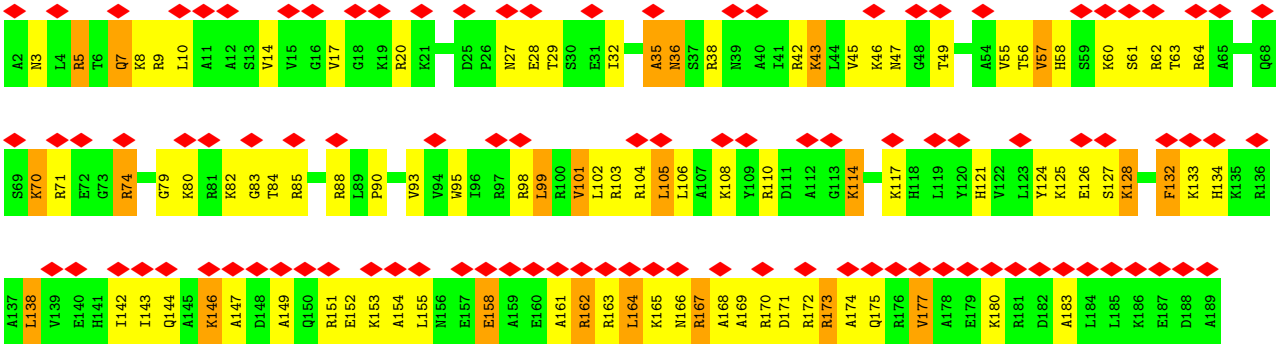
• Molecule 51: 60S RIBOSOMAL PROTEIN L18-A

Chain BQ:



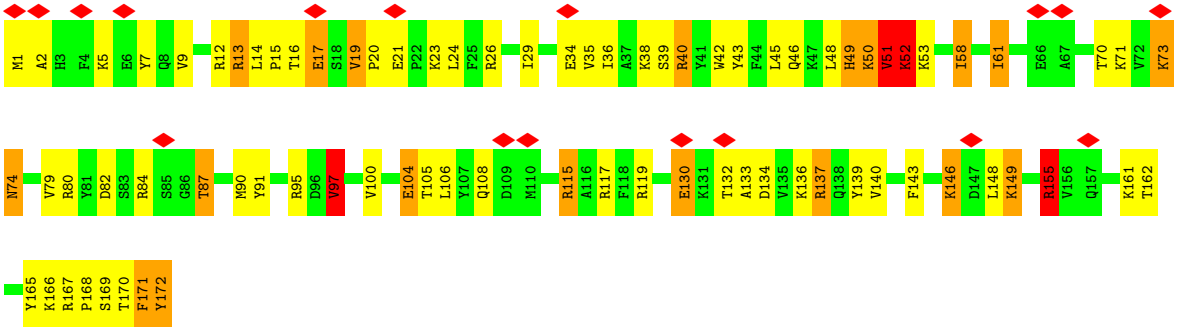
• Molecule 52: 60S RIBOSOMAL PROTEIN L19-B

Chain BR:



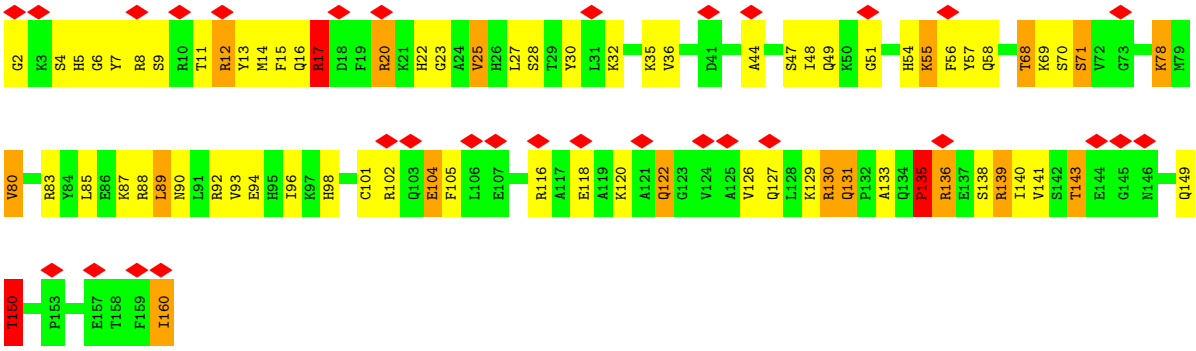
• Molecule 53: 60S RIBOSOMAL PROTEIN L20-B

Chain BS:



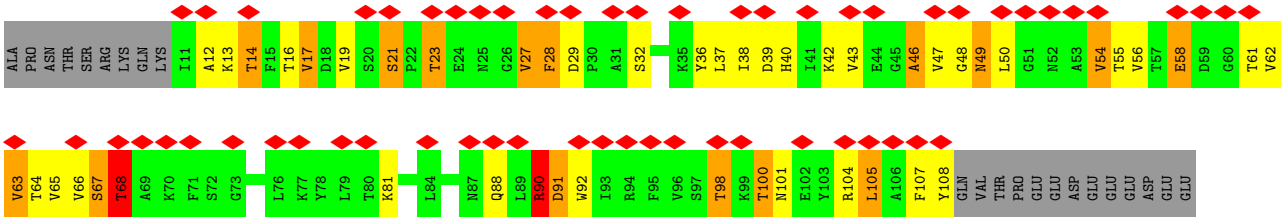
• Molecule 54: 60S RIBOSOMAL PROTEIN L21-A

Chain BT:



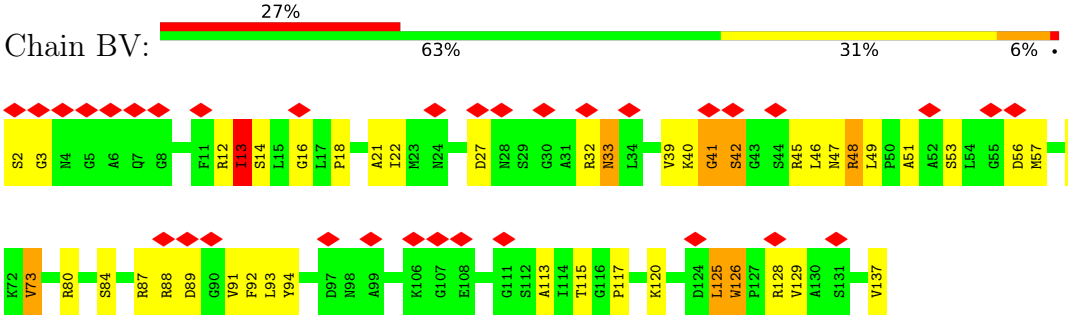
• Molecule 55: 60S RIBOSOMAL PROTEIN L22-A

Chain BU:



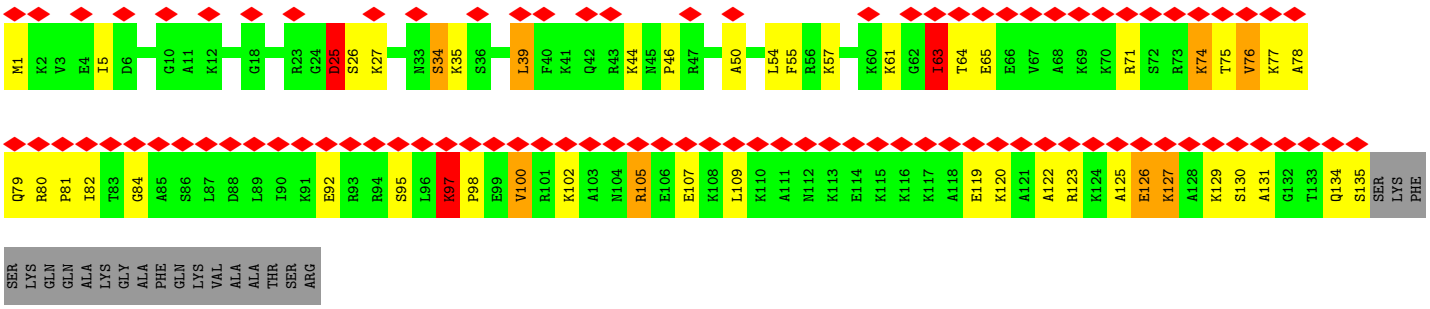
• Molecule 56: 60S RIBOSOMAL PROTEIN L23-A

Chain BV:



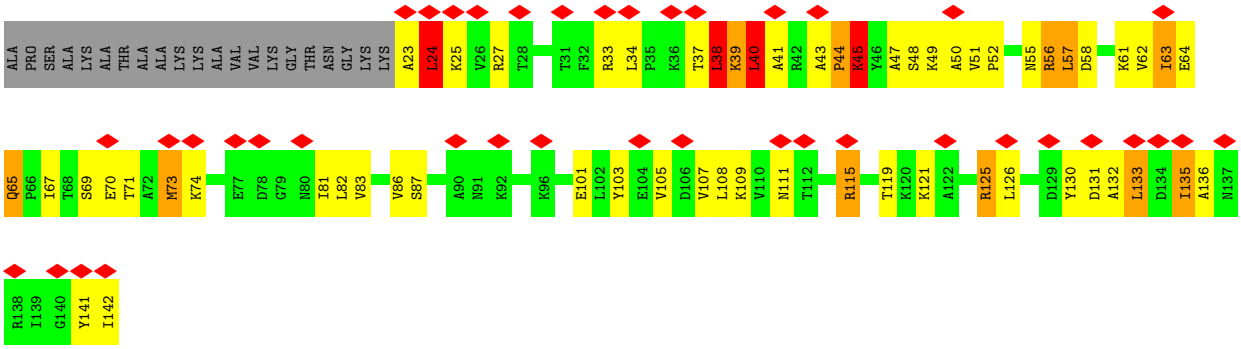
• Molecule 57: 60S RIBOSOMAL PROTEIN L24-A

Chain BW:



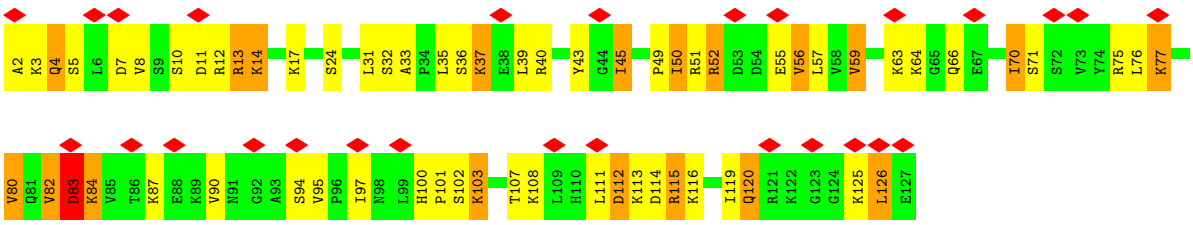
• Molecule 58: 60S RIBOSOMAL PROTEIN L25

Chain BX:



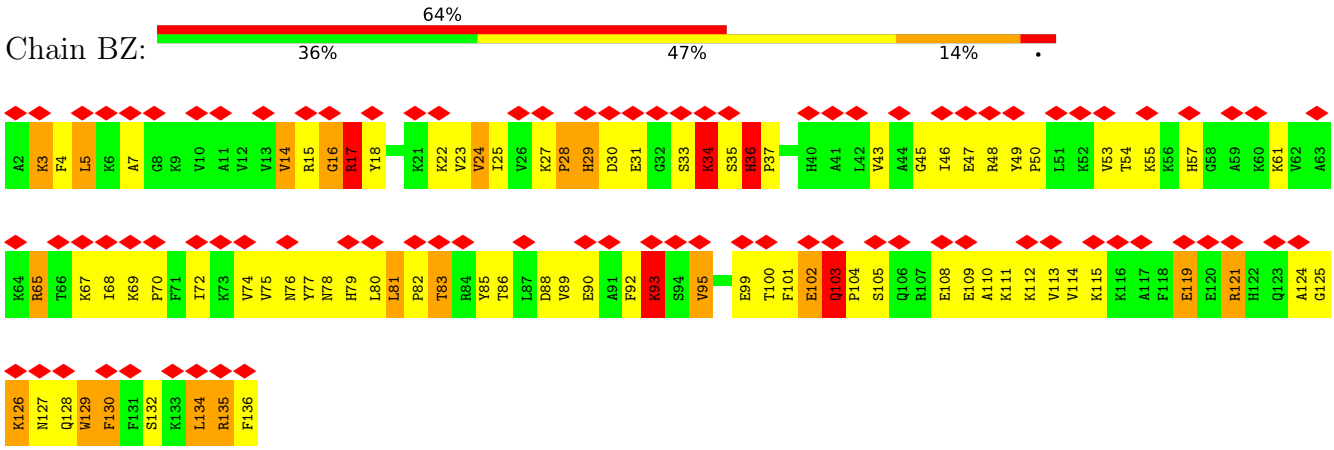
• Molecule 59: 60S RIBOSOMAL PROTEIN L26-A

Chain BY:



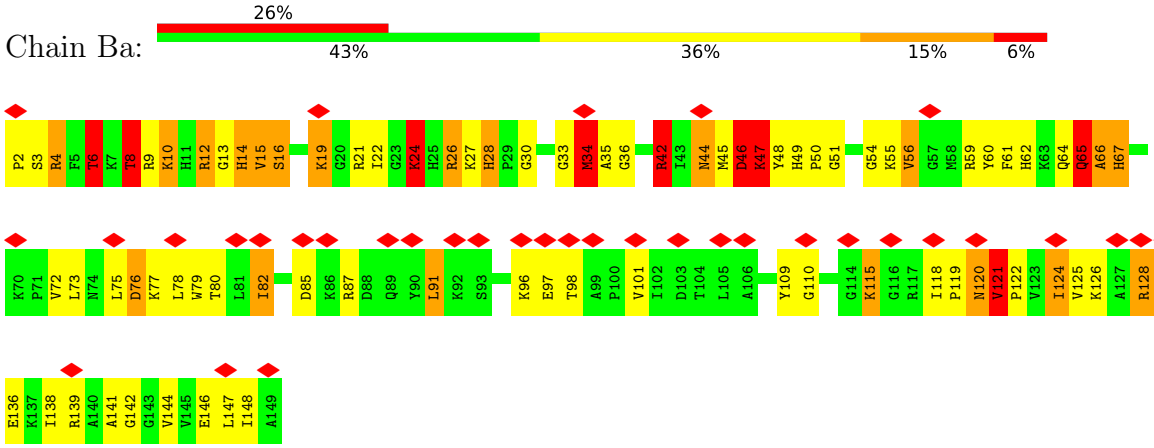
• Molecule 60: 60S RIBOSOMAL PROTEIN L27-A

Chain BZ:



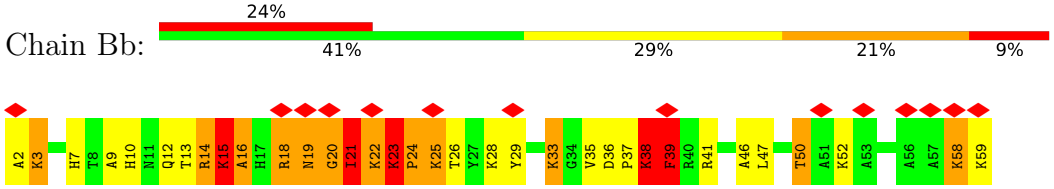
• Molecule 61: 60S RIBOSOMAL PROTEIN L28

Chain Ba:



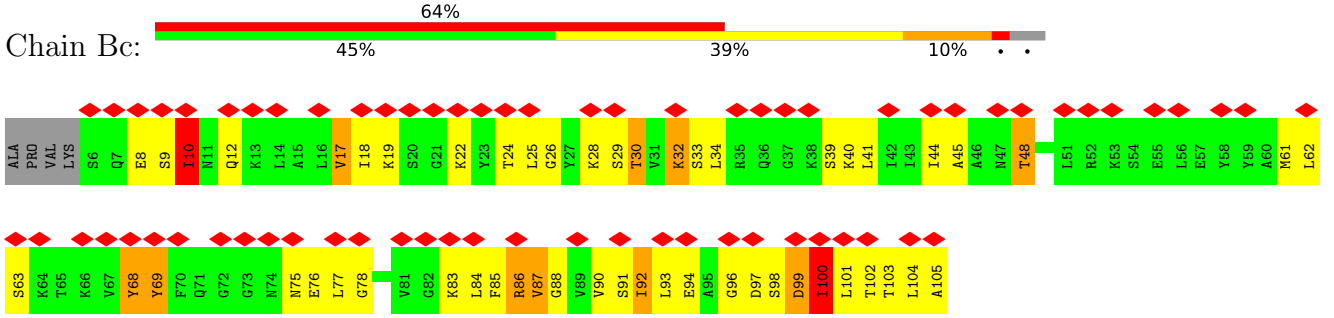
• Molecule 62: 60S RIBOSOMAL PROTEIN L29

Chain Bb:



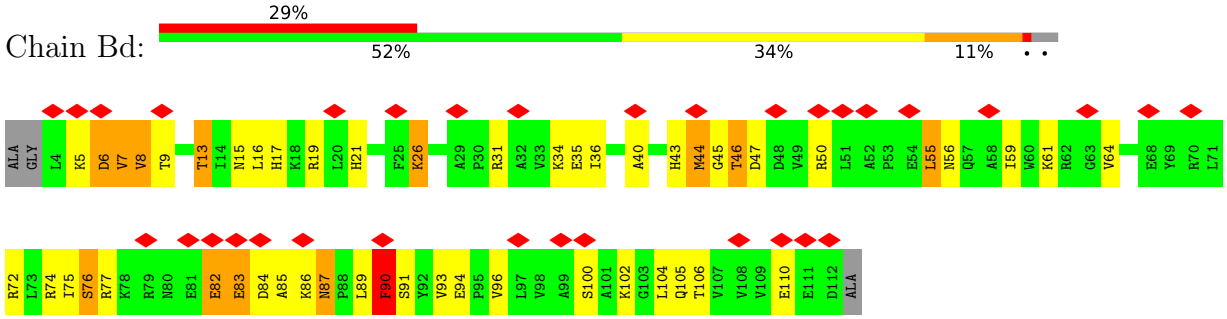
• Molecule 63: 60S RIBOSOMAL PROTEIN L30

Chain Bc:



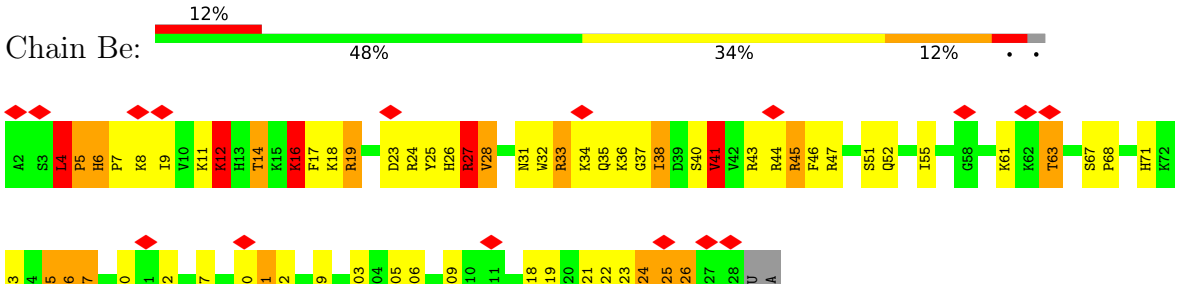
• Molecule 64: 60S RIBOSOMAL PROTEIN L31-A

Chain Bd:



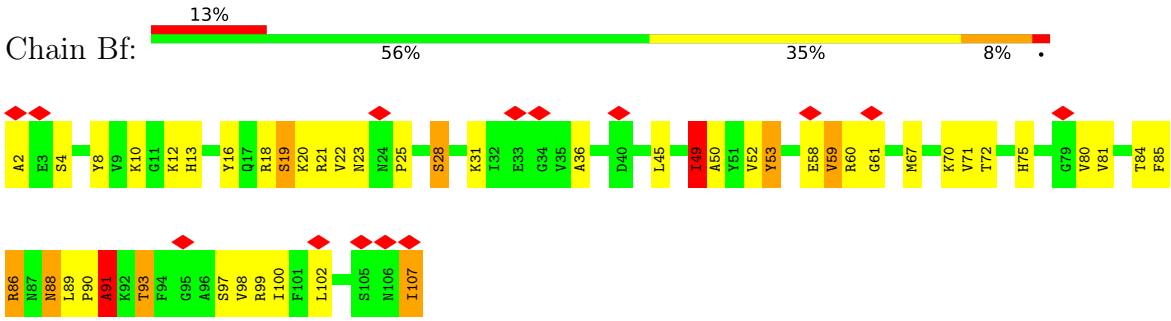
• Molecule 65: 60S RIBOSOMAL PROTEIN L32

Chain Be:



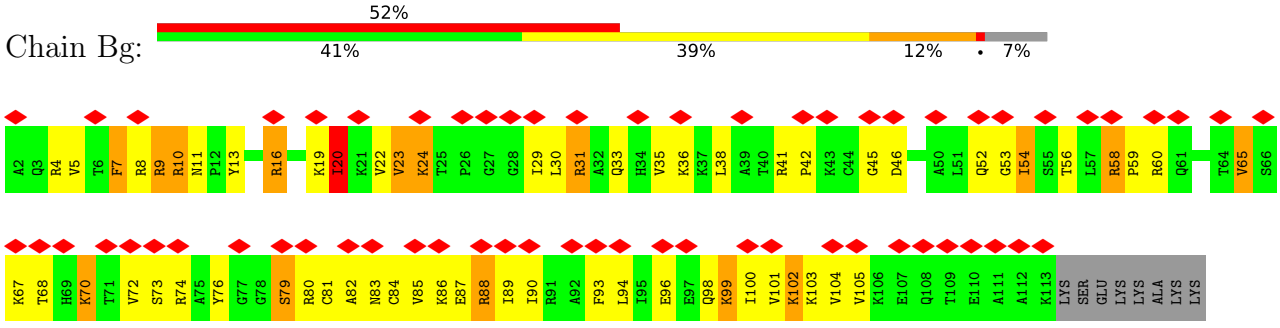
• Molecule 66: 60S RIBOSOMAL PROTEIN L33-A

Chain Bf:



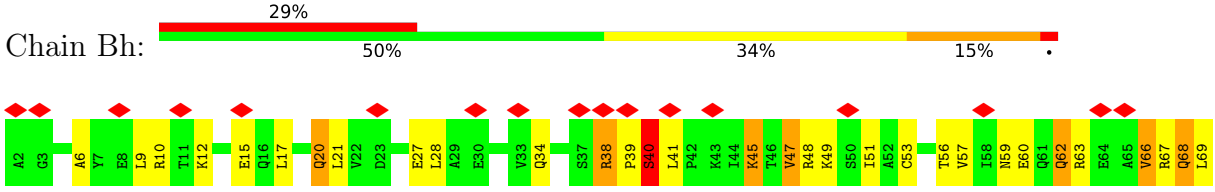
• Molecule 67: 60S RIBOSOMAL PROTEIN L34-A

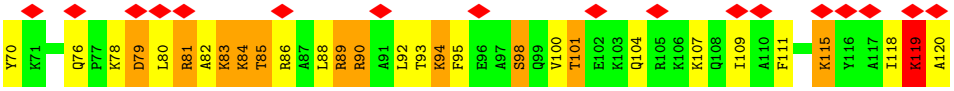
Chain Bg:



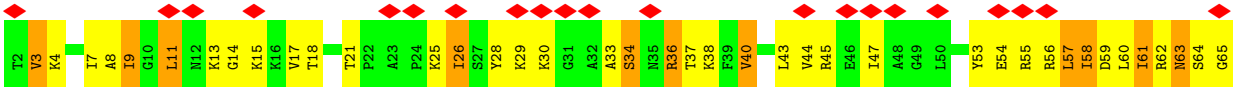
• Molecule 68: 60S RIBOSOMAL PROTEIN L35-B

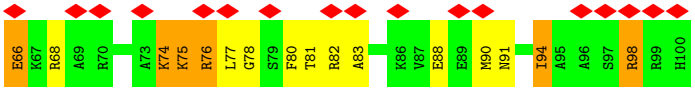
Chain Bh:



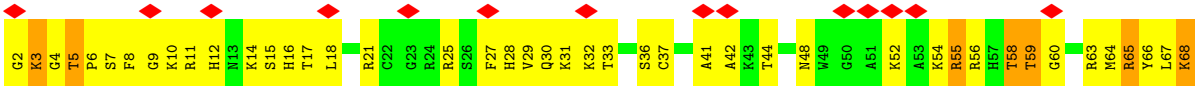


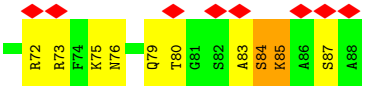
• Molecule 69: 60S RIBOSOMAL PROTEIN L36-A



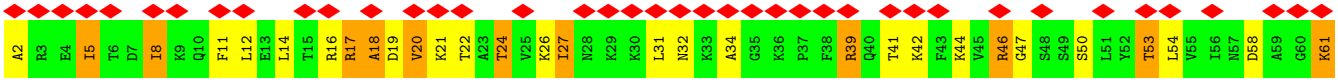


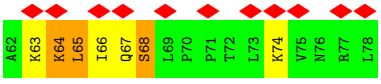
• Molecule 70: 60S RIBOSOMAL PROTEIN L37-A



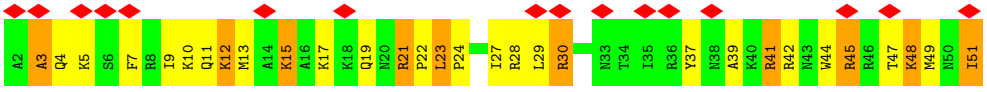


• Molecule 71: 60S RIBOSOMAL PROTEIN L38

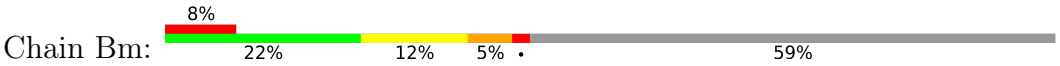


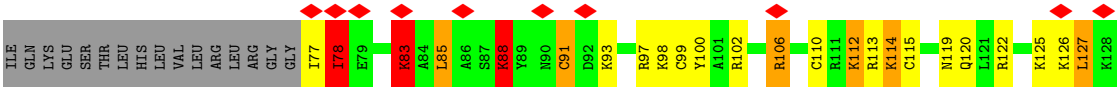


• Molecule 72: 60S RIBOSOMAL PROTEIN L39



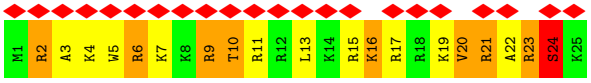
• Molecule 73: UBIQUITIN-60S RIBOSOMAL PROTEIN L40





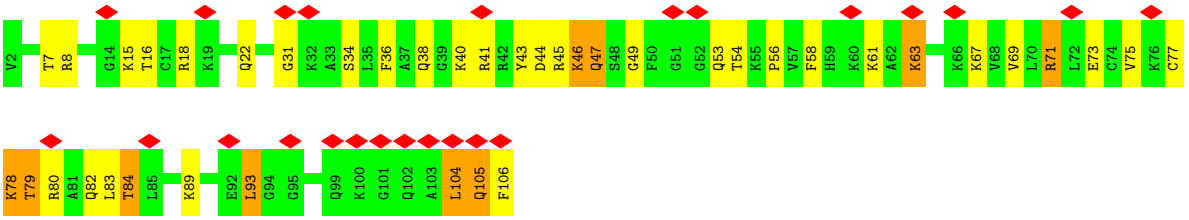
• Molecule 74: 60S RIBOSOMAL PROTEIN L41-B

Chain Bn:



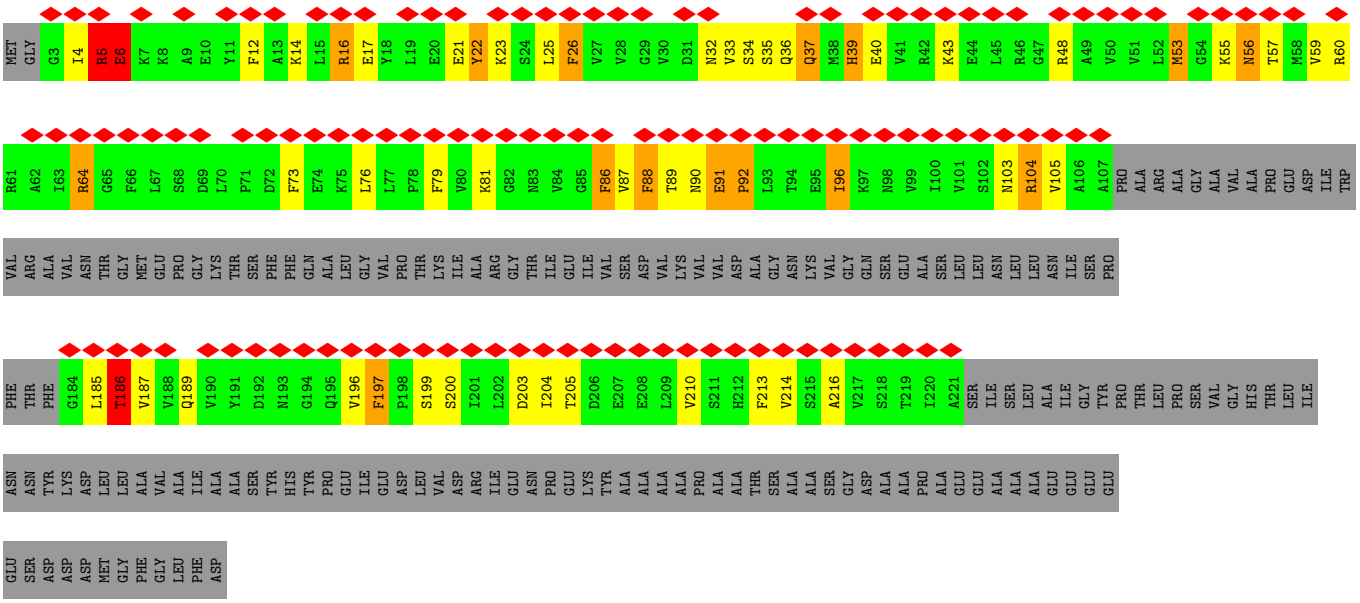
• Molecule 75: 60S RIBOSOMAL PROTEIN L42-A

Chain Bo:



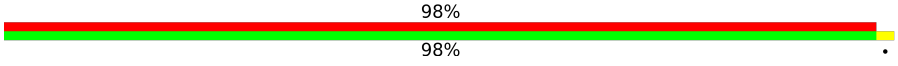
• Molecule 76: 60S ACIDIC RIBOSOMAL PROTEIN P0

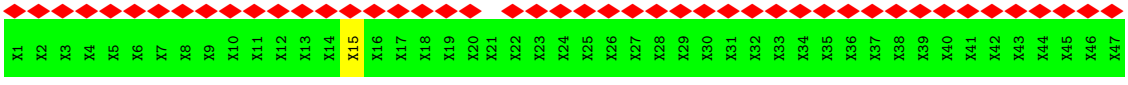
Chain Bq:



• Molecule 77: 60S ACIDIC RIBOSOMAL PROTEIN P1

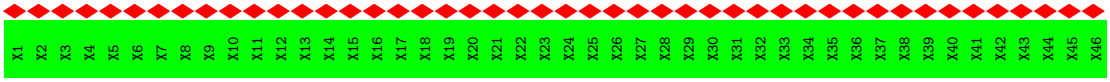
Chain Br:





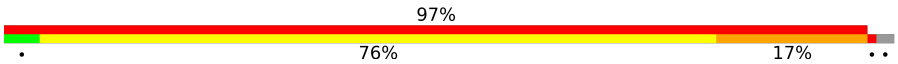
• Molecule 78: 60S ACIDIC RIBOSOMAL PROTEIN P2

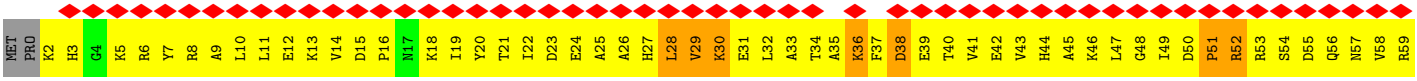
Chain Bs:

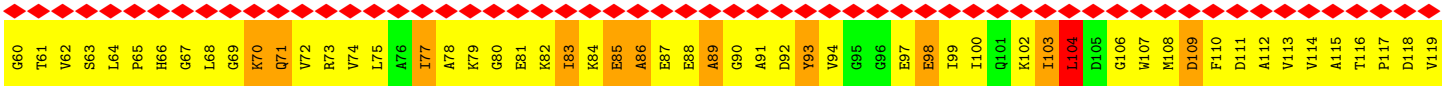


• Molecule 79: 50S RIBOSOMAL PROTEIN L1

Chain By:

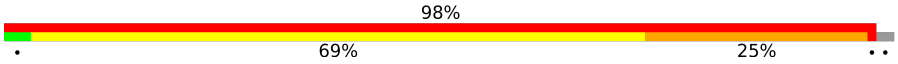


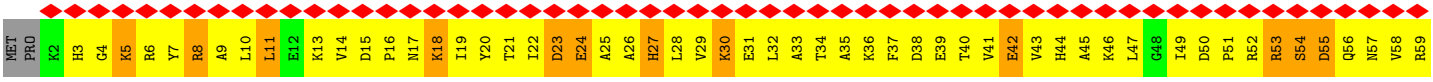


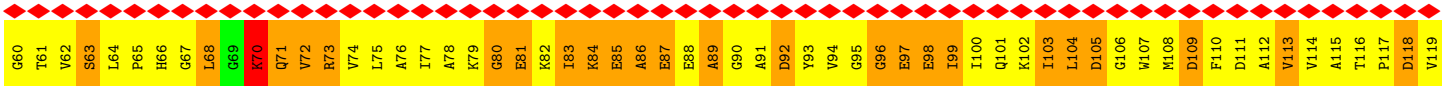


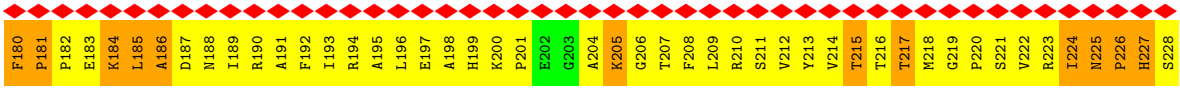
• Molecule 79: 50S RIBOSOMAL PROTEIN L1

Chain CL:



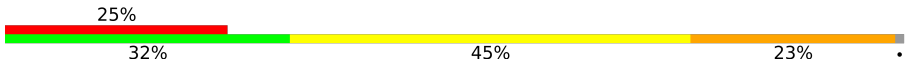


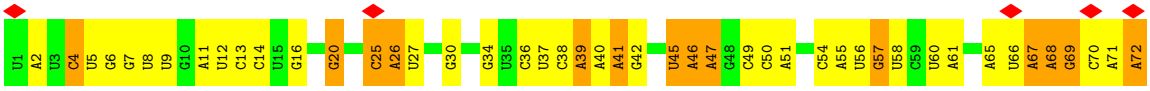


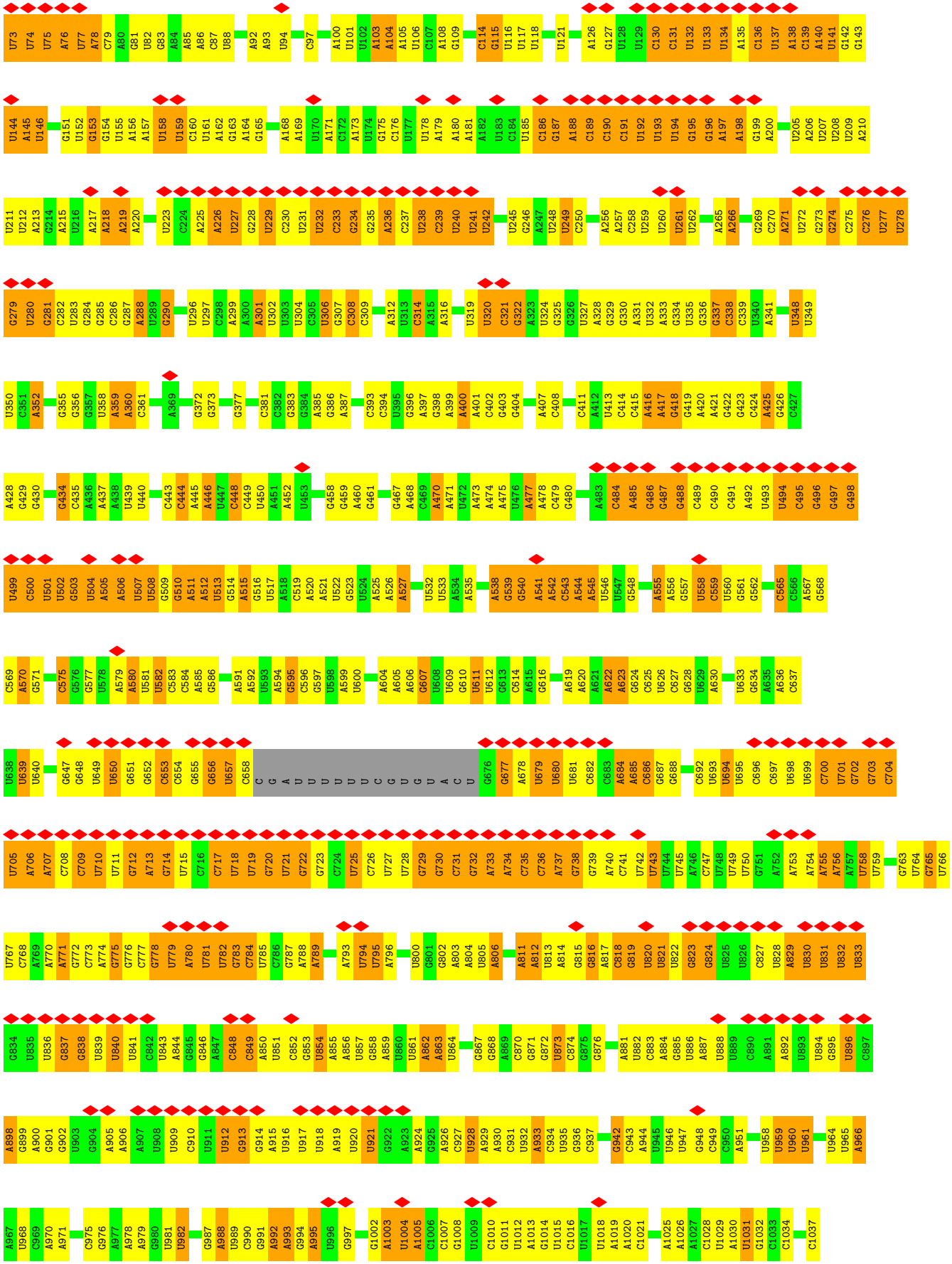


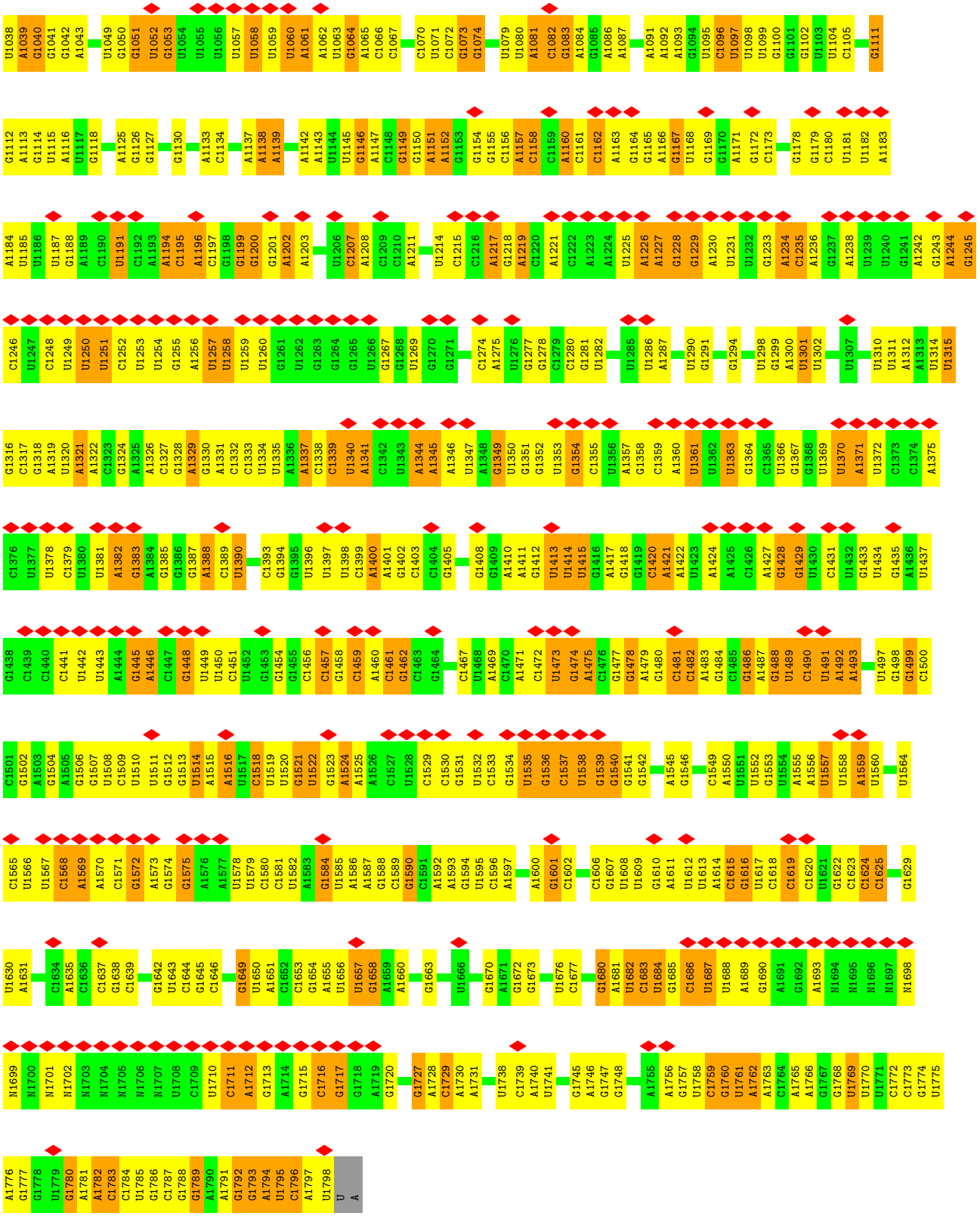
• Molecule 80: 18S RIBOSOMAL RNA

Chain B2:



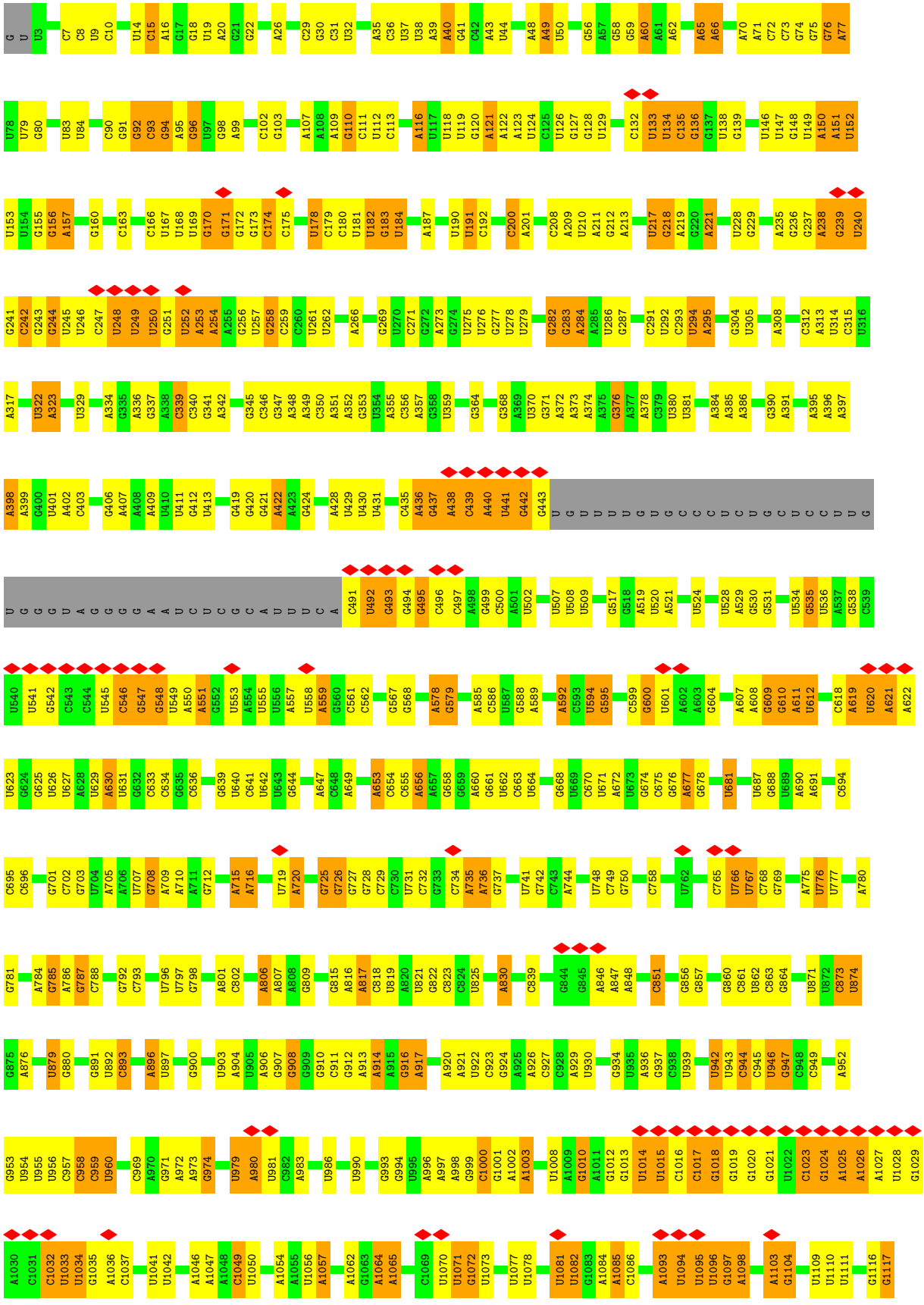


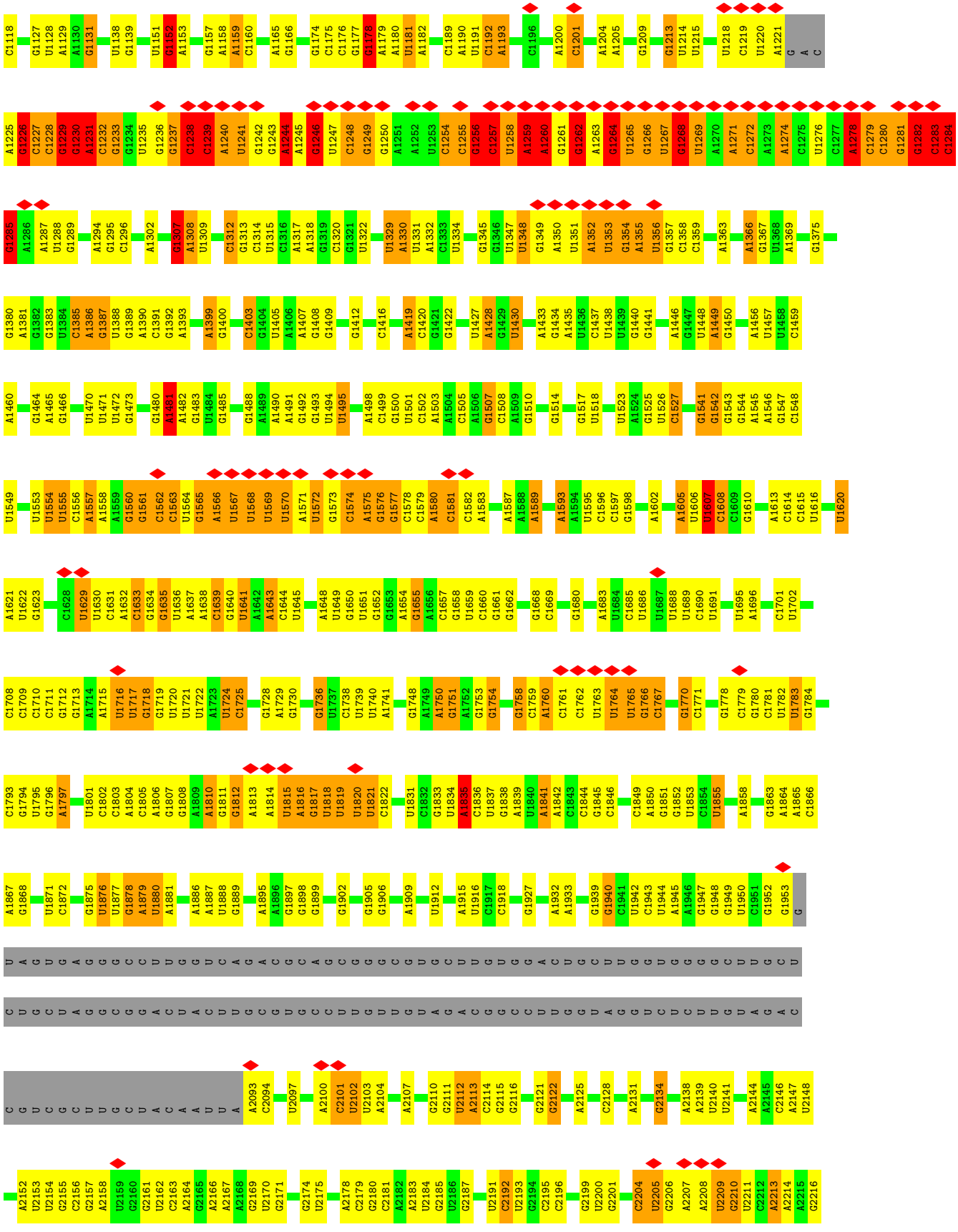


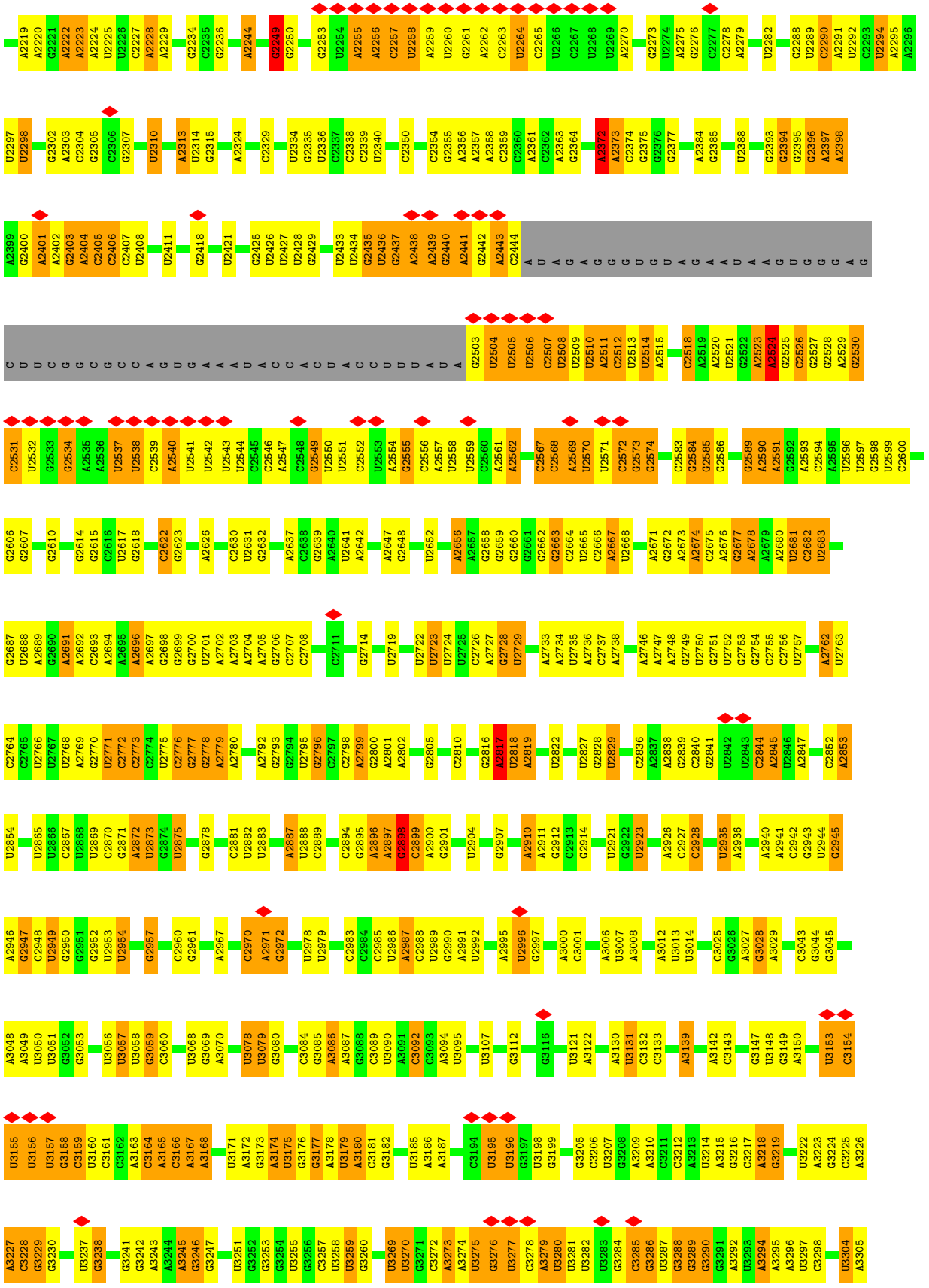


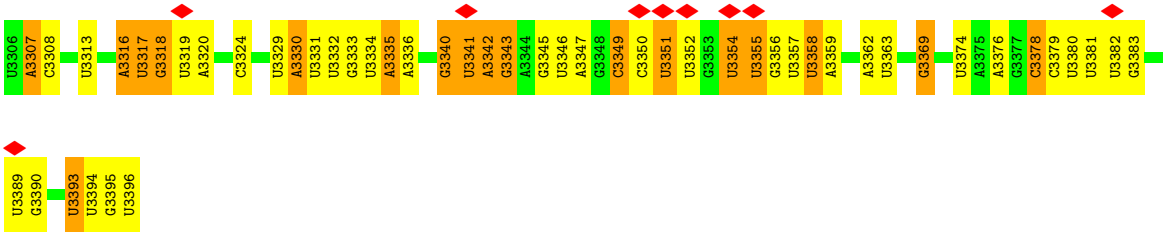
• Molecule 81: 25S RIBOSOMAL RNA

Chain B5:



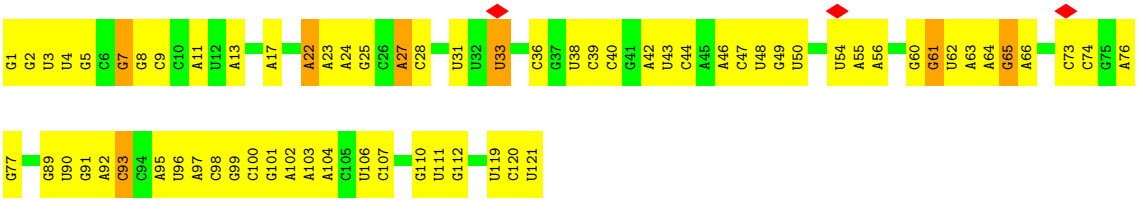






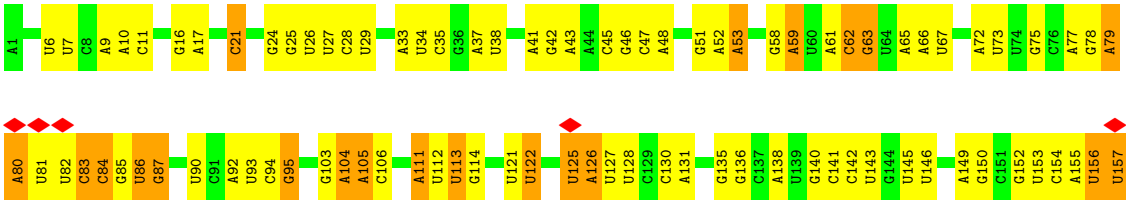
• Molecule 82: 5S RIBOSOMAL RNA

Chain B7:



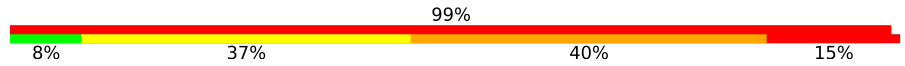
• Molecule 83: 5.8S RIBOSOMAL RNA

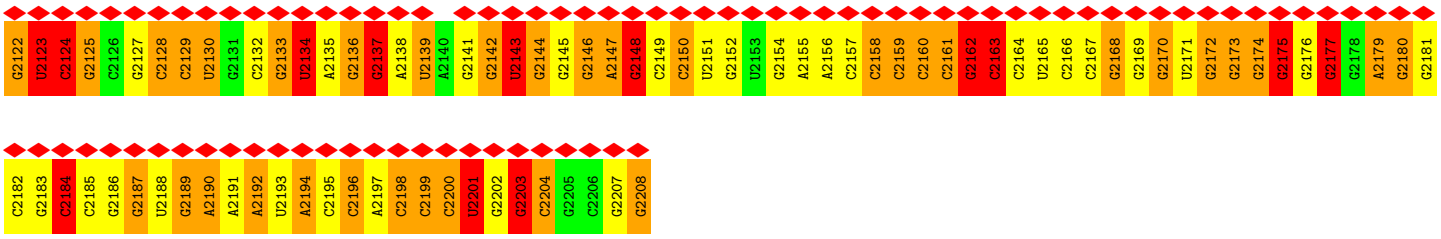
Chain B8:



• Molecule 84: EUKARYOTIC RIBOSOMAL L1_RRNA

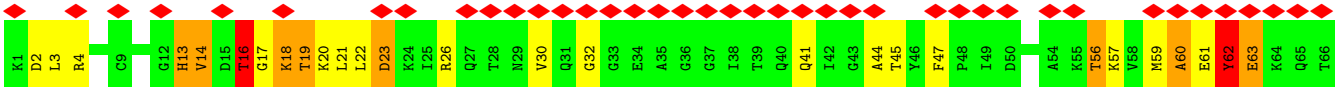
Chain CN:

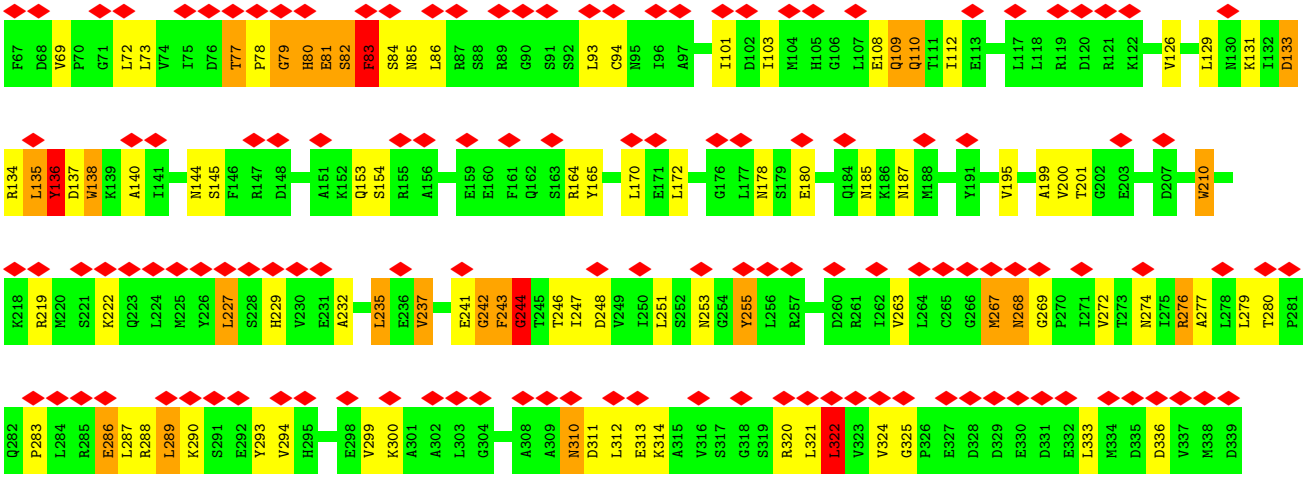




• Molecule 85: EUKARYOTIC TRANSLATION INITIATION FACTOR 5B

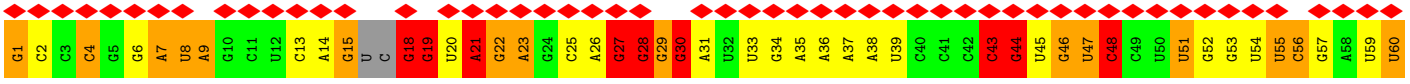
Chain CP:

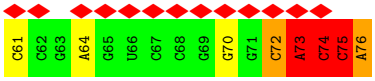




- Molecule 86: EUKARYOTIC RIBOSOMAL P_E TRNA

Chain CW:





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	40729	Depositor
Resolution determination method	Not provided	
CTF correction method	EACH PARTICLE	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	16	Depositor
Minimum defocus (nm)	1900	Depositor
Maximum defocus (nm)	3900	Depositor
Magnification	79096	Depositor
Image detector	FEI FALCON I (4k x 4k)	Depositor
Maximum map value	1.374	Depositor
Minimum map value	-0.930	Depositor
Average map value	0.003	Depositor
Map value standard deviation	0.085	Depositor
Recommended contour level	0.25	Depositor
Map size (Å)	424.8, 424.8, 424.8	wwPDB
Map dimensions	240, 240, 240	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.77, 1.77, 1.77	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, OHX, GCP, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A0	0.76	0/782	1.15	4/1047 (0.4%)
2	A1	0.69	0/620	1.23	7/838 (0.8%)
3	A2	0.54	0/499	1.08	0/670
4	A3	0.85	1/452 (0.2%)	1.24	2/600 (0.3%)
5	A4	0.61	0/483	1.13	2/643 (0.3%)
6	A5	0.72	0/404	1.37	5/542 (0.9%)
7	A6	0.63	0/2490	1.03	7/3389 (0.2%)
8	A7	1.09	3/925 (0.3%)	1.29	8/1240 (0.6%)
9	AA	0.71	1/1617 (0.1%)	1.22	18/2215 (0.8%)
10	AB	0.62	0/1735	1.13	11/2335 (0.5%)
11	AC	0.81	3/1665 (0.2%)	1.19	6/2263 (0.3%)
12	AD	0.76	0/1759	1.15	11/2368 (0.5%)
13	AE	0.74	0/2109	1.20	17/2839 (0.6%)
14	AF	0.65	0/1629	1.10	7/2202 (0.3%)
15	AG	0.70	0/1823	1.12	7/2439 (0.3%)
16	AH	0.68	0/1506	1.15	12/2028 (0.6%)
17	AI	0.84	0/1514	1.17	7/2021 (0.3%)
18	AJ	0.73	0/1519	1.18	7/2035 (0.3%)
19	AK	0.71	0/789	1.20	7/1067 (0.7%)
20	AL	0.85	0/1239	1.17	6/1673 (0.4%)
21	AM	0.70	0/898	1.13	4/1220 (0.3%)
22	AN	0.79	0/1215	1.17	7/1638 (0.4%)
23	AO	0.69	0/901	1.24	7/1217 (0.6%)
24	AP	0.75	0/998	1.20	8/1341 (0.6%)
25	AQ	0.70	0/1125	1.18	8/1510 (0.5%)
26	AR	0.73	0/935	1.25	7/1254 (0.6%)
27	AS	0.74	0/1211	1.14	5/1628 (0.3%)
28	AT	0.72	1/1130 (0.1%)	1.09	5/1517 (0.3%)
29	AU	0.71	0/865	1.18	8/1169 (0.7%)
30	AV	0.68	1/693 (0.1%)	1.07	3/935 (0.3%)
31	AW	0.83	0/1038	1.23	8/1395 (0.6%)
32	AX	0.91	1/1139 (0.1%)	1.26	6/1518 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
33	AY	0.70	1/1087 (0.1%)	1.08	2/1449 (0.1%)
34	AZ	0.65	0/571	1.22	4/768 (0.5%)
35	BA	1.11	4/1946 (0.2%)	1.43	18/2614 (0.7%)
36	BB	1.23	5/3146 (0.2%)	1.44	26/4228 (0.6%)
37	BC	1.12	6/2800 (0.2%)	1.43	34/3790 (0.9%)
38	BD	1.02	1/2408 (0.0%)	1.27	21/3248 (0.6%)
39	BE	1.07	0/1269	1.37	11/1705 (0.6%)
40	BF	1.17	2/1828 (0.1%)	1.43	26/2461 (1.1%)
41	BG	0.78	0/1795	1.18	14/2429 (0.6%)
42	BH	1.18	0/1539	1.45	13/2073 (0.6%)
43	BI	1.11	0/1758	1.38	12/2358 (0.5%)
44	BJ	0.99	1/1374 (0.1%)	1.36	17/1842 (0.9%)
46	BL	1.06	3/1573 (0.2%)	1.40	19/2113 (0.9%)
47	BM	1.19	0/1074	1.36	9/1446 (0.6%)
48	BN	0.99	2/1757 (0.1%)	1.30	14/2354 (0.6%)
49	BO	0.64	0/3159	0.95	14/4205 (0.3%)
50	BP	1.34	4/1250 (0.3%)	1.41	6/1683 (0.4%)
51	BQ	1.08	1/1465 (0.1%)	1.42	10/1965 (0.5%)
52	BR	0.95	0/1538	1.21	5/2050 (0.2%)
53	BS	1.20	3/1481 (0.2%)	1.43	17/1990 (0.9%)
54	BT	1.16	2/1300 (0.2%)	1.35	6/1743 (0.3%)
55	BU	0.67	0/794	1.20	8/1076 (0.7%)
56	BV	1.25	2/1018 (0.2%)	1.42	6/1369 (0.4%)
57	BW	0.99	0/1052	1.22	7/1398 (0.5%)
58	BX	0.88	0/974	1.24	7/1314 (0.5%)
59	BY	0.94	0/1004	1.31	6/1341 (0.4%)
60	BZ	0.65	0/1118	1.18	9/1497 (0.6%)
61	Ba	1.20	7/1204 (0.6%)	1.59	28/1612 (1.7%)
62	Bb	1.20	2/473 (0.4%)	1.61	10/629 (1.6%)
63	Bc	0.72	0/775	1.11	3/1040 (0.3%)
64	Bd	1.11	1/897 (0.1%)	1.32	8/1205 (0.7%)
65	Be	1.23	3/1041 (0.3%)	1.58	9/1394 (0.6%)
66	Bf	1.34	6/868 (0.7%)	1.40	6/1168 (0.5%)
67	Bg	0.87	0/890	1.26	3/1189 (0.3%)
68	Bh	0.81	0/974	1.15	2/1297 (0.2%)
69	Bi	0.84	0/777	1.17	2/1033 (0.2%)
70	Bj	1.03	0/696	1.35	4/923 (0.4%)
71	Bk	0.66	0/614	1.07	1/822 (0.1%)
72	Bl	1.03	0/443	1.28	0/588
73	Bm	1.29	0/423	1.42	5/562 (0.9%)
74	Bn	1.05	0/234	1.25	2/300 (0.7%)
75	Bo	0.95	0/860	1.24	0/1136
76	Bq	1.51	4/1092 (0.4%)	1.82	30/1474 (2.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
79	By	1.31	0/1749	1.74	28/2355 (1.2%)
79	CL	1.08	5/1749 (0.3%)	1.34	14/2355 (0.6%)
80	B2	0.53	1/42128 (0.0%)	0.58	0/65642
81	B5	0.84	29/75336 (0.0%)	0.72	69/117449 (0.1%)
82	B7	0.78	0/2883	0.63	0/4491
83	B8	0.66	0/3746	0.61	0/5832
84	CN	0.67	1/2097 (0.0%)	1.35	39/3273 (1.2%)
85	CP	2.73	18/2694 (0.7%)	1.91	93/3637 (2.6%)
86	CW	1.13	2/1761 (0.1%)	1.50	32/2743 (1.2%)
All	All	0.88	127/226189 (0.1%)	0.99	956/331454 (0.3%)

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
2	A1	0	1
6	A5	0	2
8	A7	0	1
10	AB	0	1
16	AH	0	1
20	AL	0	1
23	AO	0	1
26	AR	0	2
34	AZ	0	3
35	BA	0	2
37	BC	0	1
38	BD	0	1
39	BE	0	1
40	BF	0	2
49	BO	0	2
53	BS	0	1
56	BV	0	1
59	BY	0	1
60	BZ	0	1
61	Ba	0	3
62	Bb	0	1
76	Bq	0	7
77	Br	0	1
79	By	0	4
79	CL	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
81	B5	0	35
85	CP	0	8
86	CW	0	19
All	All	0	107

All (127) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	CP	63	GLU	N-CA	99.89	2.84	1.46
85	CP	210	TRP	CD2-CE3	32.65	1.92	1.40
85	CP	210	TRP	CE2-CZ2	25.81	1.94	1.39
85	CP	210	TRP	CZ2-CH2	23.93	1.82	1.37
85	CP	210	TRP	CD2-CE2	23.30	1.80	1.41
8	A7	134	ASP	CG-OD1	16.86	1.57	1.25
85	CP	210	TRP	CZ3-CH2	15.28	1.78	1.40
8	A7	134	ASP	CG-OD2	15.25	1.54	1.25
85	CP	210	TRP	CE3-CZ3	14.85	1.83	1.38
35	BA	211	HIS	C-O	12.16	1.38	1.24
85	CP	63	GLU	CA-CB	9.19	1.67	1.53
50	BP	66	SER	C-O	8.85	1.35	1.24
81	B5	1227	C	C1'-N1	8.41	1.61	1.48
66	Bf	91	ALA	N-CA	7.85	1.56	1.46
81	B5	2914	G	P-OP2	-7.70	1.33	1.49
37	BC	101	ALA	C-O	7.65	1.27	1.23
11	AC	206	THR	CA-CB	7.49	1.62	1.52
61	Ba	15	VAL	C-O	7.40	1.33	1.24
33	AY	33	ALA	CA-CB	-7.15	1.43	1.53
81	B5	1178	G	P-OP2	-6.92	1.35	1.49
46	BL	46	ILE	CA-CB	6.82	1.62	1.54
81	B5	2817	A	P-OP1	-6.81	1.35	1.49
65	Be	28	VAL	CA-CB	6.81	1.62	1.53
35	BA	157	VAL	CA-CB	6.80	1.62	1.54
61	Ba	15	VAL	CA-CB	-6.80	1.47	1.54
81	B5	41	G	P-OP1	-6.46	1.36	1.49
46	BL	76	THR	CA-CB	6.45	1.64	1.53
81	B5	934	G	P-OP1	-6.29	1.36	1.49
81	B5	1902	G	P-OP1	-6.28	1.36	1.49
48	BN	183	THR	CA-CB	6.28	1.64	1.53
64	Bd	7	VAL	CA-CB	6.27	1.62	1.54
61	Ba	28	HIS	N-CA	6.24	1.54	1.46
79	CL	27	HIS	CA-CB	6.16	1.63	1.53
51	BQ	171	LYS	CE-NZ	6.12	1.67	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	B5	2141	U	P-OP2	-6.11	1.36	1.49
81	B5	2949	U	P-OP1	-6.09	1.36	1.49
62	Bb	16	ALA	CA-CB	-6.08	1.42	1.53
81	B5	1254	C	P-O5'	-6.07	1.50	1.59
81	B5	1430	U	P-OP1	-6.04	1.36	1.49
79	CL	42	GLU	CA-CB	6.01	1.61	1.53
37	BC	354	VAL	C-O	-5.95	1.17	1.24
81	B5	1152	G	N9-C4	-5.92	1.26	1.38
66	Bf	22	VAL	CA-CB	-5.92	1.46	1.54
81	B5	2887	A	P-OP2	-5.92	1.37	1.49
37	BC	145	ILE	CA-CB	5.88	1.61	1.54
53	BS	29	ILE	CA-CB	-5.87	1.47	1.54
35	BA	225	ILE	C-O	-5.84	1.17	1.24
81	B5	340	C	P-OP1	-5.83	1.37	1.49
8	A7	65	THR	CA-CB	5.82	1.62	1.53
79	CL	42	GLU	CD-OE1	5.82	1.36	1.25
53	BS	36	ILE	CA-CB	-5.76	1.47	1.54
84	CN	2190	A	O3'-P	-5.75	1.52	1.61
37	BC	101	ALA	CA-CB	-5.75	1.48	1.52
11	AC	206	THR	CA-C	5.74	1.59	1.52
81	B5	1449	A	P-OP2	-5.72	1.37	1.49
40	BF	227	GLY	C-O	-5.67	1.18	1.23
50	BP	137	ASN	CA-C	-5.65	1.45	1.52
76	Bq	189	GLN	CA-C	-5.64	1.45	1.52
56	BV	73	VAL	CA-CB	5.64	1.61	1.54
32	AX	84	THR	CA-CB	5.62	1.61	1.53
85	CP	276	ARG	CD-NE	5.61	1.54	1.46
28	AT	39	THR	CA-CB	5.57	1.62	1.53
85	CP	253	ASN	CA-C	-5.53	1.45	1.52
81	B5	942	U	P-OP1	-5.52	1.38	1.49
81	B5	1226	G	N9-C4	-5.41	1.27	1.38
81	B5	1307	G	C3'-O3'	5.41	1.51	1.43
85	CP	276	ARG	NE-CZ	5.40	1.39	1.33
66	Bf	36	ALA	CA-CB	-5.37	1.45	1.54
11	AC	96	THR	CA-CB	5.37	1.59	1.53
36	BB	227	GLU	CA-C	-5.35	1.46	1.52
81	B5	1152	G	C2-N3	-5.35	1.22	1.32
50	BP	88	VAL	CA-CB	-5.35	1.48	1.54
65	Be	77	ALA	CA-CB	-5.33	1.44	1.53
79	CL	42	GLU	CA-C	5.33	1.59	1.52
66	Bf	50	ALA	CA-CB	-5.33	1.43	1.53
37	BC	358	THR	CA-CB	5.32	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	B5	2754	G	P-OP1	-5.31	1.38	1.49
85	CP	23	ASP	N-CA	-5.30	1.40	1.46
4	A3	6	VAL	CA-CB	5.29	1.61	1.54
54	BT	150	THR	CA-CB	5.29	1.60	1.53
54	BT	44	ALA	CA-CB	-5.28	1.45	1.53
9	AA	103	THR	CA-CB	5.28	1.61	1.53
61	Ba	22	ILE	CA-CB	-5.28	1.47	1.54
80	B2	49	C	P-OP2	-5.28	1.38	1.49
85	CP	279	LEU	CA-C	-5.28	1.46	1.52
81	B5	1152	G	N9-C8	5.26	1.48	1.37
81	B5	1835	A	P-OP1	-5.26	1.38	1.49
30	AV	59	VAL	CA-CB	-5.25	1.48	1.54
61	Ba	8	THR	N-CA	-5.24	1.40	1.46
81	B5	1369	A	P-OP2	-5.24	1.38	1.49
76	Bq	86	PHE	CA-C	-5.23	1.46	1.52
44	BJ	8	PRO	CB-CG	5.22	1.75	1.49
85	CP	134	ARG	CD-NE	5.22	1.53	1.46
66	Bf	52	VAL	CA-CB	5.22	1.60	1.54
35	BA	12	ALA	CA-CB	-5.21	1.44	1.53
40	BF	130	ILE	CA-CB	-5.21	1.48	1.54
37	BC	52	VAL	CA-CB	-5.20	1.49	1.54
53	BS	35	VAL	CA-CB	-5.18	1.48	1.54
81	B5	2945	G	P-O5'	-5.18	1.51	1.59
76	Bq	25	LEU	CA-C	-5.18	1.46	1.52
85	CP	272	VAL	CA-C	-5.17	1.46	1.52
85	CP	195	VAL	CA-C	-5.17	1.48	1.53
61	Ba	47	LYS	N-CA	5.16	1.52	1.46
81	B5	1233	G	C2'-C1'	-5.15	1.45	1.53
56	BV	13	ILE	CA-CB	5.13	1.61	1.54
86	CW	74	C	C5'-C4'	5.12	1.59	1.51
66	Bf	91	ALA	CA-CB	5.11	1.62	1.53
62	Bb	15	LYS	C-O	-5.10	1.18	1.24
38	BD	119	TYR	N-CA	5.09	1.52	1.46
36	BB	260	VAL	CA-CB	-5.08	1.49	1.54
81	B5	1837	U	P-OP2	-5.08	1.38	1.49
81	B5	2214	A	P-OP2	-5.08	1.38	1.49
36	BB	53	MET	SD-CE	-5.08	1.66	1.79
48	BN	183	THR	N-CA	5.08	1.52	1.46
65	Be	12	LYS	N-CA	5.07	1.52	1.46
76	Bq	26	PHE	CA-C	-5.05	1.46	1.52
85	CP	293	TYR	CA-C	-5.04	1.46	1.52
36	BB	367	LYS	CE-NZ	5.03	1.64	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	B5	348	A	P-OP1	-5.03	1.38	1.49
46	BL	152	THR	CA-CB	5.03	1.61	1.53
61	Ba	24	LYS	CE-NZ	5.03	1.64	1.49
50	BP	130	TYR	C-O	-5.02	1.18	1.23
85	CP	18	LYS	N-CA	-5.01	1.40	1.46
86	CW	19	G	O3'-P	-5.01	1.53	1.61
36	BB	239	PRO	C-O	-5.01	1.17	1.24
81	B5	1229	G	C5'-C4'	5.01	1.58	1.51
79	CL	27	HIS	CA-C	5.01	1.59	1.52

All (956) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
81	B5	1256	G	P-O3'-C3'	25.89	159.04	120.20
81	B5	1238	C	P-O3'-C3'	17.46	146.38	120.20
65	Be	4	LEU	CA-C-N	-17.04	98.54	119.84
65	Be	4	LEU	C-N-CA	-17.04	98.54	119.84
81	B5	1226	G	C5'-C4'-C3'	16.80	141.20	116.00
81	B5	1258	U	P-O5'-C5'	13.98	141.87	120.90
85	CP	63	GLU	CB-CA-C	-13.50	88.00	111.22
85	CP	62	TYR	CA-C-N	13.33	142.87	123.14
85	CP	62	TYR	C-N-CA	13.33	142.87	123.14
81	B5	1233	G	C5'-C4'-C3'	13.07	135.61	116.00
46	BL	47	ALA	CA-C-N	-12.28	106.94	120.94
46	BL	47	ALA	C-N-CA	-12.28	106.94	120.94
86	CW	19	G	P-O3'-C3'	11.66	137.68	120.20
85	CP	63	GLU	N-CA-C	11.64	130.55	107.62
85	CP	63	GLU	N-CA-CB	11.61	130.08	110.46
46	BL	46	ILE	N-CA-C	-11.33	102.03	112.90
32	AX	130	VAL	N-CA-C	11.32	121.29	111.56
84	CN	2196	C	C3'-C2'-O2'	11.03	127.25	110.70
8	A7	134	ASP	CA-CB-CG	10.90	123.50	112.60
53	BS	134	ASP	N-CA-C	-10.76	99.73	113.72
84	CN	2162	G	C2'-C3'-O3'	10.25	129.07	113.70
19	AK	88	PRO	N-CA-CB	10.24	114.00	103.25
86	CW	73	A	C5'-C4'-C3'	10.21	131.32	116.00
86	CW	74	C	P-O5'-C5'	10.15	136.13	120.90
81	B5	1284	C	C4'-C3'-C2'	10.14	112.74	102.60
84	CN	2143	U	C4'-C3'-O3'	-10.14	97.79	113.00
76	Bq	86	PHE	CA-CB-CG	-10.09	103.72	113.80
86	CW	18	G	P-O3'-C3'	9.92	135.08	120.20
86	CW	43	C	P-O3'-C3'	9.90	135.06	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	BQ	59	ARG	CA-C-N	-9.83	110.26	120.38
51	BQ	59	ARG	C-N-CA	-9.83	110.26	120.38
8	A7	38	PRO	CA-C-N	9.82	130.49	120.38
8	A7	38	PRO	C-N-CA	9.82	130.49	120.38
81	B5	1284	C	C2'-C3'-O3'	9.76	124.14	109.50
18	AJ	14	THR	CA-C-N	9.76	130.37	119.93
18	AJ	14	THR	C-N-CA	9.76	130.37	119.93
81	B5	1258	U	P-O3'-C3'	9.73	134.79	120.20
34	AZ	95	HIS	N-CA-C	9.64	126.49	108.65
49	BO	109[A]	PRO	O-C-N	9.62	125.67	121.15
49	BO	109[B]	PRO	O-C-N	9.62	125.67	121.15
84	CN	2192	A	C4'-C3'-O3'	-9.59	95.01	109.40
60	BZ	27	LYS	CA-C-N	9.54	130.53	119.47
60	BZ	27	LYS	C-N-CA	9.54	130.53	119.47
58	BX	65	GLN	CA-C-N	-9.41	111.17	120.21
58	BX	65	GLN	C-N-CA	-9.41	111.17	120.21
70	Bj	5	THR	CA-C-N	-9.37	109.26	119.19
70	Bj	5	THR	C-N-CA	-9.37	109.26	119.19
25	AQ	43	ILE	N-CA-C	-9.35	101.44	110.42
81	B5	1258	U	O4'-C4'-C3'	-9.34	96.76	106.10
85	CP	134	ARG	N-CA-C	-9.22	98.91	111.55
85	CP	110	GLN	N-CA-C	9.21	124.31	112.34
81	B5	1226	G	O5'-C5'-C4'	9.18	125.27	111.50
84	CN	2160	C	C4'-C3'-O3'	9.10	123.06	109.40
84	CN	2184	C	C4'-C3'-O3'	-9.05	99.42	113.00
36	BB	114	VAL	CB-CA-C	-9.03	100.14	112.24
51	BQ	170	ARG	N-CA-C	-9.02	98.09	110.35
61	Ba	46	ASP	N-CA-C	-8.96	95.74	110.17
85	CP	81	GLU	CA-C-N	8.94	137.79	121.70
85	CP	81	GLU	C-N-CA	8.94	137.79	121.70
40	BF	94	LYS	CA-C-N	-8.85	113.70	123.43
40	BF	94	LYS	C-N-CA	-8.85	113.70	123.43
36	BB	2	SER	N-CA-C	-8.84	86.24	111.00
79	CL	225	ASN	CA-C-N	-8.82	111.74	120.21
79	CL	225	ASN	C-N-CA	-8.82	111.74	120.21
64	Bd	46	THR	N-CA-C	8.80	120.65	111.14
85	CP	112	ILE	N-CA-C	-8.80	102.73	110.74
27	AS	58	ALA	N-CA-C	-8.80	101.77	111.36
61	Ba	15	VAL	N-CA-C	-8.78	96.92	110.09
61	Ba	67	HIS	N-CA-C	-8.76	101.66	111.82
2	A1	37	CYS	CA-C-N	8.75	130.78	119.84
2	A1	37	CYS	C-N-CA	8.75	130.78	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	BH	151	VAL	CB-CA-C	-8.75	100.58	112.04
4	A3	9	SER	N-CA-C	8.69	123.60	108.75
44	BJ	9	MET	N-CA-C	-8.65	92.37	110.80
55	BU	46	ALA	N-CA-C	8.64	119.34	108.45
84	CN	2177	G	C4'-C3'-O3'	-8.62	100.07	113.00
85	CP	85	ASN	CA-C-N	8.59	132.15	120.38
85	CP	85	ASN	C-N-CA	8.59	132.15	120.38
85	CP	22	LEU	CA-C-N	8.59	131.79	120.28
85	CP	22	LEU	C-N-CA	8.59	131.79	120.28
62	Bb	39	PHE	N-CA-CB	8.58	124.99	110.49
38	BD	271	LYS	N-CA-C	-8.51	101.03	112.26
85	CP	57	LYS	N-CA-C	-8.48	95.58	109.40
62	Bb	23	LYS	CA-C-N	-8.44	109.29	119.84
62	Bb	23	LYS	C-N-CA	-8.44	109.29	119.84
84	CN	2184	C	C2'-C3'-O3'	8.42	126.33	113.70
35	BA	55	GLY	N-CA-C	-8.41	102.26	111.93
26	AR	85	VAL	CA-C-N	8.34	130.26	119.84
26	AR	85	VAL	C-N-CA	8.34	130.26	119.84
12	AD	210	GLU	CA-C-N	8.32	130.24	119.84
12	AD	210	GLU	C-N-CA	8.32	130.24	119.84
61	Ba	28	HIS	N-CA-C	8.32	128.19	109.81
81	B5	1226	G	O4'-C4'-C3'	-8.32	95.68	104.00
85	CP	30	VAL	N-CA-C	8.29	119.08	110.62
35	BA	238	ILE	CA-C-N	-8.27	109.27	123.25
35	BA	238	ILE	C-N-CA	-8.27	109.27	123.25
85	CP	16	THR	N-CA-C	-8.27	93.19	110.80
76	Bq	43	LYS	CA-C-N	8.25	133.79	120.60
76	Bq	43	LYS	C-N-CA	8.25	133.79	120.60
27	AS	144	ARG	N-CA-C	-8.24	101.98	110.97
85	CP	18	LYS	N-CA-C	-8.22	94.69	108.75
86	CW	70	G	C5'-C4'-C3'	8.22	128.34	116.00
81	B5	1152	G	C8-N9-C1'	8.22	151.67	127.00
81	B5	1227	C	C4'-C3'-O3'	-8.19	100.71	113.00
64	Bd	6	ASP	N-CA-C	8.18	120.72	109.11
85	CP	85	ASN	N-CA-C	-8.16	103.53	113.97
85	CP	255	TYR	N-CA-C	-8.12	95.68	109.24
81	B5	1256	G	P-O5'-C5'	8.07	133.01	120.90
44	BJ	151	SER	N-CA-C	-8.02	99.94	110.53
85	CP	19	THR	CA-C-N	8.01	131.82	120.28
85	CP	19	THR	C-N-CA	8.01	131.82	120.28
43	BI	169	LYS	N-CA-C	-7.98	98.21	110.10
61	Ba	15	VAL	CA-C-N	-7.98	110.90	125.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
61	Ba	15	VAL	C-N-CA	-7.98	110.90	125.66
66	Bf	49	ILE	CB-CA-C	-7.98	98.53	110.82
36	BB	205	VAL	CB-CA-C	-7.96	99.83	112.16
81	B5	1241	U	P-O3'-C3'	7.93	132.10	120.20
49	BO	3[B]	SER	CA-C-N	7.93	141.15	121.80
49	BO	3[B]	SER	C-N-CA	7.93	141.15	121.80
62	Bb	38	LYS	N-CA-C	-7.92	98.56	110.28
79	CL	27	HIS	N-CA-CB	7.92	121.47	109.91
36	BB	129	ALA	CA-C-N	-7.91	109.82	122.95
36	BB	129	ALA	C-N-CA	-7.91	109.82	122.95
81	B5	1268	G	P-O5'-C5'	7.87	132.71	120.90
16	AH	185	ILE	CA-C-N	-7.86	110.01	119.84
16	AH	185	ILE	C-N-CA	-7.86	110.01	119.84
85	CP	93	LEU	CA-C-N	7.86	135.84	121.70
85	CP	93	LEU	C-N-CA	7.86	135.84	121.70
35	BA	232	GLY	N-CA-C	-7.85	104.60	113.79
48	BN	182	ASN	N-CA-C	-7.83	98.72	110.24
53	BS	19	VAL	CA-C-N	-7.83	112.77	120.52
53	BS	19	VAL	C-N-CA	-7.83	112.77	120.52
23	AO	81	VAL	N-CA-C	7.82	119.87	108.53
81	B5	1240	A	P-O3'-C3'	7.79	131.89	120.20
44	BJ	133	ARG	CA-C-N	-7.78	111.98	119.76
44	BJ	133	ARG	C-N-CA	-7.78	111.98	119.76
61	Ba	14	HIS	N-CA-C	-7.76	97.04	109.76
76	Bq	56	ASN	N-CA-C	7.75	119.36	111.07
81	B5	1226	G	P-O3'-C3'	7.75	131.82	120.20
38	BD	6	ASP	N-CA-C	-7.72	103.84	112.57
37	BC	319	LYS	N-CA-C	-7.72	98.79	110.14
19	AK	63	TYR	N-CA-C	7.71	125.56	114.39
46	BL	100	ARG	N-CA-C	-7.70	100.36	110.53
84	CN	2130	U	C3'-C2'-O2'	7.70	122.25	110.70
48	BN	185	ALA	N-CA-C	-7.67	103.92	113.20
40	BF	191	VAL	CA-C-N	-7.66	109.85	121.87
40	BF	191	VAL	C-N-CA	-7.66	109.85	121.87
29	AU	75	GLY	N-CA-C	-7.65	104.69	111.95
51	BQ	99	THR	N-CA-C	7.61	127.01	110.80
13	AE	76	VAL	N-CA-C	7.60	117.67	110.53
81	B5	1246	G	P-O3'-C3'	7.58	131.57	120.20
61	Ba	101	VAL	N-CA-C	-7.57	101.80	110.05
79	By	104	LEU	N-CA-C	7.54	119.14	111.07
81	B5	1232	C	C2'-C3'-O3'	7.53	125.00	113.70
85	CP	300	LYS	N-CA-C	-7.53	97.97	109.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
81	B5	1256	G	C2'-C3'-O3'	7.53	120.79	109.50
48	BN	67	ARG	N-CA-C	7.47	120.48	111.82
4	A3	24	CYS	N-CA-C	7.45	122.43	112.30
79	CL	139	ASN	CA-C-N	-7.44	110.55	119.84
79	CL	139	ASN	C-N-CA	-7.44	110.55	119.84
67	Bg	7	PHE	N-CA-C	-7.42	100.04	110.50
53	BS	52	LYS	N-CA-C	-7.42	98.13	109.85
2	A1	43	ILE	N-CA-C	7.41	118.58	107.75
10	AB	205	PHE	CA-C-N	7.41	129.11	119.84
10	AB	205	PHE	C-N-CA	7.41	129.11	119.84
37	BC	340	GLY	N-CA-C	-7.41	104.09	115.66
15	AG	85	ARG	CA-C-N	7.41	127.39	119.76
15	AG	85	ARG	C-N-CA	7.41	127.39	119.76
85	CP	72	LEU	CA-C-N	7.41	135.03	121.70
85	CP	72	LEU	C-N-CA	7.41	135.03	121.70
49	BO	108[A]	ILE	CA-C-N	7.40	125.06	119.66
49	BO	108[A]	ILE	C-N-CA	7.40	125.06	119.66
49	BO	108[B]	ILE	CA-C-N	7.40	125.06	119.66
49	BO	108[B]	ILE	C-N-CA	7.40	125.06	119.66
25	AQ	40	GLU	C-N-CD	-7.39	104.35	120.60
28	AT	38	LYS	N-CA-C	7.38	122.34	113.12
38	BD	126	GLU	N-CA-C	-7.38	102.02	113.02
25	AQ	69	VAL	CB-CA-C	-7.38	100.81	110.84
10	AB	132	ASP	N-CA-C	7.38	119.94	110.65
85	CP	253	ASN	CA-CB-CG	-7.36	105.24	112.60
25	AQ	40	GLU	CA-C-N	7.35	144.64	127.00
25	AQ	40	GLU	C-N-CA	7.35	144.64	127.00
37	BC	341	SER	N-CA-C	-7.35	101.69	108.75
46	BL	50	PRO	CA-C-O	-7.32	110.33	118.68
48	BN	61	ILE	N-CA-C	7.30	118.41	107.75
81	B5	1152	G	C4-N9-C1'	-7.29	104.64	126.50
47	BM	53	VAL	CA-C-N	7.28	128.43	119.98
47	BM	53	VAL	C-N-CA	7.28	128.43	119.98
81	B5	1255	C	P-O5'-C5'	7.28	131.82	120.90
79	CL	27	HIS	N-CA-C	-7.25	103.07	110.97
57	BW	75	THR	N-CA-C	7.25	120.21	108.76
38	BD	37	VAL	N-CA-C	7.24	117.34	110.53
40	BF	130	ILE	N-CA-CB	-7.24	103.72	112.33
86	CW	48	C	P-O3'-C3'	7.22	131.04	120.20
81	B5	1307	G	C2'-C3'-O3'	7.22	120.33	109.50
6	A5	146	SER	N-CA-C	-7.21	106.40	114.62
37	BC	230	VAL	CB-CA-C	-7.19	101.56	112.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	BU	90	ARG	N-CA-C	-7.19	99.81	110.23
68	Bh	41	LEU	CA-C-N	7.17	126.80	119.19
68	Bh	41	LEU	C-N-CA	7.17	126.80	119.19
84	CN	2137	G	C2'-C3'-O3'	7.16	120.25	109.50
37	BC	204	GLY	CA-C-N	-7.15	113.31	120.31
37	BC	204	GLY	C-N-CA	-7.15	113.31	120.31
49	BO	109[A]	PRO	CA-C-O	-7.14	115.09	120.73
49	BO	109[B]	PRO	CA-C-O	-7.14	115.09	120.73
76	Bq	26	PHE	CA-CB-CG	-7.13	106.67	113.80
22	AN	22	ALA	CA-C-N	7.13	144.12	127.00
22	AN	22	ALA	C-N-CA	7.13	144.12	127.00
81	B5	1229	G	C5'-C4'-C3'	7.13	126.69	116.00
85	CP	242	GLY	CA-C-N	7.12	132.93	122.39
85	CP	242	GLY	C-N-CA	7.12	132.93	122.39
79	CL	180	PHE	N-CA-C	-7.11	100.83	110.36
13	AE	28	ALA	CA-C-N	-7.11	112.43	119.90
13	AE	28	ALA	C-N-CA	-7.11	112.43	119.90
35	BA	207	VAL	CB-CA-C	-7.10	101.15	112.16
9	AA	108	THR	N-CA-C	-7.10	100.02	110.52
44	BJ	65	ILE	CB-CA-C	-7.08	104.83	111.06
11	AC	111	VAL	CB-CA-C	-7.08	102.08	111.70
48	BN	90	ASN	CA-C-N	-7.06	111.32	123.25
48	BN	90	ASN	C-N-CA	-7.06	111.32	123.25
85	CP	244	GLY	N-CA-C	7.06	129.91	113.18
14	AF	44	ASN	N-CA-C	-7.06	102.64	111.11
41	BG	72	PRO	CA-C-N	7.05	128.66	119.84
41	BG	72	PRO	C-N-CA	7.05	128.66	119.84
62	Bb	19	ASN	CA-C-N	-7.05	115.75	122.66
62	Bb	19	ASN	C-N-CA	-7.05	115.75	122.66
46	BL	75	PHE	N-CA-C	7.05	122.13	112.90
81	B5	1254	C	O5'-C5'-C4'	-7.04	100.95	111.50
35	BA	14	SER	CB-CA-C	-7.02	108.46	116.54
9	AA	3	LEU	CA-C-N	6.98	128.57	119.84
9	AA	3	LEU	C-N-CA	6.98	128.57	119.84
48	BN	76	PRO	CA-C-N	-6.98	111.46	123.25
48	BN	76	PRO	C-N-CA	-6.98	111.46	123.25
22	AN	22	ALA	C-N-CD	-6.96	105.28	120.60
13	AE	105	VAL	N-CA-C	-6.94	105.30	113.42
19	AK	82	LEU	CA-C-N	6.94	126.97	119.89
19	AK	82	LEU	C-N-CA	6.94	126.97	119.89
81	B5	1283	C	O3'-P-O5'	6.94	114.41	104.00
20	AL	135	VAL	N-CA-C	6.93	117.99	108.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	BS	5	LYS	N-CA-C	-6.93	98.78	109.52
36	BB	81	THR	CA-C-N	-6.90	113.27	120.38
36	BB	81	THR	C-N-CA	-6.90	113.27	120.38
50	BP	51	VAL	N-CA-C	-6.90	102.19	111.44
85	CP	336	ASP	CA-CB-CG	-6.89	105.71	112.60
40	BF	95	ILE	CA-C-N	6.89	127.47	120.38
40	BF	95	ILE	C-N-CA	6.89	127.47	120.38
37	BC	90	PHE	CA-C-N	-6.88	107.92	121.41
37	BC	90	PHE	C-N-CA	-6.88	107.92	121.41
32	AX	45	GLY	N-CA-C	-6.87	105.02	114.64
81	B5	1283	C	C5'-C4'-C3'	6.87	126.31	116.00
84	CN	2174	G	C3'-C2'-O2'	6.85	120.97	110.70
42	BH	143	GLU	N-CA-C	6.84	122.17	113.55
86	CW	74	C	C4'-C3'-C2'	-6.83	95.77	102.60
12	AD	219	ALA	CA-C-N	6.83	128.38	119.84
12	AD	219	ALA	C-N-CA	6.83	128.38	119.84
17	AI	148	ALA	N-CA-C	-6.82	101.98	111.39
9	AA	202	TYR	N-CA-C	-6.82	101.07	110.35
13	AE	30	ARG	CA-C-N	6.80	127.21	119.93
13	AE	30	ARG	C-N-CA	6.80	127.21	119.93
64	Bd	90	PHE	CB-CA-C	-6.80	97.45	110.24
57	BW	79	GLN	N-CA-C	6.80	120.48	109.40
85	CP	248	ASP	CA-CB-CG	-6.79	105.81	112.60
85	CP	60	ALA	N-CA-C	-6.78	96.35	110.80
79	CL	224	ILE	N-CA-C	6.77	118.69	108.80
81	B5	1227	C	N1-C1'-C2'	6.77	122.15	112.00
40	BF	177	GLY	N-CA-C	-6.75	100.47	112.22
64	Bd	40	ALA	N-CA-C	-6.73	103.86	111.07
54	BT	11	THR	N-CA-C	6.73	121.20	112.92
60	BZ	90	GLU	N-CA-C	6.73	119.23	111.02
66	Bf	86	ARG	N-CA-C	-6.72	103.95	111.28
43	BI	153	ARG	N-CA-C	-6.72	104.10	112.90
52	BR	45	VAL	N-CA-C	-6.72	103.68	111.00
65	Be	16	LYS	N-CA-C	6.72	118.39	111.14
81	B5	1254	C	P-O5'-C5'	6.72	130.97	120.90
84	CN	2148	G	C3'-C2'-O2'	6.71	120.77	110.70
61	Ba	72	VAL	N-CA-C	6.69	119.04	108.87
81	B5	1260	A	P-O5'-C5'	-6.69	110.86	120.90
85	CP	268	ASN	N-CA-C	-6.69	104.43	112.59
85	CP	108	GLU	N-CA-C	-6.69	99.00	108.96
40	BF	76	TYR	CA-C-N	-6.68	114.22	123.10
40	BF	76	TYR	C-N-CA	-6.68	114.22	123.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	BB	241	LYS	CA-C-N	-6.67	111.89	121.42
36	BB	241	LYS	C-N-CA	-6.67	111.89	121.42
49	BO	110[A]	PRO	CA-C-O	-6.67	110.90	120.56
49	BO	110[B]	PRO	CA-C-O	-6.67	110.90	120.56
55	BU	68	THR	N-CA-C	-6.66	103.62	113.61
84	CN	2201	U	N1-C1'-C2'	6.66	121.98	112.00
41	BG	71	VAL	CA-C-N	-6.65	113.53	120.38
41	BG	71	VAL	C-N-CA	-6.65	113.53	120.38
86	CW	27	G	C5'-C4'-C3'	-6.64	106.03	116.00
41	BG	128	LYS	CA-C-N	6.64	126.82	120.31
41	BG	128	LYS	C-N-CA	6.64	126.82	120.31
85	CP	325	GLY	N-CA-C	-6.64	98.79	112.34
65	Be	45	ARG	CB-CA-C	-6.64	103.32	111.82
86	CW	21	A	P-O3'-C3'	6.64	130.16	120.20
24	AP	52	LYS	CA-C-N	-6.63	114.95	121.65
24	AP	52	LYS	C-N-CA	-6.63	114.95	121.65
19	AK	87	VAL	CA-C-N	6.63	128.13	119.84
19	AK	87	VAL	C-N-CA	6.63	128.13	119.84
16	AH	50	ASP	N-CA-C	6.62	120.17	110.17
24	AP	100	LYS	N-CA-C	-6.62	99.50	109.96
42	BH	169	ASN	N-CA-C	6.62	120.30	111.30
85	CP	80	HIS	CA-C-N	6.62	133.62	121.70
85	CP	80	HIS	C-N-CA	6.62	133.62	121.70
42	BH	4	ILE	N-CA-CB	6.61	119.53	110.54
69	Bi	66	GLU	N-CA-C	-6.61	104.85	113.17
79	By	192	PHE	N-CA-C	-6.61	103.34	111.40
1	A0	96	ALA	CA-C-N	6.60	127.18	120.38
1	A0	96	ALA	C-N-CA	6.60	127.18	120.38
76	Bq	79	PHE	CA-CB-CG	-6.57	107.23	113.80
43	BI	140	THR	CB-CA-C	-6.56	100.25	114.10
38	BD	272	TYR	N-CA-C	-6.56	103.60	112.26
85	CP	103	ILE	N-CA-C	-6.56	106.33	112.83
50	BP	24	VAL	CB-CA-C	-6.55	100.59	110.55
81	B5	1226	G	P-O5'-C5'	-6.55	111.08	120.90
26	AR	77	GLU	N-CA-C	-6.55	103.83	110.97
79	By	28	LEU	N-CA-C	6.55	119.24	111.71
34	AZ	98	GLN	N-CA-C	6.52	119.18	109.59
76	Bq	73	PHE	CA-CB-CG	-6.52	107.28	113.80
23	AO	56	SER	CA-C-N	6.52	126.75	119.32
23	AO	56	SER	C-N-CA	6.52	126.75	119.32
43	BI	99	ILE	CB-CA-C	-6.51	101.12	110.83
73	Bm	83	LYS	N-CA-C	-6.51	104.11	111.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	BZ	28	PRO	N-CA-C	6.51	123.24	113.81
33	AY	45	ALA	N-CA-C	-6.49	104.20	111.28
28	AT	9	VAL	N-CA-C	6.49	117.38	107.77
37	BC	192	GLY	N-CA-C	-6.49	106.31	114.16
18	AJ	101	VAL	N-CA-C	6.48	117.23	110.62
23	AO	91	THR	N-CA-C	6.48	119.17	111.33
43	BI	24	ARG	N-CA-C	-6.48	100.93	110.52
61	Ba	42	ARG	N-CA-C	6.48	119.33	111.82
36	BB	286	GLY	N-CA-C	6.47	120.34	111.54
37	BC	248	VAL	N-CA-C	6.47	117.23	108.17
43	BI	62	SER	N-CA-C	-6.47	104.23	111.28
46	BL	151	ALA	N-CA-C	6.46	119.28	111.40
58	BX	56	ARG	N-CA-C	-6.46	101.39	110.50
9	AA	167	LYS	CB-CA-C	-6.43	109.17	116.63
44	BJ	44	THR	CB-CA-C	6.43	117.06	109.47
14	AF	29	ILE	CA-C-N	6.42	127.87	119.84
14	AF	29	ILE	C-N-CA	6.42	127.87	119.84
46	BL	76	THR	N-CA-CB	6.42	121.34	110.49
41	BG	68	ARG	N-CA-C	-6.41	102.03	110.43
81	B5	1227	C	P-O5'-C5'	-6.41	111.28	120.90
40	BF	221	LYS	N-CA-C	-6.40	99.83	108.86
61	Ba	8	THR	CB-CA-C	6.40	121.73	110.85
84	CN	2203	G	C3'-C2'-O2'	6.40	120.30	110.70
79	By	77	ILE	N-CA-C	-6.40	96.12	107.18
59	BY	100	HIS	CA-C-N	-6.39	113.22	119.87
59	BY	100	HIS	C-N-CA	-6.39	113.22	119.87
10	AB	22	ASP	CA-C-N	6.39	127.83	119.84
10	AB	22	ASP	C-N-CA	6.39	127.83	119.84
79	By	222	VAL	CA-C-N	6.38	130.47	121.02
79	By	222	VAL	C-N-CA	6.38	130.47	121.02
2	A1	15	GLU	N-CA-C	-6.35	103.88	111.69
81	B5	1284	C	O4'-C4'-C3'	-6.35	99.75	106.10
56	BV	42	SER	N-CA-C	6.35	124.32	110.80
22	AN	137	PRO	CA-C-O	-6.34	114.11	121.34
84	CN	2141	G	C3'-C2'-O2'	6.34	120.22	110.70
86	CW	8	U	P-O3'-C3'	6.34	129.71	120.20
13	AE	197	HIS	N-CA-C	6.34	116.93	108.38
15	AG	147	LEU	N-CA-C	6.33	121.84	114.62
13	AE	168	LYS	N-CA-C	6.33	118.47	110.24
81	B5	1152	G	N3-C4-N9	-6.33	107.01	126.00
34	AZ	94	LYS	N-CA-C	6.33	121.09	112.68
53	BS	40	ARG	CG-CD-NE	6.32	125.90	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	BY	56	VAL	N-CA-C	6.32	116.69	108.35
85	CP	229	HIS	CA-CB-CG	-6.32	107.48	113.80
43	BI	4	ARG	CB-CA-C	6.32	118.58	109.11
84	CN	2192	A	P-O5'-C5'	-6.32	111.43	120.90
36	BB	228	GLY	N-CA-C	6.31	119.27	112.33
86	CW	74	C	C5'-C4'-C3'	6.30	124.66	115.20
7	A6	286	GLU	CA-C-N	6.30	126.06	119.76
7	A6	286	GLU	C-N-CA	6.30	126.06	119.76
37	BC	222	VAL	CA-C-N	6.30	127.72	119.84
37	BC	222	VAL	C-N-CA	6.30	127.72	119.84
66	Bf	19	SER	N-CA-C	-6.30	100.05	109.94
85	CP	178	ASN	N-CA-C	-6.30	98.35	109.06
16	AH	30	SER	N-CA-C	-6.30	104.39	113.21
16	AH	97	ARG	N-CA-C	6.30	117.94	111.14
43	BI	154	ARG	N-CA-C	-6.30	104.30	112.23
35	BA	148	VAL	N-CA-C	6.29	117.90	108.96
57	BW	76	VAL	N-CA-C	6.29	122.42	109.34
86	CW	72	C	P-O3'-C3'	6.29	129.63	120.20
39	BE	30	LEU	N-CA-C	6.28	119.14	110.35
6	A5	106	TYR	N-CA-C	-6.28	97.42	110.80
31	AW	94	LEU	CA-C-N	6.28	125.50	118.97
31	AW	94	LEU	C-N-CA	6.28	125.50	118.97
81	B5	1152	G	N3-C2-N2	-6.28	101.08	119.90
37	BC	115	HIS	N-CA-C	-6.27	104.53	111.36
31	AW	105	THR	CB-CA-C	-6.26	99.92	110.19
73	Bm	119	ASN	N-CA-C	-6.26	104.95	112.59
53	BS	171	PHE	N-CA-C	6.24	120.63	112.89
40	BF	98	LYS	CA-C-N	-6.24	112.41	119.28
40	BF	98	LYS	C-N-CA	-6.24	112.41	119.28
40	BF	174	GLY	N-CA-C	-6.23	105.02	113.37
85	CP	322	LEU	CA-C-N	6.23	129.84	120.75
85	CP	322	LEU	C-N-CA	6.23	129.84	120.75
60	BZ	35	SER	N-CA-C	-6.22	100.63	109.96
84	CN	2171	U	C3'-C2'-O2'	6.21	120.02	110.70
84	CN	2203	G	C2'-C3'-O3'	6.21	123.01	113.70
85	CP	269	GLY	CA-C-N	6.21	125.97	119.76
85	CP	269	GLY	C-N-CA	6.21	125.97	119.76
76	Bq	37	GLN	CA-C-N	6.20	128.90	120.54
76	Bq	37	GLN	C-N-CA	6.20	128.90	120.54
6	A5	144	CYS	N-CA-C	-6.19	97.62	110.80
69	Bi	47	ILE	CB-CA-C	-6.19	104.14	111.94
42	BH	151	VAL	N-CA-CB	6.19	118.20	110.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	CN	2189	G	C1'-C2'-O2'	6.18	117.67	108.40
55	BU	21	SER	CA-C-N	-6.17	112.65	119.19
55	BU	21	SER	C-N-CA	-6.17	112.65	119.19
32	AX	111	GLY	N-CA-C	-6.17	100.54	112.02
39	BE	94	GLU	N-CA-C	6.17	118.55	111.02
29	AU	75	GLY	CA-C-O	-6.17	118.21	122.22
84	CN	2198	C	C4'-C3'-O3'	-6.16	103.76	113.00
85	CP	263	VAL	N-CA-C	-6.13	99.57	108.89
76	Bq	12	PHE	CA-CB-CG	6.13	119.93	113.80
28	AT	121	GLY	N-CA-C	6.11	118.69	111.35
50	BP	79	THR	N-CA-C	-6.11	106.46	114.04
6	A5	104	SER	N-CA-C	-6.11	105.78	113.18
81	B5	1256	G	O5'-C5'-C4'	-6.11	102.54	111.70
13	AE	149	TYR	CA-C-N	-6.11	114.47	120.52
13	AE	149	TYR	C-N-CA	-6.11	114.47	120.52
10	AB	105	PHE	N-CA-C	-6.09	99.81	109.07
22	AN	12	SER	N-CA-C	-6.08	99.27	108.52
11	AC	150	GLN	CA-C-N	6.08	126.10	119.90
11	AC	150	GLN	C-N-CA	6.08	126.10	119.90
15	AG	129	VAL	CA-C-N	6.08	126.40	119.83
15	AG	129	VAL	C-N-CA	6.08	126.40	119.83
15	AG	38	GLY	N-CA-C	6.08	119.85	112.49
17	AI	104	ILE	N-CA-C	6.07	121.95	109.34
85	CP	62	TYR	N-CA-C	6.06	117.56	111.07
24	AP	124	THR	CA-C-N	6.06	127.42	119.84
24	AP	124	THR	C-N-CA	6.06	127.42	119.84
16	AH	31	SER	N-CA-C	6.06	123.20	109.81
52	BR	57	VAL	N-CA-C	6.06	116.89	108.89
85	CP	140	ALA	CA-C-N	6.06	128.12	122.85
85	CP	140	ALA	C-N-CA	6.06	128.12	122.85
31	AW	55	ASP	N-CA-C	-6.05	102.38	110.55
9	AA	111	ILE	N-CA-C	6.05	121.92	109.34
54	BT	122	GLN	N-CA-C	-6.05	105.45	114.64
36	BB	81	THR	CB-CA-C	6.03	119.11	111.21
37	BC	73	ARG	CB-CG-CD	-6.03	97.43	111.30
9	AA	145	ALA	N-CA-C	6.03	118.31	108.55
81	B5	1272	C	P-O5'-C5'	-6.03	111.86	120.90
48	BN	78	GLY	N-CA-C	-6.02	107.36	115.36
85	CP	3	LEU	N-CA-C	-6.02	99.38	109.07
32	AX	29	TYR	N-CA-C	-6.02	104.64	111.14
21	AM	26	ASP	N-CA-C	-6.02	105.90	113.18
53	BS	14	LEU	CA-C-N	6.02	125.98	119.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	BS	14	LEU	C-N-CA	6.02	125.98	119.78
27	AS	31	ALA	N-CA-C	-6.01	104.36	111.03
73	Bm	88	LYS	N-CA-C	-6.01	105.21	112.54
84	CN	2134	U	C2'-C3'-O3'	6.01	122.72	113.70
86	CW	31	A	C5'-C4'-C3'	6.00	125.00	116.00
85	CP	62	TYR	CA-C-O	-5.99	114.53	120.82
12	AD	203	PRO	CA-C-N	5.99	128.31	120.28
12	AD	203	PRO	C-N-CA	5.99	128.31	120.28
86	CW	74	C	O5'-C5'-C4'	5.99	120.69	111.70
76	Bq	35	SER	CA-C-N	5.99	132.98	121.54
76	Bq	35	SER	C-N-CA	5.99	132.98	121.54
35	BA	107	VAL	CA-C-N	5.99	125.95	120.03
35	BA	107	VAL	C-N-CA	5.99	125.95	120.03
81	B5	282	G	C2'-C3'-O3'	5.98	122.68	113.70
62	Bb	18	ARG	N-CA-C	-5.98	104.39	111.03
10	AB	153	HIS	N-CA-C	5.98	123.54	110.80
9	AA	67	ILE	CA-C-N	5.98	127.31	119.84
9	AA	67	ILE	C-N-CA	5.98	127.31	119.84
37	BC	191	LYS	N-CA-C	-5.97	105.83	114.12
76	Bq	6	GLU	N-CA-C	-5.97	104.86	111.36
84	CN	2201	U	O4'-C1'-C2'	-5.96	101.64	107.60
55	BU	28	PHE	N-CA-C	5.96	118.17	108.76
57	BW	27	LYS	N-CA-C	-5.96	101.22	110.10
35	BA	216	HIS	N-CA-C	-5.95	99.65	108.99
41	BG	246	MET	N-CA-C	-5.95	106.15	113.41
76	Bq	90	ASN	N-CA-C	-5.94	100.72	109.81
54	BT	131	GLN	CA-C-N	-5.94	114.64	120.52
54	BT	131	GLN	C-N-CA	-5.94	114.64	120.52
63	Bc	97	ASP	N-CA-C	-5.94	106.09	113.15
56	BV	126	TRP	CA-C-N	5.93	125.41	119.24
56	BV	126	TRP	C-N-CA	5.93	125.41	119.24
37	BC	276	LEU	CA-C-N	5.92	125.94	119.90
37	BC	276	LEU	C-N-CA	5.92	125.94	119.90
50	BP	64	ASN	CA-C-N	-5.92	114.31	122.30
50	BP	64	ASN	C-N-CA	-5.92	114.31	122.30
51	BQ	166	LEU	CB-CA-C	-5.91	101.50	111.02
85	CP	311	ASP	N-CA-C	-5.91	104.93	114.09
13	AE	103	TYR	N-CA-C	5.91	119.53	110.20
46	BL	16	LYS	N-CA-C	5.90	122.49	112.99
28	AT	54	PHE	N-CA-C	-5.88	104.81	112.23
39	BE	66	SER	CA-C-N	-5.88	112.63	121.87
39	BE	66	SER	C-N-CA	-5.88	112.63	121.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
81	B5	1226	G	O4'-C1'-N9	5.88	117.33	108.50
23	AO	115	ILE	N-CA-C	5.87	116.32	107.75
61	Ba	10	LYS	N-CA-C	-5.87	105.61	112.89
2	A1	68	GLY	N-CA-C	-5.87	105.56	113.24
44	BJ	17	LEU	CA-C-N	-5.87	115.27	123.13
44	BJ	17	LEU	C-N-CA	-5.87	115.27	123.13
81	B5	1232	C	O4'-C1'-N1	5.87	117.30	108.50
40	BF	130	ILE	N-CA-C	-5.85	107.56	113.47
36	BB	84	VAL	N-CA-C	-5.84	100.06	108.48
51	BQ	24	VAL	CB-CA-C	-5.84	104.38	112.04
53	BS	49	HIS	N-CA-C	-5.84	99.53	108.76
85	CP	23	ASP	CA-CB-CG	5.84	118.44	112.60
48	BN	177	GLY	N-CA-C	5.84	119.17	111.70
46	BL	42	ARG	N-CA-C	-5.83	104.84	111.14
79	By	195	ALA	CA-C-N	5.82	128.01	120.44
79	By	195	ALA	C-N-CA	5.82	128.01	120.44
41	BG	82	LEU	N-CA-C	-5.82	98.41	110.80
85	CP	289	LEU	CA-C-N	5.81	132.64	121.54
85	CP	289	LEU	C-N-CA	5.81	132.64	121.54
37	BC	260	GLN	N-CA-C	-5.81	105.08	111.82
79	By	111	ASP	N-CA-C	-5.81	106.74	113.88
36	BB	310	GLY	N-CA-C	-5.80	104.40	112.18
85	CP	137	ASP	N-CA-C	5.79	123.14	110.80
44	BJ	127	PHE	CA-C-N	-5.79	114.84	123.00
44	BJ	127	PHE	C-N-CA	-5.79	114.84	123.00
81	B5	1229	G	O4'-C1'-N9	5.78	117.17	108.50
81	B5	1227	C	C5'-C4'-C3'	-5.78	107.33	116.00
85	CP	325	GLY	CA-C-N	5.77	127.06	119.84
85	CP	325	GLY	C-N-CA	5.77	127.06	119.84
58	BX	107	VAL	N-CA-C	5.77	116.19	108.11
47	BM	28	SER	N-CA-C	-5.77	106.14	112.72
81	B5	1257	C	O4'-C1'-N1	5.77	117.15	108.50
16	AH	62	VAL	CA-C-N	5.76	127.05	119.84
16	AH	62	VAL	C-N-CA	5.76	127.05	119.84
41	BG	151	VAL	N-CA-C	5.76	116.42	108.12
85	CP	82	SER	CA-C-N	5.76	132.54	121.54
85	CP	82	SER	C-N-CA	5.76	132.54	121.54
37	BC	269	SER	N-CA-C	5.76	118.50	111.82
47	BM	134	ALA	N-CA-C	-5.76	104.92	111.14
24	AP	37	ALA	CA-C-N	-5.76	112.64	119.84
24	AP	37	ALA	C-N-CA	-5.76	112.64	119.84
85	CP	13	HIS	CA-CB-CG	5.75	119.55	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BC	284	SER	N-CA-C	-5.75	106.13	114.12
22	AN	122	ILE	CB-CA-C	-5.74	104.62	111.97
39	BE	102	ASN	N-CA-C	5.74	116.15	108.23
38	BD	88	ILE	CB-CA-C	-5.73	103.04	110.84
65	Be	41	VAL	CB-CA-C	-5.73	102.97	112.26
86	CW	72	C	C2'-C3'-O3'	5.73	122.29	113.70
37	BC	118	LYS	N-CA-C	-5.72	104.24	111.11
81	B5	1227	C	O4'-C1'-C2'	-5.72	101.88	107.60
7	A6	59	ARG	N-CA-C	5.72	118.10	109.23
13	AE	105	VAL	CB-CA-C	-5.72	104.64	110.88
61	Ba	19	LYS	N-CA-C	5.72	119.95	112.92
84	CN	2134	U	C3'-C2'-O2'	5.72	119.28	110.70
48	BN	96	ARG	N-CA-C	-5.71	101.56	110.42
76	Bq	104	ARG	CA-C-N	5.71	132.26	121.97
76	Bq	104	ARG	C-N-CA	5.71	132.26	121.97
71	Bk	20	VAL	N-CA-C	5.70	112.31	106.21
26	AR	85	VAL	N-CA-C	5.70	121.19	108.88
17	AI	32	GLN	CA-C-N	5.70	125.61	119.85
17	AI	32	GLN	C-N-CA	5.70	125.61	119.85
56	BV	33	ASN	CB-CA-C	-5.69	98.61	109.66
7	A6	84	SER	N-CA-C	5.69	117.72	109.07
86	CW	19	G	O5'-C5'-C4'	-5.69	103.16	111.70
85	CP	19	THR	N-CA-C	-5.69	100.43	109.76
18	AJ	66	ASP	CA-C-N	5.69	125.16	119.24
18	AJ	66	ASP	C-N-CA	5.69	125.16	119.24
43	BI	131	ILE	N-CA-CB	5.69	116.92	110.72
79	By	104	LEU	CA-C-N	5.68	131.93	121.70
79	By	104	LEU	C-N-CA	5.68	131.93	121.70
23	AO	124	ASP	N-CA-C	5.68	122.90	110.80
8	A7	64	LYS	N-CA-C	-5.68	103.15	110.19
9	AA	74	VAL	N-CA-C	5.68	116.12	108.17
85	CP	23	ASP	N-CA-C	-5.68	105.09	111.28
53	BS	20	PRO	N-CA-C	-5.68	102.67	111.13
70	Bj	84	SER	N-CA-C	5.67	118.32	111.40
81	B5	1283	C	P-O5'-C5'	-5.67	112.39	120.90
86	CW	74	C	O3'-P-O5'	5.67	112.50	104.00
76	Bq	5	ARG	N-CA-C	-5.67	106.20	113.23
76	Bq	57	THR	N-CA-CB	5.67	118.95	110.22
44	BJ	113	GLY	N-CA-C	-5.66	102.36	112.22
7	A6	137	LYS	N-CA-C	-5.66	106.42	113.38
76	Bq	23	LYS	N-CA-C	-5.65	106.43	113.55
60	BZ	103	GLN	CA-C-N	5.65	126.90	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	BZ	103	GLN	C-N-CA	5.65	126.90	119.84
36	BB	186	GLY	N-CA-C	5.65	120.51	111.64
42	BH	55	VAL	CB-CA-C	-5.64	102.09	110.33
13	AE	3	ARG	N-CA-C	5.64	122.82	110.80
40	BF	242	SER	N-CA-C	-5.64	106.40	113.28
37	BC	64	SER	N-CA-C	-5.64	102.13	110.48
34	AZ	83	LEU	N-CA-C	-5.64	106.24	113.23
84	CN	2143	U	C1'-C2'-O2'	5.64	116.86	108.40
86	CW	4	C	O3'-P-O5'	-5.64	95.54	104.00
42	BH	12	VAL	N-CA-C	5.64	112.69	107.56
24	AP	39	ALA	N-CA-C	5.63	117.89	111.02
86	CW	22	G	C5'-C4'-C3'	5.63	124.45	116.00
79	By	30	LYS	N-CA-C	5.63	119.63	112.87
38	BD	204	VAL	CB-CA-C	-5.63	104.45	112.22
31	AW	98	GLN	N-CA-C	5.62	119.40	112.54
10	AB	131	ASP	CB-CA-C	5.62	119.26	109.65
81	B5	1249	G	P-O5'-C5'	5.62	129.33	120.90
86	CW	1	G	P-O3'-C3'	-5.61	111.78	120.20
84	CN	2123	U	C2'-C3'-O3'	5.61	122.11	113.70
64	Bd	87	ASN	CA-C-N	5.61	125.70	119.87
64	Bd	87	ASN	C-N-CA	5.61	125.70	119.87
30	AV	34	ILE	CB-CA-C	-5.60	104.18	110.96
31	AW	128	PHE	N-CA-C	5.60	117.36	108.79
81	B5	1152	G	N3-C4-C5	5.60	145.40	128.60
81	B5	1229	G	O4'-C4'-C3'	-5.60	98.40	104.00
46	BL	46	ILE	CB-CA-C	5.59	118.14	111.20
86	CW	74	C	C2'-C3'-O3'	5.59	117.89	109.50
2	A1	67	THR	N-CA-C	5.59	115.40	108.19
85	CP	195	VAL	CB-CA-C	-5.58	104.43	110.85
47	BM	23	ILE	N-CA-C	5.58	115.60	108.12
85	CP	44	ALA	N-CA-C	-5.58	100.59	109.07
42	BH	101	VAL	N-CA-C	5.58	115.90	107.75
29	AU	34	LEU	N-CA-C	-5.58	105.28	111.36
65	Be	63	THR	N-CA-C	-5.58	106.30	114.39
66	Bf	93	THR	N-CA-C	-5.58	105.68	112.88
64	Bd	64	VAL	CB-CA-C	-5.58	102.15	111.29
58	BX	43	ALA	CA-C-N	5.56	126.79	119.84
58	BX	43	ALA	C-N-CA	5.56	126.79	119.84
27	AS	28	ILE	N-CA-C	5.55	120.89	109.34
85	CP	210	TRP	CG-CD1-NE1	5.55	117.42	110.20
38	BD	67	SER	N-CA-C	5.55	118.60	109.72
86	CW	9	A	P-O5'-C5'	5.55	129.22	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	AL	131	ILE	N-CA-C	-5.54	107.42	112.96
36	BB	235	THR	N-CA-CB	-5.54	101.12	110.49
51	BQ	3	ILE	CB-CA-C	-5.54	101.52	110.28
40	BF	147	LEU	N-CA-C	-5.54	105.32	111.36
36	BB	115	LYS	N-CA-C	-5.54	105.34	111.71
15	AG	19	ASP	N-CA-C	-5.54	101.14	109.95
53	BS	97	VAL	N-CA-C	-5.54	106.94	113.42
81	B5	2524	A	C3'-C2'-C1'	-5.54	95.97	101.50
35	BA	213	GLY	CA-C-N	-5.53	117.90	122.16
35	BA	213	GLY	C-N-CA	-5.53	117.90	122.16
58	BX	69	SER	N-CA-C	-5.53	103.40	110.53
76	Bq	53	MET	N-CA-C	-5.53	101.16	109.95
85	CP	21	LEU	N-CA-C	5.53	116.99	111.07
85	CP	235	LEU	N-CA-C	5.53	120.14	112.45
76	Bq	216	ALA	N-CA-C	-5.53	105.32	113.61
84	CN	2187	G	C2'-C3'-O3'	5.53	117.79	109.50
47	BM	20	VAL	N-CA-C	5.52	116.26	108.36
79	CL	71	GLN	N-CA-C	-5.52	99.04	110.80
79	CL	27	HIS	CA-CB-CG	5.52	119.32	113.80
51	BQ	151	ARG	NE-CZ-NH1	-5.52	115.98	121.50
38	BD	46	THR	CB-CA-C	-5.51	100.98	109.85
61	Ba	138	ILE	N-CA-C	-5.51	105.13	110.42
79	By	179	SER	N-CA-C	-5.51	105.92	113.30
85	CP	80	HIS	CA-CB-CG	5.50	119.30	113.80
85	CP	136	TYR	CA-CB-CG	5.50	123.81	113.90
37	BC	190	GLY	N-CA-C	5.50	126.22	113.18
30	AV	13	VAL	CA-C-N	5.50	126.71	119.84
30	AV	13	VAL	C-N-CA	5.50	126.71	119.84
53	BS	51	VAL	CB-CA-C	-5.50	102.27	111.29
11	AC	64	LYS	N-CA-C	-5.50	108.36	114.62
85	CP	22	LEU	CA-C-O	5.50	126.29	119.97
26	AR	23	LYS	N-CA-C	-5.50	99.10	110.80
61	Ba	65	GLN	CA-C-N	-5.50	115.35	125.02
61	Ba	65	GLN	C-N-CA	-5.50	115.35	125.02
79	By	184	LYS	N-CA-C	-5.49	106.71	113.41
36	BB	309	GLY	N-CA-C	-5.49	107.37	113.79
40	BF	203	TRP	CA-C-N	-5.49	113.90	119.83
40	BF	203	TRP	C-N-CA	-5.49	113.90	119.83
66	Bf	53	TYR	N-CA-C	5.49	117.75	109.41
42	BH	48	VAL	N-CA-C	-5.49	106.35	111.45
49	BO	110[A]	PRO	CB-CA-C	5.49	117.61	110.92
49	BO	110[B]	PRO	CB-CA-C	5.49	117.61	110.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	BD	254	LYS	CA-C-N	5.49	125.95	120.14
38	BD	254	LYS	C-N-CA	5.49	125.95	120.14
81	B5	2372	A	C4'-C3'-O3'	5.48	117.62	109.40
39	BE	173	MET	CB-CG-SD	-5.48	96.26	112.70
73	Bm	91	CYS	N-CA-C	5.48	121.65	114.75
84	CN	2128	C	C1'-C2'-O2'	5.48	116.61	108.40
12	AD	50	ILE	CB-CA-C	-5.47	106.44	112.68
20	AL	22	ASN	CA-C-N	5.47	125.09	119.56
20	AL	22	ASN	C-N-CA	5.47	125.09	119.56
36	BB	98	GLY	N-CA-C	5.47	117.61	112.08
81	B5	2372	A	P-O3'-C3'	5.47	128.41	120.20
85	CP	135	LEU	CA-C-N	5.47	131.99	121.54
85	CP	135	LEU	C-N-CA	5.47	131.99	121.54
1	A0	74	CYS	N-CA-C	5.47	119.26	112.59
16	AH	116	ARG	N-CA-C	-5.47	105.56	113.21
79	By	131	LEU	N-CA-C	-5.46	104.48	113.50
9	AA	6	THR	N-CA-C	-5.46	105.83	112.88
38	BD	75	LEU	N-CA-C	-5.46	104.18	112.04
52	BR	70	LYS	N-CA-C	-5.45	105.42	111.36
12	AD	114	ALA	N-CA-C	-5.45	102.10	109.95
81	B5	1283	C	O4'-C4'-C3'	5.45	109.45	104.00
61	Ba	15	VAL	CB-CA-C	-5.45	104.21	111.13
52	BR	132	PHE	CA-C-N	5.44	127.58	120.28
52	BR	132	PHE	C-N-CA	5.44	127.58	120.28
81	B5	1227	C	C2'-C3'-O3'	5.44	121.87	113.70
16	AH	12	ALA	CA-C-N	5.44	126.64	119.84
16	AH	12	ALA	C-N-CA	5.44	126.64	119.84
53	BS	155	ARG	CG-CD-NE	5.43	123.96	112.00
21	AM	81	ASP	CA-C-N	5.43	126.63	119.84
21	AM	81	ASP	C-N-CA	5.43	126.63	119.84
74	Bn	24	SER	N-CA-C	-5.43	105.46	113.61
84	CN	2124	C	C1'-C2'-O2'	5.43	116.55	108.40
35	BA	168	VAL	CB-CA-C	-5.43	103.42	111.19
25	AQ	63	ILE	N-CA-C	5.43	116.48	108.45
81	B5	1285	G	C4'-C3'-C2'	-5.43	97.17	102.60
16	AH	183	PHE	N-CA-C	5.42	117.49	109.69
84	CN	2142	G	C3'-C2'-O2'	5.42	118.82	110.70
10	AB	232	HIS	N-CA-C	5.41	118.28	109.24
23	AO	22	SER	N-CA-C	-5.41	101.90	109.69
74	Bn	20	VAL	CB-CA-C	-5.41	104.83	112.14
81	B5	1264	G	P-O3'-C3'	-5.41	112.09	120.20
29	AU	28	SER	N-CA-C	5.41	116.20	108.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	CW	19	G	C2'-C3'-O3'	5.41	117.61	109.50
85	CP	201	THR	N-CA-C	-5.40	101.07	109.72
61	Ba	120	ASN	N-CA-C	5.40	120.28	111.37
61	Ba	28	HIS	CB-CA-C	-5.40	99.53	110.17
39	BE	37	GLY	N-CA-C	-5.40	107.66	115.27
46	BL	26	PHE	N-CA-C	-5.40	106.53	113.01
85	CP	324	VAL	CA-C-N	5.39	130.34	121.87
85	CP	324	VAL	C-N-CA	5.39	130.34	121.87
1	A0	97	PRO	N-CA-C	5.39	117.28	110.70
84	CN	2204	C	C4'-C3'-O3'	-5.39	104.91	113.00
42	BH	29	GLY	CA-C-N	5.39	125.46	119.32
42	BH	29	GLY	C-N-CA	5.39	125.46	119.32
76	Bq	213	PHE	N-CA-C	-5.38	105.93	112.88
60	BZ	14	VAL	CB-CA-C	5.38	118.69	111.85
79	By	134	ARG	N-CA-C	-5.38	106.22	112.89
44	BJ	76	ALA	N-CA-C	-5.38	105.45	112.23
84	CN	2203	G	C4'-C3'-O3'	-5.38	104.93	113.00
20	AL	109	VAL	N-CA-C	5.38	116.02	108.17
31	AW	93	LEU	N-CA-C	5.37	120.52	112.94
76	Bq	48	ARG	N-CA-C	-5.37	107.98	114.75
38	BD	87	GLY	N-CA-C	5.37	121.08	114.69
27	AS	86	LEU	N-CA-C	5.37	118.23	109.59
66	Bf	72	THR	N-CA-C	5.37	119.83	113.12
57	BW	84	GLY	N-CA-C	-5.37	107.86	115.43
81	B5	2249	G	C3'-C2'-C1'	-5.36	95.94	101.30
51	BQ	158	HIS	N-CA-C	5.36	119.40	112.86
53	BS	130	GLU	N-CA-C	5.35	116.80	110.97
59	BY	112	ASP	N-CA-C	-5.35	99.40	110.80
76	Bq	87	VAL	N-CA-C	-5.35	97.09	106.61
79	By	149	ILE	CA-C-N	5.35	125.77	119.94
79	By	149	ILE	C-N-CA	5.35	125.77	119.94
61	Ba	118	ILE	CA-C-N	-5.35	114.73	120.03
61	Ba	118	ILE	C-N-CA	-5.35	114.73	120.03
60	BZ	24	VAL	CB-CA-C	-5.35	103.18	110.77
84	CN	2187	G	C1'-C2'-O2'	-5.34	103.79	111.80
85	CP	3	LEU	N-CA-CB	5.34	118.96	110.57
36	BB	278	ILE	N-CA-C	5.34	117.39	109.17
86	CW	72	C	P-O5'-C5'	5.34	128.91	120.90
44	BJ	15	GLU	N-CA-C	-5.33	104.36	111.24
76	Bq	57	THR	CA-C-N	5.33	127.37	120.44
76	Bq	57	THR	C-N-CA	5.33	127.37	120.44
44	BJ	166	LYS	N-CA-C	-5.33	101.61	109.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	BF	219	LYS	CA-C-N	-5.32	114.09	122.08
40	BF	219	LYS	C-N-CA	-5.32	114.09	122.08
47	BM	110	ALA	N-CA-C	-5.32	106.29	112.89
29	AU	62	VAL	N-CA-C	5.32	115.74	107.28
37	BC	101	ALA	CA-C-N	5.32	126.49	119.84
37	BC	101	ALA	C-N-CA	5.32	126.49	119.84
81	B5	1232	C	C1'-O4'-C4'	-5.32	104.58	109.90
81	B5	1285	G	O5'-C5'-C4'	5.32	119.68	111.70
86	CW	23	A	O5'-C5'-C4'	5.32	119.48	111.50
61	Ba	34	MET	N-CA-C	5.32	118.61	112.97
37	BC	14	GLU	N-CA-C	5.32	122.12	110.80
53	BS	17	GLU	N-CA-C	-5.32	105.65	111.82
13	AE	154	ILE	CB-CA-C	-5.32	103.40	111.69
12	AD	37	VAL	CB-CA-C	-5.31	103.91	111.19
44	BJ	10	ARG	N-CA-C	5.31	122.11	110.80
81	B5	1278	A	P-O3'-C3'	5.31	128.16	120.20
40	BF	160	ARG	CA-C-N	-5.31	118.23	122.85
40	BF	160	ARG	C-N-CA	-5.31	118.23	122.85
64	Bd	8	VAL	CB-CA-C	-5.31	102.59	111.29
8	A7	61	ILE	CB-CA-C	-5.30	105.13	112.24
36	BB	8	ALA	N-CA-C	5.30	114.40	108.25
85	CP	313	GLU	N-CA-C	-5.30	99.50	110.80
37	BC	60	THR	CB-CA-C	-5.30	97.79	109.56
10	AB	110	LEU	N-CA-C	-5.29	105.51	111.28
36	BB	245	GLY	N-CA-C	5.29	119.35	112.68
17	AI	172	ARG	CA-C-N	5.29	124.74	119.24
17	AI	172	ARG	C-N-CA	5.29	124.74	119.24
41	BG	64	ILE	CB-CA-C	-5.29	105.20	111.97
47	BM	27	GLN	N-CA-C	-5.29	107.00	113.50
46	BL	24	VAL	CB-CA-C	-5.28	103.74	110.98
55	BU	88	GLN	N-CA-C	5.28	119.00	111.92
14	AF	27	THR	CA-C-N	5.28	126.42	120.66
14	AF	27	THR	C-N-CA	5.28	126.42	120.66
41	BG	49	TYR	CA-C-N	-5.28	112.87	122.43
41	BG	49	TYR	C-N-CA	-5.28	112.87	122.43
84	CN	2122	G	C3'-C2'-O2'	5.28	118.62	110.70
13	AE	235	TYR	N-CA-C	-5.28	106.61	114.64
57	BW	97	LYS	CA-C-N	5.28	126.44	119.84
57	BW	97	LYS	C-N-CA	5.28	126.44	119.84
81	B5	1284	C	O4'-C1'-N1	5.28	116.11	108.20
21	AM	94	ALA	N-CA-C	5.27	116.71	111.07
11	AC	148	LEU	N-CA-C	5.27	122.03	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	BV	129	VAL	N-CA-C	-5.27	105.71	110.82
35	BA	119	LYS	CA-C-N	-5.27	114.14	119.83
35	BA	119	LYS	C-N-CA	-5.27	114.14	119.83
85	CP	144	ASN	N-CA-C	-5.27	100.81	109.40
85	CP	237	VAL	N-CA-C	5.27	115.16	107.37
28	AT	39	THR	N-CA-CB	5.26	119.39	110.49
26	AR	81	LYS	N-CA-C	-5.26	106.10	112.88
62	Bb	13	THR	N-CA-CB	5.25	118.42	110.28
63	Bc	44	ILE	N-CA-C	5.25	116.14	108.58
10	AB	204	ILE	CB-CA-C	-5.25	105.61	111.80
84	CN	2190	A	C4'-C3'-O3'	-5.25	105.12	113.00
35	BA	225	ILE	N-CA-C	5.25	116.14	108.53
56	BV	14	SER	N-CA-C	5.25	117.64	110.24
61	Ba	144	VAL	CB-CA-C	-5.25	103.99	111.34
62	Bb	28	LYS	N-CA-C	-5.25	101.91	110.20
79	By	38	ASP	CA-CB-CG	-5.25	107.35	112.60
36	BB	290	ASP	N-CA-C	5.25	117.30	109.59
39	BE	75	PRO	CA-C-O	-5.25	115.51	121.96
86	CW	7	A	C5'-C4'-C3'	5.25	123.07	115.20
79	By	52	ARG	N-CA-C	-5.24	98.69	108.02
9	AA	63	ILE	CB-CA-C	-5.24	106.27	111.30
76	Bq	25	LEU	N-CA-C	-5.24	99.73	108.32
81	B5	1258	U	O4'-C1'-N1	5.24	116.06	108.20
43	BI	49	CYS	N-CA-C	5.24	116.95	108.41
79	By	146	GLY	N-CA-C	-5.24	100.77	113.18
7	A6	170	ILE	N-CA-C	5.24	115.52	107.77
48	BN	183	THR	N-CA-C	5.24	121.95	110.80
9	AA	143	VAL	N-CA-C	5.23	116.23	107.18
31	AW	89	TRP	N-CA-C	5.23	117.40	111.02
35	BA	14	SER	N-CA-C	5.23	116.26	108.31
25	AQ	65	ILE	N-CA-C	5.23	115.39	107.75
37	BC	126	ILE	N-CA-C	-5.23	105.75	110.82
42	BH	123	ILE	N-CA-C	5.23	115.84	108.36
85	CP	14	VAL	CA-C-N	5.22	129.78	122.36
85	CP	14	VAL	C-N-CA	5.22	129.78	122.36
37	BC	198	ARG	N-CA-C	5.22	121.92	110.80
81	B5	1274	A	C2'-C3'-O3'	5.22	121.53	113.70
85	CP	56	THR	N-CA-CB	5.22	119.32	110.49
54	BT	135	PRO	CA-C-O	-5.22	111.80	120.05
70	Bj	58	THR	CB-CA-C	-5.22	99.66	111.30
5	A4	57	ASN	CA-C-N	-5.22	114.97	120.66
5	A4	57	ASN	C-N-CA	-5.22	114.97	120.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	BE	65	ILE	CA-C-N	-5.22	114.13	122.17
39	BE	65	ILE	C-N-CA	-5.22	114.13	122.17
8	A7	51	ARG	CA-C-N	5.22	126.36	119.84
8	A7	51	ARG	C-N-CA	5.22	126.36	119.84
73	Bm	85	LEU	N-CA-C	-5.22	105.49	111.07
61	Ba	22	ILE	CB-CA-C	-5.21	105.21	112.04
67	Bg	89	ILE	CB-CA-C	-5.21	105.19	112.02
79	By	214	VAL	N-CA-C	-5.21	100.36	108.86
36	BB	9	PRO	CA-C-O	-5.21	115.32	121.67
33	AY	35	VAL	N-CA-C	5.20	116.04	111.56
86	CW	30	G	C5'-C4'-C3'	-5.20	108.20	116.00
9	AA	188	LEU	N-CA-C	5.20	121.88	110.80
38	BD	180	PHE	CA-C-N	-5.20	114.40	119.76
38	BD	180	PHE	C-N-CA	-5.20	114.40	119.76
42	BH	167	VAL	N-CA-CB	5.20	119.81	111.23
48	BN	69	GLY	N-CA-C	5.20	121.05	112.84
62	Bb	20	GLY	O-C-N	5.20	129.05	123.18
40	BF	198	ALA	CA-C-N	5.20	127.50	120.38
40	BF	198	ALA	C-N-CA	5.20	127.50	120.38
32	AX	129	GLY	CA-C-N	-5.19	117.83	123.08
32	AX	129	GLY	C-N-CA	-5.19	117.83	123.08
59	BY	80	VAL	N-CA-C	-5.19	100.77	108.45
84	CN	2146	G	C2'-C3'-O3'	-5.19	105.91	113.70
50	BP	31	GLU	N-CA-C	-5.19	105.80	111.82
13	AE	118	GLU	N-CA-C	-5.19	106.21	112.54
84	CN	2163	C	C4'-C3'-O3'	-5.19	105.22	113.00
37	BC	145	ILE	CA-C-N	5.19	126.32	119.84
37	BC	145	ILE	C-N-CA	5.19	126.32	119.84
38	BD	146	LEU	N-CA-C	5.18	118.07	110.30
8	A7	112	ASP	N-CA-C	5.18	117.25	109.23
38	BD	214	ASP	CB-CA-C	-5.17	101.74	110.64
12	AD	42	THR	CA-C-N	-5.17	114.41	119.99
12	AD	42	THR	C-N-CA	-5.17	114.41	119.99
59	BY	82	VAL	N-CA-C	5.17	115.02	107.37
18	AJ	152	SER	N-CA-C	-5.17	106.08	114.09
61	Ba	125	VAL	N-CA-C	5.17	115.21	107.51
84	CN	2150	C	P-O5'-C5'	-5.17	113.15	120.90
79	CL	87	GLU	N-CA-C	-5.17	105.08	111.33
81	B5	1607	U	C4'-C3'-O3'	5.16	117.14	109.40
86	CW	75	C	P-O5'-C5'	5.16	128.65	120.90
29	AU	42	VAL	N-CA-C	5.16	115.38	110.53
38	BD	293	LEU	N-CA-C	5.16	117.80	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
85	CP	222	LYS	CA-C-N	5.16	127.19	120.28
85	CP	222	LYS	C-N-CA	5.16	127.19	120.28
44	BJ	120	ILE	CB-CA-C	-5.16	105.71	111.80
36	BB	4	ARG	CB-CA-C	5.16	117.94	109.90
81	B5	1238	C	C4'-C3'-C2'	-5.16	97.44	102.60
9	AA	158	VAL	N-CA-C	5.15	120.06	109.34
79	CL	180	PHE	CA-C-N	-5.15	115.07	120.38
79	CL	180	PHE	C-N-CA	-5.15	115.07	120.38
86	CW	37	A	P-O5'-C5'	-5.15	113.17	120.90
19	AK	60	SER	N-CA-C	5.15	121.77	110.80
48	BN	182	ASN	CA-C-O	-5.15	115.35	120.96
17	AI	22	ARG	N-CA-C	5.15	121.76	110.80
67	Bg	20	ILE	N-CA-C	5.14	117.14	108.81
37	BC	226	GLU	N-CA-C	5.14	117.49	109.52
13	AE	210	ILE	CB-CA-C	-5.14	103.02	110.63
79	By	192	PHE	N-CA-CB	5.14	117.74	110.13
81	B5	1481	A	P-O3'-C3'	5.13	127.90	120.20
47	BM	36	VAL	CB-CA-C	-5.13	105.65	111.55
53	BS	165	TYR	N-CA-C	-5.13	106.33	112.59
61	Ba	6	THR	CB-CA-C	5.13	119.17	109.37
85	CP	16	THR	N-CA-CB	5.13	119.16	110.49
7	A6	272	ASP	N-CA-C	5.12	116.08	108.60
22	AN	4	MET	N-CA-C	5.12	116.67	111.14
46	BL	149	GLN	CA-C-N	5.12	126.24	119.84
46	BL	149	GLN	C-N-CA	5.12	126.24	119.84
41	BG	33	ASN	N-CA-C	5.12	119.80	113.50
76	Bq	16	ARG	CA-C-N	5.12	127.14	120.28
76	Bq	16	ARG	C-N-CA	5.12	127.14	120.28
35	BA	211	HIS	CA-C-O	5.12	126.03	120.55
55	BU	67	SER	N-CA-C	5.12	117.50	108.75
14	AF	66	GLN	CA-C-N	5.11	125.32	120.31
14	AF	66	GLN	C-N-CA	5.11	125.32	120.31
43	BI	131	ILE	CB-CA-C	-5.11	104.57	110.91
81	B5	1230	G	P-O5'-C5'	5.11	128.57	120.90
79	CL	226	PRO	N-CA-C	-5.11	104.06	111.22
65	Be	43	ARG	NE-CZ-NH1	5.11	126.61	121.50
46	BL	50	PRO	N-CA-C	5.11	121.00	114.92
61	Ba	124	ILE	CB-CA-C	-5.11	104.16	111.31
44	BJ	23	VAL	N-CA-C	5.10	115.25	110.30
38	BD	128	GLU	N-CA-C	-5.10	102.23	110.14
86	CW	64	A	C5'-C4'-C3'	-5.10	108.35	116.00
6	A5	138	ARG	N-CA-C	5.10	121.66	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	AA	166	GLY	N-CA-C	5.10	116.93	110.20
39	BE	89	THR	CB-CA-C	5.10	117.94	109.53
63	Bc	92	ILE	CB-CA-C	-5.10	104.52	111.15
29	AU	54	GLY	CA-C-N	5.10	126.21	119.84
29	AU	54	GLY	C-N-CA	5.10	126.21	119.84
76	Bq	88	PHE	N-CA-C	-5.09	102.94	110.48
81	B5	1226	G	O3'-P-O5'	-5.09	96.36	104.00
25	AQ	74	HIS	N-CA-C	5.09	116.52	111.07
79	By	170	ALA	N-CA-C	-5.09	99.96	110.80
86	CW	25	C	C5'-C4'-C3'	5.09	123.63	116.00
79	By	36	LYS	N-CA-C	-5.08	107.24	112.93
40	BF	84	VAL	N-CA-C	5.08	117.33	108.95
37	BC	247	PHE	CA-C-N	-5.07	116.90	123.19
37	BC	247	PHE	C-N-CA	-5.07	116.90	123.19
54	BT	17	ARG	CA-CB-CG	-5.07	103.96	114.10
61	Ba	121	VAL	N-CA-C	5.07	119.83	108.88
65	Be	52	GLN	CA-C-N	5.07	124.98	119.76
65	Be	52	GLN	C-N-CA	5.07	124.98	119.76
79	By	29	VAL	N-CA-C	5.06	115.83	110.72
85	CP	145	SER	CA-C-N	5.06	127.02	120.44
85	CP	145	SER	C-N-CA	5.06	127.02	120.44
84	CN	2204	C	C2'-C3'-O3'	5.06	121.29	113.70
46	BL	123	ILE	CA-C-N	-5.05	115.81	122.98
46	BL	123	ILE	C-N-CA	-5.05	115.81	122.98
43	BI	175	ASN	N-CA-C	-5.05	100.04	110.80
38	BD	118	THR	N-CA-C	-5.05	102.39	109.96
9	AA	193	GLN	CA-C-N	5.04	126.14	119.84
9	AA	193	GLN	C-N-CA	5.04	126.14	119.84
84	CN	2175	G	C3'-C2'-O2'	5.04	118.26	110.70
20	AL	55	ASP	N-CA-C	5.04	121.53	110.80
85	CP	247	ILE	N-CA-CB	5.04	119.70	111.44
51	BQ	93	ILE	CB-CA-C	-5.04	104.18	111.68
85	CP	133	ASP	CA-CB-CG	-5.03	107.57	112.60
18	AJ	138	LYS	N-CA-C	-5.03	106.93	113.16
38	BD	174	PRO	CA-C-O	-5.03	115.85	121.23
79	By	98	GLU	CA-C-N	5.02	129.38	121.09
79	By	98	GLU	C-N-CA	5.02	129.38	121.09
2	A1	50	ALA	N-CA-C	5.02	121.50	110.80
85	CP	83	PHE	N-CA-CB	5.02	118.97	110.49
85	CP	246	THR	N-CA-C	5.02	116.61	109.14
46	BL	21	ARG	NE-CZ-NH1	-5.01	116.48	121.50
36	BB	346	THR	CB-CA-C	5.01	117.87	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AC	206	THR	CB-CA-C	5.01	120.09	111.68
26	AR	125	SER	N-CA-C	5.01	115.65	108.74
81	B5	1248	C	O4'-C1'-N1	5.01	116.01	108.50

There are no chirality outliers.

All (107) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	A1	42	ASN	Peptide
6	A5	105	TYR	Peptide
6	A5	138	ARG	Peptide
8	A7	134	ASP	Sidechain
10	AB	131	ASP	Peptide
16	AH	131	PHE	Peptide
20	AL	127	GLN	Peptide
23	AO	124	ASP	Peptide
26	AR	22	PRO	Peptide
26	AR	85	VAL	Peptide
34	AZ	54	VAL	Peptide
34	AZ	93	SER	Peptide
34	AZ	96	SER	Peptide
81	B5	1226	G	Sidechain
81	B5	1228	C	Sidechain
81	B5	1229	G	Sidechain
81	B5	1230	G	Sidechain
81	B5	1231	A	Sidechain
81	B5	1235	U	Sidechain
81	B5	1238	C	Sidechain
81	B5	1239	C	Sidechain
81	B5	1244	A	Sidechain
81	B5	1246	G	Sidechain
81	B5	1249	G	Sidechain
81	B5	1254	C	Sidechain
81	B5	1255	C	Sidechain
81	B5	1256	G	Sidechain
81	B5	1257	C	Sidechain
81	B5	1259	A	Sidechain
81	B5	1260	A	Sidechain
81	B5	1262	G	Sidechain
81	B5	1264	G	Sidechain
81	B5	1265	U	Sidechain
81	B5	1266	G	Sidechain

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Mol	Chain	Res	Type	Group
81	B5	1267	U	Sidechain
81	B5	1268	G	Sidechain
81	B5	1269	U	Sidechain
81	B5	1271	A	Sidechain
81	B5	1274	A	Sidechain
81	B5	1276	U	Sidechain
81	B5	1278	A	Sidechain
81	B5	1279	C	Sidechain
81	B5	1281	G	Sidechain
81	B5	1282	G	Sidechain
81	B5	1283	C	Sidechain
81	B5	1284	C	Sidechain
81	B5	1285	G	Sidechain
81	B5	2898	G	Sidechain
35	BA	143	GLU	Peptide
35	BA	211	HIS	Peptide
37	BC	91	GLY	Peptide
38	BD	271	LYS	Peptide
39	BE	129	GLU	Peptide
40	BF	192	GLY	Peptide
40	BF	226	GLY	Peptide
49	BO	110[A]	PRO	Peptide
49	BO	68[B]	ARG	Peptide
53	BS	133	ALA	Peptide
56	BV	41	GLY	Peptide
59	BY	111	LEU	Peptide
60	BZ	101	PHE	Peptide
61	Ba	26	ARG	Peptide
61	Ba	66	ALA	Peptide
61	Ba	75	LEU	Peptide
62	Bb	19	ASN	Peptide
76	Bq	16	ARG	Sidechain
76	Bq	185	LEU	Peptide
76	Bq	22	TYR	Sidechain
76	Bq	5	ARG	Sidechain
76	Bq	64	ARG	Sidechain
76	Bq	86	PHE	Sidechain
76	Bq	91	GLU	Peptide
77	Br	15	UNK	Peptide
79	By	104	LEU	Peptide
79	By	143	GLY	Peptide
79	By	70	LYS	Peptide

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Mol	Chain	Res	Type	Group
79	By	93	TYR	Sidechain
79	CL	105	ASP	Peptide
79	CL	143	GLY	Peptide
79	CL	70	LYS	Peptide
85	CP	165	TYR	Sidechain
85	CP	2	ASP	Mainchain
85	CP	219	ARG	Sidechain
85	CP	227	LEU	Peptide
85	CP	320	ARG	Sidechain
85	CP	4	ARG	Sidechain
85	CP	47	PHE	Peptide
85	CP	62	TYR	Sidechain
86	CW	14	A	Sidechain
86	CW	15	G	Sidechain
86	CW	18	G	Sidechain
86	CW	19	G	Sidechain
86	CW	21	A	Sidechain
86	CW	27	G	Sidechain
86	CW	28	G	Sidechain
86	CW	29	G	Sidechain
86	CW	39	U	Sidechain
86	CW	43	C	Sidechain
86	CW	44	G	Sidechain
86	CW	51	U	Sidechain
86	CW	55	U	Sidechain
86	CW	56	C	Sidechain
86	CW	6	G	Sidechain
86	CW	73	A	Sidechain
86	CW	74	C	Sidechain
86	CW	75	C	Sidechain
86	CW	8	U	Sidechain

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A0	769	0	814	122	0
2	A1	610	0	630	53	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	A2	497	0	535	32	0
4	A3	442	0	428	57	0
5	A4	475	0	525	21	0
6	A5	516	0	517	41	0
7	A6	2437	0	2386	86	0
8	A7	1105	0	959	207	0
9	AA	1577	0	1567	101	0
10	AB	1709	0	1784	200	0
11	AC	1635	0	1723	82	0
12	AD	1734	0	1817	123	0
13	AE	2068	0	2154	95	0
14	AF	1609	0	1675	118	0
15	AG	1799	0	1874	442	0
16	AH	1481	0	1572	84	0
17	AI	1489	0	1523	193	0
18	AJ	1494	0	1573	98	0
19	AK	772	0	727	48	0
20	AL	1213	0	1257	104	0
21	AM	890	0	887	53	0
22	AN	1192	0	1252	66	0
23	AO	891	0	880	300	0
24	AP	977	0	1002	73	0
25	AQ	1105	0	1166	142	0
26	AR	926	0	930	135	0
27	AS	1192	0	1220	118	0
28	AT	1112	0	1123	111	0
29	AU	855	0	917	118	0
30	AV	684	0	672	47	0
31	AW	1021	0	1060	70	0
32	AX	1121	0	1196	75	0
33	AY	1073	0	1132	115	0
34	AZ	563	0	602	54	0
35	BA	1912	0	1973	284	0
36	BB	3075	0	3142	153	0
37	BC	2748	0	2859	137	0
38	BD	2359	0	2311	272	0
39	BE	1248	0	1339	41	0
40	BF	1791	0	1869	60	0
41	BG	1763	0	1819	152	0
42	BH	1518	0	1587	85	0
43	BI	1722	0	1755	87	0
44	BJ	1353	0	1380	110	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
45	BK	751	756	195	3	0
46	BL	1548	0	1613	99	0
47	BM	1059	0	1154	45	0
48	BN	1720	0	1779	139	0
49	BO	3119	0	3302	99	0
50	BP	1227	0	1236	43	0
51	BQ	1441	0	1543	78	0
52	BR	1521	0	1605	196	0
53	BS	1445	0	1487	67	0
54	BT	1276	0	1323	141	0
55	BU	778	0	791	24	0
56	BV	1003	0	1048	52	0
57	BW	1038	0	1071	45	0
58	BX	959	0	1023	41	0
59	BY	993	0	1081	46	0
60	BZ	1092	0	1154	119	0
61	Ba	1173	0	1215	108	0
62	Bb	462	0	491	39	0
63	Bc	767	0	816	78	0
64	Bd	883	0	918	32	0
65	Be	1020	0	1090	62	0
66	Bf	850	0	880	36	0
67	Bg	880	0	944	106	0
68	Bh	965	0	1067	56	0
69	Bi	770	0	846	61	0
70	Bj	681	0	683	71	0
71	Bk	608	0	671	23	0
72	Bl	436	0	475	46	0
73	Bm	417	0	455	26	0
74	Bn	233	0	271	71	0
75	Bo	847	0	916	49	0
76	Bq	1077	1110	1041	37	0
77	Br	236	237	65	0	0
78	Bs	231	232	67	0	0
79	By	1719	1773	1619	3762	0
79	CL	1719	0	1652	3462	0
80	B2	37835	0	19048	3055	0
81	B5	67308	664	33793	2713	0
82	B7	2579	0	1303	190	0
83	B8	3353	0	1695	158	0
84	CN	1875	0	926	459	0
85	CP	2655	2725	2709	241	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	CW	1576	803	797	93	0
87	A0	1	0	0	0	0
87	A1	1	0	0	0	0
87	A3	1	0	0	0	0
87	A5	1	0	0	0	0
87	Bj	1	0	0	0	0
87	Bm	1	0	0	0	0
88	A0	2	0	0	0	0
88	A3	3	0	0	0	0
88	A5	1	0	0	0	0
88	AB	1	0	0	0	0
88	AC	2	0	0	0	0
88	AE	1	0	0	0	0
88	AG	1	0	0	0	0
88	AI	1	0	0	0	0
88	AJ	1	0	0	0	0
88	AL	2	0	0	0	0
88	AN	1	0	0	0	0
88	AP	1	0	0	0	0
88	AS	1	0	0	0	0
88	AU	1	0	0	0	0
88	B2	169	0	0	0	0
88	B5	3	0	0	0	0
89	A3	7	0	0	4	0
89	A6	7	0	0	2	0
89	AC	7	0	0	5	0
89	AI	14	0	0	2	0
89	AL	7	0	0	3	0
89	AN	7	0	0	2	0
89	AP	7	0	0	3	0
89	B2	1288	0	0	224	0
89	B5	21	0	0	4	0
89	BR	7	0	0	9	0
89	Bn	7	0	0	0	0
90	CP	32	0	7	62	0
All	All	214255	8300	157978	13207	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 36.

All (13207) 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)
79:By:77:ILE:CG2	79:CL:99:ILE:HD11	1.18	1.66
79:By:116:THR:HA	79:CL:115:ALA:CB	1.24	1.66
15:AG:175:ILE:HG12	80:B2:78:A:C4	1.29	1.65
79:By:30:LYS:HG2	79:CL:31:GLU:CA	1.22	1.65
79:By:208:PHE:CZ	79:CL:58:VAL:HG21	1.16	1.65
79:By:137:LEU:HD13	79:CL:137:LEU:CD1	1.17	1.64
79:By:213:TYR:CD1	79:CL:213:TYR:CD2	1.80	1.63
85:CP:210:TRP:CH2	85:CP:210:TRP:CZ3	1.78	1.63
79:By:204:ALA:CB	79:CL:201:PRO:CG	1.75	1.62
79:By:204:ALA:CB	79:CL:49:ILE:HG22	1.28	1.62
79:By:116:THR:CB	79:CL:77:ILE:HB	1.25	1.62
79:By:213:TYR:CE1	79:CL:213:TYR:CE2	1.81	1.62
79:By:213:TYR:CD1	84:CN:2198:C:H5”	1.14	1.61
81:B5:2443:A:C6	84:CN:2208:G:H5’	1.32	1.61
79:By:192:PHE:HA	79:CL:192:PHE:CB	1.21	1.61
85:CP:210:TRP:CZ3	85:CP:210:TRP:CE3	1.83	1.61
79:By:77:ILE:HG23	79:CL:99:ILE:CD1	1.16	1.61
79:By:103:ILE:CD1	79:CL:103:ILE:HB	1.15	1.61
79:By:208:PHE:CB	79:CL:209:LEU:HD23	1.15	1.60
79:By:30:LYS:CG	79:CL:31:GLU:HA	1.20	1.60
79:By:163:PHE:HB2	79:CL:171:ILE:CD1	1.31	1.59
85:CP:210:TRP:CH2	85:CP:210:TRP:CZ2	1.82	1.59
79:By:45:ALA:CB	79:CL:45:ALA:HA	1.26	1.59
79:By:208:PHE:HB2	79:CL:208:PHE:CD2	1.08	1.59
79:By:39:GLU:CB	79:CL:39:GLU:HG2	1.33	1.59
15:AG:175:ILE:HD11	80:B2:78:A:C1’	1.25	1.59
79:By:82:LYS:CE	79:CL:149:ILE:CG2	1.74	1.59
79:By:88:GLU:HA	79:CL:92:ASP:CA	1.27	1.59
79:By:21:THR:CG2	79:CL:24:GLU:HB2	1.17	1.58
79:By:45:ALA:HB3	79:CL:45:ALA:CA	1.14	1.58
79:By:39:GLU:HB2	79:CL:39:GLU:CG	1.26	1.58
79:By:217:THR:HB	79:CL:217:THR:CG2	1.18	1.58
79:By:192:PHE:CA	79:CL:192:PHE:HB3	1.27	1.57
79:By:43:VAL:HG11	79:CL:43:VAL:CG1	1.28	1.57
79:By:174:PRO:HB3	84:CN:2145:G:C5’	1.33	1.57
79:By:213:TYR:CG	79:CL:213:TYR:CD2	1.87	1.57
79:By:82:LYS:CE	79:CL:149:ILE:HG22	1.21	1.57
79:By:226:PRO:CG	79:CL:223:ARG:HH21	1.14	1.57
79:By:100:ILE:CD1	79:CL:98:GLU:HA	1.34	1.56
79:By:157:LYS:N	79:CL:72:VAL:CG1	1.68	1.56
79:By:163:PHE:CA	79:CL:171:ILE:HD11	1.35	1.56
79:By:61:THR:CG2	79:CL:162:GLU:HA	1.25	1.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:72:VAL:HG13	79:CL:111:ASP:CB	1.35	1.56
79:By:119:VAL:CG1	79:CL:97:GLU:HG2	1.29	1.56
51:BQ:171:LYS:NZ	51:BQ:171:LYS:CE	1.67	1.55
79:By:141:LYS:C	79:CL:142:ALA:HB3	1.13	1.55
79:By:13:LYS:CG	79:CL:9:ALA:HB3	1.25	1.55
8:A7:81:THR:HG21	86:CW:29:G:C5'	1.36	1.55
79:By:189:ILE:HG21	79:CL:214:VAL:CG2	1.36	1.55
8:A7:28:SER:HB3	81:B5:2708:C:C4'	1.30	1.55
79:By:136:LEU:HD11	79:CL:134:ARG:CD	1.37	1.54
80:B2:51:A:C1'	85:CP:242:GLY:CA	1.76	1.54
79:By:136:LEU:CG	79:CL:134:ARG:HB2	1.32	1.54
80:B2:415:C:C5	85:CP:288:ARG:HB3	1.39	1.54
79:By:28:LEU:HD22	79:CL:13:LYS:CB	1.30	1.54
79:By:48:GLY:CA	79:CL:210:ARG:HG3	1.10	1.54
79:By:201:PRO:HG3	79:CL:58:VAL:CG2	1.36	1.54
85:CP:210:TRP:CE3	85:CP:210:TRP:CD2	1.92	1.54
79:By:40:THR:CB	84:CN:2146:G:H5'	1.06	1.54
79:By:141:LYS:CA	79:CL:142:ALA:N	1.67	1.54
8:A7:81:THR:CB	86:CW:29:G:H5'	1.30	1.53
15:AG:133:LEU:HD12	80:B2:66:U:C2	1.42	1.53
79:By:28:LEU:CD2	79:CL:13:LYS:HB3	1.36	1.53
79:By:177:LYS:HG2	79:CL:177:LYS:CD	1.31	1.53
80:B2:415:C:C4	85:CP:288:ARG:HD3	1.43	1.53
79:By:82:LYS:HD2	79:CL:149:ILE:CG2	1.37	1.53
79:By:113:VAL:HG11	79:CL:131:LEU:CD2	1.38	1.53
79:By:103:ILE:CD1	79:CL:103:ILE:CB	1.77	1.52
79:By:119:VAL:HG12	79:CL:97:GLU:CG	1.17	1.52
79:By:82:LYS:CD	79:CL:149:ILE:CG2	1.83	1.52
79:By:119:VAL:CG1	79:CL:97:GLU:CG	1.78	1.52
44:BJ:8:PRO:CB	44:BJ:8:PRO:CG	1.75	1.51
52:BR:163:ARG:C	80:B2:850:A:C5'	1.75	1.51
79:By:119:VAL:CB	79:CL:97:GLU:HA	1.08	1.51
85:CP:210:TRP:CZ2	85:CP:210:TRP:CE2	1.94	1.51
79:By:112:ALA:HB3	79:CL:111:ASP:CA	1.34	1.51
79:By:136:LEU:CD2	79:CL:134:ARG:HB2	1.37	1.51
15:AG:132:ARG:NH2	80:B2:68:A:C8	1.79	1.51
79:By:21:THR:CG2	79:CL:24:GLU:CB	1.86	1.51
8:A7:81:THR:CG2	86:CW:29:G:H5'	1.39	1.51
79:By:48:GLY:HA2	79:CL:210:ARG:CG	1.03	1.50
85:CP:210:TRP:CD2	85:CP:210:TRP:CE2	1.81	1.50
79:By:185:LEU:C	79:CL:185:LEU:CB	1.84	1.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:25:ALA:CB	79:CL:222:VAL:HG21	1.08	1.50
79:By:25:ALA:CB	79:CL:222:VAL:CG2	1.84	1.50
79:By:45:ALA:CB	79:CL:45:ALA:CA	1.78	1.50
79:By:141:LYS:C	79:CL:142:ALA:CB	1.77	1.49
79:By:149:ILE:CG2	79:CL:76:ALA:CB	1.90	1.49
33:AY:119:PHE:CZ	80:B2:86:A:H5"	1.48	1.49
8:A7:28:SER:CB	81:B5:2708:C:H4'	1.42	1.49
79:By:177:LYS:CG	79:CL:177:LYS:CD	1.86	1.49
79:By:61:THR:HG22	79:CL:162:GLU:CB	1.43	1.49
79:By:72:VAL:CG1	79:CL:111:ASP:HB3	1.43	1.49
79:By:103:ILE:HD11	79:CL:103:ILE:CG1	1.43	1.49
79:By:103:ILE:HG12	79:CL:103:ILE:CB	1.31	1.49
32:AX:144:ARG:HH22	85:CP:314:LYS:CD	1.24	1.48
79:By:13:LYS:HG2	79:CL:9:ALA:CB	1.39	1.48
79:By:119:VAL:HB	79:CL:97:GLU:CB	1.40	1.48
85:CP:63:GLU:HA	85:CP:210:TRP:CE2	1.48	1.48
79:By:145:VAL:HG13	79:CL:138:PRO:C	1.32	1.48
15:AG:164:LYS:NZ	80:B2:72:A:H5"	1.25	1.48
15:AG:175:ILE:CD1	80:B2:78:A:H1'	1.03	1.48
79:By:61:THR:HG22	79:CL:162:GLU:CA	1.00	1.48
79:By:211:SER:HB2	79:CL:213:TYR:CE1	1.48	1.48
81:B5:2443:A:C5'	84:CN:2122:G:H1	1.20	1.48
79:By:102:LYS:HE3	79:CL:104:LEU:CD2	1.38	1.47
79:By:138:PRO:HG3	79:CL:138:PRO:CD	1.36	1.47
79:By:86:ALA:HA	79:CL:91:ALA:CB	1.41	1.47
79:By:113:VAL:CG1	79:CL:131:LEU:HD21	1.45	1.47
15:AG:132:ARG:HG3	80:B2:68:A:N6	1.25	1.46
79:By:201:PRO:CG	79:CL:58:VAL:HG22	1.44	1.46
79:By:116:THR:HB	79:CL:77:ILE:CB	1.43	1.46
79:By:144:THR:C	79:CL:144:THR:CB	1.87	1.46
79:By:44:HIS:CE1	84:CN:2197:A:C2	2.02	1.46
79:By:217:THR:CB	79:CL:217:THR:HG22	1.42	1.46
33:AY:119:PHE:CE1	80:B2:86:A:H5"	1.49	1.45
79:By:42:GLU:CD	84:CN:2145:G:H1'	1.37	1.45
79:By:45:ALA:CB	79:CL:46:LYS:N	1.79	1.45
79:By:176:GLY:HA2	79:CL:176:GLY:C	1.38	1.45
79:By:107:TRP:CZ2	79:CL:107:TRP:O	1.66	1.45
79:By:136:LEU:CD2	79:CL:136:LEU:HD12	1.43	1.45
15:AG:59:GLN:N	80:B2:155:U:H4'	1.25	1.45
79:By:68:LEU:CD2	79:CL:175:VAL:HA	1.47	1.45
79:By:141:LYS:HG2	79:CL:141:LYS:CB	1.26	1.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:145:VAL:CG1	79:CL:138:PRO:HB2	1.47	1.45
32:AX:144:ARG:NH2	85:CP:314:LYS:HD2	1.29	1.44
79:By:212:VAL:CG1	79:CL:212:VAL:HG12	1.44	1.44
79:By:41:VAL:HG22	79:CL:216:THR:CB	1.45	1.44
79:By:100:ILE:CG1	79:CL:101:GLN:NE2	1.77	1.44
79:By:208:PHE:HB3	79:CL:209:LEU:CD2	0.98	1.44
23:AO:123:SER:HB2	80:B2:885:G:N2	1.25	1.44
79:By:45:ALA:HB3	79:CL:45:ALA:C	1.01	1.44
79:By:59:ARG:HB2	79:CL:59:ARG:NE	1.13	1.44
79:By:119:VAL:HB	79:CL:97:GLU:CA	0.96	1.44
79:By:119:VAL:HG11	79:CL:96:GLY:C	1.39	1.44
79:By:126:LYS:CD	79:CL:126:LYS:HD3	1.48	1.44
79:By:116:THR:CA	79:CL:115:ALA:CB	1.91	1.44
79:By:134:ARG:HE	84:CN:2190:A:C3'	1.31	1.44
79:By:201:PRO:CD	79:CL:201:PRO:HD3	1.15	1.44
79:By:25:ALA:HB1	79:CL:222:VAL:CG2	1.40	1.43
79:By:190:ARG:CA	79:CL:22:ILE:HD13	1.03	1.43
79:By:116:THR:CG2	79:CL:115:ALA:HB1	1.45	1.43
79:By:113:VAL:N	79:CL:136:LEU:HD13	1.25	1.43
79:By:136:LEU:CD1	79:CL:134:ARG:HD2	1.46	1.43
15:AG:174:LYS:HA	80:B2:79:C:C1'	1.45	1.43
15:AG:174:LYS:HB2	80:B2:79:C:C2'	1.46	1.43
8:A7:81:THR:CG2	86:CW:29:G:C5'	1.89	1.43
52:BR:165:LYS:CD	80:B2:849:C:O2	1.67	1.43
79:By:177:LYS:CG	79:CL:177:LYS:HD2	1.43	1.43
79:By:212:VAL:CG2	79:CL:212:VAL:HB	1.48	1.43
79:By:213:TYR:CD1	79:CL:213:TYR:CG	2.05	1.43
79:By:219:GLY:CA	79:CL:218:MET:HA	1.47	1.43
79:By:208:PHE:HZ	79:CL:58:VAL:CG2	1.30	1.42
79:By:213:TYR:CE1	79:CL:213:TYR:CZ	2.05	1.42
79:By:81:GLU:CB	79:CL:79:LYS:O	1.64	1.42
79:By:81:GLU:CA	79:CL:83:ILE:HG13	1.23	1.42
79:By:199:HIS:O	79:CL:208:PHE:CZ	1.72	1.42
15:AG:174:LYS:CA	80:B2:79:C:O4'	1.66	1.42
26:AR:60:ARG:CZ	80:B2:1400:A:H5'	1.47	1.42
79:By:176:GLY:CA	79:CL:176:GLY:C	1.87	1.42
80:B2:51:A:C1'	85:CP:241:GLU:O	1.68	1.42
80:B2:1645:G:C4'	81:B5:2259:A:N1	1.81	1.42
15:AG:128:THR:HG23	57:BW:81:PRO:CG	1.37	1.42
79:By:115:ALA:O	79:CL:138:PRO:CG	1.64	1.42
79:By:119:VAL:CG2	79:CL:97:GLU:HA	1.48	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:A7:51:ARG:CZ	81:B5:2677:G:H1'	1.48	1.41
79:By:119:VAL:CG1	79:CL:96:GLY:O	1.68	1.41
79:By:137:LEU:H	79:CL:132:GLY:CA	1.31	1.41
79:By:208:PHE:CB	79:CL:208:PHE:CD2	1.99	1.41
79:By:119:VAL:CB	79:CL:97:GLU:HG2	1.31	1.41
80:B2:1645:G:H4'	81:B5:2259:A:N1	1.12	1.41
80:B2:1645:G:H4'	81:B5:2259:A:C2	1.53	1.41
79:By:116:THR:HG22	79:CL:119:VAL:CG2	1.47	1.41
79:By:212:VAL:HG22	79:CL:212:VAL:CB	1.04	1.41
80:B2:51:A:N9	85:CP:242:GLY:N	1.60	1.41
79:By:59:ARG:HD2	79:CL:59:ARG:NH2	1.09	1.41
79:By:138:PRO:CG	79:CL:138:PRO:HD2	0.97	1.41
79:By:163:PHE:CB	79:CL:171:ILE:HD11	1.44	1.41
79:By:119:VAL:CA	79:CL:97:GLU:HG2	1.45	1.40
79:By:145:VAL:N	79:CL:138:PRO:HA	1.13	1.40
79:By:192:PHE:HD2	79:CL:43:VAL:CG1	1.31	1.40
79:By:201:PRO:CD	79:CL:58:VAL:HG22	1.48	1.40
23:AO:27:PHE:CZ	80:B2:916:U:O2'	1.70	1.40
79:By:82:LYS:CB	79:CL:86:ALA:HB3	1.48	1.40
79:By:199:HIS:CA	79:CL:199:HIS:H	1.32	1.40
79:By:78:ALA:CB	79:CL:94:VAL:HG13	1.51	1.40
79:By:195:ALA:HA	79:CL:195:ALA:N	1.31	1.40
80:B2:414:C:O2	85:CP:289:LEU:CD1	1.70	1.39
23:AO:18:ARG:NH1	80:B2:919:A:H5'	1.13	1.39
79:By:28:LEU:N	79:CL:28:LEU:HD12	1.33	1.39
79:By:116:THR:CA	79:CL:115:ALA:HB2	1.45	1.39
79:By:204:ALA:CB	79:CL:49:ILE:CG2	1.99	1.39
15:AG:159:ARG:CD	80:B2:77:U:C2	2.05	1.39
85:CP:131:LYS:HG2	90:CP:401:GCP:C6	1.53	1.39
79:By:77:ILE:CB	79:CL:77:ILE:HD11	1.49	1.39
79:By:175:VAL:CG2	79:CL:41:VAL:C	1.92	1.39
79:By:195:ALA:CA	79:CL:195:ALA:N	1.85	1.39
79:By:227:HIS:CD2	79:CL:227:HIS:ND1	1.90	1.39
79:By:144:THR:C	79:CL:144:THR:HB	1.47	1.38
79:By:215:THR:HG22	79:CL:215:THR:CG2	1.41	1.38
15:AG:175:ILE:CG1	80:B2:78:A:N3	1.84	1.38
79:By:66:HIS:HB3	79:CL:180:PHE:CE2	1.56	1.38
79:By:103:ILE:CG1	79:CL:103:ILE:HB	0.92	1.38
60:BZ:48:ARG:NH2	81:B5:1631:C:OP2	1.57	1.38
79:By:29:VAL:N	79:CL:32:LEU:CG	1.72	1.38
81:B5:3027:A:C8	85:CP:109:GLN:NE2	1.92	1.38

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:63:SER:CB	79:CL:63:SER:HA	1.51	1.38
79:By:66:HIS:CB	79:CL:188:ASN:ND2	1.87	1.37
79:By:78:ALA:CB	79:CL:95:GLY:HA2	1.54	1.38
79:By:82:LYS:HB3	79:CL:86:ALA:CB	1.52	1.38
79:By:223:ARG:CD	79:CL:223:ARG:HB2	1.53	1.38
15:AG:175:ILE:HG12	80:B2:78:A:N3	1.09	1.37
79:By:209:LEU:HB3	79:CL:211:SER:O	1.21	1.37
79:By:145:VAL:N	79:CL:138:PRO:CA	1.85	1.37
52:BR:166:ASN:ND2	89:BR:201:OHX:N4	1.72	1.37
79:By:104:LEU:N	79:CL:104:LEU:O	1.57	1.37
79:By:145:VAL:N	79:CL:144:THR:OG1	1.57	1.37
79:By:157:LYS:HB3	79:CL:71:GLN:N	1.40	1.37
79:By:209:LEU:CG	79:CL:209:LEU:HB3	1.53	1.37
79:By:100:ILE:HD13	79:CL:98:GLU:CA	1.55	1.37
79:By:141:LYS:CG	79:CL:141:LYS:HB3	1.53	1.37
79:By:219:GLY:N	79:CL:218:MET:HA	1.36	1.37
52:BR:175:GLN:H	80:B2:852:C:C4’	1.30	1.36
79:By:208:PHE:O	79:CL:47:LEU:CD2	1.71	1.36
79:By:86:ALA:CA	79:CL:91:ALA:HB3	1.56	1.36
79:By:141:LYS:O	79:CL:142:ALA:CB	1.66	1.36
80:B2:51:A:C8	85:CP:242:GLY:HA2	1.25	1.36
15:AG:134:GLY:CA	80:B2:66:U:O4	1.74	1.36
79:By:171:ILE:CG1	79:CL:47:LEU:HD11	1.53	1.36
79:By:218:MET:CA	84:CN:2195:C:O2	1.73	1.36
79:By:7:TYR:CE2	84:CN:2195:C:O2’	1.76	1.36
79:By:78:ALA:HB3	79:CL:95:GLY:CA	1.56	1.36
79:By:93:TYR:N	79:CL:93:TYR:CE2	1.90	1.36
79:By:145:VAL:CA	79:CL:138:PRO:HB3	1.53	1.36
79:By:163:PHE:CB	79:CL:171:ILE:CD1	1.97	1.36
79:By:213:TYR:CD1	84:CN:2198:C:C5’	2.07	1.36
79:By:82:LYS:CD	79:CL:86:ALA:HB2	1.56	1.35
79:By:208:PHE:CB	79:CL:208:PHE:CG	1.96	1.35
37:BC:60:THR:HG23	81:B5:364:G:OP1	1.26	1.35
85:CP:199:ALA:CA	90:CP:401:GCP:O6	1.73	1.35
52:BR:163:ARG:O	80:B2:850:A:C5’	1.70	1.35
79:By:88:GLU:CA	79:CL:92:ASP:C	1.80	1.35
79:By:195:ALA:HA	79:CL:194:ARG:C	1.12	1.35
79:By:28:LEU:CB	79:CL:28:LEU:HD11	1.56	1.35
79:By:137:LEU:N	79:CL:132:GLY:HA2	1.37	1.35
79:By:137:LEU:HD23	79:CL:128:GLY:C	1.48	1.35
79:By:142:ALA:HA	79:CL:162:GLU:CD	1.50	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:913:G:O6	81:B5:2206:G:C4'	1.76	1.34
84:CN:2132:C:N3	84:CN:2168:G:N2	1.73	1.34
25:AQ:13:LYS:CE	80:B2:1584:G:O6	1.71	1.34
79:By:62:VAL:HG12	79:CL:163:PHE:CE1	1.61	1.34
79:By:211:SER:CB	79:CL:213:TYR:HE1	1.37	1.34
52:BR:163:ARG:C	80:B2:850:A:H5'	1.23	1.34
17:AI:141:ARG:NH2	80:B2:196:G:N7	1.71	1.34
79:By:145:VAL:CG1	79:CL:138:PRO:CB	2.02	1.34
79:By:185:LEU:C	79:CL:185:LEU:HB3	1.00	1.34
81:B5:2443:A:H5"	84:CN:2122:G:N1	1.43	1.34
76:Bq:5:ARG:HG2	81:B5:1221:A:O2'	1.25	1.34
79:By:37:PHE:CA	84:CN:2147:A:O3'	1.74	1.34
79:By:45:ALA:HB3	79:CL:46:LYS:N	1.40	1.34
79:By:133:PRO:HG3	86:CW:56:C:OP2	1.24	1.34
79:By:175:VAL:CG1	79:CL:175:VAL:HG13	1.54	1.33
79:By:45:ALA:C	84:CN:2198:C:O2'	1.71	1.33
79:By:119:VAL:HG22	79:CL:77:ILE:CG2	1.54	1.33
63:Bc:26:GLY:HA3	81:B5:1730:G:C6	1.62	1.33
79:By:201:PRO:O	79:CL:201:PRO:CG	1.77	1.33
17:AI:10:LYS:NZ	80:B2:339:C:OP2	1.59	1.33
23:AO:41:ARG:NH2	80:B2:916:U:H3	1.25	1.33
79:By:66:HIS:HB2	79:CL:188:ASN:ND2	1.03	1.33
79:By:163:PHE:C	79:CL:171:ILE:HD11	1.50	1.33
80:B2:1758:U:O2	81:B5:2255:A:N3	1.58	1.33
79:By:93:TYR:C	79:CL:93:TYR:CE1	2.06	1.33
79:By:134:ARG:NE	84:CN:2190:A:O3'	1.60	1.33
79:By:136:LEU:CD2	79:CL:134:ARG:CB	2.04	1.33
79:By:177:LYS:HB3	79:CL:38:ASP:C	1.53	1.33
79:By:191:ALA:O	79:CL:192:PHE:N	1.62	1.33
44:BJ:137:ARG:NH2	82:B7:44:C:OP2	1.58	1.32
79:By:77:ILE:C	79:CL:77:ILE:CG1	2.02	1.32
79:By:199:HIS:O	79:CL:208:PHE:CE2	1.80	1.32
79:By:208:PHE:CG	79:CL:47:LEU:HD22	1.62	1.32
23:AO:45:GLY:HA3	80:B2:900:A:P	1.66	1.32
79:By:119:VAL:HA	79:CL:97:GLU:CD	1.51	1.32
79:By:179:SER:O	79:CL:179:SER:HB3	1.24	1.32
79:By:195:ALA:CB	79:CL:195:ALA:H	1.41	1.32
79:By:217:THR:CB	79:CL:217:THR:CG2	2.00	1.32
81:B5:2443:A:C5	84:CN:2208:G:H5'	1.63	1.32
15:AG:83:CYS:N	80:B2:162:A:OP1	1.60	1.32
79:By:137:LEU:CD2	79:CL:128:GLY:O	1.75	1.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:191:ALA:HB2	79:CL:187:ASP:O	1.24	1.32
79:By:195:ALA:CB	79:CL:195:ALA:N	1.91	1.32
79:By:86:ALA:HB3	79:CL:94:VAL:CG1	1.48	1.32
79:By:119:VAL:CB	79:CL:97:GLU:CG	1.96	1.32
79:By:119:VAL:HA	79:CL:97:GLU:CG	1.57	1.32
23:AO:18:ARG:NH1	80:B2:918:U:O3'	1.56	1.32
41:BG:240:ASN:ND2	81:B5:2584:G:N3	1.76	1.32
79:By:8:ARG:CG	84:CN:2150:C:O2'	1.75	1.32
79:By:41:VAL:CG1	79:CL:215:THR:O	1.77	1.32
79:By:103:ILE:HG13	79:CL:100:ILE:O	1.22	1.32
80:B2:415:C:C5	85:CP:288:ARG:CB	2.13	1.32
79:By:199:HIS:HA	79:CL:199:HIS:N	1.00	1.31
79:By:222:VAL:HG13	79:CL:14:VAL:CG1	1.60	1.31
80:B2:51:A:H1'	85:CP:241:GLU:C	1.55	1.31
15:AG:108:VAL:HG21	80:B2:153:G:O2'	1.30	1.31
63:Bc:87:VAL:HA	81:B5:1728:G:O2'	1.23	1.31
79:By:201:PRO:CD	79:CL:201:PRO:CD	2.09	1.31
79:By:204:ALA:HB3	79:CL:201:PRO:CG	0.84	1.31
35:BA:249:SER:O	80:B2:987:G:N7	1.61	1.31
79:By:68:LEU:HB3	79:CL:174:PRO:O	1.21	1.31
79:By:175:VAL:HG12	79:CL:175:VAL:CG1	1.25	1.31
74:Bn:5:TRP:CH2	80:B2:1775:U:O4	1.83	1.31
79:By:77:ILE:HB	79:CL:77:ILE:CD1	1.59	1.31
85:CP:199:ALA:C	90:CP:401:GCP:O6	1.74	1.31
52:BR:169:ALA:HB2	80:B2:850:A:C2	1.64	1.30
79:By:2:LYS:N	84:CN:2149:C:C4	1.99	1.30
79:By:77:ILE:O	79:CL:77:ILE:CG1	1.78	1.30
79:By:136:LEU:HG	79:CL:134:ARG:CB	1.58	1.30
79:By:149:ILE:H	79:CL:149:ILE:CG1	1.42	1.30
79:By:217:THR:HG21	84:CN:2146:G:C1'	1.59	1.30
23:AO:25:ASP:HB2	80:B2:901:G:OP2	1.18	1.30
79:By:26:ALA:CB	79:CL:25:ALA:O	1.78	1.30
79:By:39:GLU:O	79:CL:39:GLU:HA	1.20	1.30
79:By:57:ASN:H	79:CL:57:ASN:ND2	1.29	1.30
79:By:82:LYS:CD	79:CL:149:ILE:HG23	1.49	1.30
79:By:118:ASP:OD1	79:CL:119:VAL:HG22	1.31	1.30
79:By:138:PRO:C	79:CL:138:PRO:O	1.74	1.30
79:By:201:PRO:HD2	79:CL:201:PRO:CD	1.59	1.30
8:A7:34:LYS:NZ	81:B5:2693:C:H5'	1.46	1.30
52:BR:165:LYS:HE3	80:B2:824:G:N3	1.41	1.30
15:AG:174:LYS:CB	80:B2:79:C:O2'	1.80	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AO:18:ARG:CZ	80:B2:919:A:H5'	1.61	1.30
79:By:42:GLU:HG3	79:CL:42:GLU:OE2	1.19	1.30
79:By:141:LYS:HA	79:CL:142:ALA:CA	1.59	1.30
79:By:200:LYS:NZ	79:CL:208:PHE:CD2	2.00	1.30
23:AO:136:ARG:NH2	80:B2:1786:G:OP1	1.65	1.30
25:AQ:123:ARG:O	80:B2:1584:G:H3'	1.22	1.30
33:AY:21:LYS:HG2	80:B2:782:U:O2	1.19	1.30
79:By:59:ARG:HD2	79:CL:59:ARG:CZ	1.59	1.30
79:By:62:VAL:O	79:CL:161:ILE:HG13	1.25	1.30
79:By:71:GLN:CG	79:CL:70:LYS:CE	1.95	1.30
79:By:113:VAL:O	79:CL:136:LEU:HB3	1.14	1.30
79:By:158:ALA:HB3	79:CL:159:GLY:N	1.44	1.30
79:By:201:PRO:CG	79:CL:58:VAL:CG2	2.05	1.30
52:BR:104:ARG:NH1	81:B5:1949:G:H5"	1.45	1.29
79:By:77:ILE:HG23	79:CL:99:ILE:CG1	1.61	1.29
79:By:208:PHE:CA	79:CL:209:LEU:HD23	1.61	1.29
12:AD:204:ASP:OD1	80:B2:1330:G:N1	1.65	1.29
79:By:100:ILE:HG12	79:CL:98:GLU:O	1.26	1.29
79:By:134:ARG:HE	84:CN:2190:A:C4'	1.19	1.29
79:By:179:SER:CB	79:CL:38:ASP:HA	1.59	1.29
79:By:213:TYR:CD1	79:CL:213:TYR:CE2	2.08	1.29
79:By:86:ALA:CA	79:CL:91:ALA:CB	2.09	1.29
79:By:144:THR:C	79:CL:138:PRO:HA	1.57	1.29
79:By:185:LEU:O	79:CL:185:LEU:HB3	1.14	1.29
79:By:212:VAL:O	79:CL:223:ARG:HA	1.31	1.29
80:B2:1644:C:H1'	81:B5:2255:A:N1	1.46	1.29
79:By:161:ILE:HD12	79:CL:192:PHE:CE1	1.66	1.29
79:By:183:GLU:OE1	79:CL:183:GLU:N	1.63	1.29
79:By:190:ARG:CA	79:CL:22:ILE:CD1	1.92	1.29
15:AG:53:SER:HB2	80:B2:163:G:O3'	1.11	1.29
23:AO:18:ARG:HH12	80:B2:919:A:C5'	1.43	1.29
79:By:7:TYR:CA	84:CN:2149:C:H2'	1.61	1.29
79:By:66:HIS:CD2	79:CL:184:LYS:O	1.84	1.29
79:By:99:ILE:CG1	79:CL:99:ILE:HB	1.63	1.29
29:AU:54:GLY:N	80:B2:1345:A:OP1	1.67	1.28
79:By:66:HIS:CG	79:CL:66:HIS:HB2	1.67	1.28
79:By:156:ILE:HB	79:CL:72:VAL:CG2	1.61	1.28
79:By:190:ARG:HA	79:CL:22:ILE:CD1	1.40	1.28
79:By:192:PHE:HD2	79:CL:43:VAL:CB	1.46	1.28
79:By:204:ALA:CB	79:CL:201:PRO:HG3	1.41	1.28
79:By:204:ALA:HB2	79:CL:49:ILE:CG2	1.56	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:1759:C:H1'	81:B5:2262:A:C2	1.68	1.28
14:AF:101:GLY:HA3	80:B2:1167:G:OP1	1.25	1.28
79:By:145:VAL:HG12	79:CL:138:PRO:CB	1.62	1.28
79:By:214:VAL:O	79:CL:221:SER:HA	1.24	1.28
79:By:201:PRO:C	79:CL:201:PRO:HB3	0.87	1.28
79:By:36:LYS:CB	84:CN:2183:G:N2	1.96	1.28
79:By:75:LEU:HG	79:CL:107:TRP:CZ3	1.68	1.28
79:By:86:ALA:HB1	79:CL:76:ALA:CB	1.62	1.28
79:By:174:PRO:CB	84:CN:2145:G:H5'	1.62	1.28
79:By:192:PHE:CD2	79:CL:43:VAL:CG1	2.16	1.28
9:AA:101:ARG:NH2	80:B2:1321:A:OP2	1.64	1.28
11:AC:91:ARG:NH1	80:B2:1625:C:OP1	1.67	1.28
79:By:208:PHE:CZ	79:CL:47:LEU:HD13	1.67	1.28
81:B5:1225:A:C8	81:B5:1287:A:O2'	1.87	1.28
15:AG:175:ILE:CG1	80:B2:78:A:C4	2.11	1.27
26:AR:28:PHE:CE2	80:B2:1389:C:H6	1.50	1.27
35:BA:241:ARG:NH2	81:B5:2156:C:OP2	1.67	1.27
79:By:2:LYS:HE3	84:CN:2182:C:O5'	1.13	1.27
79:By:61:THR:CG2	79:CL:162:GLU:CA	1.90	1.27
79:By:93:TYR:N	79:CL:93:TYR:CZ	2.01	1.27
79:By:136:LEU:HD12	79:CL:130:ILE:O	1.16	1.27
79:By:178:ALA:O	79:CL:33:ALA:HB1	1.24	1.27
79:By:178:ALA:O	79:CL:33:ALA:CB	1.81	1.27
10:AB:165:ARG:NH1	80:B2:946:U:H5"	1.48	1.27
32:AX:144:ARG:NH2	85:CP:314:LYS:CD	1.87	1.27
79:By:43:VAL:CG1	79:CL:43:VAL:CG1	2.12	1.27
79:By:156:ILE:CB	79:CL:72:VAL:HG21	1.64	1.27
85:CP:63:GLU:HA	85:CP:210:TRP:CZ2	1.67	1.27
8:A7:31:SER:O	81:B5:2707:C:H4'	1.27	1.27
25:AQ:13:LYS:HE3	80:B2:1584:G:O6	1.10	1.27
79:By:14:VAL:N	79:CL:7:TYR:O	1.67	1.27
79:By:162:GLU:HG2	79:CL:164:ARG:N	1.50	1.27
79:By:183:GLU:O	79:CL:185:LEU:N	1.67	1.27
23:AO:45:GLY:HA3	80:B2:900:A:OP2	1.29	1.27
23:AO:46:MET:CG	80:B2:899:G:H4'	1.62	1.27
33:AY:10:ARG:CZ	80:B2:778:G:H22	1.46	1.27
79:By:103:ILE:HG12	79:CL:103:ILE:CA	1.62	1.27
10:AB:101:HIS:HE1	80:B2:921:U:OP1	1.15	1.26
38:BD:207:TYR:CD1	82:B7:33:U:H1'	1.70	1.26
79:By:63:SER:HB2	79:CL:63:SER:CA	1.56	1.26
8:A7:81:THR:OG1	86:CW:29:G:H5'	1.26	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BN:49:ARG:NH2	81:B5:149:U:OP2	1.64	1.26
79:By:43:VAL:HG13	79:CL:213:TYR:O	1.28	1.26
79:By:66:HIS:CG	79:CL:66:HIS:CB	2.18	1.26
79:By:82:LYS:CG	79:CL:82:LYS:O	1.82	1.26
79:By:100:ILE:HG21	79:CL:97:GLU:O	1.29	1.26
79:By:40:THR:OG1	84:CN:2146:G:O5'	1.53	1.26
79:By:102:LYS:CD	79:CL:102:LYS:HA	1.64	1.26
79:By:177:LYS:CB	79:CL:38:ASP:O	1.81	1.26
26:AR:10:LYS:HE3	80:B2:1316:G:O2'	1.25	1.26
26:AR:28:PHE:CE2	80:B2:1389:C:C6	2.22	1.26
76:Bq:5:ARG:CG	81:B5:1221:A:O2'	1.83	1.26
14:AF:109:LYS:HE2	80:B2:1473:U:O3'	1.09	1.26
15:AG:60:GLY:O	80:B2:154:G:N2	1.66	1.26
15:AG:137:ARG:NH1	80:B2:169:A:OP1	1.69	1.26
79:By:164:ARG:CD	79:CL:164:ARG:HG2	1.64	1.26
79:By:201:PRO:O	79:CL:201:PRO:CA	1.82	1.26
15:AG:157:VAL:CG1	80:B2:78:A:H4'	1.64	1.25
79:By:137:LEU:CD1	79:CL:137:LEU:CD1	2.13	1.25
80:B2:415:C:C4	85:CP:288:ARG:CD	2.18	1.25
81:B5:1226:G:O4'	81:B5:1288:U:H4'	1.32	1.25
15:AG:160:ARG:NH1	80:B2:68:A:OP1	1.67	1.25
25:AQ:76:SER:HB2	80:B2:1609:U:OP1	1.34	1.25
79:By:15:ASP:HA	79:CL:7:TYR:CZ	1.71	1.25
79:By:21:THR:CB	79:CL:24:GLU:CB	2.12	1.25
79:By:59:ARG:CB	79:CL:59:ARG:NE	1.99	1.25
23:AO:25:ASP:CB	80:B2:901:G:OP2	1.84	1.25
79:By:99:ILE:HG13	79:CL:99:ILE:O	1.09	1.25
15:AG:83:CYS:HA	80:B2:161:U:O3'	1.11	1.25
79:By:137:LEU:CD1	79:CL:137:LEU:HD12	1.66	1.25
79:By:157:LYS:HB3	79:CL:71:GLN:CA	1.54	1.25
79:By:215:THR:HG23	79:CL:42:GLU:OE1	1.25	1.25
25:AQ:123:ARG:O	80:B2:1584:G:C3'	1.85	1.25
79:By:88:GLU:CA	79:CL:92:ASP:CA	2.05	1.25
79:By:116:THR:CB	79:CL:115:ALA:CB	2.14	1.25
79:By:122:ALA:O	79:CL:126:LYS:N	1.68	1.25
79:By:204:ALA:HB3	79:CL:201:PRO:CD	1.65	1.25
85:CP:199:ALA:CB	90:CP:401:GCP:O6	1.85	1.25
52:BR:121:HIS:ND1	81:B5:1719:G:OP2	1.69	1.25
79:By:41:VAL:HG22	79:CL:216:THR:CA	1.67	1.25
79:By:85:GLU:OE2	79:CL:88:GLU:HB2	1.28	1.25
79:By:27:HIS:NE2	79:CL:27:HIS:HB3	1.52	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:75:LEU:HD11	79:CL:107:TRP:CE3	1.70	1.24
79:By:103:ILE:CG1	79:CL:103:ILE:CB	1.76	1.24
79:By:162:GLU:HG2	79:CL:163:PHE:C	1.56	1.24
15:AG:128:THR:CG2	57:BW:81:PRO:CG	2.09	1.24
44:BJ:142:LYS:HE3	81:B5:2664:C:OP2	1.31	1.24
75:Bo:41:ARG:NH1	81:B5:284:A:OP2	1.68	1.24
79:By:20:TYR:CE1	79:CL:15:ASP:N	2.05	1.24
79:By:22:ILE:HB	79:CL:21:THR:O	1.28	1.24
79:By:107:TRP:O	79:CL:105:ASP:HB3	1.29	1.24
79:By:192:PHE:CD2	79:CL:43:VAL:HB	1.72	1.24
79:By:199:HIS:CD2	79:CL:196:LEU:HD23	1.70	1.24
79:By:212:VAL:CG2	79:CL:212:VAL:CB	1.97	1.24
79:By:223:ARG:HE	79:CL:223:ARG:CG	1.48	1.24
17:AI:138:ASN:ND2	80:B2:197:A:N1	1.84	1.24
38:BD:158:ARG:HD3	82:B7:46:A:OP1	1.20	1.24
79:By:28:LEU:H	79:CL:28:LEU:CD1	1.50	1.24
79:By:162:GLU:CG	79:CL:163:PHE:C	2.09	1.24
79:By:211:SER:HA	79:CL:223:ARG:CZ	1.67	1.24
33:AY:10:ARG:HA	80:B2:778:G:O6	1.37	1.24
79:By:174:PRO:CB	84:CN:2145:G:C5'	2.13	1.24
80:B2:440:U:OP1	85:CP:274:ASN:ND2	1.71	1.24
15:AG:59:GLN:N	80:B2:155:U:C4'	1.99	1.24
35:BA:242:ARG:O	81:B5:2154:U:H5"	1.29	1.24
79:By:7:TYR:CA	84:CN:2149:C:C2'	2.16	1.24
79:By:20:TYR:CE1	79:CL:14:VAL:C	1.92	1.24
79:By:46:LYS:CG	79:CL:46:LYS:HG2	1.20	1.24
79:By:81:GLU:CA	79:CL:83:ILE:CG1	2.15	1.24
79:By:193:ILE:HD11	79:CL:224:ILE:CD1	1.67	1.24
79:By:226:PRO:CG	79:CL:223:ARG:NH2	1.99	1.24
15:AG:154:ARG:CB	80:B2:78:A:OP2	1.84	1.23
23:AO:126:THR:HG22	80:B2:988:A:C2	1.72	1.23
79:By:26:ALA:CB	79:CL:26:ALA:C	2.11	1.23
80:B2:1780:G:O2'	81:B5:2262:A:H4'	1.06	1.23
15:AG:53:SER:C	80:B2:163:G:H4'	1.60	1.23
63:Bc:26:GLY:C	81:B5:1730:G:O6	1.79	1.23
79:By:7:TYR:HA	84:CN:2149:C:C2'	1.66	1.23
79:By:116:THR:CB	79:CL:115:ALA:HB1	1.66	1.23
79:By:137:LEU:HB2	79:CL:132:GLY:CA	1.66	1.23
15:AG:175:ILE:CG1	80:B2:78:A:H1'	1.68	1.23
20:AL:10:GLU:HG2	80:B2:327:U:O2'	1.30	1.23
76:Bq:4:ILE:HG13	81:B5:1219:C:OP1	1.28	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:2:LYS:CE	84:CN:2182:C:O5'	1.86	1.23
79:By:42:GLU:CG	79:CL:42:GLU:OE2	1.84	1.23
79:By:45:ALA:CB	79:CL:46:LYS:H	1.41	1.23
79:By:59:ARG:CD	79:CL:59:ARG:NH2	2.02	1.23
79:By:116:THR:HG21	79:CL:77:ILE:O	1.30	1.23
79:By:140:PRO:CG	79:CL:141:LYS:HB2	1.38	1.23
79:By:189:ILE:CG2	79:CL:214:VAL:CG2	2.15	1.23
33:AY:8:ARG:HB3	80:B2:780:A:C8	1.72	1.23
33:AY:119:PHE:CZ	80:B2:86:A:C5'	2.21	1.23
52:BR:165:LYS:HD2	80:B2:849:C:O2	1.22	1.23
76:Bq:4:ILE:CD1	81:B5:1218:U:O3'	1.85	1.23
79:By:141:LYS:HD2	79:CL:141:LYS:C	1.64	1.23
79:By:145:VAL:HG23	79:CL:145:VAL:N	1.52	1.23
80:B2:414:C:O2	85:CP:289:LEU:CG	1.78	1.23
15:AG:164:LYS:NZ	80:B2:72:A:C5'	2.02	1.23
26:AR:49:LYS:HD2	80:B2:1390:U:OP2	1.34	1.23
79:By:157:LYS:CA	79:CL:72:VAL:HG12	1.68	1.23
15:AG:159:ARG:HD2	80:B2:77:U:O2	1.28	1.22
79:By:208:PHE:HB2	79:CL:208:PHE:CG	1.34	1.22
79:By:215:THR:CG2	79:CL:215:THR:CG2	2.05	1.22
80:B2:1655:A:H1'	81:B5:2302:G:C1'	1.68	1.22
35:BA:95:SER:N	81:B5:2551:U:O4	1.73	1.22
79:By:129:ARG:O	79:CL:129:ARG:NH1	1.70	1.22
79:By:217:THR:CG2	84:CN:2146:G:H1'	1.67	1.22
41:BG:248:LYS:HE2	81:B5:2529:A:OP1	1.33	1.22
79:By:77:ILE:C	79:CL:77:ILE:HG12	1.59	1.22
79:By:137:LEU:CD2	79:CL:128:GLY:HA2	1.69	1.22
79:By:175:VAL:HG11	79:CL:43:VAL:CG2	1.69	1.22
80:B2:414:C:C2	85:CP:289:LEU:CD2	2.10	1.22
38:BD:94:ASN:HB2	82:B7:47:C:OP1	1.38	1.22
79:By:38:ASP:N	84:CN:2147:A:H4'	1.51	1.22
79:By:46:LYS:NZ	84:CN:2200:C:P	2.13	1.22
79:By:61:THR:CB	79:CL:162:GLU:HA	1.69	1.22
38:BD:260:PHE:CE2	82:B7:121:U:H5'	1.74	1.21
79:By:19:ILE:O	79:CL:15:ASP:HB3	1.03	1.21
79:By:53:ARG:CB	79:CL:52:ARG:H	1.42	1.21
79:By:88:GLU:CG	79:CL:92:ASP:O	1.88	1.21
79:By:131:LEU:C	79:CL:133:PRO:HD2	1.63	1.21
79:By:206:GLY:HA3	79:CL:206:GLY:O	1.38	1.21
15:AG:174:LYS:HB2	80:B2:79:C:O2'	1.09	1.21
35:BA:208:ASP:OD1	81:B5:912:G:N1	1.71	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:Bq:4:ILE:HD11	81:B5:1219:C:P	1.80	1.21
79:By:28:LEU:CB	79:CL:28:LEU:CD1	2.17	1.21
79:By:34:THR:HB	84:CN:2150:C:OP2	1.34	1.21
79:By:66:HIS:CB	79:CL:180:PHE:CE2	2.23	1.21
79:By:161:ILE:HD11	79:CL:192:PHE:CD1	1.74	1.21
38:BD:218:ARG:NH1	82:B7:31:U:H4'	1.53	1.21
79:By:88:GLU:HG2	79:CL:92:ASP:O	1.39	1.21
79:By:94:VAL:N	79:CL:93:TYR:CE1	1.72	1.21
79:By:136:LEU:HD22	79:CL:136:LEU:CD1	1.69	1.21
79:By:149:ILE:HG21	79:CL:76:ALA:CB	1.59	1.21
79:By:201:PRO:HD3	79:CL:199:HIS:O	1.40	1.21
79:By:19:ILE:HG21	79:CL:17:ASN:O	1.34	1.21
79:By:77:ILE:CG2	79:CL:77:ILE:CD1	2.18	1.21
26:AR:60:ARG:NH2	80:B2:1400:A:C5'	2.03	1.21
79:By:44:HIS:HE1	84:CN:2197:A:C2	1.48	1.21
79:By:141:LYS:HA	79:CL:142:ALA:N	0.88	1.21
79:By:161:ILE:CD1	79:CL:192:PHE:CE1	2.24	1.21
79:By:176:GLY:C	79:CL:176:GLY:O	1.83	1.21
79:By:185:LEU:CB	79:CL:29:VAL:HG11	1.70	1.21
79:By:201:PRO:HB2	79:CL:57:ASN:C	1.65	1.21
80:B2:1646:C:O2'	81:B5:2257:C:N4	1.74	1.21
30:AV:62:ARG:NH2	80:B2:1039:A:H5"	1.55	1.20
79:By:26:ALA:HB3	79:CL:26:ALA:C	1.63	1.20
79:By:71:GLN:HB2	79:CL:71:GLN:NE2	1.55	1.20
79:By:126:LYS:HD2	79:CL:126:LYS:CD	1.69	1.20
79:By:171:ILE:HD13	79:CL:47:LEU:CD1	1.71	1.20
79:By:218:MET:CG	84:CN:2195:C:H1'	1.70	1.20
15:AG:174:LYS:CB	80:B2:79:C:C1'	2.18	1.20
79:By:19:ILE:O	79:CL:15:ASP:CB	1.86	1.20
79:By:68:LEU:HD22	79:CL:175:VAL:CA	1.71	1.20
79:By:113:VAL:N	79:CL:136:LEU:CD1	2.03	1.20
79:By:163:PHE:CA	79:CL:171:ILE:CD1	2.19	1.20
79:By:171:ILE:CD1	79:CL:47:LEU:HD11	1.71	1.20
79:By:206:GLY:O	79:CL:208:PHE:CB	1.89	1.20
26:AR:53:TYR:OH	80:B2:1401:A:H5"	1.40	1.20
79:By:8:ARG:NE	84:CN:2151:U:C5'	1.91	1.20
79:By:38:ASP:OD1	79:CL:36:LYS:O	1.59	1.20
79:By:44:HIS:CE1	84:CN:2197:A:N3	2.06	1.20
79:By:66:HIS:CB	79:CL:180:PHE:HE2	1.51	1.20
79:By:93:TYR:C	79:CL:93:TYR:CZ	2.17	1.20
80:B2:1758:U:O2'	81:B5:2255:A:C5'	1.88	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2443:A:C6	84:CN:2208:G:C5'	2.23	1.20
15:AG:53:SER:O	80:B2:163:G:H5"	1.37	1.20
28:AT:12:GLN:NE2	80:B2:1530:C:O4'	1.72	1.20
33:AY:10:ARG:NH1	80:B2:778:G:H22	1.40	1.20
35:BA:152:SER:HB3	81:B5:2157:G:O6	1.41	1.20
79:By:5:LYS:CA	84:CN:2150:C:H2'	1.65	1.20
79:By:30:LYS:CE	79:CL:31:GLU:HB3	1.70	1.20
79:By:81:GLU:HA	79:CL:83:ILE:CG1	1.72	1.20
79:By:85:GLU:CG	79:CL:88:GLU:H	1.20	1.20
79:By:92:ASP:C	79:CL:93:TYR:OH	1.85	1.20
79:By:100:ILE:CG1	79:CL:101:GLN:HE21	1.42	1.20
79:By:207:THR:CG2	79:CL:207:THR:C	2.04	1.20
79:By:211:SER:CB	79:CL:213:TYR:CE1	2.14	1.20
79:By:213:TYR:CZ	79:CL:213:TYR:CE2	2.30	1.20
79:By:223:ARG:NE	79:CL:223:ARG:HB2	1.57	1.20
81:B5:2219:A:O2'	79:CL:205:LYS:HD3	1.41	1.20
85:CP:19:THR:C	90:CP:401:GCP:O2A	1.84	1.20
79:By:137:LEU:CD2	79:CL:128:GLY:CA	2.19	1.19
79:By:176:GLY:CA	79:CL:41:VAL:H	1.22	1.19
79:By:227:HIS:NE2	79:CL:227:HIS:ND1	1.89	1.19
85:CP:131:LYS:HD3	90:CP:401:GCP:C4	1.71	1.19
4:A3:31:ILE:HD11	80:B2:1199:G:O6	1.39	1.19
79:By:28:LEU:C	79:CL:32:LEU:HG	1.68	1.19
79:By:28:LEU:HB2	79:CL:28:LEU:CD1	1.71	1.19
79:By:46:LYS:HZ1	84:CN:2200:C:P	1.65	1.19
79:By:59:ARG:CA	79:CL:164:ARG:HG3	1.58	1.19
79:By:88:GLU:HA	79:CL:92:ASP:C	0.96	1.19
79:By:179:SER:HB2	79:CL:38:ASP:CB	1.70	1.19
85:CP:131:LYS:CG	90:CP:401:GCP:C6	2.20	1.19
79:By:100:ILE:N	79:CL:99:ILE:C	2.00	1.19
79:By:152:ILE:HG13	79:CL:152:ILE:CG2	1.73	1.19
79:By:211:SER:HA	79:CL:223:ARG:NH1	1.57	1.19
84:CN:2190:A:O4'	86:CW:56:C:C1'	1.90	1.19
15:AG:108:VAL:CG2	80:B2:154:G:H5'	1.73	1.19
79:By:41:VAL:HG13	79:CL:215:THR:O	1.01	1.19
79:By:66:HIS:ND1	79:CL:66:HIS:HB3	1.56	1.19
79:By:175:VAL:CG1	79:CL:175:VAL:CG1	2.12	1.19
80:B2:414:C:C2	85:CP:289:LEU:HD21	1.69	1.19
80:B2:420:A:C5	85:CP:288:ARG:NH2	2.10	1.19
8:A7:81:THR:OG1	86:CW:29:G:C5'	1.91	1.18
14:AF:104:ASN:HD21	80:B2:1166:A:C5'	1.54	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AG:15:THR:HG23	80:B2:152:U:O3'	1.42	1.18
23:AO:18:ARG:NH1	80:B2:919:A:C5'	1.99	1.18
52:BR:169:ALA:O	80:B2:852:C:C6	1.97	1.18
79:By:71:GLN:CG	79:CL:70:LYS:HE2	1.43	1.18
79:By:171:ILE:CD1	79:CL:47:LEU:CD1	2.21	1.18
79:By:176:GLY:N	79:CL:41:VAL:H	1.39	1.18
80:B2:1002:G:H4'	81:B5:2265:C:OP1	1.43	1.18
15:AG:174:LYS:HB2	80:B2:79:C:C1'	1.73	1.18
35:BA:247:ARG:NH2	80:B2:1013:A:H4'	1.58	1.18
79:By:27:HIS:CE1	79:CL:27:HIS:HB3	1.78	1.18
79:By:60:GLY:O	79:CL:163:PHE:O	1.59	1.18
79:By:99:ILE:HG12	79:CL:99:ILE:CB	1.73	1.18
79:By:212:VAL:CG1	79:CL:224:ILE:HG12	1.72	1.18
79:By:217:THR:CA	79:CL:217:THR:HG22	1.61	1.18
79:By:223:ARG:HE	79:CL:223:ARG:CB	1.56	1.18
23:AO:123:SER:HB2	80:B2:885:G:C2	1.77	1.18
26:AR:60:ARG:NH2	80:B2:1400:A:O5'	1.77	1.18
79:By:29:VAL:N	79:CL:32:LEU:HG	1.12	1.18
79:By:65:PRO:CA	79:CL:67:GLY:H	1.52	1.18
79:By:71:GLN:CB	79:CL:71:GLN:HE21	1.57	1.18
79:By:81:GLU:HB3	79:CL:79:LYS:O	1.03	1.18
79:By:190:ARG:HH21	79:CL:21:THR:C	1.31	1.18
79:By:226:PRO:HG3	79:CL:223:ARG:NH2	1.58	1.18
12:AD:9:ARG:NH1	80:B2:1489:U:OP2	1.74	1.18
74:Bn:11:ARG:HD3	80:B2:1126:G:H5'	1.21	1.18
79:By:18:LYS:CD	79:CL:15:ASP:HA	1.73	1.18
79:By:53:ARG:CB	79:CL:53:ARG:N	2.06	1.18
79:By:112:ALA:HB3	79:CL:111:ASP:C	1.69	1.18
79:By:131:LEU:HD12	79:CL:128:GLY:N	1.55	1.18
79:By:161:ILE:CD1	79:CL:192:PHE:CD1	2.25	1.18
29:AU:57:ARG:NH2	80:B2:1382:A:C2	2.11	1.18
52:BR:165:LYS:HE3	80:B2:824:G:C2	1.78	1.18
52:BR:166:ASN:ND2	89:BR:201:OHX:N2	1.91	1.18
79:By:26:ALA:HB2	79:CL:25:ALA:O	1.30	1.18
79:By:33:ALA:O	79:CL:36:LYS:HG3	1.41	1.18
79:By:132:GLY:O	79:CL:132:GLY:C	1.87	1.18
80:B2:995:A:H5"	81:B5:2196:C:OP1	1.40	1.18
15:AG:133:LEU:CD1	80:B2:66:U:C2	2.26	1.17
35:BA:3:ARG:HD3	81:B5:911:C:N4	1.58	1.17
79:By:21:THR:HG22	79:CL:24:GLU:CB	1.59	1.17
79:By:175:VAL:HG23	79:CL:41:VAL:C	1.63	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:220:PRO:HD2	79:CL:7:TYR:CD1	1.71	1.17
79:By:222:VAL:CG2	79:CL:32:LEU:HD13	1.74	1.17
80:B2:51:A:C8	85:CP:242:GLY:CA	1.89	1.17
15:AG:174:LYS:CA	80:B2:79:C:C1'	2.16	1.17
35:BA:249:SER:O	80:B2:987:G:C5	1.80	1.17
79:By:5:LYS:O	84:CN:2150:C:H3'	1.38	1.17
79:By:21:THR:HB	79:CL:24:GLU:CB	1.69	1.17
79:By:131:LEU:CD1	79:CL:131:LEU:HB2	1.75	1.17
15:AG:154:ARG:O	80:B2:78:A:H5'	1.02	1.17
23:AO:46:MET:HA	80:B2:899:G:C5'	1.72	1.17
26:AR:10:LYS:NZ	80:B2:1401:A:O3'	1.77	1.17
38:BD:207:TYR:CD1	82:B7:33:U:C1'	2.26	1.17
76:Bq:4:ILE:HD11	81:B5:1218:U:O3'	1.01	1.17
79:By:119:VAL:HG11	79:CL:96:GLY:O	1.01	1.17
79:By:137:LEU:CD2	79:CL:128:GLY:C	2.15	1.17
79:By:160:ARG:NH2	79:CL:143:GLY:HA2	1.59	1.17
15:AG:174:LYS:HD3	80:B2:79:C:O2	1.43	1.17
17:AI:73:SER:OG	80:B2:256:A:N3	1.73	1.17
23:AO:123:SER:CB	80:B2:885:G:H21	1.58	1.17
79:By:14:VAL:HG13	79:CL:10:LEU:CD1	1.74	1.17
79:By:86:ALA:O	79:CL:91:ALA:HB1	1.44	1.17
79:By:175:VAL:HG22	79:CL:41:VAL:C	1.55	1.17
79:By:226:PRO:HG2	79:CL:223:ARG:HH21	1.05	1.17
80:B2:1646:C:H4'	81:B5:2257:C:N4	1.59	1.17
29:AU:57:ARG:NH2	80:B2:1382:A:H2	1.42	1.17
79:By:22:ILE:HD12	79:CL:22:ILE:N	1.60	1.17
79:By:82:LYS:CA	79:CL:82:LYS:O	1.83	1.17
79:By:85:GLU:HG2	79:CL:88:GLU:N	1.59	1.17
79:By:112:ALA:HB1	79:CL:111:ASP:O	1.41	1.17
79:By:227:HIS:HD2	79:CL:227:HIS:HB2	1.04	1.17
80:B2:51:A:C1'	85:CP:242:GLY:HA3	1.52	1.17
18:AJ:169:PRO:O	80:B2:512:A:OP1	1.61	1.16
68:Bh:95:PHE:CG	81:B5:136:G:H5'	1.79	1.16
79:By:53:ARG:CB	79:CL:52:ARG:N	1.92	1.16
79:By:74:VAL:HG23	79:CL:73:ARG:N	1.60	1.16
79:By:112:ALA:CB	79:CL:111:ASP:HA	1.73	1.16
79:By:140:PRO:O	79:CL:142:ALA:N	1.77	1.16
79:By:192:PHE:CB	79:CL:192:PHE:HB3	1.74	1.16
79:By:199:HIS:CA	79:CL:199:HIS:N	1.96	1.16
79:By:205:LYS:HA	79:CL:200:LYS:HE2	1.26	1.16
79:By:212:VAL:HG13	79:CL:212:VAL:CG1	1.73	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:216:THR:CG2	79:CL:39:GLU:OE1	1.93	1.16
79:By:224:ILE:CD1	79:CL:214:VAL:HG23	1.74	1.16
80:B2:1757:G:H2'	81:B5:2255:A:O2'	1.44	1.16
38:BD:146:LEU:HB3	81:B5:2746:A:C2	1.79	1.16
79:By:41:VAL:CG2	79:CL:216:THR:HG22	1.75	1.16
79:By:189:ILE:CG2	79:CL:214:VAL:HG22	1.73	1.16
79:By:208:PHE:CD2	79:CL:47:LEU:CD2	2.28	1.16
11:AC:119:LYS:HE2	80:B2:1291:G:H5'	1.26	1.16
23:AO:38:THR:HB	80:B2:895:G:H2'	1.25	1.16
79:By:21:THR:CB	79:CL:24:GLU:HB3	1.73	1.16
79:By:122:ALA:HA	79:CL:125:SER:H	1.02	1.16
79:By:133:PRO:CG	86:CW:56:C:P	2.33	1.16
79:By:218:MET:HA	84:CN:2195:C:C1'	1.74	1.16
54:BT:129:LYS:HB3	81:B5:1097:G:H4'	1.22	1.16
74:Bn:11:ARG:CD	80:B2:1126:G:H5'	1.76	1.16
79:By:82:LYS:HG2	79:CL:82:LYS:O	1.34	1.16
79:By:140:PRO:HG2	79:CL:141:LYS:HB2	1.18	1.16
79:By:171:ILE:CG1	79:CL:47:LEU:CD1	2.22	1.16
15:AG:154:ARG:O	80:B2:78:A:C5'	1.94	1.16
25:AQ:15:SER:OG	80:B2:1608:U:OP1	1.60	1.16
79:By:41:VAL:HG21	79:CL:216:THR:HG22	1.22	1.16
79:By:99:ILE:HG13	79:CL:99:ILE:C	1.68	1.16
79:By:112:ALA:CB	79:CL:111:ASP:C	2.19	1.16
79:By:116:THR:HB	79:CL:77:ILE:CG2	1.75	1.16
79:By:156:ILE:HD12	79:CL:112:ALA:CB	1.74	1.16
79:By:26:ALA:HB1	79:CL:26:ALA:O	1.45	1.15
79:By:40:THR:OG1	84:CN:2146:G:C4'	1.92	1.15
79:By:45:ALA:C	79:CL:46:LYS:N	2.04	1.15
79:By:126:LYS:CD	79:CL:126:LYS:CD	2.21	1.15
79:By:152:ILE:CG1	79:CL:152:ILE:CG2	2.24	1.15
79:By:157:LYS:CB	79:CL:72:VAL:HG12	1.61	1.15
81:B5:2766:U:N3	86:CW:76:A:C8	2.14	1.15
85:CP:63:GLU:CA	85:CP:210:TRP:CE2	2.29	1.15
17:AI:138:ASN:ND2	80:B2:197:A:C6	2.14	1.15
24:AP:12:PHE:HB2	44:BJ:85:LYS:HG3	1.26	1.15
52:BR:143:ILE:CG1	81:B5:2093:A:H5"	1.74	1.15
69:Bi:25:LYS:HB3	81:B5:156:G:OP2	1.44	1.15
79:By:41:VAL:O	79:CL:40:THR:HG22	1.43	1.15
79:By:45:ALA:HB1	79:CL:46:LYS:H	1.04	1.15
79:By:102:LYS:CE	79:CL:104:LEU:HD21	1.75	1.15
79:By:102:LYS:CB	79:CL:104:LEU:N	2.00	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:134:ARG:CD	84:CN:2190:A:O3'	1.95	1.15
79:By:206:GLY:O	79:CL:208:PHE:HB2	0.98	1.15
79:By:220:PRO:CD	79:CL:7:TYR:CD1	2.13	1.15
60:BZ:17:ARG:HG3	81:B5:1634:G:O6	1.46	1.15
79:By:61:THR:CG2	79:CL:162:GLU:CB	2.13	1.15
79:By:99:ILE:CG1	79:CL:99:ILE:O	1.94	1.15
79:By:208:PHE:CZ	79:CL:58:VAL:CG2	2.12	1.15
85:CP:199:ALA:HB3	90:CP:401:GCP:O6	1.43	1.15
15:AG:132:ARG:HG3	80:B2:68:A:C6	1.80	1.15
79:By:183:GLU:HB3	79:CL:183:GLU:N	1.51	1.15
79:By:220:PRO:HG2	79:CL:7:TYR:CD2	1.81	1.15
80:B2:415:C:C5	85:CP:288:ARG:CD	2.30	1.15
85:CP:20:LYS:CB	90:CP:401:GCP:C8	2.21	1.15
63:Bc:87:VAL:CA	81:B5:1728:G:O2'	1.93	1.15
79:By:8:ARG:CA	79:CL:4:GLY:HA2	1.76	1.15
79:By:81:GLU:CB	79:CL:80:GLY:C	2.19	1.15
79:By:102:LYS:HD3	79:CL:102:LYS:CA	1.77	1.15
79:By:122:ALA:CA	79:CL:125:SER:H	1.58	1.15
79:By:135:GLY:CA	79:CL:132:GLY:O	1.89	1.15
79:By:177:LYS:HB3	79:CL:38:ASP:O	1.00	1.15
79:By:209:LEU:HG	79:CL:209:LEU:CB	1.76	1.15
85:CP:199:ALA:C	90:CP:401:GCP:C6	2.19	1.15
8:A7:48:ARG:CD	81:B5:2678:A:OP2	1.94	1.14
8:A7:81:THR:CG2	86:CW:29:G:O5'	1.84	1.14
14:AF:104:ASN:ND2	80:B2:1166:A:H5'	1.62	1.14
79:By:59:ARG:HB3	79:CL:164:ARG:HB2	1.26	1.14
79:By:113:VAL:HG22	79:CL:110:PHE:CZ	1.73	1.14
79:By:126:LYS:CG	79:CL:126:LYS:HD3	1.75	1.14
15:AG:110:ALA:CB	80:B2:163:G:H1'	1.77	1.14
15:AG:132:ARG:CZ	80:B2:68:A:C5	2.30	1.14
23:AO:129:LYS:HE3	89:B2:2013:OHX:N1	1.62	1.14
34:AZ:77:ARG:NH2	80:B2:1534:G:N7	1.92	1.14
79:By:112:ALA:CB	79:CL:111:ASP:O	1.96	1.14
79:By:149:ILE:O	79:CL:74:VAL:HG11	1.47	1.14
79:By:149:ILE:HG23	79:CL:76:ALA:CB	1.61	1.14
79:By:190:ARG:C	79:CL:22:ILE:HD13	1.71	1.14
21:AM:46:ARG:NH1	80:B2:1254:U:OP2	1.81	1.14
23:AO:121:VAL:O	80:B2:886:U:O2'	1.62	1.14
70:Bj:30:GLN:NE2	81:B5:903:U:OP2	1.80	1.14
79:By:64:LEU:CB	79:CL:65:PRO:HD2	1.77	1.14
79:By:204:ALA:CB	79:CL:201:PRO:HG2	1.56	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:218:MET:HG3	84:CN:2195:C:H1'	1.30	1.14
15:AG:159:ARG:HD2	80:B2:77:U:C2	1.73	1.14
79:By:27:HIS:NE2	79:CL:27:HIS:CB	2.10	1.14
79:By:42:GLU:CG	84:CN:2145:G:H1'	1.78	1.14
79:By:91:ALA:HB1	79:CL:93:TYR:CD2	1.83	1.14
79:By:98:GLU:HA	79:CL:98:GLU:OE1	1.45	1.14
79:By:108:MET:HE1	84:CN:2189:G:O6	1.47	1.14
79:By:149:ILE:H	79:CL:149:ILE:HG12	1.02	1.14
79:By:175:VAL:CG1	79:CL:43:VAL:HG23	1.78	1.14
79:By:201:PRO:CB	79:CL:57:ASN:C	2.20	1.14
79:By:206:GLY:H	79:CL:200:LYS:NZ	1.43	1.14
80:B2:913:G:O6	81:B5:2206:G:H4'	1.00	1.14
85:CP:63:GLU:CA	85:CP:210:TRP:CD2	2.31	1.14
4:A3:56:ARG:O	80:B2:1418:G:O2'	1.65	1.14
48:BN:49:ARG:NH2	81:B5:149:U:P	2.20	1.14
79:By:2:LYS:N	84:CN:2148:G:N1	1.93	1.14
79:By:2:LYS:CA	84:CN:2148:G:H1	1.61	1.14
79:By:8:ARG:NE	84:CN:2151:U:H5'	1.11	1.14
79:By:100:ILE:HG13	79:CL:101:GLN:NE2	0.82	1.14
79:By:140:PRO:C	79:CL:142:ALA:N	2.04	1.14
79:By:149:ILE:CG2	79:CL:76:ALA:HB1	1.62	1.14
79:By:175:VAL:HG22	79:CL:42:GLU:N	1.63	1.14
79:By:208:PHE:CD2	79:CL:47:LEU:HD22	1.82	1.14
79:By:218:MET:N	84:CN:2195:C:O2	1.79	1.14
79:By:222:VAL:HG21	79:CL:32:LEU:CD1	1.76	1.14
84:CN:2190:A:C1'	86:CW:56:C:O4'	1.94	1.14
15:AG:112:VAL:HG22	80:B2:164:A:H4'	1.24	1.13
35:BA:247:ARG:CZ	80:B2:1013:A:H4'	1.78	1.13
38:BD:48:LYS:NZ	81:B5:2749:G:P	2.20	1.13
52:BR:169:ALA:O	80:B2:852:C:C5	1.87	1.13
79:By:15:ASP:OD2	79:CL:11:LEU:CD1	1.77	1.13
79:By:119:VAL:CG2	79:CL:77:ILE:CG2	2.25	1.13
79:By:136:LEU:HD13	79:CL:108:MET:HE1	1.20	1.13
79:By:136:LEU:O	79:CL:137:LEU:N	1.80	1.13
79:By:137:LEU:CG	79:CL:137:LEU:HG	1.73	1.13
79:By:195:ALA:HB2	79:CL:195:ALA:H	1.04	1.13
80:B2:1645:G:O3'	81:B5:2259:A:C2	2.00	1.13
15:AG:175:ILE:N	80:B2:78:A:N3	1.97	1.13
17:AI:42:ARG:HA	80:B2:260:U:O4	1.45	1.13
35:BA:40:TYR:OH	81:B5:2550:U:H2'	1.48	1.13
44:BJ:72:ARG:NE	82:B7:40:C:O2	1.81	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:119:VAL:CG2	79:CL:77:ILE:HG23	1.79	1.13
79:By:157:LYS:N	79:CL:72:VAL:HG11	1.53	1.13
79:By:191:ALA:HB3	79:CL:188:ASN:C	1.71	1.13
79:By:193:ILE:HD11	79:CL:224:ILE:HD11	1.27	1.13
79:By:204:ALA:CA	79:CL:201:PRO:HG2	1.78	1.13
79:By:212:VAL:HB	79:CL:224:ILE:H	1.11	1.13
79:By:214:VAL:HG13	79:CL:214:VAL:HG12	1.14	1.13
81:B5:2443:A:O5'	84:CN:2208:G:O6	1.62	1.13
14:AF:109:LYS:CE	80:B2:1473:U:O3'	1.95	1.13
15:AG:83:CYS:SG	80:B2:162:A:C5'	2.36	1.13
18:AJ:172:VAL:HG13	80:B2:512:A:OP2	1.46	1.13
79:By:13:LYS:CB	79:CL:6:ARG:O	1.95	1.13
79:By:116:THR:HG23	79:CL:115:ALA:CB	1.79	1.13
79:By:145:VAL:N	79:CL:144:THR:CB	2.05	1.13
15:AG:56:ASN:CB	80:B2:154:G:H1'	1.77	1.13
15:AG:188:ARG:HG2	80:B2:284:G:OP2	1.49	1.13
23:AO:35:GLY:HA3	80:B2:919:A:C4'	1.79	1.13
29:AU:53:LYS:HB3	80:B2:1345:A:C5'	1.78	1.13
35:BA:236:GLY:N	81:B5:2183:A:O2'	1.80	1.13
52:BR:175:GLN:N	80:B2:852:C:H4'	1.47	1.13
76:Bq:5:ARG:CD	81:B5:1221:A:O2'	1.97	1.13
79:By:14:VAL:HG13	79:CL:10:LEU:CG	1.67	1.13
79:By:59:ARG:HA	79:CL:164:ARG:HG3	1.14	1.13
79:By:100:ILE:HG23	79:CL:99:ILE:N	1.47	1.13
79:By:113:VAL:H	79:CL:136:LEU:CD1	1.60	1.13
79:By:205:LYS:HD2	79:CL:204:ALA:H	1.12	1.13
79:By:218:MET:HA	84:CN:2195:C:O2	1.36	1.13
80:B2:1686:C:H2'	80:B2:1687:U:H6	1.07	1.13
79:By:42:GLU:CD	84:CN:2145:G:C1'	2.21	1.13
79:By:43:VAL:CG2	79:CL:42:GLU:O	1.95	1.12
79:By:68:LEU:HD23	79:CL:175:VAL:C	1.71	1.12
79:By:134:ARG:HG2	84:CN:2190:A:O2'	1.45	1.13
79:By:177:LYS:N	79:CL:177:LYS:HA	1.62	1.12
79:By:198:ALA:HB3	79:CL:194:ARG:O	1.45	1.12
79:By:204:ALA:CA	79:CL:49:ILE:HG22	1.78	1.12
79:By:215:THR:HG23	79:CL:42:GLU:CD	1.72	1.12
80:B2:1646:C:C4'	81:B5:2257:C:N4	2.11	1.12
81:B5:1225:A:C4	81:B5:1287:A:O2'	2.02	1.12
15:AG:59:GLN:H	80:B2:155:U:C4'	1.57	1.12
15:AG:133:LEU:C	80:B2:66:U:O4	1.92	1.12
35:BA:240:ALA:HA	81:B5:2154:U:O3'	1.48	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:Bn:11:ARG:HD3	80:B2:1126:G:C5'	1.77	1.12
79:By:144:THR:N	79:CL:144:THR:OG1	1.57	1.12
79:By:183:GLU:C	79:CL:185:LEU:H	1.56	1.12
79:By:209:LEU:HA	79:CL:46:LYS:O	1.48	1.12
80:B2:1644:C:O2	81:B5:2255:A:C2	2.01	1.12
29:AU:75:GLY:N	80:B2:1194:A:OP2	1.82	1.12
79:By:2:LYS:N	84:CN:2148:G:H1	1.47	1.12
79:By:50:ASP:O	79:CL:50:ASP:HA	1.49	1.12
79:By:68:LEU:CD2	79:CL:175:VAL:CA	2.25	1.12
79:By:74:VAL:N	79:CL:73:ARG:HG3	1.63	1.12
79:By:145:VAL:HG13	79:CL:138:PRO:O	1.49	1.12
79:By:213:TYR:CE1	84:CN:2198:C:H5"	1.83	1.12
80:B2:415:C:OP2	85:CP:288:ARG:HA	1.49	1.12
80:B2:1747:G:O2'	81:B5:2304:C:H5'	1.50	1.12
15:AG:174:LYS:HA	80:B2:79:C:O4'	0.96	1.12
20:AL:19:ILE:HD13	89:AL:201:OHX:N6	1.64	1.12
26:AR:7:LYS:CG	80:B2:1316:G:OP1	1.98	1.12
44:BJ:142:LYS:CE	81:B5:2664:C:OP2	1.97	1.12
48:BN:49:ARG:HH21	81:B5:149:U:P	1.73	1.12
79:By:7:TYR:HB3	84:CN:2150:C:O4'	1.42	1.12
79:By:25:ALA:C	79:CL:28:LEU:C	2.14	1.12
79:By:113:VAL:HG13	79:CL:110:PHE:CZ	1.67	1.12
79:By:179:SER:HB2	79:CL:38:ASP:CA	1.80	1.12
79:By:209:LEU:CB	79:CL:209:LEU:HB3	1.77	1.12
79:By:214:VAL:HG12	79:CL:215:THR:CA	1.72	1.12
79:By:227:HIS:CD2	79:CL:227:HIS:CG	2.38	1.12
1:A0:70:LYS:HE2	80:B2:930:A:H5"	1.15	1.12
8:A7:47:ALA:HA	81:B5:2678:A:O4'	1.49	1.12
10:AB:101:HIS:CE1	80:B2:921:U:OP1	2.01	1.12
68:Bh:95:PHE:CD2	81:B5:136:G:H5'	1.83	1.12
74:Bn:11:ARG:NH2	80:B2:1127:G:H5"	1.64	1.12
79:By:65:PRO:O	79:CL:188:ASN:ND2	1.81	1.12
79:By:184:LYS:HA	79:CL:185:LEU:N	1.56	1.12
79:By:199:HIS:CD2	79:CL:196:LEU:CD2	2.29	1.12
79:By:226:PRO:CD	79:CL:19:ILE:HD13	1.79	1.12
81:B5:3027:A:O2'	85:CP:83:PHE:HE2	1.33	1.12
15:AG:107:ALA:CB	80:B2:154:G:H4'	1.80	1.11
79:By:69:GLY:HA3	79:CL:40:THR:CG2	1.80	1.11
79:By:107:TRP:HH2	79:CL:103:ILE:HD12	1.13	1.11
79:By:222:VAL:HG22	79:CL:220:PRO:HG2	1.13	1.11
80:B2:1655:A:H1'	81:B5:2302:G:H1'	1.22	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2444:C:OP1	84:CN:2124:C:C2	2.03	1.11
79:By:40:THR:CA	79:CL:40:THR:HB	1.80	1.11
79:By:77:ILE:O	79:CL:77:ILE:HG13	0.96	1.11
79:By:123:VAL:H	79:CL:123:VAL:CA	1.63	1.11
79:By:216:THR:O	84:CN:2196:C:H1'	1.49	1.11
8:A7:81:THR:HG21	86:CW:29:G:P	1.89	1.11
17:AI:64:ASN:ND2	80:B2:257:A:O2'	1.82	1.11
23:AO:41:ARG:CZ	80:B2:916:U:H3	1.64	1.11
28:AT:60:SER:HB2	80:B2:1479:A:H5"	1.25	1.11
38:BD:274:GLN:OE1	82:B7:60:G:N2	1.82	1.11
54:BT:49:GLN:HG2	81:B5:2756:C:O4'	1.49	1.11
79:By:34:THR:O	84:CN:2149:C:H3'	1.49	1.11
79:By:82:LYS:CB	79:CL:82:LYS:O	1.98	1.11
79:By:82:LYS:CG	79:CL:82:LYS:C	2.23	1.11
79:By:134:ARG:NE	84:CN:2190:A:H4'	1.23	1.11
79:By:157:LYS:CB	79:CL:71:GLN:N	2.13	1.11
80:B2:414:C:O2	85:CP:289:LEU:HD11	1.35	1.11
80:B2:415:C:C5	85:CP:288:ARG:HD3	1.85	1.11
15:AG:53:SER:O	80:B2:163:G:C5'	1.98	1.11
25:AQ:76:SER:HB2	80:B2:1609:U:P	1.91	1.11
48:BN:109:ARG:NH1	83:B8:141:C:OP1	1.83	1.11
52:BR:143:ILE:HG13	81:B5:2093:A:H5"	1.25	1.11
79:By:40:THR:HB	84:CN:2145:G:H2'	1.28	1.11
79:By:53:ARG:CB	79:CL:53:ARG:H	1.62	1.11
79:By:93:TYR:CA	79:CL:93:TYR:CZ	2.32	1.11
79:By:219:GLY:CA	79:CL:218:MET:CA	2.27	1.11
8:A7:48:ARG:HD3	81:B5:2678:A:OP2	1.49	1.11
29:AU:57:ARG:O	80:B2:1381:U:O2'	1.68	1.11
79:By:21:THR:HB	79:CL:24:GLU:HB3	1.15	1.11
79:By:64:LEU:HB3	79:CL:65:PRO:HD2	1.22	1.11
79:By:81:GLU:HB2	79:CL:82:LYS:N	1.62	1.11
79:By:116:THR:CG2	79:CL:77:ILE:O	1.99	1.11
79:By:135:GLY:C	79:CL:132:GLY:O	1.93	1.11
79:By:141:LYS:O	79:CL:142:ALA:HB2	1.32	1.11
81:B5:2443:A:C2	84:CN:2208:G:O3'	1.98	1.11
15:AG:128:THR:CG2	57:BW:81:PRO:HG3	1.76	1.10
23:AO:38:THR:HG22	80:B2:895:G:O3'	1.48	1.10
27:AS:126:ARG:NH2	80:B2:1459:C:OP1	1.83	1.10
67:Bg:68:THR:HG21	81:B5:1643:A:OP2	1.51	1.10
79:By:2:LYS:N	84:CN:2149:C:N3	1.98	1.10
79:By:25:ALA:HB2	79:CL:222:VAL:CG2	1.74	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:81:GLU:HB2	79:CL:80:GLY:C	1.74	1.10
79:By:103:ILE:HD11	79:CL:103:ILE:CB	1.55	1.10
79:By:141:LYS:CA	79:CL:142:ALA:CB	2.30	1.10
80:B2:429:G:H4'	85:CP:276:ARG:HD2	1.33	1.10
10:AB:150:VAL:HG23	80:B2:1067:C:H5"	1.21	1.10
17:AI:122:GLY:O	89:AI:302:OHX:N5	1.84	1.10
23:AO:136:ARG:HH22	80:B2:1786:G:P	1.74	1.10
79:By:3:HIS:HB3	84:CN:2182:C:H1'	1.23	1.10
79:By:11:LEU:O	79:CL:8:ARG:N	1.74	1.10
79:By:32:LEU:CD1	79:CL:219:GLY:HA2	1.81	1.10
79:By:86:ALA:HB1	79:CL:76:ALA:HB3	1.11	1.10
79:By:112:ALA:HA	79:CL:136:LEU:HD11	1.17	1.10
79:By:113:VAL:HG12	79:CL:131:LEU:HD11	1.31	1.10
79:By:149:ILE:O	79:CL:74:VAL:CG1	1.99	1.10
79:By:177:LYS:H	79:CL:177:LYS:HA	0.96	1.10
79:By:179:SER:C	79:CL:38:ASP:OD1	1.94	1.10
79:By:195:ALA:CA	79:CL:194:ARG:C	2.08	1.10
79:By:199:HIS:HA	79:CL:199:HIS:CA	1.61	1.10
79:By:208:PHE:CA	79:CL:208:PHE:CG	2.34	1.10
15:AG:107:ALA:HB3	80:B2:154:G:H4'	1.19	1.10
15:AG:131:LYS:N	57:BW:82:ILE:HG23	1.67	1.10
26:AR:2:GLY:HA3	80:B2:1311:U:O3'	1.48	1.10
79:By:25:ALA:HB3	79:CL:222:VAL:HG21	1.30	1.10
79:By:137:LEU:N	79:CL:132:GLY:CA	2.02	1.10
79:By:177:LYS:HG3	79:CL:177:LYS:HD2	1.29	1.10
79:By:190:ARG:NH2	79:CL:21:THR:O	1.84	1.10
79:By:212:VAL:HG12	79:CL:213:TYR:CA	1.69	1.10
10:AB:150:VAL:CG2	80:B2:1067:C:H5"	1.80	1.10
15:AG:174:LYS:CD	80:B2:79:C:H1'	1.80	1.10
60:BZ:67:LYS:NZ	81:B5:1630:U:OP1	1.83	1.10
79:By:77:ILE:HG22	79:CL:99:ILE:HD11	1.26	1.10
79:By:102:LYS:HB2	79:CL:104:LEU:N	1.57	1.10
79:By:116:THR:CB	79:CL:77:ILE:CB	2.11	1.10
79:By:143:GLY:HA2	79:CL:143:GLY:HA3	1.19	1.10
79:By:144:THR:O	79:CL:144:THR:HB	1.51	1.10
79:By:145:VAL:HA	79:CL:138:PRO:CB	1.81	1.10
79:By:211:SER:OG	79:CL:213:TYR:HE1	1.34	1.10
80:B2:416:A:OP2	85:CP:287:LEU:CD2	1.83	1.10
26:AR:49:LYS:HG3	80:B2:1390:U:P	1.92	1.10
33:AY:10:ARG:NH1	80:B2:778:G:N2	1.98	1.10
38:BD:285:ARG:NH1	82:B7:62:U:O3'	1.84	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:185:ARG:HD2	83:B8:155:A:H4'	1.34	1.10
79:By:22:ILE:HD13	79:CL:224:ILE:HD12	1.34	1.10
79:By:26:ALA:CB	79:CL:26:ALA:O	1.98	1.10
79:By:77:ILE:HG22	79:CL:77:ILE:HG12	1.28	1.10
79:By:185:LEU:HB3	79:CL:41:VAL:HG11	1.31	1.10
79:By:185:LEU:HD12	79:CL:29:VAL:CG1	1.81	1.10
79:By:196:LEU:H	79:CL:193:ILE:CA	1.62	1.10
15:AG:132:ARG:NH2	80:B2:68:A:N9	1.97	1.09
26:AR:7:LYS:HG2	80:B2:1316:G:OP1	1.47	1.09
38:BD:48:LYS:HZ3	81:B5:2749:G:P	1.74	1.09
63:Bc:85:PHE:CZ	81:B5:1728:G:C6	2.40	1.09
79:By:8:ARG:HA	79:CL:4:GLY:HA2	1.10	1.09
79:By:74:VAL:HG22	79:CL:111:ASP:HB2	1.15	1.09
79:By:88:GLU:CA	79:CL:92:ASP:HA	1.78	1.09
85:CP:131:LYS:CD	90:CP:401:GCP:C2	2.31	1.09
79:By:13:LYS:CG	79:CL:9:ALA:CB	2.10	1.09
79:By:33:ALA:O	79:CL:36:LYS:N	1.66	1.09
79:By:64:LEU:CD1	79:CL:188:ASN:O	2.00	1.09
79:By:82:LYS:CB	79:CL:86:ALA:CB	2.18	1.09
79:By:171:ILE:HG23	79:CL:45:ALA:HB3	1.25	1.09
79:By:185:LEU:HB2	79:CL:29:VAL:HG11	1.19	1.09
79:By:191:ALA:CB	79:CL:187:ASP:O	1.99	1.09
79:By:215:THR:CG2	79:CL:215:THR:HG21	1.71	1.09
79:By:227:HIS:CD2	79:CL:227:HIS:CB	2.35	1.09
15:AG:53:SER:CB	80:B2:163:G:O3'	1.99	1.09
79:By:88:GLU:HA	79:CL:92:ASP:O	1.52	1.09
79:By:119:VAL:CB	79:CL:97:GLU:CA	1.76	1.09
79:By:134:ARG:NE	84:CN:2190:A:C4'	1.81	1.09
79:By:174:PRO:HB3	84:CN:2145:G:C4'	1.82	1.09
79:By:223:ARG:HD2	79:CL:223:ARG:HB2	1.19	1.09
79:By:226:PRO:HD2	79:CL:19:ILE:CD1	1.80	1.09
1:A0:97:PRO:O	80:B2:1798:U:C5	2.04	1.09
8:A7:81:THR:CG2	86:CW:29:G:P	2.40	1.09
15:AG:174:LYS:HD3	80:B2:79:C:H1'	1.20	1.09
23:AO:130:GLY:N	80:B2:991:G:OP1	1.86	1.09
74:Bn:2:ARG:HD3	80:B2:1772:C:C3'	1.66	1.09
79:By:7:TYR:CB	84:CN:2149:C:C2'	2.28	1.09
79:By:28:LEU:CG	79:CL:28:LEU:CD1	2.30	1.09
79:By:37:PHE:HA	84:CN:2147:A:C3'	1.71	1.09
79:By:53:ARG:HB2	79:CL:53:ARG:N	1.67	1.09
79:By:81:GLU:CB	79:CL:80:GLY:O	1.99	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:83:ILE:CA	79:CL:94:VAL:HG12	1.82	1.09
79:By:192:PHE:HA	79:CL:192:PHE:CA	1.75	1.09
79:By:212:VAL:HG11	79:CL:224:ILE:HG12	1.17	1.09
80:B2:51:A:C1'	85:CP:241:GLU:C	2.16	1.09
80:B2:415:C:C6	85:CP:288:ARG:HB3	1.88	1.09
81:B5:2766:U:C4	86:CW:76:A:H8	1.69	1.09
8:A7:81:THR:CB	86:CW:29:G:C5'	2.20	1.09
23:AO:46:MET:HA	80:B2:899:G:H5'	1.14	1.09
23:AO:132:ARG:H	80:B2:1787:C:P	1.75	1.09
26:AR:48:ASN:HB3	80:B2:1389:C:O4'	1.52	1.09
28:AT:60:SER:CB	80:B2:1479:A:H5"	1.81	1.09
72:Bl:5:LYS:O	81:B5:1833:G:H4'	1.50	1.09
79:By:44:HIS:CE1	84:CN:2197:A:H2	1.49	1.09
79:By:99:ILE:HG12	79:CL:99:ILE:CA	1.83	1.09
79:By:145:VAL:CG1	79:CL:138:PRO:C	2.25	1.09
79:By:155:GLU:CD	79:CL:155:GLU:C	2.12	1.09
79:By:227:HIS:CD2	79:CL:227:HIS:HB2	1.86	1.09
17:AI:64:ASN:OD1	80:B2:257:A:N3	1.85	1.08
38:BD:207:TYR:CG	82:B7:33:U:C2	2.40	1.08
52:BR:161:ALA:O	80:B2:849:C:O2'	1.71	1.08
61:Ba:21:ARG:NH2	81:B5:640:U:OP1	1.86	1.08
79:By:107:TRP:CH2	79:CL:103:ILE:HD12	1.87	1.08
79:By:112:ALA:CB	79:CL:111:ASP:CA	2.29	1.08
79:By:119:VAL:CA	79:CL:97:GLU:CG	2.12	1.08
79:By:164:ARG:HD2	79:CL:164:ARG:HG2	1.21	1.08
79:By:215:THR:CG2	79:CL:215:THR:HG23	1.75	1.08
80:B2:1780:G:O2'	81:B5:2262:A:C4'	2.00	1.08
81:B5:2443:A:N6	84:CN:2208:G:H5'	1.67	1.08
85:CP:20:LYS:HB2	90:CP:401:GCP:C8	1.80	1.08
17:AI:138:ASN:ND2	80:B2:197:A:N6	2.02	1.08
33:AY:10:ARG:HG2	80:B2:778:G:N1	1.68	1.08
43:BI:158:LYS:NZ	81:B5:2852:C:N3	1.99	1.08
60:BZ:135:ARG:NH2	81:B5:1807:G:C5'	2.16	1.08
79:By:52:ARG:O	79:CL:50:ASP:OD1	1.72	1.08
79:By:93:TYR:O	79:CL:93:TYR:CG	2.04	1.08
79:By:145:VAL:CA	79:CL:138:PRO:CB	2.30	1.08
79:By:212:VAL:HG13	79:CL:212:VAL:HG12	1.11	1.08
79:By:213:TYR:CD1	79:CL:213:TYR:CD1	2.41	1.08
85:CP:63:GLU:CA	85:CP:210:TRP:CZ2	2.37	1.08
7:A6:285:ALA:CB	80:B2:1394:G:OP1	2.01	1.08
23:AO:41:ARG:NH2	80:B2:916:U:N3	2.00	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:Bn:4:LYS:HE3	80:B2:1773:C:C2’	1.82	1.08
74:Bn:4:LYS:HE3	80:B2:1773:C:H2’	1.10	1.08
79:By:66:HIS:CA	79:CL:180:PHE:HE2	1.64	1.08
79:By:69:GLY:HA3	79:CL:40:THR:HG21	1.27	1.08
79:By:151:GLU:O	79:CL:156:ILE:CB	2.00	1.08
79:By:171:ILE:HD13	79:CL:47:LEU:HD12	1.16	1.08
79:By:219:GLY:HA3	79:CL:218:MET:CA	1.81	1.08
10:AB:117:TRP:N	80:B2:932:U:OP2	1.85	1.08
23:AO:126:THR:HG22	80:B2:988:A:H2	1.04	1.08
35:BA:231:SER:HB2	81:B5:2163:C:H5”	1.33	1.08
67:Bg:82:ALA:HB2	81:B5:1639:C:OP2	1.54	1.08
79:By:62:VAL:CG1	79:CL:163:PHE:CE1	2.35	1.08
79:By:75:LEU:HD13	79:CL:108:MET:HA	1.21	1.08
79:By:119:VAL:CB	79:CL:97:GLU:CB	2.10	1.08
79:By:162:GLU:CG	79:CL:162:GLU:HG2	1.83	1.08
79:By:188:ASN:HB3	79:CL:175:VAL:CB	1.83	1.08
79:By:222:VAL:HG13	79:CL:14:VAL:HG11	1.11	1.08
8:A7:28:SER:CB	81:B5:2708:C:C4’	2.07	1.08
15:AG:175:ILE:O	80:B2:78:A:H2	1.37	1.08
23:AO:125:SER:HB2	80:B2:927:C:H1’	1.26	1.08
26:AR:60:ARG:NH2	80:B2:1400:A:H5’	1.67	1.08
79:By:21:THR:HG21	79:CL:24:GLU:CG	1.84	1.08
79:By:36:LYS:HB3	84:CN:2183:G:N2	1.00	1.08
79:By:37:PHE:CE1	84:CN:2194:A:N1	2.12	1.08
79:By:57:ASN:N	79:CL:57:ASN:HD21	1.26	1.08
79:By:137:LEU:HD22	79:CL:128:GLY:HA2	1.11	1.08
79:By:152:ILE:CG1	79:CL:152:ILE:HG22	1.80	1.08
79:By:161:ILE:CG2	79:CL:173:ALA:HB1	1.82	1.08
79:By:165:ASN:HD21	79:CL:57:ASN:CG	1.62	1.08
79:By:178:ALA:C	79:CL:33:ALA:HB1	1.79	1.08
79:By:179:SER:C	79:CL:179:SER:HB3	1.77	1.08
80:B2:414:C:C6	85:CP:288:ARG:CB	2.36	1.08
85:CP:131:LYS:HD2	90:CP:401:GCP:C2	1.83	1.08
26:AR:60:ARG:CZ	80:B2:1400:A:C5’	2.31	1.07
29:AU:89:ARG:NH1	80:B2:1383:G:OP1	1.85	1.07
38:BD:158:ARG:CD	82:B7:46:A:OP1	2.01	1.07
63:Bc:26:GLY:CA	81:B5:1730:G:O6	2.01	1.07
79:By:45:ALA:HB2	79:CL:44:HIS:O	1.53	1.07
79:By:59:ARG:CB	79:CL:59:ARG:HE	1.63	1.07
79:By:65:PRO:HA	79:CL:67:GLY:N	1.59	1.07
79:By:103:ILE:HD11	79:CL:103:ILE:HG13	1.24	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AG:83:CYS:SG	80:B2:162:A:H5”	1.94	1.07
15:AG:157:VAL:HG11	80:B2:78:A:C4’	1.83	1.07
52:BR:165:LYS:CE	80:B2:824:G:N3	2.17	1.07
60:BZ:69:LYS:NZ	81:B5:1633:C:P	2.27	1.07
79:By:12:GLU:N	79:CL:7:TYR:N	2.01	1.07
79:By:78:ALA:HB1	79:CL:94:VAL:CG1	1.82	1.07
79:By:163:PHE:C	79:CL:171:ILE:CD1	2.27	1.07
79:By:204:ALA:HB1	79:CL:49:ILE:HG22	1.27	1.07
79:By:223:ARG:NE	79:CL:223:ARG:CB	2.14	1.07
80:B2:415:C:C5	85:CP:288:ARG:CG	2.37	1.07
85:CP:131:LYS:HG2	90:CP:401:GCP:N1	1.69	1.07
15:AG:154:ARG:HG3	80:B2:78:A:C8	1.89	1.07
15:AG:164:LYS:HZ1	80:B2:72:A:C5’	1.63	1.07
20:AL:36:LYS:HD3	80:B2:248:U:H4’	1.34	1.07
67:Bg:60:ARG:HH21	81:B5:1616:U:C5’	1.66	1.07
79:By:75:LEU:CD1	79:CL:107:TRP:CE3	2.37	1.07
79:By:81:GLU:HA	79:CL:83:ILE:HG13	1.08	1.07
79:By:81:GLU:HB3	79:CL:79:LYS:C	1.80	1.07
79:By:102:LYS:CE	79:CL:104:LEU:CD2	2.31	1.07
79:By:123:VAL:N	79:CL:123:VAL:HA	1.68	1.07
79:By:177:LYS:HG3	79:CL:177:LYS:CD	1.79	1.07
79:By:216:THR:HG21	79:CL:39:GLU:OE1	1.54	1.07
80:B2:913:G:C6	81:B5:2206:G:H5”	1.88	1.07
81:B5:1225:A:N9	81:B5:1287:A:O2’	1.84	1.07
84:CN:2190:A:O4’	86:CW:56:C:H1’	1.47	1.07
18:AJ:3:ARG:NH2	80:B2:40:A:OP1	1.87	1.07
23:AO:46:MET:HG3	80:B2:899:G:H4’	1.26	1.07
25:AQ:123:ARG:H	80:B2:1584:G:H5’	0.90	1.07
48:BN:35:VAL:HG23	81:B5:1543:G:OP1	1.52	1.07
79:By:7:TYR:HA	84:CN:2149:C:C3’	1.75	1.07
79:By:18:LYS:HD2	79:CL:15:ASP:HA	1.33	1.07
79:By:27:HIS:N	79:CL:27:HIS:O	1.83	1.07
79:By:35:ALA:CB	84:CN:2149:C:H5’	1.82	1.07
79:By:61:THR:CG2	79:CL:162:GLU:HB2	1.83	1.07
79:By:69:GLY:CA	79:CL:40:THR:CG2	2.32	1.07
79:By:82:LYS:HA	79:CL:82:LYS:O	1.34	1.07
79:By:97:GLU:C	79:CL:98:GLU:HB3	1.79	1.07
79:By:137:LEU:HB2	79:CL:132:GLY:HA3	1.30	1.07
79:By:144:THR:C	79:CL:144:THR:OG1	1.83	1.07
79:By:149:ILE:CG2	79:CL:76:ALA:HB2	1.67	1.07
79:By:149:ILE:N	79:CL:149:ILE:CG1	2.17	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:184:LYS:HZ2	79:CL:180:PHE:HA	1.12	1.07
79:By:191:ALA:C	79:CL:192:PHE:H	1.62	1.07
79:By:222:VAL:HG12	79:CL:222:VAL:HG22	1.32	1.07
79:By:226:PRO:HG3	79:CL:223:ARG:HH21	0.91	1.07
81:B5:2793:G:H2'	86:CW:76:A:N1	1.69	1.07
85:CP:63:GLU:CA	85:CP:210:TRP:CE3	2.38	1.07
15:AG:154:ARG:HB3	80:B2:78:A:OP2	0.91	1.07
61:Ba:67:HIS:NE2	81:B5:71:A:OP2	1.87	1.07
79:By:131:LEU:C	79:CL:133:PRO:CD	2.28	1.07
79:By:142:ALA:CA	79:CL:162:GLU:CD	2.28	1.07
79:By:164:ARG:H	79:CL:171:ILE:CG1	1.67	1.07
80:B2:51:A:H1'	85:CP:241:GLU:O	0.90	1.07
80:B2:1758:U:O2	81:B5:2255:A:C2	2.07	1.07
38:BD:266:ALA:HA	82:B7:1:G:C4	1.89	1.06
67:Bg:60:ARG:HH21	81:B5:1616:U:H5"	1.16	1.06
79:By:45:ALA:C	84:CN:2198:C:HO2'	1.55	1.06
79:By:58:VAL:HG21	79:CL:57:ASN:O	1.33	1.06
79:By:65:PRO:O	79:CL:188:ASN:CG	1.98	1.06
79:By:133:PRO:CG	86:CW:56:C:OP2	2.01	1.06
79:By:197:GLU:HG3	79:CL:209:LEU:HD12	1.29	1.06
79:By:11:LEU:O	79:CL:7:TYR:CD2	2.07	1.06
79:By:13:LYS:HB2	79:CL:6:ARG:O	1.52	1.06
79:By:13:LYS:HG3	79:CL:9:ALA:HB3	1.36	1.06
79:By:114:VAL:HG22	79:CL:112:ALA:O	1.34	1.06
79:By:171:ILE:CD1	79:CL:171:ILE:HD12	1.85	1.06
79:By:171:ILE:HG12	79:CL:47:LEU:CD1	1.80	1.06
79:By:176:GLY:HA3	79:CL:176:GLY:C	1.64	1.06
79:By:197:GLU:HG2	79:CL:209:LEU:HG	1.37	1.06
79:By:201:PRO:CD	79:CL:199:HIS:O	2.03	1.06
79:By:201:PRO:O	79:CL:201:PRO:HB2	1.28	1.06
79:By:209:LEU:HB3	79:CL:211:SER:C	1.78	1.06
15:AG:175:ILE:CB	80:B2:78:A:N3	2.18	1.06
79:By:113:VAL:O	79:CL:136:LEU:CB	2.03	1.06
79:By:116:THR:H	79:CL:77:ILE:HD12	1.05	1.06
79:By:132:GLY:C	79:CL:133:PRO:HD3	1.79	1.06
79:By:196:LEU:H	79:CL:193:ILE:HA	0.95	1.06
8:A7:51:ARG:NE	81:B5:2677:G:H1'	1.71	1.06
17:AI:73:SER:HB2	80:B2:257:A:H1'	1.27	1.06
23:AO:122:PRO:CB	80:B2:887:A:H1'	1.84	1.06
23:AO:122:PRO:HB3	80:B2:887:A:H1'	1.12	1.06
36:BB:296:THR:HG22	36:BB:298:PHE:H	1.18	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:66:HIS:NE2	79:CL:184:LYS:O	1.86	1.06
79:By:122:ALA:HA	79:CL:125:SER:N	1.71	1.06
79:By:153:ILE:O	79:CL:72:VAL:HG13	1.54	1.06
80:B2:1758:U:O2'	81:B5:2255:A:H5"	1.53	1.06
8:A7:47:ALA:H	81:B5:2678:A:C1'	1.69	1.06
15:AG:13:GLN:HG3	80:B2:151:G:O2'	1.54	1.06
26:AR:28:PHE:CZ	80:B2:1389:C:H6	1.71	1.06
79:By:16:PRO:HD3	79:CL:7:TYR:OH	1.53	1.06
79:By:131:LEU:HD13	79:CL:131:LEU:CB	1.86	1.06
79:By:156:ILE:CD1	79:CL:112:ALA:HB2	1.86	1.06
80:B2:1759:C:H1'	81:B5:2262:A:N1	1.69	1.06
8:A7:33:LYS:NZ	81:B5:2691:A:O3'	1.88	1.05
8:A7:34:LYS:HE3	81:B5:2693:C:P	1.94	1.05
8:A7:51:ARG:HD3	81:B5:2677:G:O3'	1.57	1.05
15:AG:159:ARG:HD3	80:B2:77:U:C2	1.83	1.05
15:AG:172:ALA:O	80:B2:79:C:H5"	1.56	1.05
18:AJ:172:VAL:HG22	80:B2:511:A:H5"	1.32	1.05
79:By:41:VAL:C	79:CL:42:GLU:N	2.10	1.05
79:By:149:ILE:HG22	79:CL:149:ILE:HD11	1.35	1.05
79:By:184:LYS:CA	79:CL:185:LEU:N	2.19	1.05
79:By:185:LEU:HD12	79:CL:29:VAL:HG13	1.06	1.05
81:B5:2443:A:C5'	84:CN:2122:G:N1	2.06	1.05
8:A7:81:THR:HG21	86:CW:29:G:O5'	0.88	1.05
15:AG:62:PRO:HG3	80:B2:161:U:O2'	1.55	1.05
15:AG:131:LYS:H	57:BW:82:ILE:HG23	1.20	1.05
28:AT:90:PRO:HD3	80:B2:1467:C:O2'	1.55	1.05
35:BA:240:ALA:CB	81:B5:2154:U:H4'	1.85	1.05
79:By:8:ARG:HG3	84:CN:2150:C:C2'	1.84	1.05
79:By:9:ALA:HA	79:CL:5:LYS:HG2	1.35	1.05
79:By:30:LYS:HE3	79:CL:31:GLU:CB	1.86	1.05
79:By:77:ILE:C	79:CL:77:ILE:HG13	1.70	1.05
79:By:99:ILE:CD1	79:CL:99:ILE:HB	1.87	1.05
79:By:100:ILE:CD1	79:CL:98:GLU:CA	2.20	1.05
79:By:100:ILE:HD11	79:CL:98:GLU:HA	1.33	1.05
79:By:157:LYS:N	79:CL:72:VAL:HG12	1.46	1.05
79:By:217:THR:HG21	84:CN:2146:G:H1'	1.06	1.05
79:By:226:PRO:HD3	79:CL:223:ARG:NE	1.70	1.05
81:B5:3027:A:O2'	85:CP:109:GLN:HB2	1.55	1.05
22:AN:3:ARG:NH1	80:B2:867:G:OP2	1.89	1.05
27:AS:40:ARG:NH1	80:B2:1539:G:O4'	1.89	1.05
79:By:7:TYR:N	84:CN:2149:C:H2'	1.72	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:32:LEU:HD13	79:CL:218:MET:O	1.56	1.05
79:By:77:ILE:HG22	79:CL:77:ILE:CG1	1.86	1.05
79:By:144:THR:CA	79:CL:144:THR:OG1	2.04	1.05
79:By:212:VAL:HG12	79:CL:213:TYR:C	1.81	1.05
79:By:227:HIS:HD2	79:CL:227:HIS:CB	1.67	1.05
85:CP:63:GLU:N	85:CP:210:TRP:CD2	2.24	1.05
10:AB:165:ARG:NH2	80:B2:947:U:OP2	1.89	1.05
15:AG:159:ARG:CD	80:B2:77:U:O2	1.95	1.05
76:Bq:4:ILE:CG1	81:B5:1219:C:OP1	2.03	1.05
79:By:5:LYS:HA	84:CN:2150:C:H2'	1.08	1.05
79:By:21:THR:CG2	79:CL:24:GLU:CG	2.35	1.05
79:By:86:ALA:HB3	79:CL:94:VAL:HG11	1.11	1.05
79:By:137:LEU:CB	79:CL:132:GLY:HA2	1.86	1.05
79:By:179:SER:HB2	79:CL:38:ASP:HA	1.34	1.05
79:By:204:ALA:HB2	79:CL:49:ILE:HG21	1.32	1.05
79:By:222:VAL:CG2	79:CL:220:PRO:HD2	1.87	1.05
8:A7:51:ARG:CZ	81:B5:2677:G:C1'	2.34	1.05
15:AG:83:CYS:CA	80:B2:161:U:O3'	2.05	1.05
23:AO:120:PRO:CB	80:B2:887:A:H5"	1.85	1.05
52:BR:101:VAL:HG22	81:B5:1948:G:O3'	1.55	1.05
79:By:8:ARG:HG3	84:CN:2150:C:O2'	0.88	1.05
79:By:35:ALA:HB2	84:CN:2149:C:C5'	1.87	1.05
79:By:44:HIS:HB3	84:CN:2198:C:H1'	1.35	1.05
79:By:82:LYS:HD2	79:CL:149:ILE:HG21	1.07	1.05
79:By:82:LYS:HE3	79:CL:149:ILE:CG2	1.56	1.05
79:By:116:THR:HG23	79:CL:115:ALA:HB1	1.08	1.05
79:By:137:LEU:HD13	79:CL:137:LEU:CG	1.87	1.05
79:By:138:PRO:CG	79:CL:138:PRO:CD	1.93	1.05
79:By:201:PRO:CB	79:CL:57:ASN:O	2.04	1.05
28:AT:12:GLN:OE1	80:B2:1529:C:O2'	1.75	1.04
32:AX:144:ARG:HH12	85:CP:314:LYS:HD3	1.19	1.04
41:BG:137:ASN:ND2	81:B5:148:G:N7	2.05	1.04
52:BR:74:ARG:NH1	81:B5:1942:U:OP2	1.88	1.04
54:BT:92:ARG:NH1	81:B5:2736:A:OP1	1.89	1.04
68:Bh:89:ARG:HD2	83:B8:38:U:C4	1.90	1.04
79:By:21:THR:O	79:CL:20:TYR:CD2	1.99	1.04
79:By:74:VAL:HG22	79:CL:111:ASP:CB	1.86	1.04
79:By:81:GLU:N	79:CL:83:ILE:HG13	1.70	1.04
79:By:134:ARG:CG	84:CN:2190:A:O2'	2.04	1.04
79:By:137:LEU:HD13	79:CL:137:LEU:HD11	1.27	1.04
79:By:164:ARG:H	79:CL:171:ILE:HG13	0.90	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:1226:G:OP2	81:B5:1289:G:H8	1.40	1.04
23:AO:46:MET:HG2	80:B2:899:G:H4'	1.36	1.04
38:BD:146:LEU:HB3	81:B5:2746:A:H2	0.91	1.04
79:By:28:LEU:HD22	79:CL:13:LYS:CG	1.87	1.04
79:By:46:LYS:HB2	84:CN:2199:C:O5'	1.58	1.04
79:By:85:GLU:CB	79:CL:86:ALA:H	1.71	1.04
79:By:99:ILE:HG12	79:CL:99:ILE:HB	1.30	1.04
79:By:208:PHE:CB	79:CL:209:LEU:CD2	1.89	1.04
79:By:208:PHE:HB3	79:CL:209:LEU:HD21	1.06	1.04
80:B2:1620:C:OP2	89:B2:2073:OHX:N6	1.90	1.04
15:AG:174:LYS:CB	80:B2:79:C:H1'	1.79	1.04
15:AG:175:ILE:CD1	80:B2:78:A:C1'	1.99	1.04
23:AO:38:THR:HB	80:B2:895:G:C2'	1.85	1.04
29:AU:53:LYS:HD2	80:B2:1345:A:H5'	1.37	1.04
79:By:13:LYS:HG2	79:CL:9:ALA:HB1	1.36	1.04
79:By:14:VAL:HG13	79:CL:10:LEU:HD13	1.33	1.04
79:By:77:ILE:HD11	79:CL:103:ILE:HG13	1.33	1.04
79:By:85:GLU:CG	79:CL:88:GLU:N	1.90	1.04
79:By:209:LEU:HG	79:CL:209:LEU:HB3	1.22	1.04
8:A7:51:ARG:NH1	81:B5:2677:G:C1'	2.21	1.04
10:AB:148:ASN:OD1	80:B2:1066:C:O2'	1.75	1.04
25:AQ:75:VAL:HG11	80:B2:1610:G:OP1	1.55	1.04
33:AY:119:PHE:CE1	80:B2:86:A:C5'	2.37	1.04
79:By:7:TYR:CB	84:CN:2150:C:O4'	1.82	1.04
79:By:13:LYS:HA	79:CL:9:ALA:CA	1.33	1.04
79:By:75:LEU:CG	79:CL:107:TRP:CZ3	2.40	1.04
79:By:93:TYR:O	79:CL:93:TYR:CD2	2.10	1.04
79:By:144:THR:HB	79:CL:137:LEU:C	1.79	1.04
79:By:178:ALA:C	79:CL:178:ALA:HB3	1.81	1.04
79:By:213:TYR:CG	84:CN:2198:C:H5"	1.93	1.04
80:B2:1646:C:C2'	81:B5:2257:C:H41	1.71	1.04
15:AG:112:VAL:CG2	80:B2:164:A:H4'	1.87	1.04
60:BZ:17:ARG:HB2	81:B5:1635:G:O6	1.57	1.04
63:Bc:85:PHE:CE2	81:B5:1728:G:C6	2.46	1.04
74:Bn:11:ARG:HB3	80:B2:1126:G:H5'	1.38	1.04
79:By:2:LYS:N	84:CN:2149:C:N4	2.06	1.04
79:By:19:ILE:HB	79:CL:18:LYS:N	1.34	1.04
79:By:179:SER:HB2	79:CL:38:ASP:CG	1.83	1.04
79:By:212:VAL:HG11	79:CL:224:ILE:CG1	1.87	1.04
79:By:214:VAL:CG1	79:CL:215:THR:CA	2.26	1.04
80:B2:414:C:C5	85:CP:288:ARG:CG	2.39	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
85:CP:16:THR:HB	90:CP:401:GCP:O3A	1.58	1.04
85:CP:63:GLU:N	85:CP:210:TRP:CE2	2.25	1.04
15:AG:83:CYS:SG	80:B2:162:A:H5'	1.96	1.03
23:AO:123:SER:CB	80:B2:885:G:N2	2.17	1.03
74:Bn:15:ARG:HD3	80:B2:1126:G:OP2	1.54	1.03
79:By:74:VAL:HG23	79:CL:73:ARG:H	0.94	1.03
79:By:74:VAL:CG2	79:CL:73:ARG:N	2.20	1.03
79:By:115:ALA:C	79:CL:138:PRO:HG2	1.83	1.03
79:By:116:THR:CG2	79:CL:115:ALA:CB	2.31	1.03
79:By:135:GLY:HA2	79:CL:132:GLY:O	1.55	1.03
79:By:171:ILE:HG12	79:CL:47:LEU:HD11	1.05	1.03
80:B2:1645:G:C4'	81:B5:2259:A:C2	2.25	1.03
84:CN:2190:A:H1'	86:CW:56:C:O4'	1.54	1.03
10:AB:116:LYS:CE	80:B2:933:A:OP1	2.06	1.03
25:AQ:123:ARG:H	80:B2:1584:G:C5'	1.70	1.03
47:BM:128:ARG:NH2	81:B5:3214:U:OP2	1.91	1.03
52:BR:170:ARG:O	80:B2:852:C:C6	1.91	1.03
69:Bi:53:TYR:OH	81:B5:295:A:OP1	1.75	1.03
74:Bn:15:ARG:CD	80:B2:1126:G:OP2	2.03	1.03
79:By:82:LYS:HE2	79:CL:149:ILE:HG22	1.05	1.03
79:By:86:ALA:CB	79:CL:76:ALA:HB3	1.88	1.03
79:By:113:VAL:H	79:CL:136:LEU:CG	1.70	1.03
10:AB:165:ARG:CZ	80:B2:946:U:H5"	1.87	1.03
15:AG:182:GLN:NE2	80:B2:271:A:N6	2.06	1.03
52:BR:161:ALA:C	80:B2:849:C:O2'	1.90	1.03
79:By:41:VAL:HG22	79:CL:216:THR:CG2	1.89	1.03
79:By:86:ALA:HA	79:CL:91:ALA:HB2	1.32	1.03
79:By:102:LYS:HE3	79:CL:104:LEU:HD21	1.03	1.03
79:By:138:PRO:HB3	79:CL:138:PRO:CB	1.82	1.03
79:By:188:ASN:CB	79:CL:175:VAL:HB	1.88	1.03
15:AG:110:ALA:HB1	80:B2:163:G:H1'	1.08	1.03
15:AG:174:LYS:CD	80:B2:79:C:O2	2.06	1.03
23:AO:38:THR:HG21	80:B2:896:U:O4'	1.58	1.03
28:AT:88:VAL:HG22	80:B2:1172:G:H21	1.19	1.03
42:BH:44:THR:HG22	81:B5:3186:A:N3	1.73	1.03
48:BN:4:TYR:OH	81:B5:148:G:OP2	1.76	1.03
53:BS:108:GLN:NE2	81:B5:1322:U:O2	1.89	1.03
79:By:22:ILE:HG13	79:CL:21:THR:N	1.70	1.03
79:By:43:VAL:HG11	79:CL:43:VAL:HG12	1.38	1.03
79:By:53:ARG:HB2	79:CL:52:ARG:N	1.33	1.03
79:By:69:GLY:CA	79:CL:40:THR:HG23	1.88	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:70:LYS:HB2	79:CL:68:LEU:CD1	1.87	1.03
79:By:103:ILE:CA	79:CL:104:LEU:O	2.01	1.03
79:By:116:THR:CG2	79:CL:119:VAL:CG2	2.36	1.03
79:By:214:VAL:O	79:CL:221:SER:CA	2.07	1.03
24:AP:12:PHE:HB2	44:BJ:85:LYS:CG	1.87	1.03
52:BR:169:ALA:CB	80:B2:850:A:C2	2.40	1.03
74:Bn:17:ARG:NE	80:B2:1116:A:H5"	1.72	1.03
79:By:11:LEU:O	79:CL:7:TYR:C	2.01	1.03
79:By:123:VAL:H	79:CL:123:VAL:HA	0.89	1.03
79:By:137:LEU:CA	79:CL:132:GLY:HA2	1.87	1.03
79:By:140:PRO:HA	79:CL:140:PRO:N	1.73	1.03
79:By:177:LYS:O	79:CL:178:ALA:N	1.92	1.03
79:By:213:TYR:HD1	79:CL:213:TYR:CD1	1.75	1.03
80:B2:1758:U:C2	81:B5:2255:A:N3	2.27	1.03
80:B2:1780:G:H2'	81:B5:2262:A:O2'	1.59	1.03
81:B5:2443:A:N6	84:CN:2208:G:C5'	2.21	1.03
15:AG:56:ASN:OD1	80:B2:153:G:N2	1.91	1.02
15:AG:96:SER:OG	80:B2:420:A:OP1	1.77	1.02
15:AG:108:VAL:HG23	80:B2:154:G:H5'	1.35	1.02
15:AG:172:ALA:HB3	80:B2:79:C:OP1	1.57	1.02
23:AO:35:GLY:HA3	80:B2:919:A:H4'	1.03	1.02
58:BX:49:LYS:HE3	83:B8:135:G:OP1	1.59	1.02
69:Bi:76:ARG:HD3	81:B5:294:U:OP1	1.55	1.02
79:By:26:ALA:HB1	79:CL:29:VAL:HG12	1.41	1.02
79:By:39:GLU:HB3	79:CL:217:THR:HB	1.39	1.02
79:By:62:VAL:CG1	79:CL:163:PHE:HE1	1.69	1.02
79:By:141:LYS:N	79:CL:142:ALA:N	2.07	1.02
79:By:149:ILE:CG2	79:CL:149:ILE:HD11	1.87	1.02
79:By:171:ILE:HG23	79:CL:45:ALA:CB	1.81	1.02
79:By:175:VAL:HG22	79:CL:42:GLU:CA	1.87	1.02
79:By:177:LYS:CB	79:CL:177:LYS:HD2	1.88	1.02
79:By:201:PRO:HG3	79:CL:58:VAL:HG23	1.36	1.02
79:By:226:PRO:CD	79:CL:223:ARG:HE	1.71	1.02
10:AB:65:VAL:HG22	80:B2:920:U:H5"	1.40	1.02
79:By:41:VAL:HG22	79:CL:216:THR:HB	1.36	1.02
79:By:126:LYS:CE	79:CL:126:LYS:HD3	1.88	1.02
79:By:171:ILE:HD11	79:CL:171:ILE:HD12	1.38	1.02
79:By:189:ILE:CG2	79:CL:214:VAL:HG21	1.83	1.02
15:AG:185:GLN:HG3	80:B2:284:G:C6	1.92	1.02
52:BR:80:LYS:HE2	81:B5:1940:G:OP1	1.59	1.02
72:Bl:15:LYS:NZ	83:B8:46:G:OP2	1.90	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:21:THR:HG21	79:CL:24:GLU:CB	1.89	1.02
79:By:22:ILE:CB	79:CL:21:THR:O	2.06	1.02
79:By:28:LEU:HG	79:CL:28:LEU:HD13	1.40	1.02
79:By:42:GLU:CG	84:CN:2145:G:C1'	2.37	1.02
79:By:133:PRO:HG3	86:CW:56:C:P	1.97	1.02
79:By:136:LEU:CA	79:CL:136:LEU:H	1.72	1.02
79:By:161:ILE:HG23	79:CL:161:ILE:HG21	1.39	1.02
79:By:162:GLU:CB	79:CL:162:GLU:HG2	1.89	1.02
79:By:164:ARG:N	79:CL:171:ILE:HG13	1.74	1.02
79:By:219:GLY:N	79:CL:218:MET:CA	2.23	1.02
79:By:222:VAL:HG23	79:CL:220:PRO:HD2	1.40	1.02
81:B5:2793:G:C2'	86:CW:76:A:N1	2.18	1.02
8:A7:48:ARG:HD3	81:B5:2678:A:P	1.98	1.02
23:AO:18:ARG:NH2	80:B2:919:A:C5'	2.23	1.02
79:By:16:PRO:CD	79:CL:7:TYR:OH	2.06	1.02
79:By:32:LEU:O	79:CL:35:ALA:HB2	1.56	1.02
79:By:53:ARG:HB3	79:CL:53:ARG:N	1.70	1.02
79:By:86:ALA:N	79:CL:91:ALA:HB3	1.75	1.02
79:By:136:LEU:O	79:CL:136:LEU:C	2.00	1.02
79:By:136:LEU:HD21	79:CL:134:ARG:CB	1.84	1.02
85:CP:63:GLU:CA	85:CP:210:TRP:CZ3	2.42	1.02
38:BD:272:TYR:CZ	82:B7:22:A:H1'	1.95	1.02
79:By:148:ASN:C	79:CL:153:ILE:HG13	1.85	1.02
79:By:175:VAL:HG13	79:CL:43:VAL:H	1.23	1.02
79:By:204:ALA:HB3	79:CL:201:PRO:HG2	1.05	1.02
79:By:220:PRO:HG2	79:CL:7:TYR:CG	1.63	1.02
80:B2:1715:G:O6	80:B2:1716:C:N4	1.93	1.02
38:BD:207:TYR:CE1	82:B7:33:U:C6	2.48	1.01
52:BR:166:ASN:CB	80:B2:850:A:H5"	1.90	1.01
79:By:40:THR:CA	84:CN:2146:G:H5'	1.90	1.01
79:By:41:VAL:HG22	79:CL:216:THR:HA	1.38	1.01
79:By:78:ALA:CB	79:CL:94:VAL:CG1	2.38	1.01
79:By:136:LEU:HG	79:CL:134:ARG:HB2	1.03	1.01
79:By:136:LEU:HA	79:CL:136:LEU:H	1.23	1.01
79:By:195:ALA:HB1	79:CL:195:ALA:HB3	1.38	1.01
79:By:212:VAL:CG1	79:CL:213:TYR:CA	2.31	1.01
8:A7:32:SER:HA	81:B5:2707:C:H5'	1.38	1.01
8:A7:51:ARG:HD2	81:B5:2677:G:C4'	1.89	1.01
15:AG:132:ARG:CG	80:B2:68:A:N6	2.22	1.01
15:AG:159:ARG:HD3	80:B2:77:U:N3	1.73	1.01
20:AL:80:MET:HE2	80:B2:325:G:C4'	1.90	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AO:41:ARG:NH2	80:B2:915:A:N6	2.09	1.01
54:BT:71:SER:OG	81:B5:2736:A:H4'	1.60	1.01
54:BT:130:ARG:N	81:B5:1098:A:OP2	1.92	1.01
60:BZ:115:LYS:HE3	81:B5:1629:U:O3'	1.59	1.01
79:By:41:VAL:HG13	79:CL:215:THR:C	1.84	1.01
79:By:41:VAL:CG2	79:CL:216:THR:CG2	2.39	1.01
79:By:83:ILE:HG23	79:CL:83:ILE:HG12	1.41	1.01
79:By:89:ALA:N	79:CL:92:ASP:HA	1.68	1.01
79:By:116:THR:CA	79:CL:115:ALA:HB1	1.73	1.01
79:By:192:PHE:CD2	79:CL:43:VAL:HG11	1.94	1.01
79:By:204:ALA:O	79:CL:201:PRO:O	1.78	1.01
79:By:217:THR:HB	79:CL:217:THR:HG23	1.04	1.01
80:B2:994:G:H4'	81:B5:2195:C:OP1	1.59	1.01
80:B2:1645:G:O2'	81:B5:2259:A:N1	1.91	1.01
15:AG:56:ASN:HB2	80:B2:154:G:H1'	1.39	1.01
33:AY:10:ARG:HG2	80:B2:778:G:H1	0.85	1.01
43:BI:76:MET:HE1	43:BI:148:VAL:HA	1.38	1.01
52:BR:173:ARG:CD	80:B2:853:G:N3	2.08	1.01
79:By:41:VAL:CG2	79:CL:216:THR:CB	2.37	1.01
79:By:77:ILE:CB	79:CL:77:ILE:CD1	2.19	1.01
79:By:131:LEU:HD13	79:CL:131:LEU:HB2	1.38	1.01
79:By:136:LEU:HD23	79:CL:134:ARG:HB2	1.42	1.01
85:CP:63:GLU:CA	85:CP:210:TRP:CH2	2.43	1.01
35:BA:40:TYR:O	81:B5:2550:U:H5	1.43	1.01
41:BG:54:GLU:HG3	81:B5:1558:A:OP2	1.59	1.01
79:By:70:LYS:HB2	79:CL:68:LEU:HD11	1.42	1.01
79:By:99:ILE:CG1	79:CL:99:ILE:CB	2.33	1.01
79:By:140:PRO:O	79:CL:142:ALA:O	1.78	1.01
79:By:156:ILE:CD1	79:CL:112:ALA:CB	2.38	1.01
79:By:201:PRO:HB2	79:CL:57:ASN:O	1.60	1.01
79:By:214:VAL:HG12	79:CL:215:THR:C	1.84	1.01
38:BD:207:TYR:HB2	82:B7:33:U:O2	1.61	1.01
38:BD:274:GLN:CD	82:B7:60:G:H21	1.68	1.01
79:By:13:LYS:CB	79:CL:10:LEU:HG	1.75	1.01
79:By:22:ILE:HG12	79:CL:224:ILE:CG2	1.91	1.01
79:By:44:HIS:NE2	84:CN:2144:G:C8	2.28	1.01
79:By:66:HIS:CD2	79:CL:66:HIS:HB2	1.95	1.01
79:By:74:VAL:H	79:CL:73:ARG:CG	1.73	1.01
79:By:164:ARG:CD	79:CL:165:ASN:O	2.09	1.01
79:By:206:GLY:N	79:CL:200:LYS:HZ1	1.56	1.01
79:By:222:VAL:HG22	79:CL:220:PRO:CG	1.89	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:222:VAL:HG23	79:CL:220:PRO:O	1.61	1.01
33:AY:119:PHE:CD1	80:B2:86:A:OP1	2.13	1.00
35:BA:15:ILE:HD11	81:B5:822:G:C4	1.96	1.00
72:Bl:3:ALA:O	81:B5:1834:U:H5'	1.60	1.00
79:By:66:HIS:ND1	79:CL:66:HIS:CB	2.19	1.00
79:By:83:ILE:HA	79:CL:94:VAL:HG12	1.39	1.00
79:By:98:GLU:CD	79:CL:98:GLU:OE1	2.04	1.00
79:By:102:LYS:NZ	79:CL:104:LEU:CD1	2.18	1.00
79:By:136:LEU:HG	79:CL:134:ARG:CG	1.91	1.00
79:By:142:ALA:N	79:CL:142:ALA:HB3	1.76	1.00
79:By:176:GLY:N	79:CL:41:VAL:N	2.04	1.00
79:By:179:SER:O	79:CL:179:SER:CB	2.09	1.00
79:By:195:ALA:HB1	79:CL:195:ALA:CB	1.91	1.00
79:By:219:GLY:HA3	79:CL:218:MET:C	1.86	1.00
80:B2:1492:A:HO2'	80:B2:1493:A:H8	1.03	1.00
29:AU:54:GLY:H	80:B2:1345:A:P	1.82	1.00
35:BA:200:ARG:NH2	81:B5:2147:A:OP2	1.94	1.00
42:BH:166:ARG:HH11	42:BH:168:ARG:HH22	1.08	1.00
52:BR:104:ARG:NH1	81:B5:1949:G:C5'	2.24	1.00
79:By:30:LYS:HE3	79:CL:31:GLU:HB3	1.02	1.00
79:By:32:LEU:HD13	79:CL:219:GLY:HA2	1.39	1.00
79:By:81:GLU:HB3	79:CL:80:GLY:C	1.87	1.00
79:By:81:GLU:HB3	79:CL:80:GLY:O	1.60	1.00
79:By:93:TYR:C	79:CL:93:TYR:CD1	2.34	1.00
79:By:116:THR:H	79:CL:77:ILE:CD1	1.72	1.00
79:By:141:LYS:HE2	79:CL:59:ARG:HG2	1.41	1.00
79:By:214:VAL:CG1	79:CL:214:VAL:HG12	1.91	1.00
1:A0:92:ARG:HD3	80:B2:1796:C:OP2	1.61	1.00
2:A1:28:PRO:HB3	80:B2:959:U:H5'	1.41	1.00
10:AB:116:LYS:HE2	80:B2:932:U:H3'	1.43	1.00
16:AH:9:LEU:HD21	16:AH:17:GLU:HB3	1.43	1.00
33:AY:37:LYS:NZ	80:B2:523:G:OP2	1.94	1.00
38:BD:15:ARG:CZ	81:B5:1003:A:H1'	1.91	1.00
41:BG:137:ASN:ND2	81:B5:148:G:C8	2.28	1.00
52:BR:173:ARG:HD3	80:B2:853:G:N3	1.11	1.00
79:By:40:THR:HB	84:CN:2145:G:C2'	1.90	1.00
79:By:51:PRO:HB2	79:CL:169:GLY:HA3	1.43	1.00
79:By:103:ILE:C	79:CL:104:LEU:O	2.04	1.00
79:By:151:GLU:O	79:CL:156:ILE:HB	1.26	1.00
79:By:155:GLU:OE2	79:CL:155:GLU:HG3	1.59	1.00
79:By:218:MET:HA	84:CN:2195:C:C2	1.96	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:Bg:68:THR:CG2	81:B5:1643:A:OP2	2.09	1.00
79:By:124:GLY:N	79:CL:123:VAL:O	1.93	1.00
79:By:159:GLY:N	79:CL:159:GLY:HA3	1.76	1.00
79:By:171:ILE:CD1	79:CL:171:ILE:CD1	2.40	1.00
23:AO:38:THR:CB	80:B2:895:G:C2'	2.36	1.00
26:AR:48:ASN:HD22	80:B2:1389:C:P	1.85	1.00
47:BM:19:ARG:HA	47:BM:69:THR:HG22	1.41	1.00
79:By:100:ILE:HG12	79:CL:98:GLU:C	1.87	1.00
79:By:118:ASP:OD1	79:CL:119:VAL:CG2	2.10	1.00
79:By:157:LYS:CB	79:CL:71:GLN:CA	2.39	1.00
54:BT:57:TYR:OH	81:B5:2724:U:OP1	1.79	1.00
67:Bg:74:ARG:NH2	81:B5:1639:C:OP2	1.95	1.00
79:By:82:LYS:HE3	79:CL:149:ILE:HG22	1.11	1.00
79:By:91:ALA:HB3	79:CL:92:ASP:C	1.87	1.00
79:By:102:LYS:HB2	79:CL:104:LEU:H	1.13	1.00
15:AG:174:LYS:HD3	80:B2:79:C:C1'	1.91	1.00
23:AO:27:PHE:CZ	80:B2:916:U:C2'	2.43	1.00
23:AO:27:PHE:HE2	80:B2:916:U:O2	1.43	1.00
32:AX:144:ARG:NH1	85:CP:314:LYS:HD3	1.75	1.00
79:By:79:LYS:HG2	79:CL:82:LYS:HB3	1.44	1.00
79:By:119:VAL:HA	79:CL:97:GLU:OE2	1.62	1.00
79:By:176:GLY:CA	79:CL:41:VAL:N	2.05	1.00
79:By:45:ALA:O	84:CN:2198:C:O2'	1.67	0.99
79:By:103:ILE:HG13	79:CL:103:ILE:HB	1.41	0.99
79:By:140:PRO:CG	79:CL:141:LYS:CB	2.33	0.99
79:By:212:VAL:HG11	79:CL:212:VAL:HG12	1.39	0.99
8:A7:28:SER:CA	81:B5:2708:C:H4'	1.92	0.99
23:AO:18:ARG:HH22	80:B2:919:A:C5'	1.75	0.99
60:BZ:78:ASN:ND2	81:B5:1711:C:OP1	1.94	0.99
79:By:13:LYS:CB	79:CL:9:ALA:HB3	1.92	0.99
79:By:137:LEU:HD23	79:CL:128:GLY:O	0.82	0.99
80:B2:430:G:H4'	85:CP:244:GLY:HA3	1.41	0.99
36:BB:41:VAL:HA	36:BB:185:GLY:HA3	1.39	0.99
79:By:40:THR:C	79:CL:40:THR:HB	1.88	0.99
79:By:44:HIS:CG	79:CL:172:HIS:HD1	1.81	0.99
79:By:83:ILE:C	79:CL:94:VAL:HG12	1.86	0.99
79:By:93:TYR:C	79:CL:107:TRP:CZ2	2.39	0.99
79:By:116:THR:OG1	79:CL:77:ILE:HB	1.61	0.99
15:AG:15:THR:HG21	80:B2:153:G:O5'	1.62	0.99
79:By:99:ILE:O	79:CL:103:ILE:N	1.81	0.99
79:By:103:ILE:HD13	79:CL:103:ILE:CG2	1.92	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:195:ALA:HB1	79:CL:195:ALA:CA	1.91	0.99
79:By:208:PHE:O	79:CL:47:LEU:HD23	0.82	0.99
79:By:223:ARG:CD	79:CL:223:ARG:CB	2.40	0.99
37:BC:193:LYS:NZ	83:B8:21:C:OP1	1.93	0.99
79:By:82:LYS:HD3	79:CL:86:ALA:CB	1.91	0.99
79:By:116:THR:N	79:CL:77:ILE:HD12	1.77	0.99
79:By:145:VAL:HG13	79:CL:138:PRO:CA	1.92	0.99
79:By:221:SER:HB2	79:CL:221:SER:HB3	1.42	0.99
15:AG:59:GLN:CA	80:B2:155:U:H4'	1.93	0.99
15:AG:133:LEU:HA	80:B2:66:U:N3	1.78	0.99
25:AQ:123:ARG:N	80:B2:1584:G:H5'	1.76	0.99
79:By:99:ILE:C	79:CL:99:ILE:O	2.05	0.99
79:By:149:ILE:HD13	79:CL:76:ALA:HA	1.42	0.99
79:By:164:ARG:CG	79:CL:165:ASN:O	2.10	0.99
79:By:185:LEU:HB2	79:CL:29:VAL:CG1	1.91	0.99
81:B5:1226:G:O4'	81:B5:1288:U:C4'	2.11	0.99
8:A7:32:SER:HB2	81:B5:2692:A:H1'	1.44	0.99
35:BA:194:ASN:ND2	81:B5:822:G:C4'	2.24	0.99
79:By:158:ALA:CB	79:CL:157:LYS:O	2.10	0.99
15:AG:157:VAL:HG21	80:B2:78:A:O2'	1.62	0.99
15:AG:175:ILE:HG12	80:B2:78:A:N9	1.77	0.99
69:Bi:77:LEU:HD23	81:B5:294:U:H4'	1.44	0.99
79:By:158:ALA:HB3	79:CL:158:ALA:C	1.86	0.99
79:By:188:ASN:HB3	79:CL:175:VAL:HB	0.99	0.99
17:AI:24:LYS:O	80:B2:400:A:H5"	1.62	0.99
23:AO:18:ARG:CZ	80:B2:919:A:C5'	2.37	0.99
33:AY:105:ARG:HB3	80:B2:443:C:OP2	1.60	0.99
38:BD:207:TYR:CZ	82:B7:33:U:C6	2.50	0.99
60:BZ:135:ARG:NH2	81:B5:1807:G:H5"	1.78	0.99
79:By:33:ALA:O	79:CL:36:LYS:CG	2.10	0.99
79:By:226:PRO:HD3	79:CL:223:ARG:HE	0.86	0.99
41:BG:162:LEU:CD1	81:B5:147:U:C2	2.46	0.99
79:By:35:ALA:HB2	84:CN:2149:C:H5'	1.00	0.99
79:By:59:ARG:HB2	79:CL:59:ARG:CD	1.81	0.99
79:By:102:LYS:NZ	79:CL:104:LEU:HD11	1.37	0.99
80:B2:913:G:C6	81:B5:2206:G:H4'	1.97	0.99
79:By:103:ILE:CD1	79:CL:103:ILE:CG2	2.39	0.98
79:By:107:TRP:CH2	79:CL:103:ILE:CD1	2.46	0.98
79:By:108:MET:CE	84:CN:2189:G:O6	2.11	0.98
79:By:197:GLU:HG3	79:CL:209:LEU:CD1	1.92	0.98
80:B2:1645:G:O2'	81:B5:2259:A:C6	2.15	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AY:12:VAL:N	80:B2:783:G:N7	2.10	0.98
63:Bc:26:GLY:CA	81:B5:1730:G:C6	2.46	0.98
72:Bl:41:ARG:NH1	81:B5:1517:G:OP1	1.96	0.98
79:By:81:GLU:OE1	79:CL:80:GLY:O	1.81	0.98
79:By:149:ILE:HG21	79:CL:76:ALA:HB1	1.17	0.98
80:B2:1686:C:H2'	80:B2:1687:U:C6	1.98	0.98
27:AS:118:LYS:CE	44:BJ:108:GLU:OE2	2.10	0.98
54:BT:23:GLY:N	81:B5:2701:U:OP1	1.95	0.98
79:By:2:LYS:HA	84:CN:2148:G:H1	1.28	0.98
79:By:15:ASP:OD2	79:CL:11:LEU:HD12	1.63	0.98
79:By:84:LYS:HG3	79:CL:87:GLU:HB3	1.43	0.98
79:By:88:GLU:CA	79:CL:92:ASP:O	2.07	0.98
79:By:153:ILE:H	79:CL:74:VAL:HG11	1.26	0.98
79:By:158:ALA:HB2	79:CL:157:LYS:O	1.63	0.98
79:By:183:GLU:O	79:CL:184:LYS:N	1.97	0.98
79:By:199:HIS:CA	79:CL:199:HIS:CA	2.37	0.98
79:By:209:LEU:CB	79:CL:211:SER:O	2.09	0.98
79:By:212:VAL:CG1	79:CL:212:VAL:CG1	2.34	0.98
69:Bi:82:ARG:NH2	81:B5:271:C:O2	1.95	0.98
79:By:46:LYS:HG3	79:CL:46:LYS:CG	1.56	0.98
79:By:62:VAL:O	79:CL:161:ILE:CG1	2.12	0.98
79:By:100:ILE:HD13	79:CL:98:GLU:HA	0.99	0.98
79:By:100:ILE:HB	79:CL:100:ILE:HB	1.44	0.98
79:By:103:ILE:HG12	79:CL:103:ILE:C	1.69	0.98
79:By:114:VAL:HG23	79:CL:75:LEU:O	1.63	0.98
79:By:190:ARG:NH2	79:CL:21:THR:C	1.97	0.98
79:By:201:PRO:HD3	79:CL:58:VAL:HG22	1.44	0.98
81:B5:1225:A:C5	81:B5:1287:A:O2'	2.16	0.98
8:A7:31:SER:O	81:B5:2707:C:C4'	2.10	0.98
10:AB:124:ASN:ND2	80:B2:884:A:H4'	1.79	0.98
79:By:27:HIS:CD2	79:CL:27:HIS:HB2	1.97	0.98
79:By:35:ALA:HA	84:CN:2149:C:H6	1.28	0.98
79:By:59:ARG:HB3	79:CL:164:ARG:CB	1.76	0.98
79:By:62:VAL:HG21	79:CL:195:ALA:HB2	1.46	0.98
79:By:75:LEU:HD13	79:CL:108:MET:CA	1.92	0.98
79:By:88:GLU:HA	79:CL:92:ASP:HA	1.35	0.98
79:By:112:ALA:CA	79:CL:136:LEU:HD11	1.92	0.98
79:By:149:ILE:N	79:CL:149:ILE:HG12	1.74	0.98
79:By:171:ILE:HD11	79:CL:171:ILE:CD1	1.92	0.98
15:AG:182:GLN:HE22	80:B2:271:A:N6	1.59	0.98
33:AY:8:ARG:HA	80:B2:780:A:O2'	1.62	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BR:125:LYS:NZ	81:B5:1720:U:O4	1.97	0.98
79:By:45:ALA:HB2	79:CL:45:ALA:HA	1.01	0.98
79:By:157:LYS:N	79:CL:72:VAL:CB	2.26	0.98
8:A7:34:LYS:HG3	81:B5:2693:C:OP1	1.63	0.98
28:AT:57:ARG:HG3	28:AT:57:ARG:HH11	1.26	0.98
79:By:40:THR:CB	84:CN:2146:G:C5'	1.87	0.98
79:By:41:VAL:CB	79:CL:216:THR:HA	1.93	0.98
79:By:45:ALA:CA	84:CN:2198:C:O2'	2.12	0.98
79:By:74:VAL:CG1	79:CL:112:ALA:O	2.11	0.98
79:By:182:PRO:HB2	79:CL:26:ALA:O	1.62	0.98
79:By:227:HIS:CE1	79:CL:227:HIS:ND1	2.31	0.98
35:BA:50:HIS:CD2	81:B5:1795:U:H2'	1.97	0.98
52:BR:163:ARG:O	80:B2:850:A:H5'	0.80	0.98
79:By:171:ILE:CG2	79:CL:47:LEU:HG	1.93	0.98
79:By:215:THR:HG22	79:CL:42:GLU:HG3	1.45	0.98
80:B2:1645:G:C3'	81:B5:2259:A:C2	2.46	0.98
8:A7:47:ALA:CA	81:B5:2678:A:O4'	2.12	0.98
74:Bn:17:ARG:CZ	80:B2:1116:A:H5'	1.94	0.98
79:By:11:LEU:HD12	79:CL:7:TYR:CD2	1.98	0.98
79:By:19:ILE:CB	79:CL:18:LYS:N	2.21	0.98
79:By:138:PRO:O	79:CL:138:PRO:O	1.79	0.98
80:B2:51:A:C2'	85:CP:242:GLY:HA3	1.94	0.98
74:Bn:21:ARG:NH1	80:B2:1118:G:OP1	1.70	0.98
79:By:19:ILE:CG2	79:CL:17:ASN:O	2.12	0.98
79:By:21:THR:HG21	79:CL:24:GLU:HB2	1.38	0.98
79:By:28:LEU:N	79:CL:28:LEU:O	1.97	0.98
79:By:41:VAL:CG2	79:CL:216:THR:HA	1.93	0.98
79:By:199:HIS:HD2	79:CL:196:LEU:CD2	1.63	0.98
79:By:213:TYR:CG	84:CN:2198:C:C5'	2.46	0.98
85:CP:78:PRO:O	90:CP:401:GCP:O2G	1.81	0.98
15:AG:108:VAL:CG2	80:B2:153:G:O2'	2.10	0.97
29:AU:57:ARG:HG2	80:B2:1382:A:O4'	1.64	0.97
67:Bg:73:SER:O	81:B5:1639:C:N4	1.97	0.97
79:By:42:GLU:CG	79:CL:42:GLU:CD	2.37	0.97
79:By:119:VAL:HG22	79:CL:77:ILE:HG21	1.41	0.97
79:By:137:LEU:HD13	79:CL:137:LEU:HD12	0.99	0.97
85:CP:19:THR:CA	90:CP:401:GCP:O2A	2.07	0.97
9:AA:101:ARG:NH2	80:B2:1320:U:H3'	1.79	0.97
25:AQ:13:LYS:HE3	80:B2:1584:G:C6	1.98	0.97
79:By:28:LEU:C	79:CL:32:LEU:CG	2.30	0.97
79:By:59:ARG:CD	79:CL:59:ARG:CZ	2.40	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:71:GLN:HG3	79:CL:70:LYS:HE2	1.01	0.97
79:By:74:VAL:HG12	79:CL:112:ALA:O	1.64	0.97
79:By:116:THR:OG1	79:CL:115:ALA:HA	1.63	0.97
79:By:218:MET:HA	84:CN:2195:C:C2'	1.94	0.97
79:By:224:ILE:HD11	79:CL:214:VAL:CG2	1.94	0.97
79:By:81:GLU:CB	79:CL:82:LYS:N	2.14	0.97
79:By:86:ALA:HA	79:CL:91:ALA:HB3	1.17	0.97
79:By:149:ILE:CG1	79:CL:114:VAL:N	2.01	0.97
79:By:176:GLY:N	79:CL:176:GLY:O	1.95	0.97
79:By:179:SER:CB	79:CL:38:ASP:CA	2.36	0.97
79:By:194:ARG:HB2	79:CL:190:ARG:O	1.62	0.97
85:CP:199:ALA:HB3	90:CP:401:GCP:C6	1.94	0.97
8:A7:47:ALA:H	81:B5:2678:A:H1'	1.24	0.97
41:BG:138:HIS:N	81:B5:148:G:O6	1.97	0.97
44:BJ:103:GLY:C	81:B5:2673:A:H4'	1.89	0.97
79:By:40:THR:OG1	84:CN:2146:G:H5"	1.15	0.97
79:By:61:THR:HG23	79:CL:142:ALA:HB1	1.47	0.97
79:By:161:ILE:HG21	79:CL:173:ALA:HB1	1.44	0.97
79:By:162:GLU:HG2	79:CL:164:ARG:CB	1.94	0.97
79:By:183:GLU:CB	79:CL:183:GLU:N	2.12	0.97
79:By:211:SER:HB2	79:CL:213:TYR:CZ	1.99	0.97
8:A7:48:ARG:HD2	81:B5:2678:A:OP2	1.64	0.97
15:AG:58:LYS:HA	80:B2:155:U:H5'	1.46	0.97
29:AU:89:ARG:HH12	80:B2:1383:G:P	1.86	0.97
33:AY:120:GLY:C	80:B2:85:A:H4'	1.90	0.97
52:BR:165:LYS:HD3	80:B2:849:C:O2	1.62	0.97
54:BT:49:GLN:HB3	81:B5:2756:C:H4'	1.42	0.97
74:Bn:17:ARG:CZ	80:B2:1116:A:C5'	2.42	0.97
79:By:3:HIS:HB3	84:CN:2182:C:C1'	1.95	0.97
79:By:22:ILE:HB	79:CL:21:THR:C	1.90	0.97
79:By:99:ILE:CG1	79:CL:99:ILE:CA	2.40	0.97
79:By:183:GLU:CD	79:CL:182:PRO:C	2.32	0.97
79:By:215:THR:CG2	79:CL:42:GLU:OE1	2.12	0.97
81:B5:2802:A:O4'	86:CW:75:C:N4	1.95	0.97
85:CP:63:GLU:N	85:CP:210:TRP:CE3	2.31	0.97
1:A0:14:GLY:O	80:B2:937:C:N4	1.96	0.97
10:AB:116:LYS:NZ	80:B2:933:A:O5'	1.97	0.97
79:By:47:LEU:O	79:CL:46:LYS:HG3	1.64	0.97
79:By:137:LEU:CD2	79:CL:137:LEU:HG	1.93	0.97
85:CP:131:LYS:HD3	90:CP:401:GCP:C5	1.93	0.97
35:BA:240:ALA:HB1	81:B5:2154:U:H4'	1.41	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:193:ASP:OD2	81:B5:1010:G:N2	1.97	0.97
52:BR:171:ASP:OD1	80:B2:852:C:OP2	1.83	0.97
74:Bn:5:TRP:HH2	80:B2:1775:U:O4	1.24	0.97
79:By:18:LYS:HD3	79:CL:16:PRO:CD	1.93	0.97
79:By:183:GLU:CD	79:CL:183:GLU:N	2.22	0.97
79:By:213:TYR:CD2	79:CL:213:TYR:CD2	2.53	0.97
8:A7:51:ARG:HD2	81:B5:2677:G:H4'	1.45	0.97
79:By:71:GLN:HG3	79:CL:70:LYS:CE	1.71	0.97
79:By:140:PRO:O	79:CL:142:ALA:C	2.07	0.97
23:AO:38:THR:CG2	80:B2:895:G:C2'	2.42	0.97
76:Bq:5:ARG:NE	81:B5:1221:A:O2'	1.97	0.97
79:By:43:VAL:HG11	79:CL:43:VAL:HG13	0.97	0.97
79:By:65:PRO:O	79:CL:188:ASN:OD1	1.83	0.97
79:By:116:THR:HG22	79:CL:119:VAL:HG23	1.00	0.97
79:By:136:LEU:CD1	79:CL:130:ILE:O	2.12	0.97
79:By:208:PHE:CD2	79:CL:47:LEU:HD21	1.97	0.97
15:AG:132:ARG:NH2	80:B2:68:A:C4	2.32	0.97
63:Bc:26:GLY:HA3	81:B5:1730:G:O6	1.59	0.97
79:By:74:VAL:H	79:CL:73:ARG:HG3	0.81	0.97
79:By:92:ASP:N	79:CL:93:TYR:HE2	1.62	0.97
79:By:162:GLU:CG	79:CL:164:ARG:HB2	1.95	0.97
81:B5:437:G:H22	81:B5:622:A:H61	1.01	0.97
84:CN:2190:A:O4'	86:CW:56:C:O4'	1.81	0.97
15:AG:60:GLY:O	80:B2:154:G:C2	2.18	0.96
60:BZ:135:ARG:NH2	81:B5:1807:G:H5'	1.78	0.96
79:By:201:PRO:HG3	79:CL:58:VAL:CA	1.95	0.96
79:By:212:VAL:O	79:CL:223:ARG:CA	2.12	0.96
10:AB:116:LYS:NZ	80:B2:933:A:P	2.39	0.96
23:AO:132:ARG:CZ	80:B2:1788:G:C8	2.48	0.96
25:AQ:76:SER:CB	80:B2:1609:U:OP1	2.13	0.96
35:BA:241:ARG:HH22	81:B5:2156:C:P	1.88	0.96
79:By:74:VAL:CG2	79:CL:111:ASP:HB2	1.94	0.96
79:By:116:THR:CG2	79:CL:119:VAL:HG23	1.93	0.96
79:By:189:ILE:HG23	79:CL:214:VAL:HG22	1.45	0.96
38:BD:23:ARG:NE	81:B5:2703:A:OP2	1.98	0.96
79:By:13:LYS:CA	79:CL:9:ALA:CA	2.26	0.96
79:By:151:GLU:O	79:CL:156:ILE:N	1.98	0.96
15:AG:175:ILE:CG1	80:B2:78:A:C1'	2.35	0.96
28:AT:87:GLY:C	80:B2:1542:G:H5"	1.90	0.96
52:BR:170:ARG:NH2	89:BR:201:OHX:N1	2.11	0.96
79:By:23:ASP:HB3	79:CL:27:HIS:CG	1.99	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:62:VAL:HG12	79:CL:163:PHE:CD1	2.00	0.96
79:By:77:ILE:HG13	79:CL:75:LEU:HD21	1.45	0.96
79:By:136:LEU:N	79:CL:132:GLY:C	2.24	0.96
79:By:151:GLU:C	79:CL:152:ILE:O	2.00	0.96
79:By:199:HIS:CG	79:CL:199:HIS:HB2	2.00	0.96
79:By:209:LEU:CG	79:CL:209:LEU:CB	2.37	0.96
23:AO:38:THR:HG22	80:B2:895:G:C2'	1.95	0.96
54:BT:8:ARG:HD3	81:B5:2757:U:O4'	1.65	0.96
76:Bq:4:ILE:CD1	81:B5:1219:C:P	2.53	0.96
79:By:27:HIS:C	79:CL:28:LEU:O	2.05	0.96
79:By:50:ASP:O	79:CL:50:ASP:CA	1.99	0.96
79:By:103:ILE:HD13	79:CL:103:ILE:HG21	1.44	0.96
79:By:205:LYS:CD	79:CL:204:ALA:H	1.78	0.96
79:By:213:TYR:CG	79:CL:213:TYR:HD2	1.77	0.96
1:A0:87:ARG:HD2	80:B2:1797:A:N6	1.80	0.96
79:By:85:GLU:HG3	79:CL:87:GLU:HB2	1.45	0.96
79:By:115:ALA:O	79:CL:138:PRO:HG2	0.78	0.96
79:By:119:VAL:HG21	79:CL:77:ILE:HG23	1.43	0.96
79:By:149:ILE:HG21	79:CL:76:ALA:CA	1.94	0.96
79:By:153:ILE:H	79:CL:74:VAL:CG1	1.78	0.96
79:By:199:HIS:NE2	79:CL:196:LEU:HD23	1.80	0.96
85:CP:63:GLU:N	85:CP:210:TRP:CZ3	2.34	0.96
22:AN:73:ARG:HD3	80:B2:859:A:C6	1.99	0.96
79:By:5:LYS:C	84:CN:2151:U:C5	2.27	0.96
79:By:46:LYS:HD3	84:CN:2199:C:O3'	1.66	0.96
79:By:185:LEU:CD1	79:CL:29:VAL:HG13	1.96	0.96
81:B5:3027:A:H8	85:CP:109:GLN:NE2	1.49	0.96
84:CN:2160:C:O2'	84:CN:2161:C:OP2	1.83	0.96
10:AB:116:LYS:NZ	80:B2:933:A:OP1	1.97	0.96
26:AR:48:ASN:ND2	80:B2:1389:C:OP1	1.98	0.96
35:BA:84:THR:HB	81:B5:2554:A:N1	1.80	0.96
35:BA:241:ARG:NH2	81:B5:2156:C:P	2.37	0.96
79:By:73:ARG:O	79:CL:110:PHE:C	2.02	0.96
8:A7:81:THR:OG1	86:CW:30:G:P	2.23	0.96
17:AI:64:ASN:HD21	80:B2:257:A:C2'	1.79	0.96
18:AJ:60:LEU:HD21	18:AJ:93:LEU:HD21	1.45	0.96
79:By:46:LYS:HE2	84:CN:2200:C:OP2	1.63	0.96
79:By:78:ALA:HB2	79:CL:94:VAL:HA	1.48	0.96
79:By:103:ILE:CD1	79:CL:103:ILE:CG1	2.27	0.96
79:By:164:ARG:HD3	79:CL:164:ARG:CD	1.96	0.96
79:By:208:PHE:CG	79:CL:47:LEU:CD2	2.49	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:208:PHE:HA	79:CL:208:PHE:CD1	2.01	0.96
79:By:215:THR:CG2	79:CL:42:GLU:CG	2.43	0.96
79:By:224:ILE:HD11	79:CL:214:VAL:HG23	0.98	0.96
80:B2:414:C:C5	85:CP:288:ARG:HB2	2.01	0.96
38:BD:260:PHE:CE2	82:B7:121:U:C5'	2.48	0.96
54:BT:28:SER:OG	82:B7:9:C:OP1	1.83	0.96
79:By:71:GLN:HB2	79:CL:71:GLN:CD	1.91	0.96
79:By:136:LEU:CG	79:CL:134:ARG:CB	2.14	0.96
38:BD:207:TYR:CD1	82:B7:33:U:N1	2.34	0.95
79:By:21:THR:HG21	79:CL:24:GLU:HG3	1.43	0.95
79:By:103:ILE:CG1	79:CL:100:ILE:O	2.14	0.95
79:By:152:ILE:HG13	79:CL:152:ILE:HG22	0.98	0.95
79:By:200:LYS:HB3	79:CL:201:PRO:C	1.81	0.95
79:By:215:THR:OG1	84:CN:2197:A:O4'	1.84	0.95
80:B2:1585:U:H3	80:B2:1611:A:H2	0.96	0.95
85:CP:63:GLU:N	85:CP:210:TRP:CZ2	2.33	0.95
14:AF:117:THR:HG21	14:AF:194:LEU:HD12	1.47	0.95
23:AO:45:GLY:CA	80:B2:900:A:OP2	2.13	0.95
79:By:39:GLU:O	79:CL:39:GLU:CA	2.14	0.95
79:By:86:ALA:CB	79:CL:94:VAL:HG11	1.96	0.95
79:By:215:THR:CG2	79:CL:42:GLU:HG3	1.96	0.95
79:By:37:PHE:HA	84:CN:2147:A:O3'	0.78	0.95
80:B2:415:C:N3	85:CP:288:ARG:HD3	1.79	0.95
13:AE:108:ARG:NH2	80:B2:788:A:OP2	1.99	0.95
23:AO:46:MET:CA	80:B2:899:G:H5'	1.95	0.95
60:BZ:69:LYS:HZ3	81:B5:1633:C:P	1.85	0.95
79:By:5:LYS:CA	84:CN:2150:C:C2'	2.44	0.95
79:By:44:HIS:HE2	84:CN:2144:G:H8	1.08	0.95
79:By:86:ALA:C	79:CL:91:ALA:HB1	1.92	0.95
79:By:204:ALA:C	79:CL:201:PRO:HG2	1.91	0.95
80:B2:1010:C:OP2	89:B2:2013:OHX:N6	1.99	0.95
23:AO:88:GLY:CA	80:B2:888:U:H5'	1.96	0.95
32:AX:144:ARG:CZ	85:CP:314:LYS:CD	2.43	0.95
67:Bg:56:THR:N	81:B5:1740:U:OP1	1.98	0.95
79:By:98:GLU:OE1	79:CL:98:GLU:OE1	1.83	0.95
79:By:139:ASN:HB3	79:CL:139:ASN:ND2	1.76	0.95
81:B5:2443:A:P	84:CN:2208:G:O6	2.24	0.95
15:AG:159:ARG:NH1	80:B2:77:U:O4'	2.00	0.95
23:AO:122:PRO:HB3	80:B2:887:A:C1'	1.97	0.95
74:Bn:11:ARG:NH2	80:B2:1127:G:C5'	2.28	0.95
79:By:131:LEU:O	79:CL:133:PRO:HD2	1.66	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:164:ARG:CD	79:CL:164:ARG:CG	2.44	0.95
79:By:192:PHE:CD2	79:CL:43:VAL:CB	2.29	0.95
79:By:199:HIS:ND1	79:CL:199:HIS:HB2	1.82	0.95
85:CP:131:LYS:CD	90:CP:401:GCP:N1	2.29	0.95
17:AI:51:GLY:H	80:B2:397:A:H5"	1.29	0.95
23:AO:29:HIS:HE1	80:B2:918:U:H4'	1.32	0.95
23:AO:132:ARG:NE	80:B2:1788:G:N7	2.15	0.95
79:By:5:LYS:C	84:CN:2150:C:H3'	1.91	0.95
79:By:66:HIS:HA	79:CL:180:PHE:HE2	1.30	0.95
79:By:113:VAL:CG2	79:CL:110:PHE:CZ	2.45	0.95
79:By:144:THR:CB	79:CL:137:LEU:C	2.39	0.95
79:By:147:PHE:HD2	79:CL:148:ASN:H	1.08	0.95
79:By:177:LYS:HD2	79:CL:40:THR:OG1	1.67	0.95
79:By:222:VAL:HG23	79:CL:220:PRO:CD	1.95	0.95
79:By:226:PRO:N	79:CL:19:ILE:CG2	2.25	0.95
8:A7:28:SER:HB3	81:B5:2708:C:C3'	1.80	0.95
12:AD:8:LYS:NZ	80:B2:1487:A:OP2	1.98	0.95
15:AG:133:LEU:HD11	80:B2:66:U:O2'	1.66	0.95
23:AO:29:HIS:CE1	80:B2:918:U:C4'	2.50	0.95
28:AT:12:GLN:OE1	80:B2:1529:C:C2'	2.14	0.95
38:BD:48:LYS:NZ	81:B5:2749:G:O5'	2.00	0.95
79:By:45:ALA:CB	79:CL:45:ALA:C	1.92	0.95
79:By:82:LYS:HD3	79:CL:86:ALA:HB2	0.96	0.95
1:A0:15:ARG:NH1	80:B2:936:G:N7	2.15	0.95
8:A7:30:THR:HA	81:B5:2707:C:O2'	1.67	0.95
15:AG:136:LYS:HD2	80:B2:66:U:OP1	1.66	0.95
15:AG:159:ARG:NH1	80:B2:77:U:C1'	2.29	0.95
17:AI:75:LYS:NZ	80:B2:259:U:OP1	2.00	0.95
17:AI:170:SER:O	80:B2:209:U:H5"	1.65	0.95
79:By:13:LYS:H	79:CL:7:TYR:CA	1.70	0.95
79:By:21:THR:HG23	79:CL:21:THR:N	1.80	0.95
79:By:81:GLU:HA	79:CL:83:ILE:CD1	1.96	0.95
79:By:91:ALA:CB	79:CL:93:TYR:CD2	2.50	0.95
79:By:158:ALA:C	79:CL:159:GLY:HA3	1.91	0.95
79:By:171:ILE:CB	79:CL:47:LEU:HG	1.97	0.95
79:By:208:PHE:HB2	79:CL:208:PHE:CE2	1.95	0.95
79:By:222:VAL:CG1	79:CL:222:VAL:HG22	1.96	0.95
85:CP:131:LYS:HG2	90:CP:401:GCP:O6	1.66	0.95
10:AB:165:ARG:HE	80:B2:947:U:P	1.90	0.95
60:BZ:15:ARG:HD3	81:B5:1637:A:H4'	1.45	0.95
67:Bg:41:ARG:CZ	81:B5:1739:U:H1'	1.96	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:42:GLU:OE2	84:CN:2145:G:H1'	1.66	0.95
79:By:196:LEU:N	79:CL:193:ILE:HA	1.80	0.95
79:By:216:THR:HG22	79:CL:39:GLU:OE1	1.64	0.95
85:CP:63:GLU:N	85:CP:210:TRP:CH2	2.34	0.95
79:By:211:SER:OG	84:CN:2199:C:OP1	1.82	0.94
20:AL:36:LYS:HD3	80:B2:248:U:C4'	1.97	0.94
23:AO:27:PHE:CE1	80:B2:916:U:O2'	2.19	0.94
23:AO:135:ARG:HE	80:B2:1008:G:P	1.88	0.94
26:AR:60:ARG:HH21	80:B2:1400:A:P	1.90	0.94
29:AU:53:LYS:HB3	80:B2:1345:A:H4'	1.49	0.94
35:BA:194:ASN:ND2	81:B5:822:G:H4'	1.81	0.94
63:Bc:88:GLY:N	81:B5:1729:A:OP1	2.00	0.94
79:By:77:ILE:CB	79:CL:77:ILE:CG1	2.45	0.94
79:By:158:ALA:CB	79:CL:159:GLY:N	2.29	0.94
80:B2:415:C:H5	85:CP:288:ARG:CB	1.65	0.94
80:B2:1645:G:C3'	81:B5:2259:A:N1	2.29	0.94
84:CN:2158:C:O2	84:CN:2158:C:H3'	1.65	0.94
23:AO:20:TYR:HD2	80:B2:917:U:H5"	1.32	0.94
79:By:18:LYS:HD3	79:CL:16:PRO:HD2	1.48	0.94
79:By:112:ALA:HA	79:CL:136:LEU:CD1	1.98	0.94
79:By:126:LYS:HG3	79:CL:126:LYS:HD3	1.46	0.94
79:By:201:PRO:HG3	79:CL:58:VAL:CB	1.96	0.94
79:By:208:PHE:C	79:CL:209:LEU:HD23	1.91	0.94
79:By:219:GLY:HA3	79:CL:218:MET:HA	1.42	0.94
41:BG:63:LYS:HE2	83:B8:153:U:OP1	1.66	0.94
79:By:7:TYR:CB	84:CN:2149:C:H2'	1.96	0.94
79:By:123:VAL:HG22	79:CL:123:VAL:HA	1.50	0.94
79:By:136:LEU:HD21	79:CL:134:ARG:HB3	1.49	0.94
79:By:138:PRO:C	79:CL:138:PRO:C	2.35	0.94
79:By:160:ARG:HH22	79:CL:143:GLY:HA2	1.21	0.94
79:By:165:ASN:ND2	79:CL:57:ASN:CG	2.25	0.94
79:By:205:LYS:HA	79:CL:200:LYS:CE	1.97	0.94
80:B2:1780:G:HO2'	81:B5:2262:A:H4'	1.16	0.94
26:AR:49:LYS:CD	80:B2:1390:U:OP2	2.15	0.94
79:By:37:PHE:HA	84:CN:2148:G:P	2.08	0.94
10:AB:150:VAL:HG23	80:B2:1067:C:C5'	1.96	0.94
22:AN:3:ARG:NH1	80:B2:867:G:P	2.41	0.94
79:By:213:TYR:CD1	79:CL:213:TYR:CZ	2.48	0.94
80:B2:1588:G:H1	80:B2:1608:U:H3	1.13	0.94
81:B5:1226:G:OP2	81:B5:1289:G:C8	2.19	0.94
15:AG:108:VAL:HG23	80:B2:154:G:C5'	1.97	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AO:123:SER:N	80:B2:886:U:O2	1.99	0.94
79:By:40:THR:HG23	79:CL:40:THR:CB	1.98	0.94
15:AG:112:VAL:HG21	80:B2:164:A:C5'	1.97	0.94
23:AO:18:ARG:NH2	80:B2:919:A:H5"	1.82	0.94
38:BD:269:SER:CB	82:B7:1:G:H21	1.79	0.94
69:Bi:26:ILE:HD13	81:B5:155:G:H1'	1.49	0.94
74:Bn:4:LYS:CE	80:B2:1773:C:H2'	1.96	0.94
79:By:77:ILE:CG2	79:CL:77:ILE:HG12	1.95	0.94
79:By:85:GLU:CG	79:CL:87:GLU:HB2	1.94	0.94
79:By:164:ARG:HD3	79:CL:164:ARG:CG	1.96	0.94
79:By:218:MET:HA	84:CN:2195:C:H1'	1.47	0.94
80:B2:1646:C:C2'	81:B5:2257:C:N4	2.30	0.94
23:AO:38:THR:CB	80:B2:895:G:H2'	1.97	0.94
23:AO:123:SER:CB	80:B2:885:G:N3	2.31	0.94
29:AU:53:LYS:HA	80:B2:1345:A:P	2.08	0.94
52:BR:124:TYR:OH	81:B5:1721:U:OP2	1.86	0.94
79:By:144:THR:HG21	79:CL:137:LEU:CA	1.84	0.94
79:By:203:GLY:O	79:CL:49:ILE:HB	1.68	0.94
79:By:228:SER:O	79:CL:228:SER:OXT	1.55	0.94
80:B2:701:U:H3	80:B2:737:A:H61	1.06	0.94
81:B5:1877:U:H5"	81:B5:1878:G:H5'	1.50	0.94
8:A7:34:LYS:CG	81:B5:2693:C:OP1	2.16	0.94
15:AG:132:ARG:C	80:B2:68:A:H61	1.74	0.94
52:BR:168:ALA:HB3	80:B2:850:A:C2'	1.98	0.94
58:BX:111:ASN:ND2	81:B5:1608:C:H5"	1.82	0.94
79:By:114:VAL:CG2	79:CL:112:ALA:O	2.02	0.94
79:By:200:LYS:NZ	79:CL:208:PHE:CG	2.36	0.94
79:By:208:PHE:CB	79:CL:208:PHE:CE2	2.42	0.94
23:AO:38:THR:HG22	80:B2:895:G:C3'	1.98	0.93
38:BD:94:ASN:CB	82:B7:47:C:OP1	2.16	0.93
79:By:28:LEU:HD23	79:CL:31:GLU:OE1	1.67	0.93
79:By:148:ASN:CB	79:CL:150:GLY:C	2.39	0.93
79:By:7:TYR:CZ	84:CN:2195:C:O2'	2.21	0.93
79:By:25:ALA:CB	79:CL:222:VAL:HG22	1.96	0.93
79:By:174:PRO:HB3	84:CN:2145:G:H5'	0.94	0.93
8:A7:48:ARG:HB2	81:B5:2678:A:OP1	1.66	0.93
14:AF:109:LYS:HE2	80:B2:1474:G:P	2.08	0.93
44:BJ:105:GLY:HA3	81:B5:2674:A:O4'	1.68	0.93
52:BR:168:ALA:HB3	80:B2:850:A:O2'	1.66	0.93
52:BR:169:ALA:O	80:B2:852:C:C4	2.21	0.93
79:By:176:GLY:CA	79:CL:176:GLY:O	0.64	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:190:ARG:NH2	79:CL:24:GLU:H	1.65	0.93
8:A7:33:LYS:HD2	81:B5:2692:A:H5'	1.49	0.93
15:AG:174:LYS:CA	80:B2:79:C:C4'	2.47	0.93
28:AT:57:ARG:HG3	80:B2:1479:A:OP1	1.68	0.93
33:AY:21:LYS:CG	80:B2:782:U:O2	2.14	0.93
79:By:102:LYS:HD3	79:CL:102:LYS:HA	0.94	0.93
79:By:220:PRO:HD2	79:CL:7:TYR:HD1	1.23	0.93
15:AG:54:GLY:HA3	80:B2:163:G:H5'	1.51	0.93
20:AL:130:PRO:O	80:B2:335:U:O2'	1.83	0.93
79:By:7:TYR:HB2	84:CN:2149:C:C2'	1.92	0.93
79:By:13:LYS:HA	79:CL:9:ALA:CB	1.97	0.93
79:By:122:ALA:CA	79:CL:125:SER:N	2.28	0.93
32:AX:144:ARG:HH22	85:CP:314:LYS:HD3	1.34	0.93
35:BA:241:ARG:HG2	81:B5:2155:G:OP1	1.68	0.93
52:BR:104:ARG:HH11	81:B5:1949:G:H5"	1.29	0.93
79:By:48:GLY:HA2	79:CL:210:ARG:CD	1.98	0.93
79:By:126:LYS:HG3	79:CL:126:LYS:CD	1.97	0.93
79:By:131:LEU:CD1	79:CL:128:GLY:N	2.30	0.93
81:B5:2836:C:H5	81:B5:2852:C:H42	1.07	0.93
20:AL:80:MET:HE2	80:B2:325:G:H4'	1.47	0.93
25:AQ:40:GLU:OE2	80:B2:1529:C:H4'	1.67	0.93
35:BA:9:ARG:NH2	81:B5:912:G:OP2	2.01	0.93
79:By:39:GLU:HG3	79:CL:35:ALA:HB3	1.49	0.93
79:By:66:HIS:HD2	79:CL:188:ASN:CG	1.76	0.93
79:By:136:LEU:CD2	79:CL:136:LEU:CD1	2.35	0.93
15:AG:132:ARG:O	80:B2:68:A:N6	2.00	0.93
52:BR:166:ASN:CG	89:BR:201:OHX:N4	2.25	0.93
61:Ba:8:THR:HG21	81:B5:662:U:OP1	1.69	0.93
63:Bc:85:PHE:CE2	81:B5:1728:G:O6	2.21	0.93
79:By:46:LYS:HD3	84:CN:2199:C:H4'	1.51	0.93
17:AI:138:ASN:ND2	80:B2:197:A:H61	1.59	0.93
79:By:92:ASP:N	79:CL:73:ARG:HB2	1.84	0.93
79:By:116:THR:HA	79:CL:115:ALA:HB2	1.04	0.93
79:By:126:LYS:HD2	79:CL:126:LYS:HD2	1.50	0.93
79:By:164:ARG:HG3	79:CL:165:ASN:O	1.67	0.93
15:AG:10:ASN:HA	57:BW:80:ARG:CB	1.98	0.93
28:AT:102:ARG:NH2	80:B2:1502:G:O6	2.01	0.93
44:BJ:142:LYS:HE3	81:B5:2664:C:P	2.08	0.93
79:By:28:LEU:O	79:CL:32:LEU:HD23	1.69	0.93
79:By:113:VAL:HG13	79:CL:110:PHE:HZ	1.31	0.93
79:By:119:VAL:CG1	79:CL:96:GLY:C	2.31	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:137:LEU:CB	79:CL:132:GLY:CA	2.44	0.93
79:By:140:PRO:HG2	79:CL:141:LYS:CB	1.95	0.93
79:By:218:MET:CA	84:CN:2195:C:C2'	2.47	0.93
89:B2:1918:OHX:N4	89:B2:2064:OHX:N6	2.16	0.93
85:CP:20:LYS:NZ	90:CP:401:GCP:N3	2.16	0.93
14:AF:104:ASN:HD21	80:B2:1166:A:H5'	0.77	0.92
52:BR:164:LEU:N	80:B2:850:A:C5'	2.26	0.92
69:Bi:82:ARG:NH1	81:B5:271:C:N3	2.16	0.92
79:By:29:VAL:HG22	79:CL:32:LEU:O	1.68	0.92
79:By:67:GLY:H	79:CL:180:PHE:HZ	1.13	0.92
14:AF:78:ALA:O	80:B2:1615:C:N4	2.02	0.92
38:BD:265:TYR:CE1	82:B7:120:C:H2'	2.03	0.92
48:BN:31:ARG:NH1	48:BN:124:ASP:OD2	2.03	0.92
63:Bc:85:PHE:CE1	81:B5:1728:G:C5	2.57	0.92
79:By:18:LYS:HB2	79:CL:14:VAL:HG23	1.46	0.92
79:By:66:HIS:HB3	79:CL:180:PHE:CD2	2.04	0.92
79:By:149:ILE:HG22	79:CL:149:ILE:CD1	1.99	0.92
79:By:226:PRO:HG2	79:CL:223:ARG:NH2	1.72	0.92
10:AB:97:LEU:HD13	10:AB:98:THR:H	1.34	0.92
11:AC:162:CYS:HA	89:AC:301:OHX:N5	1.84	0.92
12:AD:159:HIS:N	80:B2:1328:G:OP1	2.01	0.92
28:AT:91:TYR:HE1	80:B2:1469:A:OP1	1.51	0.92
79:By:26:ALA:N	79:CL:25:ALA:O	2.02	0.92
79:By:113:VAL:H	79:CL:136:LEU:CD2	1.82	0.92
79:By:141:LYS:H	79:CL:139:ASN:HD22	1.11	0.92
79:By:149:ILE:HG23	79:CL:76:ALA:HB2	0.92	0.92
79:By:149:ILE:N	79:CL:149:ILE:HG13	1.82	0.92
79:By:212:VAL:N	79:CL:213:TYR:CD1	2.38	0.92
80:B2:279:G:H3'	80:B2:280:U:H5"	1.50	0.92
80:B2:415:C:C6	85:CP:288:ARG:CB	2.50	0.92
84:CN:2132:C:C2	84:CN:2168:G:N2	2.38	0.92
1:A0:15:ARG:HG2	80:B2:943:C:N4	1.84	0.92
8:A7:34:LYS:CE	81:B5:2693:C:H5'	1.99	0.92
35:BA:200:ARG:HG3	81:B5:2147:A:OP1	1.70	0.92
79:By:18:LYS:CG	79:CL:16:PRO:HD3	1.96	0.92
79:By:41:VAL:H	79:CL:40:THR:N	1.66	0.92
79:By:81:GLU:CA	79:CL:79:LYS:C	2.41	0.92
79:By:91:ALA:HB1	79:CL:93:TYR:HD2	1.29	0.92
79:By:156:ILE:HD12	79:CL:112:ALA:HB2	1.48	0.92
79:By:162:GLU:CG	79:CL:164:ARG:CB	2.45	0.92
80:B2:732:G:O6	89:B2:2011:OHX:N5	2.03	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AO:45:GLY:CA	80:B2:900:A:P	2.57	0.92
54:BT:78:LYS:HE3	81:B5:2728:G:O6	1.68	0.92
79:By:77:ILE:CG2	79:CL:77:ILE:CG1	2.47	0.92
79:By:79:LYS:HB2	79:CL:149:ILE:HD13	1.51	0.92
79:By:156:ILE:O	79:CL:68:LEU:HD12	1.67	0.92
80:B2:414:C:C6	85:CP:289:LEU:HD23	2.00	0.92
15:AG:176:GLN:NE2	80:B2:65:A:OP1	2.02	0.92
15:AG:185:GLN:HG3	80:B2:284:G:C5	2.05	0.92
79:By:142:ALA:HA	79:CL:162:GLU:OE2	1.69	0.92
79:By:171:ILE:HG21	79:CL:47:LEU:HG	1.49	0.92
1:A0:70:LYS:HE2	80:B2:930:A:C5'	1.99	0.92
15:AG:175:ILE:CG1	80:B2:78:A:N9	2.32	0.92
79:By:137:LEU:HD22	79:CL:137:LEU:HG	1.52	0.92
79:By:154:ARG:HB2	79:CL:153:ILE:O	1.69	0.92
8:A7:72:ARG:NH1	80:B2:1460:A:O2'	2.02	0.92
10:AB:54:LEU:HD11	81:B5:2438:A:H2	1.35	0.92
15:AG:59:GLN:C	80:B2:155:U:H1'	1.94	0.92
15:AG:108:VAL:HG21	80:B2:154:G:H5'	1.50	0.92
46:BL:73:ARG:NH1	81:B5:110:G:OP2	2.03	0.92
79:By:46:LYS:CE	84:CN:2200:C:OP2	2.16	0.92
79:By:116:THR:CB	79:CL:77:ILE:O	2.18	0.92
79:By:210:ARG:NH1	79:CL:210:ARG:NH2	1.96	0.92
80:B2:839:U:O4	89:B2:2071:OHX:N3	2.03	0.92
80:B2:1646:C:C1'	81:B5:2257:C:H41	1.82	0.92
10:AB:165:ARG:NE	80:B2:946:U:O3'	2.03	0.92
44:BJ:95:ASN:N	81:B5:2673:A:OP1	2.03	0.92
47:BM:55:ARG:NH2	47:BM:76:ALA:O	2.03	0.92
60:BZ:115:LYS:HD3	81:B5:1629:U:O4'	1.70	0.92
74:Bn:5:TRP:HZ3	80:B2:1775:U:C5	1.88	0.92
74:Bn:7:LYS:NZ	80:B2:1025:A:OP1	2.03	0.92
79:By:185:LEU:CD1	79:CL:29:VAL:CG1	2.47	0.92
6:A5:86:UNK:O	6:A5:87:UNK:HG3	1.69	0.92
23:AO:18:ARG:NH1	80:B2:919:A:P	2.43	0.92
79:By:28:LEU:CG	79:CL:13:LYS:HB3	1.99	0.92
79:By:66:HIS:CA	79:CL:180:PHE:CE2	2.52	0.92
79:By:133:PRO:HG2	86:CW:56:C:P	2.08	0.92
79:By:204:ALA:HB2	79:CL:201:PRO:HG3	1.50	0.92
15:AG:95:LYS:HE2	80:B2:161:U:OP1	1.69	0.91
35:BA:3:ARG:HD3	81:B5:911:C:H42	1.25	0.91
79:By:47:LEU:HB3	79:CL:47:LEU:C	1.72	0.91
79:By:53:ARG:HD2	79:CL:53:ARG:HB2	1.51	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:112:ALA:HB1	79:CL:136:LEU:HD21	1.50	0.91
79:By:116:THR:CA	79:CL:77:ILE:HB	1.99	0.91
80:B2:1644:C:C1'	81:B5:2255:A:N1	2.33	0.91
23:AO:38:THR:CG2	80:B2:895:G:O3'	2.18	0.91
24:AP:12:PHE:CD1	44:BJ:85:LYS:HE2	2.05	0.91
79:By:47:LEU:CB	79:CL:47:LEU:C	2.27	0.91
79:By:160:ARG:NH2	79:CL:143:GLY:CA	2.33	0.91
79:By:192:PHE:CA	79:CL:192:PHE:CB	2.08	0.91
81:B5:3343:G:H21	81:B5:3362:A:H2	1.17	0.91
8:A7:34:LYS:NZ	81:B5:2707:C:OP1	2.03	0.91
76:Bq:5:ARG:CZ	81:B5:1221:A:H1'	2.00	0.91
79:By:65:PRO:HA	79:CL:67:GLY:H	0.77	0.91
79:By:103:ILE:HD13	79:CL:103:ILE:CB	2.00	0.91
79:By:177:LYS:HG3	79:CL:177:LYS:CE	1.98	0.91
80:B2:51:A:N1	85:CP:243:PHE:CB	2.16	0.91
81:B5:2443:A:H5"	84:CN:2122:G:C2	2.04	0.91
15:AG:132:ARG:NH2	80:B2:68:A:N7	2.18	0.91
15:AG:154:ARG:C	80:B2:78:A:H5'	1.93	0.91
23:AO:38:THR:HG22	80:B2:895:G:O2'	1.67	0.91
23:AO:120:PRO:HB2	80:B2:887:A:O3'	1.70	0.91
26:AR:4:VAL:HG11	80:B2:1315:U:O2	1.69	0.91
33:AY:10:ARG:CZ	80:B2:778:G:N2	2.32	0.91
33:AY:120:GLY:HA2	80:B2:85:A:O2'	1.69	0.91
38:BD:207:TYR:HD1	82:B7:33:U:H1'	1.25	0.91
54:BT:49:GLN:HB3	81:B5:2756:C:C4'	2.01	0.91
72:Bl:4:GLN:HE21	81:B5:1833:G:H21	1.06	0.91
79:By:107:TRP:CZ2	79:CL:107:TRP:HB3	2.04	0.91
79:By:138:PRO:HB3	79:CL:138:PRO:HB2	1.52	0.91
79:By:193:ILE:HD13	79:CL:226:PRO:CA	2.00	0.91
79:By:197:GLU:CG	79:CL:209:LEU:CD1	2.48	0.91
79:By:221:SER:N	84:CN:2197:A:OP1	2.04	0.91
15:AG:174:LYS:HA	80:B2:79:C:H1'	1.50	0.91
65:Be:19:ARG:HH22	81:B5:1433:A:P	1.94	0.91
79:By:20:TYR:CD1	79:CL:15:ASP:N	2.32	0.91
79:By:36:LYS:CE	84:CN:2148:G:O6	2.17	0.91
79:By:66:HIS:HA	79:CL:180:PHE:CE2	2.06	0.91
79:By:99:ILE:H	79:CL:99:ILE:HA	1.36	0.91
79:By:136:LEU:HA	79:CL:136:LEU:N	1.86	0.91
15:AG:88:ARG:NE	80:B2:92:A:C2	2.38	0.91
23:AO:29:HIS:CE1	80:B2:918:U:H4'	2.05	0.91
23:AO:136:ARG:NH2	80:B2:1786:G:P	2.36	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AP:47:ARG:NH1	80:B2:1555:A:OP2	2.03	0.91
27:AS:143:ARG:NH1	80:B2:1461:C:C5	2.39	0.91
29:AU:23:ARG:HH22	80:B2:1347:U:P	1.93	0.91
79:By:100:ILE:CG1	79:CL:98:GLU:O	2.16	0.91
79:By:100:ILE:CB	79:CL:100:ILE:HB	1.96	0.91
79:By:158:ALA:HB3	79:CL:158:ALA:CA	2.01	0.91
6:A5:101:UNK:HA	80:B2:1229:G:OP2	1.71	0.91
8:A7:51:ARG:NH2	81:B5:2677:G:H8	1.68	0.91
48:BN:8:GLU:HG3	48:BN:50:ARG:HH12	1.35	0.91
79:By:25:ALA:O	79:CL:29:VAL:HA	1.71	0.91
79:By:112:ALA:C	79:CL:136:LEU:HD13	1.95	0.91
79:By:141:LYS:HG2	79:CL:141:LYS:HB3	0.92	0.91
79:By:227:HIS:CG	79:CL:227:HIS:ND1	2.39	0.91
80:B2:51:A:C1’	85:CP:242:GLY:N	2.16	0.91
28:AT:88:VAL:CG2	80:B2:1172:G:H21	1.83	0.91
48:BN:76:PRO:O	81:B5:2166:A:OP2	1.87	0.91
79:By:44:HIS:HB3	84:CN:2198:C:C1’	2.00	0.91
79:By:68:LEU:CB	79:CL:174:PRO:O	2.16	0.91
79:By:183:GLU:HB3	79:CL:183:GLU:H	1.17	0.91
79:By:208:PHE:CZ	79:CL:47:LEU:CD1	2.54	0.91
80:B2:1716:C:HO2’	80:B2:1717:G:H8	0.92	0.91
81:B5:3027:A:O5’	85:CP:109:GLN:NE2	1.97	0.91
7:A6:285:ALA:HB2	80:B2:1394:G:OP1	1.68	0.91
15:AG:13:GLN:CG	80:B2:151:G:O2’	2.18	0.91
35:BA:203:ALA:O	81:B5:914:A:O2’	1.89	0.91
72:Bl:45:ARG:NH2	81:B5:1841:A:N3	2.19	0.91
79:By:77:ILE:CG2	79:CL:99:ILE:CD1	2.00	0.91
79:By:136:LEU:CD1	79:CL:108:MET:HE1	1.99	0.91
79:By:141:LYS:CB	79:CL:141:LYS:HB3	2.01	0.91
85:CP:131:LYS:CG	90:CP:401:GCP:N1	2.32	0.91
8:A7:34:LYS:HZ1	81:B5:2693:C:H5’	1.36	0.90
10:AB:114:VAL:HG21	80:B2:930:A:C2	2.05	0.90
79:By:77:ILE:CG2	79:CL:77:ILE:HD13	1.99	0.90
79:By:204:ALA:HB1	79:CL:49:ILE:CG2	1.85	0.90
8:A7:81:THR:CG2	86:CW:29:G:OP1	2.19	0.90
15:AG:59:GLN:C	80:B2:155:U:C1’	2.44	0.90
15:AG:132:ARG:CZ	80:B2:68:A:N7	2.34	0.90
26:AR:60:ARG:NH2	80:B2:1400:A:P	2.44	0.90
79:By:107:TRP:CH2	79:CL:105:ASP:OD2	1.73	0.90
79:By:131:LEU:HB2	79:CL:128:GLY:C	1.96	0.90
79:By:144:THR:HB	79:CL:137:LEU:O	1.71	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:152:ILE:CD1	79:CL:152:ILE:CG2	2.48	0.90
79:By:177:LYS:HE3	79:CL:38:ASP:O	1.70	0.90
79:By:197:GLU:CG	79:CL:209:LEU:HD12	2.00	0.90
10:AB:165:ARG:HH21	80:B2:947:U:P	1.94	0.90
52:BR:177:VAL:HG11	80:B2:853:G:O3'	1.70	0.90
79:By:102:LYS:HZ2	79:CL:104:LEU:HD11	1.19	0.90
79:By:107:TRP:HZ2	79:CL:107:TRP:O	1.30	0.90
79:By:113:VAL:HG12	79:CL:113:VAL:HG21	1.53	0.90
79:By:118:ASP:OD2	79:CL:118:ASP:OD2	1.89	0.90
79:By:152:ILE:CD1	79:CL:144:THR:HA	2.01	0.90
79:By:161:ILE:HD11	79:CL:192:PHE:HD1	1.36	0.90
80:B2:623:A:OP1	89:B2:2053:OHX:N1	2.04	0.90
10:AB:129:THR:HB	10:AB:180:THR:HA	1.51	0.90
15:AG:110:ALA:HB1	80:B2:163:G:C1'	1.99	0.90
79:By:29:VAL:H	79:CL:32:LEU:HG	1.29	0.90
2:A1:28:PRO:HB3	80:B2:959:U:C5'	2.01	0.90
15:AG:4:ASN:ND2	80:B2:152:U:O2	2.04	0.90
26:AR:10:LYS:NZ	80:B2:1402:G:P	2.43	0.90
29:AU:60:THR:O	89:B2:1978:OHX:N1	2.03	0.90
38:BD:218:ARG:HH12	82:B7:31:U:H4'	1.31	0.90
79:By:25:ALA:O	79:CL:32:LEU:HD12	1.72	0.90
79:By:28:LEU:HB2	79:CL:28:LEU:HD11	0.90	0.90
79:By:28:LEU:HA	79:CL:31:GLU:OE1	1.71	0.90
79:By:40:THR:HA	79:CL:40:THR:HB	1.51	0.90
79:By:68:LEU:HA	79:CL:176:GLY:N	1.87	0.90
79:By:152:ILE:HD11	79:CL:152:ILE:CG2	2.02	0.90
79:By:177:LYS:CG	79:CL:177:LYS:CE	2.49	0.90
79:By:207:THR:HG23	79:CL:207:THR:C	1.94	0.90
79:By:208:PHE:CE2	79:CL:47:LEU:CD1	2.55	0.90
79:By:215:THR:HG22	79:CL:215:THR:HG23	0.92	0.90
79:By:221:SER:HB2	79:CL:221:SER:CB	2.02	0.90
38:BD:145:PHE:CD1	81:B5:2748:A:H5'	2.07	0.90
74:Bn:17:ARG:NE	80:B2:1116:A:C5'	2.35	0.90
79:By:75:LEU:CG	79:CL:107:TRP:CE3	2.54	0.90
79:By:100:ILE:HD13	79:CL:97:GLU:C	1.97	0.90
79:By:109:ASP:OD2	79:CL:106:GLY:O	1.88	0.90
79:By:161:ILE:CG2	79:CL:174:PRO:O	2.19	0.90
15:AG:174:LYS:HB2	80:B2:79:C:HO2'	1.32	0.90
17:AI:170:SER:HB2	80:B2:209:U:O3'	1.70	0.90
42:BH:116:ASN:ND2	85:CP:136:TYR:CD1	2.39	0.90
79:By:41:VAL:HA	79:CL:216:THR:HA	1.53	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:66:HIS:CB	79:CL:188:ASN:HD21	1.74	0.90
79:By:179:SER:OG	79:CL:38:ASP:HA	1.72	0.90
81:B5:2766:U:C4	86:CW:76:A:C8	2.58	0.90
81:B5:2818:U:H6	81:B5:2818:U:H5'	1.37	0.90
8:A7:33:LYS:NZ	81:B5:2692:A:P	2.45	0.90
79:By:16:PRO:HD3	79:CL:7:TYR:HH	1.28	0.90
79:By:28:LEU:HG	79:CL:28:LEU:CD1	1.95	0.90
79:By:74:VAL:CG2	79:CL:73:ARG:H	1.80	0.90
79:By:102:LYS:CB	79:CL:104:LEU:H	1.71	0.90
79:By:144:THR:CG2	79:CL:137:LEU:C	2.45	0.90
79:By:149:ILE:H	79:CL:149:ILE:HG13	1.35	0.90
79:By:171:ILE:CG2	79:CL:45:ALA:HB3	2.01	0.90
36:BB:53:MET:HE3	81:B5:3048:A:C5'	2.01	0.90
41:BG:162:LEU:HD11	81:B5:147:U:C2	2.05	0.90
79:By:171:ILE:CG2	79:CL:45:ALA:CB	2.50	0.90
79:By:201:PRO:HG3	79:CL:58:VAL:N	1.86	0.90
79:By:213:TYR:HE1	79:CL:213:TYR:CZ	1.78	0.90
79:By:222:VAL:HG13	79:CL:14:VAL:HG12	1.52	0.90
79:By:222:VAL:CG2	79:CL:220:PRO:HG2	2.00	0.90
80:B2:1715:G:C6	80:B2:1716:C:C4	2.60	0.90
15:AG:132:ARG:NE	80:B2:68:A:C5	2.38	0.90
48:BN:35:VAL:HG23	81:B5:1543:G:P	2.12	0.90
48:BN:188:ARG:NH2	81:B5:31:C:OP2	2.05	0.90
79:By:11:LEU:O	79:CL:7:TYR:HD2	1.49	0.90
79:By:66:HIS:CD2	79:CL:66:HIS:CB	2.53	0.90
79:By:141:LYS:C	79:CL:59:ARG:NE	2.30	0.90
79:By:222:VAL:CG2	79:CL:220:PRO:CD	2.49	0.90
80:B2:429:G:H4'	85:CP:276:ARG:CD	2.01	0.90
8:A7:47:ALA:N	81:B5:2678:A:O4'	2.03	0.89
29:AU:53:LYS:HB3	80:B2:1345:A:C4'	2.01	0.89
52:BR:171:ASP:CG	80:B2:852:C:OP2	2.07	0.89
54:BT:130:ARG:O	81:B5:1098:A:O2'	1.87	0.89
79:By:38:ASP:N	84:CN:2147:A:C4'	2.34	0.89
79:By:71:GLN:CA	79:CL:71:GLN:HG2	2.02	0.89
79:By:85:GLU:OE2	79:CL:88:GLU:CB	2.19	0.89
79:By:103:ILE:CG1	79:CL:103:ILE:C	2.40	0.89
79:By:143:GLY:HA2	79:CL:143:GLY:CA	2.02	0.89
79:By:148:ASN:HB2	79:CL:150:GLY:C	1.95	0.89
79:By:212:VAL:HG22	79:CL:212:VAL:CG1	2.02	0.89
89:B2:1918:OHX:N2	89:B2:2064:OHX:N6	2.19	0.89
48:BN:109:ARG:HH11	83:B8:141:C:P	1.94	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:22:ILE:CG1	79:CL:21:THR:C	2.45	0.89
79:By:164:ARG:HD2	79:CL:165:ASN:O	1.70	0.89
79:By:191:ALA:C	79:CL:192:PHE:N	2.25	0.89
79:By:213:TYR:HD1	84:CN:2198:C:H5"	1.34	0.89
80:B2:1780:G:C2'	81:B5:2262:A:H4'	2.01	0.89
81:B5:2443:A:H3'	84:CN:2208:G:C5	1.98	0.89
79:By:19:ILE:O	79:CL:18:LYS:HB3	1.71	0.89
79:By:28:LEU:C	79:CL:32:LEU:CD2	2.45	0.89
79:By:41:VAL:H	79:CL:40:THR:CA	1.60	0.89
79:By:140:PRO:HB3	79:CL:140:PRO:CD	2.03	0.89
79:By:164:ARG:HD3	79:CL:164:ARG:HG2	1.53	0.89
79:By:177:LYS:H	79:CL:177:LYS:CA	1.83	0.89
15:AG:56:ASN:CG	80:B2:153:G:H21	1.81	0.89
26:AR:2:GLY:N	80:B2:1312:A:OP1	2.05	0.89
26:AR:33:ARG:NH2	80:B2:1387:G:OP1	2.06	0.89
79:By:42:GLU:HG2	84:CN:2145:G:O4'	1.72	0.89
79:By:59:ARG:HA	79:CL:164:ARG:CG	2.02	0.89
79:By:82:LYS:CD	79:CL:86:ALA:CB	2.49	0.89
79:By:152:ILE:HD12	79:CL:114:VAL:HG12	1.52	0.89
10:AB:118:GLN:O	80:B2:931:C:O2'	1.88	0.89
48:BN:146:ALA:O	48:BN:148:TYR:N	2.05	0.89
79:By:71:GLN:HB2	79:CL:71:GLN:CG	2.00	0.89
79:By:86:ALA:C	79:CL:91:ALA:CB	2.44	0.89
79:By:100:ILE:HG13	79:CL:101:GLN:HE22	1.12	0.89
79:By:164:ARG:N	79:CL:171:ILE:CD1	2.35	0.89
79:By:191:ALA:HB3	79:CL:188:ASN:O	1.72	0.89
8:A7:51:ARG:HH22	81:B5:2677:G:H8	1.20	0.89
23:AO:29:HIS:CE1	80:B2:918:U:H5'	2.07	0.89
79:By:26:ALA:N	79:CL:28:LEU:CB	2.36	0.89
79:By:94:VAL:N	79:CL:107:TRP:HZ2	1.70	0.89
79:By:196:LEU:O	79:CL:208:PHE:CE2	2.26	0.89
79:By:206:GLY:C	79:CL:208:PHE:HB2	1.98	0.89
80:B2:1653:C:OP2	89:B2:1965:OHX:N4	2.05	0.89
17:AI:64:ASN:HB2	80:B2:258:C:C4'	2.03	0.89
23:AO:85:ALA:H	23:AO:119:THR:HG22	1.36	0.89
38:BD:265:TYR:CD2	82:B7:120:C:C4	2.60	0.89
79:By:22:ILE:H	79:CL:21:THR:H	1.18	0.89
79:By:38:ASP:OD2	84:CN:2148:G:OP1	1.91	0.89
79:By:82:LYS:HG3	79:CL:82:LYS:C	1.97	0.89
8:A7:48:ARG:HG2	81:B5:1018:G:OP1	1.73	0.89
33:AY:10:ARG:CG	80:B2:778:G:H1	1.81	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:Bc:87:VAL:HB	81:B5:1728:G:O2'	1.71	0.89
69:Bi:63:ASN:O	69:Bi:65:GLY:N	2.06	0.89
79:By:30:LYS:CE	79:CL:31:GLU:CB	2.45	0.89
79:By:165:ASN:ND2	79:CL:57:ASN:OD1	2.06	0.89
79:By:176:GLY:HA3	79:CL:41:VAL:H	1.38	0.89
81:B5:2443:A:C5	84:CN:2208:G:C5'	2.51	0.89
81:B5:2792:A:N1	86:CW:76:A:N7	2.20	0.89
81:B5:3027:A:O2'	85:CP:109:GLN:CB	2.19	0.89
4:A3:32:ARG:N	80:B2:1595:U:OP1	2.04	0.89
23:AO:130:GLY:H	80:B2:991:G:P	1.94	0.89
35:BA:247:ARG:CZ	80:B2:1013:A:C4'	2.51	0.89
37:BC:60:THR:CG2	81:B5:364:G:OP1	2.18	0.89
79:By:57:ASN:N	79:CL:57:ASN:ND2	1.97	0.89
79:By:66:HIS:CD2	79:CL:188:ASN:CG	2.51	0.89
79:By:85:GLU:HB2	79:CL:86:ALA:H	1.38	0.89
79:By:100:ILE:HD13	79:CL:98:GLU:N	1.87	0.89
79:By:162:GLU:HB2	79:CL:162:GLU:HG2	1.54	0.89
79:By:162:GLU:HG3	79:CL:162:GLU:HG2	1.53	0.89
79:By:223:ARG:NE	79:CL:223:ARG:CG	2.34	0.89
15:AG:59:GLN:CA	80:B2:155:U:C4'	2.50	0.89
15:AG:128:THR:HG23	57:BW:81:PRO:HG3	0.89	0.89
17:AI:138:ASN:HD22	80:B2:197:A:N6	1.68	0.89
79:By:38:ASP:H	84:CN:2147:A:H4'	1.32	0.89
79:By:180:PHE:N	79:CL:38:ASP:OD1	2.06	0.89
79:By:198:ALA:CB	79:CL:194:ARG:O	2.20	0.89
79:By:201:PRO:HB3	79:CL:57:ASN:O	1.73	0.89
80:B2:651:G:N7	89:B2:1982:OHX:N6	2.21	0.89
80:B2:1645:G:O3'	81:B5:2259:A:H2	1.51	0.89
85:CP:131:LYS:HD3	90:CP:401:GCP:N3	1.87	0.89
10:AB:54:LEU:HD11	81:B5:2438:A:C2	2.07	0.88
15:AG:15:THR:CG2	80:B2:152:U:O3'	2.20	0.88
15:AG:160:ARG:CZ	80:B2:68:A:OP1	2.21	0.88
15:AG:174:LYS:CA	80:B2:79:C:H1'	1.93	0.88
28:AT:39:THR:OG1	80:B2:1478:G:OP1	1.91	0.88
44:BJ:94:ARG:O	44:BJ:96:PHE:N	2.05	0.88
79:By:3:HIS:CB	84:CN:2182:C:H1'	2.02	0.88
79:By:19:ILE:HB	79:CL:18:LYS:CA	2.00	0.88
79:By:22:ILE:HG21	79:CL:22:ILE:HA	1.55	0.88
79:By:100:ILE:CG1	79:CL:98:GLU:C	2.45	0.88
79:By:158:ALA:CB	79:CL:159:GLY:H	1.85	0.88
79:By:201:PRO:CD	79:CL:58:VAL:CG2	2.44	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BR:101:VAL:CG2	81:B5:1948:G:O3'	2.21	0.88
52:BR:170:ARG:NH1	89:BR:201:OHX:N4	2.21	0.88
79:By:34:THR:OG1	79:CL:36:LYS:HD2	1.73	0.88
79:By:71:GLN:CB	79:CL:71:GLN:HG2	2.03	0.88
79:By:123:VAL:O	79:CL:100:ILE:HG23	1.73	0.88
79:By:185:LEU:HG	79:CL:185:LEU:HD11	1.54	0.88
50:BP:138:LYS:NZ	81:B5:2356:A:OP1	2.04	0.88
52:BR:143:ILE:CG1	81:B5:2093:A:C5'	2.51	0.88
79:By:35:ALA:HA	84:CN:2149:C:C6	2.08	0.88
79:By:133:PRO:HG2	86:CW:56:C:OP1	1.73	0.88
79:By:136:LEU:CD1	79:CL:134:ARG:CD	2.25	0.88
79:By:193:ILE:HG12	79:CL:212:VAL:HG11	1.54	0.88
79:By:201:PRO:O	79:CL:201:PRO:CB	0.58	0.88
79:By:225:ASN:H	79:CL:20:TYR:H	1.22	0.88
80:B2:912:U:H4'	80:B2:913:G:H3'	1.52	0.88
8:A7:81:THR:HG1	86:CW:29:G:H5'	1.35	0.88
14:AF:104:ASN:ND2	80:B2:1166:A:C5'	2.26	0.88
15:AG:133:LEU:HD12	80:B2:66:U:N3	1.88	0.88
15:AG:175:ILE:O	80:B2:78:A:C2	2.26	0.88
23:AO:123:SER:CB	80:B2:885:G:C2	2.54	0.88
39:BE:31:ARG:NH1	66:Bf:107:ILE:HG22	1.88	0.88
60:BZ:115:LYS:HD3	81:B5:1629:U:C4'	2.03	0.88
79:By:59:ARG:HD2	79:CL:59:ARG:HH21	1.36	0.88
79:By:81:GLU:HB2	79:CL:82:LYS:H	1.30	0.88
79:By:145:VAL:CG2	79:CL:145:VAL:N	2.35	0.88
63:Bc:87:VAL:CB	81:B5:1728:G:O2'	2.20	0.88
79:By:12:GLU:HG3	79:CL:6:ARG:CA	1.88	0.88
79:By:69:GLY:CA	79:CL:40:THR:HG21	2.00	0.88
79:By:136:LEU:CD2	79:CL:134:ARG:HB3	1.99	0.88
79:By:175:VAL:HG13	79:CL:173:ALA:O	1.72	0.88
81:B5:3027:A:N9	85:CP:109:GLN:NE2	2.21	0.88
8:A7:32:SER:HB3	81:B5:2706:G:O2'	1.74	0.88
40:BF:70:LYS:NZ	81:B5:519:A:OP2	2.06	0.88
79:By:15:ASP:HA	79:CL:7:TYR:OH	1.72	0.88
79:By:103:ILE:HG12	79:CL:103:ILE:CG2	2.02	0.88
79:By:145:VAL:HG22	79:CL:139:ASN:N	1.68	0.88
79:By:158:ALA:CB	79:CL:158:ALA:HA	2.03	0.88
79:By:213:TYR:CD1	79:CL:213:TYR:CE1	2.61	0.88
23:AO:122:PRO:HA	80:B2:886:U:O2	1.73	0.88
27:AS:118:LYS:CD	44:BJ:108:GLU:OE2	2.22	0.88
35:BA:242:ARG:O	81:B5:2154:U:C5'	2.20	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:129:PRO:HG3	81:B5:121:A:C2	2.08	0.88
41:BG:157:VAL:HG13	81:B5:147:U:C4	2.09	0.88
79:By:49:ILE:HG21	79:CL:49:ILE:CG2	2.03	0.88
79:By:149:ILE:CG1	79:CL:114:VAL:H	1.60	0.88
81:B5:1759:C:N4	81:B5:1766:G:O6	2.06	0.88
81:B5:2443:A:N6	84:CN:2208:G:O5'	2.07	0.88
32:AX:144:ARG:NH2	85:CP:314:LYS:HD3	1.85	0.88
54:BT:129:LYS:HB2	81:B5:1098:A:O5'	1.72	0.88
79:By:43:VAL:HG22	79:CL:214:VAL:HA	1.52	0.88
79:By:116:THR:HA	79:CL:115:ALA:HB3	1.50	0.88
79:By:138:PRO:HG3	79:CL:138:PRO:HD3	1.54	0.88
79:By:145:VAL:HG12	79:CL:138:PRO:HB2	0.89	0.88
79:By:162:GLU:CD	79:CL:164:ARG:HB3	1.99	0.88
79:By:174:PRO:CG	84:CN:2145:G:H5'	2.03	0.88
79:By:178:ALA:HB1	79:CL:33:ALA:HB1	1.54	0.88
10:AB:32:ILE:HD11	10:AB:46:THR:HG23	1.55	0.88
38:BD:266:ALA:HA	82:B7:1:G:N9	1.89	0.88
50:BP:74:LYS:NZ	81:B5:3298:C:OP1	2.07	0.88
67:Bg:8:ARG:NH2	81:B5:1597:C:OP1	2.07	0.88
79:By:97:GLU:C	79:CL:98:GLU:CB	2.47	0.88
79:By:185:LEU:O	79:CL:185:LEU:CB	2.05	0.88
8:A7:51:ARG:NH1	81:B5:2677:G:H1'	1.83	0.88
23:AO:132:ARG:N	80:B2:1787:C:OP2	2.07	0.88
43:BI:160:PRO:HD3	81:B5:2854:U:H5"	1.56	0.88
79:By:13:LYS:H	79:CL:6:ARG:C	1.82	0.88
79:By:29:VAL:HG11	79:CL:29:VAL:HG22	1.53	0.88
79:By:197:GLU:N	79:CL:209:LEU:HD11	1.88	0.88
80:B2:991:G:OP2	89:B2:2013:OHX:N1	2.07	0.88
37:BC:48:GLN:NE2	81:B5:336:A:O2'	2.08	0.87
60:BZ:115:LYS:CD	81:B5:1629:U:O4'	2.23	0.87
79:By:22:ILE:H	79:CL:21:THR:N	1.71	0.87
79:By:36:LYS:HB3	84:CN:2183:G:H21	1.05	0.87
79:By:38:ASP:CG	84:CN:2148:G:H5'	1.99	0.87
79:By:136:LEU:O	79:CL:131:LEU:HD13	1.74	0.87
79:By:141:LYS:N	79:CL:141:LYS:HB3	1.90	0.87
79:By:212:VAL:HB	79:CL:224:ILE:N	1.89	0.87
79:By:219:GLY:N	84:CN:2196:C:O4'	2.03	0.87
8:A7:33:LYS:HE3	81:B5:2692:A:OP1	1.74	0.87
15:AG:107:ALA:HB3	80:B2:154:G:C4'	2.03	0.87
27:AS:40:ARG:NH1	80:B2:1539:G:C4'	2.36	0.87
79:By:30:LYS:CD	79:CL:31:GLU:HA	2.04	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:41:VAL:HA	79:CL:217:THR:N	1.89	0.87
79:By:45:ALA:CA	79:CL:46:LYS:N	2.37	0.87
79:By:75:LEU:HD23	79:CL:75:LEU:CD2	2.05	0.87
79:By:82:LYS:CD	79:CL:149:ILE:HG21	1.74	0.87
79:By:116:THR:HG23	79:CL:116:THR:N	1.89	0.87
79:By:119:VAL:CG1	79:CL:97:GLU:HG3	1.74	0.87
79:By:188:ASN:N	79:CL:189:ILE:HG12	1.82	0.87
79:By:208:PHE:CA	79:CL:208:PHE:CD1	2.55	0.87
79:By:208:PHE:CE1	79:CL:58:VAL:HG21	2.05	0.87
79:By:213:TYR:CB	79:CL:221:SER:HB2	2.03	0.87
80:B2:440:U:C5	85:CP:277:ALA:HB2	2.09	0.87
8:A7:33:LYS:CE	81:B5:2692:A:OP1	2.22	0.87
23:AO:135:ARG:NE	80:B2:1008:G:OP1	2.06	0.87
29:AU:57:ARG:HG2	80:B2:1382:A:C4’	2.04	0.87
33:AY:10:ARG:HG3	80:B2:780:A:C8	2.07	0.87
75:Bo:77:CYS:SG	75:Bo:79:THR:HG23	2.14	0.87
79:By:26:ALA:CA	79:CL:25:ALA:O	2.21	0.87
79:By:141:LYS:HA	79:CL:141:LYS:C	1.98	0.87
79:By:155:GLU:OE2	79:CL:156:ILE:N	2.05	0.87
81:B5:2443:A:H5”	84:CN:2122:G:H1	0.73	0.87
26:AR:28:PHE:CD2	80:B2:1389:C:C6	2.62	0.87
36:BB:247:ARG:HD3	81:B5:1888:U:OP1	1.73	0.87
36:BB:255:TRP:CD1	81:B5:2395:G:H5”	2.09	0.87
43:BI:63:GLU:HB2	81:B5:2853:A:H5’	1.55	0.87
48:BN:76:PRO:HA	81:B5:2166:A:OP1	1.74	0.87
79:By:13:LYS:N	79:CL:6:ARG:O	2.08	0.87
79:By:39:GLU:CB	79:CL:217:THR:HB	2.05	0.87
79:By:149:ILE:HG13	79:CL:114:VAL:N	1.47	0.87
79:By:192:PHE:N	79:CL:193:ILE:HD12	1.48	0.87
80:B2:415:C:C6	85:CP:288:ARG:CG	2.58	0.87
8:A7:58:GLU:OE1	27:AS:120:ARG:NH1	2.08	0.87
15:AG:174:LYS:CG	80:B2:79:C:O2’	2.23	0.87
18:AJ:110:GLN:HE22	18:AJ:126:ARG:HG2	1.39	0.87
79:By:58:VAL:CG2	79:CL:57:ASN:O	1.99	0.87
79:By:162:GLU:CD	79:CL:164:ARG:CB	2.47	0.87
81:B5:2512:C:H5’	81:B5:2512:C:H6	1.38	0.87
12:AD:174:HIS:HE1	80:B2:1278:G:O4’	1.58	0.87
20:AL:67:ARG:NH1	80:B2:115:G:OP1	2.07	0.87
26:AR:25:THR:O	26:AR:27:ASP:N	2.07	0.87
14:AF:102:ARG:NH2	80:B2:1472:C:OP1	2.08	0.87
15:AG:134:GLY:N	80:B2:66:U:O4	0.73	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AQ:58:ASP:O	25:AQ:60:PHE:N	2.07	0.87
79:By:53:ARG:HB2	79:CL:53:ARG:H	1.14	0.87
79:By:175:VAL:HG12	79:CL:175:VAL:HG11	1.52	0.87
79:By:191:ALA:O	79:CL:191:ALA:C	2.16	0.87
79:By:211:SER:CA	79:CL:223:ARG:NH1	2.36	0.87
22:AN:3:ARG:HH12	80:B2:867:G:P	1.98	0.87
26:AR:43:SER:CB	80:B2:1332:C:OP1	2.23	0.87
79:By:64:LEU:HD13	79:CL:188:ASN:HA	1.55	0.87
79:By:119:VAL:CG1	79:CL:97:GLU:CA	2.51	0.87
79:By:141:LYS:HA	79:CL:142:ALA:CB	1.98	0.87
8:A7:32:SER:HB2	81:B5:2692:A:C1’	2.04	0.87
17:AI:75:LYS:HB2	80:B2:258:C:C5’	2.04	0.87
20:AL:133:LYS:N	80:B2:336:G:O2’	2.07	0.87
24:AP:12:PHE:HD1	44:BJ:85:LYS:HE2	1.38	0.87
79:By:28:LEU:CG	79:CL:28:LEU:HD11	1.98	0.87
79:By:113:VAL:CG1	79:CL:110:PHE:CZ	2.41	0.87
79:By:175:VAL:HG23	79:CL:41:VAL:CB	2.04	0.87
80:B2:414:C:C5	85:CP:288:ARG:CB	2.57	0.87
23:AO:18:ARG:NH2	80:B2:919:A:H5’	1.84	0.86
23:AO:46:MET:CG	80:B2:899:G:C4’	2.52	0.86
30:AV:62:ARG:HH21	80:B2:1039:A:H5”	1.34	0.86
32:AX:144:ARG:CZ	85:CP:314:LYS:HD3	2.05	0.86
43:BI:115:MET:HB2	81:B5:2865:U:OP1	1.75	0.86
79:By:194:ARG:C	79:CL:193:ILE:HG22	1.99	0.86
80:B2:301:A:OP2	89:B2:1942:OHX:N2	2.08	0.86
15:AG:134:GLY:N	80:B2:66:U:C4	1.78	0.86
43:BI:175:ASN:OD1	43:BI:176:LEU:N	2.08	0.86
79:By:5:LYS:HA	84:CN:2150:C:C2’	2.00	0.86
79:By:40:THR:HA	79:CL:40:THR:CB	2.04	0.86
79:By:185:LEU:CB	79:CL:41:VAL:HG11	2.04	0.86
80:B2:679:U:OP2	89:B2:2079:OHX:N1	2.08	0.86
15:AG:8:PRO:CB	80:B2:165:G:H5”	2.05	0.86
79:By:24:GLU:HB3	79:CL:20:TYR:CE2	2.11	0.86
79:By:170:ALA:HB3	79:CL:166:ASP:OD2	1.76	0.86
79:By:196:LEU:O	79:CL:208:PHE:HE2	1.58	0.86
79:By:204:ALA:CA	79:CL:201:PRO:CG	2.47	0.86
79:By:223:ARG:HD2	79:CL:213:TYR:CE2	2.11	0.86
4:A3:14:TYR:CD2	80:B2:1597:A:C8	2.63	0.86
15:AG:59:GLN:C	80:B2:155:U:O4’	2.18	0.86
15:AG:172:ALA:HB3	80:B2:79:C:P	2.13	0.86
23:AO:88:GLY:HA2	80:B2:888:U:H5’	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AR:28:PHE:CE2	80:B2:1389:C:C5	2.64	0.86
79:By:14:VAL:O	79:CL:7:TYR:CG	2.27	0.86
79:By:32:LEU:CD1	79:CL:219:GLY:CA	2.53	0.86
79:By:35:ALA:HA	84:CN:2149:C:O4'	1.75	0.86
79:By:116:THR:O	79:CL:77:ILE:HG21	1.73	0.86
79:By:204:ALA:HB3	79:CL:201:PRO:HG3	0.89	0.86
85:CP:199:ALA:N	90:CP:401:GCP:O6	2.07	0.86
17:AI:22:ARG:HB3	80:B2:385:A:H5"	1.58	0.86
23:AO:29:HIS:HE1	80:B2:918:U:C4'	1.86	0.86
54:BT:135:PRO:O	54:BT:136:ARG:HB2	1.73	0.86
79:By:43:VAL:HG11	79:CL:43:VAL:CB	2.01	0.86
79:By:208:PHE:CE2	79:CL:47:LEU:HD13	2.10	0.86
80:B2:1680:G:O6	89:B2:1989:OHX:N5	2.09	0.86
80:B2:1758:U:O2'	81:B5:2255:A:H5'	1.75	0.86
14:AF:73:THR:HG23	25:AQ:114:ARG:HD3	1.58	0.86
32:AX:144:ARG:HH22	85:CP:314:LYS:HD2	0.70	0.86
42:BH:70:THR:HG21	81:B5:3122:A:N1	1.90	0.86
80:B2:1202:A:OP1	89:B2:1991:OHX:N1	2.09	0.86
81:B5:2766:U:C2	86:CW:76:A:C8	2.63	0.86
11:AC:140:ARG:NH1	30:AV:1:MET:SD	2.49	0.86
15:AG:56:ASN:HB2	80:B2:154:G:C1'	2.06	0.86
38:BD:16:PHE:CZ	81:B5:2688:U:C4	2.63	0.86
38:BD:266:ALA:HB2	82:B7:1:G:C8	2.10	0.86
41:BG:51:LYS:HD3	81:B5:2523:A:OP2	1.75	0.86
52:BR:143:ILE:HG13	81:B5:2093:A:C5'	2.05	0.86
62:Bb:23:LYS:HB3	62:Bb:24:PRO:HD3	1.57	0.86
79:By:53:ARG:N	79:CL:52:ARG:N	2.03	0.86
79:By:99:ILE:HG12	79:CL:99:ILE:HA	1.53	0.86
79:By:143:GLY:CA	79:CL:143:GLY:HA3	2.02	0.86
79:By:219:GLY:H	79:CL:218:MET:HA	1.41	0.86
79:By:224:ILE:HG13	79:CL:224:ILE:N	1.90	0.86
9:AA:24:LEU:O	9:AA:163:ASN:ND2	2.09	0.86
15:AG:188:ARG:HD2	80:B2:284:G:C8	2.11	0.86
41:BG:181:LYS:CG	83:B8:154:C:H5"	2.04	0.86
67:Bg:38:LEU:HD23	81:B5:1741:A:H4'	1.58	0.86
74:Bn:3:ALA:N	80:B2:1773:C:OP1	2.09	0.86
79:By:56:GLN:NE2	79:CL:50:ASP:O	2.09	0.86
79:By:62:VAL:HG12	79:CL:163:PHE:HE1	1.20	0.86
79:By:99:ILE:HD11	79:CL:99:ILE:HB	1.56	0.86
79:By:134:ARG:HG2	84:CN:2191:A:H5'	1.56	0.86
79:By:212:VAL:HG22	79:CL:212:VAL:HB	0.87	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A0:92:ARG:HB3	80:B2:1796:C:O2	1.76	0.86
8:A7:34:LYS:HZ2	81:B5:2693:C:H5'	1.31	0.86
15:AG:164:LYS:HZ3	80:B2:72:A:C5'	1.77	0.86
79:By:5:LYS:O	84:CN:2150:C:C3'	2.24	0.86
79:By:107:TRP:O	79:CL:105:ASP:CB	2.22	0.86
79:By:116:THR:HB	79:CL:77:ILE:HB	0.95	0.86
79:By:148:ASN:O	79:CL:153:ILE:N	2.08	0.86
79:By:201:PRO:HB2	79:CL:57:ASN:H	1.39	0.86
79:By:215:THR:HG22	79:CL:42:GLU:CG	2.03	0.86
80:B2:1746:A:C2	81:B5:2303:A:H1'	2.11	0.86
8:A7:81:THR:OG1	86:CW:29:G:C4'	2.24	0.86
44:BJ:72:ARG:CZ	82:B7:40:C:O2	2.24	0.86
79:By:68:LEU:HB3	79:CL:174:PRO:C	2.01	0.86
79:By:100:ILE:CG2	79:CL:99:ILE:N	2.36	0.86
81:B5:1555:U:O4	81:B5:1557:A:N6	2.09	0.86
85:CP:131:LYS:HD3	90:CP:401:GCP:C2	2.02	0.86
25:AQ:135:ARG:O	80:B2:1581:C:H5'	1.75	0.85
26:AR:10:LYS:CE	80:B2:1316:G:O2'	2.19	0.85
38:BD:152:ARG:HD3	81:B5:2663:G:H5'	1.58	0.85
44:BJ:97:SER:HB2	81:B5:2672:G:H1'	1.58	0.85
79:By:7:TYR:N	84:CN:2150:C:O4'	1.78	0.85
79:By:28:LEU:C	79:CL:32:LEU:HD23	2.00	0.85
79:By:38:ASP:H	84:CN:2147:A:C4'	1.89	0.85
79:By:85:GLU:HB3	79:CL:86:ALA:H	1.40	0.85
79:By:88:GLU:C	79:CL:92:ASP:HA	1.99	0.85
79:By:131:LEU:HD12	79:CL:131:LEU:HB2	1.56	0.85
79:By:157:LYS:HE3	79:CL:71:GLN:CB	1.62	0.85
79:By:184:LYS:NZ	79:CL:180:PHE:HA	1.90	0.85
79:By:192:PHE:N	79:CL:193:ILE:CD1	2.27	0.85
80:B2:414:C:C6	85:CP:288:ARG:HB2	2.11	0.85
85:CP:16:THR:CB	90:CP:401:GCP:O3A	2.24	0.85
2:A1:29:ARG:HG3	2:A1:29:ARG:HH11	1.41	0.85
79:By:40:THR:HG22	84:CN:2145:G:O2'	1.73	0.85
79:By:78:ALA:HB1	79:CL:94:VAL:HG13	0.85	0.85
79:By:93:TYR:C	79:CL:93:TYR:CE2	2.54	0.85
79:By:145:VAL:HA	79:CL:138:PRO:HB3	0.88	0.85
79:By:169:GLY:O	84:CN:2199:C:O2'	1.94	0.85
81:B5:726:G:H5'	81:B5:726:G:H8	1.41	0.85
10:AB:148:ASN:CG	80:B2:1066:C:HO2'	1.83	0.85
23:AO:52:ARG:HB2	80:B2:906:A:P	2.16	0.85
36:BB:129:ALA:O	81:B5:3150:A:H5'	1.75	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BV:47:ASN:O	81:B5:2338:C:H4'	1.75	0.85
79:By:53:ARG:CZ	79:CL:56:GLN:OE1	2.24	0.85
79:By:151:GLU:O	79:CL:156:ILE:CA	2.24	0.85
79:By:192:PHE:CD2	79:CL:43:VAL:HG12	2.10	0.85
17:AI:73:SER:N	80:B2:256:A:O2'	2.08	0.85
18:AJ:176:ASN:ND2	80:B2:511:A:OP2	2.10	0.85
25:AQ:123:ARG:O	80:B2:1584:G:C2'	2.23	0.85
26:AR:28:PHE:CZ	80:B2:1389:C:C6	2.55	0.85
29:AU:53:LYS:CD	80:B2:1345:A:H5'	2.06	0.85
74:Bn:11:ARG:NH1	80:B2:1775:U:OP1	2.09	0.85
79:By:103:ILE:CD1	79:CL:103:ILE:HG13	2.02	0.85
79:By:140:PRO:HB3	79:CL:140:PRO:HD2	1.59	0.85
79:By:163:PHE:HB2	79:CL:171:ILE:HD13	0.85	0.85
79:By:163:PHE:HA	79:CL:171:ILE:CG1	2.06	0.85
79:By:178:ALA:HB1	79:CL:33:ALA:CB	2.06	0.85
1:A0:87:ARG:HD2	80:B2:1797:A:C6	2.11	0.85
24:AP:42:ARG:NH2	80:B2:1550:A:OP2	2.09	0.85
25:AQ:124:PRO:HA	80:B2:1585:U:OP1	1.74	0.85
41:BG:59:GLN:NE2	83:B8:150:G:H1'	1.91	0.85
79:By:8:ARG:HA	79:CL:4:GLY:CA	2.01	0.85
79:By:151:GLU:HB2	79:CL:150:GLY:O	1.74	0.85
79:By:187:ASP:O	79:CL:189:ILE:N	1.98	0.85
79:By:189:ILE:HG21	79:CL:214:VAL:HG21	0.86	0.85
80:B2:1655:A:H2	81:B5:2291:A:N3	1.74	0.85
23:AO:18:ARG:HH22	80:B2:919:A:H5"	1.36	0.85
60:BZ:76:ASN:HB2	81:B5:1636:U:H1'	1.58	0.85
79:By:21:THR:CG2	79:CL:21:THR:H	1.90	0.85
79:By:41:VAL:N	79:CL:40:THR:HB	1.92	0.85
79:By:83:ILE:O	79:CL:94:VAL:HG12	1.74	0.85
79:By:119:VAL:CG1	79:CL:97:GLU:CB	2.46	0.85
79:By:132:GLY:N	79:CL:133:PRO:HD3	1.90	0.85
15:AG:53:SER:HB2	80:B2:163:G:C3'	2.06	0.85
15:AG:53:SER:C	80:B2:163:G:C4'	2.48	0.85
34:AZ:77:ARG:HH21	80:B2:1533:C:H5	1.25	0.85
41:BG:59:GLN:HE22	83:B8:150:G:H1'	1.42	0.85
41:BG:248:LYS:CE	81:B5:2529:A:OP1	2.24	0.85
79:By:21:THR:CG2	79:CL:21:THR:N	2.39	0.85
79:By:28:LEU:CG	79:CL:28:LEU:HD13	2.02	0.85
79:By:66:HIS:CA	79:CL:188:ASN:HD21	1.89	0.85
79:By:103:ILE:CG1	79:CL:103:ILE:CG2	2.55	0.85
79:By:190:ARG:HH22	79:CL:24:GLU:H	1.22	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:236:GLY:HA2	81:B5:2184:U:O4'	1.76	0.85
52:BR:161:ALA:C	80:B2:849:C:HO2'	1.79	0.85
79:By:43:VAL:CG1	79:CL:213:TYR:O	2.21	0.85
79:By:44:HIS:HB2	84:CN:2198:C:O4'	1.77	0.85
79:By:113:VAL:CG1	79:CL:131:LEU:HD11	2.07	0.85
79:By:113:VAL:C	79:CL:136:LEU:HB3	2.02	0.85
79:By:177:LYS:HG2	79:CL:177:LYS:HD3	0.85	0.85
79:By:197:GLU:HG2	79:CL:209:LEU:CG	2.07	0.85
15:AG:60:GLY:N	80:B2:155:U:O4'	2.10	0.85
35:BA:247:ARG:NH2	80:B2:1013:A:C4'	2.38	0.85
79:By:92:ASP:C	79:CL:109:ASP:O	2.20	0.85
23:AO:35:GLY:CA	80:B2:919:A:H4'	1.99	0.85
23:AO:46:MET:HG3	80:B2:899:G:C4'	2.07	0.85
28:AT:57:ARG:NH1	80:B2:1479:A:OP2	2.10	0.85
35:BA:50:HIS:CD2	81:B5:1795:U:C2'	2.60	0.85
79:By:26:ALA:CB	79:CL:29:VAL:HG12	2.06	0.85
79:By:46:LYS:HD3	84:CN:2199:C:C4'	2.06	0.85
79:By:81:GLU:CA	79:CL:79:LYS:O	2.23	0.85
79:By:97:GLU:HG2	79:CL:99:ILE:HD12	1.58	0.85
79:By:119:VAL:HG12	79:CL:96:GLY:O	1.76	0.85
79:By:164:ARG:N	79:CL:171:ILE:CG1	2.37	0.85
85:CP:20:LYS:HB2	90:CP:401:GCP:N7	1.90	0.85
1:A0:68:TYR:HB2	10:AB:111:ARG:HG3	1.59	0.84
15:AG:169:TYR:HH	80:B2:73:U:H5	1.25	0.84
17:AI:50:GLY:HA2	80:B2:397:A:H4'	1.57	0.84
58:BX:33:ARG:NE	81:B5:1580:A:N6	2.25	0.84
79:By:100:ILE:HG23	79:CL:98:GLU:C	2.02	0.84
79:By:122:ALA:HA	79:CL:125:SER:OG	1.77	0.84
79:By:136:LEU:CG	79:CL:134:ARG:CG	2.52	0.84
79:By:184:LYS:HG2	79:CL:184:LYS:HB3	1.57	0.84
80:B2:913:G:C6	81:B5:2206:G:C5'	2.59	0.84
60:BZ:15:ARG:CD	81:B5:1637:A:H4'	2.07	0.84
72:Bl:4:GLN:NE2	81:B5:1833:G:H21	1.75	0.84
74:Bn:4:LYS:HE2	80:B2:1774:G:O4'	1.75	0.84
79:By:64:LEU:HB3	79:CL:65:PRO:CD	2.06	0.84
79:By:123:VAL:N	79:CL:123:VAL:CA	2.33	0.84
79:By:157:LYS:CA	79:CL:71:GLN:N	2.40	0.84
80:B2:1002:G:C4'	81:B5:2265:C:OP1	2.25	0.84
81:B5:2766:U:N3	86:CW:76:A:H8	1.64	0.84
1:A0:70:LYS:CE	80:B2:930:A:H5"	2.04	0.84
54:BT:129:LYS:HE3	81:B5:1097:G:H5'	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:132:GLY:C	79:CL:133:PRO:CD	2.49	0.84
79:By:144:THR:HG22	79:CL:138:PRO:CD	2.07	0.84
79:By:152:ILE:HD11	79:CL:152:ILE:HG21	1.59	0.84
79:By:201:PRO:HB2	79:CL:57:ASN:N	1.92	0.84
1:A0:92:ARG:O	80:B2:1796:C:H5"	1.77	0.84
9:AA:49:ASN:HB3	9:AA:52:LYS:HG3	1.56	0.84
23:AO:52:ARG:HB3	80:B2:906:A:OP1	1.77	0.84
23:AO:125:SER:HB2	80:B2:927:C:C1'	2.08	0.84
69:Bi:82:ARG:HD3	81:B5:295:A:H1'	1.59	0.84
79:By:71:GLN:HB2	79:CL:71:GLN:HG2	1.57	0.84
15:AG:112:VAL:CG2	80:B2:164:A:H5'	2.08	0.84
15:AG:157:VAL:HG11	80:B2:78:A:H4'	0.88	0.84
17:AI:170:SER:OG	80:B2:209:U:H4'	1.77	0.84
36:BB:76:VAL:HG11	36:BB:323:MET:HE3	1.59	0.84
44:BJ:72:ARG:NH2	82:B7:40:C:O2	2.11	0.84
79:By:6:ARG:N	84:CN:2151:U:C5	2.44	0.84
79:By:48:GLY:CA	79:CL:210:ARG:CG	1.95	0.84
79:By:68:LEU:HD22	79:CL:175:VAL:HA	0.84	0.84
79:By:89:ALA:H	79:CL:92:ASP:HA	1.39	0.84
79:By:107:TRP:CE2	79:CL:107:TRP:O	2.30	0.84
80:B2:132:U:H1'	80:B2:133:U:OP2	1.77	0.84
5:A4:18:THR:HG21	80:B2:584:C:H1'	1.59	0.84
15:AG:108:VAL:HG11	80:B2:153:G:O2'	1.77	0.84
15:AG:175:ILE:N	80:B2:78:A:C2	2.45	0.84
19:AK:27:PHE:HB3	19:AK:40:LEU:HD23	1.58	0.84
25:AQ:135:ARG:NH1	80:B2:1582:U:OP1	2.10	0.84
59:BY:4:GLN:HB2	81:B5:229:G:H5"	1.58	0.84
79:By:61:THR:HG21	79:CL:162:GLU:HB2	1.60	0.84
80:B2:1645:G:C2'	81:B5:2259:A:N1	2.41	0.84
15:AG:132:ARG:NH2	80:B2:68:A:C5	2.41	0.84
18:AJ:127:VAL:HG21	80:B2:478:A:C4'	2.08	0.84
46:BL:58:VAL:HG13	81:B5:75:G:H5"	1.58	0.84
46:BL:70:ARG:NH1	81:B5:76:G:OP1	2.10	0.84
52:BR:174:ALA:O	80:B2:853:G:OP1	1.88	0.84
68:Bh:89:ARG:HD2	83:B8:38:U:C5	2.12	0.84
79:By:66:HIS:CG	79:CL:66:HIS:HB3	2.00	0.84
79:By:75:LEU:HD23	79:CL:75:LEU:HD22	1.59	0.84
80:B2:416:A:OP2	85:CP:287:LEU:HD21	1.78	0.84
15:AG:59:GLN:H	80:B2:155:U:H4'	0.72	0.84
18:AJ:93:LEU:HA	18:AJ:96:VAL:HG13	1.59	0.84
23:AO:88:GLY:HA3	80:B2:888:U:C5'	2.08	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:Bg:60:ARG:NH2	81:B5:1616:U:C5'	2.40	0.84
69:Bi:26:ILE:CD1	81:B5:155:G:H1'	2.08	0.84
75:Bo:77:CYS:O	75:Bo:79:THR:N	2.10	0.84
79:By:62:VAL:CB	79:CL:163:PHE:HE1	1.91	0.84
79:By:157:LYS:HB3	79:CL:71:GLN:HA	1.59	0.84
80:B2:51:A:C8	85:CP:242:GLY:N	2.25	0.84
13:AE:139:VAL:HG13	13:AE:150:PRO:HG3	1.58	0.84
15:AG:128:THR:O	57:BW:81:PRO:HG2	1.78	0.84
23:AO:129:LYS:CE	89:B2:2013:OHX:N1	2.40	0.84
32:AX:79:ASN:HB3	32:AX:81:LYS:H	1.40	0.84
38:BD:17:GLN:O	81:B5:2688:U:N3	2.09	0.84
74:Bn:11:ARG:HB3	80:B2:1126:G:C5'	2.08	0.84
79:By:41:VAL:N	79:CL:40:THR:CA	2.37	0.84
79:By:102:LYS:HE3	79:CL:104:LEU:HD22	1.58	0.84
79:By:132:GLY:O	79:CL:133:PRO:N	2.10	0.84
79:By:141:LYS:N	79:CL:139:ASN:HD22	1.63	0.84
79:By:152:ILE:HB	79:CL:114:VAL:CG1	2.07	0.84
79:By:174:PRO:HB3	84:CN:2145:G:H4'	1.60	0.84
79:By:223:ARG:HD2	79:CL:223:ARG:CB	2.05	0.84
80:B2:440:U:P	85:CP:274:ASN:ND2	2.50	0.84
5:A4:28:LYS:NZ	80:B2:477:A:OP1	2.11	0.84
8:A7:28:SER:HB3	81:B5:2708:C:H4'	0.85	0.84
74:Bn:11:ARG:CB	80:B2:1126:G:H5'	2.08	0.84
79:By:25:ALA:HB1	79:CL:222:VAL:HG21	0.87	0.84
79:By:71:GLN:HB3	79:CL:71:GLN:HE21	1.39	0.84
79:By:100:ILE:HD13	79:CL:97:GLU:O	1.78	0.84
79:By:141:LYS:CG	79:CL:141:LYS:CB	2.08	0.84
80:B2:1353:U:O4	89:B2:2026:OHX:N3	2.11	0.84
43:BI:84:ALA:O	43:BI:140:THR:HG22	1.77	0.83
79:By:7:TYR:O	84:CN:2150:C:OP1	1.88	0.83
79:By:24:GLU:HG2	79:CL:28:LEU:HD22	1.60	0.83
79:By:45:ALA:CB	79:CL:44:HIS:O	2.26	0.83
79:By:116:THR:N	79:CL:115:ALA:HB2	1.92	0.83
79:By:135:GLY:C	79:CL:132:GLY:C	2.45	0.83
79:By:161:ILE:CB	79:CL:173:ALA:HB1	2.07	0.83
80:B2:1508:U:O4	89:B2:1909:OHX:N5	2.11	0.83
8:A7:29:ASN:H	81:B5:2708:C:H5'	1.40	0.83
15:AG:188:ARG:CG	80:B2:284:G:OP2	2.26	0.83
53:BS:50:LYS:NZ	82:B7:76:A:O2'	2.10	0.83
74:Bn:10:THR:OG1	80:B2:1115:U:OP1	1.94	0.83
79:By:2:LYS:CA	84:CN:2148:G:N1	2.34	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:117:PRO:CG	79:CL:121:GLY:N	2.41	0.83
79:By:156:ILE:H	79:CL:156:ILE:HG23	1.43	0.83
35:BA:69:TYR:CE2	81:B5:2558:U:C4	2.66	0.83
67:Bg:60:ARG:NH2	81:B5:1616:U:H4'	1.92	0.83
70:Bj:9:GLY:HA3	81:B5:1852:G:N3	1.92	0.83
79:By:46:LYS:NZ	84:CN:2200:C:OP2	2.05	0.83
79:By:210:ARG:HH11	79:CL:210:ARG:HH21	1.25	0.83
17:AI:176:SER:HB2	80:B2:208:U:H5'	1.60	0.83
26:AR:45:ARG:NH1	80:B2:1415:U:OP1	2.11	0.83
29:AU:53:LYS:HB3	80:B2:1345:A:H5'	1.60	0.83
60:BZ:111:LYS:HD3	81:B5:1629:U:O4	1.79	0.83
79:By:10:LEU:N	84:CN:2150:C:OP1	2.08	0.83
79:By:40:THR:CG2	79:CL:40:THR:CB	2.56	0.83
79:By:69:GLY:HA2	79:CL:40:THR:CG2	2.07	0.83
79:By:163:PHE:CB	79:CL:171:ILE:HD13	1.81	0.83
79:By:174:PRO:CB	84:CN:2145:G:H5"	2.06	0.83
81:B5:3278:C:O2'	81:B5:3279:A:OP2	1.95	0.83
85:CP:79:GLY:HA2	90:CP:401:GCP:O2G	1.79	0.83
35:BA:244:GLY:O	81:B5:2153:U:C5'	2.26	0.83
38:BD:95:TRP:CH2	38:BD:181:PRO:HD3	2.13	0.83
48:BN:189:LYS:HB2	81:B5:29:C:OP1	1.79	0.83
74:Bn:2:ARG:HD3	80:B2:1772:C:H3'	1.58	0.83
79:By:2:LYS:C	84:CN:2149:C:C2	2.57	0.83
79:By:27:HIS:CD2	79:CL:27:HIS:CB	2.58	0.83
79:By:40:THR:OG1	84:CN:2146:G:C5'	0.53	0.83
79:By:41:VAL:CA	79:CL:216:THR:HA	2.09	0.83
79:By:162:GLU:HG2	79:CL:164:ARG:CA	2.07	0.83
80:B2:142:G:H22	80:B2:173:A:H2	1.23	0.83
81:B5:2444:C:OP1	84:CN:2124:C:O2	1.97	0.83
81:B5:3027:A:H8	85:CP:109:GLN:HE21	1.15	0.83
15:AG:57:ASP:HA	15:AG:106:LEU:HA	1.58	0.83
15:AG:174:LYS:CG	80:B2:79:C:H1'	2.08	0.83
52:BR:165:LYS:HE3	80:B2:824:G:N2	1.93	0.83
79:By:30:LYS:NZ	79:CL:31:GLU:CB	2.41	0.83
79:By:32:LEU:HA	79:CL:6:ARG:HD2	1.61	0.83
79:By:55:ASP:O	79:CL:53:ARG:N	2.10	0.83
79:By:213:TYR:CZ	79:CL:213:TYR:HE2	1.97	0.83
79:By:223:ARG:HE	79:CL:223:ARG:HG2	1.42	0.83
85:CP:131:LYS:CD	90:CP:401:GCP:C6	2.56	0.83
12:AD:159:HIS:O	80:B2:1421:A:H4'	1.77	0.83
15:AG:112:VAL:CG2	80:B2:164:A:C5'	2.55	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AI:10:LYS:HD3	80:B2:338:C:H5"	1.60	0.83
27:AS:134:ARG:HG3	80:B2:1545:A:OP2	1.78	0.83
79:By:26:ALA:N	79:CL:28:LEU:HB3	1.91	0.83
79:By:183:GLU:OE1	79:CL:182:PRO:C	2.18	0.83
79:By:199:HIS:N	79:CL:199:HIS:H	1.77	0.83
79:By:201:PRO:HD2	79:CL:201:PRO:HD3	0.83	0.83
11:AC:119:LYS:CE	80:B2:1291:G:H5'	2.07	0.83
15:AG:133:LEU:HD12	80:B2:66:U:O2	1.77	0.83
25:AQ:123:ARG:C	80:B2:1584:G:H2'	2.03	0.83
35:BA:227:ARG:NH2	81:B5:2155:G:O2'	2.09	0.83
38:BD:207:TYR:CZ	82:B7:33:U:C5	2.67	0.83
52:BR:173:ARG:HG2	80:B2:853:G:C4	2.12	0.83
60:BZ:69:LYS:HZ1	81:B5:1633:C:P	1.97	0.83
70:Bj:30:GLN:HE21	81:B5:903:U:P	2.01	0.83
79:By:43:VAL:HG23	79:CL:42:GLU:O	1.48	0.83
79:By:48:GLY:HA2	79:CL:210:ARG:HG2	1.52	0.83
79:By:71:GLN:CB	79:CL:71:GLN:NE2	2.24	0.83
79:By:123:VAL:CA	79:CL:100:ILE:HG21	2.06	0.83
79:By:136:LEU:C	79:CL:137:LEU:N	2.36	0.83
80:B2:51:A:C1'	85:CP:242:GLY:HA2	1.70	0.83
80:B2:320:U:H2'	80:B2:321:C:H2'	1.58	0.83
80:B2:1542:G:N2	80:B2:1569:A:OP2	2.12	0.83
80:B2:1646:C:H4'	81:B5:2257:C:H42	1.41	0.83
8:A7:34:LYS:HE3	81:B5:2693:C:OP1	1.78	0.83
10:AB:148:ASN:CG	80:B2:1066:C:O2'	2.20	0.83
12:AD:163:PRO:HG2	80:B2:1331:A:N1	1.93	0.83
15:AG:8:PRO:HB2	80:B2:165:G:H5"	1.61	0.83
25:AQ:125:GLU:N	80:B2:1585:U:OP1	2.11	0.83
33:AY:11:LYS:N	80:B2:783:G:O6	2.11	0.83
43:BI:4:ARG:NH2	81:B5:2828:G:O2'	2.10	0.83
65:Be:38:ILE:N	81:B5:640:U:OP2	2.12	0.83
79:By:28:LEU:HB3	79:CL:32:LEU:HD21	1.59	0.83
79:By:112:ALA:HB3	79:CL:111:ASP:HA	0.83	0.83
79:By:134:ARG:CG	84:CN:2191:A:H5'	2.08	0.83
79:By:184:LYS:HA	79:CL:184:LYS:C	2.04	0.83
25:AQ:74:HIS:HE1	80:B2:1480:G:N2	1.77	0.83
75:Bo:63:LYS:HD2	81:B5:2795:U:OP2	1.78	0.83
79:By:11:LEU:HD13	84:CN:2196:C:OP1	1.79	0.83
79:By:28:LEU:CA	79:CL:28:LEU:HD12	2.08	0.83
79:By:82:LYS:CE	79:CL:149:ILE:HG23	1.75	0.83
79:By:158:ALA:HB3	79:CL:159:GLY:H	1.03	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2264:U:OP2	89:B5:3402:OHX:N3	2.12	0.83
15:AG:174:LYS:HD3	80:B2:79:C:C2	2.14	0.82
79:By:13:LYS:CG	79:CL:6:ARG:O	2.26	0.82
79:By:102:LYS:HZ2	79:CL:104:LEU:CD1	1.87	0.82
79:By:195:ALA:CB	79:CL:195:ALA:CA	2.53	0.82
80:B2:1291:G:N2	80:B2:1324:G:H22	1.76	0.82
37:BC:204:GLY:O	37:BC:246:ARG:NH1	2.12	0.82
75:Bo:41:ARG:HH11	81:B5:284:A:P	2.02	0.82
79:By:28:LEU:CB	79:CL:32:LEU:HD21	2.08	0.82
79:By:144:THR:CG2	79:CL:138:PRO:N	2.42	0.82
79:By:145:VAL:HG13	79:CL:138:PRO:CB	1.90	0.82
79:By:189:ILE:O	79:CL:193:ILE:HD11	1.79	0.82
79:By:193:ILE:CD1	79:CL:224:ILE:CD1	2.56	0.82
79:By:217:THR:CG2	84:CN:2146:G:C1'	2.40	0.82
79:By:222:VAL:CG1	79:CL:14:VAL:HG11	2.04	0.82
80:B2:1759:C:H1'	81:B5:2262:A:H2	1.41	0.82
81:B5:851:C:H5"	81:B5:851:C:H6	1.44	0.82
81:B5:1225:A:N7	81:B5:1287:A:O2'	2.11	0.82
20:AL:25:VAL:HG11	80:B2:837:G:O2'	1.80	0.82
23:AO:54:GLU:CD	80:B2:901:G:H1	1.84	0.82
29:AU:27:THR:HG23	29:AU:113:ASP:HB3	1.62	0.82
68:Bh:89:ARG:NH1	83:B8:38:U:C2	2.48	0.82
79:By:19:ILE:C	79:CL:18:LYS:HB3	2.04	0.82
79:By:21:THR:CG2	79:CL:21:THR:OG1	2.27	0.82
79:By:53:ARG:NE	79:CL:56:GLN:OE1	2.12	0.82
79:By:137:LEU:CG	79:CL:137:LEU:CG	2.57	0.82
79:By:218:MET:SD	84:CN:2195:C:C2	2.72	0.82
79:By:219:GLY:HA3	79:CL:218:MET:O	1.78	0.82
15:AG:173:PRO:HA	80:B2:66:U:H5'	1.61	0.82
22:AN:151:ASN:O	89:AN:201:OHX:N6	2.12	0.82
24:AP:126:VAL:HG13	24:AP:127:ARG:H	1.41	0.82
25:AQ:14:LYS:NZ	80:B2:1610:G:N7	2.28	0.82
38:BD:145:PHE:CD1	81:B5:2748:A:C5'	2.62	0.82
46:BL:99:HIS:CG	81:B5:156:G:C4	2.68	0.82
79:By:8:ARG:HG3	84:CN:2150:C:HO2'	1.02	0.82
79:By:24:GLU:HB3	79:CL:20:TYR:CD2	2.13	0.82
79:By:45:ALA:N	84:CN:2198:C:O2'	2.10	0.82
79:By:82:LYS:HE3	79:CL:149:ILE:HG23	1.47	0.82
79:By:93:TYR:O	79:CL:107:TRP:CH2	2.32	0.82
79:By:190:ARG:HA	79:CL:22:ILE:HD13	0.92	0.82
79:By:215:THR:HG23	79:CL:42:GLU:CG	2.07	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AB:146:GLN:HE22	80:B2:1065:A:H1'	1.44	0.82
15:AG:175:ILE:CA	80:B2:78:A:N3	2.42	0.82
35:BA:152:SER:CB	81:B5:2157:G:O6	2.27	0.82
79:By:71:GLN:HA	79:CL:71:GLN:HG2	1.61	0.82
79:By:152:ILE:CG1	79:CL:152:ILE:HG23	2.10	0.82
79:By:175:VAL:HG13	79:CL:43:VAL:N	1.94	0.82
79:By:209:LEU:HB2	79:CL:209:LEU:HB3	1.59	0.82
80:B2:1041:G:OP1	89:B2:2038:OHX:N5	2.12	0.82
81:B5:2793:G:H2'	86:CW:76:A:C2	2.14	0.82
44:BJ:98:ALA:N	81:B5:2671:A:O2'	2.13	0.82
52:BR:83:GLY:N	81:B5:1864:A:OP1	2.12	0.82
79:By:88:GLU:C	79:CL:92:ASP:CA	2.51	0.82
80:B2:414:C:O5'	85:CP:288:ARG:O	1.94	0.82
80:B2:1646:C:C3'	81:B5:2257:C:N4	2.41	0.82
8:A7:47:ALA:N	81:B5:2678:A:C1'	2.41	0.82
11:AC:161:LYS:O	89:AC:301:OHX:N1	2.13	0.82
23:AO:129:LYS:CA	80:B2:990:C:H5"	2.10	0.82
26:AR:10:LYS:NZ	80:B2:1402:G:OP1	2.13	0.82
61:Ba:35:ALA:HB2	81:B5:39:A:H5"	1.62	0.82
79:By:21:THR:O	79:CL:20:TYR:HD2	1.37	0.82
79:By:37:PHE:C	84:CN:2147:A:H4'	1.93	0.82
79:By:39:GLU:CD	79:CL:35:ALA:CB	2.53	0.82
79:By:77:ILE:HB	79:CL:77:ILE:HD11	0.84	0.82
79:By:116:THR:OG1	79:CL:115:ALA:CA	2.27	0.82
79:By:178:ALA:CA	79:CL:33:ALA:HB1	2.10	0.82
79:By:212:VAL:CG2	79:CL:212:VAL:CG1	2.57	0.82
17:AI:73:SER:HB2	80:B2:257:A:C1'	2.09	0.82
27:AS:118:LYS:HE2	44:BJ:108:GLU:OE2	1.79	0.82
35:BA:187:HIS:CE1	81:B5:1794:G:C2	2.68	0.82
52:BR:171:ASP:HB2	80:B2:851:U:O3'	1.44	0.82
79:By:7:TYR:H	84:CN:2150:C:C1'	1.91	0.82
79:By:81:GLU:HB2	79:CL:81:GLU:N	1.94	0.82
79:By:110:PHE:HE2	79:CL:105:ASP:OD2	1.62	0.82
79:By:114:VAL:CG2	79:CL:75:LEU:O	2.26	0.82
79:By:137:LEU:H	79:CL:132:GLY:HA2	0.74	0.82
79:By:147:PHE:HB2	79:CL:149:ILE:N	1.92	0.82
80:B2:1759:C:C1'	81:B5:2262:A:N1	2.43	0.82
8:A7:33:LYS:NZ	81:B5:2692:A:OP1	2.13	0.82
12:AD:108:LYS:HG2	12:AD:113:LEU:HD12	1.61	0.82
52:BR:175:GLN:H	80:B2:852:C:H4'	0.65	0.82
79:By:39:GLU:HG3	79:CL:35:ALA:CB	2.10	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:75:LEU:HD11	79:CL:107:TRP:HE3	1.39	0.82
79:By:77:ILE:HB	79:CL:77:ILE:CG1	2.07	0.82
79:By:92:ASP:N	79:CL:93:TYR:CE2	2.48	0.82
79:By:148:ASN:HB2	79:CL:153:ILE:H	1.44	0.82
79:By:204:ALA:HA	79:CL:49:ILE:HG22	1.61	0.82
79:By:211:SER:OG	79:CL:213:TYR:CE1	2.23	0.82
79:By:212:VAL:CB	79:CL:224:ILE:HG12	2.09	0.82
11:AC:91:ARG:NH1	80:B2:1625:C:P	2.52	0.82
79:By:14:VAL:CG1	79:CL:10:LEU:HD13	2.08	0.82
79:By:61:THR:CA	79:CL:162:GLU:HA	2.10	0.82
79:By:81:GLU:CB	79:CL:79:LYS:C	2.44	0.82
79:By:136:LEU:HD23	79:CL:134:ARG:CB	2.02	0.82
79:By:190:ARG:NH2	79:CL:21:THR:OG1	2.12	0.82
79:By:206:GLY:N	79:CL:200:LYS:NZ	2.17	0.82
81:B5:1225:A:O4'	81:B5:1287:A:H2'	1.79	0.82
1:A0:15:ARG:HG2	80:B2:943:C:H42	1.45	0.81
14:AF:101:GLY:CA	80:B2:1167:G:OP1	2.20	0.81
15:AG:169:TYR:OH	80:B2:73:U:H5	1.62	0.81
26:AR:60:ARG:HH12	80:B2:1400:A:H4'	1.43	0.81
52:BR:143:ILE:HG12	81:B5:2093:A:H5"	1.61	0.81
79:By:30:LYS:HG2	79:CL:31:GLU:C	2.05	0.81
79:By:46:LYS:N	79:CL:46:LYS:CB	1.78	0.81
79:By:99:ILE:C	79:CL:99:ILE:C	2.45	0.81
79:By:136:LEU:H	79:CL:132:GLY:C	1.83	0.81
79:By:216:THR:O	84:CN:2196:C:O2'	1.98	0.81
8:A7:47:ALA:CB	81:B5:2678:A:C8	2.63	0.81
33:AY:8:ARG:CB	80:B2:780:A:C8	2.62	0.81
63:Bc:85:PHE:CZ	81:B5:1728:G:C5	2.67	0.81
79:By:22:ILE:HG13	79:CL:21:THR:CA	2.10	0.81
79:By:38:ASP:OD1	79:CL:36:LYS:C	2.19	0.81
79:By:40:THR:HG23	79:CL:40:THR:OG1	1.79	0.81
79:By:134:ARG:HD3	84:CN:2191:A:OP1	1.79	0.81
79:By:177:LYS:CG	79:CL:177:LYS:HD3	1.78	0.81
81:B5:3027:A:C1'	85:CP:109:GLN:NE2	2.23	0.81
15:AG:182:GLN:NE2	80:B2:271:A:H61	1.76	0.81
25:AQ:15:SER:CB	80:B2:1608:U:OP1	2.28	0.81
35:BA:211:HIS:ND1	81:B5:2185:G:OP1	2.10	0.81
50:BP:25:SER:O	50:BP:29:THR:HG23	1.80	0.81
52:BR:62:ARG:NH2	81:B5:3068:U:OP2	2.13	0.81
62:Bb:36:ASP:OD1	81:B5:2738:A:H5'	1.79	0.81
79:By:40:THR:CB	84:CN:2145:G:C2'	2.52	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:86:ALA:HB2	79:CL:86:ALA:HB1	1.62	0.81
79:By:93:TYR:O	79:CL:93:TYR:CD1	2.33	0.81
79:By:94:VAL:N	79:CL:93:TYR:HE1	1.76	0.81
81:B5:1025:A:H3'	81:B5:1026:A:H4'	1.60	0.81
81:B5:2443:A:OP1	84:CN:2123:U:O4	1.96	0.81
20:AL:19:ILE:CD1	89:AL:201:OHX:N6	2.42	0.81
23:AO:132:ARG:HB3	80:B2:1787:C:OP2	1.80	0.81
28:AT:57:ARG:NH1	80:B2:1479:A:P	2.53	0.81
63:Bc:86:ARG:O	81:B5:1728:G:H2'	1.80	0.81
79:By:5:LYS:C	84:CN:2150:C:C3'	2.54	0.81
79:By:23:ASP:HA	79:CL:26:ALA:N	1.83	0.81
79:By:41:VAL:HA	79:CL:216:THR:CA	2.10	0.81
79:By:131:LEU:O	79:CL:133:PRO:CD	2.21	0.81
23:AO:129:LYS:CB	80:B2:990:C:H5"	2.10	0.81
35:BA:15:ILE:CD1	81:B5:822:G:C4	2.63	0.81
79:By:15:ASP:HA	79:CL:7:TYR:CE2	2.15	0.81
79:By:50:ASP:OD2	79:CL:50:ASP:HB2	1.80	0.81
79:By:93:TYR:CE1	79:CL:108:MET:O	2.25	0.81
79:By:140:PRO:HA	79:CL:139:ASN:C	1.95	0.81
79:By:145:VAL:N	79:CL:138:PRO:CB	2.41	0.81
79:By:147:PHE:HD2	79:CL:148:ASN:N	1.77	0.81
80:B2:829:A:O2'	80:B2:830:U:OP2	1.97	0.81
80:B2:1686:C:C2'	80:B2:1687:U:H6	1.91	0.81
23:AO:20:TYR:CD2	80:B2:917:U:H5"	2.16	0.81
35:BA:244:GLY:O	81:B5:2153:U:H5"	1.81	0.81
48:BN:109:ARG:NH1	83:B8:141:C:P	2.52	0.81
52:BR:170:ARG:CZ	89:BR:201:OHX:N4	2.43	0.81
54:BT:68:THR:HG23	81:B5:2737:C:P	2.21	0.81
67:Bg:8:ARG:NH2	81:B5:1597:C:P	2.53	0.81
79:By:3:HIS:CA	84:CN:2149:C:O2	2.28	0.81
79:By:75:LEU:HB2	79:CL:110:PHE:H	1.46	0.81
79:By:86:ALA:HB3	79:CL:94:VAL:HG13	1.62	0.81
79:By:112:ALA:CB	79:CL:136:LEU:HD21	2.11	0.81
79:By:145:VAL:CB	79:CL:138:PRO:HB3	2.08	0.81
79:By:175:VAL:HG22	79:CL:42:GLU:C	2.06	0.81
79:By:186:ALA:O	79:CL:189:ILE:HG13	1.80	0.81
80:B2:1229:G:O2'	80:B2:1255:G:N2	2.14	0.81
79:CL:131:LEU:HB3	79:CL:137:LEU:HD23	1.63	0.81
32:AX:144:ARG:NH1	85:CP:314:LYS:CD	2.44	0.81
38:BD:158:ARG:HD3	82:B7:46:A:P	2.21	0.81
63:Bc:84:LEU:HD13	81:B5:1715:A:N7	1.96	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:22:ILE:CG2	79:CL:22:ILE:HA	2.11	0.81
79:By:31:GLU:HG2	79:CL:10:LEU:HD21	1.63	0.81
79:By:141:LYS:H	79:CL:139:ASN:ND2	1.77	0.81
79:By:216:THR:O	84:CN:2196:C:C1'	2.28	0.81
79:By:222:VAL:HG21	79:CL:32:LEU:HD13	0.86	0.81
81:B5:1815:U:O2'	81:B5:1816:A:OP2	1.98	0.81
20:AL:99:ARG:NH1	32:AX:7:ARG:O	2.14	0.81
23:AO:107:ARG:HH11	23:AO:107:ARG:HG3	1.45	0.81
38:BD:207:TYR:CD2	82:B7:33:U:C2	2.68	0.81
41:BG:55:TYR:OH	83:B8:149:A:O2'	1.96	0.81
48:BN:72:LYS:HD3	81:B5:2166:A:O3'	1.81	0.81
79:By:14:VAL:O	79:CL:7:TYR:CD2	2.34	0.81
79:By:18:LYS:CB	79:CL:14:VAL:HG23	2.10	0.81
79:By:26:ALA:CB	79:CL:26:ALA:CA	2.59	0.81
79:By:39:GLU:CG	79:CL:35:ALA:HB3	2.10	0.81
79:By:43:VAL:CG1	79:CL:43:VAL:HG12	1.96	0.81
79:By:183:GLU:CB	79:CL:183:GLU:H	1.73	0.81
81:B5:1015:U:O2'	81:B5:1017:C:OP1	1.99	0.81
4:A3:31:ILE:HD11	80:B2:1199:G:C6	2.16	0.81
8:A7:68:ARG:NH2	27:AS:145:ARG:HB3	1.96	0.81
37:BC:195:ARG:NH2	81:B5:341:G:N7	2.26	0.81
38:BD:266:ALA:CA	82:B7:1:G:C4	2.64	0.81
70:Bj:55:ARG:HD3	81:B5:353:G:N7	1.96	0.81
73:Bm:106:ARG:HB2	73:Bm:106:ARG:HH11	1.46	0.81
79:By:40:THR:CG2	79:CL:40:THR:HB	2.10	0.81
79:By:217:THR:C	79:CL:217:THR:HG22	2.06	0.81
1:A0:97:PRO:O	80:B2:1798:U:H5	1.58	0.81
15:AG:175:ILE:CB	80:B2:78:A:C2	2.64	0.81
33:AY:120:GLY:HA2	80:B2:85:A:O3'	1.81	0.81
58:BX:115:ARG:NH1	58:BX:119:THR:OG1	2.14	0.81
79:By:22:ILE:CD1	79:CL:224:ILE:HB	2.11	0.81
79:By:34:THR:O	84:CN:2149:C:C3'	2.29	0.81
79:By:66:HIS:HB2	79:CL:188:ASN:HD21	1.28	0.81
79:By:69:GLY:HA2	79:CL:40:THR:HG23	1.61	0.81
79:By:102:LYS:CG	79:CL:102:LYS:HA	2.10	0.81
79:By:157:LYS:N	79:CL:72:VAL:HB	1.95	0.81
79:By:222:VAL:CG2	79:CL:220:PRO:CG	2.56	0.81
81:B5:1804:A:H2'	81:B5:1805:C:C6	2.16	0.81
14:AF:37:GLN:HG2	25:AQ:53:LEU:HD13	1.60	0.80
37:BC:300:ARG:O	51:BQ:39:ARG:NH1	2.13	0.80
60:BZ:67:LYS:CE	81:B5:1630:U:OP1	2.29	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:23:ASP:CB	79:CL:27:HIS:H	1.93	0.80
79:By:25:ALA:O	79:CL:32:LEU:CD1	2.29	0.80
79:By:32:LEU:O	79:CL:6:ARG:CZ	2.16	0.80
80:B2:280:U:O2'	80:B2:281:G:OP2	1.99	0.80
81:B5:2792:A:C2	86:CW:76:A:N6	2.48	0.80
81:B5:3027:A:O2'	85:CP:83:PHE:CE2	2.25	0.80
8:A7:48:ARG:CD	81:B5:2678:A:P	2.64	0.80
11:AC:99:LYS:NZ	80:B2:1299:G:O3'	2.13	0.80
54:BT:49:GLN:NE2	81:B5:2755:C:O2'	2.14	0.80
60:BZ:15:ARG:HD3	81:B5:1637:A:O3'	1.82	0.80
79:By:46:LYS:CD	84:CN:2199:C:O3'	2.29	0.80
79:By:92:ASP:H	79:CL:73:ARG:HB2	1.44	0.80
79:By:162:GLU:HG3	79:CL:163:PHE:C	2.05	0.80
79:By:197:GLU:OE2	79:CL:227:HIS:NE2	2.12	0.80
79:By:213:TYR:CG	84:CN:2198:C:H5'	2.16	0.80
81:B5:776:U:H5	81:B5:2719:U:O2	1.64	0.80
85:CP:20:LYS:N	90:CP:401:GCP:O2A	2.15	0.80
8:A7:51:ARG:NH1	81:B5:2677:G:C8	2.49	0.80
16:AH:131:PHE:O	16:AH:133:THR:N	2.14	0.80
35:BA:219:ILE:HD11	81:B5:2185:G:H5'	1.61	0.80
42:BH:98:PRO:O	85:CP:136:TYR:CD2	2.24	0.80
43:BI:154:ARG:NH1	81:B5:2838:A:OP1	2.14	0.80
59:BY:113:LYS:HB2	83:B8:84:C:H1'	1.62	0.80
72:Bl:4:GLN:HA	81:B5:1833:G:O2'	1.80	0.80
79:By:46:LYS:N	79:CL:46:LYS:N	2.28	0.80
79:By:50:ASP:OD2	79:CL:50:ASP:CB	2.30	0.80
79:By:121:GLY:O	79:CL:125:SER:N	1.87	0.80
79:By:179:SER:HB2	79:CL:38:ASP:OD1	1.81	0.80
9:AA:179:ARG:HD3	9:AA:183:ARG:HH11	1.46	0.80
17:AI:64:ASN:HB2	80:B2:258:C:O4'	1.81	0.80
49:BO:72[A]:HIS:HD2	81:B5:3008:A:OP1	1.64	0.80
79:By:131:LEU:HB2	79:CL:128:GLY:CA	2.11	0.80
79:By:179:SER:CA	79:CL:38:ASP:OD1	2.29	0.80
79:By:218:MET:SD	84:CN:2195:C:H1'	2.21	0.80
10:AB:165:ARG:NE	80:B2:947:U:P	2.54	0.80
23:AO:52:ARG:CB	80:B2:906:A:P	2.70	0.80
43:BI:7:ARG:NH1	81:B5:2828:G:OP2	2.15	0.80
52:BR:83:GLY:H	81:B5:1864:A:P	2.04	0.80
52:BR:143:ILE:HG12	81:B5:2093:A:C5'	2.12	0.80
52:BR:165:LYS:O	80:B2:850:A:C4	2.08	0.80
54:BT:8:ARG:HG3	81:B5:2757:U:H4'	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:Bg:68:THR:CG2	81:B5:1643:A:P	2.69	0.80
79:By:43:VAL:CG1	79:CL:43:VAL:HG13	1.92	0.80
79:By:48:GLY:N	79:CL:210:ARG:HG3	1.94	0.80
79:By:68:LEU:HD23	79:CL:175:VAL:CA	2.02	0.80
79:By:164:ARG:HG3	79:CL:165:ASN:C	2.06	0.80
81:B5:1225:A:O4'	81:B5:1287:A:C2'	2.28	0.80
15:AG:164:LYS:HZ3	80:B2:72:A:H5"	0.82	0.80
26:AR:3:ARG:N	80:B2:1403:C:OP1	2.14	0.80
29:AU:58:LEU:HD23	80:B2:1516:A:C8	2.17	0.80
61:Ba:16:SER:HA	81:B5:942:U:N3	1.97	0.80
61:Ba:34:MET:HB2	81:B5:96:G:OP2	1.81	0.80
72:Bl:23:LEU:HD22	72:Bl:24:PRO:HD2	1.64	0.80
79:By:40:THR:O	79:CL:217:THR:HG23	1.82	0.80
79:By:65:PRO:C	79:CL:188:ASN:HD21	1.90	0.80
79:By:71:GLN:HA	79:CL:71:GLN:H	1.44	0.80
79:By:116:THR:OG1	79:CL:115:ALA:CB	2.29	0.80
79:By:178:ALA:CB	79:CL:33:ALA:HB1	2.10	0.80
79:By:210:ARG:HH11	79:CL:210:ARG:NH2	1.76	0.80
81:B5:437:G:N2	81:B5:622:A:H61	1.80	0.80
13:AE:21:ASP:HB2	80:B2:773:C:H5"	1.62	0.80
15:AG:13:GLN:NE2	80:B2:151:G:H1'	1.96	0.80
15:AG:132:ARG:CG	80:B2:68:A:C6	2.62	0.80
33:AY:10:ARG:HH12	80:B2:778:G:N2	1.78	0.80
54:BT:68:THR:HG21	81:B5:2736:A:O2'	1.81	0.80
61:Ba:59:ARG:NH1	81:B5:283:G:O2'	2.14	0.80
74:Bn:5:TRP:HZ3	80:B2:1775:U:H5	1.25	0.80
79:By:26:ALA:HB2	79:CL:26:ALA:CA	2.11	0.80
79:By:31:GLU:OE2	79:CL:13:LYS:HE3	1.81	0.80
79:By:37:PHE:HD2	84:CN:2146:G:O3'	1.63	0.80
79:By:37:PHE:CG	84:CN:2147:A:N9	2.01	0.80
79:By:51:PRO:CB	79:CL:169:GLY:HA3	2.11	0.80
79:By:137:LEU:HB2	79:CL:132:GLY:HA2	1.39	0.80
79:By:147:PHE:CD2	79:CL:148:ASN:N	2.48	0.80
79:By:185:LEU:HD13	79:CL:29:VAL:CG2	2.11	0.80
79:By:214:VAL:HG12	79:CL:215:THR:HA	1.63	0.80
10:AB:39:GLU:HG3	10:AB:40:ASN:H	1.47	0.80
15:AG:88:ARG:HG3	80:B2:92:A:N1	1.96	0.80
23:AO:38:THR:CG2	80:B2:896:U:O4'	2.29	0.80
61:Ba:61:PHE:CZ	81:B5:283:G:H2'	2.16	0.80
79:By:45:ALA:N	79:CL:44:HIS:C	2.24	0.80
79:By:141:LYS:C	79:CL:142:ALA:HB2	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:142:ALA:HB2	79:CL:59:ARG:NH2	1.96	0.80
79:By:193:ILE:CD1	79:CL:226:PRO:HA	2.11	0.80
79:By:213:TYR:HD1	79:CL:213:TYR:CG	1.82	0.80
85:CP:78:PRO:C	90:CP:401:GCP:O2G	2.25	0.80
11:AC:56:ILE:HG23	11:AC:61:LEU:HB2	1.63	0.80
15:AG:175:ILE:HB	80:B2:78:A:C2	2.17	0.80
20:AL:80:MET:CE	80:B2:325:G:H5'	2.12	0.80
26:AR:49:LYS:HA	80:B2:1389:C:O3'	1.81	0.80
29:AU:53:LYS:CA	80:B2:1345:A:O5'	2.29	0.80
68:Bh:95:PHE:CD2	81:B5:136:G:C5'	2.63	0.80
79:By:46:LYS:HZ3	84:CN:2200:C:P	2.05	0.80
79:By:86:ALA:CB	79:CL:94:VAL:CG1	2.45	0.80
79:By:112:ALA:HB1	79:CL:111:ASP:C	1.95	0.80
79:By:177:LYS:CD	79:CL:40:THR:OG1	2.30	0.80
79:By:186:ALA:C	79:CL:189:ILE:HG13	2.07	0.80
80:B2:1758:U:H5'	81:B5:2255:A:O3'	1.80	0.80
18:AJ:127:VAL:HG21	80:B2:478:A:H4'	1.62	0.80
26:AR:60:ARG:NH1	80:B2:1400:A:H5'	1.96	0.80
33:AY:11:LYS:HG2	80:B2:784:C:H42	1.46	0.80
35:BA:39:GLY:HA3	81:B5:2550:U:O4	1.82	0.80
49:BO:110[B]:PRO:O	49:BO:112[B]:TYR:N	2.15	0.80
79:By:169:GLY:C	84:CN:2199:C:HO2'	1.89	0.80
23:AO:25:ASP:OD2	80:B2:900:A:H5"	1.82	0.79
48:BN:172:ARG:NH1	81:B5:29:C:O2'	2.14	0.79
79:By:26:ALA:C	79:CL:27:HIS:O	2.24	0.79
79:By:140:PRO:C	79:CL:141:LYS:CA	2.52	0.79
79:By:208:PHE:C	79:CL:209:LEU:CD2	2.55	0.79
80:B2:136:C:H4'	80:B2:137:U:OP1	1.83	0.79
85:CP:200:VAL:N	90:CP:401:GCP:O6	2.14	0.79
15:AG:15:THR:CG2	80:B2:153:G:P	2.71	0.79
15:AG:95:LYS:NZ	80:B2:160:C:O3'	2.15	0.79
79:By:116:THR:HG22	79:CL:119:VAL:HG22	1.62	0.79
79:By:149:ILE:CD1	79:CL:76:ALA:HA	2.12	0.79
79:By:178:ALA:O	79:CL:33:ALA:HB3	1.77	0.79
23:AO:50:ALA:O	23:AO:52:ARG:N	2.14	0.79
37:BC:329:PRO:O	37:BC:331:ALA:N	2.14	0.79
38:BD:207:TYR:CE1	82:B7:33:U:N1	2.50	0.79
67:Bg:52:GLN:HG2	81:B5:1639:C:H5'	1.64	0.79
79:By:25:ALA:O	79:CL:28:LEU:O	2.00	0.79
79:By:119:VAL:CG2	79:CL:97:GLU:CA	2.39	0.79
79:By:132:GLY:H	79:CL:129:ARG:HA	1.46	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:149:ILE:CG2	79:CL:76:ALA:CA	2.57	0.79
79:By:177:LYS:CG	79:CL:38:ASP:O	2.30	0.79
79:By:201:PRO:CG	79:CL:58:VAL:N	2.45	0.79
79:By:218:MET:CA	84:CN:2195:C:C1'	2.58	0.79
81:B5:2440:G:H5'	81:B5:2440:G:H8	1.46	0.79
85:CP:200:VAL:N	90:CP:401:GCP:C6	2.44	0.79
10:AB:65:VAL:CG2	80:B2:920:U:H5"	2.12	0.79
24:AP:69:GLU:OE1	89:AP:201:OHX:N2	2.16	0.79
35:BA:40:TYR:N	81:B5:2550:U:O4	2.15	0.79
38:BD:207:TYR:CE1	82:B7:33:U:C1'	2.65	0.79
79:By:52:ARG:NH1	84:CN:2201:U:OP1	2.07	0.79
79:By:122:ALA:C	79:CL:126:LYS:H	1.87	0.79
79:By:171:ILE:HB	79:CL:47:LEU:HG	1.64	0.79
80:B2:1686:C:C2'	80:B2:1687:U:O5'	2.30	0.79
8:A7:33:LYS:HZ1	81:B5:2692:A:P	2.04	0.79
18:AJ:109:LEU:HB2	18:AJ:146:PHE:HB3	1.62	0.79
28:AT:93:HIS:ND1	80:B2:1525:A:OP1	2.14	0.79
63:Bc:85:PHE:CD2	81:B5:1728:G:N1	2.51	0.79
79:By:81:GLU:CG	79:CL:79:LYS:O	2.29	0.79
79:By:209:LEU:HG	79:CL:209:LEU:CG	2.12	0.79
15:AG:132:ARG:CZ	80:B2:68:A:C8	2.66	0.79
15:AG:182:GLN:CD	80:B2:271:A:H62	1.91	0.79
38:BD:265:TYR:OH	82:B7:121:U:OP2	1.99	0.79
38:BD:274:GLN:OE1	82:B7:60:G:C2	2.34	0.79
41:BG:242:ALA:HB2	81:B5:2586:G:O6	1.82	0.79
67:Bg:68:THR:HG23	81:B5:1643:A:P	2.22	0.79
79:By:35:ALA:CA	84:CN:2149:C:H6	1.95	0.79
79:By:45:ALA:C	79:CL:46:LYS:CA	2.54	0.79
79:By:46:LYS:O	79:CL:46:LYS:O	1.78	0.79
79:By:144:THR:CA	79:CL:144:THR:CB	2.51	0.79
79:By:163:PHE:HA	79:CL:171:ILE:HG12	1.64	0.79
79:By:196:LEU:O	79:CL:196:LEU:C	2.25	0.79
80:B2:187:G:H4'	80:B2:188:A:OP1	1.83	0.79
33:AY:11:LYS:HG2	80:B2:784:C:N4	1.98	0.79
36:BB:169:THR:HG22	36:BB:171:LEU:H	1.45	0.79
39:BE:31:ARG:HH11	66:Bf:107:ILE:HG22	1.47	0.79
44:BJ:11:ASP:O	44:BJ:12:LEU:HB2	1.81	0.79
54:BT:129:LYS:NZ	81:B5:1097:G:OP1	2.15	0.79
68:Bh:89:ARG:NH1	83:B8:38:U:N3	2.31	0.79
79:By:8:ARG:CD	84:CN:2151:U:H5'	2.11	0.79
79:By:13:LYS:CA	79:CL:9:ALA:HB3	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:56:GLN:HA	79:CL:57:ASN:OD1	1.83	0.79
79:By:100:ILE:C	79:CL:101:GLN:CD	2.49	0.79
79:By:112:ALA:HB1	79:CL:136:LEU:CD2	2.11	0.79
79:By:137:LEU:CD1	79:CL:137:LEU:CG	2.56	0.79
79:By:218:MET:CA	84:CN:2195:C:H1'	2.11	0.79
79:By:222:VAL:CG2	79:CL:220:PRO:O	2.30	0.79
15:AG:56:ASN:CG	80:B2:153:G:N2	2.38	0.79
20:AL:133:LYS:HD2	80:B2:338:C:P	2.23	0.79
79:By:88:GLU:CB	79:CL:92:ASP:O	2.30	0.79
79:By:144:THR:HG21	79:CL:137:LEU:C	2.08	0.79
79:By:158:ALA:CB	79:CL:158:ALA:CA	2.60	0.79
80:B2:494:U:O2'	80:B2:495:C:O5'	2.01	0.79
81:B5:2255:A:H5'	81:B5:2261:G:H22	1.47	0.79
14:AF:112:ARG:NH1	80:B2:1529:C:OP1	2.16	0.79
15:AG:56:ASN:HB3	80:B2:154:G:H1'	1.63	0.79
15:AG:185:GLN:CG	80:B2:284:G:C6	2.65	0.79
17:AI:64:ASN:CG	80:B2:258:C:O4'	2.26	0.79
27:AS:143:ARG:NH2	80:B2:1462:G:N7	2.30	0.79
38:BD:120:LYS:O	38:BD:248:ARG:NH2	2.16	0.79
41:BG:185:ARG:HD2	83:B8:155:A:C4'	2.12	0.79
53:BS:90:MET:HG2	81:B5:1213:G:H4'	1.65	0.79
63:Bc:28:LYS:HD3	81:B5:1713:G:O6	1.83	0.79
67:Bg:9:ARG:NE	81:B5:1606:U:O4	2.15	0.79
79:By:13:LYS:C	79:CL:7:TYR:O	2.25	0.79
79:By:32:LEU:HD11	79:CL:219:GLY:HA2	1.64	0.79
79:By:112:ALA:CA	79:CL:136:LEU:CD1	2.57	0.79
79:By:116:THR:HG23	79:CL:115:ALA:CA	2.13	0.79
80:B2:1064:G:O6	89:B2:2077:OHX:N6	2.15	0.79
81:B5:173:G:HO2'	81:B5:174:C:H6	1.28	0.79
27:AS:69:ILE:HG22	27:AS:73:MET:HE2	1.63	0.79
79:By:18:LYS:HB2	79:CL:14:VAL:CG2	2.13	0.79
79:By:117:PRO:CB	79:CL:123:VAL:N	2.36	0.79
79:By:156:ILE:HD13	79:CL:112:ALA:HB2	1.65	0.79
79:By:183:GLU:H	79:CL:30:LYS:HE3	1.48	0.79
79:By:193:ILE:HG13	79:CL:193:ILE:HD11	1.61	0.79
81:B5:2443:A:C4	84:CN:2208:G:H3'	2.18	0.79
35:BA:204:MET:HG2	81:B5:914:A:N3	1.97	0.78
41:BG:242:ALA:CB	81:B5:2586:G:O6	2.31	0.78
53:BS:43:TYR:OH	82:B7:96:U:OP1	1.99	0.78
79:By:6:ARG:HD3	84:CN:2149:C:N3	1.56	0.78
79:By:100:ILE:N	79:CL:100:ILE:N	2.21	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:155:GLU:OE2	79:CL:155:GLU:CG	2.31	0.78
79:By:183:GLU:CG	79:CL:183:GLU:H	1.93	0.78
79:By:193:ILE:HD13	79:CL:226:PRO:HA	1.64	0.78
79:By:201:PRO:N	79:CL:199:HIS:O	2.15	0.78
79:By:209:LEU:CD1	79:CL:209:LEU:HB3	2.13	0.78
80:B2:1757:G:O2'	81:B5:2256:A:H2'	1.82	0.78
15:AG:108:VAL:HG21	80:B2:153:G:HO2'	1.45	0.78
23:AO:29:HIS:CD2	80:B2:917:U:O2	2.35	0.78
23:AO:129:LYS:HA	80:B2:990:C:C4'	2.13	0.78
24:AP:115:TYR:CE2	80:B2:1557:U:H5'	2.18	0.78
35:BA:15:ILE:HG13	81:B5:822:G:C1'	2.14	0.78
79:By:99:ILE:N	79:CL:99:ILE:HA	1.96	0.78
79:By:133:PRO:CG	86:CW:56:C:OP1	2.29	0.78
79:By:145:VAL:CB	79:CL:138:PRO:CB	2.62	0.78
79:By:157:LYS:HE3	79:CL:71:GLN:CG	2.14	0.78
79:By:212:VAL:HG21	79:CL:212:VAL:HB	1.62	0.78
80:B2:1759:C:C1'	81:B5:2262:A:C2	2.60	0.78
8:A7:30:THR:CA	81:B5:2707:C:O2'	2.30	0.78
15:AG:95:LYS:HE2	80:B2:161:U:P	2.23	0.78
15:AG:175:ILE:CA	80:B2:78:A:C2	2.66	0.78
20:AL:36:LYS:HD3	80:B2:248:U:C5'	2.14	0.78
23:AO:45:GLY:HA3	80:B2:900:A:OP1	1.83	0.78
31:AW:27:ILE:HD11	31:AW:61:ILE:HD12	1.65	0.78
33:AY:9:THR:HG23	80:B2:781:U:OP2	1.82	0.78
60:BZ:15:ARG:HD3	81:B5:1637:A:C4'	2.13	0.78
79:By:22:ILE:CB	79:CL:21:THR:C	2.54	0.78
79:By:29:VAL:HG22	79:CL:32:LEU:C	2.08	0.78
80:B2:51:A:N1	85:CP:243:PHE:CG	2.51	0.78
80:B2:839:U:O4	89:B2:2071:OHX:N4	2.16	0.78
10:AB:116:LYS:HE2	80:B2:933:A:OP1	1.82	0.78
15:AG:153:VAL:O	15:AG:155:ASP:N	2.16	0.78
42:BH:28:VAL:HG22	42:BH:33:THR:HB	1.64	0.78
59:BY:114:ASP:CG	83:B8:85:G:O6	2.26	0.78
74:Bn:11:ARG:HD3	80:B2:1126:G:C4'	1.97	0.78
79:By:51:PRO:HG3	79:CL:46:LYS:NZ	1.97	0.78
89:B2:1930:OHX:N2	81:B5:2275:A:OP1	2.17	0.78
15:AG:54:GLY:N	80:B2:163:G:H4'	1.97	0.78
23:AO:29:HIS:HE1	80:B2:918:U:C5'	1.97	0.78
54:BT:71:SER:CB	81:B5:2736:A:H4'	2.14	0.78
79:By:41:VAL:N	79:CL:40:THR:CB	2.47	0.78
79:By:77:ILE:HG23	79:CL:99:ILE:HG12	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:148:ASN:CG	79:CL:148:ASN:O	2.27	0.78
80:B2:1686:C:H2'	80:B2:1687:U:O5'	1.83	0.78
81:B5:15:C:H5'	81:B5:15:C:H6	1.49	0.78
8:A7:168:UNK:HA	21:AM:125:ASN:HD21	1.46	0.78
15:AG:60:GLY:O	80:B2:154:G:N3	2.15	0.78
15:AG:112:VAL:CG2	80:B2:164:A:C4'	2.61	0.78
23:AO:120:PRO:CA	80:B2:887:A:H5"	2.14	0.78
29:AU:57:ARG:CG	80:B2:1382:A:O4'	2.31	0.78
51:BQ:178:ARG:HD3	61:Ba:50:PRO:HB2	1.66	0.78
72:Bl:12:LYS:HE3	83:B8:45:C:OP1	1.82	0.78
79:By:93:TYR:H	79:CL:93:TYR:HE2	1.27	0.78
79:By:113:VAL:H	79:CL:136:LEU:HD22	1.49	0.78
8:A7:51:ARG:NH2	81:B5:2677:G:C8	2.52	0.78
10:AB:165:ARG:NH2	80:B2:947:U:P	2.55	0.78
22:AN:114:ARG:HG2	22:AN:114:ARG:HH11	1.49	0.78
23:AO:29:HIS:CE1	80:B2:918:U:C5'	2.65	0.78
38:BD:145:PHE:CG	81:B5:2748:A:H4'	2.18	0.78
74:Bn:5:TRP:CZ3	80:B2:1775:U:O4	2.35	0.78
79:By:30:LYS:NZ	79:CL:31:GLU:HB3	1.99	0.78
79:By:47:LEU:O	79:CL:210:ARG:NH1	2.17	0.78
79:By:141:LYS:NZ	79:CL:141:LYS:CE	2.47	0.78
79:By:206:GLY:N	79:CL:200:LYS:CE	2.46	0.78
79:By:208:PHE:CD1	79:CL:47:LEU:HD22	2.19	0.78
80:B2:1681:A:H2'	80:B2:1682:U:H5'	1.65	0.78
81:B5:766:U:H4'	81:B5:767:U:O5'	1.81	0.78
4:A3:33:LYS:HE3	80:B2:1593:A:O2'	1.83	0.78
14:AF:109:LYS:CD	80:B2:1473:U:H1'	2.14	0.78
23:AO:45:GLY:N	80:B2:900:A:OP1	2.16	0.78
36:BB:37:ARG:HG2	36:BB:187:SER:H	1.49	0.78
54:BT:129:LYS:CE	81:B5:1097:G:H5'	2.13	0.78
60:BZ:135:ARG:HH21	81:B5:1807:G:C5'	1.97	0.78
61:Ba:115:LYS:HG3	81:B5:715:A:H8	1.48	0.78
79:By:139:ASN:CB	79:CL:139:ASN:ND2	2.45	0.78
80:B2:1073:G:H2'	80:B2:1074:G:H5"	1.66	0.78
80:B2:1758:U:O3'	81:B5:2255:A:H5"	1.84	0.78
81:B5:2444:C:H42	81:B5:2503:G:H1	1.31	0.78
14:AF:62:VAL:HG13	14:AF:89:ILE:HG21	1.64	0.78
54:BT:71:SER:OG	81:B5:2736:A:C4'	2.31	0.78
79:By:39:GLU:HB2	79:CL:39:GLU:CD	2.08	0.78
79:By:113:VAL:CA	79:CL:136:LEU:HD13	2.14	0.78
79:By:141:LYS:HD2	79:CL:141:LYS:CA	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:734:A:H5”	80:B2:735:C:OP1	1.83	0.78
80:B2:1643:U:O2	81:B5:2262:A:H1’	1.84	0.78
8:A7:51:ARG:HD3	81:B5:2678:A:P	2.22	0.78
17:AI:170:SER:CB	80:B2:209:U:O3’	2.32	0.78
38:BD:175:HIS:HA	81:B5:2747:A:H5’	1.64	0.78
52:BR:165:LYS:CE	80:B2:824:G:C2	2.62	0.78
52:BR:173:ARG:NH1	80:B2:819:G:N2	2.32	0.78
76:Bq:4:ILE:HD11	81:B5:1218:U:C3’	2.14	0.78
79:By:46:LYS:CD	84:CN:2199:C:H4’	2.12	0.78
79:By:77:ILE:HG21	79:CL:77:ILE:CD1	2.13	0.78
79:By:82:LYS:HG3	79:CL:82:LYS:CA	2.15	0.78
81:B5:2219:A:HO2’	79:CL:205:LYS:HD3	1.48	0.78
32:AX:73:ARG:HE	32:AX:84:THR:HG22	1.49	0.77
35:BA:187:HIS:ND1	81:B5:1794:G:C2	2.51	0.77
52:BR:64:ARG:NH1	81:B5:1689:U:OP1	2.17	0.77
52:BR:173:ARG:NH1	80:B2:819:G:H22	1.81	0.77
63:Bc:85:PHE:CG	81:B5:1728:G:C2	2.71	0.77
74:Bn:4:LYS:HE2	80:B2:1774:G:O5’	1.84	0.77
79:By:5:LYS:C	84:CN:2150:C:C2’	2.57	0.77
79:By:26:ALA:HB2	79:CL:26:ALA:HA	1.66	0.77
80:B2:838:G:N7	89:B2:2071:OHX:N2	2.32	0.77
14:AF:80:LYS:HE3	80:B2:1405:G:OP1	1.83	0.77
21:AM:76:GLU:OE2	21:AM:90:LYS:NZ	2.17	0.77
25:AQ:13:LYS:HE2	80:B2:1584:G:O6	1.83	0.77
29:AU:85:ARG:HH22	80:B2:1335:U:H5’	1.49	0.77
33:AY:10:ARG:NH2	80:B2:778:G:H22	1.83	0.77
52:BR:173:ARG:HG2	80:B2:853:G:C5	2.19	0.77
65:Be:55:ILE:HB	81:B5:947:G:H5’	1.66	0.77
75:Bo:63:LYS:HB2	81:B5:2795:U:OP1	1.83	0.77
79:By:3:HIS:HA	84:CN:2149:C:O2	1.82	0.77
79:By:43:VAL:HG22	79:CL:42:GLU:O	1.83	0.77
79:By:143:GLY:N	79:CL:142:ALA:O	2.17	0.77
80:B2:1291:G:H8	80:B2:1291:G:O5’	1.66	0.77
81:B5:1225:A:N9	81:B5:1287:A:C2’	2.47	0.77
81:B5:1952:G:H1	81:B5:2094:C:H42	1.32	0.77
81:B5:3027:A:HO2’	85:CP:83:PHE:HE2	0.80	0.77
14:AF:185:ARG:NH1	80:B2:1572:G:C8	2.52	0.77
23:AO:132:ARG:NE	80:B2:1788:G:C8	2.52	0.77
32:AX:78:LYS:HB3	80:B2:434:G:H5’	1.66	0.77
38:BD:40:HIS:HD2	38:BD:42:ALA:H	1.32	0.77
41:BG:162:LEU:HD11	81:B5:147:U:O2	1.83	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BH:77:ASN:HA	42:BH:80:THR:HG23	1.66	0.77
79:By:8:ARG:HH12	84:CN:2154:G:H5"	1.49	0.77
79:By:64:LEU:CB	79:CL:65:PRO:CD	2.60	0.77
79:By:64:LEU:HD12	79:CL:188:ASN:O	1.85	0.77
79:By:117:PRO:CB	79:CL:123:VAL:H	1.88	0.77
79:By:157:LYS:CE	79:CL:71:GLN:CB	2.38	0.77
79:By:177:LYS:HB2	79:CL:177:LYS:HD2	1.64	0.77
80:B2:452:A:OP2	89:B2:1916:OHX:N5	2.18	0.77
81:B5:1225:A:C8	81:B5:1287:A:C2'	2.68	0.77
17:AI:42:ARG:HA	80:B2:260:U:C4	2.19	0.77
36:BB:188:ILE:H	36:BB:188:ILE:HD12	1.50	0.77
79:By:41:VAL:CG1	79:CL:216:THR:HA	2.14	0.77
79:By:119:VAL:HG12	79:CL:97:GLU:HG3	0.78	0.77
79:By:215:THR:HG21	84:CN:2197:A:H1'	1.66	0.77
15:AG:154:ARG:HG3	80:B2:78:A:H8	1.47	0.77
59:BY:24:SER:OG	83:B8:73:U:OP1	2.02	0.77
72:Bl:5:LYS:HD2	81:B5:1834:U:OP1	1.84	0.77
79:By:2:LYS:HG3	84:CN:2183:G:C8	2.19	0.77
79:By:22:ILE:HD13	79:CL:224:ILE:CD1	2.12	0.77
79:By:145:VAL:CA	79:CL:138:PRO:CA	2.61	0.77
79:By:154:ARG:O	79:CL:72:VAL:CG1	2.33	0.77
79:By:225:ASN:HA	79:CL:223:ARG:HG3	1.65	0.77
85:CP:199:ALA:CB	90:CP:401:GCP:C6	2.56	0.77
1:A0:87:ARG:HH12	80:B2:1796:C:H5'	1.49	0.77
7:A6:284:ALA:HB2	26:AR:63:LYS:HE2	1.64	0.77
15:AG:56:ASN:ND2	80:B2:153:G:N2	2.32	0.77
17:AI:64:ASN:ND2	80:B2:257:A:C2'	2.41	0.77
25:AQ:125:GLU:HB3	80:B2:1585:U:H5"	1.65	0.77
27:AS:83:ALA:HA	27:AS:86:LEU:HD22	1.65	0.77
33:AY:105:ARG:CB	80:B2:443:C:P	2.72	0.77
79:By:26:ALA:HB2	79:CL:25:ALA:C	2.10	0.77
79:By:36:LYS:HE3	84:CN:2148:G:O6	1.84	0.77
79:By:57:ASN:H	79:CL:57:ASN:CG	1.91	0.77
79:By:77:ILE:HG21	79:CL:77:ILE:HD13	1.63	0.77
79:By:177:LYS:CB	79:CL:38:ASP:C	2.46	0.77
79:By:220:PRO:HB3	84:CN:2197:A:OP1	1.81	0.77
80:B2:484:C:H42	80:B2:503:G:H22	1.33	0.77
80:B2:1686:C:C2	80:B2:1687:U:C6	2.72	0.77
14:AF:109:LYS:HD2	80:B2:1473:U:H1'	1.65	0.77
32:AX:144:ARG:CZ	85:CP:314:LYS:HE3	2.15	0.77
35:BA:34:TYR:CD2	81:B5:2525:G:C6	2.72	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:68:LYS:NZ	81:B5:1579:C:H5”	2.00	0.77
35:BA:217:GLN:NE2	81:B5:2146:C:OP1	2.15	0.77
38:BD:272:TYR:CD2	82:B7:22:A:C8	2.73	0.77
38:BD:276:LYS:HB3	82:B7:61:G:H5”	1.67	0.77
54:BT:68:THR:HG23	81:B5:2737:C:O5’	1.83	0.77
54:BT:68:THR:OG1	81:B5:2737:C:H4’	1.84	0.77
57:BW:46:PRO:HB2	57:BW:54:LEU:HD23	1.64	0.77
79:By:46:LYS:CE	84:CN:2199:C:O3’	2.33	0.77
79:By:79:LYS:HB2	79:CL:149:ILE:CD1	2.15	0.77
79:By:102:LYS:HE3	79:CL:104:LEU:CG	1.94	0.77
79:By:116:THR:HA	79:CL:115:ALA:HB1	1.34	0.77
79:By:122:ALA:N	79:CL:125:SER:N	2.13	0.77
79:By:123:VAL:HA	79:CL:100:ILE:HG21	1.66	0.77
79:By:140:PRO:HB3	79:CL:140:PRO:CG	2.15	0.77
3:A2:12:VAL:HG22	3:A2:28:VAL:HG11	1.66	0.77
17:AI:86:SER:OG	80:B2:329:G:O4’	2.03	0.77
36:BB:53:MET:HE3	81:B5:3048:A:H5”	1.65	0.77
38:BD:260:PHE:CD2	82:B7:121:U:H5’	2.19	0.77
52:BR:134:HIS:CD2	81:B5:1947:G:H5’	2.20	0.77
76:Bq:5:ARG:HH21	81:B5:1221:A:H4’	1.49	0.77
80:B2:415:C:H6	85:CP:287:LEU:C	1.92	0.77
80:B2:1370:U:O4	89:B2:2001:OHX:N1	2.17	0.77
1:A0:3:LYS:HA	80:B2:1792:G:H5”	1.66	0.77
15:AG:62:PRO:HB2	80:B2:162:A:C4’	2.15	0.77
25:AQ:14:LYS:CE	80:B2:1610:G:N7	2.48	0.77
35:BA:194:ASN:HD21	81:B5:822:G:H5’	1.50	0.77
79:By:22:ILE:HG13	79:CL:21:THR:C	2.09	0.77
79:By:119:VAL:HG11	79:CL:97:GLU:N	2.00	0.77
79:By:177:LYS:CG	79:CL:177:LYS:NZ	2.47	0.77
79:By:192:PHE:HB3	79:CL:43:VAL:HG11	1.67	0.77
80:B2:420:A:C6	85:CP:288:ARG:NH2	2.53	0.77
1:A0:35:ALA:HB3	1:A0:37:LYS:HE3	1.67	0.77
26:AR:2:GLY:HA3	80:B2:1312:A:P	2.25	0.77
28:AT:89:ARG:HD2	80:B2:1601:G:C6	2.20	0.77
30:AV:74:GLN:NE2	30:AV:81:ASN:O	2.18	0.77
34:AZ:77:ARG:NH2	80:B2:1533:C:C5	2.53	0.77
36:BB:53:MET:HE3	81:B5:3048:A:H5’	1.66	0.77
38:BD:266:ALA:CB	82:B7:1:G:C8	2.68	0.77
70:Bj:63:ARG:NH2	83:B8:58:G:N7	2.28	0.77
74:Bn:5:TRP:CZ3	80:B2:1775:U:C5	2.72	0.77
79:By:14:VAL:CG1	79:CL:32:LEU:HD22	2.15	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:41:VAL:HG13	79:CL:216:THR:HA	1.67	0.77
79:By:156:ILE:H	79:CL:156:ILE:CG2	1.98	0.77
81:B5:2227:C:H2'	81:B5:2228:A:H5"	1.65	0.77
14:AF:185:ARG:NH2	80:B2:1572:G:O2'	2.18	0.76
26:AR:48:ASN:CB	80:B2:1389:C:C4'	2.64	0.76
27:AS:84:TRP:HA	27:AS:89:GLN:HE22	1.50	0.76
38:BD:69:ILE:O	82:B7:8:G:H4'	1.86	0.76
52:BR:43:LYS:HG2	81:B5:1764:U:OP2	1.85	0.76
59:BY:45:ILE:HD12	59:BY:119:ILE:HG23	1.66	0.76
60:BZ:69:LYS:NZ	81:B5:1633:C:OP2	2.15	0.76
79:By:39:GLU:CD	79:CL:35:ALA:HB2	2.10	0.76
79:By:81:GLU:HB2	79:CL:80:GLY:O	1.72	0.76
79:By:171:ILE:CD1	79:CL:47:LEU:HD12	1.96	0.76
79:By:215:THR:OG1	84:CN:2196:C:O2'	2.03	0.76
79:By:227:HIS:CD2	79:CL:227:HIS:O	2.39	0.76
80:B2:276:C:O2'	80:B2:277:U:H5"	1.84	0.76
81:B5:2511:A:H2'	81:B5:2512:C:H5"	1.66	0.76
10:AB:165:ARG:NH1	80:B2:946:U:C5'	2.41	0.76
12:AD:174:HIS:HE1	80:B2:1278:G:C4'	1.97	0.76
35:BA:69:TYR:CD2	81:B5:2558:U:C2	2.74	0.76
40:BF:216:VAL:HG11	40:BF:227:GLY:HA3	1.67	0.76
74:Bn:2:ARG:C	80:B2:1773:C:OP1	2.22	0.76
79:By:44:HIS:CG	79:CL:172:HIS:ND1	2.52	0.76
79:By:153:ILE:O	79:CL:72:VAL:CG1	2.31	0.76
80:B2:1229:G:HO2'	80:B2:1255:G:N2	1.81	0.76
80:B2:1780:G:C2'	81:B5:2262:A:O2'	2.33	0.76
81:B5:150:A:H2'	81:B5:151:A:H5'	1.66	0.76
85:CP:78:PRO:O	90:CP:401:GCP:PG	2.44	0.76
6:A5:138:ARG:NH2	80:B2:1236:A:O4'	2.19	0.76
8:A7:47:ALA:HB2	81:B5:2678:A:C8	2.19	0.76
17:AI:42:ARG:CA	80:B2:260:U:O4	2.32	0.76
37:BC:51:ALA:O	83:B8:26:U:O2'	2.03	0.76
61:Ba:16:SER:HA	81:B5:942:U:C4	2.20	0.76
70:Bj:10:LYS:HE3	81:B5:1853:U:H5'	1.67	0.76
79:By:40:THR:OG1	84:CN:2146:G:P	2.43	0.76
79:By:93:TYR:N	79:CL:93:TYR:OH	2.07	0.76
79:By:219:GLY:C	79:CL:218:MET:HA	2.10	0.76
79:By:222:VAL:CG1	79:CL:14:VAL:CG1	2.54	0.76
80:B2:488:G:H4'	80:B2:488:G:OP1	1.86	0.76
80:B2:1655:A:O2'	81:B5:2302:G:O4'	2.03	0.76
81:B5:2509:U:H2'	81:B5:2510:U:H5"	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AB:116:LYS:HZ1	80:B2:933:A:P	2.07	0.76
15:AG:132:ARG:NE	80:B2:68:A:C6	2.52	0.76
35:BA:219:ILE:HD11	81:B5:2185:G:C5'	2.16	0.76
38:BD:94:ASN:HA	82:B7:47:C:OP2	1.84	0.76
52:BR:166:ASN:HB3	80:B2:850:A:H5"	1.66	0.76
61:Ba:62:HIS:HB2	81:B5:304:G:C8	2.21	0.76
79:By:157:LYS:CA	79:CL:72:VAL:CG1	2.43	0.76
79:By:214:VAL:CG1	79:CL:215:THR:HA	2.16	0.76
4:A3:14:TYR:HD2	80:B2:1597:A:C8	2.01	0.76
10:AB:62:LYS:O	10:AB:64:ARG:N	2.18	0.76
20:AL:130:PRO:HG2	80:B2:115:G:C6	2.21	0.76
35:BA:240:ALA:HB2	81:B5:2154:U:H4'	1.65	0.76
38:BD:218:ARG:HH12	82:B7:31:U:C4'	1.98	0.76
67:Bg:67:LYS:HB2	81:B5:1821:U:O2'	1.86	0.76
79:By:75:LEU:CD1	79:CL:108:MET:CA	2.63	0.76
79:By:152:ILE:HD12	79:CL:144:THR:HA	1.68	0.76
79:By:223:ARG:CD	79:CL:213:TYR:CE2	2.69	0.76
15:AG:56:ASN:HD21	80:B2:153:G:N2	1.82	0.76
15:AG:169:TYR:OH	80:B2:73:U:C5	2.34	0.76
35:BA:95:SER:OG	81:B5:2551:U:N3	2.17	0.76
79:By:59:ARG:H	79:CL:59:ARG:HD2	1.50	0.76
79:By:208:PHE:CE2	79:CL:208:PHE:CZ	2.69	0.76
10:AB:65:VAL:HG22	80:B2:920:U:C5'	2.14	0.76
13:AE:19:LEU:HD13	80:B2:788:A:C4	2.20	0.76
23:AO:46:MET:HA	80:B2:899:G:O5'	1.85	0.76
28:AT:12:GLN:NE2	80:B2:1530:C:C1'	2.49	0.76
29:AU:53:LYS:HA	80:B2:1345:A:O5'	1.85	0.76
61:Ba:62:HIS:CD2	81:B5:304:G:C2	2.73	0.76
79:By:41:VAL:HA	79:CL:217:THR:H	1.50	0.76
79:By:46:LYS:NZ	84:CN:2199:C:O3'	2.18	0.76
79:By:46:LYS:CE	84:CN:2200:C:P	2.73	0.76
79:By:84:LYS:CG	79:CL:87:GLU:HB3	2.15	0.76
79:By:93:TYR:C	79:CL:107:TRP:HZ2	1.90	0.76
79:By:113:VAL:N	79:CL:136:LEU:HD22	2.01	0.76
80:B2:1646:C:C4'	81:B5:2257:C:H41	1.97	0.76
80:B2:1715:G:C6	80:B2:1716:C:N4	2.54	0.76
8:A7:32:SER:CB	81:B5:2706:G:O2'	2.34	0.76
26:AR:88:VAL:HG22	26:AR:89:SER:H	1.47	0.76
79:By:18:LYS:CD	79:CL:16:PRO:HD3	2.16	0.76
79:By:18:LYS:HD3	79:CL:16:PRO:HD3	1.67	0.76
79:By:162:GLU:CD	79:CL:164:ARG:HB2	2.11	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A0:3:LYS:HA	80:B2:1792:G:C5'	2.15	0.76
10:AB:181:LEU:O	10:AB:184:LEU:N	2.18	0.76
15:AG:186:ARG:NH2	80:B2:269:G:N7	2.33	0.76
16:AH:35:LYS:O	16:AH:37:GLU:N	2.18	0.76
23:AO:46:MET:HG2	80:B2:899:G:C4'	2.12	0.76
31:AW:30:SER:HA	31:AW:34:ILE:HD12	1.67	0.76
60:BZ:83:THR:HG23	60:BZ:85:TYR:H	1.50	0.76
79:By:92:ASP:N	79:CL:73:ARG:CB	2.48	0.76
79:By:100:ILE:CB	79:CL:100:ILE:CB	2.59	0.76
79:By:136:LEU:HD23	79:CL:136:LEU:HD12	1.63	0.76
79:By:141:LYS:N	79:CL:139:ASN:ND2	2.33	0.76
79:By:176:GLY:HA3	79:CL:176:GLY:O	0.95	0.76
79:By:177:LYS:CE	79:CL:38:ASP:O	2.34	0.76
79:By:206:GLY:N	79:CL:200:LYS:HE3	2.01	0.76
2:A1:67:THR:HG22	80:B2:872:G:H4'	1.68	0.76
8:A7:33:LYS:CD	81:B5:2692:A:H5'	2.15	0.76
12:AD:161:GLY:HA2	80:B2:1420:C:O2	1.85	0.76
15:AG:159:ARG:NE	80:B2:77:U:C2	2.52	0.76
48:BN:162:ARG:CG	81:B5:56:G:H1'	2.16	0.76
54:BT:70:SER:N	81:B5:2737:C:OP1	2.19	0.76
57:BW:44:LYS:HE3	81:B5:2111:G:N3	2.01	0.76
79:By:86:ALA:HB1	79:CL:76:ALA:HB2	1.68	0.76
79:By:97:GLU:HB3	79:CL:98:GLU:N	2.01	0.76
79:By:199:HIS:HB3	79:CL:199:HIS:CB	2.15	0.76
80:B2:1716:C:O2'	80:B2:1717:G:H8	1.67	0.76
1:A0:15:ARG:O	80:B2:942:G:N7	2.20	0.75
9:AA:104:PRO:HG2	80:B2:1321:A:O5'	1.86	0.75
10:AB:117:TRP:CA	80:B2:932:U:OP2	2.35	0.75
25:AQ:40:GLU:HA	25:AQ:42:GLU:N	2.01	0.75
29:AU:57:ARG:HG2	80:B2:1382:A:C1'	2.17	0.75
52:BR:173:ARG:CG	80:B2:853:G:C4	2.47	0.75
69:Bi:58:ILE:HG22	69:Bi:90:MET:HG3	1.68	0.75
79:By:64:LEU:CA	79:CL:65:PRO:CD	2.52	0.75
79:By:138:PRO:HB3	79:CL:138:PRO:CG	2.03	0.75
79:By:153:ILE:N	79:CL:74:VAL:CG1	2.36	0.75
79:By:160:ARG:HH22	79:CL:143:GLY:CA	1.96	0.75
79:By:215:THR:OG1	84:CN:2197:A:C4'	2.33	0.75
81:B5:437:G:H22	81:B5:622:A:N6	1.81	0.75
81:B5:3028:G:OP1	85:CP:14:VAL:HG21	1.85	0.75
4:A3:31:ILE:HD13	80:B2:1199:G:H1	1.50	0.75
10:AB:54:LEU:CD1	81:B5:2438:A:H2	1.98	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AR:28:PHE:CD2	80:B2:1389:C:C5	2.74	0.75
34:AZ:77:ARG:NH2	80:B2:1533:C:H5	1.84	0.75
49:BO:72[A]:HIS:CD2	81:B5:3008:A:OP1	2.39	0.75
52:BR:175:GLN:N	80:B2:852:C:C4'	2.12	0.75
54:BT:49:GLN:CG	81:B5:2756:C:O4'	2.32	0.75
79:By:13:LYS:N	79:CL:6:ARG:C	2.45	0.75
79:By:112:ALA:C	79:CL:136:LEU:CD1	2.55	0.75
79:By:171:ILE:HD12	79:CL:171:ILE:HD12	1.66	0.75
79:By:199:HIS:HD2	79:CL:196:LEU:HD22	1.51	0.75
80:B2:1645:G:O2'	81:B5:2258:U:O4	2.02	0.75
10:AB:146:GLN:NE2	80:B2:1065:A:H1'	2.00	0.75
15:AG:62:PRO:HB3	80:B2:162:A:O4'	1.85	0.75
33:AY:120:GLY:HA2	80:B2:85:A:C3'	2.16	0.75
38:BD:174:PRO:O	81:B5:2747:A:H4'	1.87	0.75
64:Bd:13:THR:HG22	64:Bd:72:ARG:HH11	1.51	0.75
74:Bn:5:TRP:CH2	80:B2:1775:U:C4	2.74	0.75
79:By:14:VAL:HG13	79:CL:10:LEU:CD2	2.16	0.75
81:B5:3049:A:H5'	81:B5:3049:A:H8	1.50	0.75
85:CP:63:GLU:CB	85:CP:210:TRP:CD2	2.69	0.75
8:A7:51:ARG:CD	81:B5:2677:G:O3'	2.34	0.75
28:AT:91:TYR:CE1	80:B2:1469:A:OP1	2.38	0.75
29:AU:23:ARG:NH1	80:B2:1347:U:OP1	2.19	0.75
37:BC:93:MET:HB2	81:B5:658:G:N2	2.01	0.75
79:By:12:GLU:HG3	79:CL:6:ARG:HA	1.69	0.75
79:By:46:LYS:HG3	79:CL:46:LYS:HG2	0.76	0.75
79:By:142:ALA:HB2	79:CL:59:ARG:HH21	1.52	0.75
79:By:152:ILE:HG21	79:CL:144:THR:HG22	1.68	0.75
79:By:201:PRO:HB3	79:CL:58:VAL:HA	1.67	0.75
79:By:213:TYR:HB3	79:CL:221:SER:HB2	1.68	0.75
8:A7:51:ARG:CD	81:B5:2677:G:H4'	2.17	0.75
10:AB:116:LYS:HA	80:B2:931:C:C4'	2.16	0.75
17:AI:36:THR:HB	17:AI:57:ALA:O	1.85	0.75
25:AQ:72:GLY:HA2	80:B2:1608:U:H5"	1.66	0.75
37:BC:307:GLN:OE1	81:B5:1345:G:N2	2.19	0.75
42:BH:20:ILE:HD13	42:BH:25:VAL:HG22	1.65	0.75
48:BN:67:ARG:HG3	81:B5:1544:G:H5'	1.67	0.75
54:BT:129:LYS:CB	81:B5:1098:A:O5'	2.34	0.75
61:Ba:6:THR:HG23	61:Ba:8:THR:HG23	1.68	0.75
74:Bn:15:ARG:CG	80:B2:1126:G:OP2	2.35	0.75
79:By:83:ILE:C	79:CL:94:VAL:CG1	2.55	0.75
79:By:108:MET:HE1	84:CN:2189:G:C6	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:137:LEU:CD1	79:CL:137:LEU:HG	2.16	0.75
79:By:144:THR:C	79:CL:138:PRO:CA	2.44	0.75
79:By:157:LYS:HB2	79:CL:72:VAL:HG12	1.66	0.75
27:AS:143:ARG:HB3	80:B2:1461:C:P	2.27	0.75
35:BA:181:LYS:NZ	81:B5:860:G:O5'	2.17	0.75
38:BD:15:ARG:NE	81:B5:1003:A:H1'	2.02	0.75
38:BD:218:ARG:NH1	82:B7:31:U:C4'	2.42	0.75
40:BF:158:LYS:HD2	40:BF:159:GLN:HA	1.66	0.75
63:Bc:85:PHE:CG	81:B5:1728:G:N1	2.54	0.75
70:Bj:60:GLY:N	83:B8:42:G:OP1	2.19	0.75
79:By:19:ILE:CG2	79:CL:17:ASN:C	2.51	0.75
79:By:22:ILE:HD12	79:CL:22:ILE:CA	2.17	0.75
79:By:116:THR:CG2	79:CL:116:THR:H	1.98	0.75
79:By:123:VAL:O	79:CL:100:ILE:CG2	2.34	0.75
79:By:134:ARG:CB	84:CN:2191:A:H5'	2.16	0.75
79:By:176:GLY:H	79:CL:40:THR:HG22	1.51	0.75
79:By:205:LYS:HD2	79:CL:204:ALA:N	1.95	0.75
79:By:222:VAL:HG23	79:CL:220:PRO:C	2.07	0.75
79:By:224:ILE:CD1	79:CL:214:VAL:CG2	2.59	0.75
80:B2:1057:U:O2'	80:B2:1058:U:OP2	2.02	0.75
7:A6:89:LEU:HB2	7:A6:103:PHE:HB2	1.68	0.75
17:AI:51:GLY:N	80:B2:397:A:H5"	2.00	0.75
18:AJ:175:ARG:HH11	18:AJ:175:ARG:HG3	1.51	0.75
23:AO:126:THR:CG2	80:B2:988:A:H2	1.94	0.75
44:BJ:92:ARG:HG2	44:BJ:92:ARG:HH11	1.51	0.75
70:Bj:12:HIS:O	81:B5:1491:A:H5'	1.87	0.75
79:By:22:ILE:HG12	79:CL:224:ILE:HB	1.68	0.75
79:By:82:LYS:CG	79:CL:86:ALA:HB2	2.16	0.75
79:By:144:THR:HG22	79:CL:138:PRO:HD3	1.68	0.75
79:By:171:ILE:HG21	79:CL:47:LEU:CG	2.17	0.75
35:BA:211:HIS:HD1	81:B5:2185:G:P	2.10	0.75
38:BD:226:TYR:HE2	38:BD:236:LEU:HD11	1.51	0.75
67:Bg:24:LYS:O	81:B5:1695:U:H4'	1.87	0.75
79:By:32:LEU:HD13	79:CL:219:GLY:CA	2.15	0.75
79:By:74:VAL:HG22	79:CL:111:ASP:CA	2.17	0.75
80:B2:514:G:H1	80:B2:543:C:H5	1.33	0.75
12:AD:159:HIS:CG	80:B2:1422:A:H4'	2.21	0.75
13:AE:19:LEU:HD22	80:B2:788:A:H2'	1.68	0.75
23:AO:41:ARG:HH22	80:B2:915:A:N6	1.82	0.75
35:BA:114:SER:HB2	35:BA:169:ILE:HD12	1.67	0.75
52:BR:8:LYS:NZ	81:B5:1473:G:OP2	2.20	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Ba:115:LYS:HG3	81:B5:715:A:C8	2.22	0.75
79:By:8:ARG:C	79:CL:4:GLY:HA2	2.03	0.75
79:By:13:LYS:H	79:CL:7:TYR:N	1.85	0.75
79:By:59:ARG:CG	79:CL:59:ARG:NE	2.49	0.75
79:By:126:LYS:HE2	79:CL:126:LYS:HD3	1.65	0.75
79:By:166:ASP:OD1	79:CL:168:THR:N	2.17	0.75
79:By:190:ARG:O	79:CL:193:ILE:HD13	1.87	0.75
6:A5:138:ARG:NH2	80:B2:1235:C:H2'	2.01	0.74
17:AI:138:ASN:CG	80:B2:197:A:N1	2.44	0.74
29:AU:57:ARG:HB3	80:B2:1382:A:O4'	1.87	0.74
33:AY:10:ARG:CA	80:B2:778:G:O6	2.28	0.74
35:BA:194:ASN:ND2	81:B5:822:G:C5'	2.50	0.74
36:BB:347:SER:HB3	36:BB:350:ALA:H	1.52	0.74
50:BP:127:ARG:HD2	81:B5:1505:C:OP1	1.86	0.74
62:Bb:50:THR:HG22	81:B5:1073:U:H1'	1.68	0.74
67:Bg:83:ASN:HD21	81:B5:1709:C:P	2.09	0.74
70:Bj:63:ARG:NH1	83:B8:58:G:O6	2.18	0.74
79:By:9:ALA:HA	79:CL:5:LYS:CG	2.13	0.74
79:By:25:ALA:O	79:CL:28:LEU:C	2.29	0.74
79:By:81:GLU:CD	79:CL:82:LYS:H	1.79	0.74
79:By:151:GLU:HG2	79:CL:151:GLU:O	1.87	0.74
79:By:163:PHE:HZ	79:CL:199:HIS:CG	2.05	0.74
17:AI:141:ARG:CZ	80:B2:196:G:N7	2.50	0.74
20:AL:133:LYS:HD2	80:B2:338:C:OP2	1.85	0.74
22:AN:12:SER:O	89:B2:1910:OHX:N3	2.20	0.74
35:BA:211:HIS:CE1	81:B5:2184:U:O3'	2.40	0.74
38:BD:17:GLN:N	81:B5:2688:U:O2	2.19	0.74
41:BG:185:ARG:CD	83:B8:155:A:H4'	2.16	0.74
44:BJ:109:HIS:HD2	44:BJ:123:PHE:H	1.32	0.74
56:BV:2:SER:HA	56:BV:56:ASP:HA	1.69	0.74
79:By:18:LYS:HD2	79:CL:15:ASP:CA	2.15	0.74
79:By:37:PHE:CD2	84:CN:2146:G:O3'	2.39	0.74
79:By:75:LEU:CD2	79:CL:107:TRP:CZ3	2.69	0.74
81:B5:1308:A:C8	81:B5:1308:A:OP2	2.40	0.74
14:AF:57:SER:O	14:AF:59:VAL:N	2.20	0.74
15:AG:59:GLN:O	80:B2:155:U:H1'	1.86	0.74
16:AH:107:ARG:NH2	80:B2:741:C:O2	2.20	0.74
23:AO:18:ARG:NH1	80:B2:918:U:O2'	2.20	0.74
23:AO:125:SER:CB	80:B2:927:C:H1'	2.13	0.74
23:AO:129:LYS:HA	80:B2:990:C:O3'	1.87	0.74
27:AS:26:ILE:HD11	27:AS:31:ALA:N	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AT:93:HIS:HB2	80:B2:1525:A:H5'	1.68	0.74
39:BE:21:THR:HB	81:B5:612:U:OP1	1.87	0.74
44:BJ:137:ARG:NE	82:B7:43:U:OP1	2.18	0.74
51:BQ:38:ARG:NH2	81:B5:1348:U:OP2	2.20	0.74
79:By:29:VAL:CG1	79:CL:32:LEU:H	2.00	0.74
79:By:64:LEU:HA	79:CL:65:PRO:CD	2.12	0.74
79:By:100:ILE:CG2	79:CL:97:GLU:O	2.24	0.74
79:By:116:THR:HB	79:CL:77:ILE:HG22	1.66	0.74
79:By:140:PRO:HB3	79:CL:140:PRO:HG2	1.66	0.74
79:By:141:LYS:C	79:CL:59:ARG:CZ	2.60	0.74
79:By:144:THR:HB	79:CL:138:PRO:N	2.01	0.74
79:By:145:VAL:C	79:CL:144:THR:HB	2.11	0.74
80:B2:706:A:N1	80:B2:734:A:N6	2.34	0.74
89:B2:1918:OHX:N1	89:B2:2064:OHX:N3	2.35	0.74
23:AO:51:ASP:CG	80:B2:902:G:H1	1.96	0.74
46:BL:128:ARG:NH2	68:Bh:109:ILE:O	2.20	0.74
79:By:8:ARG:HE	84:CN:2151:U:C5'	1.93	0.74
79:By:116:THR:H	79:CL:77:ILE:CG1	2.00	0.74
81:B5:595:G:H1	81:B5:609:G:H5"	1.53	0.74
85:CP:131:LYS:HD3	90:CP:401:GCP:C6	2.17	0.74
7:A6:102:ARG:NH2	80:B2:1341:A:O2'	2.20	0.74
10:AB:83:LYS:NZ	23:AO:116:GLU:OE2	2.18	0.74
15:AG:133:LEU:HA	80:B2:66:U:C4	2.22	0.74
18:AJ:149:ARG:NH1	80:B2:765:G:C2	2.56	0.74
23:AO:52:ARG:HB2	80:B2:906:A:OP2	1.88	0.74
27:AS:138:THR:OG1	80:B2:1459:C:OP2	2.05	0.74
52:BR:101:VAL:HG22	81:B5:1949:G:P	2.27	0.74
56:BV:48:ARG:HA	81:B5:2338:C:O3'	1.87	0.74
79:By:134:ARG:CG	84:CN:2190:A:O3'	2.34	0.74
79:By:134:ARG:HG3	84:CN:2190:A:O2'	1.88	0.74
79:By:187:ASP:HB3	79:CL:184:LYS:C	2.12	0.74
79:By:195:ALA:CB	79:CL:195:ALA:HB3	2.17	0.74
12:AD:161:GLY:N	80:B2:1420:C:O2	2.20	0.74
15:AG:175:ILE:HD11	80:B2:78:A:C2'	2.17	0.74
33:AY:105:ARG:HB3	80:B2:443:C:P	2.26	0.74
63:Bc:85:PHE:HB2	81:B5:1728:G:N2	2.02	0.74
79:By:21:THR:HG22	79:CL:21:THR:H	1.53	0.74
79:By:103:ILE:HA	79:CL:104:LEU:O	1.87	0.74
79:By:119:VAL:HG22	79:CL:77:ILE:HG22	1.66	0.74
79:By:142:ALA:CB	79:CL:162:GLU:OE2	2.34	0.74
79:By:160:ARG:CD	79:CL:160:ARG:HE	1.99	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:179:SER:CB	79:CL:38:ASP:OD1	2.36	0.74
81:B5:2802:A:C1'	86:CW:75:C:H42	2.00	0.74
14:AF:144:GLU:OE2	14:AF:225:ARG:NH2	2.21	0.74
23:AO:18:ARG:NH1	80:B2:918:U:C3'	2.51	0.74
48:BN:72:LYS:NZ	81:B5:2166:A:O3'	2.19	0.74
61:Ba:64:GLN:HE22	81:B5:70:A:H5'	1.53	0.74
79:By:22:ILE:HG12	79:CL:224:ILE:CB	2.17	0.74
79:By:107:TRP:CZ2	79:CL:107:TRP:C	2.61	0.74
79:By:137:LEU:HD21	79:CL:128:GLY:CA	2.17	0.74
79:By:220:PRO:CG	79:CL:7:TYR:CG	2.46	0.74
17:AI:33:PRO:HA	80:B2:331:A:H5'	1.70	0.74
23:AO:128:LYS:O	80:B2:990:C:H4'	1.87	0.74
27:AS:143:ARG:HA	80:B2:1461:C:OP1	1.88	0.74
60:BZ:15:ARG:HB3	81:B5:1637:A:H5"	1.70	0.74
60:BZ:48:ARG:NH1	81:B5:1632:A:OP1	2.20	0.74
68:Bh:95:PHE:N	81:B5:135:C:O2'	2.20	0.74
79:By:44:HIS:CB	84:CN:2198:C:C1'	2.65	0.74
79:By:136:LEU:O	79:CL:131:LEU:CD1	2.35	0.74
80:B2:355:G:OP2	89:B2:1914:OHX:N4	2.19	0.74
80:B2:1002:G:H4'	81:B5:2265:C:P	2.28	0.74
89:B2:1921:OHX:N5	89:B2:2050:OHX:N3	2.36	0.74
8:A7:46:LYS:HG3	81:B5:2678:A:H4'	1.68	0.74
10:AB:157:GLN:O	10:AB:159:SER:N	2.20	0.74
15:AG:174:LYS:CE	80:B2:79:C:O2	2.35	0.74
16:AH:50:ASP:OD1	16:AH:50:ASP:N	2.21	0.74
32:AX:144:ARG:HH12	85:CP:314:LYS:CD	1.99	0.74
40:BF:88:ARG:HD2	40:BF:90:LYS:O	1.86	0.74
63:Bc:85:PHE:CD1	81:B5:1728:G:C2	2.75	0.74
79:By:61:THR:HB	79:CL:161:ILE:O	1.88	0.74
79:By:77:ILE:CG2	79:CL:77:ILE:HD11	1.99	0.74
79:By:159:GLY:N	79:CL:159:GLY:CA	2.51	0.74
79:By:193:ILE:HD11	79:CL:224:ILE:HD12	1.68	0.74
80:B2:913:G:O6	81:B5:2206:G:C3'	2.34	0.74
84:CN:2188:U:H3	84:CN:2192:A:H2	1.34	0.74
10:AB:109:LYS:HG3	10:AB:113:MET:HE3	1.69	0.74
10:AB:116:LYS:HA	80:B2:931:C:O3'	1.86	0.74
15:AG:83:CYS:N	80:B2:162:A:P	2.60	0.74
17:AI:25:ARG:HA	80:B2:400:A:H5"	1.69	0.74
24:AP:42:ARG:NH1	80:B2:1549:C:OP1	2.20	0.74
35:BA:194:ASN:ND2	81:B5:822:G:H5'	2.03	0.74
46:BL:99:HIS:NE2	81:B5:156:G:C6	2.55	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BN:73:ARG:HG2	48:BN:75:VAL:HG13	1.70	0.74
74:Bn:4:LYS:CE	80:B2:1774:G:O5'	2.36	0.74
79:By:41:VAL:CG2	79:CL:216:THR:HB	2.10	0.74
79:By:41:VAL:HA	79:CL:216:THR:C	2.12	0.74
79:By:53:ARG:CG	79:CL:52:ARG:H	2.00	0.74
79:By:55:ASP:OD2	79:CL:55:ASP:N	2.20	0.74
79:By:92:ASP:HB2	79:CL:109:ASP:O	1.87	0.74
79:By:163:PHE:CA	79:CL:171:ILE:CG1	2.63	0.74
79:By:196:LEU:HD13	79:CL:45:ALA:HB2	1.70	0.74
81:B5:2444:C:C4'	84:CN:2208:G:C1'	2.42	0.74
12:AD:159:HIS:HB3	80:B2:1422:A:H5'	1.70	0.73
15:AG:58:LYS:HA	80:B2:155:U:C5'	2.18	0.73
15:AG:182:GLN:CD	80:B2:271:A:N6	2.46	0.73
25:AQ:5:PRO:HG2	25:AQ:24:ALA:HB2	1.69	0.73
25:AQ:75:VAL:CG1	80:B2:1610:G:OP1	2.34	0.73
26:AR:82:ASP:O	26:AR:83:GLN:NE2	2.20	0.73
29:AU:57:ARG:CG	80:B2:1382:A:C4'	2.66	0.73
29:AU:57:ARG:CB	80:B2:1382:A:O4'	2.36	0.73
35:BA:200:ARG:HD3	81:B5:2187:G:O6	1.88	0.73
38:BD:272:TYR:OH	82:B7:22:A:H1'	1.87	0.73
54:BT:68:THR:HG21	81:B5:2736:A:O3'	1.87	0.73
54:BT:68:THR:HG22	54:BT:71:SER:H	1.51	0.73
69:Bi:15:LYS:N	81:B5:73:C:OP1	2.21	0.73
79:By:103:ILE:CG1	79:CL:103:ILE:CA	2.42	0.73
79:By:141:LYS:CA	79:CL:141:LYS:HB3	2.17	0.73
81:B5:2818:U:H5'	81:B5:2818:U:C6	2.23	0.73
12:AD:7:LYS:NZ	29:AU:115:GLU:OE2	2.21	0.73
15:AG:83:CYS:HA	80:B2:162:A:P	2.28	0.73
15:AG:115:LYS:NZ	57:BW:74:LYS:O	2.21	0.73
23:AO:41:ARG:HH22	80:B2:915:A:H62	1.36	0.73
26:AR:28:PHE:CE1	80:B2:1389:C:H1'	2.23	0.73
35:BA:187:HIS:CD2	81:B5:1794:G:C6	2.76	0.73
49:BO:160[A]:ARG:NH2	81:B5:3182:G:OP1	2.22	0.73
79:By:13:LYS:N	79:CL:7:TYR:O	1.92	0.73
79:By:93:TYR:HB3	79:CL:107:TRP:CZ2	2.23	0.73
79:By:113:VAL:HG12	79:CL:131:LEU:CD1	2.16	0.73
79:By:132:GLY:O	79:CL:132:GLY:CA	2.36	0.73
79:By:140:PRO:C	79:CL:141:LYS:C	2.55	0.73
79:By:175:VAL:HG23	79:CL:41:VAL:CA	2.18	0.73
79:By:179:SER:CA	79:CL:38:ASP:HA	2.18	0.73
80:B2:108:A:H2'	80:B2:109:G:C8	2.23	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2443:A:O5'	84:CN:2208:G:C6	2.41	0.73
15:AG:60:GLY:C	80:B2:154:G:H21	1.91	0.73
15:AG:164:LYS:CE	80:B2:72:A:H5"	2.19	0.73
17:AI:97:THR:HB	80:B2:330:G:OP1	1.88	0.73
25:AQ:74:HIS:HE1	80:B2:1480:G:H22	1.36	0.73
27:AS:123:ARG:HG3	27:AS:133:VAL:HG21	1.69	0.73
28:AT:60:SER:HB2	80:B2:1479:A:C5'	2.13	0.73
29:AU:85:ARG:NH2	80:B2:1335:U:H5'	2.02	0.73
48:BN:125:SER:HB3	81:B5:2433:U:H1'	1.70	0.73
52:BR:170:ARG:N	80:B2:851:U:H3'	2.03	0.73
79:By:32:LEU:CA	79:CL:6:ARG:HD2	2.19	0.73
79:By:77:ILE:CB	79:CL:77:ILE:HG12	2.15	0.73
79:By:81:GLU:HB2	79:CL:81:GLU:C	2.13	0.73
79:By:156:ILE:N	79:CL:72:VAL:HG11	2.04	0.73
79:By:202:GLU:N	79:CL:201:PRO:HB3	1.93	0.73
81:B5:2211:U:H5	81:B5:2234:G:O6	1.71	0.73
84:CN:2160:C:O2'	84:CN:2161:C:P	2.46	0.73
15:AG:107:ALA:CB	80:B2:154:G:O3'	2.37	0.73
15:AG:174:LYS:N	80:B2:79:C:O4'	2.20	0.73
17:AI:2:GLY:N	80:B2:393:C:OP2	2.21	0.73
20:AL:80:MET:HE1	80:B2:325:G:H5'	1.69	0.73
51:BQ:43:PRO:CB	81:B5:728:G:H5"	2.18	0.73
72:Bl:49:MET:N	81:B5:1493:G:OP1	2.17	0.73
79:By:74:VAL:CG2	79:CL:111:ASP:CB	2.61	0.73
79:By:116:THR:CB	79:CL:115:ALA:HB2	2.00	0.73
79:By:194:ARG:HB3	79:CL:194:ARG:HB2	1.70	0.73
79:By:221:SER:N	84:CN:2197:A:P	2.61	0.73
81:B5:2372:A:H5"	81:B5:2373:A:H5'	1.70	0.73
15:AG:133:LEU:HD11	80:B2:66:U:HO2'	1.50	0.73
15:AG:157:VAL:HG21	80:B2:78:A:HO2'	1.52	0.73
17:AI:64:ASN:CB	80:B2:258:C:O4'	2.37	0.73
26:AR:7:LYS:CB	80:B2:1316:G:OP1	2.35	0.73
48:BN:172:ARG:HB3	48:BN:174:ILE:HD13	1.70	0.73
52:BR:169:ALA:HB2	80:B2:850:A:N3	2.04	0.73
79:By:77:ILE:CA	79:CL:77:ILE:HG12	2.19	0.73
79:By:98:GLU:CA	79:CL:98:GLU:OE1	2.31	0.73
79:By:145:VAL:N	79:CL:144:THR:HB	1.87	0.73
79:By:145:VAL:CA	79:CL:144:THR:CB	2.65	0.73
80:B2:440:U:P	85:CP:274:ASN:HD21	2.08	0.73
80:B2:582:U:C6	80:B2:582:U:H5"	2.24	0.73
80:B2:818:C:N4	80:B2:819:G:O6	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:3289:G:H2'	81:B5:3290:G:C8	2.23	0.73
85:CP:63:GLU:HB2	85:CP:210:TRP:CD2	2.23	0.73
54:BT:89:LEU:HD12	81:B5:2723:U:H5'	1.69	0.73
79:By:140:PRO:CA	79:CL:140:PRO:N	2.50	0.73
79:By:152:ILE:HD13	79:CL:144:THR:HG22	1.71	0.73
79:By:190:ARG:HA	79:CL:22:ILE:HD11	1.65	0.73
79:By:201:PRO:CG	79:CL:58:VAL:HG23	2.03	0.73
80:B2:51:A:H1'	85:CP:242:GLY:N	1.95	0.73
80:B2:51:A:C2'	85:CP:242:GLY:CA	2.62	0.73
80:B2:1655:A:C4'	81:B5:2302:G:H4'	2.18	0.73
81:B5:2397:A:OP1	81:B5:2398:A:H5"	1.88	0.73
11:AC:206:THR:HG21	80:B2:14:C:OP2	1.89	0.73
17:AI:92:ARG:NH1	81:B5:2107:A:O2'	2.22	0.73
21:AM:89:ILE:HG23	21:AM:90:LYS:H	1.52	0.73
32:AX:144:ARG:CZ	85:CP:314:LYS:CE	2.66	0.73
38:BD:224:LYS:HD2	82:B7:50:U:O2'	1.88	0.73
38:BD:272:TYR:CE2	82:B7:22:A:H1'	2.24	0.73
54:BT:6:GLY:HA2	81:B5:2630:C:OP1	1.89	0.73
79:By:2:LYS:HA	84:CN:2148:G:N1	1.96	0.73
79:By:18:LYS:N	79:CL:14:VAL:HG23	2.04	0.73
79:By:175:VAL:HG23	79:CL:41:VAL:HB	1.70	0.73
79:By:179:SER:OG	79:CL:38:ASP:CA	2.35	0.73
80:B2:471:A:OP2	89:B2:1955:OHX:N4	2.21	0.73
9:AA:4:PRO:HB2	9:AA:7:PHE:HB2	1.70	0.73
12:AD:64:ARG:O	12:AD:67:ASN:N	2.20	0.73
12:AD:203:PRO:HB3	80:B2:1332:C:H5'	1.69	0.73
20:AL:80:MET:CE	80:B2:325:G:C4'	2.67	0.73
42:BH:171:ASP:OD1	42:BH:173:ARG:HD3	1.89	0.73
61:Ba:64:GLN:HE22	81:B5:70:A:C5'	2.02	0.73
79:By:8:ARG:CD	84:CN:2150:C:O2'	2.37	0.73
79:By:24:GLU:OE1	79:CL:20:TYR:CE2	2.42	0.73
79:By:141:LYS:CA	79:CL:142:ALA:CA	2.40	0.73
79:By:141:LYS:HZ3	79:CL:141:LYS:HE2	1.54	0.73
79:By:144:THR:HG22	79:CL:138:PRO:N	2.04	0.73
79:By:185:LEU:HG	79:CL:185:LEU:CD1	2.17	0.73
79:By:225:ASN:N	79:CL:20:TYR:H	1.86	0.73
80:B2:1686:C:O2'	80:B2:1687:U:C5'	2.37	0.73
14:AF:97:LEU:O	80:B2:1473:U:O4	2.07	0.73
20:AL:28:SER:OG	80:B2:839:U:H5"	1.89	0.73
23:AO:120:PRO:HB2	80:B2:887:A:H5"	1.71	0.73
23:AO:123:SER:HB2	80:B2:885:G:H21	0.92	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AU:53:LYS:CB	80:B2:1345:A:C5'	2.62	0.73
35:BA:71:LEU:HB2	81:B5:1651:U:H5"	1.71	0.73
38:BD:158:ARG:CD	82:B7:46:A:P	2.76	0.73
41:BG:68:ARG:O	41:BG:69:LEU:HB2	1.89	0.73
70:Bj:48:ASN:OD1	70:Bj:54:LYS:NZ	2.20	0.73
79:By:21:THR:CB	79:CL:24:GLU:CG	2.35	0.73
79:By:62:VAL:HG21	79:CL:195:ALA:CB	2.18	0.73
79:By:82:LYS:HD2	79:CL:149:ILE:HG23	1.21	0.73
79:By:136:LEU:HD13	79:CL:108:MET:CE	2.11	0.73
79:By:141:LYS:CD	79:CL:141:LYS:C	2.56	0.73
79:By:149:ILE:N	79:CL:153:ILE:HG13	2.02	0.73
79:By:225:ASN:H	79:CL:20:TYR:N	1.85	0.73
84:CN:2201:U:C6	84:CN:2201:U:C5'	2.72	0.73
12:AD:65:ARG:HA	12:AD:68:GLU:HG3	1.70	0.73
18:AJ:149:ARG:NH1	80:B2:765:G:N3	2.37	0.73
20:AL:40:LEU:HD13	80:B2:246:G:H1'	1.71	0.73
24:AP:47:ARG:HH11	80:B2:1555:A:P	2.11	0.73
25:AQ:18:ALA:HB2	25:AQ:69:VAL:HG13	1.71	0.73
26:AR:49:LYS:N	80:B2:1389:C:H4'	2.04	0.73
42:BH:70:THR:HB	81:B5:3112:G:O2'	1.88	0.73
79:By:8:ARG:C	79:CL:4:GLY:CA	2.61	0.73
79:By:23:ASP:HB3	79:CL:27:HIS:CB	2.19	0.73
79:By:39:GLU:CA	79:CL:217:THR:HB	2.17	0.73
79:By:65:PRO:C	79:CL:66:HIS:HB2	2.12	0.73
79:By:116:THR:CG2	79:CL:116:THR:N	2.52	0.73
79:By:161:ILE:CG2	79:CL:161:ILE:HG21	2.18	0.73
79:By:163:PHE:HA	79:CL:171:ILE:CD1	2.18	0.73
79:By:192:PHE:HD2	79:CL:43:VAL:HG11	1.32	0.73
80:B2:1428:G:H5'	80:B2:1428:G:H8	1.53	0.73
81:B5:1781:C:H2'	81:B5:1782:U:H6	1.54	0.73
81:B5:3027:A:C2'	85:CP:109:GLN:CB	2.63	0.73
7:A6:170:ILE:HG21	7:A6:211:ILE:HD11	1.70	0.72
8:A7:51:ARG:CZ	81:B5:2677:G:C8	2.71	0.72
12:AD:4:LEU:O	80:B2:1514:U:C6	2.42	0.72
22:AN:14:SER:OG	80:B2:960:U:H5	1.72	0.72
70:Bj:59:THR:HG22	83:B8:41:A:O2'	1.88	0.72
76:Bq:5:ARG:CZ	81:B5:1221:A:C1'	2.66	0.72
79:By:18:LYS:CA	79:CL:14:VAL:HG23	2.18	0.72
79:By:53:ARG:CD	79:CL:53:ARG:HB2	2.19	0.72
79:By:78:ALA:CB	79:CL:94:VAL:HA	2.19	0.72
79:By:218:MET:HG3	84:CN:2195:C:C1'	2.14	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:222:VAL:HG11	79:CL:32:LEU:HD11	1.71	0.72
8:A7:33:LYS:HE3	81:B5:2692:A:C5'	2.19	0.72
17:AI:25:ARG:HA	80:B2:400:A:C5'	2.18	0.72
20:AL:65:SER:HG	80:B2:114:C:HO2'	0.77	0.72
23:AO:88:GLY:CA	80:B2:888:U:C5'	2.66	0.72
23:AO:132:ARG:N	80:B2:1787:C:P	2.58	0.72
27:AS:143:ARG:HB3	80:B2:1461:C:O5'	1.88	0.72
28:AT:43:ASN:HB3	80:B2:1477:G:OP1	1.88	0.72
38:BD:207:TYR:CD1	82:B7:33:U:C2	2.77	0.72
39:BE:78:ARG:HG3	39:BE:78:ARG:HH11	1.54	0.72
48:BN:4:TYR:CZ	81:B5:148:G:OP2	2.42	0.72
52:BR:165:LYS:CB	80:B2:849:C:O2	2.37	0.72
79:By:27:HIS:CA	79:CL:27:HIS:O	2.37	0.72
79:By:41:VAL:CA	79:CL:217:THR:H	2.02	0.72
79:By:75:LEU:HD21	79:CL:107:TRP:CE3	2.24	0.72
79:By:140:PRO:CB	79:CL:140:PRO:HD2	2.19	0.72
79:By:144:THR:HB	79:CL:138:PRO:CA	2.19	0.72
79:By:199:HIS:CB	79:CL:199:HIS:HB2	2.19	0.72
80:B2:74:U:O2'	80:B2:75:U:OP2	2.06	0.72
80:B2:1062:A:OP2	89:B2:2077:OHX:N4	2.22	0.72
80:B2:1655:A:C2	81:B5:2291:A:N3	2.56	0.72
80:B2:1757:G:C2'	81:B5:2255:A:O2'	2.33	0.72
81:B5:1226:G:C1'	81:B5:1288:U:H4'	2.18	0.72
15:AG:128:THR:OG1	57:BW:80:ARG:CB	2.37	0.72
17:AI:10:LYS:NZ	80:B2:339:C:P	2.61	0.72
52:BR:166:ASN:N	80:B2:850:A:C8	2.46	0.72
79:By:100:ILE:HG21	79:CL:97:GLU:C	2.14	0.72
79:By:140:PRO:O	79:CL:141:LYS:C	2.31	0.72
79:By:147:PHE:HB2	79:CL:148:ASN:C	2.13	0.72
79:By:157:LYS:HB3	79:CL:70:LYS:C	2.14	0.72
79:By:177:LYS:HG2	79:CL:177:LYS:CE	2.18	0.72
79:By:177:LYS:HZ2	84:CN:2146:G:H5"	1.53	0.72
80:B2:649:U:O2'	80:B2:650:U:O5'	2.07	0.72
81:B5:2434:U:H4'	81:B5:2435:G:H5"	1.70	0.72
84:CN:2186:G:H2'	84:CN:2187:G:H5"	1.70	0.72
15:AG:185:GLN:NE2	80:B2:284:G:C2	2.57	0.72
23:AO:37:GLU:HA	80:B2:895:G:H4'	1.72	0.72
26:AR:48:ASN:HB2	80:B2:1389:C:O5'	1.89	0.72
61:Ba:12:ARG:HB3	81:B5:943:U:O2'	1.88	0.72
72:Bl:15:LYS:HB2	83:B8:46:G:OP1	1.89	0.72
79:By:45:ALA:HB2	79:CL:44:HIS:C	2.13	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:154:ARG:HD2	79:CL:154:ARG:HA	1.72	0.72
79:By:175:VAL:HG11	79:CL:43:VAL:HG23	0.81	0.72
79:By:182:PRO:CB	79:CL:26:ALA:O	2.36	0.72
79:By:199:HIS:HB3	79:CL:58:VAL:HG13	1.70	0.72
79:By:212:VAL:HG12	79:CL:213:TYR:HA	1.60	0.72
80:B2:1542:G:N2	80:B2:1568:C:H1'	2.04	0.72
1:A0:3:LYS:HE3	80:B2:1030:A:OP1	1.90	0.72
27:AS:118:LYS:HE2	44:BJ:108:GLU:CD	2.13	0.72
50:BP:138:LYS:HG3	50:BP:140:GLU:HG3	1.72	0.72
55:BU:98:THR:HG23	55:BU:104:ARG:HH21	1.55	0.72
65:Be:11:LYS:O	65:Be:12:LYS:HB2	1.90	0.72
69:Bi:62:ARG:O	69:Bi:63:ASN:ND2	2.22	0.72
79:By:141:LYS:N	79:CL:141:LYS:CB	2.52	0.72
79:By:185:LEU:CD1	79:CL:41:VAL:HG22	1.98	0.72
79:By:218:MET:CB	84:CN:2195:C:O2	2.37	0.72
80:B2:759:U:OP1	89:B2:2059:OHX:N1	2.22	0.72
89:B2:1918:OHX:N4	89:B2:2064:OHX:N3	2.37	0.72
89:B2:1921:OHX:N5	89:B2:2050:OHX:N6	2.38	0.72
81:B5:1724:U:H4'	81:B5:1725:C:OP1	1.87	0.72
15:AG:188:ARG:HD2	80:B2:284:G:N7	2.05	0.72
23:AO:45:GLY:CA	80:B2:900:A:OP1	2.35	0.72
23:AO:128:LYS:C	80:B2:990:C:H4'	2.14	0.72
23:AO:129:LYS:NZ	89:B2:2013:OHX:N3	2.37	0.72
35:BA:204:MET:HG2	81:B5:914:A:C2	2.25	0.72
37:BC:80:GLY:O	81:B5:357:A:H1'	1.89	0.72
51:BQ:170:ARG:HA	51:BQ:174:ARG:HD2	1.71	0.72
56:BV:18:PRO:HG2	81:B5:1898:G:H1'	1.71	0.72
76:Bq:5:ARG:HH21	81:B5:1221:A:C4'	2.03	0.72
79:By:99:ILE:CG1	79:CL:99:ILE:C	2.45	0.72
79:By:182:PRO:O	79:CL:185:LEU:HD12	1.88	0.72
89:B2:1921:OHX:N2	89:B2:2050:OHX:N4	2.36	0.72
8:A7:68:ARG:HH22	27:AS:145:ARG:HB3	1.54	0.72
48:BN:67:ARG:NE	81:B5:1544:G:OP1	2.19	0.72
52:BR:165:LYS:O	80:B2:850:A:N3	2.22	0.72
75:Bo:71:ARG:HH21	75:Bo:80:ARG:NH1	1.86	0.72
79:By:44:HIS:ND1	79:CL:172:HIS:ND1	2.38	0.72
79:By:66:HIS:HB2	79:CL:188:ASN:HD22	0.92	0.72
79:By:90:GLY:HA3	79:CL:157:LYS:HZ2	1.55	0.72
79:By:145:VAL:CG2	79:CL:139:ASN:N	2.52	0.72
79:By:149:ILE:HG21	79:CL:76:ALA:HA	1.70	0.72
80:B2:1600:A:H4'	80:B2:1601:G:OP1	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:1683:C:O2'	80:B2:1684:U:O5'	2.07	0.72
85:CP:63:GLU:C	85:CP:210:TRP:CH2	2.67	0.72
8:A7:48:ARG:CB	81:B5:2678:A:OP1	2.38	0.72
15:AG:174:LYS:CB	80:B2:79:C:HO2'	1.93	0.72
15:AG:175:ILE:C	80:B2:78:A:H2	1.97	0.72
20:AL:130:PRO:HD2	80:B2:115:G:C5	2.24	0.72
23:AO:102:LEU:HD22	23:AO:105:LEU:HD11	1.71	0.72
23:AO:125:SER:HG	80:B2:927:C:C4'	2.01	0.72
25:AQ:12:LYS:HD3	25:AQ:17:THR:HB	1.70	0.72
65:Be:91:THR:HG22	65:Be:92:TYR:HD1	1.54	0.72
69:Bi:25:LYS:CB	81:B5:156:G:OP2	2.32	0.72
79:By:41:VAL:O	79:CL:40:THR:CG2	2.34	0.72
79:By:45:ALA:CA	79:CL:45:ALA:C	2.61	0.72
79:By:116:THR:HG23	79:CL:115:ALA:C	2.15	0.72
79:By:193:ILE:CD1	79:CL:224:ILE:HD11	2.13	0.72
15:AG:132:ARG:CZ	80:B2:68:A:C4	2.71	0.72
17:AI:64:ASN:OD1	80:B2:257:A:C2	2.43	0.72
23:AO:88:GLY:HA3	80:B2:888:U:H5"	1.72	0.72
28:AT:43:ASN:CB	80:B2:1477:G:OP1	2.38	0.72
36:BB:103:THR:HG21	36:BB:147:GLU:OE1	1.90	0.72
43:BI:194:GLY:HA3	81:B5:1010:G:H2'	1.72	0.72
51:BQ:158:HIS:H	51:BQ:186:VAL:HG12	1.55	0.72
67:Bg:41:ARG:NE	81:B5:1739:U:H1'	2.03	0.72
79:By:2:LYS:CE	84:CN:2182:C:C5'	2.52	0.72
79:By:28:LEU:HB3	79:CL:32:LEU:CD2	2.19	0.72
79:By:91:ALA:HB1	79:CL:93:TYR:CE2	2.25	0.72
79:By:131:LEU:CG	79:CL:128:GLY:N	2.52	0.72
79:By:138:PRO:CA	79:CL:138:PRO:O	2.37	0.72
79:By:153:ILE:O	79:CL:72:VAL:HG22	1.90	0.72
79:By:182:PRO:C	79:CL:185:LEU:HD12	2.13	0.72
79:By:183:GLU:OE1	79:CL:183:GLU:CA	2.37	0.72
80:B2:1160:A:H2'	80:B2:1161:C:C6	2.25	0.72
81:B5:2443:A:OP1	84:CN:2123:U:C4	2.43	0.72
12:AD:204:ASP:CG	80:B2:1330:G:H1	1.90	0.72
17:AI:64:ASN:HB2	80:B2:258:C:H4'	1.71	0.72
26:AR:28:PHE:CD2	80:B2:1389:C:H6	2.00	0.72
38:BD:36:LEU:HG	81:B5:2748:A:C2	2.25	0.72
48:BN:81:TYR:OH	81:B5:908:G:H3'	1.89	0.72
63:Bc:87:VAL:HB	81:B5:1728:G:HO2'	1.53	0.72
65:Be:27:ARG:HB3	81:B5:655:C:OP1	1.89	0.72
74:Bn:11:ARG:CD	80:B2:1126:G:C4'	2.67	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:134:ARG:HD3	84:CN:2191:A:P	2.30	0.72
79:By:141:LYS:HD2	79:CL:141:LYS:O	1.88	0.72
89:B2:1921:OHX:N1	89:B2:2050:OHX:N4	2.38	0.72
81:B5:2875:U:H3	81:B5:2952:G:H1	1.35	0.72
1:A0:79:ILE:HG21	80:B2:1794:A:N3	2.05	0.71
6:A5:102:VAL:O	6:A5:104:SER:N	2.23	0.71
10:AB:202:LYS:NZ	10:AB:202:LYS:O	2.23	0.71
23:AO:29:HIS:HB3	23:AO:41:ARG:HG3	1.72	0.71
25:AQ:122:ARG:HA	80:B2:1584:G:H5”	1.70	0.71
61:Ba:13:GLY:HA2	81:B5:943:U:H3’	1.71	0.71
61:Ba:34:MET:HG3	81:B5:96:G:OP2	1.90	0.71
69:Bi:76:ARG:O	81:B5:293:C:O2’	2.07	0.71
79:By:13:LYS:HB2	79:CL:10:LEU:HG	1.68	0.71
81:B5:2439:A:H2’	81:B5:2440:G:H5”	1.72	0.71
8:A7:81:THR:OG1	86:CW:29:G:O3’	2.08	0.71
12:AD:9:ARG:NH1	80:B2:1489:U:P	2.63	0.71
31:AW:57:ARG:NE	80:B2:863:A:OP1	2.22	0.71
35:BA:3:ARG:HD3	81:B5:911:C:H41	1.52	0.71
41:BG:181:LYS:HD2	83:B8:155:A:P	2.30	0.71
41:BG:193:LYS:HB3	81:B5:7:C:H5”	1.72	0.71
50:BP:69:ARG:HG2	50:BP:79:THR:HG23	1.71	0.71
53:BS:91:TYR:HB3	81:B5:1214:U:OP1	1.90	0.71
79:By:39:GLU:CG	79:CL:35:ALA:CB	2.66	0.71
79:By:93:TYR:HB3	79:CL:107:TRP:CE2	2.25	0.71
79:By:223:ARG:CD	79:CL:213:TYR:HE2	2.02	0.71
81:B5:2437:G:H5’	81:B5:2437:G:H8	1.55	0.71
23:AO:46:MET:CA	80:B2:899:G:C5’	2.59	0.71
25:AQ:113:ASP:CG	25:AQ:114:ARG:H	1.98	0.71
35:BA:234:LYS:NZ	81:B5:2162:U:OP1	2.22	0.71
37:BC:52:VAL:HG22	81:B5:346:C:P	2.30	0.71
43:BI:115:MET:CB	81:B5:2865:U:OP1	2.39	0.71
48:BN:112:ASN:CG	83:B8:141:C:O2	2.33	0.71
52:BR:46:LYS:HZ1	81:B5:1766:G:H8	1.31	0.71
52:BR:164:LEU:N	80:B2:850:A:O5’	2.05	0.71
53:BS:13:ARG:HH11	53:BS:13:ARG:HG3	1.55	0.71
59:BY:36:SER:HB2	59:BY:37:LYS:HE2	1.70	0.71
79:By:13:LYS:HG3	79:CL:6:ARG:O	1.89	0.71
79:By:22:ILE:CD1	79:CL:224:ILE:HD12	2.18	0.71
79:By:64:LEU:HD13	79:CL:188:ASN:O	1.88	0.71
79:By:82:LYS:HG3	79:CL:82:LYS:HB3	1.71	0.71
79:By:92:ASP:C	79:CL:93:TYR:CE2	2.69	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:95:ASN:OD1	41:BG:98:ARG:NH1	2.23	0.71
56:BV:67:PRO:HG3	80:B2:1660:A:OP1	1.90	0.71
79:By:100:ILE:HG22	79:CL:100:ILE:CG1	2.15	0.71
79:By:132:GLY:CA	79:CL:133:PRO:HD3	2.19	0.71
79:By:133:PRO:HG2	86:CW:56:C:H5'	1.71	0.71
79:By:171:ILE:HD12	79:CL:171:ILE:CD1	2.18	0.71
79:By:176:GLY:H	79:CL:40:THR:CG2	2.04	0.71
79:By:224:ILE:HG13	79:CL:223:ARG:C	2.15	0.71
85:CP:63:GLU:HA	85:CP:210:TRP:CD2	2.21	0.71
10:AB:173:THR:O	10:AB:177:GLN:NE2	2.23	0.71
12:AD:179:GLN:NE2	12:AD:179:GLN:O	2.24	0.71
20:AL:132:SER:HA	80:B2:336:G:H4'	1.69	0.71
25:AQ:75:VAL:HB	80:B2:1610:G:P	2.29	0.71
35:BA:69:TYR:HB2	81:B5:2558:U:O4'	1.91	0.71
37:BC:52:VAL:HG22	81:B5:346:C:OP1	1.89	0.71
44:BJ:124:GLY:HA3	81:B5:2674:A:C2	2.25	0.71
50:BP:29:THR:HG22	50:BP:87:SER:OG	1.90	0.71
65:Be:27:ARG:HB3	81:B5:655:C:P	2.31	0.71
79:By:16:PRO:HD2	79:CL:7:TYR:OH	1.88	0.71
79:By:92:ASP:OD2	79:CL:73:ARG:NH1	1.96	0.71
79:By:112:ALA:O	79:CL:110:PHE:CD1	2.43	0.71
79:By:217:THR:CB	79:CL:217:THR:HG23	1.93	0.71
80:B2:717:C:H42	80:B2:720:G:H22	1.37	0.71
1:A0:15:ARG:HA	80:B2:942:G:O6	1.90	0.71
25:AQ:135:ARG:O	80:B2:1581:C:C5'	2.38	0.71
28:AT:57:ARG:HG3	28:AT:57:ARG:NH1	2.03	0.71
37:BC:115:HIS:HB2	81:B5:681:U:C6	2.26	0.71
49:BO:110[A]:PRO:O	49:BO:113[A]:ASP:N	2.20	0.71
63:Bc:84:LEU:HD13	81:B5:1715:A:C5	2.25	0.71
66:Bf:19:SER:HB3	81:B5:1330:A:OP1	1.90	0.71
67:Bg:33:GLN:NE2	81:B5:1696:A:O2'	2.23	0.71
79:By:18:LYS:H	79:CL:14:VAL:HG23	1.55	0.71
79:By:113:VAL:CG1	79:CL:110:PHE:HZ	1.91	0.71
79:By:168:THR:H	79:CL:168:THR:CG2	2.02	0.71
79:By:187:ASP:O	79:CL:186:ALA:O	1.82	0.71
79:By:190:ARG:NH2	79:CL:24:GLU:N	2.38	0.71
8:A7:33:LYS:HE3	81:B5:2692:A:H5"	1.73	0.71
8:A7:34:LYS:HE3	81:B5:2692:A:O3'	1.90	0.71
15:AG:24:ILE:O	15:AG:26:VAL:N	2.23	0.71
15:AG:107:ALA:CB	80:B2:154:G:C4'	2.63	0.71
22:AN:73:ARG:HD3	80:B2:859:A:N6	2.05	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:3:ARG:CD	81:B5:911:C:H42	2.01	0.71
63:Bc:9:SER:OG	63:Bc:10:ILE:N	2.22	0.71
63:Bc:85:PHE:CE1	81:B5:1728:G:C6	2.77	0.71
79:By:39:GLU:CD	79:CL:35:ALA:HB3	2.16	0.71
79:By:192:PHE:N	79:CL:192:PHE:HB3	2.04	0.71
79:By:221:SER:H	84:CN:2197:A:P	2.14	0.71
11:AC:203:LYS:O	11:AC:206:THR:HG23	1.91	0.71
26:AR:20:TYR:CE2	26:AR:38:ILE:HD11	2.26	0.71
28:AT:41:SER:HA	80:B2:1564:U:OP1	1.90	0.71
33:AY:112:LYS:NZ	80:B2:55:A:OP1	2.24	0.71
51:BQ:147:ARG:NH2	81:B5:670:C:OP1	2.24	0.71
52:BR:114:LYS:HD3	81:B5:2093:A:N6	2.05	0.71
67:Bg:56:THR:OG1	81:B5:1740:U:C5'	2.37	0.71
79:By:12:GLU:N	79:CL:7:TYR:CA	2.37	0.71
79:By:14:VAL:CA	79:CL:11:LEU:N	2.53	0.71
79:By:59:ARG:CB	79:CL:59:ARG:CD	2.51	0.71
79:By:68:LEU:CD2	79:CL:175:VAL:C	2.49	0.71
79:By:100:ILE:CG2	79:CL:98:GLU:C	2.62	0.71
79:By:213:TYR:CE1	79:CL:213:TYR:CE1	2.78	0.71
79:By:218:MET:CA	84:CN:2195:C:H2'	2.20	0.71
79:By:218:MET:SD	84:CN:2195:C:C1'	2.79	0.71
79:By:223:ARG:HE	79:CL:223:ARG:CD	2.04	0.71
81:B5:1024:G:H2'	81:B5:1026:A:H8	1.56	0.71
8:A7:78:ASP:OD2	86:CW:29:G:P	2.49	0.71
13:AE:3:ARG:HB3	80:B2:93:A:H1'	1.73	0.71
17:AI:50:GLY:HA2	80:B2:397:A:O3'	1.89	0.71
18:AJ:110:GLN:NE2	18:AJ:126:ARG:HG2	2.04	0.71
23:AO:29:HIS:ND1	23:AO:29:HIS:O	2.24	0.71
37:BC:60:THR:HG21	37:BC:77:VAL:HG22	1.71	0.71
38:BD:145:PHE:CD2	81:B5:2748:A:H4'	2.26	0.71
38:BD:207:TYR:CB	82:B7:33:U:O2	2.36	0.71
38:BD:270:LYS:HG2	82:B7:2:G:H5'	1.71	0.71
44:BJ:59:ILE:HD12	44:BJ:65:ILE:HD11	1.72	0.71
49:BO:68[B]:ARG:NH1	81:B5:2988:C:P	2.64	0.71
54:BT:2:GLY:N	81:B5:2626:A:O5'	2.24	0.71
68:Bh:89:ARG:HD2	83:B8:38:U:O4	1.91	0.71
73:Bm:125:LYS:HD2	81:B5:2897:A:H5"	1.72	0.71
79:By:19:ILE:HG21	79:CL:17:ASN:C	2.13	0.71
79:By:22:ILE:CD1	79:CL:22:ILE:N	2.47	0.71
79:By:45:ALA:HB1	79:CL:211:SER:O	1.91	0.71
79:By:53:ARG:HD2	79:CL:53:ARG:CB	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:77:ILE:HD11	79:CL:103:ILE:CG1	2.16	0.71
79:CL:42:GLU:CG	79:CL:215:THR:HG23	2.21	0.71
8:A7:32:SER:HA	81:B5:2707:C:C5'	2.20	0.71
9:AA:185:ARG:HB2	30:AV:45:ALA:HB3	1.72	0.71
14:AF:40:ILE:HG23	14:AF:42:LEU:HD22	1.70	0.71
15:AG:133:LEU:HA	80:B2:66:U:H3	1.55	0.71
23:AO:25:ASP:CG	80:B2:901:G:OP2	2.33	0.71
28:AT:48:GLN:OE1	80:B2:1532:U:H1'	1.91	0.71
35:BA:40:TYR:O	81:B5:2550:U:C5	2.35	0.71
52:BR:165:LYS:NZ	80:B2:824:G:H1'	2.05	0.71
60:BZ:17:ARG:NH2	81:B5:1634:G:N7	2.38	0.71
74:Bn:11:ARG:CD	80:B2:1126:G:C5'	2.52	0.71
79:By:173:ALA:C	84:CN:2144:G:O2'	2.34	0.71
79:By:222:VAL:CB	79:CL:220:PRO:O	2.39	0.71
80:B2:415:C:C4	85:CP:288:ARG:HD2	2.22	0.71
80:B2:913:G:C6	81:B5:2206:G:C4'	2.65	0.71
80:B2:1290:U:H2'	80:B2:1291:G:C8	2.25	0.71
80:B2:1758:U:C5'	81:B5:2255:A:O3'	2.36	0.71
6:A5:140:TYR:OH	80:B2:1234:A:H1'	1.91	0.70
8:A7:28:SER:HB2	81:B5:2708:C:C4'	2.18	0.70
11:AC:69:ILE:HD11	11:AC:133:LYS:HB3	1.73	0.70
14:AF:109:LYS:CE	80:B2:1474:G:P	2.77	0.70
14:AF:113:ILE:O	14:AF:117:THR:OG1	2.07	0.70
15:AG:149:LYS:HD2	80:B2:141:U:OP2	1.91	0.70
17:AI:41:LYS:HE2	80:B2:260:U:OP2	1.91	0.70
26:AR:48:ASN:HB2	80:B2:1389:C:C4'	2.21	0.70
38:BD:146:LEU:HD13	81:B5:2746:A:C2	2.26	0.70
48:BN:109:ARG:NH1	83:B8:140:G:O3'	2.23	0.70
79:By:5:LYS:HD3	84:CN:2151:U:H2'	1.73	0.70
79:By:22:ILE:CB	79:CL:22:ILE:HA	2.21	0.70
79:By:27:HIS:HB3	79:CL:31:GLU:CD	2.16	0.70
79:By:31:GLU:OE2	79:CL:13:LYS:NZ	2.24	0.70
79:By:33:ALA:O	79:CL:36:LYS:CB	2.39	0.70
79:By:53:ARG:CB	79:CL:52:ARG:C	2.43	0.70
79:By:145:VAL:CG1	79:CL:138:PRO:CA	2.61	0.70
79:By:178:ALA:HA	79:CL:178:ALA:HB2	1.73	0.70
1:A0:95:ARG:HA	80:B2:1797:A:O4'	1.91	0.70
7:A6:76:ASP:OD1	7:A6:76:ASP:N	2.18	0.70
15:AG:128:THR:C	57:BW:81:PRO:HG2	2.16	0.70
28:AT:126:GLU:HA	28:AT:129:GLN:HG3	1.73	0.70
54:BT:87:LYS:NZ	81:B5:2728:G:N7	2.39	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:Bn:5:TRP:CZ3	80:B2:1775:U:C4	2.79	0.70
79:By:33:ALA:O	79:CL:36:LYS:CA	2.39	0.70
79:By:41:VAL:CG2	79:CL:216:THR:CA	2.52	0.70
79:By:141:LYS:HZ3	79:CL:141:LYS:CE	2.04	0.70
79:By:200:LYS:C	79:CL:199:HIS:O	2.26	0.70
79:By:210:ARG:HD2	79:CL:210:ARG:HH21	1.55	0.70
24:AP:59:LYS:NZ	80:B2:1242:A:OP1	2.23	0.70
29:AU:106:ILE:HG13	29:AU:107:THR:H	1.53	0.70
52:BR:104:ARG:HH12	81:B5:1949:G:C5'	2.03	0.70
59:BY:3:LYS:HD2	59:BY:8:VAL:HG23	1.72	0.70
61:Ba:77:LYS:O	61:Ba:79:TRP:N	2.24	0.70
63:Bc:88:GLY:H	81:B5:1729:A:P	2.15	0.70
79:By:14:VAL:HG12	79:CL:32:LEU:HD22	1.71	0.70
79:By:113:VAL:CG1	79:CL:131:LEU:CD1	2.69	0.70
79:By:117:PRO:HG2	79:CL:121:GLY:N	2.05	0.70
79:By:131:LEU:HB2	79:CL:128:GLY:N	2.05	0.70
79:By:185:LEU:HB3	79:CL:29:VAL:HG11	1.71	0.70
80:B2:416:A:OP2	85:CP:287:LEU:HD22	1.85	0.70
80:B2:1564:U:H2'	80:B2:1565:C:C6	2.26	0.70
81:B5:2407:C:H2'	81:B5:2408:U:H6	1.56	0.70
9:AA:167:LYS:HB3	9:AA:168:HIS:CD2	2.26	0.70
29:AU:69:LYS:HD2	80:B2:1281:G:OP1	1.92	0.70
79:By:2:LYS:HE3	84:CN:2182:C:P	2.30	0.70
79:By:31:GLU:OE2	79:CL:13:LYS:CE	2.39	0.70
79:By:79:LYS:O	79:CL:78:ALA:O	1.97	0.70
79:By:134:ARG:HG2	84:CN:2190:A:HO2'	1.53	0.70
79:By:215:THR:CG2	79:CL:42:GLU:CD	2.57	0.70
80:B2:992:A:H2	80:B2:1012:U:H3	1.38	0.70
81:B5:2836:C:H5	81:B5:2852:C:N4	1.86	0.70
84:CN:2158:C:O2	84:CN:2158:C:C3'	2.37	0.70
8:A7:31:SER:O	81:B5:2707:C:C5'	2.40	0.70
9:AA:157:ASP:OD1	30:AV:60:ARG:NH1	2.25	0.70
14:AF:99:MET:HB2	80:B2:1166:A:OP1	1.90	0.70
21:AM:54:ARG:O	21:AM:56:GLU:N	2.23	0.70
28:AT:88:VAL:HG22	80:B2:1172:G:N2	2.00	0.70
33:AY:105:ARG:HB2	80:B2:443:C:P	2.31	0.70
41:BG:240:ASN:ND2	81:B5:2584:G:C4	2.60	0.70
50:BP:129:THR:OG1	81:B5:1507:G:N7	2.23	0.70
52:BR:74:ARG:HD2	81:B5:1942:U:OP2	1.92	0.70
67:Bg:24:LYS:HB3	81:B5:1695:U:H5'	1.73	0.70
74:Bn:4:LYS:HE2	80:B2:1774:G:C4'	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:Bq:4:ILE:CD1	81:B5:1219:C:OP1	2.36	0.70
79:By:2:LYS:HB3	84:CN:2181:G:N1	2.07	0.70
79:By:157:LYS:HA	79:CL:71:GLN:H	1.56	0.70
79:By:199:HIS:CB	79:CL:199:HIS:CB	2.70	0.70
79:By:220:PRO:HG2	79:CL:7:TYR:CE2	2.05	0.70
81:B5:1631:C:H5"	81:B5:1632:A:H5"	1.73	0.70
81:B5:2667:A:H5'	81:B5:2667:A:H8	1.56	0.70
15:AG:110:ALA:CB	80:B2:163:G:C1'	2.63	0.70
23:AO:41:ARG:CZ	80:B2:916:U:N3	2.47	0.70
35:BA:68:LYS:HZ3	81:B5:1579:C:H5"	1.55	0.70
38:BD:207:TYR:CE2	82:B7:33:U:C4	2.79	0.70
40:BF:151:ARG:NH2	81:B5:1334:U:O2'	2.24	0.70
42:BH:166:ARG:NH1	42:BH:168:ARG:HH22	1.85	0.70
47:BM:17:VAL:HG21	47:BM:74:ARG:HB2	1.72	0.70
54:BT:54:HIS:CD2	81:B5:2724:U:H4'	2.26	0.70
79:By:21:THR:HG22	79:CL:24:GLU:HB2	0.71	0.70
79:By:77:ILE:HG22	79:CL:77:ILE:CD1	2.04	0.70
79:By:119:VAL:HG21	79:CL:97:GLU:HA	1.66	0.70
79:By:132:GLY:CA	79:CL:132:GLY:HA3	2.21	0.70
80:B2:1448:G:O6	89:B2:2083:OHX:N1	2.25	0.70
80:B2:1746:A:H4'	81:B5:2290:C:O2'	1.92	0.70
15:AG:9:VAL:HG13	57:BW:78:ALA:O	1.91	0.70
25:AQ:97:VAL:HG12	25:AQ:98:ASP:H	1.57	0.70
28:AT:86:ARG:HH11	28:AT:86:ARG:HG3	1.55	0.70
46:BL:99:HIS:CD2	81:B5:156:G:C2	2.78	0.70
52:BR:170:ARG:NH2	89:BR:201:OHX:N4	2.38	0.70
79:By:61:THR:HG22	79:CL:162:GLU:HA	0.74	0.70
79:By:71:GLN:HA	79:CL:71:GLN:N	2.07	0.70
79:By:131:LEU:C	79:CL:128:GLY:O	2.34	0.70
79:By:189:ILE:HA	79:CL:43:VAL:HG21	1.72	0.70
79:By:209:LEU:HB2	79:CL:209:LEU:CB	2.19	0.70
80:B2:226:A:H2'	80:B2:227:U:H5'	1.73	0.70
80:B2:653:C:H2'	80:B2:654:C:O4'	1.92	0.70
8:A7:51:ARG:CD	81:B5:2677:G:C4'	2.68	0.70
15:AG:58:LYS:CA	80:B2:155:U:H5'	2.21	0.70
15:AG:62:PRO:HB2	80:B2:162:A:H5'	1.74	0.70
15:AG:174:LYS:HE2	80:B2:79:C:O2	1.92	0.70
17:AI:31:ARG:NH2	80:B2:333:A:OP1	2.25	0.70
18:AJ:117:GLY:O	18:AJ:119:ALA:N	2.24	0.70
38:BD:23:ARG:NH2	81:B5:2703:A:OP2	2.23	0.70
38:BD:260:PHE:CD2	82:B7:121:U:C5'	2.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:26:ALA:HB3	79:CL:27:HIS:C	2.17	0.70
79:By:45:ALA:CB	79:CL:45:ALA:N	2.53	0.70
79:By:48:GLY:CA	79:CL:210:ARG:HG2	2.14	0.70
79:By:81:GLU:CB	79:CL:82:LYS:H	1.72	0.70
79:By:85:GLU:CD	79:CL:88:GLU:H	1.98	0.70
79:By:117:PRO:HB2	79:CL:123:VAL:N	2.06	0.70
79:By:123:VAL:CG2	79:CL:123:VAL:HA	2.20	0.70
79:By:197:GLU:CD	79:CL:227:HIS:NE2	2.49	0.70
80:B2:1769:U:OP2	89:B2:2030:OHX:N1	2.25	0.70
80:B2:1780:G:O6	81:B5:2263:C:H4'	1.46	0.70
81:B5:595:G:N1	81:B5:609:G:H5"	2.06	0.70
1:A0:97:PRO:C	80:B2:1798:U:C5	2.70	0.70
13:AE:22:LYS:NZ	80:B2:772:G:OP1	2.21	0.70
15:AG:133:LEU:C	80:B2:66:U:C4	2.61	0.70
27:AS:118:LYS:CE	44:BJ:108:GLU:CD	2.65	0.70
28:AT:43:ASN:CG	80:B2:1477:G:OP1	2.34	0.70
35:BA:199:THR:HG21	81:B5:914:A:C8	2.27	0.70
43:BI:194:GLY:H	81:B5:1010:G:H21	1.40	0.70
46:BL:128:ARG:NH2	81:B5:170:G:OP1	2.24	0.70
48:BN:140:LYS:HG3	81:B5:127:G:OP1	1.91	0.70
52:BR:43:LYS:O	52:BR:47:ASN:HB2	1.92	0.70
53:BS:39:SER:OG	82:B7:98:C:OP1	2.08	0.70
79:By:24:GLU:OE1	79:CL:18:LYS:HE3	1.92	0.70
81:B5:1765:U:H4'	81:B5:1765:U:OP1	1.91	0.70
81:B5:2443:A:H5"	84:CN:2122:G:N2	2.07	0.70
1:A0:92:ARG:HG2	80:B2:1796:C:OP1	1.92	0.70
6:A5:146:SER:HB3	80:B2:1234:A:O2'	1.91	0.70
12:AD:29:LEU:HD21	12:AD:69:LEU:HD11	1.73	0.70
23:AO:123:SER:OG	80:B2:885:G:N3	2.24	0.70
24:AP:115:TYR:HE2	80:B2:1557:U:H5'	1.54	0.70
28:AT:49:ASP:HB3	28:AT:53:TRP:HB3	1.73	0.70
48:BN:112:ASN:OD1	83:B8:141:C:H1'	1.92	0.70
79:By:46:LYS:HD3	84:CN:2199:C:C3'	2.22	0.70
79:By:102:LYS:HB2	79:CL:102:LYS:C	2.17	0.70
79:By:131:LEU:CD1	79:CL:131:LEU:CB	2.53	0.70
79:By:153:ILE:O	79:CL:72:VAL:O	2.10	0.70
79:By:160:ARG:HH21	79:CL:143:GLY:HA2	1.55	0.70
79:By:227:HIS:ND1	79:CL:225:ASN:ND2	2.39	0.70
80:B2:434:G:N7	89:B2:1926:OHX:N4	2.40	0.70
89:B2:1915:OHX:N2	89:B2:2071:OHX:N2	2.40	0.70
9:AA:52:LYS:HD2	30:AV:82:VAL:HA	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AD:161:GLY:CA	80:B2:1420:C:O2	2.40	0.69
17:AI:51:GLY:N	80:B2:397:A:C5'	2.55	0.69
26:AR:43:SER:HB2	80:B2:1332:C:OP1	1.91	0.69
27:AS:40:ARG:CZ	80:B2:1539:G:H4'	2.22	0.69
29:AU:59:PRO:HG3	80:B2:1381:U:H4'	1.74	0.69
29:AU:75:GLY:CA	80:B2:1194:A:OP2	2.40	0.69
32:AX:91:GLY:O	32:AX:93:LEU:N	2.25	0.69
33:AY:8:ARG:HB3	80:B2:780:A:H8	1.55	0.69
37:BC:51:ALA:HB3	83:B8:27:U:H4'	1.74	0.69
38:BD:270:LYS:HB2	82:B7:2:G:H4'	1.72	0.69
52:BR:166:ASN:OD1	89:BR:201:OHX:N4	2.25	0.69
61:Ba:8:THR:CG2	81:B5:662:U:OP1	2.38	0.69
64:Bd:75:ILE:HG12	64:Bd:93:VAL:HG13	1.73	0.69
71:Bk:42:LYS:NZ	81:B5:1750:A:OP2	2.16	0.69
74:Bn:4:LYS:CE	80:B2:1774:G:O4'	2.36	0.69
79:By:26:ALA:H	79:CL:28:LEU:HB3	1.57	0.69
79:By:85:GLU:HB2	79:CL:86:ALA:N	2.02	0.69
79:By:152:ILE:HB	79:CL:114:VAL:HG11	1.74	0.69
79:By:195:ALA:CB	79:CL:195:ALA:CB	2.69	0.69
81:B5:155:G:H5"	81:B5:156:G:C8	2.27	0.69
81:B5:439:C:H4'	81:B5:440:A:H5'	1.74	0.69
23:AO:88:GLY:HA3	80:B2:888:U:H5'	1.67	0.69
28:AT:28:LEU:HD13	28:AT:29:GLU:H	1.56	0.69
33:AY:119:PHE:CZ	80:B2:86:A:H5'	2.27	0.69
35:BA:69:TYR:O	81:B5:1650:G:H4'	1.92	0.69
38:BD:269:SER:HA	82:B7:22:A:N1	2.07	0.69
42:BH:166:ARG:HH11	42:BH:168:ARG:NH2	1.87	0.69
54:BT:78:LYS:CE	81:B5:2728:G:O6	2.40	0.69
62:Bb:16:ALA:O	62:Bb:20:GLY:HA3	1.92	0.69
79:By:22:ILE:N	79:CL:21:THR:H	1.90	0.69
79:By:27:HIS:NE2	79:CL:27:HIS:HB2	1.94	0.69
79:By:49:ILE:H	79:CL:47:LEU:C	1.93	0.69
79:By:66:HIS:CG	79:CL:188:ASN:ND2	2.59	0.69
80:B2:995:A:C5'	81:B5:2196:C:OP1	2.32	0.69
10:AB:176:VAL:O	10:AB:178:GLY:N	2.25	0.69
14:AF:185:ARG:NH1	80:B2:1572:G:H1'	2.06	0.69
14:AF:185:ARG:HH22	80:B2:1572:G:C2'	2.05	0.69
15:AG:175:ILE:HG12	80:B2:78:A:C1'	2.14	0.69
23:AO:125:SER:OG	80:B2:927:C:C4'	2.39	0.69
53:BS:84:ARG:HD3	82:B7:89:G:H4'	1.74	0.69
62:Bb:33:LYS:NZ	81:B5:2722:U:OP1	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:115:ALA:H	79:CL:138:PRO:CG	2.05	0.69
79:By:142:ALA:CA	79:CL:162:GLU:OE2	2.34	0.69
79:By:147:PHE:CB	79:CL:147:PHE:C	2.66	0.69
80:B2:565:C:O2	89:B2:1917:OHX:N5	2.25	0.69
80:B2:582:U:H5"	80:B2:582:U:H6	1.57	0.69
20:AL:78:THR:HG22	20:AL:84:ILE:HG22	1.72	0.69
21:AM:61:VAL:HG13	21:AM:121:VAL:HG23	1.75	0.69
27:AS:134:ARG:NE	80:B2:1546:G:OP2	2.23	0.69
38:BD:12:TYR:OH	81:B5:2688:U:OP1	2.10	0.69
44:BJ:23:VAL:HG12	44:BJ:25:GLU:H	1.56	0.69
52:BR:165:LYS:NZ	80:B2:824:G:N3	2.40	0.69
53:BS:9:VAL:HG22	53:BS:61:ILE:HD13	1.74	0.69
53:BS:137:ARG:HD3	81:B5:1213:G:OP1	1.91	0.69
54:BT:8:ARG:HD3	81:B5:2757:U:C4'	2.22	0.69
67:Bg:82:ALA:CB	81:B5:1639:C:OP2	2.38	0.69
72:Bl:45:ARG:NH2	81:B5:1841:A:C2	2.60	0.69
79:By:22:ILE:CG1	79:CL:224:ILE:HB	2.21	0.69
79:By:100:ILE:CG1	79:CL:101:GLN:HE22	1.77	0.69
79:By:158:ALA:C	79:CL:159:GLY:CA	2.64	0.69
79:By:188:ASN:CA	79:CL:188:ASN:CB	2.55	0.69
79:By:215:THR:HB	84:CN:2197:A:H4'	1.75	0.69
80:B2:838:G:N7	89:B2:2071:OHX:N6	2.40	0.69
13:AE:79:ASP:HB3	13:AE:82:TYR:HB2	1.73	0.69
19:AK:68:LEU:HD11	19:AK:76:LEU:HD21	1.73	0.69
25:AQ:136:SER:HA	80:B2:1580:C:O2'	1.92	0.69
36:BB:56:ILE:HD11	36:BB:359:ILE:HG12	1.74	0.69
46:BL:100:ARG:NE	81:B5:66:A:OP2	2.26	0.69
48:BN:38:ARG:NH2	83:B8:143:U:OP1	2.25	0.69
52:BR:103:ARG:NH1	81:B5:1722:U:OP2	2.24	0.69
58:BX:49:LYS:CE	83:B8:135:G:OP1	2.38	0.69
58:BX:51:VAL:HG21	68:Bh:62:GLN:HB3	1.75	0.69
60:BZ:5:LEU:HD22	60:BZ:77:TYR:CE1	2.27	0.69
60:BZ:15:ARG:HD3	81:B5:1637:A:C3'	2.23	0.69
79:By:37:PHE:CD1	84:CN:2148:G:H1'	2.27	0.69
79:By:41:VAL:N	79:CL:217:THR:H	1.89	0.69
79:By:219:GLY:CA	79:CL:218:MET:C	2.61	0.69
80:B2:437:A:OP1	89:B2:2049:OHX:N3	2.26	0.69
80:B2:591:A:H2'	80:B2:592:A:C8	2.27	0.69
80:B2:1711:C:H2'	80:B2:1712:A:H5"	1.74	0.69
81:B5:549:U:H2'	81:B5:550:A:C8	2.27	0.69
17:AI:49:ARG:HG2	80:B2:117:U:O2'	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AI:171:SER:CA	80:B2:209:U:H5'	2.23	0.69
29:AU:23:ARG:NH2	80:B2:1347:U:H6	1.90	0.69
35:BA:204:MET:HG2	81:B5:914:A:C4	2.28	0.69
52:BR:165:LYS:CG	80:B2:849:C:O2	2.39	0.69
52:BR:168:ALA:HB3	80:B2:850:A:H2'	1.74	0.69
56:BV:12:ARG:NH2	81:B5:3092:C:O2'	2.26	0.69
60:BZ:16:GLY:O	60:BZ:18:TYR:N	2.25	0.69
73:Bm:122:ARG:NH2	81:B5:2896:A:O2'	2.26	0.69
79:By:26:ALA:N	79:CL:28:LEU:CA	2.39	0.69
79:By:32:LEU:HA	79:CL:6:ARG:CD	2.22	0.69
79:By:60:GLY:O	79:CL:163:PHE:N	2.22	0.69
79:By:70:LYS:HB2	79:CL:68:LEU:HD13	1.73	0.69
79:By:201:PRO:CG	79:CL:201:PRO:HD3	2.17	0.69
84:CN:2184:C:O2	84:CN:2184:C:O4'	2.09	0.69
8:A7:48:ARG:HG3	81:B5:2678:A:H5'	1.74	0.69
17:AI:47:ARG:HH21	80:B2:397:A:P	2.15	0.69
26:AR:50:ILE:O	26:AR:54:THR:HG23	1.92	0.69
35:BA:85:GLY:CA	81:B5:2554:A:C4	2.76	0.69
36:BB:41:VAL:CA	36:BB:185:GLY:HA3	2.19	0.69
38:BD:48:LYS:NZ	81:B5:2749:G:OP1	2.17	0.69
41:BG:137:ASN:HB2	81:B5:148:G:C6	2.27	0.69
61:Ba:35:ALA:CB	81:B5:39:A:H5"	2.22	0.69
79:By:3:HIS:HB3	84:CN:2182:C:O2'	1.93	0.69
79:By:19:ILE:O	79:CL:15:ASP:CA	2.40	0.69
79:By:44:HIS:CB	84:CN:2198:C:H1'	2.18	0.69
79:By:67:GLY:N	79:CL:180:PHE:CZ	2.56	0.69
79:By:152:ILE:CD1	79:CL:152:ILE:HG21	2.19	0.69
79:By:177:LYS:NZ	84:CN:2146:G:H5"	2.07	0.69
79:By:206:GLY:H	79:CL:200:LYS:HZ1	0.73	0.69
81:B5:1875:G:H2'	81:B5:1876:U:H5"	1.73	0.69
79:CL:185:LEU:O	79:CL:188:ASN:N	2.24	0.69
9:AA:193:GLN:O	9:AA:195:TRP:N	2.26	0.69
15:AG:62:PRO:CG	80:B2:161:U:O2'	2.38	0.69
15:AG:133:LEU:CA	80:B2:66:U:C4	2.75	0.69
18:AJ:163:PRO:O	18:AJ:165:GLY:N	2.26	0.69
35:BA:187:HIS:CE1	81:B5:1794:G:N1	2.61	0.69
35:BA:237:LEU:HD23	81:B5:2183:A:H2	1.56	0.69
38:BD:270:LYS:HB2	82:B7:2:G:C4'	2.21	0.69
44:BJ:142:LYS:NZ	81:B5:2664:C:OP2	2.25	0.69
49:BO:62[A]:THR:H	49:BO:69[A]:GLY:HA3	1.57	0.69
49:BO:110[A]:PRO:O	49:BO:112[A]:TYR:N	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BP:33:ALA:HB1	50:BP:117:ILE:HG12	1.74	0.69
52:BR:165:LYS:HB2	80:B2:849:C:H2'	1.75	0.69
54:BT:5:HIS:N	81:B5:2630:C:OP2	2.24	0.69
67:Bg:83:ASN:ND2	81:B5:1709:C:OP1	2.26	0.69
68:Bh:89:ARG:NH1	83:B8:38:U:C4	2.61	0.69
74:Bn:2:ARG:HH22	80:B2:1773:C:N4	1.69	0.69
79:By:13:LYS:CA	79:CL:6:ARG:O	2.40	0.69
79:By:25:ALA:HB2	79:CL:222:VAL:HG22	1.64	0.69
79:By:42:GLU:CD	79:CL:42:GLU:CD	2.60	0.69
79:By:53:ARG:N	79:CL:52:ARG:H	1.81	0.69
79:By:94:VAL:HG21	79:CL:92:ASP:O	1.92	0.69
79:By:100:ILE:CD1	79:CL:97:GLU:O	2.40	0.69
79:By:109:ASP:CG	79:CL:106:GLY:O	2.35	0.69
79:By:177:LYS:HD3	79:CL:177:LYS:NZ	2.08	0.69
79:By:210:ARG:HD2	79:CL:210:ARG:NH2	2.08	0.69
80:B2:131:C:OP1	89:B2:1952:OHX:N4	2.26	0.69
80:B2:440:U:O5'	85:CP:276:ARG:HG3	1.93	0.69
80:B2:1533:C:H4'	80:B2:1539:G:N1	2.06	0.69
89:B2:1921:OHX:N1	89:B2:2050:OHX:N3	2.40	0.69
81:B5:1781:C:H2'	81:B5:1782:U:C6	2.26	0.69
1:A0:3:LYS:HA	80:B2:1792:G:O5'	1.93	0.69
8:A7:81:THR:HG23	86:CW:29:G:P	2.33	0.69
15:AG:175:ILE:HG13	80:B2:78:A:C4	2.23	0.69
18:AJ:109:LEU:HD13	18:AJ:129:ILE:HD13	1.75	0.69
37:BC:334:PHE:CD2	81:B5:578:A:C6	2.81	0.69
38:BD:272:TYR:CE2	82:B7:22:A:C1'	2.76	0.69
49:BO:68[A]:ARG:NH1	81:B5:2988:C:P	2.65	0.69
63:Bc:26:GLY:O	63:Bc:30:THR:HG23	1.93	0.69
79:By:36:LYS:HE3	84:CN:2182:C:H42	1.56	0.69
79:By:72:VAL:CG1	79:CL:111:ASP:CB	2.29	0.69
79:By:94:VAL:N	79:CL:107:TRP:CZ2	2.56	0.69
79:By:136:LEU:C	79:CL:136:LEU:H	2.00	0.69
79:By:158:ALA:CB	79:CL:158:ALA:C	2.65	0.69
80:B2:1655:A:H4'	81:B5:2302:G:H4'	1.73	0.69
80:B2:1738:U:O4	89:B2:1919:OHX:N4	2.26	0.69
15:AG:132:ARG:HG3	80:B2:68:A:H61	1.47	0.69
15:AG:159:ARG:HD3	80:B2:77:U:H3	1.57	0.69
17:AI:75:LYS:HB2	80:B2:258:C:H5"	1.74	0.69
22:AN:55:ARG:NH1	22:AN:56:ASP:OD2	2.26	0.69
35:BA:209:HIS:HE1	81:B5:2184:U:OP1	1.76	0.69
35:BA:236:GLY:H	81:B5:2183:A:C2'	2.05	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BO:60[B]:LYS:NZ	81:B5:1307:G:H5”	2.08	0.69
58:BX:111:ASN:HD21	81:B5:1608:C:H5”	1.55	0.69
70:Bj:21:ARG:HG3	83:B8:103:G:H4’	1.75	0.69
79:By:14:VAL:CG1	79:CL:10:LEU:CG	2.48	0.69
79:By:117:PRO:HB2	79:CL:123:VAL:H	1.58	0.69
81:B5:1355:A:H4’	81:B5:1356:U:O5’	1.93	0.69
81:B5:2403:G:N2	81:B5:2404:A:H62	1.91	0.69
81:B5:2443:A:H5’	84:CN:2122:G:H1	1.48	0.69
85:CP:199:ALA:HB1	90:CP:401:GCP:N7	2.08	0.69
2:A1:67:THR:O	80:B2:871:G:O2’	2.11	0.68
4:A3:32:ARG:NH2	80:B2:1597:A:OP2	2.26	0.68
8:A7:32:SER:CB	81:B5:2692:A:H1’	2.22	0.68
35:BA:199:THR:OG1	81:B5:913:A:C5’	2.41	0.68
36:BB:126:LYS:NZ	81:B5:3294:A:OP2	2.26	0.68
41:BG:38:GLN:HA	81:B5:2557:A:C2	2.29	0.68
52:BR:168:ALA:CB	80:B2:850:A:O2’	2.40	0.68
79:By:22:ILE:HD11	79:CL:224:ILE:HB	1.75	0.68
79:By:64:LEU:HD11	79:CL:191:ALA:C	2.18	0.68
79:By:136:LEU:HD22	79:CL:136:LEU:HD12	0.74	0.68
79:By:209:LEU:CB	79:CL:209:LEU:CB	2.46	0.68
80:B2:1646:C:C3’	81:B5:2257:C:H42	2.05	0.68
22:AN:84:ILE:HG22	22:AN:135:LEU:HD21	1.73	0.68
35:BA:21:ARG:HD2	81:B5:825:U:OP1	1.93	0.68
35:BA:231:SER:OG	81:B5:2164:A:OP2	2.10	0.68
36:BB:41:VAL:HA	36:BB:185:GLY:CA	2.22	0.68
38:BD:272:TYR:CZ	82:B7:22:A:C1’	2.75	0.68
41:BG:90:THR:HA	41:BG:214:LEU:HD21	1.75	0.68
42:BH:95:ALA:O	73:Bm:77:ILE:HG12	1.93	0.68
43:BI:99:ILE:HG13	43:BI:123:HIS:HB2	1.76	0.68
46:BL:61:PRO:HD3	81:B5:75:G:H4’	1.74	0.68
79:By:5:LYS:HD3	84:CN:2151:U:C2’	2.21	0.68
79:By:13:LYS:CA	79:CL:9:ALA:CB	2.59	0.68
79:By:13:LYS:HB3	79:CL:10:LEU:HG	1.72	0.68
79:By:107:TRP:C	79:CL:105:ASP:HB3	2.13	0.68
79:By:115:ALA:H	79:CL:138:PRO:HG3	1.59	0.68
79:By:141:LYS:HB2	79:CL:59:ARG:HH11	1.57	0.68
79:By:157:LYS:CB	79:CL:72:VAL:CG1	2.45	0.68
79:By:179:SER:N	79:CL:38:ASP:HA	2.09	0.68
79:By:180:PHE:HD2	79:CL:185:LEU:HD21	1.58	0.68
79:By:196:LEU:C	79:CL:197:GLU:N	2.51	0.68
80:B2:176:C:OP1	89:B2:1952:OHX:N3	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:415:C:C6	85:CP:288:ARG:HG2	2.29	0.68
8:A7:51:ARG:NH1	81:B5:2677:G:N9	2.41	0.68
15:AG:87:ARG:NH1	80:B2:159:U:O2	2.26	0.68
15:AG:174:LYS:CB	80:B2:79:C:C4'	2.71	0.68
23:AO:29:HIS:NE2	80:B2:918:U:O4'	2.25	0.68
29:AU:53:LYS:CB	80:B2:1345:A:H5'	2.24	0.68
31:AW:15:ASN:HD21	31:AW:71:LYS:HA	1.58	0.68
36:BB:246:LEU:N	81:B5:1889:G:OP1	2.25	0.68
52:BR:171:ASP:CG	80:B2:852:C:P	2.11	0.68
69:Bi:54:GLU:HG2	69:Bi:90:MET:HE1	1.76	0.68
70:Bj:79:GLN:NE2	83:B8:95:G:C6	2.61	0.68
79:By:117:PRO:HB3	79:CL:124:GLY:N	2.07	0.68
79:By:147:PHE:N	79:CL:146:GLY:N	2.41	0.68
79:By:168:THR:H	79:CL:168:THR:HG22	1.57	0.68
79:By:208:PHE:CE2	79:CL:47:LEU:HD11	2.27	0.68
81:B5:3289:G:H2'	81:B5:3290:G:H8	1.59	0.68
8:A7:72:ARG:HH11	80:B2:1460:A:HO2'	1.40	0.68
23:AO:20:TYR:HE2	80:B2:917:U:OP1	1.75	0.68
28:AT:12:GLN:OE1	80:B2:1529:C:C1'	2.41	0.68
32:AX:144:ARG:NH1	85:CP:314:LYS:CE	2.57	0.68
46:BL:99:HIS:CD2	81:B5:156:G:C6	2.81	0.68
52:BR:8:LYS:NZ	81:B5:1473:G:P	2.67	0.68
53:BS:50:LYS:CE	82:B7:76:A:N3	2.56	0.68
79:By:141:LYS:CD	79:CL:141:LYS:CA	2.71	0.68
79:By:171:ILE:HG12	79:CL:47:LEU:CG	2.23	0.68
81:B5:3317:U:H4'	81:B5:3318:G:O5'	1.92	0.68
17:AI:50:GLY:HA2	80:B2:397:A:C4'	2.23	0.68
17:AI:92:ARG:NH2	81:B5:2107:A:H4'	2.07	0.68
28:AT:12:GLN:OE1	80:B2:1529:C:H1'	1.92	0.68
38:BD:105:ILE:O	38:BD:109:THR:HG23	1.92	0.68
38:BD:207:TYR:CE2	82:B7:33:U:C5	2.81	0.68
51:BQ:20:LYS:HD3	81:B5:671:U:O2'	1.93	0.68
51:BQ:63:SER:HB2	81:B5:785:G:N2	2.09	0.68
74:Bn:17:ARG:CD	80:B2:1116:A:H5"	2.23	0.68
76:Bq:39:HIS:CD2	76:Bq:39:HIS:H	2.10	0.68
79:By:145:VAL:CG1	79:CL:138:PRO:O	2.36	0.68
79:By:226:PRO:HD2	79:CL:19:ILE:HD13	0.86	0.68
80:B2:131:C:O2'	80:B2:132:U:OP1	2.11	0.68
80:B2:839:U:H2'	80:B2:840:U:H5'	1.76	0.68
85:CP:20:LYS:CB	90:CP:401:GCP:H8	2.00	0.68
4:A3:31:ILE:CD1	80:B2:1199:G:H1	2.07	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:A7:46:LYS:HG3	81:B5:2678:A:C4'	2.23	0.68
13:AE:22:LYS:N	80:B2:773:C:OP1	2.26	0.68
26:AR:48:ASN:ND2	80:B2:1389:C:P	2.62	0.68
39:BE:26:ARG:NH2	81:B5:607:A:OP1	2.26	0.68
40:BF:134:VAL:O	40:BF:229:PHE:HA	1.94	0.68
54:BT:127:GLN:HG3	81:B5:1095:U:N3	2.09	0.68
60:BZ:69:LYS:NZ	81:B5:1633:C:OP1	2.25	0.68
68:Bh:76:GLN:O	68:Bh:81:ARG:NH1	2.26	0.68
79:By:22:ILE:HG12	79:CL:224:ILE:HG21	1.76	0.68
79:By:41:VAL:HG21	79:CL:216:THR:CG2	2.10	0.68
79:By:73:ARG:O	79:CL:110:PHE:O	2.10	0.68
79:By:102:LYS:HB3	79:CL:104:LEU:CB	1.47	0.68
79:By:116:THR:HG21	79:CL:116:THR:H	1.58	0.68
79:By:121:GLY:O	79:CL:121:GLY:O	2.11	0.68
79:By:144:THR:CB	79:CL:138:PRO:N	2.57	0.68
79:By:152:ILE:CD1	79:CL:144:THR:HG22	2.22	0.68
79:By:163:PHE:O	79:CL:163:PHE:O	2.02	0.68
79:By:189:ILE:O	79:CL:193:ILE:CD1	2.41	0.68
80:B2:701:U:H3	80:B2:737:A:N6	1.87	0.68
81:B5:1013:G:H2'	81:B5:1014:U:O4'	1.94	0.68
10:AB:115:ARG:O	80:B2:931:C:H4'	1.94	0.68
11:AC:116:LYS:HG2	11:AC:127:ALA:HB3	1.75	0.68
15:AG:59:GLN:N	80:B2:155:U:C5'	2.56	0.68
15:AG:160:ARG:NH2	80:B2:68:A:OP1	2.27	0.68
15:AG:164:LYS:HB3	15:AG:167:LYS:HB3	1.75	0.68
16:AH:133:THR:HG22	16:AH:159:VAL:HG12	1.73	0.68
17:AI:114:GLU:HG2	17:AI:120:THR:HA	1.75	0.68
26:AR:4:VAL:HG22	80:B2:1402:G:H4'	1.74	0.68
36:BB:117:ARG:CZ	36:BB:175:LYS:HD2	2.23	0.68
38:BD:207:TYR:CD2	82:B7:33:U:N3	2.62	0.68
42:BH:188:THR:HG22	42:BH:189:GLU:HG2	1.75	0.68
61:Ba:62:HIS:CE1	81:B5:304:G:C6	2.82	0.68
79:By:77:ILE:CG2	79:CL:99:ILE:CG1	2.53	0.68
79:By:123:VAL:HG22	79:CL:123:VAL:HG22	1.76	0.68
79:By:140:PRO:O	79:CL:142:ALA:CA	2.41	0.68
80:B2:1656:U:O2'	81:B5:2292:U:O2'	1.69	0.68
85:CP:199:ALA:HB3	90:CP:401:GCP:C5	2.24	0.68
85:CP:200:VAL:CA	90:CP:401:GCP:N1	2.57	0.68
8:A7:28:SER:CB	81:B5:2708:C:O4'	2.42	0.68
13:AE:85:GLY:N	13:AE:88:ASP:OD2	2.27	0.68
14:AF:185:ARG:NH1	80:B2:1572:G:H8	1.91	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:Be:91:THR:HG22	65:Be:92:TYR:CD1	2.29	0.68
68:Bh:78:LYS:HA	68:Bh:81:ARG:HD3	1.76	0.68
79:By:41:VAL:C	79:CL:41:VAL:C	2.61	0.68
79:By:160:ARG:HD2	79:CL:160:ARG:CB	2.22	0.68
79:By:160:ARG:H	79:CL:68:LEU:CD1	2.07	0.68
80:B2:1644:C:O2	81:B5:2255:A:N1	2.26	0.68
81:B5:2507:C:O2'	81:B5:2508:U:OP1	2.10	0.68
81:B5:3330:A:H5"	81:B5:3330:A:H8	1.59	0.68
8:A7:47:ALA:HA	81:B5:2678:A:C8	2.28	0.68
26:AR:48:ASN:HB3	80:B2:1389:C:C4'	2.23	0.68
36:BB:150:ARG:HG2	36:BB:150:ARG:HH11	1.58	0.68
65:Be:27:ARG:NH2	81:B5:654:C:OP1	2.27	0.68
67:Bg:52:GLN:HG3	81:B5:1738:C:C1'	2.24	0.68
79:By:28:LEU:CB	79:CL:32:LEU:CD2	2.71	0.68
79:By:92:ASP:C	79:CL:93:TYR:CZ	2.56	0.68
79:By:132:GLY:N	79:CL:133:PRO:CD	2.54	0.68
79:By:134:ARG:HB3	84:CN:2191:A:H5'	1.74	0.68
80:B2:1449:U:H2'	80:B2:1450:U:C6	2.28	0.68
81:B5:3228:C:O2'	81:B5:3229:G:OP2	2.11	0.68
9:AA:101:ARG:HH22	80:B2:1320:U:H3'	1.50	0.68
16:AH:107:ARG:NH1	80:B2:741:C:O2	2.27	0.68
16:AH:119:THR:HG23	80:B2:639:U:OP1	1.93	0.68
35:BA:15:ILE:HD12	81:B5:822:G:N3	2.09	0.68
41:BG:136:LEU:HD12	81:B5:147:U:H5'	1.76	0.68
43:BI:194:GLY:HA3	81:B5:1010:G:N3	2.09	0.68
51:BQ:69:ARG:HH22	81:B5:720:A:H2	1.39	0.68
54:BT:6:GLY:CA	81:B5:2630:C:H5"	2.23	0.68
55:BU:19:VAL:O	55:BU:23:THR:OG1	2.11	0.68
60:BZ:115:LYS:HD3	81:B5:1629:U:H4'	1.75	0.68
67:Bg:82:ALA:HB1	81:B5:1638:A:H5"	1.75	0.68
69:Bi:26:ILE:HD13	81:B5:155:G:C1'	2.21	0.68
72:Bl:19:GLN:NE2	83:B8:53:A:OP1	2.27	0.68
76:Bq:5:ARG:NH2	81:B5:1221:A:C4'	2.57	0.68
79:By:23:ASP:HB3	79:CL:27:HIS:H	1.57	0.68
79:By:75:LEU:HD21	79:CL:103:ILE:CD1	2.23	0.68
79:By:168:THR:N	79:CL:168:THR:HG22	2.01	0.68
79:By:201:PRO:CG	79:CL:58:VAL:CA	2.70	0.68
79:By:207:THR:HG23	79:CL:207:THR:O	1.92	0.68
79:By:222:VAL:CG2	79:CL:220:PRO:C	2.67	0.68
80:B2:1655:A:H1'	81:B5:2302:G:O4'	1.93	0.68
81:B5:2572:C:O2'	81:B5:2573:G:OP2	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AJ:169:PRO:HD2	18:AJ:174:ARG:HD2	1.76	0.67
25:AQ:40:GLU:OE2	80:B2:1529:C:C4'	2.42	0.67
35:BA:204:MET:HE2	35:BA:209:HIS:HB2	1.75	0.67
47:BM:121:MET:HE1	81:B5:3215:A:O5'	1.94	0.67
48:BN:38:ARG:HH22	83:B8:143:U:P	2.17	0.67
65:Be:38:ILE:HD11	81:B5:640:U:C5	2.28	0.67
65:Be:40:SER:O	65:Be:44:ARG:HG3	1.94	0.67
66:Bf:88:ASN:HB2	81:B5:429:U:H4'	1.74	0.67
79:By:44:HIS:ND1	79:CL:172:HIS:CE1	2.62	0.67
79:By:59:ARG:CG	79:CL:59:ARG:CZ	2.71	0.67
79:By:158:ALA:HB3	79:CL:157:LYS:O	1.93	0.67
79:By:190:ARG:HB3	79:CL:190:ARG:HG3	1.75	0.67
79:CL:70:LYS:HG2	79:CL:71:GLN:HE21	1.50	0.67
10:AB:70:LEU:O	10:AB:74:GLN:N	2.28	0.67
20:AL:4:GLU:HG3	20:AL:5:LEU:HG	1.74	0.67
23:AO:41:ARG:HH21	80:B2:915:A:N6	1.89	0.67
31:AW:47:ILE:HG22	31:AW:65:LEU:HB3	1.76	0.67
63:Bc:22:LYS:HD3	63:Bc:94:GLU:HG3	1.75	0.67
79:By:42:GLU:CD	79:CL:42:GLU:OE2	2.36	0.67
79:By:136:LEU:HG	79:CL:134:ARG:HG3	1.75	0.67
79:By:175:VAL:CG1	79:CL:43:VAL:N	2.57	0.67
80:B2:38:C:H2'	80:B2:39:A:H5'	1.76	0.67
81:B5:2996:U:OP1	81:B5:2996:U:H4'	1.95	0.67
15:AG:53:SER:O	80:B2:163:G:H4'	1.94	0.67
17:AI:178:ARG:NH2	80:B2:207:U:O2	2.27	0.67
18:AJ:53:ARG:NH1	18:AJ:97:LEU:O	2.27	0.67
22:AN:107:LYS:HE3	80:B2:1019:A:OP2	1.94	0.67
54:BT:51:GLY:HA3	54:BT:92:ARG:HG3	1.76	0.67
63:Bc:99:ASP:OD1	63:Bc:99:ASP:N	2.27	0.67
67:Bg:41:ARG:CZ	81:B5:1739:U:C1'	2.72	0.67
79:By:28:LEU:CA	79:CL:28:LEU:CD1	2.70	0.67
79:By:75:LEU:HD11	79:CL:107:TRP:CD2	2.27	0.67
79:By:93:TYR:O	79:CL:93:TYR:CE2	2.46	0.67
79:By:113:VAL:N	79:CL:136:LEU:CD2	2.55	0.67
79:By:134:ARG:HG2	84:CN:2190:A:O3'	1.93	0.67
79:By:147:PHE:HB3	79:CL:147:PHE:C	2.19	0.67
79:By:165:ASN:OD1	79:CL:58:VAL:N	2.27	0.67
79:By:177:LYS:CD	79:CL:177:LYS:NZ	2.57	0.67
80:B2:1339:C:O2'	80:B2:1340:U:OP1	2.12	0.67
80:B2:1758:U:H5'	81:B5:2256:A:P	2.34	0.67
81:B5:2957:G:H8	81:B5:2957:G:H5'	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A0:87:ARG:CZ	80:B2:1797:A:C5	2.78	0.67
4:A3:33:LYS:O	4:A3:36:LEU:HD23	1.95	0.67
9:AA:185:ARG:HA	30:AV:44:ARG:HA	1.77	0.67
13:AE:13:ALA:O	13:AE:39:ARG:NH2	2.27	0.67
15:AG:8:PRO:HB3	80:B2:165:G:C5'	2.24	0.67
15:AG:112:VAL:HG22	80:B2:164:A:C4'	2.12	0.67
16:AH:50:ASP:HA	16:AH:56:LYS:HA	1.76	0.67
22:AN:15:ALA:O	80:B2:959:U:H5'	1.94	0.67
36:BB:139:GLN:O	36:BB:141:GLY:N	2.27	0.67
38:BD:40:HIS:CD2	38:BD:42:ALA:H	2.11	0.67
41:BG:148:ALA:HA	41:BG:201:THR:HG22	1.76	0.67
46:BL:16:LYS:O	81:B5:48:A:OP2	2.12	0.67
46:BL:45:LYS:HE3	81:B5:241:G:H5'	1.76	0.67
79:By:34:THR:CB	79:CL:36:LYS:HD2	2.23	0.67
79:By:161:ILE:HG23	79:CL:161:ILE:CG2	2.19	0.67
79:By:197:GLU:HG2	79:CL:209:LEU:CD1	2.23	0.67
80:B2:1619:C:OP2	89:B2:2073:OHX:N4	2.28	0.67
8:A7:81:THR:HG1	86:CW:29:G:C5'	1.92	0.67
25:AQ:122:ARG:CA	80:B2:1584:G:H5"	2.24	0.67
37:BC:93:MET:O	81:B5:1438:U:H1'	1.95	0.67
42:BH:44:THR:HG22	81:B5:3186:A:C2	2.28	0.67
60:BZ:135:ARG:CZ	81:B5:1807:G:H5"	2.23	0.67
70:Bj:8:PHE:HD2	81:B5:1845:G:O2'	1.77	0.67
79:By:23:ASP:C	79:CL:28:LEU:CB	2.51	0.67
79:By:157:LYS:CA	79:CL:71:GLN:H	2.07	0.67
79:By:161:ILE:HB	79:CL:173:ALA:HB1	1.76	0.67
79:By:197:GLU:CD	79:CL:227:HIS:HE2	2.02	0.67
80:B2:1756[B]:A:O2'	80:B2:1757:G:H5'	1.95	0.67
81:B5:304:G:N3	81:B5:304:G:H5'	2.10	0.67
81:B5:3295:A:H2'	81:B5:3296:A:C8	2.29	0.67
14:AF:94:THR:HB	14:AF:114:ILE:HG13	1.77	0.67
22:AN:3:ARG:NH1	80:B2:867:G:OP1	2.28	0.67
24:AP:12:PHE:HD1	44:BJ:85:LYS:CE	2.08	0.67
29:AU:23:ARG:NH2	80:B2:1347:U:C6	2.63	0.67
38:BD:274:GLN:OE1	82:B7:60:G:N3	2.27	0.67
79:By:25:ALA:HB2	79:CL:222:VAL:CG1	2.24	0.67
79:By:44:HIS:CB	84:CN:2198:C:O4'	2.42	0.67
79:By:109:ASP:H	79:CL:108:MET:HG3	1.58	0.67
79:By:144:THR:CA	79:CL:138:PRO:HA	2.24	0.67
79:By:168:THR:N	79:CL:168:THR:CG2	2.58	0.67
79:By:196:LEU:N	79:CL:193:ILE:CA	2.37	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:210:ARG:O	79:CL:223:ARG:NH1	2.22	0.67
80:B2:838:G:O6	89:B2:2071:OHX:N2	2.28	0.67
80:B2:913:G:O6	81:B5:2206:G:C5'	2.38	0.67
80:B2:1747:G:O2'	81:B5:2304:C:C5'	2.34	0.67
9:AA:70:PRO:HB2	9:AA:94:GLY:HA3	1.77	0.67
23:AO:38:THR:OG1	80:B2:896:U:H1'	1.93	0.67
23:AO:120:PRO:HB3	80:B2:887:A:H5"	1.75	0.67
32:AX:130:VAL:O	32:AX:131:SER:HB3	1.93	0.67
36:BB:308:MET:HE2	36:BB:372:THR:C	2.20	0.67
37:BC:300:ARG:HH11	37:BC:300:ARG:HG2	1.58	0.67
49:BO:68[B]:ARG:NH1	81:B5:2988:C:OP1	2.27	0.67
52:BR:102:LEU:HD13	52:BR:127:SER:HB2	1.76	0.67
53:BS:50:LYS:HZ1	82:B7:76:A:H1'	1.59	0.67
67:Bg:41:ARG:HG2	67:Bg:56:THR:HG21	1.76	0.67
67:Bg:56:THR:OG1	81:B5:1740:U:H5"	1.95	0.67
79:By:7:TYR:HB2	84:CN:2149:C:H2'	1.65	0.67
79:By:79:LYS:HD3	79:CL:149:ILE:HD12	1.75	0.67
79:By:116:THR:OG1	79:CL:77:ILE:CB	2.33	0.67
79:By:155:GLU:HB2	79:CL:160:ARG:H	1.59	0.67
79:By:209:LEU:CD1	79:CL:209:LEU:HD13	2.24	0.67
80:B2:1310:U:O4	89:B2:2080:OHX:N3	2.28	0.67
89:B2:1918:OHX:N2	89:B2:2064:OHX:N5	2.43	0.67
81:B5:1560:G:O2'	81:B5:1561:G:OP1	2.12	0.67
7:A6:300:THR:HG23	7:A6:314:GLN:HG3	1.76	0.67
9:AA:71:GLU:O	9:AA:96:THR:HG22	1.95	0.67
15:AG:174:LYS:HB2	80:B2:79:C:C3'	2.22	0.67
15:AG:174:LYS:CB	80:B2:79:C:C2'	2.38	0.67
32:AX:96:VAL:HG23	32:AX:97:ASP:H	1.60	0.67
36:BB:221:THR:HG22	36:BB:273:HIS:H	1.60	0.67
36:BB:283:TYR:HB3	36:BB:323:MET:HE2	1.76	0.67
38:BD:269:SER:O	82:B7:22:A:N6	2.27	0.67
41:BG:129:PRO:CG	81:B5:121:A:C2	2.78	0.67
53:BS:13:ARG:HG3	53:BS:13:ARG:NH1	2.08	0.67
79:By:100:ILE:O	79:CL:100:ILE:HG22	1.95	0.67
79:By:145:VAL:N	79:CL:138:PRO:C	2.52	0.67
79:By:177:LYS:C	79:CL:178:ALA:H	2.01	0.67
79:CL:42:GLU:HG2	79:CL:215:THR:HG23	1.77	0.67
3:A2:32:PHE:HE1	3:A2:38:ARG:HB3	1.58	0.67
37:BC:36:HIS:O	37:BC:40:THR:HG23	1.94	0.67
48:BN:4:TYR:CE1	81:B5:148:G:OP2	2.48	0.67
54:BT:2:GLY:CA	81:B5:2626:A:O5'	2.43	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:Bg:68:THR:HG21	81:B5:1643:A:P	2.32	0.67
79:By:143:GLY:CA	79:CL:142:ALA:O	2.43	0.67
79:By:155:GLU:CB	79:CL:160:ARG:H	2.08	0.67
79:By:204:ALA:O	79:CL:201:PRO:HG2	1.93	0.67
80:B2:356:G:OP2	89:B2:1914:OHX:N6	2.28	0.67
85:CP:78:PRO:O	90:CP:401:GCP:O3G	2.12	0.67
11:AC:159:THR:HB	80:B2:1098:U:OP1	1.94	0.67
15:AG:108:VAL:CG1	80:B2:153:G:O2'	2.42	0.67
17:AI:51:GLY:H	80:B2:397:A:C5'	2.07	0.67
30:AV:41:GLU:CD	30:AV:41:GLU:H	2.00	0.67
38:BD:94:ASN:HA	82:B7:47:C:P	2.35	0.67
38:BD:187:THR:HG22	38:BD:189:GLU:HB2	1.76	0.67
52:BR:169:ALA:HB3	80:B2:851:U:C4	1.72	0.67
62:Bb:23:LYS:HB3	62:Bb:24:PRO:CD	2.25	0.67
79:By:13:LYS:CB	79:CL:10:LEU:CG	2.65	0.67
79:By:29:VAL:HG11	79:CL:29:VAL:CG2	2.25	0.67
79:By:45:ALA:HB1	79:CL:46:LYS:N	1.76	0.67
79:By:205:LYS:CA	79:CL:200:LYS:CE	2.71	0.67
81:B5:420:G:O5'	81:B5:420:G:OP2	2.12	0.67
81:B5:1225:A:C1'	81:B5:1287:A:C2'	2.73	0.67
10:AB:76:SER:OG	10:AB:78:ASP:OD1	2.12	0.66
13:AE:31:PRO:HG2	13:AE:38:LEU:HD13	1.76	0.66
22:AN:9:LYS:NZ	80:B2:1034:C:OP1	2.26	0.66
26:AR:49:LYS:CG	80:B2:1390:U:P	2.80	0.66
48:BN:60:VAL:HG21	83:B8:142:C:H5"	1.77	0.66
63:Bc:88:GLY:CA	81:B5:1729:A:OP1	2.42	0.66
79:By:18:LYS:CD	79:CL:16:PRO:CD	2.69	0.66
79:By:75:LEU:HB2	79:CL:110:PHE:N	2.10	0.66
79:By:83:ILE:HA	79:CL:95:GLY:CA	2.25	0.66
79:By:205:LYS:CA	79:CL:200:LYS:HE2	2.17	0.66
79:By:218:MET:CB	84:CN:2195:C:H1'	2.25	0.66
80:B2:730:G:O6	89:B2:2048:OHX:N4	2.28	0.66
80:B2:1746:A:H2	81:B5:2302:G:N3	1.92	0.66
81:B5:252:U:H4'	81:B5:253:A:C5'	2.25	0.66
14:AF:80:LYS:CE	80:B2:1405:G:OP1	2.43	0.66
20:AL:10:GLU:CG	80:B2:327:U:O2'	2.25	0.66
26:AR:10:LYS:HE3	80:B2:1316:G:HO2'	1.51	0.66
32:AX:78:LYS:HB3	80:B2:434:G:C5'	2.25	0.66
41:BG:86:THR:O	41:BG:90:THR:HG23	1.94	0.66
41:BG:129:PRO:HB3	81:B5:121:A:C2	2.30	0.66
57:BW:44:LYS:HD2	81:B5:2111:G:H1'	1.75	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:Bi:26:ILE:HG12	81:B5:157:A:C8	2.30	0.66
70:Bj:16:HIS:ND1	81:B5:359:U:O2'	2.29	0.66
79:By:9:ALA:CA	79:CL:5:LYS:HG2	2.19	0.66
79:By:137:LEU:HD12	79:CL:137:LEU:HD12	1.74	0.66
79:By:160:ARG:HD2	79:CL:160:ARG:HB3	1.78	0.66
79:By:162:GLU:HB2	79:CL:162:GLU:CG	2.25	0.66
79:By:212:VAL:HG21	79:CL:224:ILE:HG13	1.77	0.66
79:By:213:TYR:HB3	79:CL:221:SER:CB	2.25	0.66
79:By:217:THR:HG22	79:CL:218:MET:HE1	1.76	0.66
80:B2:995:A:H5"	81:B5:2196:C:P	2.36	0.66
80:B2:1537:C:N3	89:B2:2046:OHX:N3	2.43	0.66
81:B5:2872:A:H4'	81:B5:2872:A:OP1	1.93	0.66
15:AG:13:GLN:HE21	80:B2:151:G:H1'	1.60	0.66
23:AO:25:ASP:CB	80:B2:901:G:P	2.83	0.66
35:BA:64:ARG:HD2	81:B5:2557:A:N7	2.11	0.66
40:BF:178:ILE:HA	40:BF:183:ASP:HB3	1.77	0.66
59:BY:2:ALA:N	81:B5:212:G:OP2	2.28	0.66
68:Bh:39:PRO:O	68:Bh:40:SER:HB3	1.96	0.66
69:Bi:82:ARG:CD	81:B5:295:A:H1'	2.25	0.66
79:By:40:THR:CG2	79:CL:40:THR:HG21	2.25	0.66
79:By:164:ARG:HD3	79:CL:164:ARG:HD3	1.76	0.66
80:B2:415:C:H5	85:CP:288:ARG:HB3	0.87	0.66
80:B2:740:A:H2'	80:B2:741:C:H5"	1.77	0.66
81:B5:2204:C:H4'	81:B5:2205:U:OP1	1.95	0.66
85:CP:199:ALA:CB	90:CP:401:GCP:N7	2.58	0.66
8:A7:81:THR:HG23	86:CW:29:G:H5'	1.70	0.66
15:AG:174:LYS:HB2	80:B2:79:C:C4'	2.24	0.66
17:AI:138:ASN:HD22	80:B2:197:A:H61	1.27	0.66
23:AO:27:PHE:CE2	80:B2:916:U:O2	2.35	0.66
36:BB:299:ASP:OD1	36:BB:301:THR:HG23	1.94	0.66
37:BC:20:LEU:HD13	37:BC:256:THR:HG23	1.76	0.66
67:Bg:60:ARG:HH22	81:B5:1616:U:H4'	1.58	0.66
79:By:22:ILE:HB	79:CL:22:ILE:CA	2.25	0.66
79:By:41:VAL:H	79:CL:40:THR:H	1.44	0.66
79:By:42:GLU:OE2	79:CL:42:GLU:CD	2.37	0.66
79:By:108:MET:N	79:CL:106:GLY:HA2	2.09	0.66
79:By:145:VAL:HG23	79:CL:145:VAL:H	1.55	0.66
79:By:190:ARG:C	79:CL:193:ILE:HD13	2.21	0.66
80:B2:1507:G:O6	89:B2:2031:OHX:N5	2.28	0.66
80:B2:1646:C:H5'	81:B5:2258:U:O4	1.96	0.66
80:B2:1780:G:H1'	81:B5:2262:A:C4'	1.82	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:1655:G:C5'	81:B5:1655:G:H8	2.08	0.66
81:B5:3155:U:H4'	81:B5:3156:U:OP2	1.93	0.66
85:CP:62:TYR:C	85:CP:210:TRP:CE2	2.73	0.66
17:AI:176:SER:CB	80:B2:208:U:H5'	2.26	0.66
25:AQ:137:ARG:HB2	80:B2:1580:C:O3'	1.96	0.66
27:AS:118:LYS:NZ	44:BJ:108:GLU:CD	2.54	0.66
35:BA:116:VAL:HG13	35:BA:126:LEU:HB2	1.76	0.66
48:BN:182:ASN:O	48:BN:183:THR:HG22	1.96	0.66
53:BS:137:ARG:HG2	53:BS:139:TYR:CE2	2.30	0.66
59:BY:52:ARG:HA	59:BY:70:ILE:HG22	1.77	0.66
79:By:32:LEU:C	79:CL:6:ARG:HD2	2.21	0.66
79:By:42:GLU:O	79:CL:215:THR:HG23	1.96	0.66
79:By:161:ILE:HB	79:CL:173:ALA:CB	2.26	0.66
79:By:222:VAL:HG12	79:CL:222:VAL:CG2	2.18	0.66
80:B2:1267:G:H21	80:B2:1448:G:H5"	1.59	0.66
80:B2:1758:U:C5'	81:B5:2255:A:O2'	2.42	0.66
10:AB:154:SER:O	10:AB:154:SER:OG	2.09	0.66
12:AD:157:LEU:O	80:B2:1327:C:H4'	1.96	0.66
15:AG:67:VAL:HG21	15:AG:99:GLY:HA2	1.76	0.66
15:AG:112:VAL:HG21	80:B2:164:A:H5'	1.71	0.66
15:AG:132:ARG:NE	80:B2:68:A:C4	2.64	0.66
18:AJ:60:LEU:CD2	18:AJ:93:LEU:HD21	2.22	0.66
23:AO:125:SER:OG	80:B2:927:C:H4'	1.96	0.66
31:AW:27:ILE:HG12	31:AW:61:ILE:HB	1.77	0.66
49:BO:121[B]:PRO:HA	49:BO:124[B]:LEU:HD22	1.76	0.66
60:BZ:67:LYS:HE2	81:B5:1630:U:OP1	1.94	0.66
79:By:178:ALA:CA	79:CL:33:ALA:CB	2.73	0.66
89:B2:1915:OHX:N4	89:B2:2071:OHX:N1	2.42	0.66
8:A7:33:LYS:HD2	81:B5:2692:A:C5'	2.24	0.66
20:AL:65:SER:HB3	80:B2:114:C:H1'	1.76	0.66
23:AO:123:SER:O	80:B2:885:G:N2	2.28	0.66
24:AP:12:PHE:HA	44:BJ:85:LYS:HD2	1.77	0.66
29:AU:57:ARG:CG	80:B2:1382:A:H4'	2.26	0.66
46:BL:99:HIS:CD2	81:B5:156:G:N1	2.63	0.66
47:BM:48:GLY:HA3	47:BM:53:VAL:HG13	1.78	0.66
48:BN:72:LYS:NZ	81:B5:2167:A:P	2.68	0.66
53:BS:46:GLN:O	82:B7:77:G:H3'	1.96	0.66
67:Bg:36:LYS:NZ	81:B5:1595:U:OP2	2.21	0.66
79:By:18:LYS:HG2	79:CL:16:PRO:HD3	1.77	0.66
79:By:51:PRO:HB2	79:CL:169:GLY:CA	2.23	0.66
84:CN:2159:C:C5'	84:CN:2159:C:H6	2.09	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:A7:81:THR:OG1	86:CW:29:G:C3'	2.43	0.66
25:AQ:123:ARG:C	80:B2:1584:G:C2'	2.67	0.66
38:BD:36:LEU:HG	81:B5:2748:A:N3	2.11	0.66
54:BT:68:THR:CG2	81:B5:2737:C:P	2.84	0.66
79:By:53:ARG:HH21	79:CL:49:ILE:HA	1.60	0.66
79:By:138:PRO:O	79:CL:137:LEU:CD1	2.43	0.66
79:By:141:LYS:HZ2	79:CL:141:LYS:HE3	1.60	0.66
79:By:156:ILE:O	79:CL:68:LEU:CD1	2.44	0.66
79:By:179:SER:OG	79:CL:37:PHE:C	2.38	0.66
79:By:192:PHE:HB2	79:CL:192:PHE:HB3	1.76	0.66
80:B2:1316:G:HO2'	80:B2:1401:A:HO2'	1.43	0.66
81:B5:2766:U:N3	86:CW:76:A:N7	2.44	0.66
85:CP:63:GLU:CB	85:CP:210:TRP:CE3	2.79	0.66
2:A1:68:GLY:N	80:B2:872:G:H1'	2.11	0.66
8:A7:23:LYS:H	8:A7:23:LYS:HD2	1.58	0.66
16:AH:50:ASP:HB3	16:AH:56:LYS:HG2	1.75	0.66
23:AO:81:VAL:H	23:AO:115:ILE:HG22	1.61	0.66
28:AT:30:VAL:O	28:AT:32:GLY:N	2.29	0.66
29:AU:88:LYS:NZ	80:B2:1516:A:OP1	2.27	0.66
38:BD:76:ALA:HB3	38:BD:109:THR:HG22	1.76	0.66
43:BI:86:HIS:HB3	43:BI:139:ARG:HG2	1.78	0.66
60:BZ:102:GLU:OE1	60:BZ:103:GLN:N	2.25	0.66
69:Bi:15:LYS:HB3	81:B5:73:C:O4'	1.96	0.66
75:Bo:49:GLY:HA2	81:B5:277:G:H5"	1.76	0.66
79:By:51:PRO:HG3	79:CL:46:LYS:HZ2	1.59	0.66
79:By:72:VAL:HG13	79:CL:111:ASP:HB2	1.65	0.66
79:By:72:VAL:CB	79:CL:111:ASP:HB3	2.25	0.66
79:By:77:ILE:CA	79:CL:77:ILE:CG1	2.74	0.66
79:By:100:ILE:CG1	79:CL:98:GLU:HA	2.23	0.66
80:B2:1688:U:H2'	80:B2:1689:A:C8	2.31	0.66
82:B7:91:G:H2'	82:B7:92:A:C8	2.30	0.66
8:A7:32:SER:OG	81:B5:2692:A:O4'	2.07	0.66
9:AA:10:THR:OG1	9:AA:13:ASP:OD2	2.13	0.66
19:AK:56:LYS:HG3	19:AK:67:THR:HB	1.78	0.66
22:AN:107:LYS:NZ	80:B2:1019:A:OP2	2.29	0.66
23:AO:46:MET:HG2	80:B2:899:G:O5'	1.95	0.66
23:AO:125:SER:OG	80:B2:927:C:O4'	2.12	0.66
29:AU:57:ARG:NH2	80:B2:1382:A:N3	2.43	0.66
48:BN:143:ARG:HH21	68:Bh:92:LEU:HA	1.61	0.66
52:BR:84:THR:O	52:BR:88:ARG:HG2	1.96	0.66
60:BZ:69:LYS:CE	81:B5:1633:C:OP1	2.44	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Ba:27:LYS:NZ	81:B5:801:A:OP1	2.27	0.66
79:By:3:HIS:N	84:CN:2149:C:O2	2.28	0.66
79:By:77:ILE:CG1	79:CL:75:LEU:HD21	2.24	0.66
80:B2:843:U:H2'	80:B2:844:A:C8	2.31	0.66
80:B2:1759:C:O2'	81:B5:2263:C:H1'	1.96	0.66
23:AO:38:THR:CG2	80:B2:895:G:O2'	2.12	0.65
31:AW:119:LYS:HG2	80:B2:687:G:H5'	1.77	0.65
37:BC:339:LEU:HA	37:BC:342:LYS:HB3	1.79	0.65
70:Bj:32:LYS:HE3	83:B8:111:A:OP1	1.96	0.65
79:By:10:LEU:CD1	84:CN:2149:C:H5"	2.26	0.65
79:By:36:LYS:HE3	84:CN:2182:C:N4	2.10	0.65
79:By:81:GLU:H	79:CL:78:ALA:CB	2.09	0.65
79:By:97:GLU:HB3	79:CL:98:GLU:H	1.59	0.65
79:By:119:VAL:CA	79:CL:97:GLU:OE2	2.43	0.65
79:By:144:THR:C	79:CL:144:THR:CG2	2.68	0.65
80:B2:205:U:O4	89:B2:1946:OHX:N3	2.29	0.65
80:B2:422:G:N7	89:B2:1986:OHX:N5	2.44	0.65
80:B2:1041:G:H2'	80:B2:1042:G:C8	2.30	0.65
81:B5:1481:A:O4'	81:B5:1481:A:OP1	2.13	0.65
11:AC:89:GLN:HB3	80:B2:1146:G:C1'	2.27	0.65
24:AP:57:MET:HE1	24:AP:89:MET:HE3	1.78	0.65
25:AQ:139:GLN:HA	80:B2:1579:U:O2'	1.95	0.65
26:AR:7:LYS:N	80:B2:1316:G:OP1	2.27	0.65
28:AT:117:SER:HB2	28:AT:123:ARG:HB2	1.77	0.65
46:BL:11:LYS:HE2	81:B5:98:G:O6	1.95	0.65
52:BR:46:LYS:NZ	81:B5:1766:G:C8	2.60	0.65
76:Bq:5:ARG:HG2	81:B5:1221:A:HO2'	1.57	0.65
79:By:141:LYS:O	79:CL:142:ALA:HB3	1.49	0.65
79:By:178:ALA:HB1	79:CL:33:ALA:CA	2.27	0.65
79:By:185:LEU:HD13	79:CL:29:VAL:HG21	1.77	0.65
79:By:201:PRO:CB	79:CL:58:VAL:N	2.59	0.65
79:By:222:VAL:CG1	79:CL:14:VAL:HG12	2.24	0.65
80:B2:1446:A:P	89:B2:2083:OHX:N2	2.70	0.65
80:B2:1592:A:H2'	80:B2:1593:A:H8	1.61	0.65
80:B2:1606:C:H2'	80:B2:1607:G:C8	2.31	0.65
81:B5:2667:A:H5'	81:B5:2667:A:C8	2.30	0.65
7:A6:285:ALA:HB3	80:B2:1394:G:OP1	1.92	0.65
10:AB:206:PRO:O	10:AB:207:LEU:HB2	1.95	0.65
11:AC:201:ASN:ND2	80:B2:1097:U:O4	2.29	0.65
12:AD:162:GLN:HG2	80:B2:1333:C:C4'	2.26	0.65
16:AH:38:LEU:HD23	16:AH:41:LEU:HD12	1.76	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AR:47:ARG:NH1	26:AR:48:ASN:OD1	2.29	0.65
31:AW:56:HIS:O	80:B2:861:U:O2'	2.09	0.65
37:BC:20:LEU:HD11	37:BC:252:GLU:HG3	1.78	0.65
37:BC:221:ASN:HD21	81:B5:211:A:H3'	1.61	0.65
43:BI:22:TYR:HB3	81:B5:2647:A:H4'	1.78	0.65
43:BI:67:ALA:HB2	81:B5:2852:C:H2'	1.77	0.65
43:BI:194:GLY:CA	81:B5:1010:G:H2'	2.27	0.65
52:BR:173:ARG:O	80:B2:853:G:H5'	1.96	0.65
53:BS:170:THR:HG1	81:B5:3185:U:HO2'	1.38	0.65
67:Bg:72:VAL:HG12	81:B5:1640:G:OP2	1.96	0.65
70:Bj:32:LYS:CE	83:B8:111:A:OP1	2.44	0.65
79:By:3:HIS:CB	84:CN:2182:C:O2'	2.44	0.65
79:By:28:LEU:CD1	79:CL:28:LEU:HD11	2.26	0.65
79:By:45:ALA:CB	79:CL:44:HIS:C	2.68	0.65
79:By:138:PRO:HG3	79:CL:138:PRO:HD2	0.66	0.65
79:By:153:ILE:HD11	79:CL:75:LEU:C	2.15	0.65
79:By:217:THR:HG21	84:CN:2146:G:O4'	1.95	0.65
80:B2:118:U:O4	89:B2:2045:OHX:N5	2.29	0.65
80:B2:1686:C:C2'	80:B2:1687:U:O4'	2.45	0.65
80:B2:1757:G:H2'	81:B5:2255:A:HO2'	1.59	0.65
81:B5:2103:U:H2'	81:B5:2104:A:C8	2.31	0.65
81:B5:2777:G:H5"	81:B5:2777:G:C8	2.31	0.65
10:AB:116:LYS:HA	80:B2:931:C:H5"	1.77	0.65
14:AF:103:ASN:ND2	80:B2:1473:U:O2'	2.30	0.65
15:AG:107:ALA:HB1	80:B2:154:G:H4'	1.78	0.65
25:AQ:50:GLU:OE1	25:AQ:82:ARG:NH2	2.27	0.65
25:AQ:135:ARG:HB3	80:B2:1581:C:H4'	1.79	0.65
26:AR:3:ARG:HG2	80:B2:1390:U:C6	2.32	0.65
29:AU:23:ARG:HH21	80:B2:1347:U:H6	1.38	0.65
31:AW:2:THR:N	80:B2:1034:C:HO2'	1.93	0.65
54:BT:68:THR:CG2	81:B5:2736:A:O3'	2.45	0.65
74:Bn:9:ARG:HH11	74:Bn:9:ARG:HG3	1.61	0.65
79:By:78:ALA:HB2	79:CL:94:VAL:CA	2.23	0.65
79:By:136:LEU:CD1	79:CL:134:ARG:CG	2.74	0.65
79:By:152:ILE:CD1	79:CL:160:ARG:HH22	2.07	0.65
79:By:217:THR:CG2	79:CL:217:THR:HG22	2.24	0.65
79:By:218:MET:SD	84:CN:2195:C:N1	2.70	0.65
80:B2:1780:G:C2'	81:B5:2262:A:C4'	2.68	0.65
81:B5:249:U:O2'	81:B5:250:U:H5"	1.95	0.65
81:B5:892:U:C2'	81:B5:893:C:H5'	2.26	0.65
15:AG:172:ALA:HB3	80:B2:78:A:O3'	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AO:132:ARG:CB	80:B2:1787:C:OP2	2.44	0.65
33:AY:9:THR:CG2	80:B2:781:U:OP2	2.45	0.65
36:BB:9:PRO:HG2	81:B5:3043:C:H5'	1.79	0.65
42:BH:116:ASN:ND2	85:CP:136:TYR:CG	2.63	0.65
44:BJ:9:MET:O	44:BJ:11:ASP:N	2.29	0.65
48:BN:75:VAL:O	81:B5:2166:A:H5'	1.96	0.65
49:BO:12[B]:LYS:O	53:BS:167:ARG:NH2	2.28	0.65
49:BO:88[A]:VAL:O	49:BO:90[A]:HIS:N	2.30	0.65
60:BZ:25:ILE:HA	60:BZ:43:VAL:HG12	1.78	0.65
60:BZ:135:ARG:HH21	81:B5:1807:G:H5"	1.55	0.65
74:Bn:11:ARG:CG	80:B2:1126:G:H5'	2.26	0.65
79:By:30:LYS:NZ	79:CL:31:GLU:HB2	2.10	0.65
79:By:68:LEU:HA	79:CL:175:VAL:C	2.22	0.65
79:By:92:ASP:CB	79:CL:109:ASP:O	2.45	0.65
79:By:141:LYS:CE	79:CL:59:ARG:HG2	2.20	0.65
79:By:156:ILE:CD1	79:CL:112:ALA:HB1	2.25	0.65
79:By:218:MET:HA	84:CN:2195:C:N1	2.11	0.65
80:B2:1644:C:H1'	81:B5:2255:A:C2	2.26	0.65
81:B5:2444:C:P	84:CN:2124:C:O2	2.55	0.65
83:B8:79:A:H3'	83:B8:80:A:C8	2.31	0.65
3:A2:36:THR:OG1	3:A2:37:SER:N	2.28	0.65
4:A3:54:LYS:CE	80:B2:1420:C:OP1	2.44	0.65
8:A7:34:LYS:HE3	81:B5:2693:C:H5'	1.79	0.65
15:AG:172:ALA:O	80:B2:79:C:C5'	2.39	0.65
26:AR:60:ARG:HH22	80:B2:1400:A:C5'	1.98	0.65
28:AT:90:PRO:CD	80:B2:1467:C:O2'	2.40	0.65
34:AZ:41:ILE:HG23	34:AZ:42:LEU:H	1.59	0.65
41:BG:100:GLU:OE2	41:BG:108:ARG:NH1	2.30	0.65
41:BG:181:LYS:HG2	83:B8:154:C:H5"	1.77	0.65
72:Bl:10:LYS:HA	72:Bl:13:MET:HE3	1.79	0.65
79:By:28:LEU:CD2	79:CL:13:LYS:CG	2.70	0.65
79:By:80:GLY:C	79:CL:83:ILE:HG13	2.21	0.65
79:By:134:ARG:HG2	84:CN:2190:A:C2'	2.25	0.65
79:By:184:LYS:N	79:CL:185:LEU:H	1.95	0.65
79:By:227:HIS:CE1	79:CL:227:HIS:CE1	2.84	0.65
80:B2:1339:C:O2'	80:B2:1341:A:N7	2.30	0.65
80:B2:1536:G:C5	80:B2:1538:U:H1'	2.32	0.65
80:B2:1686:C:H2'	80:B2:1687:U:O4'	1.96	0.65
81:B5:2403:G:N7	81:B5:2870:C:H4'	2.12	0.65
83:B8:77:A:H2'	83:B8:78:G:O4'	1.96	0.65
15:AG:151:ASP:OD1	57:BW:105:ARG:CZ	2.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AN:27:LYS:H	22:AN:27:LYS:HE2	1.60	0.65
27:AS:11:PHE:CE1	27:AS:59:GLY:HA2	2.32	0.65
38:BD:15:ARG:NE	81:B5:1003:A:C1'	2.60	0.65
38:BD:158:ARG:HD2	82:B7:46:A:O5'	1.96	0.65
53:BS:50:LYS:HE3	82:B7:76:A:C2	2.31	0.65
63:Bc:85:PHE:CE1	81:B5:1728:G:C4	2.84	0.65
65:Be:103:LYS:HD3	81:B5:1391:C:C2	2.31	0.65
79:By:202:GLU:N	79:CL:57:ASN:H	1.94	0.65
80:B2:1191:U:O4'	86:CW:35:A:OP1	2.15	0.65
80:B2:1780:G:C2'	81:B5:2262:A:C3'	2.58	0.65
1:A0:86:VAL:CG2	80:B2:1795:U:OP1	2.45	0.65
1:A0:87:ARG:CD	80:B2:1797:A:C6	2.80	0.65
8:A7:33:LYS:CE	81:B5:2692:A:H5'	2.26	0.65
35:BA:194:ASN:CG	81:B5:822:G:H4'	2.21	0.65
38:BD:23:ARG:CZ	81:B5:2703:A:OP2	2.44	0.65
38:BD:270:LYS:O	38:BD:273:ARG:HB3	1.96	0.65
51:BQ:89:ASP:HB3	81:B5:677:A:OP1	1.96	0.65
65:Be:19:ARG:NH2	81:B5:1433:A:P	2.67	0.65
72:Bl:5:LYS:O	81:B5:1833:G:C4'	2.37	0.65
79:By:21:THR:C	79:CL:24:GLU:HB3	2.21	0.65
79:By:41:VAL:H	79:CL:40:THR:CB	2.09	0.65
79:By:64:LEU:HD13	79:CL:188:ASN:CA	2.26	0.65
79:By:65:PRO:HB2	79:CL:66:HIS:CG	2.31	0.65
79:By:66:HIS:ND1	79:CL:180:PHE:CD2	2.65	0.65
80:B2:819:G:O2'	80:B2:820:U:H5'	1.96	0.65
81:B5:2569:A:H4'	81:B5:2570:U:H5'	1.78	0.65
10:AB:114:VAL:HG21	80:B2:930:A:H2	1.62	0.65
14:AF:152:GLY:O	14:AF:154:ALA:N	2.30	0.65
15:AG:53:SER:CB	80:B2:163:G:C3'	2.67	0.65
24:AP:12:PHE:CA	44:BJ:85:LYS:HD2	2.26	0.65
33:AY:120:GLY:CA	80:B2:85:A:O3'	2.45	0.65
54:BT:8:ARG:HB2	81:B5:2757:U:O2'	1.97	0.65
63:Bc:87:VAL:HA	81:B5:1728:G:C2'	2.24	0.65
66:Bf:21:ARG:O	81:B5:634:C:H5'	1.97	0.65
66:Bf:49:ILE:HG23	66:Bf:100:ILE:HG13	1.78	0.65
67:Bg:52:GLN:HG3	81:B5:1738:C:O4'	1.96	0.65
68:Bh:62:GLN:O	68:Bh:66:VAL:HG23	1.97	0.65
79:By:160:ARG:H	79:CL:68:LEU:HD11	1.62	0.65
79:By:177:LYS:HG3	79:CL:177:LYS:NZ	2.10	0.65
80:B2:1645:G:C4'	81:B5:2259:A:H2	2.01	0.65
81:B5:1818:U:H2'	81:B5:1819:U:H6	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A5:126:CYS:O	6:A5:128:ALA:N	2.28	0.65
13:AE:212:ASP:OD2	13:AE:216:ASN:HB2	1.97	0.65
20:AL:6:THR:O	20:AL:8:GLN:N	2.30	0.65
35:BA:247:ARG:HH21	80:B2:1013:A:H4'	1.61	0.65
37:BC:162:THR:OG1	81:B5:209:A:H2'	1.95	0.65
38:BD:285:ARG:HD3	82:B7:63:A:OP1	1.97	0.65
59:BY:35:LEU:HD13	59:BY:39:LEU:HB3	1.77	0.65
60:BZ:67:LYS:HZ3	81:B5:1630:U:P	2.19	0.65
74:Bn:4:LYS:HE3	80:B2:1773:C:C3'	2.26	0.65
79:By:98:GLU:C	79:CL:98:GLU:O	2.40	0.65
79:By:159:GLY:CA	79:CL:159:GLY:HA3	2.11	0.65
80:B2:1462:G:O2'	86:CW:30:G:OP1	2.15	0.65
2:A1:29:ARG:HG3	2:A1:29:ARG:NH1	2.09	0.64
15:AG:53:SER:O	80:B2:163:G:C4'	2.44	0.64
15:AG:59:GLN:H	80:B2:155:U:C5'	2.10	0.64
15:AG:59:GLN:CA	80:B2:155:U:O4'	2.45	0.64
18:AJ:96:VAL:HA	18:AJ:99:LEU:HD22	1.78	0.64
23:AO:129:LYS:HA	80:B2:990:C:H4'	1.77	0.64
39:BE:78:ARG:NH1	81:B5:3272:C:OP2	2.30	0.64
40:BF:122:ALA:HB1	81:B5:986:U:O2	1.96	0.64
44:BJ:95:ASN:HA	81:B5:2673:A:OP1	1.98	0.64
48:BN:80:THR:HG21	48:BN:87:GLN:HA	1.78	0.64
79:By:12:GLU:HG3	79:CL:6:ARG:C	2.22	0.64
79:By:28:LEU:CD1	79:CL:28:LEU:CD1	2.76	0.64
79:By:75:LEU:CD1	79:CL:107:TRP:O	2.45	0.64
79:By:107:TRP:CH2	79:CL:103:ILE:HA	2.32	0.64
79:By:113:VAL:CG1	79:CL:131:LEU:CD2	2.27	0.64
79:By:131:LEU:HD13	79:CL:131:LEU:CA	2.23	0.64
79:By:155:GLU:OE2	79:CL:155:GLU:C	2.38	0.64
79:By:156:ILE:HD12	79:CL:112:ALA:HB1	1.77	0.64
79:By:203:GLY:HA3	79:CL:53:ARG:HB3	1.79	0.64
80:B2:647:G:N2	80:B2:687:G:H22	1.95	0.64
80:B2:895:G:H1	80:B2:917:U:H3	1.45	0.64
81:B5:618:C:H2'	81:B5:619:A:C8	2.31	0.64
81:B5:2549:G:H5'	81:B5:2549:G:C8	2.31	0.64
7:A6:59:ARG:NH2	25:AQ:95:LYS:O	2.30	0.64
30:AV:62:ARG:NH2	80:B2:1039:A:C5'	2.48	0.64
40:BF:92:ILE:HD11	81:B5:1159:A:C2	2.33	0.64
51:BQ:43:PRO:HB3	81:B5:728:G:H5"	1.78	0.64
53:BS:90:MET:CG	81:B5:1213:G:H4'	2.26	0.64
56:BV:33:ASN:HD22	56:BV:63:LYS:HB2	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:Bk:46:ARG:NH1	71:Bk:47:GLY:O	2.30	0.64
75:Bo:67:LYS:HB2	81:B5:2793:G:OP1	1.98	0.64
79:By:3:HIS:HB3	84:CN:2182:C:C2'	2.27	0.64
79:By:24:GLU:CD	79:CL:20:TYR:HE2	2.05	0.64
79:By:62:VAL:O	79:CL:161:ILE:O	2.15	0.64
79:By:134:ARG:CD	84:CN:2191:A:P	2.85	0.64
80:B2:1789:G:H5"	80:B2:1789:G:H8	1.60	0.64
81:B5:15:C:H5'	81:B5:15:C:C6	2.31	0.64
81:B5:1085:A:C5'	81:B5:1085:A:H8	2.10	0.64
9:AA:168:HIS:HB3	9:AA:203:PHE:CZ	2.32	0.64
11:AC:86:VAL:HG11	80:B2:1300:A:H5"	1.79	0.64
15:AG:185:GLN:CD	80:B2:284:G:N1	2.55	0.64
17:AI:64:ASN:HB2	80:B2:258:C:C1'	2.27	0.64
17:AI:75:LYS:HB2	80:B2:258:C:H5'	1.79	0.64
17:AI:138:ASN:CG	80:B2:197:A:H61	2.05	0.64
23:AO:41:ARG:HH21	80:B2:916:U:H3	1.37	0.64
23:AO:122:PRO:CA	80:B2:886:U:O2	2.43	0.64
23:AO:126:THR:HG22	80:B2:988:A:N3	2.08	0.64
44:BJ:87:LYS:HD2	44:BJ:104:PHE:CD2	2.32	0.64
54:BT:127:GLN:CG	81:B5:1095:U:H3	2.09	0.64
60:BZ:70:PRO:HD2	81:B5:1629:U:O2	1.96	0.64
66:Bf:2:ALA:HB1	81:B5:3219:G:N7	2.11	0.64
67:Bg:8:ARG:HH22	81:B5:1597:C:P	2.19	0.64
79:By:46:LYS:CB	79:CL:46:LYS:CB	2.02	0.64
79:By:122:ALA:HA	79:CL:125:SER:CB	2.27	0.64
79:By:137:LEU:CA	79:CL:132:GLY:CA	2.62	0.64
79:By:198:ALA:HB1	79:CL:198:ALA:CB	2.26	0.64
79:By:201:PRO:HD2	79:CL:201:PRO:HD2	1.74	0.64
81:B5:118:U:O2	81:B5:121:A:H5'	1.97	0.64
84:CN:2186:G:C2'	84:CN:2187:G:H5"	2.26	0.64
4:A3:33:LYS:HE3	80:B2:1594:G:H5'	1.80	0.64
5:A4:14:VAL:O	5:A4:18:THR:HG23	1.97	0.64
11:AC:89:GLN:HB3	80:B2:1146:G:O4'	1.97	0.64
15:AG:175:ILE:C	80:B2:78:A:C2	2.75	0.64
18:AJ:172:VAL:CG2	80:B2:511:A:H5"	2.18	0.64
38:BD:277:LEU:HG	82:B7:62:U:OP1	1.98	0.64
42:BH:12:VAL:HG13	42:BH:16:VAL:HG22	1.79	0.64
49:BO:159[A]:LYS:NZ	81:B5:3243:A:OP1	2.31	0.64
52:BR:35:ALA:O	52:BR:36:ASN:ND2	2.29	0.64
54:BT:49:GLN:HG2	81:B5:2756:C:C1'	2.28	0.64
61:Ba:3:SER:O	61:Ba:6:THR:HB	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:Bj:8:PHE:HD2	81:B5:1845:G:HO2'	1.44	0.64
79:By:48:GLY:HA3	79:CL:210:ARG:CG	2.23	0.64
79:By:62:VAL:N	79:CL:161:ILE:O	2.30	0.64
79:By:100:ILE:HG22	79:CL:100:ILE:HG13	1.78	0.64
79:By:131:LEU:HD13	79:CL:131:LEU:HD23	1.78	0.64
79:By:145:VAL:N	79:CL:139:ASN:N	2.46	0.64
79:By:174:PRO:CB	84:CN:2145:G:H4'	2.25	0.64
80:B2:158:U:O2'	80:B2:159:U:H3'	1.98	0.64
80:B2:1015:U:H5"	80:B2:1016:C:OP2	1.97	0.64
7:A6:195:HIS:CD2	7:A6:199:ILE:HD13	2.32	0.64
23:AO:129:LYS:HA	80:B2:990:C:H5"	1.80	0.64
26:AR:7:LYS:CD	80:B2:1316:G:OP1	2.46	0.64
34:AZ:59:TYR:HE1	34:AZ:61:SER:HB3	1.61	0.64
38:BD:269:SER:HA	82:B7:22:A:C2	2.32	0.64
79:By:22:ILE:HD12	79:CL:21:THR:C	2.22	0.64
79:By:75:LEU:CD2	79:CL:107:TRP:CE3	2.80	0.64
79:By:183:GLU:O	79:CL:182:PRO:C	2.36	0.64
80:B2:420:A:C4	85:CP:288:ARG:NH2	2.45	0.64
20:AL:36:LYS:HD3	80:B2:248:U:H5'	1.80	0.64
23:AO:27:PHE:HZ	80:B2:916:U:O2'	1.35	0.64
36:BB:241:LYS:HE2	81:B5:874:U:P	2.37	0.64
48:BN:183:THR:O	48:BN:184:LYS:HB3	1.98	0.64
51:BQ:55:SER:HA	81:B5:672:A:OP1	1.97	0.64
54:BT:57:TYR:OH	81:B5:2724:U:P	2.56	0.64
65:Be:37:GLY:HA3	81:B5:639:G:P	2.38	0.64
79:By:66:HIS:HD2	79:CL:188:ASN:OD1	1.81	0.64
79:By:94:VAL:CA	79:CL:107:TRP:HZ2	2.09	0.64
79:By:132:GLY:N	79:CL:128:GLY:O	2.30	0.64
79:By:201:PRO:HB2	79:CL:57:ASN:CA	2.27	0.64
79:By:223:ARG:HD3	79:CL:213:TYR:HE2	1.61	0.64
80:B2:497:G:H4'	80:B2:498:G:OP1	1.97	0.64
80:B2:562:G:OP2	89:B2:2025:OHX:N5	2.31	0.64
80:B2:711:U:H1'	80:B2:712:G:H5'	1.78	0.64
80:B2:1518:C:OP1	89:B2:2001:OHX:N5	2.29	0.64
79:CL:53:ARG:O	79:CL:54:SER:C	2.39	0.64
7:A6:136:ILE:HD13	7:A6:136:ILE:H	1.63	0.64
8:A7:28:SER:HB2	81:B5:2708:C:O4'	1.95	0.64
8:A7:33:LYS:CE	81:B5:2692:A:C5'	2.76	0.64
13:AE:221:ARG:HG3	80:B2:753:A:H5'	1.80	0.64
15:AG:108:VAL:HG21	80:B2:153:G:C2'	2.27	0.64
38:BD:16:PHE:CZ	81:B5:2688:U:N3	2.66	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:266:ALA:CA	82:B7:1:G:N9	2.59	0.64
54:BT:101:CYS:HB3	81:B5:990:U:H1'	1.80	0.64
79:By:5:LYS:O	84:CN:2151:U:C5	2.49	0.64
79:By:14:VAL:HG12	79:CL:32:LEU:CD2	2.28	0.64
79:By:82:LYS:HG3	79:CL:82:LYS:CB	2.27	0.64
79:By:152:ILE:HD13	79:CL:160:ARG:HH22	1.63	0.64
79:By:189:ILE:HA	79:CL:43:VAL:CG2	2.27	0.64
80:B2:1758:U:HO2'	81:B5:2255:A:H5"	1.60	0.64
8:A7:81:THR:HG23	86:CW:29:G:OP1	1.98	0.64
11:AC:103:VAL:HG12	11:AC:190:LEU:HD12	1.80	0.64
15:AG:62:PRO:HB2	80:B2:162:A:C5'	2.28	0.64
26:AR:49:LYS:HG3	80:B2:1390:U:OP1	1.98	0.64
27:AS:70:VAL:HA	27:AS:73:MET:HE3	1.80	0.64
27:AS:110:ARG:HD2	44:BJ:118:PRO:HB3	1.80	0.64
27:AS:143:ARG:CA	80:B2:1461:C:OP1	2.46	0.64
35:BA:245:LEU:HD12	81:B5:2152:A:O3'	1.97	0.64
36:BB:117:ARG:HA	36:BB:175:LYS:HD3	1.78	0.64
41:BG:121:SER:O	41:BG:123:GLN:N	2.31	0.64
52:BR:101:VAL:HG21	81:B5:1948:G:H4'	1.80	0.64
66:Bf:88:ASN:HB2	81:B5:429:U:H5'	1.79	0.64
68:Bh:86:ARG:NE	83:B8:37:A:OP2	2.31	0.64
79:By:34:THR:HG1	79:CL:36:LYS:HD2	1.62	0.64
79:By:117:PRO:N	79:CL:119:VAL:HG23	2.13	0.64
79:By:131:LEU:CB	79:CL:128:GLY:C	2.71	0.64
79:By:154:ARG:CZ	79:CL:89:ALA:O	2.46	0.64
80:B2:1716:C:O2'	80:B2:1717:G:C8	2.47	0.64
80:B2:1758:U:H5'	81:B5:2255:A:O2'	1.96	0.64
81:B5:2436:U:H3	81:B5:2511:A:H62	1.45	0.64
79:CL:180:PHE:C	79:CL:181:PRO:O	2.41	0.64
7:A6:216:LYS:HA	7:A6:239:GLU:HG3	1.80	0.64
10:AB:105:PHE:N	10:AB:214:LYS:HZ1	1.96	0.64
15:AG:133:LEU:HD11	80:B2:66:U:C2'	2.27	0.64
19:AK:1:MET:HG3	80:B2:1217:A:H5"	1.80	0.64
22:AN:54:LEU:HB3	22:AN:60:VAL:HG21	1.79	0.64
23:AO:38:THR:OG1	80:B2:896:U:C1'	2.45	0.64
23:AO:127:ARG:HH22	80:B2:1788:G:P	2.21	0.64
28:AT:57:ARG:HH12	80:B2:1479:A:P	2.18	0.64
29:AU:118:VAL:HG22	29:AU:119:ALA:H	1.63	0.64
32:AX:92:CYS:HG	32:AX:136:TRP:CD1	2.16	0.64
35:BA:200:ARG:CZ	81:B5:2147:A:OP2	2.46	0.64
43:BI:174:THR:HG23	43:BI:175:ASN:H	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BY:13:ARG:NH1	83:B8:24:G:OP2	2.24	0.64
60:BZ:3:LYS:HE3	60:BZ:5:LEU:HD12	1.78	0.64
64:Bd:21:HIS:CE1	81:B5:3376:A:C5	2.86	0.64
67:Bg:65:VAL:HG12	67:Bg:70:LYS:HE2	1.80	0.64
79:By:45:ALA:CA	79:CL:44:HIS:O	2.45	0.64
79:By:77:ILE:HA	79:CL:99:ILE:HG13	1.80	0.64
79:By:81:GLU:HA	79:CL:79:LYS:C	2.23	0.64
79:By:140:PRO:C	79:CL:141:LYS:CB	2.71	0.64
79:By:171:ILE:CB	79:CL:47:LEU:CG	2.74	0.64
79:By:190:ARG:HH21	79:CL:21:THR:CA	2.07	0.64
79:By:194:ARG:O	79:CL:197:GLU:HB2	1.98	0.64
80:B2:836:U:OP1	89:B2:2076:OHX:N2	2.30	0.64
3:A2:10:ALA:HA	3:A2:32:PHE:HA	1.78	0.64
10:AB:28:GLU:OE2	10:AB:94:LYS:NZ	2.19	0.64
26:AR:48:ASN:CB	80:B2:1389:C:O4’	2.37	0.64
27:AS:126:ARG:CZ	80:B2:1459:C:OP1	2.46	0.64
28:AT:86:ARG:NH1	28:AT:90:PRO:O	2.32	0.64
29:AU:54:GLY:O	80:B2:1344:A:O2’	2.14	0.64
33:AY:105:ARG:N	80:B2:443:C:OP1	2.26	0.64
35:BA:3:ARG:NH2	81:B5:917:A:H62	1.95	0.64
44:BJ:95:ASN:CA	81:B5:2673:A:OP1	2.46	0.64
68:Bh:101:THR:HG22	68:Bh:104:GLN:HB2	1.80	0.64
79:By:13:LYS:CA	79:CL:7:TYR:O	2.45	0.64
79:By:44:HIS:HE1	84:CN:2197:A:H2	0.76	0.64
79:By:70:LYS:CB	79:CL:68:LEU:CD1	2.69	0.64
79:By:153:ILE:HG22	79:CL:157:LYS:HZ3	1.62	0.64
79:By:185:LEU:HD11	79:CL:41:VAL:HG22	1.76	0.64
80:B2:51:A:O4’	85:CP:241:GLU:O	2.13	0.64
80:B2:140:A:N6	80:B2:281:G:OP1	2.21	0.64
80:B2:1701:N:H3’	80:B2:1702:N:H5”	1.80	0.64
1:A0:70:LYS:NZ	80:B2:931:C:OP2	2.27	0.63
8:A7:71:ASN:OD1	24:AP:130:ARG:NH1	2.32	0.63
17:AI:73:SER:CB	80:B2:257:A:H1’	2.17	0.63
18:AJ:176:ASN:HB2	80:B2:511:A:OP2	1.96	0.63
19:AK:8:ARG:HD2	19:AK:12:HIS:CE1	2.33	0.63
25:AQ:34:SER:HB3	25:AQ:38:LEU:HD12	1.80	0.63
35:BA:34:TYR:CD2	81:B5:2525:G:O6	2.51	0.63
42:BH:90:MET:HB2	42:BH:144:ILE:HG22	1.80	0.63
46:BL:181:GLY:HA3	81:B5:2780:A:O2’	1.97	0.63
54:BT:8:ARG:CG	81:B5:2757:U:H4’	2.28	0.63
59:BY:112:ASP:HB3	59:BY:115:ARG:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Ba:62:HIS:CG	81:B5:304:G:C5	2.86	0.63
66:Bf:88:ASN:HB2	81:B5:429:U:C4'	2.28	0.63
67:Bg:42:PRO:HD3	67:Bg:56:THR:HG22	1.80	0.63
79:By:22:ILE:HG12	79:CL:224:ILE:HG22	1.78	0.63
79:By:36:LYS:CB	84:CN:2183:G:H21	1.85	0.63
79:By:44:HIS:CE1	84:CN:2144:G:C8	2.86	0.63
79:By:45:ALA:CA	79:CL:46:LYS:H	2.07	0.63
79:By:66:HIS:CE1	79:CL:184:LYS:O	2.51	0.63
79:By:107:TRP:HB2	79:CL:104:LEU:HB2	1.80	0.63
79:By:156:ILE:C	79:CL:72:VAL:HG11	2.21	0.63
79:By:201:PRO:C	79:CL:56:GLN:HA	2.22	0.63
80:B2:470:A:H5"	80:B2:470:A:C8	2.33	0.63
80:B2:1498:G:C2'	80:B2:1499:G:H5'	2.28	0.63
80:B2:1657:U:O4	89:B2:1968:OHX:N4	2.31	0.63
81:B5:830:A:O2'	81:B5:1866:C:H2'	1.98	0.63
81:B5:900:G:H1'	81:B5:1589:A:N6	2.12	0.63
81:B5:1659:U:H2'	81:B5:1660:C:C6	2.32	0.63
81:B5:2436:U:H3	81:B5:2511:A:N6	1.95	0.63
81:B5:2443:A:OP1	84:CN:2123:U:N3	2.31	0.63
1:A0:37:LYS:O	1:A0:38:ARG:HD2	1.98	0.63
9:AA:183:ARG:NH2	9:AA:191:ARG:O	2.31	0.63
10:AB:138:PHE:HZ	80:B2:885:G:OP1	1.82	0.63
13:AE:28:ALA:HA	80:B2:448:C:OP1	1.98	0.63
13:AE:259:GLN:O	13:AE:261:LEU:N	2.31	0.63
29:AU:53:LYS:CA	80:B2:1345:A:P	2.86	0.63
32:AX:38:PHE:HB3	80:B2:359:A:C2	2.33	0.63
36:BB:293:ASN:HB2	36:BB:304:THR:HA	1.80	0.63
50:BP:31:GLU:HG3	50:BP:60:PHE:HA	1.80	0.63
51:BQ:43:PRO:HB2	81:B5:728:G:H5"	1.79	0.63
56:BV:67:PRO:CG	80:B2:1660:A:OP1	2.46	0.63
79:By:40:THR:CG2	84:CN:2145:G:O2'	2.43	0.63
79:By:64:LEU:HD11	79:CL:191:ALA:CA	2.25	0.63
79:By:74:VAL:HG21	79:CL:72:VAL:CG2	2.28	0.63
79:By:227:HIS:HD2	79:CL:227:HIS:O	1.75	0.63
12:AD:4:LEU:CD1	80:B2:1514:U:C2	2.82	0.63
14:AF:81:ARG:HE	80:B2:1615:C:P	2.21	0.63
14:AF:185:ARG:HH12	80:B2:1572:G:H1'	1.64	0.63
15:AG:112:VAL:HG21	80:B2:164:A:H5"	1.78	0.63
18:AJ:172:VAL:HG13	80:B2:512:A:P	2.39	0.63
26:AR:60:ARG:NH1	80:B2:1400:A:H4'	2.11	0.63
46:BL:56:PRO:HG3	46:BL:74:GLY:O	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:Bd:19:ARG:NH1	81:B5:3324:C:OP1	2.26	0.63
69:Bi:30:LYS:HE2	81:B5:266:A:H2'	1.80	0.63
73:Bm:78:ILE:HD11	73:Bm:83:LYS:HA	1.80	0.63
79:By:23:ASP:C	79:CL:28:LEU:HB3	2.21	0.63
79:By:85:GLU:HB3	79:CL:86:ALA:N	2.05	0.63
79:By:136:LEU:O	79:CL:137:LEU:CA	2.46	0.63
79:By:162:GLU:CG	79:CL:162:GLU:CG	2.71	0.63
79:By:188:ASN:CB	79:CL:175:VAL:CG2	2.77	0.63
79:By:193:ILE:HD12	79:CL:22:ILE:HD11	1.80	0.63
80:B2:1202:A:N6	80:B2:1457:C:H5"	2.13	0.63
81:B5:1566:A:H2'	81:B5:1567:U:H5'	1.81	0.63
85:CP:200:VAL:N	90:CP:401:GCP:N1	2.47	0.63
7:A6:90:ARG:NH1	7:A6:99:THR:OG1	2.31	0.63
15:AG:115:LYS:HE3	57:BW:74:LYS:CB	2.28	0.63
23:AO:52:ARG:HD3	80:B2:905:A:H5"	1.81	0.63
25:AQ:75:VAL:HG21	80:B2:1610:G:OP1	1.98	0.63
25:AQ:123:ARG:O	80:B2:1584:G:H2'	1.98	0.63
27:AS:94:ASP:OD2	27:AS:98:TYR:OH	2.17	0.63
36:BB:245:GLY:HA2	81:B5:1889:G:H5'	1.81	0.63
46:BL:93:ILE:HG22	46:BL:94:GLY:H	1.64	0.63
51:BQ:89:ASP:N	81:B5:677:A:OP2	2.24	0.63
51:BQ:89:ASP:H	81:B5:677:A:P	2.21	0.63
79:By:82:LYS:CG	79:CL:86:ALA:CB	2.75	0.63
79:By:84:LYS:HG3	79:CL:87:GLU:CB	2.23	0.63
79:By:92:ASP:O	79:CL:93:TYR:OH	2.16	0.63
79:By:205:LYS:C	79:CL:200:LYS:HE3	2.23	0.63
81:B5:1564:U:H2'	81:B5:1565:G:C8	2.34	0.63
85:CP:59:MET:HB3	85:CP:62:TYR:H	1.64	0.63
1:A0:92:ARG:HA	80:B2:1796:C:OP1	1.98	0.63
17:AI:50:GLY:CA	80:B2:397:A:H4'	2.28	0.63
35:BA:15:ILE:HG13	81:B5:822:G:O4'	1.98	0.63
47:BM:106:ARG:HD2	81:B5:3209:A:C5	2.34	0.63
53:BS:26:ARG:HH11	54:BT:150:THR:HG21	1.61	0.63
53:BS:137:ARG:HG2	53:BS:139:TYR:CZ	2.32	0.63
60:BZ:50:PRO:HD3	60:BZ:68:ILE:HG12	1.81	0.63
75:Bo:56:PRO:CB	86:CW:75:C:N4	2.59	0.63
76:Bq:4:ILE:CG1	81:B5:1219:C:P	2.85	0.63
79:By:39:GLU:O	79:CL:37:PHE:CE2	2.50	0.63
79:By:59:ARG:N	79:CL:59:ARG:HD2	2.11	0.63
79:By:75:LEU:CD1	79:CL:107:TRP:C	2.72	0.63
79:By:136:LEU:CD1	79:CL:108:MET:CE	2.73	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:148:ASN:CB	79:CL:153:ILE:H	2.11	0.63
79:By:188:ASN:HB2	79:CL:175:VAL:HG23	1.81	0.63
79:By:208:PHE:CE1	79:CL:47:LEU:HD13	2.32	0.63
79:By:227:HIS:HB2	79:CL:227:HIS:C	2.23	0.63
80:B2:1689:A:H2'	80:B2:1690:G:H8	1.64	0.63
81:B5:528:U:H2'	81:B5:529:A:C8	2.33	0.63
81:B5:979:U:H1'	81:B5:980:A:C4	2.34	0.63
81:B5:1227:C:N3	81:B5:1284:C:N3	2.46	0.63
8:A7:81:THR:HG22	86:CW:29:G:OP1	1.99	0.63
10:AB:134:VAL:HB	10:AB:219:LYS:HB2	1.80	0.63
10:AB:171:ILE:HA	10:AB:174:LYS:HE3	1.81	0.63
12:AD:114:ALA:HB3	12:AD:117:ARG:HB2	1.80	0.63
12:AD:143:ARG:NH2	80:B2:581:U:OP2	2.31	0.63
13:AE:3:ARG:HB2	80:B2:94:U:OP1	1.99	0.63
23:AO:41:ARG:HD2	80:B2:917:U:H1'	1.80	0.63
23:AO:125:SER:CB	80:B2:927:C:C1'	2.75	0.63
25:AQ:115:THR:O	25:AQ:117:LEU:N	2.31	0.63
28:AT:87:GLY:HA3	80:B2:1542:G:H3'	1.80	0.63
35:BA:235:ALA:HB1	81:B5:2184:U:P	2.37	0.63
61:Ba:61:PHE:CD1	81:B5:283:G:C8	2.86	0.63
67:Bg:60:ARG:NH2	81:B5:1616:U:C4'	2.60	0.63
79:By:26:ALA:HB3	79:CL:27:HIS:N	2.11	0.63
79:By:36:LYS:HE2	84:CN:2148:G:O6	1.95	0.63
79:By:39:GLU:CB	79:CL:39:GLU:CD	2.69	0.63
79:By:57:ASN:H	79:CL:57:ASN:HD21	0.67	0.63
79:By:83:ILE:CG2	79:CL:83:ILE:HG12	2.24	0.63
79:By:102:LYS:NZ	79:CL:104:LEU:CG	2.62	0.63
79:By:110:PHE:CE2	79:CL:105:ASP:OD2	2.49	0.63
79:By:149:ILE:CG2	79:CL:76:ALA:HA	2.26	0.63
79:By:190:ARG:NH2	79:CL:21:THR:CB	2.62	0.63
79:By:197:GLU:H	79:CL:193:ILE:HG23	1.63	0.63
80:B2:51:A:H2'	85:CP:242:GLY:HA3	1.79	0.63
80:B2:1592:A:H2'	80:B2:1593:A:C8	2.34	0.63
80:B2:1657:U:H4'	80:B2:1658:G:O5'	1.99	0.63
81:B5:734:C:H2'	81:B5:735:A:H5"	1.81	0.63
81:B5:817:A:OP2	81:B5:817:A:H4'	1.98	0.63
81:B5:1818:U:H2'	81:B5:1819:U:C6	2.32	0.63
81:B5:2818:U:H6	81:B5:2818:U:C5'	2.10	0.63
81:B5:3049:A:H5'	81:B5:3049:A:C8	2.34	0.63
84:CN:2132:C:H42	84:CN:2168:G:H1	1.45	0.63
85:CP:131:LYS:CD	90:CP:401:GCP:C5	2.74	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AB:112:SER:O	10:AB:114:VAL:N	2.32	0.63
14:AF:109:LYS:NZ	80:B2:1474:G:OP2	2.29	0.63
17:AI:170:SER:C	80:B2:209:U:H5"	2.24	0.63
18:AJ:99:LEU:O	18:AJ:100:LYS:HB3	1.96	0.63
19:AK:8:ARG:HD2	19:AK:12:HIS:HE1	1.63	0.63
25:AQ:42:GLU:OE1	80:B2:1529:C:H5"	1.98	0.63
38:BD:106:ALA:O	38:BD:110:LEU:HD22	1.97	0.63
63:Bc:85:PHE:CD2	81:B5:1728:G:C6	2.86	0.63
67:Bg:31:ARG:NH2	81:B5:1598:G:OP2	2.32	0.63
68:Bh:95:PHE:CD1	81:B5:136:G:H4'	2.34	0.63
79:By:15:ASP:N	79:CL:220:PRO:HG3	2.13	0.63
79:By:45:ALA:HB2	79:CL:45:ALA:CA	1.78	0.63
79:By:52:ARG:NH2	84:CN:2201:U:C6	2.66	0.63
79:By:62:VAL:HB	79:CL:163:PHE:HE1	1.63	0.63
79:By:82:LYS:HD3	79:CL:149:ILE:HG23	1.72	0.63
79:By:116:THR:OG1	79:CL:77:ILE:CA	2.47	0.63
79:By:213:TYR:CD2	79:CL:213:TYR:HD2	2.04	0.63
80:B2:9:U:O4	89:B2:2047:OHX:N6	2.31	0.63
80:B2:1291:G:N2	80:B2:1324:G:N2	2.45	0.63
85:CP:131:LYS:CD	90:CP:401:GCP:N3	2.55	0.63
1:A0:4:LYS:H	80:B2:1792:G:P	2.22	0.63
14:AF:37:GLN:HB3	25:AQ:53:LEU:HB3	1.80	0.63
17:AI:23:LYS:HE2	80:B2:386:G:H5"	1.80	0.63
23:AO:130:GLY:CA	80:B2:991:G:OP1	2.46	0.63
31:AW:80:ASN:ND2	80:B2:747:C:O2'	2.32	0.63
33:AY:11:LYS:HE2	80:B2:776:G:O6	1.99	0.63
35:BA:191:LEU:HG	81:B5:1795:U:P	2.39	0.63
37:BC:93:MET:HB2	81:B5:658:G:H21	1.63	0.63
38:BD:145:PHE:CE1	81:B5:2748:A:H5"	2.33	0.63
38:BD:265:TYR:CG	82:B7:120:C:N3	2.67	0.63
46:BL:61:PRO:HD3	81:B5:75:G:C4'	2.28	0.63
51:BQ:134:GLY:O	51:BQ:137:THR:OG1	2.11	0.63
54:BT:17:ARG:N	81:B5:2700:G:OP1	2.21	0.63
54:BT:68:THR:CG2	81:B5:2737:C:O5'	2.47	0.63
67:Bg:58:ARG:HG3	67:Bg:59:PRO:HD2	1.80	0.63
79:By:30:LYS:HZ2	79:CL:31:GLU:CB	2.12	0.63
79:By:113:VAL:CG2	79:CL:110:PHE:HZ	2.10	0.63
79:By:123:VAL:N	79:CL:123:VAL:C	2.56	0.63
79:By:137:LEU:N	79:CL:132:GLY:N	2.17	0.63
79:By:186:ALA:N	79:CL:185:LEU:CB	2.59	0.63
81:B5:1804:A:H2'	81:B5:1805:C:H6	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AG:108:VAL:CB	80:B2:153:G:O2'	2.47	0.63
15:AG:114:VAL:HG12	15:AG:115:LYS:HD3	1.81	0.63
17:AI:137:LYS:HE3	80:B2:189:C:OP2	1.98	0.63
23:AO:52:ARG:HB3	80:B2:906:A:P	2.37	0.63
27:AS:138:THR:HB	80:B2:1459:C:H2'	1.80	0.63
28:AT:102:ARG:NH2	80:B2:1502:G:C6	2.67	0.63
31:AW:105:THR:HG23	31:AW:110:ILE:HG12	1.81	0.63
33:AY:113:ASN:ND2	80:B2:54:C:H5"	2.13	0.63
33:AY:120:GLY:O	80:B2:85:A:H4'	1.98	0.63
36:BB:53:MET:CE	81:B5:3048:A:H5'	2.29	0.63
38:BD:146:LEU:HD13	81:B5:2746:A:N3	2.13	0.63
47:BM:77:ARG:NH2	81:B5:524:U:OP1	2.31	0.63
48:BN:68:ARG:HA	48:BN:98:LEU:HD21	1.80	0.63
54:BT:14:MET:HE3	54:BT:58:GLN:HB2	1.81	0.63
68:Bh:85:THR:HG22	68:Bh:88:LEU:H	1.62	0.63
71:Bk:22:THR:HG22	71:Bk:74:LYS:HB3	1.80	0.63
79:By:21:THR:HG23	79:CL:21:THR:HG23	1.80	0.63
79:By:49:ILE:HG21	79:CL:49:ILE:HG23	1.80	0.63
79:By:82:LYS:HB3	79:CL:86:ALA:HB3	0.69	0.63
79:By:143:GLY:HA2	79:CL:142:ALA:C	2.22	0.63
79:By:184:LYS:CA	79:CL:185:LEU:H	2.00	0.63
80:B2:1748:G:H5'	81:B5:2304:C:H5"	1.81	0.63
81:B5:1816:A:O2'	81:B5:1817:G:OP1	2.15	0.63
81:B5:2682:C:O2'	81:B5:2683:U:OP1	2.15	0.63
81:B5:3029:A:C5'	85:CP:81:GLU:OE1	2.32	0.63
79:CL:129:ARG:NH2	86:CW:56:C:H4'	2.03	0.63
2:A1:62:ILE:HG13	2:A1:63:LEU:H	1.62	0.62
5:A4:33:ARG:HB2	18:AJ:37:LYS:HB3	1.81	0.62
14:AF:101:GLY:HA3	80:B2:1167:G:P	2.37	0.62
15:AG:133:LEU:CD1	80:B2:66:U:N1	2.62	0.62
19:AK:14:TYR:HE1	19:AK:21:VAL:HG22	1.64	0.62
19:AK:56:LYS:HE3	19:AK:58:GLN:HG2	1.80	0.62
22:AN:73:ARG:CD	80:B2:859:A:C6	2.79	0.62
26:AR:48:ASN:C	80:B2:1389:C:H4'	2.23	0.62
33:AY:91:LEU:HA	33:AY:96:LEU:HD12	1.80	0.62
48:BN:60:VAL:HG21	83:B8:142:C:H4'	1.80	0.62
49:BO:25[A]:LYS:HE3	81:B5:1176:C:OP1	1.98	0.62
49:BO:110[A]:PRO:O	49:BO:111[A]:PRO:C	2.41	0.62
54:BT:127:GLN:HA	81:B5:1095:U:O2	1.99	0.62
55:BU:47:VAL:O	55:BU:49:ASN:N	2.29	0.62
75:Bo:105:GLN:HB2	75:Bo:106:PHE:CD2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:24:GLU:CG	79:CL:20:TYR:HE2	2.12	0.62
79:By:133:PRO:HB2	86:CW:56:C:OP1	1.99	0.62
79:By:171:ILE:O	79:CL:45:ALA:O	2.17	0.62
79:By:192:PHE:CA	79:CL:192:PHE:CA	2.65	0.62
79:By:227:HIS:CG	79:CL:225:ASN:CG	2.77	0.62
80:B2:213:A:OP2	89:B2:1996:OHX:N2	2.32	0.62
80:B2:1758:U:H5'	81:B5:2256:A:OP2	1.99	0.62
81:B5:247:C:C2	81:B5:248:U:H1'	2.33	0.62
81:B5:1094:U:O2'	81:B5:1095:U:H3'	1.99	0.62
81:B5:3174:A:N6	81:B5:3278:C:N3	2.46	0.62
8:A7:110:TRP:HE3	12:AD:150:MET:HE3	1.64	0.62
11:AC:144:TRP:CE2	11:AC:173:PRO:HG3	2.34	0.62
15:AG:128:THR:HG23	57:BW:81:PRO:HG2	1.64	0.62
24:AP:44:ARG:HG2	80:B2:1556:A:OP1	1.99	0.62
29:AU:54:GLY:N	80:B2:1345:A:P	2.56	0.62
29:AU:58:LEU:HD23	80:B2:1516:A:H8	1.63	0.62
33:AY:10:ARG:CG	80:B2:780:A:C8	2.81	0.62
35:BA:7:ASN:HB2	81:B5:2183:A:OP1	2.00	0.62
35:BA:199:THR:OG1	81:B5:913:A:H5'	1.99	0.62
43:BI:8:CYS:SG	81:B5:2828:G:H5"	2.39	0.62
79:By:28:LEU:HD22	79:CL:13:LYS:HB3	0.64	0.62
79:By:93:TYR:CA	79:CL:93:TYR:CE2	2.72	0.62
79:By:162:GLU:HG3	79:CL:162:GLU:CG	2.27	0.62
79:By:175:VAL:CG1	79:CL:43:VAL:H	2.04	0.62
79:By:187:ASP:C	79:CL:189:ILE:HG12	2.23	0.62
80:B2:1031:U:H4'	80:B2:1032:G:OP2	1.99	0.62
80:B2:1214:U:OP1	80:B2:1246:C:H1'	1.99	0.62
81:B5:541:U:H2'	81:B5:542:G:C8	2.34	0.62
8:A7:32:SER:CB	81:B5:2692:A:C1'	2.76	0.62
11:AC:91:ARG:CZ	80:B2:1625:C:OP1	2.44	0.62
14:AF:98:MET:HE2	80:B2:1611:A:O2'	2.00	0.62
15:AG:15:THR:HG23	80:B2:152:U:C3'	2.29	0.62
33:AY:120:GLY:CA	80:B2:85:A:O2'	2.47	0.62
35:BA:15:ILE:CD1	81:B5:822:G:N3	2.62	0.62
35:BA:204:MET:CE	35:BA:209:HIS:HB2	2.29	0.62
35:BA:234:LYS:HD2	81:B5:2163:C:P	2.38	0.62
41:BG:55:TYR:CE1	81:B5:1558:A:C6	2.88	0.62
41:BG:161:GLU:HA	41:BG:164:VAL:HG22	1.80	0.62
54:BT:12:ARG:HB2	81:B5:2632:G:H5"	1.80	0.62
54:BT:129:LYS:CB	81:B5:1097:G:H4'	2.15	0.62
67:Bg:16:ARG:HH11	67:Bg:16:ARG:HG3	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:Bl:5:LYS:HD3	72:Bl:13:MET:HE1	1.79	0.62
79:By:107:TRP:CE3	79:CL:103:ILE:C	2.78	0.62
79:By:122:ALA:C	79:CL:123:VAL:O	2.39	0.62
79:By:132:GLY:O	79:CL:132:GLY:HA3	1.99	0.62
79:By:192:PHE:CE2	79:CL:43:VAL:HB	2.32	0.62
79:By:193:ILE:HD13	79:CL:226:PRO:N	2.12	0.62
80:B2:145:A:O2'	80:B2:146:U:O5'	2.16	0.62
80:B2:245:U:O4	89:B2:1972:OHX:N5	2.32	0.62
3:A2:52:ASP:N	3:A2:52:ASP:OD1	2.26	0.62
30:AV:62:ARG:HH21	80:B2:1039:A:C5'	2.08	0.62
38:BD:266:ALA:CB	82:B7:1:G:N9	2.62	0.62
41:BG:33:ASN:O	41:BG:35:GLY:N	2.33	0.62
44:BJ:60:ARG:NH2	75:Bo:104:LEU:O	2.27	0.62
51:BQ:69:ARG:NH2	81:B5:720:A:C2	2.62	0.62
51:BQ:165:ILE:HD12	51:BQ:167:SER:O	1.99	0.62
54:BT:129:LYS:HB3	81:B5:1097:G:C4'	2.14	0.62
62:Bb:20:GLY:O	62:Bb:21:ILE:HB	1.97	0.62
79:By:5:LYS:HG3	84:CN:2151:U:C4	1.53	0.62
79:By:40:THR:HG23	79:CL:40:THR:CG2	2.29	0.62
79:By:163:PHE:CZ	79:CL:199:HIS:CG	2.87	0.62
79:By:172:HIS:O	79:CL:171:ILE:HG12	1.99	0.62
79:By:196:LEU:C	79:CL:209:LEU:HD21	2.24	0.62
80:B2:702:G:O2'	80:B2:703:G:H8	1.82	0.62
80:B2:823:G:O2'	80:B2:824:G:P	2.57	0.62
80:B2:915:A:OP1	89:B2:1973:OHX:N3	2.32	0.62
80:B2:1002:G:C5'	81:B5:2265:C:OP1	2.47	0.62
80:B2:1623:C:H2'	80:B2:1624:C:C6	2.34	0.62
81:B5:1023:C:H5"	81:B5:1024:G:OP2	1.99	0.62
81:B5:1282:G:H3'	81:B5:1283:C:C5'	2.29	0.62
1:A0:3:LYS:HE2	80:B2:1030:A:OP2	2.00	0.62
8:A7:116:GLU:HG3	11:AC:98:PHE:CZ	2.34	0.62
13:AE:185:GLY:N	13:AE:189:LEU:HD13	2.14	0.62
15:AG:128:THR:OG1	57:BW:80:ARG:CA	2.45	0.62
32:AX:7:ARG:NH1	80:B2:1102:G:OP2	2.33	0.62
32:AX:69:ARG:HH12	80:B2:569:C:H41	1.45	0.62
33:AY:105:ARG:HD2	80:B2:443:C:H3'	1.82	0.62
35:BA:71:LEU:N	81:B5:1651:U:OP1	2.30	0.62
48:BN:72:LYS:CD	81:B5:2166:A:O3'	2.46	0.62
79:By:15:ASP:OD2	79:CL:8:ARG:HA	1.99	0.62
79:By:22:ILE:HG13	79:CL:20:TYR:C	2.24	0.62
79:By:136:LEU:CG	79:CL:134:ARG:CD	2.78	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:1524:A:H2'	80:B2:1525:A:C8	2.34	0.62
80:B2:1762:A:H1'	80:B2:1783:C:H5'	1.80	0.62
84:CN:2161:C:O2	84:CN:2161:C:O4'	2.16	0.62
7:A6:150:TRP:HE1	26:AR:37:GLU:HG3	1.64	0.62
13:AE:33:ALA:HB3	80:B2:121:U:H1'	1.81	0.62
15:AG:159:ARG:NH1	80:B2:77:U:H1'	2.13	0.62
16:AH:13:PRO:HB3	16:AH:14:THR:HB	1.82	0.62
58:BX:57:LEU:HD23	58:BX:61:LYS:HG2	1.82	0.62
80:B2:497:G:O2'	80:B2:498:G:O5'	2.17	0.62
80:B2:1612:U:H2'	80:B2:1613:U:H5'	1.79	0.62
81:B5:2407:C:H2'	81:B5:2408:U:C6	2.35	0.62
81:B5:3195:U:O2'	81:B5:3196:U:H5'	1.99	0.62
85:CP:79:GLY:CA	90:CP:401:GCP:O2G	2.46	0.62
1:A0:59:TYR:HE2	23:AO:113:GLY:HA2	1.64	0.62
1:A0:79:ILE:CG2	80:B2:1794:A:N3	2.62	0.62
10:AB:110:LEU:H	10:AB:110:LEU:HD12	1.63	0.62
26:AR:76:GLU:HA	26:AR:79:GLU:HB2	1.81	0.62
28:AT:52:GLY:O	28:AT:54:PHE:N	2.25	0.62
29:AU:53:LYS:HB3	80:B2:1345:A:O5'	1.98	0.62
36:BB:245:GLY:HA3	81:B5:1889:G:O5'	2.00	0.62
42:BH:96:HIS:HA	85:CP:164:ARG:HH22	1.63	0.62
49:BO:68[A]:ARG:NH1	81:B5:2988:C:OP1	2.32	0.62
52:BR:62:ARG:NE	81:B5:3070:A:OP1	2.26	0.62
53:BS:73:LYS:NZ	53:BS:97:VAL:O	2.32	0.62
79:By:20:TYR:O	79:CL:20:TYR:N	2.32	0.62
79:By:38:ASP:OD1	84:CN:2148:G:C5'	2.47	0.62
79:By:91:ALA:CB	79:CL:92:ASP:C	2.69	0.62
79:By:178:ALA:CB	79:CL:33:ALA:CB	2.76	0.62
79:By:193:ILE:HG22	79:CL:193:ILE:HG21	1.79	0.62
79:By:220:PRO:CB	84:CN:2197:A:OP1	2.46	0.62
81:B5:2440:G:H2'	81:B5:2441:A:C8	2.34	0.62
8:A7:81:THR:HG23	86:CW:29:G:C5'	2.16	0.62
11:AC:145:GLY:O	11:AC:146:THR:HB	1.98	0.62
12:AD:158:ILE:HB	80:B2:1328:G:OP1	1.99	0.62
12:AD:191:ASP:HB3	12:AD:194:LYS:HG3	1.82	0.62
16:AH:74:GLN:HE22	16:AH:92:PHE:HB2	1.65	0.62
20:AL:36:LYS:CD	80:B2:248:U:H5'	2.30	0.62
27:AS:139:LYS:HG2	80:B2:1461:C:N4	2.15	0.62
28:AT:12:GLN:HE22	80:B2:1530:C:C1'	2.08	0.62
32:AX:109:ARG:HB3	32:AX:112:LYS:HB2	1.81	0.62
36:BB:221:THR:HB	36:BB:273:HIS:O	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:211:LEU:HD13	38:BD:219:PHE:HA	1.81	0.62
38:BD:265:TYR:CE2	82:B7:120:C:C5	2.88	0.62
41:BG:151:VAL:HG22	41:BG:199:ALA:HB1	1.81	0.62
43:BI:61:SER:HB2	43:BI:63:GLU:HG2	1.82	0.62
51:BQ:86:THR:HB	51:BQ:105:ARG:HB3	1.81	0.62
79:By:2:LYS:C	84:CN:2149:C:N3	2.58	0.62
79:By:38:ASP:OD1	84:CN:2148:G:H5"	1.98	0.62
79:By:154:ARG:HH12	79:CL:154:ARG:HD3	1.65	0.62
80:B2:38:C:C2'	80:B2:39:A:H5'	2.29	0.62
80:B2:1490:C:H4'	80:B2:1491:U:OP1	1.99	0.62
81:B5:725:G:H2'	81:B5:726:G:H5"	1.81	0.62
3:A2:42:ARG:HH11	3:A2:56:LEU:HD22	1.63	0.62
8:A7:28:SER:HA	81:B5:2708:C:H4'	1.82	0.62
11:AC:129:ILE:O	11:AC:133:LYS:HG2	1.99	0.62
15:AG:56:ASN:HD21	80:B2:153:G:H22	1.45	0.62
16:AH:145:GLY:O	16:AH:147:ASN:ND2	2.31	0.62
25:AQ:47:LYS:HZ1	25:AQ:114:ARG:HD2	1.64	0.62
29:AU:89:ARG:CZ	80:B2:1383:G:OP1	2.47	0.62
35:BA:194:ASN:HD22	81:B5:822:G:C4'	2.13	0.62
37:BC:144:LYS:HG2	37:BC:145:ILE:H	1.65	0.62
67:Bg:52:GLN:HG3	81:B5:1738:C:C4'	2.30	0.62
79:By:24:GLU:OE1	79:CL:18:LYS:CE	2.47	0.62
79:By:68:LEU:HD23	79:CL:175:VAL:O	1.97	0.62
79:By:75:LEU:HD12	79:CL:109:ASP:N	2.14	0.62
79:By:79:LYS:CG	79:CL:82:LYS:HB3	2.23	0.62
79:By:227:HIS:CG	79:CL:225:ASN:OD1	2.49	0.62
80:B2:498:G:O2'	80:B2:499:U:O5'	2.17	0.62
80:B2:1168:U:H2'	80:B2:1169:G:H5'	1.82	0.62
10:AB:116:LYS:HA	80:B2:931:C:H4'	1.80	0.62
16:AH:110:GLN:OE1	80:B2:817:A:H1'	2.00	0.62
24:AP:65:LEU:O	89:AP:201:OHX:N1	2.33	0.62
36:BB:296:THR:HG22	36:BB:298:PHE:N	2.03	0.62
38:BD:146:LEU:CD1	81:B5:2746:A:N3	2.63	0.62
52:BR:121:HIS:CE1	81:B5:1719:G:OP2	2.51	0.62
59:BY:75:ARG:HB2	83:B8:73:U:OP2	1.99	0.62
72:Bl:9:ILE:HG22	72:Bl:13:MET:HE2	1.82	0.62
79:By:30:LYS:CE	79:CL:31:GLU:CA	2.77	0.62
79:By:46:LYS:NZ	84:CN:2200:C:OP1	2.33	0.62
79:By:46:LYS:HB3	79:CL:46:LYS:CB	2.22	0.62
79:By:142:ALA:CB	79:CL:162:GLU:CD	2.72	0.62
79:By:145:VAL:CA	79:CL:144:THR:HB	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:147:PHE:CD2	79:CL:148:ASN:OD1	2.53	0.62
79:By:182:PRO:O	79:CL:26:ALA:O	2.17	0.62
80:B2:1081:A:H5"	80:B2:1082:C:OP1	1.99	0.62
80:B2:1615:C:H4'	80:B2:1616:G:O5'	2.00	0.62
81:B5:1605:A:O2'	81:B5:1607:U:OP2	2.12	0.62
1:A0:5:ARG:NH2	80:B2:1793:G:O2'	2.33	0.61
1:A0:35:ALA:O	1:A0:36:ILE:HG22	2.00	0.61
3:A2:10:ALA:HB1	3:A2:30:VAL:HB	1.81	0.61
8:A7:47:ALA:CA	81:B5:2678:A:C1'	2.76	0.61
8:A7:51:ARG:HD2	81:B5:2677:G:O4'	1.99	0.61
13:AE:11:ARG:O	13:AE:12:LEU:HB2	1.99	0.61
20:AL:80:MET:CE	80:B2:325:G:C5'	2.77	0.61
28:AT:61:VAL:O	28:AT:65:ILE:HG13	2.00	0.61
79:By:26:ALA:CB	79:CL:25:ALA:C	2.68	0.61
79:By:64:LEU:CD2	79:CL:65:PRO:HD2	2.30	0.61
79:By:75:LEU:CD2	79:CL:107:TRP:HZ3	2.11	0.61
79:By:82:LYS:HG2	79:CL:82:LYS:C	2.06	0.61
79:By:82:LYS:O	79:CL:94:VAL:HG11	1.99	0.61
79:By:91:ALA:C	79:CL:93:TYR:CE2	2.78	0.61
79:By:118:ASP:CG	79:CL:119:VAL:HG22	2.12	0.61
79:By:144:THR:CG2	79:CL:138:PRO:CD	2.79	0.61
79:By:188:ASN:HB3	79:CL:175:VAL:CG2	2.30	0.61
79:By:212:VAL:HG11	79:CL:224:ILE:CD1	2.30	0.61
80:B2:656:G:O2'	80:B2:657:U:O4'	2.16	0.61
84:CN:2201:U:C6	84:CN:2201:U:H5'	2.34	0.61
85:CP:18:LYS:HB3	90:CP:401:GCP:O1A	1.99	0.61
23:AO:51:ASP:OD1	80:B2:902:G:N1	2.33	0.61
35:BA:15:ILE:HA	81:B5:822:G:H1'	1.81	0.61
35:BA:68:LYS:CE	81:B5:1650:G:OP1	2.49	0.61
38:BD:145:PHE:CE1	81:B5:2748:A:C5'	2.83	0.61
41:BG:194:THR:HG23	81:B5:7:C:H4'	1.80	0.61
42:BH:168:ARG:HD2	81:B5:2894:C:OP1	2.01	0.61
49:BO:60[A]:LYS:NZ	81:B5:1307:G:H5"	2.15	0.61
52:BR:104:ARG:NH1	81:B5:1949:G:OP1	2.33	0.61
56:BV:48:ARG:HG2	81:B5:2339:C:P	2.40	0.61
70:Bj:42:ALA:HB1	83:B8:104:A:O3'	2.00	0.61
79:By:93:TYR:C	79:CL:93:TYR:CD2	2.77	0.61
79:By:184:LYS:NZ	79:CL:181:PRO:HD2	2.14	0.61
79:By:191:ALA:O	79:CL:190:ARG:O	2.14	0.61
79:By:198:ALA:HB1	79:CL:198:ALA:HB2	1.79	0.61
79:By:199:HIS:O	79:CL:200:LYS:HB2	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:677:G:H2'	80:B2:678:A:C8	2.36	0.61
81:B5:3165:A:H2'	81:B5:3166:C:H6	1.65	0.61
10:AB:77:GLU:OE2	23:AO:114:ARG:NH2	2.30	0.61
14:AF:73:THR:HG23	25:AQ:114:ARG:CD	2.30	0.61
15:AG:59:GLN:HA	80:B2:155:U:C4'	2.28	0.61
17:AI:23:LYS:HG3	80:B2:386:G:OP1	2.01	0.61
26:AR:60:ARG:NH1	80:B2:1400:A:C4'	2.64	0.61
33:AY:64:PHE:CE2	80:B2:767:U:C5	2.89	0.61
35:BA:40:TYR:OH	81:B5:2550:U:C2'	2.36	0.61
36:BB:238:LEU:HB3	36:BB:242:THR:HG21	1.81	0.61
38:BD:265:TYR:HB3	82:B7:1:G:C2	2.34	0.61
46:BL:99:HIS:CE1	81:B5:156:G:C5	2.89	0.61
48:BN:179:LYS:CE	81:B5:287:G:OP1	2.48	0.61
79:By:30:LYS:HZ2	79:CL:31:GLU:HB2	1.64	0.61
79:By:87:GLU:HG3	79:CL:93:TYR:HB3	1.82	0.61
79:By:99:ILE:CB	79:CL:99:ILE:O	2.48	0.61
79:By:156:ILE:CA	79:CL:72:VAL:HG11	2.30	0.61
15:AG:83:CYS:HA	80:B2:161:U:C3'	2.24	0.61
16:AH:11:GLN:HG3	16:AH:13:PRO:HD2	1.80	0.61
31:AW:80:ASN:HD22	31:AW:124:LYS:HG2	1.65	0.61
33:AY:8:ARG:CA	80:B2:780:A:O2'	2.43	0.61
38:BD:266:ALA:HA	82:B7:1:G:N3	2.15	0.61
41:BG:105:LYS:NZ	81:B5:123:A:OP1	2.32	0.61
42:BH:171:ASP:OD2	81:B5:2899:C:H2'	2.00	0.61
48:BN:35:VAL:CG2	81:B5:1543:G:P	2.86	0.61
48:BN:67:ARG:CG	81:B5:1544:G:H5'	2.29	0.61
63:Bc:40:LYS:HD3	63:Bc:93:LEU:O	2.00	0.61
70:Bj:42:ALA:HB2	83:B8:105:A:P	2.40	0.61
79:By:122:ALA:CA	79:CL:125:SER:OG	2.46	0.61
79:By:142:ALA:CA	79:CL:162:GLU:OE1	2.46	0.61
79:By:184:LYS:HE3	79:CL:184:LYS:HE3	1.82	0.61
80:B2:1428:G:H5'	80:B2:1428:G:C8	2.35	0.61
85:CP:16:THR:HB	90:CP:401:GCP:PB	2.39	0.61
6:A5:138:ARG:NE	80:B2:1235:C:O2	2.33	0.61
8:A7:47:ALA:CA	81:B5:2678:A:C8	2.84	0.61
10:AB:166:LYS:NZ	80:B2:948:G:OP1	2.32	0.61
15:AG:182:GLN:OE1	80:B2:270:C:N4	2.33	0.61
17:AI:72:ILE:HA	80:B2:256:A:H1'	1.83	0.61
17:AI:75:LYS:CB	80:B2:258:C:C5'	2.77	0.61
29:AU:72:ASN:ND2	80:B2:1429:G:O2'	2.34	0.61
31:AW:111:MET:HE1	31:AW:121:VAL:HG23	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AZ:43:ASP:O	34:AZ:45:GLU:N	2.34	0.61
35:BA:204:MET:HE3	35:BA:208:ASP:HB3	1.82	0.61
35:BA:237:LEU:HD23	81:B5:2183:A:C2	2.35	0.61
38:BD:207:TYR:CG	82:B7:33:U:O2	2.53	0.61
50:BP:59:PRO:HG3	50:BP:76:PHE:CD2	2.35	0.61
50:BP:69:ARG:NH2	81:B5:2992:U:H1'	2.14	0.61
63:Bc:26:GLY:O	81:B5:1730:G:O6	2.17	0.61
70:Bj:29:VAL:HG21	83:B8:111:A:C6	2.34	0.61
79:By:45:ALA:C	79:CL:45:ALA:C	2.66	0.61
79:By:70:LYS:O	79:CL:68:LEU:HD13	2.00	0.61
79:By:93:TYR:O	79:CL:107:TRP:HH2	1.78	0.61
79:By:152:ILE:HB	79:CL:114:VAL:HG13	1.82	0.61
79:By:154:ARG:NH1	79:CL:154:ARG:HD3	2.15	0.61
79:By:171:ILE:HD11	79:CL:171:ILE:HD13	1.83	0.61
79:By:209:LEU:HG	79:CL:209:LEU:HD22	1.82	0.61
80:B2:1571:C:OP2	89:B2:2046:OHX:N1	2.33	0.61
8:A7:78:ASP:OD2	86:CW:28:G:O3'	2.18	0.61
17:AI:47:ARG:NH2	80:B2:397:A:OP2	2.24	0.61
29:AU:48:HIS:ND1	29:AU:48:HIS:O	2.34	0.61
31:AW:70:ASN:ND2	31:AW:130:TYR:O	2.29	0.61
38:BD:226:TYR:CE2	38:BD:236:LEU:HD11	2.35	0.61
60:BZ:67:LYS:NZ	81:B5:1630:U:P	2.73	0.61
61:Ba:15:VAL:HA	81:B5:943:U:OP1	2.00	0.61
62:Bb:7:HIS:ND1	81:B5:955:U:OP1	2.29	0.61
66:Bf:59:VAL:HG23	66:Bf:60:ARG:H	1.65	0.61
79:By:14:VAL:C	79:CL:220:PRO:HG3	2.26	0.61
79:By:28:LEU:CD2	79:CL:13:LYS:CB	2.23	0.61
79:By:136:LEU:H	79:CL:132:GLY:CA	2.13	0.61
79:By:179:SER:N	79:CL:39:GLU:N	2.48	0.61
79:CL:58:VAL:HG13	79:CL:199:HIS:HB3	1.82	0.61
84:CN:2201:U:C6	84:CN:2201:U:H5"	2.35	0.61
8:A7:34:LYS:HE3	81:B5:2693:C:C5'	2.30	0.61
20:AL:130:PRO:HG2	80:B2:115:G:O6	1.99	0.61
31:AW:11:LEU:HD12	31:AW:74:VAL:HB	1.82	0.61
33:AY:120:GLY:CA	80:B2:85:A:H4'	2.31	0.61
46:BL:177:LYS:HA	69:Bi:11:LEU:HD22	1.82	0.61
60:BZ:79:HIS:HD1	81:B5:1636:U:C2'	2.07	0.61
79:By:28:LEU:HD12	79:CL:28:LEU:CD1	2.30	0.61
79:By:137:LEU:HD22	79:CL:137:LEU:CG	2.29	0.61
79:By:152:ILE:HD11	79:CL:152:ILE:HG23	1.83	0.61
79:By:155:GLU:N	79:CL:156:ILE:HG22	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:176:GLY:N	79:CL:41:VAL:C	2.51	0.61
79:By:188:ASN:CB	79:CL:175:VAL:CB	2.63	0.61
79:By:197:GLU:CD	79:CL:197:GLU:OE2	2.43	0.61
79:By:214:VAL:HG11	79:CL:29:VAL:CG2	2.31	0.61
79:By:218:MET:HA	84:CN:2195:C:H2'	1.79	0.61
81:B5:2970:C:O2'	81:B5:2971:A:OP2	2.16	0.61
83:B8:156:U:O2'	83:B8:157:U:OP1	2.17	0.61
1:A0:44:ILE:H	1:A0:44:ILE:HD12	1.65	0.61
4:A3:14:TYR:CD2	80:B2:1597:A:N7	2.69	0.61
6:A5:100:UNK:C	6:A5:102:VAL:H	2.14	0.61
8:A7:28:SER:CB	81:B5:2708:C:C1'	2.79	0.61
10:AB:117:TRP:H	80:B2:932:U:P	2.24	0.61
10:AB:137:ILE:HD11	10:AB:172:LEU:HB3	1.83	0.61
14:AF:109:LYS:CD	80:B2:1473:U:C1'	2.79	0.61
14:AF:109:LYS:HD3	80:B2:1473:U:C1'	2.31	0.61
23:AO:125:SER:HB3	80:B2:926:A:C2	2.36	0.61
31:AW:104:LEU:HB2	31:AW:124:LYS:O	2.01	0.61
35:BA:247:ARG:NE	80:B2:1013:A:H4'	2.15	0.61
37:BC:312:VAL:HG21	81:B5:610:G:C8	2.35	0.61
41:BG:27:THR:O	41:BG:28:HIS:ND1	2.34	0.61
44:BJ:109:HIS:CD2	44:BJ:123:PHE:H	2.15	0.61
49:BO:72[B]:HIS:CD2	81:B5:3008:A:OP1	2.54	0.61
51:BQ:183:GLY:HA2	81:B5:2762:A:O3'	2.01	0.61
53:BS:49:HIS:O	82:B7:77:G:H5"	2.01	0.61
53:BS:170:THR:OG1	81:B5:3185:U:O2'	2.13	0.61
54:BT:12:ARG:HG3	81:B5:2698:G:O2'	2.00	0.61
58:BX:111:ASN:HD22	81:B5:1608:C:H5"	1.66	0.61
67:Bg:7:PHE:CD1	67:Bg:20:ILE:HD12	2.36	0.61
79:By:12:GLU:OE1	79:CL:5:LYS:CB	2.38	0.61
79:By:21:THR:HG21	79:CL:21:THR:OG1	1.99	0.61
79:By:161:ILE:HG21	79:CL:174:PRO:O	1.99	0.61
79:By:183:GLU:CD	79:CL:183:GLU:H	1.98	0.61
81:B5:3195:U:H1'	81:B5:3196:U:OP1	2.01	0.61
1:A0:87:ARG:NH1	80:B2:1796:C:OP1	2.33	0.61
8:A7:44:PRO:HA	81:B5:2678:A:C2	2.36	0.61
10:AB:165:ARG:CZ	80:B2:947:U:P	2.88	0.61
25:AQ:74:HIS:CE1	80:B2:1480:G:N2	2.65	0.61
26:AR:48:ASN:CB	80:B2:1389:C:O5'	2.49	0.61
27:AS:26:ILE:HD12	27:AS:27:LYS:N	2.16	0.61
32:AX:24:TRP:HE3	32:AX:30:LYS:HD3	1.66	0.61
36:BB:147:GLU:OE2	36:BB:150:ARG:NH2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:151:ILE:O	36:BB:155:ALA:HB3	2.01	0.61
37:BC:330:TYR:O	37:BC:334:PHE:N	2.31	0.61
48:BN:72:LYS:NZ	81:B5:2167:A:OP1	2.31	0.61
49:BO:68[A]:ARG:HH12	81:B5:2987:A:H5"	1.66	0.61
63:Bc:25:LEU:O	81:B5:1730:G:N1	2.33	0.61
76:Bq:92:PRO:HB2	76:Bq:96:ILE:H	1.66	0.61
79:By:23:ASP:CB	79:CL:27:HIS:CG	2.82	0.61
79:By:100:ILE:H	79:CL:99:ILE:C	2.04	0.61
79:By:157:LYS:NZ	79:CL:71:GLN:HG3	2.16	0.61
79:By:180:PHE:CD2	79:CL:185:LEU:HD21	2.35	0.61
79:By:209:LEU:HD11	79:CL:209:LEU:HD13	1.81	0.61
80:B2:843:U:H2'	80:B2:844:A:H8	1.64	0.61
80:B2:992:A:C2	80:B2:1012:U:N3	2.65	0.61
81:B5:150:A:C2'	81:B5:151:A:H5'	2.29	0.61
81:B5:2537:U:O2'	81:B5:2538:U:P	2.59	0.61
81:B5:2895:G:H2'	81:B5:2896:A:H5"	1.82	0.61
2:A1:51:GLN:HB3	80:B2:870:C:O2'	2.01	0.61
18:AJ:146:PHE:CE2	18:AJ:149:ARG:HD3	2.36	0.61
37:BC:221:ASN:ND2	81:B5:211:A:H3'	2.16	0.61
37:BC:232:SER:O	37:BC:233:LEU:HB2	2.01	0.61
39:BE:109:GLU:CD	39:BE:109:GLU:H	2.07	0.61
47:BM:124:ARG:NH2	81:B5:3212:C:OP2	2.34	0.61
56:BV:22:ILE:N	81:B5:1899:G:OP1	2.32	0.61
69:Bi:15:LYS:HG2	81:B5:73:C:C2	2.35	0.61
79:By:59:ARG:HB2	79:CL:59:ARG:HE	0.78	0.61
79:By:138:PRO:CB	79:CL:138:PRO:O	2.49	0.61
79:By:141:LYS:NZ	79:CL:141:LYS:HE3	2.15	0.61
79:By:142:ALA:HA	79:CL:162:GLU:CG	2.27	0.61
79:By:145:VAL:N	79:CL:139:ASN:H	1.99	0.61
79:By:191:ALA:O	79:CL:193:ILE:N	2.34	0.61
81:B5:132:C:H2'	81:B5:133:U:H5"	1.82	0.61
81:B5:920:A:OP1	81:B5:922:U:H5	1.84	0.61
81:B5:2443:A:H5"	84:CN:2122:G:H22	1.66	0.61
15:AG:62:PRO:CB	80:B2:162:A:O4'	2.49	0.60
22:AN:16:ILE:HG22	31:AW:57:ARG:NH2	2.15	0.60
22:AN:107:LYS:CE	80:B2:1019:A:OP2	2.49	0.60
23:AO:25:ASP:OD2	80:B2:901:G:OP2	2.19	0.60
23:AO:120:PRO:HB2	80:B2:887:A:C3'	2.30	0.60
36:BB:334:ARG:NH2	81:B5:3304:U:O2'	2.30	0.60
60:BZ:15:ARG:HB3	81:B5:1637:A:H4'	1.81	0.60
60:BZ:83:THR:HG23	60:BZ:85:TYR:N	2.15	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:Bj:30:GLN:HG2	81:B5:903:U:OP1	2.02	0.60
79:By:2:LYS:CA	84:CN:2148:G:C2	2.80	0.60
79:By:39:GLU:C	79:CL:39:GLU:HA	2.17	0.60
79:By:62:VAL:O	79:CL:62:VAL:HG12	1.93	0.60
79:By:63:SER:O	79:CL:62:VAL:HG22	2.01	0.60
79:By:122:ALA:O	79:CL:126:LYS:CB	2.49	0.60
79:By:122:ALA:HA	79:CL:125:SER:CA	2.30	0.60
79:By:132:GLY:N	79:CL:129:ARG:HA	2.14	0.60
79:By:165:ASN:O	79:CL:165:ASN:O	2.04	0.60
79:By:226:PRO:N	79:CL:19:ILE:HG21	2.11	0.60
81:B5:3358:U:H2'	81:B5:3359:A:H8	1.65	0.60
4:A3:32:ARG:HH21	80:B2:1596:C:H3'	1.66	0.60
8:A7:93:ARG:N	80:B2:1637:C:O2	2.21	0.60
9:AA:110:TYR:HD1	9:AA:110:TYR:H	1.46	0.60
14:AF:109:LYS:CD	80:B2:1473:U:O3'	2.49	0.60
34:AZ:54:VAL:O	34:AZ:88:ILE:HG21	2.01	0.60
35:BA:105:GLY:HA3	35:BA:160:SER:HB3	1.83	0.60
35:BA:174:ARG:HG3	81:B5:1793:C:O4'	2.02	0.60
35:BA:209:HIS:HD2	35:BA:211:HIS:H	1.47	0.60
38:BD:270:LYS:CG	82:B7:2:G:H4'	2.31	0.60
41:BG:129:PRO:CB	81:B5:121:A:C2	2.85	0.60
49:BO:68[B]:ARG:NH1	81:B5:2988:C:OP2	2.34	0.60
51:BQ:69:ARG:NH2	81:B5:720:A:N3	2.48	0.60
61:Ba:61:PHE:CZ	81:B5:283:G:C2'	2.83	0.60
79:By:27:HIS:HA	79:CL:27:HIS:O	2.01	0.60
79:By:61:THR:CB	79:CL:162:GLU:CA	2.59	0.60
79:By:98:GLU:N	79:CL:98:GLU:HB3	2.16	0.60
79:By:149:ILE:O	79:CL:74:VAL:HG12	1.99	0.60
79:By:156:ILE:HG13	79:CL:156:ILE:HG23	1.81	0.60
79:By:174:PRO:CG	84:CN:2145:G:C5'	2.71	0.60
79:By:209:LEU:HG	79:CL:209:LEU:CD2	2.30	0.60
80:B2:702:G:O6	80:B2:736:C:N4	2.19	0.60
80:B2:732:G:O2'	80:B2:733:A:O4'	2.19	0.60
89:B2:1915:OHX:N4	89:B2:2071:OHX:N5	2.48	0.60
85:CP:16:THR:CA	90:CP:401:GCP:O3A	2.48	0.60
85:CP:63:GLU:C	85:CP:210:TRP:CZ3	2.79	0.60
8:A7:68:ARG:CZ	27:AS:145:ARG:HD3	2.31	0.60
10:AB:116:LYS:HA	80:B2:931:C:C5'	2.31	0.60
15:AG:83:CYS:CA	80:B2:162:A:P	2.89	0.60
23:AO:129:LYS:HA	80:B2:990:C:C5'	2.31	0.60
26:AR:48:ASN:HB2	80:B2:1389:C:H4'	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:152:ARG:HH11	38:BD:152:ARG:HG3	1.66	0.60
44:BJ:166:LYS:O	44:BJ:168:ASP:N	2.35	0.60
48:BN:57:GLN:HG2	83:B8:143:U:O3'	2.00	0.60
48:BN:90:ASN:ND2	81:B5:2425:G:OP2	2.32	0.60
58:BX:33:ARG:CZ	81:B5:1580:A:N6	2.64	0.60
65:Be:19:ARG:NH2	81:B5:1433:A:OP1	2.29	0.60
65:Be:47:ARG:NH1	81:B5:634:C:O3'	2.34	0.60
74:Bn:15:ARG:HG3	80:B2:1126:G:OP2	2.00	0.60
76:Bq:5:ARG:NH2	81:B5:1221:A:H4'	2.16	0.60
79:By:9:ALA:CA	79:CL:6:ARG:H	1.92	0.60
79:By:68:LEU:HA	79:CL:175:VAL:CA	2.31	0.60
79:By:176:GLY:H	79:CL:41:VAL:N	1.96	0.60
79:By:185:LEU:HD13	79:CL:29:VAL:HG22	1.84	0.60
80:B2:693:U:H5'	80:B2:694:U:H5'	1.83	0.60
80:B2:820:U:H2'	80:B2:821:U:H4'	1.82	0.60
80:B2:1370:U:H4'	80:B2:1371:A:C5'	2.31	0.60
81:B5:3341:U:H5"	81:B5:3342:A:OP2	2.02	0.60
3:A2:45:LYS:HG3	14:AF:166:ARG:HD3	1.83	0.60
17:AI:64:ASN:ND2	80:B2:257:A:H2'	2.16	0.60
22:AN:5:HIS:HB3	22:AN:117:LEU:HD13	1.84	0.60
23:AO:120:PRO:CG	80:B2:888:U:OP1	2.50	0.60
31:AW:20:THR:HG21	80:B2:1038:U:O3'	2.01	0.60
35:BA:231:SER:CB	81:B5:2163:C:H5"	2.20	0.60
41:BG:132:VAL:HG21	41:BG:190:VAL:HG22	1.83	0.60
60:BZ:115:LYS:CD	81:B5:1629:U:C4'	2.78	0.60
79:By:63:SER:HB3	79:CL:64:LEU:H	1.66	0.60
79:By:175:VAL:N	79:CL:42:GLU:HA	2.16	0.60
79:By:187:ASP:O	79:CL:189:ILE:CA	2.49	0.60
80:B2:538:A:H8	80:B2:543:C:C4	2.19	0.60
80:B2:839:U:C4	89:B2:2071:OHX:N4	2.69	0.60
80:B2:1686:C:N1	80:B2:1687:U:C6	2.69	0.60
81:B5:1500:G:H2'	81:B5:1501:U:O4'	2.02	0.60
81:B5:3269:U:H4'	81:B5:3270:U:O5'	2.00	0.60
79:CL:53:ARG:O	79:CL:55:ASP:N	2.34	0.60
1:A0:87:ARG:NH1	80:B2:1797:A:C5	2.69	0.60
12:AD:163:PRO:HD3	80:B2:1332:C:H1'	1.83	0.60
13:AE:7:LYS:CG	80:B2:450:U:OP1	2.49	0.60
32:AX:144:ARG:NH2	85:CP:314:LYS:CE	2.60	0.60
38:BD:270:LYS:CB	82:B7:2:G:H4'	2.31	0.60
41:BG:194:THR:HG23	81:B5:7:C:O3'	2.00	0.60
48:BN:72:LYS:HD3	81:B5:2166:A:O2'	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BN:179:LYS:NZ	81:B5:287:G:OP1	2.35	0.60
49:BO:85[A]:ARG:HD3	49:BO:90[A]:HIS:CG	2.36	0.60
54:BT:2:GLY:N	81:B5:2626:A:OP1	2.34	0.60
79:By:24:GLU:HB3	79:CL:20:TYR:HE2	1.64	0.60
79:By:27:HIS:HE2	79:CL:27:HIS:CB	2.12	0.60
79:By:38:ASP:CG	84:CN:2148:G:C5'	2.74	0.60
79:By:91:ALA:CB	79:CL:92:ASP:CA	2.52	0.60
79:By:160:ARG:HH21	79:CL:61:THR:HG21	1.66	0.60
79:By:208:PHE:CE2	79:CL:47:LEU:CD2	2.85	0.60
80:B2:218:A:O2'	80:B2:219:A:OP1	2.15	0.60
80:B2:1358:G:H2'	80:B2:1359:C:C6	2.35	0.60
81:B5:22:G:H1'	83:B8:104:A:N3	2.16	0.60
83:B8:78:G:H2'	83:B8:79:A:O4'	2.02	0.60
79:CL:113:VAL:HG21	79:CL:131:LEU:HD11	1.84	0.60
1:A0:84:VAL:O	1:A0:86:VAL:N	2.29	0.60
8:A7:47:ALA:HB2	81:B5:2678:A:N9	2.16	0.60
13:AE:37:LYS:HB2	13:AE:40:GLU:HG2	1.84	0.60
23:AO:19:ILE:HB	23:AO:83:ILE:HD12	1.84	0.60
26:AR:20:TYR:CD2	26:AR:38:ILE:HD11	2.36	0.60
33:AY:10:ARG:NH1	80:B2:778:G:C2	2.68	0.60
38:BD:41:LYS:HB2	54:BT:68:THR:O	2.01	0.60
39:BE:40:LEU:HB3	39:BE:84:VAL:HG13	1.82	0.60
52:BR:134:HIS:HB2	81:B5:1947:G:H5"	1.84	0.60
60:BZ:33:SER:HB3	60:BZ:36:HIS:HB2	1.83	0.60
60:BZ:115:LYS:HD2	81:B5:1629:U:C1'	2.31	0.60
72:Bl:4:GLN:HE21	81:B5:1833:G:N2	1.90	0.60
79:By:71:GLN:CD	79:CL:71:GLN:NE2	2.60	0.60
79:By:109:ASP:H	79:CL:108:MET:CG	2.14	0.60
79:By:132:GLY:C	79:CL:133:PRO:N	2.59	0.60
80:B2:470:A:H5"	80:B2:470:A:H8	1.67	0.60
81:B5:385:A:H2'	81:B5:386:A:C8	2.36	0.60
81:B5:1567:U:H1'	81:B5:1570:U:H5	1.66	0.60
10:AB:116:LYS:CA	80:B2:931:C:H5"	2.30	0.60
12:AD:27:ARG:HD2	19:AK:60:SER:HB2	1.83	0.60
12:AD:174:HIS:CE1	80:B2:1278:G:C4'	2.81	0.60
15:AG:8:PRO:CB	80:B2:165:G:C5'	2.76	0.60
20:AL:3:THR:OG1	20:AL:82:ARG:NE	2.34	0.60
29:AU:35:GLU:HG2	80:B2:1383:G:H4'	1.82	0.60
35:BA:187:HIS:HB3	81:B5:1794:G:C4	2.37	0.60
37:BC:81:GLY:O	81:B5:356:C:O2'	2.11	0.60
38:BD:282:ARG:HD3	82:B7:63:A:OP2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BS:52:LYS:NZ	82:B7:100:C:O5'	2.33	0.60
54:BT:6:GLY:HA3	81:B5:2630:C:H5"	1.84	0.60
74:Bn:15:ARG:HD2	80:B2:1125:A:OP1	2.01	0.60
79:By:39:GLU:HB3	79:CL:217:THR:CB	2.23	0.60
79:By:86:ALA:HB2	79:CL:86:ALA:CB	2.30	0.60
79:By:100:ILE:CD1	79:CL:98:GLU:C	2.74	0.60
79:By:142:ALA:N	79:CL:59:ARG:NH2	2.50	0.60
80:B2:415:C:N4	85:CP:288:ARG:HD2	2.17	0.60
81:B5:2372:A:H4'	81:B5:2373:A:OP2	2.01	0.60
84:CN:2189:G:H22	84:CN:2192:A:H5'	1.66	0.60
1:A0:87:ARG:NH2	1:A0:94:ASN:O	2.34	0.60
7:A6:93:ASP:HB2	7:A6:100:TYR:HE2	1.67	0.60
12:AD:53:THR:O	12:AD:53:THR:OG1	2.08	0.60
12:AD:160:SER:OG	80:B2:1329:A:OP2	2.20	0.60
15:AG:59:GLN:HA	80:B2:155:U:H4'	1.81	0.60
17:AI:64:ASN:CB	80:B2:258:C:C1'	2.79	0.60
17:AI:92:ARG:CZ	81:B5:2107:A:H4'	2.32	0.60
25:AQ:40:GLU:HG3	25:AQ:42:GLU:HB2	1.84	0.60
27:AS:118:LYS:HD3	44:BJ:108:GLU:OE2	2.02	0.60
31:AW:57:ARG:NH2	80:B2:863:A:OP1	2.33	0.60
38:BD:145:PHE:CD1	81:B5:2748:A:H4'	2.37	0.60
47:BM:113:THR:HG22	47:BM:115:PHE:H	1.66	0.60
60:BZ:115:LYS:HD2	81:B5:1629:U:O4'	2.00	0.60
69:Bi:40:VAL:O	69:Bi:44:VAL:HG23	2.02	0.60
79:By:28:LEU:HD22	79:CL:13:LYS:HG2	1.79	0.60
79:By:32:LEU:HD13	79:CL:218:MET:C	2.26	0.60
79:By:40:THR:CG2	79:CL:40:THR:CG2	2.80	0.60
79:By:179:SER:H	79:CL:39:GLU:N	1.99	0.60
79:By:197:GLU:H	79:CL:209:LEU:HD11	1.64	0.60
80:B2:415:C:OP2	85:CP:288:ARG:CA	2.25	0.60
80:B2:1672:G:H2'	80:B2:1673:G:C8	2.37	0.60
80:B2:1757:G:O2'	81:B5:2256:A:H8	1.83	0.60
2:A1:68:GLY:O	80:B2:871:G:N2	2.33	0.60
7:A6:93:ASP:HB2	7:A6:100:TYR:CE2	2.37	0.60
10:AB:147:ALA:O	10:AB:148:ASN:ND2	2.28	0.60
10:AB:181:LEU:HD13	10:AB:181:LEU:H	1.66	0.60
11:AC:245:ASP:OD1	11:AC:245:ASP:N	2.34	0.60
15:AG:8:PRO:HB3	80:B2:165:G:H5'	1.83	0.60
26:AR:48:ASN:ND2	80:B2:1389:C:O5'	2.34	0.60
29:AU:59:PRO:HA	80:B2:1381:U:O3'	2.02	0.60
38:BD:184:ASP:HB3	38:BD:187:THR:HB	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:213:LYS:O	41:BG:217:THR:HG22	2.02	0.60
42:BH:70:THR:HG21	81:B5:3122:A:C2	2.37	0.60
43:BI:177:ASP:N	43:BI:177:ASP:OD1	2.35	0.60
52:BR:80:LYS:CE	81:B5:1940:G:OP1	2.43	0.60
66:Bf:86:ARG:NH2	81:B5:497:C:O3'	2.35	0.60
67:Bg:13:TYR:CE1	81:B5:1855:U:H1'	2.36	0.60
79:By:24:GLU:CD	79:CL:20:TYR:CE2	2.79	0.60
79:By:81:GLU:N	79:CL:79:LYS:O	2.30	0.60
79:By:103:ILE:HD11	79:CL:103:ILE:HG12	1.70	0.60
79:By:162:GLU:OE1	79:CL:164:ARG:HB3	2.00	0.60
79:By:171:ILE:CG1	79:CL:47:LEU:CG	2.79	0.60
80:B2:703:G:H2'	80:B2:704:C:H5'	1.83	0.60
80:B2:794:U:O2	80:B2:794:U:H2'	2.00	0.60
15:AG:154:ARG:HA	80:B2:78:A:O4'	2.01	0.60
20:AL:130:PRO:CG	80:B2:115:G:O6	2.50	0.60
27:AS:41:ARG:HB2	80:B2:1566:U:OP1	2.02	0.60
27:AS:54:LEU:H	27:AS:54:LEU:HD22	1.66	0.60
28:AT:111:ILE:HG23	28:AT:113:ILE:HG13	1.84	0.60
30:AV:17:CYS:HB2	30:AV:56:SER:HB3	1.84	0.60
35:BA:191:LEU:HD11	81:B5:1795:U:OP1	2.02	0.60
37:BC:68:GLY:O	81:B5:2401:A:N3	2.35	0.60
38:BD:64:ILE:HG13	38:BD:109:THR:HG21	1.84	0.60
38:BD:256:THR:N	82:B7:119:U:OP1	2.27	0.60
38:BD:274:GLN:NE2	82:B7:60:G:H21	1.99	0.60
41:BG:157:VAL:HG13	81:B5:147:U:C5	2.37	0.60
60:BZ:79:HIS:CE1	81:B5:1636:U:H2'	2.37	0.60
60:BZ:79:HIS:CE1	81:B5:1636:U:HO2'	2.03	0.60
79:By:28:LEU:N	79:CL:28:LEU:CD1	2.26	0.60
79:By:70:LYS:CB	79:CL:68:LEU:HD13	2.30	0.60
79:By:141:LYS:O	79:CL:59:ARG:NE	2.35	0.60
79:By:161:ILE:HG13	79:CL:163:PHE:HD1	1.66	0.60
79:By:168:THR:N	79:CL:167:LYS:CG	2.60	0.60
79:By:175:VAL:CG2	79:CL:41:VAL:HG12	2.32	0.60
79:By:205:LYS:CG	79:CL:204:ALA:H	2.11	0.60
80:B2:415:C:C2	85:CP:288:ARG:HD3	2.37	0.60
80:B2:498:G:O2'	80:B2:499:U:P	2.60	0.60
81:B5:726:G:H5'	81:B5:726:G:C8	2.31	0.60
1:A0:75:VAL:O	1:A0:79:ILE:N	2.26	0.59
1:A0:87:ARG:NH1	80:B2:1796:C:H5'	2.16	0.59
6:A5:131:PHE:HD2	80:B2:1253:U:OP1	1.84	0.59
15:AG:135:PRO:HB2	15:AG:141:ILE:HG12	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AG:219:ARG:O	15:AG:223:LYS:HB2	2.01	0.59
25:AQ:49:TYR:HB3	25:AQ:53:LEU:HD11	1.82	0.59
34:AZ:60:VAL:HG22	34:AZ:101:TYR:HB2	1.83	0.59
35:BA:243:THR:OG1	81:B5:2244:A:OP1	2.18	0.59
43:BI:14:ASN:O	43:BI:128:ARG:NH2	2.33	0.59
56:BV:92:PHE:CE2	81:B5:3051:U:H1'	2.36	0.59
60:BZ:16:GLY:HA2	81:B5:1638:A:OP2	2.01	0.59
60:BZ:48:ARG:CZ	81:B5:1631:C:OP2	2.44	0.59
61:Ba:4:ARG:CZ	81:B5:1427:U:H5	2.15	0.59
79:By:28:LEU:CD2	79:CL:13:LYS:HG2	2.32	0.59
79:By:39:GLU:HG3	79:CL:37:PHE:CE1	2.37	0.59
79:By:60:GLY:N	79:CL:163:PHE:O	2.34	0.59
79:By:81:GLU:HB2	79:CL:81:GLU:CA	2.32	0.59
79:By:113:VAL:HG11	79:CL:131:LEU:CG	2.28	0.59
79:By:119:VAL:CB	79:CL:97:GLU:N	2.63	0.59
79:By:119:VAL:CG2	79:CL:77:ILE:HG21	2.14	0.59
79:By:142:ALA:CB	79:CL:59:ARG:NH2	2.65	0.59
79:By:143:GLY:HA2	79:CL:142:ALA:O	2.01	0.59
79:By:145:VAL:CG1	79:CL:138:PRO:HB3	2.07	0.59
79:By:161:ILE:HD12	79:CL:192:PHE:HE1	1.58	0.59
79:By:183:GLU:N	79:CL:30:LYS:HE3	2.16	0.59
80:B2:440:U:O4'	85:CP:276:ARG:HG3	2.02	0.59
80:B2:1474:G:H2'	80:B2:1475:A:C8	2.36	0.59
81:B5:1879:A:H4'	81:B5:1880:U:OP2	2.02	0.59
13:AE:179:LYS:N	13:AE:194:THR:O	2.36	0.59
16:AH:185:ILE:HG22	16:AH:186:PRO:HD3	1.82	0.59
17:AI:39:GLY:O	17:AI:59:ARG:HB3	2.02	0.59
23:AO:37:GLU:HA	80:B2:895:G:C4'	2.31	0.59
35:BA:234:LYS:HZ3	81:B5:2162:U:P	2.25	0.59
43:BI:72:ALA:O	43:BI:76:MET:HG2	2.02	0.59
46:BL:93:ILE:HG22	46:BL:94:GLY:N	2.18	0.59
52:BR:143:ILE:HG12	81:B5:2093:A:H5'	1.84	0.59
59:BY:82:VAL:O	59:BY:84:LYS:N	2.35	0.59
69:Bi:25:LYS:HB2	69:Bi:28:TYR:HD2	1.67	0.59
69:Bi:77:LEU:HD23	81:B5:294:U:C4'	2.27	0.59
70:Bj:55:ARG:NH1	81:B5:353:G:N7	2.50	0.59
79:By:15:ASP:O	79:CL:220:PRO:HB2	2.01	0.59
79:By:22:ILE:CD1	79:CL:21:THR:C	2.75	0.59
79:By:25:ALA:O	79:CL:29:VAL:CA	2.49	0.59
79:By:131:LEU:CB	79:CL:132:GLY:N	2.62	0.59
79:By:163:PHE:CE1	79:CL:60:GLY:N	2.70	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:193:ILE:HD11	79:CL:224:ILE:CG1	2.29	0.59
80:B2:1381:U:H1'	80:B2:1516:A:N6	2.17	0.59
81:B5:955:U:H2'	81:B5:956:U:C6	2.37	0.59
81:B5:1225:A:H8	81:B5:1288:U:C4'	2.13	0.59
8:A7:51:ARG:CD	81:B5:2677:G:H1'	2.33	0.59
12:AD:28:GLU:OE1	19:AK:56:LYS:NZ	2.29	0.59
12:AD:174:HIS:CE1	80:B2:1278:G:O4'	2.48	0.59
12:AD:203:PRO:HB2	80:B2:1331:A:N3	2.16	0.59
15:AG:159:ARG:CD	80:B2:77:U:N3	2.43	0.59
25:AQ:14:LYS:HE3	80:B2:1610:G:N7	2.16	0.59
27:AS:46:VAL:HG22	27:AS:72:ILE:HG22	1.83	0.59
34:AZ:42:LEU:HD12	34:AZ:43:ASP:N	2.17	0.59
35:BA:19:HIS:NE2	81:B5:823:C:H5'	2.16	0.59
37:BC:300:ARG:HH11	37:BC:300:ARG:CG	2.15	0.59
38:BD:158:ARG:HB2	82:B7:46:A:OP1	2.00	0.59
41:BG:136:LEU:HB2	81:B5:147:U:OP2	2.01	0.59
44:BJ:24:GLY:HA2	81:B5:2680:A:C2	2.37	0.59
46:BL:13:HIS:HD2	81:B5:98:G:OP2	1.85	0.59
50:BP:125:GLN:HB2	50:BP:141:SER:HB2	1.83	0.59
54:BT:17:ARG:NH1	54:BT:17:ARG:HG2	2.17	0.59
63:Bc:86:ARG:O	81:B5:1728:G:C2'	2.47	0.59
67:Bg:41:ARG:HA	67:Bg:56:THR:HG22	1.83	0.59
79:By:40:THR:C	79:CL:217:THR:H	2.11	0.59
79:By:56:GLN:NE2	79:CL:50:ASP:C	2.57	0.59
79:By:141:LYS:CA	79:CL:142:ALA:HB2	2.17	0.59
79:By:171:ILE:CB	79:CL:47:LEU:CD1	2.80	0.59
79:By:206:GLY:CA	79:CL:206:GLY:O	2.32	0.59
80:B2:497:G:H2'	80:B2:498:G:C8	2.36	0.59
80:B2:822:U:H2'	80:B2:823:G:H5"	1.83	0.59
81:B5:171:G:N2	81:B5:248:U:O2	2.35	0.59
81:B5:1764:U:H3'	81:B5:1765:U:H5"	1.84	0.59
81:B5:2537:U:H2'	81:B5:2538:U:O4'	2.02	0.59
4:A3:54:LYS:HE3	80:B2:1420:C:OP1	2.02	0.59
8:A7:29:ASN:H	81:B5:2708:C:C5'	2.15	0.59
10:AB:70:LEU:HD21	10:AB:79:HIS:CD2	2.36	0.59
15:AG:8:PRO:HG3	15:AG:112:VAL:HG13	1.84	0.59
15:AG:62:PRO:CB	80:B2:162:A:H5'	2.31	0.59
17:AI:43:ILE:HB	80:B2:260:U:H5	1.68	0.59
25:AQ:75:VAL:HG11	80:B2:1610:G:P	2.41	0.59
25:AQ:125:GLU:CB	80:B2:1585:U:H5"	2.33	0.59
27:AS:26:ILE:HD11	27:AS:31:ALA:H	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:206:PRO:HD3	35:BA:213:GLY:HA2	1.84	0.59
35:BA:235:ALA:HB1	81:B5:2184:U:O5'	2.02	0.59
38:BD:16:PHE:CE1	81:B5:2688:U:C2	2.90	0.59
38:BD:85:ARG:HD3	38:BD:86:TYR:CE1	2.38	0.59
59:BY:120:GLN:NE2	59:BY:126:LEU:HA	2.17	0.59
60:BZ:135:ARG:HH22	81:B5:1807:G:H5'	1.65	0.59
66:Bf:88:ASN:HB2	81:B5:429:U:C5'	2.33	0.59
74:Bn:16:LYS:O	74:Bn:20:VAL:HG23	2.02	0.59
75:Bo:56:PRO:HA	81:B5:2802:A:C4	2.38	0.59
79:By:81:GLU:H	79:CL:78:ALA:HB1	1.67	0.59
79:By:149:ILE:HG12	79:CL:75:LEU:O	2.02	0.59
79:By:160:ARG:NE	79:CL:160:ARG:HE	1.49	0.59
79:By:171:ILE:N	79:CL:45:ALA:O	2.36	0.59
80:B2:1492:A:O2'	80:B2:1493:A:H8	1.80	0.59
80:B2:1657:U:H1'	80:B2:1658:G:OP2	2.02	0.59
81:B5:1949:G:H1	81:B5:2097:U:H3	1.50	0.59
81:B5:2897:A:H2'	81:B5:2899:C:C5'	2.32	0.59
81:B5:3227:A:H2'	81:B5:3228:C:H5'	1.82	0.59
85:CP:20:LYS:H	90:CP:401:GCP:H8	1.67	0.59
9:AA:66:ALA:HB2	30:AV:37:ALA:HB2	1.85	0.59
15:AG:175:ILE:HD11	80:B2:78:A:O4'	1.96	0.59
26:AR:53:TYR:HH	80:B2:1401:A:H5"	1.63	0.59
35:BA:237:LEU:CD2	81:B5:2183:A:H2	2.16	0.59
43:BI:168:SER:HB2	54:BT:160:ILE:O	2.03	0.59
46:BL:99:HIS:CG	81:B5:156:G:C5	2.90	0.59
52:BR:61:SER:OG	81:B5:3069:G:O2'	2.02	0.59
52:BR:170:ARG:N	80:B2:851:U:C3'	2.65	0.59
61:Ba:4:ARG:CZ	81:B5:1427:U:C5	2.86	0.59
65:Be:41:VAL:HG12	65:Be:46:PHE:CD2	2.37	0.59
69:Bi:76:ARG:HG3	81:B5:294:U:H5'	1.85	0.59
70:Bj:30:GLN:HG2	81:B5:903:U:P	2.42	0.59
72:Bl:42:ARG:HH22	81:B5:1494:U:P	2.25	0.59
79:By:75:LEU:HD13	79:CL:107:TRP:O	2.02	0.59
79:By:191:ALA:HB3	79:CL:189:ILE:N	2.08	0.59
80:B2:543:C:H5'	80:B2:543:C:O2	2.02	0.59
81:B5:3228:C:H4'	81:B5:3229:G:O5'	2.03	0.59
79:CL:119:VAL:O	79:CL:121:GLY:N	2.34	0.59
3:A2:25:VAL:HG11	3:A2:66:LEU:HD12	1.85	0.59
10:AB:193:ILE:O	10:AB:197:ILE:HG12	2.03	0.59
18:AJ:7:THR:O	80:B2:771:A:H4'	2.01	0.59
19:AK:64:TYR:OH	80:B2:1435:G:O6	2.14	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AM:28:LEU:HD13	21:AM:32:LEU:HD11	1.84	0.59
22:AN:14:SER:OG	80:B2:960:U:C5	2.50	0.59
36:BB:152:LYS:HD3	36:BB:189:SER:HA	1.83	0.59
37:BC:138:ARG:NH2	37:BC:240:PRO:HB2	2.18	0.59
38:BD:261:THR:OG1	38:BD:264:GLN:HG3	2.02	0.59
56:BV:71:LYS:NZ	81:B5:2294:U:OP2	2.21	0.59
60:BZ:15:ARG:HB3	81:B5:1637:A:C5'	2.32	0.59
79:By:28:LEU:CD2	79:CL:31:GLU:OE1	2.47	0.59
79:By:68:LEU:HD12	79:CL:161:ILE:HG23	1.84	0.59
79:By:83:ILE:HG22	79:CL:95:GLY:HA3	1.84	0.59
79:By:136:LEU:CA	79:CL:136:LEU:HB2	2.32	0.59
79:By:152:ILE:HG12	79:CL:152:ILE:HG23	1.82	0.59
79:By:178:ALA:HA	79:CL:178:ALA:CB	2.31	0.59
80:B2:514:G:N1	80:B2:543:C:H5	2.00	0.59
81:B5:1329:U:H4'	81:B5:1330:A:OP1	2.02	0.59
1:A0:3:LYS:CE	80:B2:1030:A:OP1	2.51	0.59
5:A4:58:PRO:HA	80:B2:558:U:OP1	2.02	0.59
9:AA:169:SER:O	9:AA:173:ILE:HG12	2.03	0.59
11:AC:88:LYS:NZ	89:B2:2050:OHX:N2	2.51	0.59
15:AG:142:ARG:HA	15:AG:147:LEU:HD12	1.85	0.59
17:AI:25:ARG:HD3	80:B2:400:A:P	2.42	0.59
23:AO:129:LYS:CA	80:B2:990:C:C5'	2.81	0.59
25:AQ:75:VAL:CB	80:B2:1610:G:P	2.90	0.59
34:AZ:92:ILE:HG12	34:AZ:100:ILE:HG22	1.84	0.59
35:BA:39:GLY:CA	81:B5:2550:U:O4	2.50	0.59
37:BC:119:ARG:NE	81:B5:695:C:OP1	2.31	0.59
42:BH:26:LYS:HG3	42:BH:35:THR:HG22	1.85	0.59
48:BN:162:ARG:HG2	81:B5:56:G:H1'	1.84	0.59
49:BO:180[B]:SER:OG	49:BO:181[B]:ALA:N	2.29	0.59
59:BY:37:LYS:H	59:BY:37:LYS:CD	2.13	0.59
60:BZ:46:ILE:HG12	60:BZ:49:TYR:CE1	2.37	0.59
66:Bf:97:SER:OG	81:B5:3174:A:OP1	2.16	0.59
71:Bk:44:LYS:HG2	71:Bk:53:THR:HB	1.85	0.59
79:By:115:ALA:O	79:CL:138:PRO:HG3	1.90	0.59
79:By:116:THR:N	79:CL:77:ILE:HB	2.16	0.59
79:By:178:ALA:C	79:CL:178:ALA:CB	2.67	0.59
79:By:210:ARG:NH1	79:CL:210:ARG:HH21	1.79	0.59
80:B2:1585:U:N3	80:B2:1611:A:H2	1.81	0.59
80:B2:1746:A:C2	81:B5:2303:A:C1'	2.86	0.59
81:B5:208:C:C2'	81:B5:209:A:H5'	2.33	0.59
79:CL:77:ILE:HG22	79:CL:119:VAL:HG21	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A3:32:ARG:NE	80:B2:1596:C:OP2	2.32	0.59
10:AB:97:LEU:CD1	10:AB:98:THR:H	2.11	0.59
13:AE:51:ARG:NH2	80:B2:788:A:N1	2.50	0.59
26:AR:5:ARG:HB2	80:B2:1402:G:OP1	2.03	0.59
33:AY:120:GLY:HA2	80:B2:85:A:C2'	2.33	0.59
35:BA:208:ASP:CG	81:B5:912:G:H1	1.95	0.59
36:BB:124:LYS:HB2	81:B5:3316:A:N1	2.17	0.59
37:BC:161:LYS:NZ	81:B5:209:A:OP1	2.35	0.59
58:BX:103:TYR:O	58:BX:105:VAL:HG23	2.03	0.59
64:Bd:44:MET:HB3	64:Bd:77:ARG:NH1	2.17	0.59
68:Bh:10:ARG:NH1	68:Bh:60:GLU:OE1	2.36	0.59
72:Bl:5:LYS:CD	81:B5:1834:U:OP1	2.51	0.59
79:By:28:LEU:CA	79:CL:32:LEU:HG	2.31	0.59
79:By:29:VAL:HG12	79:CL:32:LEU:H	1.65	0.59
79:By:146:GLY:HA3	79:CL:152:ILE:HG21	1.83	0.59
79:By:213:TYR:CE2	79:CL:213:TYR:CE2	2.89	0.59
80:B2:580:A:OP1	89:B2:2025:OHX:N4	2.36	0.59
80:B2:1655:A:C1'	81:B5:2302:G:O2'	2.51	0.59
81:B5:1308:A:OP2	81:B5:1308:A:H8	1.85	0.59
79:CL:104:LEU:N	79:CL:105:ASP:HA	2.17	0.59
1:A0:92:ARG:C	80:B2:1796:C:O2	2.46	0.59
4:A3:14:TYR:CE2	80:B2:1597:A:C5	2.90	0.59
9:AA:121:VAL:HG23	9:AA:141:ILE:HG21	1.84	0.59
13:AE:16:HIS:HE1	80:B2:789:A:OP2	1.86	0.59
23:AO:38:THR:HG21	80:B2:896:U:C4'	2.32	0.59
29:AU:35:GLU:OE2	80:B2:1383:G:H4'	2.02	0.59
35:BA:234:LYS:HD3	81:B5:2162:U:H5"	1.85	0.59
35:BA:244:GLY:N	81:B5:2153:U:H4'	2.17	0.59
41:BG:63:LYS:HE2	83:B8:153:U:P	2.42	0.59
41:BG:181:LYS:HD3	83:B8:154:C:H5"	1.84	0.59
56:BV:87:ARG:HH22	56:BV:137:VAL:HG22	1.68	0.59
60:BZ:79:HIS:ND1	81:B5:1636:U:C2'	2.64	0.59
68:Bh:95:PHE:CG	81:B5:136:G:C5'	2.71	0.59
69:Bi:58:ILE:HA	69:Bi:61:ILE:HG13	1.84	0.59
70:Bj:42:ALA:CB	83:B8:104:A:O3'	2.51	0.59
79:By:53:ARG:NH2	79:CL:56:GLN:HE22	2.01	0.59
79:By:133:PRO:CB	86:CW:56:C:OP1	2.51	0.59
79:By:145:VAL:HG23	79:CL:145:VAL:CA	2.10	0.59
79:By:175:VAL:CG1	79:CL:175:VAL:HG11	2.19	0.59
79:By:176:GLY:N	79:CL:40:THR:CG2	2.66	0.59
79:By:216:THR:C	84:CN:2196:C:H1'	2.26	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:420:A:C2	85:CP:289:LEU:HD21	2.38	0.59
80:B2:1071:U:H2'	80:B2:1072:C:C6	2.38	0.59
80:B2:1644:C:O2	81:B5:2255:A:N3	2.35	0.59
89:B2:1922:OHX:N4	89:B2:1977:OHX:N3	2.50	0.59
17:AI:10:LYS:HG2	20:AL:133:LYS:HE3	1.85	0.59
22:AN:114:ARG:HG2	22:AN:114:ARG:NH1	2.18	0.59
24:AP:42:ARG:HH22	80:B2:1550:A:P	2.26	0.59
26:AR:60:ARG:NH1	80:B2:1400:A:C5'	2.63	0.59
27:AS:30:TYR:O	27:AS:33:THR:OG1	2.15	0.59
41:BG:55:TYR:OH	83:B8:149:A:C2'	2.50	0.59
41:BG:162:LEU:HD13	81:B5:147:U:N1	2.17	0.59
46:BL:153:ASP:OD2	46:BL:157:ARG:NH1	2.36	0.59
49:BO:110[B]:PRO:O	49:BO:111[B]:PRO:C	2.44	0.59
50:BP:30:ARG:HA	50:BP:119:VAL:CG1	2.33	0.59
52:BR:177:VAL:H	80:B2:853:G:H5'	1.68	0.59
61:Ba:76:ASP:HB2	61:Ba:115:LYS:O	2.02	0.59
64:Bd:50:ARG:CZ	64:Bd:90:PHE:CZ	2.85	0.59
75:Bo:53:GLN:HB3	81:B5:2421:U:H4'	1.85	0.59
79:By:50:ASP:C	79:CL:50:ASP:HA	2.27	0.59
79:By:66:HIS:NE2	79:CL:184:LYS:C	2.58	0.59
79:By:75:LEU:HD21	79:CL:103:ILE:HD11	1.84	0.59
79:By:93:TYR:CB	79:CL:107:TRP:CZ2	2.86	0.59
79:By:136:LEU:HD21	79:CL:134:ARG:HD3	1.84	0.59
80:B2:407:A:H2'	80:B2:408:C:C6	2.38	0.59
80:B2:1738:U:H2'	80:B2:1739:C:C6	2.37	0.59
81:B5:2511:A:C2'	81:B5:2512:C:H5"	2.32	0.59
8:A7:53:ARG:HA	8:A7:53:ARG:HE	1.67	0.58
15:AG:172:ALA:C	80:B2:79:C:H5"	2.28	0.58
23:AO:38:THR:HG1	80:B2:896:U:C1'	2.16	0.58
25:AQ:55:VAL:HG21	25:AQ:105:LEU:HG	1.85	0.58
25:AQ:135:ARG:HB3	80:B2:1581:C:O3'	2.03	0.58
37:BC:259:ASP:OD1	37:BC:259:ASP:N	2.35	0.58
40:BF:207:LEU:O	81:B5:1334:U:H5'	2.02	0.58
41:BG:181:LYS:CD	83:B8:154:C:H5"	2.32	0.58
52:BR:166:ASN:CA	80:B2:850:A:C8	2.86	0.58
53:BS:146:LYS:HD3	81:B5:534:U:H1'	1.84	0.58
54:BT:2:GLY:N	81:B5:2626:A:P	2.76	0.58
54:BT:105:PHE:CE1	81:B5:1062:A:H4'	2.38	0.58
62:Bb:38:LYS:H	81:B5:2738:A:H4'	1.68	0.58
79:By:14:VAL:O	79:CL:7:TYR:CD1	2.55	0.58
79:By:52:ARG:C	79:CL:50:ASP:OD1	2.44	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:66:HIS:CG	79:CL:180:PHE:CE2	2.90	0.58
79:By:160:ARG:N	79:CL:68:LEU:CD1	2.61	0.58
80:B2:702:G:C6	80:B2:737:A:N6	2.71	0.58
80:B2:913:G:N1	81:B5:2206:G:H5"	2.18	0.58
80:B2:1385:G:N7	89:B2:2015:OHX:N3	2.51	0.58
80:B2:1488:G:H3'	80:B2:1515:A:H61	1.68	0.58
81:B5:2103:U:H2'	81:B5:2104:A:H8	1.66	0.58
2:A1:68:GLY:CA	80:B2:872:G:H1'	2.33	0.58
8:A7:34:LYS:CE	81:B5:2693:C:C5'	2.79	0.58
9:AA:198:MET:SD	26:AR:85:VAL:HG11	2.44	0.58
15:AG:62:PRO:HB2	80:B2:162:A:H4'	1.85	0.58
15:AG:174:LYS:HG2	80:B2:79:C:O2'	2.03	0.58
16:AH:143:LEU:HB2	16:AH:147:ASN:HB2	1.85	0.58
46:BL:16:LYS:HG3	81:B5:48:A:P	2.43	0.58
46:BL:73:ARG:NH2	81:B5:77:A:N7	2.51	0.58
52:BR:134:HIS:CG	81:B5:1947:G:H5'	2.38	0.58
54:BT:12:ARG:HD3	54:BT:13:TYR:CZ	2.38	0.58
79:By:42:GLU:HG3	84:CN:2145:G:O2'	2.02	0.58
79:By:61:THR:HA	79:CL:162:GLU:HA	1.83	0.58
79:By:91:ALA:HB3	79:CL:93:TYR:CD2	2.38	0.58
79:By:103:ILE:CD1	79:CL:100:ILE:HA	2.33	0.58
79:By:117:PRO:O	79:CL:123:VAL:N	2.35	0.58
79:By:133:PRO:CB	86:CW:56:C:OP2	2.51	0.58
79:By:176:GLY:N	79:CL:40:THR:HG23	2.18	0.58
79:By:187:ASP:O	79:CL:189:ILE:HB	2.03	0.58
79:By:212:VAL:HG13	79:CL:212:VAL:HG13	1.79	0.58
80:B2:1442:U:H2'	80:B2:1443:U:C6	2.37	0.58
81:B5:438:A:H2'	81:B5:494:G:H21	1.68	0.58
81:B5:1225:A:C8	81:B5:1288:U:C4'	2.72	0.58
81:B5:1226:G:H2'	81:B5:1227:C:C6	2.38	0.58
81:B5:1815:U:HO2'	81:B5:1816:A:P	2.25	0.58
81:B5:2434:U:C4'	81:B5:2435:G:H5"	2.34	0.58
8:A7:47:ALA:HA	81:B5:2678:A:C1'	2.32	0.58
9:AA:150:ASP:OD2	9:AA:165:ARG:NH2	2.36	0.58
12:AD:177:MET:SD	12:AD:182:LEU:HD11	2.43	0.58
25:AQ:135:ARG:CB	80:B2:1581:C:H4'	2.33	0.58
32:AX:126:LYS:NZ	80:B2:30:G:OP1	2.33	0.58
35:BA:152:SER:HA	81:B5:2178:A:O2'	2.03	0.58
35:BA:235:ALA:HB1	81:B5:2184:U:OP1	2.03	0.58
36:BB:188:ILE:H	36:BB:188:ILE:CD1	2.14	0.58
42:BH:86:TYR:CE2	42:BH:151:VAL:HG22	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BI:24:ARG:NH2	81:B5:2648:G:OP1	2.36	0.58
43:BI:160:PRO:HD3	81:B5:2854:U:C5'	2.31	0.58
46:BL:70:ARG:HH12	81:B5:76:G:P	2.26	0.58
48:BN:109:ARG:CD	83:B8:140:G:O2'	2.51	0.58
63:Bc:99:ASP:O	63:Bc:101:LEU:N	2.37	0.58
79:By:15:ASP:C	79:CL:220:PRO:HB3	2.28	0.58
79:By:29:VAL:HG13	79:CL:33:ALA:N	2.19	0.58
79:By:115:ALA:C	79:CL:115:ALA:HB2	2.28	0.58
79:By:163:PHE:CG	79:CL:171:ILE:HD11	2.33	0.58
79:By:201:PRO:HB3	79:CL:57:ASN:C	2.21	0.58
80:B2:279:G:C3'	80:B2:280:U:H5"	2.28	0.58
80:B2:702:G:O2'	80:B2:703:G:O4'	2.21	0.58
80:B2:833:U:OP2	89:B2:2024:OHX:N4	2.36	0.58
81:B5:243:G:H2'	81:B5:244:G:C8	2.39	0.58
81:B5:1282:G:H3'	81:B5:1283:C:H5"	1.84	0.58
81:B5:2440:G:HO2'	81:B5:2441:A:P	2.26	0.58
81:B5:2510:U:O2'	81:B5:2511:A:H5"	2.03	0.58
1:A0:87:ARG:CD	80:B2:1797:A:N6	2.63	0.58
7:A6:36:ALA:HB2	7:A6:71:CYS:HB3	1.85	0.58
13:AE:200:ARG:NH1	13:AE:202:ASP:OD2	2.36	0.58
16:AH:96:ARG:HB3	80:B2:856:A:N6	2.18	0.58
23:AO:36:LYS:O	80:B2:894:U:O2'	2.12	0.58
24:AP:28:MET:O	24:AP:29:SER:HB3	2.02	0.58
27:AS:41:ARG:NH1	80:B2:1565:C:OP1	2.35	0.58
38:BD:270:LYS:HG2	82:B7:2:G:C5'	2.33	0.58
43:BI:22:TYR:HB3	81:B5:2647:A:C4'	2.33	0.58
44:BJ:70:THR:HB	82:B7:39:C:O2	2.04	0.58
50:BP:74:LYS:HE2	81:B5:3297:U:O3'	2.03	0.58
61:Ba:13:GLY:CA	81:B5:943:U:H3'	2.32	0.58
66:Bf:2:ALA:HB2	81:B5:3216:G:OP2	2.02	0.58
67:Bg:10:ARG:O	81:B5:1488:G:O2'	2.21	0.58
79:By:2:LYS:N	84:CN:2148:G:C2	2.69	0.58
79:By:22:ILE:HB	79:CL:22:ILE:HA	1.84	0.58
79:By:117:PRO:O	79:CL:122:ALA:HB3	2.03	0.58
80:B2:1542:G:H22	80:B2:1568:C:H1'	1.67	0.58
85:CP:62:TYR:C	85:CP:210:TRP:CZ2	2.81	0.58
1:A0:95:ARG:HA	80:B2:1797:A:C4'	2.34	0.58
6:A5:144:CYS:HB3	6:A5:147:VAL:HG13	1.85	0.58
10:AB:39:GLU:HB3	10:AB:73:LEU:O	2.04	0.58
15:AG:132:ARG:CD	80:B2:68:A:C6	2.86	0.58
16:AH:51:VAL:HG23	16:AH:53:GLY:H	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AI:37:LYS:H	17:AI:59:ARG:H	1.51	0.58
17:AI:171:SER:HA	80:B2:209:U:H5'	1.85	0.58
33:AY:10:ARG:NH2	80:B2:778:G:N2	2.48	0.58
35:BA:50:HIS:NE2	81:B5:1795:U:H2'	2.18	0.58
38:BD:266:ALA:HA	82:B7:1:G:C1'	2.32	0.58
48:BN:4:TYR:OH	81:B5:148:G:P	2.62	0.58
50:BP:67:ILE:HD12	50:BP:82:ARG:CZ	2.34	0.58
63:Bc:88:GLY:HA3	81:B5:1729:A:OP1	2.04	0.58
79:By:20:TYR:CE2	79:CL:13:LYS:O	2.41	0.58
79:By:82:LYS:CG	79:CL:82:LYS:CA	2.77	0.58
79:By:133:PRO:N	79:CL:133:PRO:HD3	2.18	0.58
79:By:179:SER:N	79:CL:39:GLU:H	2.02	0.58
81:B5:2439:A:N6	81:B5:2508:U:H3	2.01	0.58
9:AA:179:ARG:HD3	9:AA:183:ARG:NH1	2.17	0.58
13:AE:49:ARG:HB2	13:AE:55:ALA:HB3	1.85	0.58
15:AG:188:ARG:HD3	80:B2:283:U:H3'	1.86	0.58
17:AI:5:ARG:HD3	17:AI:29:LEU:O	2.02	0.58
24:AP:52:LYS:HG3	24:AP:53:PRO:HD3	1.85	0.58
35:BA:200:ARG:NE	81:B5:2147:A:OP2	2.36	0.58
38:BD:207:TYR:CE1	82:B7:33:U:O4'	2.56	0.58
38:BD:260:PHE:HE2	82:B7:121:U:C5'	2.11	0.58
44:BJ:95:ASN:HA	81:B5:2673:A:C5'	2.34	0.58
48:BN:60:VAL:HG21	83:B8:142:C:C4'	2.33	0.58
52:BR:85:ARG:NH1	81:B5:2103:U:O3'	2.37	0.58
68:Bh:94:LYS:N	81:B5:135:C:O2	2.24	0.58
69:Bi:26:ILE:CD1	81:B5:155:G:C1'	2.80	0.58
79:By:64:LEU:HD11	79:CL:188:ASN:O	2.01	0.58
79:By:75:LEU:HD21	79:CL:107:TRP:CZ3	2.37	0.58
79:By:149:ILE:HD13	79:CL:76:ALA:CA	2.26	0.58
79:By:152:ILE:HD12	79:CL:114:VAL:CG1	2.28	0.58
79:By:185:LEU:CG	79:CL:185:LEU:CD1	2.58	0.58
79:By:199:HIS:HB3	79:CL:199:HIS:C	2.29	0.58
79:By:223:ARG:NE	79:CL:223:ARG:CD	2.65	0.58
80:B2:913:G:O6	81:B5:2206:G:O3'	2.20	0.58
10:AB:141:ALA:HB1	10:AB:207:LEU:HD23	1.84	0.58
89:AC:301:OHX:N6	89:B2:1906:OHX:N5	2.52	0.58
21:AM:67:THR:C	21:AM:69:ALA:H	2.11	0.58
35:BA:227:ARG:HH22	81:B5:2155:G:HO2'	1.45	0.58
46:BL:65:TYR:CD2	81:B5:103:G:H5'	2.39	0.58
54:BT:127:GLN:CG	81:B5:1095:U:N3	2.67	0.58
61:Ba:34:MET:CB	81:B5:96:G:OP2	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Ba:120:ASN:O	61:Ba:141:ALA:HB1	2.03	0.58
67:Bg:73:SER:OG	81:B5:1641:U:O4	2.22	0.58
70:Bj:65:ARG:HH11	70:Bj:65:ARG:HG3	1.67	0.58
74:Bn:10:THR:HB	80:B2:1115:U:H5"	1.86	0.58
79:By:23:ASP:HB3	79:CL:27:HIS:N	2.19	0.58
79:By:42:GLU:OE2	79:CL:42:GLU:OE2	2.21	0.58
79:By:116:THR:CG2	79:CL:115:ALA:CA	2.78	0.58
79:By:116:THR:OG1	79:CL:77:ILE:N	2.37	0.58
79:By:136:LEU:N	79:CL:132:GLY:CA	2.66	0.58
79:By:190:ARG:O	79:CL:22:ILE:CD1	2.51	0.58
79:By:201:PRO:C	79:CL:201:PRO:CB	1.80	0.58
79:By:222:VAL:CG1	79:CL:222:VAL:CG2	2.79	0.58
80:B2:241:U:H5'	80:B2:242:U:OP2	2.04	0.58
80:B2:1645:G:H5'	81:B5:2260:U:O2	2.04	0.58
81:B5:1064:A:H4'	81:B5:1065:A:O5'	2.04	0.58
81:B5:3155:U:H3'	81:B5:3156:U:H5"	1.85	0.58
85:CP:199:ALA:CB	90:CP:401:GCP:C5	2.81	0.58
1:A0:92:ARG:CD	80:B2:1796:C:OP2	2.47	0.58
2:A1:50:ALA:O	2:A1:52:THR:N	2.35	0.58
13:AE:7:LYS:HG3	80:B2:450:U:OP1	2.04	0.58
13:AE:104:ASP:HB3	13:AE:106:LYS:H	1.69	0.58
32:AX:5:LYS:HE2	80:B2:611:U:OP2	2.04	0.58
34:AZ:88:ILE:HA	34:AZ:104:ALA:HB2	1.85	0.58
37:BC:334:PHE:CE2	81:B5:578:A:C6	2.91	0.58
37:BC:361:HIS:CG	37:BC:362:ASP:H	2.21	0.58
51:BQ:100:THR:HG22	51:BQ:120:GLU:HB3	1.86	0.58
54:BT:14:MET:HE1	54:BT:55:LYS:HB2	1.86	0.58
72:Bl:48:LYS:NZ	81:B5:1492:G:O2'	2.36	0.58
79:By:19:ILE:HG23	79:CL:223:ARG:HB3	1.84	0.58
79:By:192:PHE:CB	79:CL:43:VAL:HG11	2.32	0.58
79:By:199:HIS:HE2	79:CL:196:LEU:HD23	1.64	0.58
79:By:201:PRO:CG	79:CL:57:ASN:C	2.75	0.58
80:B2:1178:G:H2'	80:B2:1179:G:O4'	2.04	0.58
80:B2:1338:C:H1'	80:B2:1410:A:C4	2.39	0.58
81:B5:979:U:H4'	81:B5:980:A:OP1	2.04	0.58
79:CL:42:GLU:HG3	79:CL:215:THR:HG23	1.85	0.58
6:A5:91:UNK:HG2	80:B2:1445:G:C4	2.38	0.58
11:AC:159:THR:HG1	80:B2:1097:U:HO2'	1.50	0.58
15:AG:186:ARG:O	15:AG:190:GLN:HG2	2.04	0.58
17:AI:25:ARG:HA	80:B2:400:A:O5'	2.02	0.58
27:AS:40:ARG:HD2	80:B2:1539:G:H5"	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:69:TYR:CD2	81:B5:2558:U:N3	2.72	0.58
55:BU:19:VAL:HG12	55:BU:105:LEU:HD22	1.85	0.58
56:BV:92:PHE:CZ	81:B5:3051:U:H1'	2.39	0.58
57:BW:120:LYS:HA	57:BW:123:ARG:HH11	1.69	0.58
79:By:28:LEU:HD23	79:CL:13:LYS:HZ3	1.67	0.58
79:By:29:VAL:CG2	79:CL:32:LEU:C	2.67	0.58
79:By:30:LYS:HE3	79:CL:31:GLU:CA	2.33	0.58
79:By:102:LYS:HG3	79:CL:101:GLN:C	2.18	0.58
80:B2:373:G:N7	89:B2:2058:OHX:N6	2.51	0.58
80:B2:1498:G:H2'	80:B2:1499:G:H5'	1.85	0.58
81:B5:1579:C:H2'	81:B5:1580:A:H5'	1.86	0.58
11:AC:91:ARG:HD2	80:B2:1625:C:OP1	2.03	0.58
21:AM:56:GLU:HB3	21:AM:124:LYS:HG2	1.84	0.58
23:AO:27:PHE:CE2	80:B2:916:U:C2'	2.87	0.58
25:AQ:113:ASP:CG	25:AQ:115:THR:H	2.12	0.58
28:AT:16:ASN:OD1	28:AT:56:LYS:NZ	2.35	0.58
31:AW:111:MET:HE3	31:AW:116:ALA:HA	1.85	0.58
33:AY:11:LYS:CE	80:B2:776:G:O6	2.52	0.58
36:BB:256:HIS:HA	36:BB:257:PRO:C	2.29	0.58
37:BC:16:THR:HG23	37:BC:18:ASN:H	1.68	0.58
42:BH:174:LYS:HG2	81:B5:2900:A:O2'	2.04	0.58
43:BI:86:HIS:HB3	43:BI:139:ARG:CG	2.34	0.58
49:BO:10[A]:ASP:OD2	49:BO:37[A]:ARG:NH2	2.31	0.58
49:BO:15[A]:LEU:HD21	49:BO:125[A]:ARG:HG3	1.86	0.58
52:BR:175:GLN:CA	80:B2:852:C:H4'	2.29	0.58
56:BV:48:ARG:HG3	81:B5:2339:C:OP2	2.04	0.58
70:Bj:55:ARG:HD3	81:B5:353:G:C8	2.38	0.58
79:By:50:ASP:OD2	79:CL:50:ASP:CG	2.46	0.58
79:By:80:GLY:C	79:CL:83:ILE:CG1	2.77	0.58
79:By:100:ILE:CB	79:CL:101:GLN:NE2	2.61	0.58
79:By:103:ILE:HG13	79:CL:100:ILE:C	2.18	0.58
79:By:119:VAL:CG1	79:CL:97:GLU:N	2.63	0.58
79:By:133:PRO:CG	86:CW:56:C:H5'	2.34	0.58
79:By:155:GLU:HA	79:CL:158:ALA:N	1.83	0.58
80:B2:190:C:N4	80:B2:196:G:O6	2.37	0.58
80:B2:1715:G:H2'	80:B2:1716:C:H5'	1.85	0.58
81:B5:2946:A:H5"	81:B5:2947:G:H5'	1.86	0.58
1:A0:87:ARG:NH1	80:B2:1797:A:N7	2.52	0.57
10:AB:62:LYS:C	10:AB:64:ARG:H	2.12	0.57
14:AF:72:HIS:O	25:AQ:47:LYS:HE2	2.04	0.57
14:AF:145:ASP:OD1	14:AF:146:THR:N	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AG:15:THR:HG21	80:B2:153:G:P	2.40	0.57
17:AI:25:ARG:NH2	80:B2:386:G:OP2	2.38	0.57
17:AI:31:ARG:HB2	80:B2:332:U:OP1	2.04	0.57
20:AL:130:PRO:CG	80:B2:115:G:C6	2.87	0.57
23:AO:107:ARG:HG3	23:AO:107:ARG:NH1	2.15	0.57
33:AY:104:SER:HB3	33:AY:107:GLN:HB2	1.85	0.57
38:BD:258:LYS:O	38:BD:258:LYS:HG2	2.02	0.57
41:BG:129:PRO:HB3	81:B5:121:A:H2	1.68	0.57
48:BN:168:GLY:O	48:BN:172:ARG:HB2	2.04	0.57
53:BS:50:LYS:CE	82:B7:76:A:C2	2.87	0.57
71:Bk:32:ASN:HD21	71:Bk:34:ALA:HB3	1.67	0.57
79:By:42:GLU:HG3	84:CN:2145:G:H1’	1.79	0.57
79:By:45:ALA:HB2	79:CL:212:VAL:HA	1.85	0.57
79:By:155:GLU:CG	79:CL:160:ARG:H	2.16	0.57
80:B2:1483:A:H2’	80:B2:1484:G:C8	2.39	0.57
81:B5:1581:C:OP2	81:B5:1581:C:H4’	2.03	0.57
84:CN:2157:C:C2	84:CN:2158:C:C5	2.91	0.57
2:A1:51:GLN:OE1	80:B2:870:C:O2’	2.21	0.57
3:A2:32:PHE:CE1	3:A2:38:ARG:HB3	2.38	0.57
8:A7:79:SER:O	8:A7:82:THR:OG1	2.21	0.57
14:AF:109:LYS:HD3	80:B2:1473:U:H1’	1.84	0.57
17:AI:75:LYS:CB	80:B2:258:C:H5”	2.34	0.57
18:AJ:176:ASN:HD22	80:B2:511:A:P	2.26	0.57
23:AO:20:TYR:HD2	80:B2:917:U:C5’	2.13	0.57
24:AP:70:ASN:ND2	44:BJ:172:LEU:CD2	2.67	0.57
24:AP:99:GLY:O	80:B2:1211:A:H1’	2.04	0.57
35:BA:85:GLY:HA2	81:B5:2554:A:C4	2.39	0.57
39:BE:78:ARG:HG3	39:BE:78:ARG:NH1	2.19	0.57
42:BH:91:ARG:NH2	42:BH:141:LYS:O	2.36	0.57
53:BS:155:ARG:HD3	53:BS:172:TYR:CG	2.39	0.57
54:BT:56:PHE:CZ	54:BT:78:LYS:HD3	2.39	0.57
62:Bb:14:ARG:NH2	62:Bb:18:ARG:HH11	2.02	0.57
64:Bd:44:MET:O	64:Bd:46:THR:N	2.37	0.57
67:Bg:8:ARG:NH2	81:B5:1597:C:OP2	2.35	0.57
79:By:42:GLU:HG3	84:CN:2145:G:C1’	2.33	0.57
79:By:122:ALA:O	79:CL:126:LYS:CA	2.51	0.57
79:By:185:LEU:C	79:CL:185:LEU:HB2	2.15	0.57
79:By:206:GLY:O	79:CL:200:LYS:HE3	2.04	0.57
80:B2:625:C:H2’	80:B2:626:U:C6	2.39	0.57
80:B2:1015:U:OP1	89:B2:1923:OHX:N6	2.38	0.57
81:B5:547:G:H2’	81:B5:548:G:O4’	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2264:U:P	89:B5:3402:OHX:N3	2.77	0.57
1:A0:95:ARG:NH1	80:B2:934:C:C6	2.73	0.57
2:A1:28:PRO:HB3	80:B2:959:U:O5'	2.03	0.57
15:AG:62:PRO:CB	80:B2:162:A:C4'	2.82	0.57
22:AN:123:HIS:NE2	81:B5:847:A:H4'	2.19	0.57
23:AO:52:ARG:CB	80:B2:906:A:OP2	2.51	0.57
32:AX:144:ARG:NE	85:CP:268:ASN:OD1	2.37	0.57
37:BC:59:GLN:OE1	70:Bj:55:ARG:NH2	2.37	0.57
37:BC:170:LYS:HG3	37:BC:175:HIS:HB2	1.86	0.57
39:BE:176:PHE:H	47:BM:117:ARG:HH22	1.51	0.57
42:BH:120:ASP:OD2	42:BH:124:ARG:NH2	2.37	0.57
44:BJ:103:GLY:O	81:B5:2673:A:H4'	2.03	0.57
52:BR:93:VAL:HG21	81:B5:1779:C:H1'	1.85	0.57
60:BZ:54:THR:H	60:BZ:57:HIS:CD2	2.20	0.57
64:Bd:74:ARG:HB3	64:Bd:94:GLU:HG2	1.86	0.57
71:Bk:58:ASP:HB3	71:Bk:61:LYS:HG3	1.86	0.57
79:By:136:LEU:HA	79:CL:136:LEU:HB2	1.85	0.57
79:By:156:ILE:HB	79:CL:72:VAL:CB	2.34	0.57
79:By:171:ILE:HG21	79:CL:47:LEU:CD2	2.34	0.57
79:By:202:GLU:HG2	79:CL:57:ASN:HB2	1.86	0.57
80:B2:104:A:OP2	80:B2:308:C:N4	2.37	0.57
80:B2:414:C:O3'	85:CP:286:GLU:C	2.46	0.57
80:B2:990:C:H2'	80:B2:991:G:O4'	2.04	0.57
81:B5:252:U:H4'	81:B5:253:A:H5"	1.86	0.57
81:B5:2546:C:H2'	81:B5:2547:A:H8	1.68	0.57
1:A0:86:VAL:HA	80:B2:1795:U:H5'	1.86	0.57
5:A4:4:VAL:HG22	32:AX:59:ILE:HD12	1.85	0.57
20:AL:130:PRO:CD	80:B2:115:G:C6	2.87	0.57
28:AT:93:HIS:CE1	80:B2:1525:A:OP1	2.57	0.57
32:AX:24:TRP:CE3	32:AX:30:LYS:HD3	2.39	0.57
33:AY:11:LYS:NZ	80:B2:775:G:O6	2.37	0.57
46:BL:3:ILE:HG12	61:Ba:34:MET:HE2	1.86	0.57
48:BN:138:GLN:CD	81:B5:19:U:H4'	2.29	0.57
62:Bb:46:ALA:O	62:Bb:50:THR:HG23	2.03	0.57
67:Bg:56:THR:HG1	81:B5:1740:U:H5"	1.69	0.57
69:Bi:25:LYS:HD3	81:B5:156:G:H5'	1.85	0.57
75:Bo:67:LYS:HB2	81:B5:2792:A:O3'	2.05	0.57
79:By:49:ILE:HG21	79:CL:49:ILE:HG22	1.84	0.57
79:By:175:VAL:HG12	79:CL:175:VAL:HG13	0.61	0.57
80:B2:45:U:O2'	80:B2:46:A:H2'	2.02	0.57
80:B2:415:C:N4	85:CP:288:ARG:CD	2.65	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:1711:C:O2'	80:B2:1712:A:OP1	2.14	0.57
80:B2:1746:A:C2	81:B5:2302:G:N3	2.71	0.57
89:B2:1922:OHX:N4	89:B2:1977:OHX:N6	2.52	0.57
81:B5:1574:C:O2'	81:B5:1575:A:OP1	2.22	0.57
81:B5:3078:U:H4'	81:B5:3079:U:O5'	2.02	0.57
81:B5:3358:U:H2'	81:B5:3359:A:C8	2.39	0.57
83:B8:126:A:O2'	83:B8:128:U:OP2	2.16	0.57
7:A6:17:ASN:HD21	80:B2:1408:G:H4'	1.68	0.57
10:AB:117:TRP:HA	80:B2:932:U:OP2	2.04	0.57
14:AF:185:ARG:CZ	80:B2:1572:G:H1'	2.35	0.57
17:AI:48:THR:HG21	17:AI:54:LYS:HB2	1.87	0.57
31:AW:103:ILE:HD11	31:AW:126:LEU:HD12	1.86	0.57
34:AZ:43:ASP:O	34:AZ:46:LYS:N	2.27	0.57
36:BB:2:SER:HA	81:B5:2940:A:N7	2.19	0.57
38:BD:146:LEU:CB	81:B5:2746:A:C2	2.73	0.57
41:BG:157:VAL:CG1	81:B5:147:U:C4	2.85	0.57
42:BH:86:TYR:CD1	42:BH:151:VAL:HG13	2.40	0.57
49:BO:36[B]:VAL:HB	49:BO:108[B]:ILE:HB	1.85	0.57
64:Bd:46:THR:HG23	64:Bd:47:ASP:N	2.19	0.57
75:Bo:67:LYS:HB2	81:B5:2793:G:P	2.44	0.57
79:By:26:ALA:CB	79:CL:29:VAL:CG1	2.75	0.57
79:By:77:ILE:HD13	79:CL:100:ILE:HG13	1.84	0.57
79:By:86:ALA:C	79:CL:91:ALA:HB3	2.21	0.57
79:By:133:PRO:CB	86:CW:56:C:P	2.92	0.57
79:By:145:VAL:HG22	79:CL:139:ASN:H	1.68	0.57
79:By:199:HIS:HB3	79:CL:58:VAL:CG1	2.34	0.57
79:By:212:VAL:CG2	79:CL:212:VAL:HG12	2.27	0.57
80:B2:67:A:O3'	80:B2:68:A:H3'	2.03	0.57
80:B2:429:G:O2'	85:CP:243:PHE:HD1	1.88	0.57
80:B2:704:C:H3'	80:B2:704:C:OP2	2.04	0.57
80:B2:1595:U:N3	80:B2:1600:A:H2	2.02	0.57
81:B5:2440:G:O2'	81:B5:2441:A:OP1	2.18	0.57
81:B5:2897:A:H2'	81:B5:2899:C:H5"	1.86	0.57
81:B5:3280:U:O2'	81:B5:3281:U:H5"	2.03	0.57
84:CN:2172:G:H5"	84:CN:2172:G:H8	1.69	0.57
7:A6:160:GLU:O	7:A6:162:ALA:N	2.35	0.57
16:AH:35:LYS:HZ2	16:AH:39:ARG:HD2	1.68	0.57
19:AK:15:LEU:HD13	19:AK:21:VAL:HG23	1.87	0.57
20:AL:80:MET:HB2	20:AL:83:THR:HG23	1.86	0.57
22:AN:67:THR:O	22:AN:69:ASN:N	2.36	0.57
23:AO:32:ASP:O	23:AO:35:GLY:N	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AS:91:ASP:O	27:AS:92:ILE:HB	2.03	0.57
36:BB:166:ILE:O	36:BB:169:THR:HB	2.05	0.57
37:BC:162:THR:HG21	81:B5:209:A:C4	2.40	0.57
37:BC:283:THR:HG21	37:BC:288:ARG:HH22	1.69	0.57
41:BG:137:ASN:HB2	81:B5:148:G:C5	2.40	0.57
42:BH:20:ILE:HG23	42:BH:25:VAL:HG22	1.87	0.57
42:BH:22:SER:HB2	42:BH:39:LYS:NZ	2.19	0.57
53:BS:115:ARG:NH1	81:B5:1296:C:H5'	2.20	0.57
53:BS:137:ARG:NH1	81:B5:1213:G:H5"	2.19	0.57
59:BY:51:ARG:HG2	59:BY:115:ARG:NH2	2.20	0.57
79:By:5:LYS:O	84:CN:2151:U:C6	2.29	0.57
79:By:25:ALA:C	79:CL:28:LEU:O	2.44	0.57
79:By:28:LEU:O	79:CL:13:LYS:NZ	2.38	0.57
79:By:75:LEU:HG	79:CL:107:TRP:HZ3	1.58	0.57
79:By:144:THR:CB	79:CL:138:PRO:HA	2.34	0.57
79:By:187:ASP:C	79:CL:189:ILE:CG1	2.77	0.57
79:By:205:LYS:C	79:CL:200:LYS:CE	2.77	0.57
80:B2:143:G:H2'	80:B2:144:U:H5"	1.85	0.57
80:B2:1207:C:H42	80:B2:1456:C:H5	1.53	0.57
81:B5:892:U:O2'	81:B5:893:C:H5'	2.04	0.57
81:B5:2112:U:H4'	81:B5:2113:A:H5'	1.86	0.57
7:A6:214:ALA:HB2	7:A6:220:ILE:HA	1.85	0.57
16:AH:63:PRO:C	16:AH:65:PRO:HD2	2.29	0.57
20:AL:34:TRP:NE1	80:B2:249:U:OP1	2.32	0.57
20:AL:136:ARG:HD3	80:B2:304:U:OP1	2.04	0.57
22:AN:72:MET:HE1	22:AN:82:PRO:HD2	1.87	0.57
23:AO:81:VAL:HG13	23:AO:115:ILE:HG21	1.86	0.57
23:AO:120:PRO:CB	80:B2:887:A:C5'	2.75	0.57
23:AO:129:LYS:HA	80:B2:990:C:C3'	2.34	0.57
26:AR:48:ASN:CB	80:B2:1389:C:H4'	2.34	0.57
29:AU:28:SER:OG	29:AU:29:THR:N	2.38	0.57
33:AY:64:PHE:CE2	80:B2:767:U:C6	2.93	0.57
35:BA:52:SER:HB3	35:BA:191:LEU:HD12	1.85	0.57
35:BA:183:GLY:HA3	81:B5:896:A:OP1	2.04	0.57
36:BB:187:SER:HB3	36:BB:190:GLU:OE1	2.04	0.57
43:BI:7:ARG:HH11	81:B5:2828:G:P	2.27	0.57
45:BK:119:UNK:HA	76:Bq:39:HIS:CE1	2.40	0.57
67:Bg:8:ARG:HH21	67:Bg:31:ARG:HD2	1.70	0.57
68:Bh:67:ARG:HG3	68:Bh:80:LEU:HD22	1.87	0.57
79:By:53:ARG:HH21	79:CL:49:ILE:CA	2.18	0.57
79:By:74:VAL:HG22	79:CL:111:ASP:C	2.30	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:103:ILE:HD12	79:CL:100:ILE:HG23	1.87	0.57
79:By:133:PRO:HG2	86:CW:56:C:C5'	2.34	0.57
79:By:157:LYS:CE	79:CL:71:GLN:HB2	2.30	0.57
79:By:178:ALA:C	79:CL:39:GLU:H	2.12	0.57
79:By:185:LEU:CD1	79:CL:29:VAL:CG2	2.82	0.57
79:By:187:ASP:O	79:CL:189:ILE:CB	2.53	0.57
80:B2:414:C:N3	85:CP:289:LEU:HD21	2.17	0.57
80:B2:1759:C:O2	81:B5:2262:A:H2	1.88	0.57
81:B5:2530:G:H2'	81:B5:2531:C:H5'	1.87	0.57
81:B5:2726:C:O2'	81:B5:2727:A:H2'	2.04	0.57
1:A0:24:VAL:HG11	1:A0:71:LEU:HD12	1.85	0.57
4:A3:44:ARG:NH2	80:B2:1280:C:H5'	2.19	0.57
7:A6:64:HIS:ND1	7:A6:86:ASP:OD2	2.35	0.57
7:A6:74:THR:HG23	7:A6:79:TYR:HB2	1.85	0.57
12:AD:115:ILE:HG23	12:AD:116:ARG:HG3	1.87	0.57
13:AE:151:ASP:HB3	13:AE:154:ILE:HG13	1.87	0.57
15:AG:3:LEU:HD13	15:AG:111:LEU:HD11	1.85	0.57
15:AG:189:HIS:CD2	80:B2:285:G:OP2	2.58	0.57
19:AK:1:MET:HG3	80:B2:1217:A:C5'	2.34	0.57
21:AM:30:VAL:HB	21:AM:132:GLU:HG3	1.86	0.57
24:AP:47:ARG:NH1	80:B2:1555:A:P	2.73	0.57
26:AR:5:ARG:NH2	80:B2:1402:G:OP2	2.38	0.57
26:AR:5:ARG:O	26:AR:10:LYS:HE2	2.05	0.57
27:AS:70:VAL:HG12	27:AS:74:GLN:OE1	2.05	0.57
36:BB:367:LYS:HZ1	57:BW:34:SER:H	1.52	0.57
38:BD:31:TYR:HE2	81:B5:2705:A:OP1	1.88	0.57
38:BD:152:ARG:HG3	38:BD:152:ARG:NH1	2.19	0.57
41:BG:90:THR:HG22	41:BG:214:LEU:HG	1.87	0.57
52:BR:171:ASP:OD1	80:B2:852:C:P	2.56	0.57
79:By:28:LEU:HD12	79:CL:28:LEU:HD11	1.86	0.57
79:By:39:GLU:CA	79:CL:39:GLU:HG2	2.27	0.57
79:By:75:LEU:HD12	79:CL:108:MET:C	2.30	0.57
79:By:110:PHE:CB	79:CL:108:MET:O	2.52	0.57
79:By:140:PRO:CB	79:CL:140:PRO:CD	2.77	0.57
79:By:148:ASN:HB3	79:CL:150:GLY:C	2.13	0.57
79:By:148:ASN:HB3	79:CL:151:GLU:N	2.20	0.57
80:B2:542:A:H2'	80:B2:543:C:H3'	1.86	0.57
80:B2:735:C:OP2	80:B2:735:C:H2'	2.05	0.57
80:B2:1130:G:OP2	89:B2:1953:OHX:N2	2.38	0.57
81:B5:1573:G:C6	81:B5:1574:C:H1'	2.40	0.57
81:B5:2659:G:H4'	81:B5:2751:G:O2'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2971:A:OP2	81:B5:2971:A:H3'	2.04	0.57
15:AG:88:ARG:CZ	80:B2:92:A:C2	2.88	0.57
26:AR:49:LYS:CG	80:B2:1390:U:OP2	2.52	0.57
28:AT:90:PRO:HD3	80:B2:1467:C:HO2'	1.69	0.57
35:BA:4:VAL:HB	81:B5:910:G:OP2	2.03	0.57
35:BA:21:ARG:HD2	81:B5:1797:A:H1'	1.85	0.57
41:BG:133:LYS:HB2	41:BG:199:ALA:O	2.04	0.57
41:BG:151:VAL:HG13	41:BG:199:ALA:HB2	1.87	0.57
49:BO:65[A]:ASN:OD1	49:BO:67[A]:THR:HB	2.04	0.57
57:BW:25:ASP:N	57:BW:25:ASP:OD1	2.36	0.57
60:BZ:15:ARG:HB3	81:B5:1637:A:C4'	2.35	0.57
72:Bl:3:ALA:O	81:B5:1834:U:C5'	2.44	0.57
72:Bl:5:LYS:HG2	81:B5:1833:G:O3'	2.04	0.57
72:Bl:30:ARG:HG2	83:B8:75:G:C8	2.39	0.57
79:By:10:LEU:N	79:CL:6:ARG:N	2.33	0.57
79:By:82:LYS:HB2	79:CL:86:ALA:CB	2.26	0.57
79:By:93:TYR:C	79:CL:107:TRP:CH2	2.77	0.57
79:By:103:ILE:HG23	79:CL:103:ILE:HG22	1.85	0.57
79:By:193:ILE:CD1	79:CL:224:ILE:HD12	2.30	0.57
79:By:205:LYS:HG2	79:CL:200:LYS:HZ1	1.69	0.57
80:B2:238:U:O2'	80:B2:239:C:H5'	2.05	0.57
80:B2:639:U:H4'	80:B2:639:U:OP2	2.04	0.57
80:B2:1226:A:O2'	80:B2:1227:A:OP1	2.23	0.57
81:B5:708:G:H5"	81:B5:708:G:H8	1.70	0.57
79:CL:39:GLU:OE1	79:CL:216:THR:HB	2.04	0.57
12:AD:159:HIS:CB	80:B2:1422:A:H5'	2.35	0.57
12:AD:162:GLN:HB3	80:B2:1332:C:C2'	2.35	0.57
15:AG:78:THR:HG23	15:AG:92:ARG:HG2	1.86	0.57
15:AG:109:LEU:HD13	15:AG:111:LEU:HD21	1.87	0.57
27:AS:85:PHE:O	80:B2:1565:C:O2'	2.23	0.57
40:BF:206:LYS:HB3	81:B5:1334:U:OP1	2.05	0.57
48:BN:60:VAL:HG21	83:B8:142:C:C5'	2.35	0.57
51:BQ:56:LYS:NZ	81:B5:674:G:O6	2.38	0.57
67:Bg:7:PHE:HD1	67:Bg:20:ILE:HD12	1.70	0.57
70:Bj:59:THR:HB	83:B8:41:A:O3'	2.05	0.57
79:By:5:LYS:CD	84:CN:2151:U:H2'	2.31	0.57
79:By:41:VAL:HG13	79:CL:216:THR:CA	2.33	0.57
79:By:74:VAL:HG21	79:CL:73:ARG:N	2.14	0.57
79:By:81:GLU:CD	79:CL:82:LYS:N	2.47	0.57
79:By:139:ASN:N	79:CL:138:PRO:C	2.63	0.57
80:B2:312:A:C2	80:B2:314:C:H2'	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:885:G:H2'	80:B2:886:U:C6	2.40	0.57
9:AA:27:ARG:HG3	9:AA:44:GLY:O	2.04	0.56
10:AB:117:TRP:HE1	10:AB:152:ARG:CZ	2.18	0.56
14:AF:42:LEU:HB2	14:AF:46:TRP:O	2.04	0.56
17:AI:33:PRO:HA	80:B2:331:A:C5'	2.35	0.56
26:AR:48:ASN:HB2	80:B2:1389:C:C5'	2.35	0.56
28:AT:14:PHE:HZ	28:AT:132:LEU:HD23	1.69	0.56
31:AW:57:ARG:HG2	80:B2:863:A:O5'	2.05	0.56
34:AZ:94:LYS:HE2	80:B2:1530:C:OP1	2.05	0.56
40:BF:151:ARG:HD2	40:BF:244:ASN:OD1	2.04	0.56
44:BJ:166:LYS:C	44:BJ:168:ASP:H	2.13	0.56
53:BS:53:LYS:HD3	82:B7:99:G:OP1	2.05	0.56
54:BT:7:TYR:OH	54:BT:54:HIS:HB2	2.04	0.56
59:BY:55:GLU:HB2	59:BY:108:LYS:HB2	1.87	0.56
79:By:65:PRO:CA	79:CL:67:GLY:N	2.15	0.56
79:By:123:VAL:CG2	79:CL:123:VAL:HG22	2.35	0.56
79:By:131:LEU:HD13	79:CL:131:LEU:CD2	2.34	0.56
79:By:178:ALA:HB1	79:CL:33:ALA:HA	1.87	0.56
80:B2:495:C:H3'	80:B2:496:G:O4'	2.04	0.56
80:B2:717:C:N3	80:B2:720:G:N1	2.48	0.56
80:B2:1780:G:C1'	81:B5:2262:A:H4'	2.31	0.56
81:B5:550:A:H2'	81:B5:551:A:C8	2.40	0.56
81:B5:1081:U:HO2'	81:B5:1082:U:C5'	2.18	0.56
81:B5:1085:A:C5'	81:B5:1085:A:C8	2.88	0.56
81:B5:2440:G:H5'	81:B5:2440:G:C8	2.35	0.56
7:A6:16:HIS:CE1	7:A6:43:ILE:HG12	2.40	0.56
7:A6:255:ALA:HB2	7:A6:292:LEU:HD22	1.86	0.56
8:A7:30:THR:HA	81:B5:2707:C:H1'	1.87	0.56
10:AB:34:ALA:N	10:AB:41:ARG:O	2.29	0.56
15:AG:132:ARG:CA	80:B2:68:A:H61	2.17	0.56
16:AH:74:GLN:NE2	16:AH:92:PHE:HB2	2.19	0.56
17:AI:8:ARG:HG3	17:AI:8:ARG:O	2.04	0.56
17:AI:43:ILE:N	80:B2:260:U:O4	2.38	0.56
17:AI:192:TYR:O	17:AI:196:LEU:HB2	2.05	0.56
26:AR:26:LEU:HD23	26:AR:26:LEU:H	1.70	0.56
35:BA:15:ILE:HG12	81:B5:821:U:O2	2.05	0.56
38:BD:145:PHE:CG	81:B5:2748:A:C4'	2.86	0.56
46:BL:60:ALA:H	81:B5:75:G:H5'	1.71	0.56
49:BO:72[B]:HIS:N	81:B5:3008:A:OP1	2.36	0.56
63:Bc:85:PHE:CB	81:B5:1728:G:N2	2.68	0.56
64:Bd:13:THR:CG2	64:Bd:72:ARG:HH11	2.16	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:Bk:26:LYS:HE2	81:B5:1751:G:H5"	1.86	0.56
79:By:63:SER:CB	79:CL:64:LEU:N	2.63	0.56
79:By:99:ILE:O	79:CL:100:ILE:C	2.43	0.56
79:By:116:THR:CB	79:CL:115:ALA:CA	2.83	0.56
79:By:123:VAL:HG22	79:CL:123:VAL:CA	2.28	0.56
79:By:131:LEU:CB	79:CL:128:GLY:N	2.68	0.56
79:By:204:ALA:CB	79:CL:49:ILE:HG21	2.02	0.56
79:By:212:VAL:N	79:CL:213:TYR:CE1	2.73	0.56
80:B2:180:A:H2'	80:B2:181:A:O4'	2.05	0.56
80:B2:1160:A:H2'	80:B2:1161:C:H6	1.69	0.56
81:B5:1032:C:H5'	81:B5:1033:U:OP2	2.06	0.56
1:A0:24:VAL:HG12	1:A0:72:HIS:O	2.05	0.56
2:A1:37:CYS:O	2:A1:39:GLY:N	2.38	0.56
8:A7:116:GLU:HG3	11:AC:98:PHE:CE2	2.40	0.56
12:AD:141:LYS:HD2	12:AD:179:GLN:CG	2.36	0.56
18:AJ:17:ARG:O	18:AJ:23:ARG:NH2	2.38	0.56
23:AO:27:PHE:CE2	80:B2:916:U:H2'	2.40	0.56
23:AO:38:THR:OG1	23:AO:39:ILE:N	2.36	0.56
30:AV:74:GLN:HB2	30:AV:79:LEU:HB2	1.86	0.56
33:AY:77:ASN:O	33:AY:78:SER:HB3	2.05	0.56
35:BA:69:TYR:CE2	81:B5:2558:U:N3	2.73	0.56
35:BA:200:ARG:CD	81:B5:2187:G:O6	2.52	0.56
38:BD:158:ARG:HD2	82:B7:46:A:P	2.43	0.56
38:BD:276:LYS:HD2	82:B7:61:G:OP1	2.05	0.56
44:BJ:95:ASN:HA	81:B5:2673:A:P	2.46	0.56
48:BN:109:ARG:HD3	83:B8:140:G:O2'	2.05	0.56
53:BS:12:ARG:HB3	53:BS:24:LEU:HD23	1.87	0.56
56:BV:3:GLY:HA2	56:BV:40:LYS:HB3	1.87	0.56
65:Be:19:ARG:HD2	65:Be:28:VAL:HG13	1.87	0.56
65:Be:123:LYS:HA	65:Be:126:LEU:HG	1.87	0.56
70:Bj:42:ALA:HB2	83:B8:105:A:OP2	2.05	0.56
79:By:14:VAL:HG11	79:CL:32:LEU:HD22	1.87	0.56
79:By:23:ASP:HA	79:CL:27:HIS:N	2.20	0.56
79:By:40:THR:CB	84:CN:2145:G:O2'	2.53	0.56
79:By:89:ALA:N	79:CL:92:ASP:CA	2.42	0.56
79:By:99:ILE:CG1	79:CL:99:ILE:HA	2.22	0.56
79:By:107:TRP:CZ2	79:CL:103:ILE:HA	2.40	0.56
79:By:108:MET:N	79:CL:106:GLY:CA	2.60	0.56
79:By:125:SER:CA	79:CL:128:GLY:HA3	2.29	0.56
79:By:132:GLY:HA2	79:CL:132:GLY:HA3	1.87	0.56
79:By:134:ARG:NE	84:CN:2190:A:C3'	2.13	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:199:HIS:CB	79:CL:199:HIS:CA	2.83	0.56
79:By:207:THR:CG2	79:CL:207:THR:O	2.48	0.56
79:By:212:VAL:CG1	79:CL:213:TYR:C	2.65	0.56
80:B2:229:U:H3	80:B2:236:A:H61	1.51	0.56
80:B2:855:A:C2	80:B2:857:U:H1'	2.40	0.56
81:B5:1157:G:H2'	81:B5:1158:A:O4'	2.06	0.56
81:B5:2211:U:H5	81:B5:2234:G:C6	2.22	0.56
11:AC:89:GLN:N	80:B2:1145:U:O2'	2.36	0.56
13:AE:21:ASP:CB	80:B2:773:C:H5"	2.31	0.56
28:AT:6:VAL:HG13	28:AT:66:TYR:CE2	2.41	0.56
35:BA:240:ALA:CA	81:B5:2154:U:O3'	2.37	0.56
36:BB:46:PHE:CE2	36:BB:205:VAL:HG13	2.39	0.56
51:BQ:182:LYS:HE2	81:B5:2764:C:OP1	2.06	0.56
62:Bb:15:LYS:HD2	81:B5:952:A:H5"	1.86	0.56
67:Bg:99:LYS:O	67:Bg:103:LYS:HG2	2.06	0.56
72:Bl:9:ILE:HG22	72:Bl:13:MET:CE	2.36	0.56
79:By:14:VAL:CG1	79:CL:10:LEU:CD1	2.64	0.56
79:By:28:LEU:HA	79:CL:13:LYS:HZ3	1.71	0.56
79:By:39:GLU:HG2	79:CL:218:MET:CG	2.34	0.56
79:By:88:GLU:CA	79:CL:92:ASP:N	2.60	0.56
79:By:213:TYR:CA	79:CL:221:SER:HB2	2.34	0.56
80:B2:83:G:OP2	89:B2:1945:OHX:N5	2.38	0.56
80:B2:415:C:C6	85:CP:288:ARG:HD3	2.38	0.56
80:B2:827:C:H2'	80:B2:828:U:C6	2.40	0.56
80:B2:918:U:H2'	80:B2:919:A:C8	2.39	0.56
80:B2:1029:U:O4	89:B2:2034:OHX:N3	2.38	0.56
80:B2:1158:C:OP2	89:B2:2014:OHX:N5	2.38	0.56
80:B2:1511:U:H2'	80:B2:1512:G:C8	2.41	0.56
80:B2:1535:U:O2'	80:B2:1536:G:N3	2.35	0.56
81:B5:701:G:H2'	81:B5:702:C:C6	2.40	0.56
81:B5:725:G:C3'	81:B5:726:G:H5"	2.36	0.56
81:B5:1688:U:H2'	81:B5:1689:U:C6	2.41	0.56
81:B5:1835:A:H5"	81:B5:1836:C:OP2	2.05	0.56
81:B5:2436:U:H2'	81:B5:2437:G:H5"	1.88	0.56
81:B5:3279:A:C2'	81:B5:3280:U:H5'	2.36	0.56
4:A3:33:LYS:CE	80:B2:1593:A:O2'	2.52	0.56
5:A4:28:LYS:NZ	80:B2:477:A:P	2.79	0.56
24:AP:40:ARG:HD3	80:B2:1557:U:OP1	2.06	0.56
26:AR:5:ARG:N	80:B2:1402:G:OP1	2.33	0.56
35:BA:45:VAL:HG22	35:BA:84:THR:HA	1.88	0.56
37:BC:144:LYS:CG	37:BC:145:ILE:H	2.17	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:144:LYS:NZ	37:BC:144:LYS:H	2.03	0.56
39:BE:18:LEU:H	39:BE:18:LEU:HD12	1.71	0.56
41:BG:32:LYS:HB2	81:B5:2561:A:C2	2.40	0.56
47:BM:113:THR:HG22	47:BM:115:PHE:N	2.20	0.56
51:BQ:153:PHE:O	51:BQ:161:LYS:HG2	2.06	0.56
52:BR:90:PRO:HD2	81:B5:1779:C:N3	2.19	0.56
56:BV:47:ASN:O	81:B5:2338:C:C4'	2.51	0.56
61:Ba:61:PHE:CE1	81:B5:283:G:N9	2.74	0.56
74:Bn:17:ARG:NH2	80:B2:1116:A:H5'	2.21	0.56
79:By:66:HIS:ND1	79:CL:180:PHE:HD2	2.02	0.56
79:By:75:LEU:CD1	79:CL:108:MET:C	2.78	0.56
79:By:126:LYS:CE	79:CL:126:LYS:CD	2.70	0.56
79:By:161:ILE:HG22	79:CL:174:PRO:CD	2.36	0.56
80:B2:647:G:N2	80:B2:687:G:N2	2.54	0.56
81:B5:913:A:H2	81:B5:2134:G:N3	2.04	0.56
84:CN:2172:G:H5"	84:CN:2172:G:C8	2.40	0.56
11:AC:86:VAL:HG11	80:B2:1300:A:C5'	2.36	0.56
24:AP:96:ILE:HD11	24:AP:116:LEU:HD22	1.88	0.56
29:AU:54:GLY:CA	80:B2:1344:A:O2'	2.54	0.56
35:BA:236:GLY:HA2	81:B5:2184:U:C1'	2.36	0.56
38:BD:218:ARG:HH11	82:B7:31:U:H4'	1.63	0.56
48:BN:16:SER:O	48:BN:20:ARG:HG2	2.05	0.56
48:BN:179:LYS:HE2	81:B5:287:G:OP1	2.06	0.56
49:BO:64[A]:PHE:HE2	49:BO:68[A]:ARG:HH11	1.54	0.56
54:BT:14:MET:HE3	54:BT:58:GLN:CB	2.35	0.56
54:BT:49:GLN:CB	81:B5:2756:C:C4'	2.80	0.56
55:BU:42:LYS:HG2	55:BU:46:ALA:HA	1.88	0.56
79:By:25:ALA:HB1	79:CL:222:VAL:HG22	1.58	0.56
79:By:66:HIS:CG	79:CL:180:PHE:CD2	2.93	0.56
79:By:69:GLY:HA3	79:CL:174:PRO:HB3	1.87	0.56
79:By:162:GLU:HG3	79:CL:163:PHE:O	2.05	0.56
79:By:178:ALA:CA	79:CL:178:ALA:HB3	2.36	0.56
80:B2:25:C:O2	89:B2:1962:OHX:N1	2.39	0.56
80:B2:717:C:N4	80:B2:720:G:H22	2.03	0.56
89:B2:1969:OHX:N3	89:B2:2013:OHX:N6	2.54	0.56
81:B5:2537:U:O2'	81:B5:2538:U:O5'	2.22	0.56
11:AC:212:LYS:NZ	80:B2:1298:U:O3'	2.38	0.56
14:AF:98:MET:HE3	80:B2:1611:A:H1'	1.87	0.56
18:AJ:38:ASN:HB2	18:AJ:41:GLU:HG3	1.87	0.56
25:AQ:116:LEU:H	25:AQ:116:LEU:HD22	1.70	0.56
36:BB:218:ILE:HG13	36:BB:276:THR:HG23	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:191:ASP:OD1	38:BD:193:GLU:HB2	2.04	0.56
38:BD:270:LYS:HG3	38:BD:273:ARG:CB	2.36	0.56
52:BR:165:LYS:HB3	80:B2:849:C:O2	2.06	0.56
52:BR:169:ALA:C	80:B2:852:C:C6	2.64	0.56
63:Bc:85:PHE:CZ	81:B5:1728:G:O6	2.51	0.56
71:Bk:16:ARG:O	71:Bk:18:ALA:N	2.39	0.56
79:By:91:ALA:CB	79:CL:93:TYR:CE2	2.88	0.56
79:By:113:VAL:CG1	79:CL:113:VAL:HG21	2.33	0.56
79:By:142:ALA:O	79:CL:162:GLU:OE1	2.23	0.56
79:By:144:THR:O	79:CL:114:VAL:HA	2.05	0.56
80:B2:1446:A:O5'	89:B2:2083:OHX:N2	2.39	0.56
81:B5:420:G:OP2	81:B5:420:G:OP1	2.24	0.56
81:B5:541:U:H2'	81:B5:542:G:H8	1.70	0.56
84:CN:2185:C:O2	84:CN:2185:C:O4'	2.23	0.56
5:A4:55:ARG:HB3	5:A4:58:PRO:HG3	1.87	0.56
15:AG:175:ILE:CD1	80:B2:78:A:C2'	2.80	0.56
17:AI:2:GLY:N	80:B2:400:A:N6	2.54	0.56
28:AT:57:ARG:HH11	28:AT:57:ARG:CG	2.09	0.56
32:AX:108:GLY:HA2	80:B2:600:U:OP2	2.06	0.56
35:BA:211:HIS:HE1	81:B5:2184:U:O3'	1.88	0.56
36:BB:265:ALA:C	36:BB:266:ARG:HG2	2.30	0.56
43:BI:8:CYS:SG	81:B5:2828:G:C5'	2.93	0.56
48:BN:46:ASP:N	48:BN:46:ASP:OD1	2.38	0.56
48:BN:67:ARG:O	48:BN:68:ARG:HB3	2.04	0.56
49:BO:180[B]:SER:O	49:BO:183[B]:ALA:N	2.39	0.56
61:Ba:61:PHE:CE1	81:B5:283:G:C8	2.93	0.56
62:Bb:24:PRO:HD2	62:Bb:25:LYS:H	1.69	0.56
62:Bb:29:TYR:O	81:B5:748:U:H5'	2.06	0.56
67:Bg:82:ALA:CB	81:B5:1638:A:H5"	2.35	0.56
69:Bi:91:ASN:O	69:Bi:94:ILE:HG22	2.06	0.56
75:Bo:82:GLN:NE2	81:B5:2768:U:O2	2.36	0.56
79:By:26:ALA:HB3	79:CL:25:ALA:O	1.96	0.56
79:By:32:LEU:HD12	79:CL:32:LEU:O	2.05	0.56
79:By:64:LEU:CA	79:CL:65:PRO:HD2	2.19	0.56
79:By:178:ALA:C	79:CL:33:ALA:CB	2.57	0.56
79:By:192:PHE:CG	79:CL:43:VAL:HG11	2.41	0.56
79:By:201:PRO:CB	79:CL:58:VAL:HA	2.36	0.56
81:B5:1093:A:H4'	81:B5:1093:A:OP1	2.05	0.56
79:CL:99:ILE:H	79:CL:99:ILE:HD13	1.70	0.56
1:A0:75:VAL:HG11	80:B2:1793:G:N1	2.21	0.56
7:A6:93:ASP:OD1	7:A6:96:THR:HB	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AD:174:HIS:CE1	80:B2:1277:G:HO2'	2.13	0.56
13:AE:194:THR:O	13:AE:195:ILE:HB	2.05	0.56
14:AF:91:GLU:HA	14:AF:94:THR:HG23	1.87	0.56
17:AI:23:LYS:HE3	80:B2:387:A:OP1	2.05	0.56
18:AJ:163:PRO:C	18:AJ:165:GLY:H	2.14	0.56
26:AR:52:GLY:HA3	80:B2:1389:C:O2'	2.06	0.56
27:AS:40:ARG:CD	80:B2:1539:G:H5"	2.36	0.56
35:BA:191:LEU:CD1	81:B5:1795:U:OP1	2.54	0.56
46:BL:50:PRO:O	46:BL:51:LEU:HB2	2.06	0.56
75:Bo:56:PRO:HA	81:B5:2802:A:C5	2.41	0.56
75:Bo:77:CYS:SG	75:Bo:77:CYS:O	2.64	0.56
79:By:40:THR:HG23	79:CL:40:THR:HG21	1.85	0.56
79:By:82:LYS:HE2	79:CL:149:ILE:CG2	1.84	0.56
79:By:108:MET:H	79:CL:106:GLY:HA2	1.70	0.56
79:By:116:THR:CB	79:CL:77:ILE:C	2.78	0.56
79:By:123:VAL:N	79:CL:123:VAL:O	2.39	0.56
89:B2:1964:OHX:N1	89:B2:2027:OHX:N4	2.54	0.56
81:B5:2442:G:H22	81:B5:2506:U:H3	1.53	0.56
79:CL:84:LYS:HA	79:CL:87:GLU:HG3	1.88	0.56
12:AD:29:LEU:HB2	12:AD:34:TYR:HB2	1.87	0.56
18:AJ:173:ALA:N	80:B2:512:A:OP2	2.32	0.56
18:AJ:175:ARG:HD3	18:AJ:179:ARG:NH1	2.21	0.56
20:AL:83:THR:HG21	80:B2:325:G:H4'	1.88	0.56
52:BR:165:LYS:HZ1	80:B2:824:G:H1'	1.70	0.56
54:BT:4:SER:CB	81:B5:2630:C:C5	2.89	0.56
54:BT:6:GLY:HA2	81:B5:2630:C:H5"	1.87	0.56
54:BT:54:HIS:CE1	54:BT:55:LYS:HD3	2.41	0.56
60:BZ:135:ARG:HB3	60:BZ:135:ARG:HH11	1.71	0.56
76:Bq:5:ARG:HD3	81:B5:1220:U:OP1	2.05	0.56
79:By:10:LEU:HD13	84:CN:2149:C:H5"	1.87	0.56
79:By:64:LEU:HD11	79:CL:192:PHE:N	2.20	0.56
79:By:170:ALA:HB1	79:CL:172:HIS:CE1	2.41	0.56
79:By:208:PHE:CG	79:CL:209:LEU:CD2	2.85	0.56
80:B2:1639:C:OP1	89:B2:2070:OHX:N4	2.39	0.56
81:B5:2207:A:H62	81:B5:2236:G:H1	1.52	0.56
6:A5:135:HIS:HB2	6:A5:138:ARG:CB	2.36	0.55
13:AE:152:PRO:O	13:AE:154:ILE:N	2.39	0.55
15:AG:137:ARG:NH1	80:B2:169:A:P	2.79	0.55
17:AI:138:ASN:O	17:AI:141:ARG:HB2	2.06	0.55
23:AO:52:ARG:HH11	80:B2:905:A:H4'	1.71	0.55
26:AR:71:PHE:HE1	26:AR:73:LEU:HD22	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:94:ALA:HA	81:B5:2551:U:O4	2.06	0.55
35:BA:187:HIS:CG	81:B5:1794:G:C5	2.95	0.55
36:BB:21:ARG:HD3	36:BB:269:GLN:OE1	2.06	0.55
37:BC:48:GLN:HG3	81:B5:337:G:C4'	2.36	0.55
37:BC:361:HIS:CG	37:BC:362:ASP:N	2.74	0.55
48:BN:184:LYS:C	48:BN:186:GLY:H	2.13	0.55
49:BO:160[B]:ARG:NH2	81:B5:3182:G:OP1	2.39	0.55
55:BU:47:VAL:C	55:BU:49:ASN:H	2.13	0.55
63:Bc:9:SER:HG	63:Bc:10:ILE:H	1.52	0.55
66:Bf:13:HIS:HE2	66:Bf:28:SER:HG	1.50	0.55
69:Bi:36:ARG:HD2	81:B5:116:A:OP1	2.06	0.55
75:Bo:41:ARG:NH1	81:B5:284:A:P	2.70	0.55
79:By:18:LYS:O	79:CL:14:VAL:HB	2.06	0.55
79:By:28:LEU:CD1	79:CL:13:LYS:HB3	2.35	0.55
79:By:30:LYS:CE	79:CL:31:GLU:HA	2.36	0.55
79:By:35:ALA:O	84:CN:2148:G:C8	2.54	0.55
79:By:68:LEU:CA	79:CL:174:PRO:C	2.79	0.55
79:By:116:THR:CB	79:CL:77:ILE:CA	2.83	0.55
79:By:183:GLU:N	79:CL:30:LYS:CE	2.69	0.55
79:By:190:ARG:CB	79:CL:190:ARG:HG3	2.36	0.55
79:By:213:TYR:CE1	84:CN:2198:C:C5'	2.66	0.55
80:B2:116:U:H2'	80:B2:117:U:C6	2.40	0.55
80:B2:540:G:O3'	80:B2:541:A:H3'	2.05	0.55
81:B5:173:G:H22	81:B5:246:U:H1'	1.71	0.55
81:B5:599:C:H2'	81:B5:600:G:O4'	2.06	0.55
81:B5:1541:G:H2'	81:B5:1542:G:O5'	2.06	0.55
81:B5:2676:A:H4'	81:B5:2677:G:O5'	2.05	0.55
6:A5:135:HIS:ND1	6:A5:138:ARG:HD2	2.20	0.55
11:AC:89:GLN:O	80:B2:1145:U:O2'	2.19	0.55
20:AL:132:SER:CA	80:B2:336:G:H4'	2.36	0.55
23:AO:46:MET:CG	80:B2:899:G:C5'	2.85	0.55
26:AR:60:ARG:HH12	80:B2:1400:A:C4'	2.17	0.55
28:AT:45:MET:HE3	28:AT:46:PRO:HD2	1.87	0.55
36:BB:223:GLY:N	81:B5:3305:A:OP1	2.34	0.55
38:BD:26:GLY:C	81:B5:2703:A:H61	2.15	0.55
38:BD:31:TYR:CE2	81:B5:2705:A:OP1	2.59	0.55
38:BD:274:GLN:CD	82:B7:60:G:N2	2.50	0.55
41:BG:137:ASN:CG	81:B5:148:G:N7	2.63	0.55
43:BI:210:ILE:HA	43:BI:217:PHE:CE1	2.41	0.55
48:BN:179:LYS:HB3	81:B5:287:G:H5'	1.89	0.55
56:BV:47:ASN:O	81:B5:2338:C:C5'	2.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:Bn:5:TRP:CZ3	80:B2:1775:U:H5	2.13	0.55
79:By:18:LYS:H	79:CL:14:VAL:CG2	2.18	0.55
79:By:28:LEU:HB2	79:CL:32:LEU:HD21	1.85	0.55
79:By:68:LEU:HA	79:CL:175:VAL:N	2.21	0.55
79:By:148:ASN:CB	79:CL:151:GLU:N	2.69	0.55
79:By:156:ILE:HD12	79:CL:112:ALA:HB3	1.83	0.55
79:By:163:PHE:CZ	79:CL:199:HIS:CB	2.89	0.55
79:By:188:ASN:HB2	79:CL:175:VAL:CG2	2.36	0.55
80:B2:489:C:H42	80:B2:497:G:H22	1.53	0.55
80:B2:514:G:O2'	80:B2:515:A:H5'	2.06	0.55
80:B2:1757:G:O2'	81:B5:2256:A:C8	2.59	0.55
80:B2:1780:G:C1'	81:B5:2262:A:C4'	2.58	0.55
81:B5:1110:U:H2'	81:B5:1111:U:C6	2.41	0.55
81:B5:2792:A:N3	86:CW:76:A:N6	2.52	0.55
81:B5:3343:G:N2	81:B5:3362:A:H2	1.97	0.55
4:A3:7:TRP:O	4:A3:8:PHE:HB2	2.06	0.55
10:AB:61:LEU:HD23	10:AB:62:LYS:H	1.72	0.55
12:AD:4:LEU:HD13	80:B2:1514:U:C6	2.42	0.55
15:AG:70:PRO:C	15:AG:98:ARG:HH21	2.14	0.55
15:AG:132:ARG:HH21	80:B2:68:A:C1'	2.17	0.55
21:AM:67:THR:O	21:AM:69:ALA:N	2.35	0.55
25:AQ:50:GLU:OE2	25:AQ:112:TYR:OH	2.24	0.55
33:AY:105:ARG:HE	80:B2:444:C:P	2.29	0.55
38:BD:19:PRO:HD3	81:B5:2688:U:O4	2.06	0.55
39:BE:40:LEU:HD11	39:BE:54:TYR:HB2	1.87	0.55
43:BI:74:LYS:O	43:BI:78:THR:HG23	2.06	0.55
44:BJ:70:THR:OG1	82:B7:39:C:N3	2.37	0.55
48:BN:112:ASN:ND2	83:B8:141:C:O2	2.39	0.55
52:BR:166:ASN:HB2	80:B2:850:A:H5"	1.85	0.55
65:Be:105:ARG:NH2	81:B5:1412:G:OP1	2.37	0.55
72:Bl:44:TRP:CZ2	81:B5:1495:U:H1'	2.40	0.55
79:By:15:ASP:O	79:CL:220:PRO:CB	2.55	0.55
79:By:28:LEU:CA	79:CL:31:GLU:OE1	2.49	0.55
79:By:66:HIS:CE1	79:CL:184:LYS:C	2.84	0.55
79:By:78:ALA:HB3	79:CL:95:GLY:HA2	0.68	0.55
79:By:102:LYS:CB	79:CL:104:LEU:CB	2.28	0.55
79:By:116:THR:OG1	79:CL:77:ILE:O	2.23	0.55
79:By:141:LYS:HB2	79:CL:59:ARG:NH1	1.89	0.55
79:By:144:THR:CB	79:CL:138:PRO:CA	2.84	0.55
79:By:149:ILE:CG1	79:CL:76:ALA:HA	2.35	0.55
80:B2:852:C:O5'	80:B2:852:C:H6	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:1332:C:O5'	80:B2:1332:C:H6	1.89	0.55
1:A0:75:VAL:HG11	80:B2:1793:G:C6	2.42	0.55
4:A3:54:LYS:NZ	80:B2:1420:C:OP1	2.40	0.55
8:A7:51:ARG:NH1	81:B5:2677:G:O4'	2.38	0.55
8:A7:102:THR:O	8:A7:106:VAL:HG23	2.06	0.55
15:AG:159:ARG:HH11	80:B2:77:U:H1'	1.72	0.55
17:AI:39:GLY:N	17:AI:60:ILE:O	2.30	0.55
23:AO:46:MET:HG2	80:B2:899:G:C5'	2.36	0.55
24:AP:18:ARG:NH1	27:AS:90:ASN:O	2.40	0.55
37:BC:82:THR:OG1	81:B5:355:A:N1	2.23	0.55
37:BC:305:ALA:H	81:B5:1347:U:H4'	1.72	0.55
37:BC:316:ASN:O	37:BC:319:LYS:O	2.24	0.55
38:BD:279:LYS:HD3	38:BD:282:ARG:NH2	2.22	0.55
44:BJ:155:THR:O	44:BJ:159:THR:HG23	2.07	0.55
60:BZ:36:HIS:CD2	60:BZ:74:VAL:HG11	2.41	0.55
71:Bk:18:ALA:C	71:Bk:20:VAL:H	2.15	0.55
79:By:74:VAL:HG11	79:CL:112:ALA:O	2.01	0.55
79:By:164:ARG:HD2	79:CL:164:ARG:CG	2.15	0.55
79:By:165:ASN:ND2	79:CL:57:ASN:HA	2.22	0.55
79:By:185:LEU:CD1	79:CL:29:VAL:HG11	2.29	0.55
80:B2:1650:U:H2'	80:B2:1651:A:C8	2.42	0.55
80:B2:1759:C:C2	81:B5:2262:A:H2	2.24	0.55
81:B5:209:A:H4'	81:B5:211:A:C8	2.42	0.55
81:B5:1716:U:H6	81:B5:1716:U:H5'	1.71	0.55
9:AA:167:LYS:HB3	9:AA:168:HIS:HD2	1.72	0.55
16:AH:71:HIS:CG	16:AH:131:PHE:HZ	2.24	0.55
23:AO:27:PHE:CZ	80:B2:916:U:H2'	2.37	0.55
36:BB:2:SER:N	81:B5:2943:G:N7	2.55	0.55
36:BB:253:GLY:O	81:B5:2394:G:H5'	2.07	0.55
38:BD:16:PHE:HA	81:B5:2688:U:HO2'	1.71	0.55
39:BE:3:ALA:HB2	65:Be:77:ALA:HB2	1.89	0.55
41:BG:38:GLN:CB	81:B5:2557:A:H2	2.19	0.55
42:BH:88:TYR:CZ	42:BH:184:LYS:HD3	2.42	0.55
48:BN:162:ARG:HG3	81:B5:56:G:H1'	1.86	0.55
52:BR:165:LYS:HZ2	80:B2:824:G:H1'	1.70	0.55
53:BS:115:ARG:NH2	81:B5:1320:C:O2	2.39	0.55
64:Bd:43:HIS:O	64:Bd:44:MET:HE2	2.07	0.55
79:By:9:ALA:HB2	79:CL:5:LYS:HE2	1.88	0.55
79:By:147:PHE:HB2	79:CL:148:ASN:N	2.20	0.55
79:By:192:PHE:CB	79:CL:192:PHE:CB	2.47	0.55
79:By:222:VAL:HG11	79:CL:32:LEU:CD1	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:749:U:H2'	80:B2:750:U:C6	2.41	0.55
80:B2:1686:C:O2'	80:B2:1687:U:H5'	2.06	0.55
81:B5:585:A:H2'	81:B5:586:C:C6	2.41	0.55
81:B5:2512:C:H5'	81:B5:2512:C:C6	2.29	0.55
84:CN:2157:C:N3	84:CN:2158:C:H5	2.04	0.55
1:A0:9:GLY:HA3	1:A0:34:LYS:HE2	1.89	0.55
1:A0:97:PRO:O	80:B2:1798:U:C4	2.58	0.55
12:AD:162:GLN:HB3	80:B2:1332:C:O2'	2.06	0.55
13:AE:159:THR:HG23	13:AE:173:ILE:HD13	1.88	0.55
27:AS:134:ARG:NH2	80:B2:1545:A:C8	2.74	0.55
32:AX:102:VAL:HG12	32:AX:127:VAL:HG12	1.88	0.55
35:BA:15:ILE:HD12	81:B5:822:G:H1'	1.89	0.55
37:BC:18:ASN:N	37:BC:18:ASN:OD1	2.37	0.55
43:BI:52:LEU:HD22	43:BI:163:GLN:HB2	1.88	0.55
46:BL:7:LEU:HD13	81:B5:796:U:H1'	1.87	0.55
48:BN:74:PRO:HA	81:B5:2166:A:O4'	2.07	0.55
61:Ba:36:GLY:N	81:B5:40:A:OP2	2.39	0.55
79:By:14:VAL:HG13	79:CL:10:LEU:HD22	1.86	0.55
79:By:100:ILE:CD1	79:CL:101:GLN:NE2	2.65	0.55
79:By:144:THR:CG2	79:CL:138:PRO:HD3	2.34	0.55
79:By:160:ARG:HH21	79:CL:143:GLY:CA	2.16	0.55
79:By:164:ARG:CD	79:CL:164:ARG:NE	2.70	0.55
79:By:215:THR:CB	84:CN:2197:A:H4'	2.36	0.55
80:B2:1513:G:O2'	80:B2:1515:A:N3	2.38	0.55
80:B2:1646:C:C4'	81:B5:2257:C:H42	1.98	0.55
81:B5:1811:G:H2'	81:B5:1812:G:O4'	2.07	0.55
81:B5:3288:G:C4	81:B5:3289:G:C8	2.95	0.55
10:AB:124:ASN:ND2	80:B2:884:A:C4'	2.63	0.55
14:AF:37:GLN:CD	25:AQ:53:LEU:HD22	2.32	0.55
20:AL:101:GLU:OE1	32:AX:16:ARG:NH1	2.40	0.55
24:AP:99:GLY:HA3	80:B2:1183:A:N1	2.21	0.55
31:AW:8:ALA:HA	31:AW:74:VAL:HG11	1.88	0.55
34:AZ:60:VAL:CG2	34:AZ:101:TYR:HB2	2.37	0.55
40:BF:175:LYS:HD3	40:BF:176:TYR:CZ	2.42	0.55
58:BX:48:SER:HB2	83:B8:136:G:OP1	2.06	0.55
62:Bb:3:LYS:HE3	81:B5:2618:G:O4'	2.07	0.55
69:Bi:75:LYS:HE3	81:B5:2216:G:OP1	2.07	0.55
79:By:2:LYS:C	84:CN:2149:C:O2	2.50	0.55
79:By:69:GLY:O	84:CN:2146:G:P	2.65	0.55
79:By:119:VAL:HG21	79:CL:97:GLU:CA	2.29	0.55
79:By:137:LEU:HD21	79:CL:128:GLY:C	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:147:PHE:CD1	79:CL:117:PRO:HD3	2.40	0.55
79:By:152:ILE:CG1	79:CL:114:VAL:HG11	2.37	0.55
79:By:182:PRO:HB3	79:CL:30:LYS:N	2.21	0.55
79:By:183:GLU:C	79:CL:184:LYS:H	2.14	0.55
79:By:201:PRO:C	79:CL:201:PRO:CA	2.60	0.55
79:By:215:THR:HG21	84:CN:2197:A:C1'	2.36	0.55
89:B2:1915:OHX:N6	89:B2:2071:OHX:N5	2.55	0.55
89:B2:1954:OHX:N6	89:B2:2068:OHX:N5	2.54	0.55
81:B5:59:G:H4'	81:B5:60:A:H4'	1.88	0.55
1:A0:95:ARG:NH2	80:B2:1797:A:OP1	2.40	0.55
12:AD:4:LEU:HD13	80:B2:1514:U:N1	2.22	0.55
13:AE:246:LEU:HD13	13:AE:251:GLU:HG2	1.88	0.55
18:AJ:125:ALA:O	18:AJ:129:ILE:HG13	2.07	0.55
20:AL:59:PRO:HG2	20:AL:60:PHE:CE2	2.41	0.55
21:AM:98:GLY:C	21:AM:103:LEU:HD21	2.32	0.55
22:AN:12:SER:O	22:AN:13:SER:HB3	2.06	0.55
23:AO:38:THR:CG2	80:B2:895:G:C3'	2.72	0.55
23:AO:81:VAL:HG22	23:AO:115:ILE:HB	1.87	0.55
23:AO:132:ARG:N	80:B2:1787:C:OP1	2.39	0.55
25:AQ:9:THR:HG21	25:AQ:88:GLY:HA2	1.88	0.55
29:AU:57:ARG:HG3	29:AU:89:ARG:CZ	2.36	0.55
35:BA:64:ARG:CD	81:B5:2557:A:C5	2.90	0.55
41:BG:161:GLU:OE1	48:BN:26:ARG:NH2	2.32	0.55
41:BG:162:LEU:CD1	81:B5:147:U:N1	2.69	0.55
43:BI:7:ARG:NH1	81:B5:2828:G:P	2.80	0.55
43:BI:171:TRP:O	43:BI:174:THR:HG22	2.07	0.55
48:BN:72:LYS:HZ2	81:B5:2167:A:P	2.29	0.55
48:BN:95:GLN:HG3	81:B5:32:U:OP2	2.07	0.55
49:BO:159[B]:LYS:NZ	81:B5:3243:A:OP1	2.39	0.55
69:Bi:56:ARG:HH22	69:Bi:76:ARG:NH1	2.05	0.55
71:Bk:65:LEU:HD23	71:Bk:68:SER:HB2	1.87	0.55
80:B2:558:U:O2'	80:B2:559:C:O5'	2.24	0.55
80:B2:1002:G:H5"	81:B5:2265:C:OP1	2.05	0.55
81:B5:8:C:H2'	81:B5:9:U:O4'	2.06	0.55
81:B5:2263:C:P	89:B5:3402:OHX:N1	2.80	0.55
81:B5:3288:G:HO2'	81:B5:3289:G:H8	1.55	0.55
2:A1:67:THR:HA	80:B2:872:G:C4'	2.36	0.55
12:AD:162:GLN:HG2	80:B2:1333:C:O4'	2.07	0.55
17:AI:182:TYR:HB3	80:B2:210:A:H4'	1.89	0.55
17:AI:188:GLU:HG2	20:AL:13:PHE:CD2	2.42	0.55
23:AO:54:GLU:OE2	80:B2:901:G:N1	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AS:83:ALA:O	27:AS:89:GLN:NE2	2.39	0.55
28:AT:9:VAL:HG12	28:AT:14:PHE:HB2	1.88	0.55
34:AZ:77:ARG:CZ	80:B2:1534:G:N7	2.66	0.55
38:BD:16:PHE:HD1	81:B5:2688:U:H2'	1.72	0.55
38:BD:16:PHE:CD1	81:B5:2688:U:H2'	2.41	0.55
38:BD:265:TYR:HB3	82:B7:1:G:N1	2.22	0.55
38:BD:269:SER:OG	82:B7:1:G:N3	2.30	0.55
39:BE:50:LYS:HG2	39:BE:74:VAL:CG2	2.37	0.55
51:BQ:122:ILE:HD11	51:BQ:130:ARG:NH1	2.21	0.55
61:Ba:65:GLN:O	61:Ba:66:ALA:HB3	2.07	0.55
67:Bg:56:THR:HG21	81:B5:1739:U:O2'	2.07	0.55
67:Bg:84:CYS:O	67:Bg:88:ARG:HB2	2.07	0.55
79:By:14:VAL:CG1	79:CL:32:LEU:CD2	2.84	0.55
79:By:133:PRO:CG	86:CW:56:C:C5'	2.84	0.55
79:By:163:PHE:HE1	79:CL:60:GLY:HA3	1.72	0.55
80:B2:133:U:H4'	80:B2:134:U:OP2	2.07	0.55
80:B2:197:A:H2'	80:B2:198:A:C8	2.42	0.55
80:B2:499:U:O2'	80:B2:500:C:OP1	2.24	0.55
80:B2:652:G:H1	80:B2:682:C:N4	2.04	0.55
80:B2:1291:G:O5'	80:B2:1291:G:C8	2.55	0.55
80:B2:1413:U:H4'	80:B2:1414:U:OP2	2.06	0.55
81:B5:1568:U:H4'	81:B5:1569:U:OP1	2.06	0.55
1:A0:32:LYS:NZ	80:B2:930:A:OP1	2.40	0.55
8:A7:93:ARG:HG3	80:B2:1637:C:C2	2.42	0.55
10:AB:48:VAL:HG13	10:AB:61:LEU:HD21	1.89	0.55
12:AD:4:LEU:HD12	80:B2:1514:U:C4	2.41	0.55
12:AD:64:ARG:O	12:AD:66:ILE:N	2.39	0.55
13:AE:104:ASP:HB2	13:AE:108:ARG:H	1.72	0.55
15:AG:59:GLN:CA	80:B2:155:U:C1'	2.85	0.55
18:AJ:171:ARG:O	18:AJ:175:ARG:N	2.36	0.55
23:AO:13:VAL:HG22	23:AO:76:ILE:HA	1.87	0.55
48:BN:110:ALA:HB1	83:B8:141:C:O2'	2.07	0.55
54:BT:4:SER:HB2	81:B5:2630:C:C4	2.42	0.55
56:BV:67:PRO:HG2	80:B2:1660:A:C5'	2.37	0.55
62:Bb:18:ARG:HG3	81:B5:969:C:O3'	2.07	0.55
68:Bh:85:THR:CG2	68:Bh:88:LEU:H	2.20	0.55
74:Bn:2:ARG:HH22	80:B2:1773:C:H41	1.51	0.55
76:Bq:55:LYS:O	76:Bq:59:VAL:HG23	2.07	0.55
79:By:66:HIS:CD2	79:CL:188:ASN:OD1	2.58	0.55
79:By:83:ILE:HA	79:CL:95:GLY:HA3	1.88	0.55
79:By:85:GLU:HG3	79:CL:84:LYS:CG	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:175:VAL:CG2	79:CL:42:GLU:C	2.78	0.55
79:By:177:LYS:CD	79:CL:40:THR:HG1	2.20	0.55
79:By:196:LEU:O	79:CL:197:GLU:N	2.40	0.55
79:By:197:GLU:OE2	79:CL:227:HIS:CE1	2.59	0.55
79:By:209:LEU:CA	79:CL:46:LYS:O	2.39	0.55
80:B2:480:G:N2	80:B2:509:G:H1'	2.22	0.55
80:B2:872:G:O6	89:B2:2008:OHX:N3	2.40	0.55
81:B5:851:C:H5"	81:B5:851:C:C6	2.34	0.55
1:A0:23:CYS:HB2	1:A0:74:CYS:HB3	1.88	0.54
1:A0:86:VAL:HG22	80:B2:1795:U:OP1	2.07	0.54
13:AE:42:LEU:HD12	13:AE:109:PHE:HB2	1.89	0.54
15:AG:112:VAL:HG23	80:B2:164:A:H5'	1.88	0.54
16:AH:167:GLU:O	16:AH:170:GLN:HB2	2.07	0.54
30:AV:64:GLU:O	30:AV:68:SER:HB2	2.07	0.54
35:BA:22:LEU:CD2	81:B5:1797:A:O5'	2.54	0.54
37:BC:35:VAL:HG21	37:BC:244:LEU:HD21	1.89	0.54
38:BD:46:THR:HG23	81:B5:1078:U:H4'	1.89	0.54
39:BE:176:PHE:H	47:BM:117:ARG:NH2	2.04	0.54
43:BI:81:GLY:O	43:BI:83:ASP:N	2.36	0.54
47:BM:16:GLU:HB3	53:BS:149:LYS:HB3	1.89	0.54
52:BR:79:GLY:N	81:B5:1939:G:OP1	2.35	0.54
61:Ba:122:PRO:HB3	61:Ba:142:GLY:O	2.06	0.54
68:Bh:93:THR:HB	81:B5:135:C:H1'	1.89	0.54
69:Bi:4:LYS:HD2	69:Bi:13:LYS:O	2.07	0.54
69:Bi:53:TYR:CZ	81:B5:295:A:OP1	2.60	0.54
79:By:41:VAL:N	79:CL:40:THR:N	2.46	0.54
79:By:59:ARG:HH11	79:CL:59:ARG:HH22	1.53	0.54
79:By:66:HIS:CB	79:CL:66:HIS:HB2	2.32	0.54
79:By:157:LYS:CA	79:CL:72:VAL:CB	2.80	0.54
79:By:179:SER:HB2	79:CL:38:ASP:HB2	1.78	0.54
80:B2:1776:A:H2'	80:B2:1777:G:C8	2.42	0.54
81:B5:3334:U:H4'	81:B5:3335:A:H5"	1.88	0.54
1:A0:59:TYR:OH	10:AB:72:ASP:OD1	2.14	0.54
1:A0:97:PRO:HA	80:B2:1798:U:C6	2.42	0.54
4:A3:45:GLU:OE1	80:B2:1433:G:N2	2.40	0.54
8:A7:48:ARG:HD3	81:B5:2678:A:OP1	2.07	0.54
11:AC:91:ARG:HA	80:B2:1147:A:OP1	2.08	0.54
13:AE:8:HIS:CE1	80:B2:449:C:H4'	2.41	0.54
15:AG:58:LYS:C	15:AG:60:GLY:H	2.15	0.54
15:AG:164:LYS:CE	80:B2:72:A:C5'	2.83	0.54
23:AO:120:PRO:HB2	80:B2:887:A:C4'	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AU:53:LYS:CB	80:B2:1345:A:O5'	2.53	0.54
33:AY:120:GLY:N	80:B2:85:A:O3'	2.40	0.54
38:BD:145:PHE:CD1	81:B5:2748:A:C4'	2.90	0.54
39:BE:31:ARG:NH2	39:BE:81:ALA:O	2.40	0.54
39:BE:50:LYS:HG2	39:BE:74:VAL:HG21	1.89	0.54
41:BG:241:LYS:HB2	81:B5:2586:G:N7	2.22	0.54
46:BL:157:ARG:HH22	61:Ba:146:GLU:CD	2.15	0.54
51:BQ:178:ARG:HG2	61:Ba:51:GLY:HA3	1.90	0.54
79:By:26:ALA:HB3	79:CL:28:LEU:N	2.22	0.54
79:By:164:ARG:HD3	79:CL:164:ARG:NE	2.21	0.54
79:By:208:PHE:O	79:CL:47:LEU:HA	2.07	0.54
79:By:217:THR:HG22	84:CN:2146:G:H1'	1.79	0.54
80:B2:103:A:H4'	80:B2:104:A:OP2	2.07	0.54
80:B2:832:U:H2'	80:B2:833:U:H5"	1.89	0.54
81:B5:495:G:H2'	81:B5:496:C:O4'	2.07	0.54
81:B5:2589:G:C2'	81:B5:2590:A:H5'	2.37	0.54
81:B5:2971:A:H5"	81:B5:2972:G:C5'	2.37	0.54
84:CN:2155:A:C2	84:CN:2179:A:C5	2.95	0.54
84:CN:2159:C:O2	84:CN:2175:G:C2	2.60	0.54
5:A4:21:VAL:HG22	80:B2:586:G:H4'	1.88	0.54
9:AA:13:ASP:HA	9:AA:16:LEU:HD12	1.88	0.54
10:AB:110:LEU:HD21	10:AB:213:ARG:HD2	1.89	0.54
15:AG:53:SER:CB	80:B2:163:G:H4'	2.36	0.54
16:AH:73:VAL:HG12	16:AH:77:LEU:HB2	1.90	0.54
16:AH:111:LYS:O	16:AH:112:ARG:HB2	2.07	0.54
27:AS:139:LYS:HD3	80:B2:1178:G:O6	2.07	0.54
33:AY:94:TYR:HD2	33:AY:96:LEU:HD11	1.72	0.54
41:BG:41:GLN:HG3	41:BG:42:PRO:HD2	1.90	0.54
48:BN:183:THR:O	48:BN:183:THR:HG23	2.07	0.54
49:BO:73[B]:PHE:HA	81:B5:3007:U:OP1	2.08	0.54
49:BO:110[B]:PRO:O	49:BO:113[B]:ASP:N	2.27	0.54
67:Bg:56:THR:OG1	81:B5:1740:U:H5'	2.06	0.54
75:Bo:41:ARG:HD3	81:B5:284:A:O4'	2.07	0.54
79:By:110:PHE:HB3	79:CL:108:MET:O	1.96	0.54
79:By:183:GLU:O	79:CL:184:LYS:C	2.47	0.54
80:B2:286:C:H2'	80:B2:287:G:H5'	1.89	0.54
80:B2:499:U:O2'	80:B2:500:C:O4'	2.15	0.54
80:B2:1655:A:H1'	81:B5:2302:G:C2'	2.35	0.54
81:B5:600:G:H5"	81:B5:600:G:H8	1.72	0.54
81:B5:1579:C:C2'	81:B5:1580:A:H5'	2.37	0.54
81:B5:1724:U:H1'	81:B5:1725:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2439:A:H4'	81:B5:2439:A:OP1	2.07	0.54
79:CL:53:ARG:O	79:CL:55:ASP:OD1	2.24	0.54
2:A1:36:LYS:HG2	2:A1:43:ILE:HG22	1.89	0.54
13:AE:12:LEU:O	80:B2:756:A:H1'	2.08	0.54
17:AI:73:SER:H	80:B2:256:A:HO2'	1.47	0.54
17:AI:171:SER:CB	80:B2:209:U:H5'	2.37	0.54
19:AK:9:ASN:O	19:AK:13:GLN:HB3	2.07	0.54
19:AK:14:TYR:CE1	19:AK:21:VAL:HG22	2.43	0.54
20:AL:80:MET:HE3	80:B2:324:U:O2'	2.07	0.54
22:AN:13:SER:HB3	89:B2:1910:OHX:N3	2.22	0.54
22:AN:113:PHE:HA	22:AN:116:ILE:HD12	1.90	0.54
23:AO:122:PRO:CA	80:B2:887:A:H1'	2.36	0.54
25:AQ:13:LYS:NZ	80:B2:1584:G:O6	2.38	0.54
38:BD:269:SER:OG	82:B7:1:G:N2	2.40	0.54
44:BJ:90:GLN:HG2	44:BJ:170:ASP:HB2	1.88	0.54
53:BS:79:VAL:HG21	53:BS:106:LEU:HD21	1.90	0.54
55:BU:58:GLU:HB2	55:BU:63:VAL:HA	1.89	0.54
72:Bl:15:LYS:O	72:Bl:19:GLN:HG3	2.07	0.54
79:By:2:LYS:N	84:CN:2148:G:C6	2.72	0.54
79:By:24:GLU:HB3	79:CL:20:TYR:HD2	1.68	0.54
79:By:68:LEU:CB	79:CL:174:PRO:C	2.74	0.54
79:By:108:MET:HE3	84:CN:2189:G:O6	2.04	0.54
79:By:123:VAL:HA	79:CL:126:LYS:HB2	1.90	0.54
79:By:134:ARG:HB3	84:CN:2191:A:C5'	2.36	0.54
79:By:185:LEU:CB	79:CL:29:VAL:CG1	2.59	0.54
79:By:191:ALA:O	79:CL:192:PHE:CA	2.52	0.54
79:By:220:PRO:CG	79:CL:7:TYR:CE2	2.72	0.54
80:B2:348:U:O4	89:B2:2009:OHX:N5	2.40	0.54
80:B2:1157:A:C8	80:B2:1157:A:H3'	2.42	0.54
81:B5:3027:A:C3'	85:CP:109:GLN:CB	2.56	0.54
82:B7:91:G:H2'	82:B7:92:A:H8	1.69	0.54
4:A3:14:TYR:HD2	80:B2:1597:A:N7	2.05	0.54
10:AB:117:TRP:N	80:B2:932:U:P	2.80	0.54
13:AE:192:ILE:HG13	13:AE:243:GLY:HA3	1.89	0.54
15:AG:136:LYS:CE	80:B2:65:A:OP1	2.55	0.54
17:AI:86:SER:OG	80:B2:329:G:C1'	2.56	0.54
18:AJ:65:LYS:HA	18:AJ:70:LEU:HD11	1.89	0.54
28:AT:57:ARG:HA	80:B2:1479:A:OP1	2.07	0.54
43:BI:82:ARG:HG2	43:BI:82:ARG:O	2.07	0.54
46:BL:75:PHE:H	46:BL:97:VAL:HA	1.72	0.54
52:BR:134:HIS:CB	81:B5:1947:G:C5'	2.85	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BT:12:ARG:HD3	54:BT:13:TYR:CE1	2.43	0.54
79:By:40:THR:CB	79:CL:40:THR:HB	2.35	0.54
79:By:66:HIS:CA	79:CL:188:ASN:ND2	2.55	0.54
79:By:117:PRO:O	79:CL:122:ALA:N	2.41	0.54
79:By:148:ASN:O	79:CL:152:ILE:HG22	2.07	0.54
79:By:195:ALA:H	79:CL:193:ILE:N	1.66	0.54
79:By:201:PRO:O	79:CL:201:PRO:CD	2.53	0.54
80:B2:1433:G:H2'	80:B2:1434:U:C6	2.42	0.54
89:B2:1954:OHX:N6	89:B2:2068:OHX:N2	2.56	0.54
81:B5:240:U:O2'	81:B5:241:G:O5'	2.19	0.54
12:AD:203:PRO:HD2	80:B2:1331:A:C2	2.43	0.54
17:AI:8:ARG:HH11	17:AI:21:PHE:H	1.54	0.54
20:AL:133:LYS:HB2	80:B2:337:G:H3'	1.90	0.54
24:AP:12:PHE:HB2	44:BJ:85:LYS:CD	2.37	0.54
26:AR:20:TYR:CZ	26:AR:38:ILE:HD11	2.43	0.54
28:AT:121:GLY:HA2	80:B2:1499:G:OP1	2.07	0.54
29:AU:35:GLU:CG	80:B2:1383:G:O2'	2.55	0.54
35:BA:244:GLY:H	81:B5:2153:U:H4'	1.73	0.54
41:BG:181:LYS:HD2	83:B8:155:A:OP1	2.08	0.54
46:BL:99:HIS:CE1	81:B5:156:G:C6	2.95	0.54
67:Bg:53:GLY:HA2	81:B5:1640:G:OP1	2.08	0.54
75:Bo:22:GLN:O	75:Bo:75:VAL:HG22	2.07	0.54
79:By:14:VAL:H	79:CL:7:TYR:C	2.12	0.54
79:By:40:THR:O	79:CL:42:GLU:OE2	2.24	0.54
79:By:41:VAL:N	79:CL:40:THR:H	2.03	0.54
79:By:182:PRO:C	79:CL:182:PRO:HB3	2.33	0.54
80:B2:230:C:H2'	80:B2:231:U:H5"	1.90	0.54
80:B2:425:A:H5'	80:B2:425:A:H8	1.72	0.54
80:B2:839:U:C5	89:B2:2071:OHX:N6	2.76	0.54
81:B5:419:G:O3'	81:B5:420:G:OP2	2.24	0.54
81:B5:1654:A:H2'	81:B5:1655:G:H5"	1.89	0.54
81:B5:3273:A:C2'	81:B5:3274:A:H5'	2.38	0.54
81:B5:3285:C:H2'	81:B5:3286:G:H5"	1.88	0.54
1:A0:79:ILE:HG23	1:A0:84:VAL:HG21	1.89	0.54
2:A1:68:GLY:N	80:B2:872:G:C1'	2.71	0.54
9:AA:9:LEU:HD22	9:AA:10:THR:H	1.72	0.54
9:AA:58:VAL:O	9:AA:62:ARG:HB2	2.08	0.54
12:AD:159:HIS:HB2	80:B2:1328:G:H5"	1.89	0.54
12:AD:211:PRO:O	12:AD:212:LYS:HB2	2.08	0.54
13:AE:158:ASP:OD2	13:AE:174:LYS:NZ	2.38	0.54
15:AG:140:ASN:ND2	80:B2:168:A:OP1	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AG:185:GLN:CD	80:B2:284:G:C2	2.86	0.54
18:AJ:151:ASP:N	18:AJ:151:ASP:OD1	2.39	0.54
23:AO:107:ARG:HH11	23:AO:107:ARG:CG	2.19	0.54
23:AO:131:GLY:HA2	80:B2:1787:C:OP1	2.08	0.54
42:BH:175:PHE:HE1	81:B5:2901:G:H5'	1.73	0.54
44:BJ:28:ASP:HA	44:BJ:31:THR:HG23	1.89	0.54
52:BR:165:LYS:CE	80:B2:824:G:N2	2.69	0.54
59:BY:13:ARG:HH11	83:B8:24:G:P	2.31	0.54
67:Bg:52:GLN:CG	81:B5:1639:C:H5'	2.34	0.54
68:Bh:59:ASN:O	68:Bh:63:ARG:HG2	2.07	0.54
69:Bi:30:LYS:NZ	81:B5:317:A:OP2	2.31	0.54
79:By:93:TYR:CA	79:CL:93:TYR:OH	2.49	0.54
79:By:99:ILE:HG13	79:CL:99:ILE:CA	2.16	0.54
79:By:122:ALA:HB2	79:CL:121:GLY:O	1.99	0.54
79:By:216:THR:O	84:CN:2196:C:C2'	2.56	0.54
80:B2:706:A:C6	80:B2:734:A:N6	2.75	0.54
80:B2:823:G:O2'	80:B2:824:G:O5'	2.23	0.54
80:B2:1354:G:H5'	80:B2:1355:C:OP2	2.07	0.54
80:B2:1514:U:H5'	80:B2:1514:U:O2	2.07	0.54
80:B2:1783:C:H2'	80:B2:1784:C:H6	1.72	0.54
81:B5:2425:G:H2'	81:B5:2426:U:O4'	2.08	0.54
81:B5:3198:U:H4'	81:B5:3199:G:OP2	2.08	0.54
6:A5:130:VAL:HG11	6:A5:143:LYS:HG2	1.89	0.54
6:A5:138:ARG:CZ	80:B2:1235:C:C2	2.91	0.54
7:A6:33:LEU:HB3	7:A6:45:TRP:HB2	1.90	0.54
9:AA:147:THR:OG1	9:AA:159:ALA:HB1	2.07	0.54
10:AB:34:ALA:HB3	10:AB:41:ARG:HA	1.89	0.54
16:AH:16:LEU:HA	16:AH:19:GLN:HG3	1.90	0.54
17:AI:26:LYS:O	17:AI:29:LEU:HB3	2.07	0.54
22:AN:5:HIS:HE2	80:B2:628:G:P	2.30	0.54
23:AO:132:ARG:NH2	80:B2:1788:G:C8	2.76	0.54
35:BA:193:ARG:NH2	81:B5:2181:C:OP1	2.41	0.54
52:BR:60:LYS:HB2	81:B5:1690:C:OP1	2.08	0.54
72:Bl:37:TYR:CE1	72:Bl:39:ALA:HA	2.42	0.54
79:By:24:GLU:CB	79:CL:20:TYR:CE2	2.90	0.54
79:By:55:ASP:O	79:CL:52:ARG:C	2.49	0.54
79:By:66:HIS:CG	79:CL:184:LYS:O	2.55	0.54
79:By:83:ILE:HG22	79:CL:96:GLY:HA3	1.90	0.54
79:By:214:VAL:CG1	79:CL:215:THR:C	2.66	0.54
79:By:226:PRO:CD	79:CL:19:ILE:CG2	2.86	0.54
80:B2:420:A:N7	85:CP:288:ARG:NH2	2.56	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:503:G:O2'	80:B2:504:U:P	2.65	0.54
80:B2:591:A:H2'	80:B2:592:A:H8	1.70	0.54
80:B2:989:U:H2'	80:B2:990:C:C6	2.42	0.54
80:B2:1157:A:H2'	80:B2:1160:A:N7	2.21	0.54
80:B2:1657:U:H5	81:B5:2125:A:O3'	1.90	0.54
80:B2:1758:U:O2'	81:B5:2255:A:C4'	2.39	0.54
80:B2:1760:G:H2'	80:B2:1761:U:H5'	1.88	0.54
89:B2:1907:OHX:N5	89:B2:2083:OHX:N6	2.56	0.54
10:AB:131:ASP:CG	10:AB:180:THR:HG21	2.33	0.54
32:AX:78:LYS:CB	80:B2:434:G:H5'	2.36	0.54
35:BA:235:ALA:HA	81:B5:2183:A:O3'	2.08	0.54
36:BB:50:LYS:HE2	36:BB:328:ILE:HG22	1.88	0.54
36:BB:283:TYR:CB	36:BB:323:MET:HE2	2.38	0.54
38:BD:15:ARG:NH2	81:B5:1003:A:H1'	2.21	0.54
38:BD:91:GLY:HA3	82:B7:48:U:OP1	2.08	0.54
40:BF:158:LYS:HD2	40:BF:159:GLN:CA	2.36	0.54
42:BH:162:GLN:HB2	42:BH:179:ILE:O	2.08	0.54
44:BJ:92:ARG:O	44:BJ:95:ASN:HB2	2.07	0.54
47:BM:49:PRO:HG3	47:BM:78:THR:HG23	1.90	0.54
47:BM:55:ARG:HD3	53:BS:70:THR:OG1	2.08	0.54
67:Bg:80:ARG:HG3	67:Bg:88:ARG:HH21	1.72	0.54
73:Bm:97:ARG:HB2	73:Bm:120:GLN:O	2.07	0.54
79:By:40:THR:HA	79:CL:40:THR:N	2.23	0.54
79:By:110:PHE:CZ	79:CL:130:ILE:CG2	2.91	0.54
79:By:149:ILE:CB	79:CL:149:ILE:HD11	2.37	0.54
79:By:175:VAL:CG1	79:CL:173:ALA:O	2.52	0.54
80:B2:420:A:H2'	80:B2:421:A:O4'	2.08	0.54
80:B2:970:A:H5'	80:B2:971:A:OP2	2.07	0.54
80:B2:1169:G:N1	80:B2:1575:G:OP2	2.37	0.54
80:B2:1645:G:C3'	81:B5:2259:A:H2	2.07	0.54
80:B2:1759:C:O2'	81:B5:2263:C:C1'	2.56	0.54
89:B2:1954:OHX:N4	89:B2:2068:OHX:N1	2.56	0.54
81:B5:595:G:C8	81:B5:609:G:C6	2.96	0.54
81:B5:2970:C:HO2'	81:B5:2971:A:P	2.30	0.54
79:CL:92:ASP:N	79:CL:92:ASP:OD1	2.41	0.54
17:AI:25:ARG:HD3	80:B2:400:A:O5'	2.07	0.54
25:AQ:123:ARG:CA	80:B2:1584:G:H2'	2.38	0.54
31:AW:83:ILE:HD12	31:AW:122:SER:HB2	1.89	0.54
35:BA:245:LEU:HD13	81:B5:2152:A:H4'	1.89	0.54
43:BI:38:LYS:CG	43:BI:41:ALA:HB2	2.38	0.54
47:BM:121:MET:HG3	81:B5:3214:U:C4	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BS:50:LYS:HE3	82:B7:76:A:N3	2.22	0.54
56:BV:13:ILE:HD13	56:BV:53:SER:HB2	1.89	0.54
57:BW:50:ALA:HA	57:BW:55:PHE:CG	2.43	0.54
60:BZ:16:GLY:C	81:B5:1635:G:O6	2.51	0.54
61:Ba:91:LEU:HD12	61:Ba:121:VAL:HG21	1.90	0.54
66:Bf:91:ALA:C	66:Bf:93:THR:H	2.16	0.54
75:Bo:63:LYS:HD2	81:B5:2795:U:P	2.48	0.54
79:By:40:THR:CA	79:CL:40:THR:CB	2.63	0.54
79:By:125:SER:HA	79:CL:128:GLY:HA3	1.89	0.54
79:By:147:PHE:HD1	79:CL:117:PRO:HD3	1.72	0.54
79:By:148:ASN:O	79:CL:153:ILE:HG13	2.08	0.54
79:By:204:ALA:N	79:CL:201:PRO:CG	2.71	0.54
79:By:208:PHE:CB	79:CL:209:LEU:HD21	1.97	0.54
80:B2:720:G:H1'	80:B2:721:U:H5"	1.90	0.54
80:B2:1352:G:H2'	80:B2:1353:U:O4'	2.08	0.54
80:B2:1655:A:C1'	81:B5:2302:G:H1'	2.15	0.54
81:B5:1192:C:H41	81:B5:1302:A:P	2.31	0.54
81:B5:3160:U:H2'	81:B5:3161:C:C6	2.42	0.54
85:CP:101:ILE:H	85:CP:129:LEU:HA	1.73	0.54
3:A2:13:ILE:HG13	3:A2:29:ARG:O	2.08	0.53
6:A5:97:UNK:HG1	80:B2:1231:U:C5	2.43	0.53
12:AD:34:TYR:OH	12:AD:37:VAL:HG22	2.07	0.53
13:AE:19:LEU:HD13	80:B2:788:A:N9	2.23	0.53
23:AO:120:PRO:HG3	80:B2:888:U:OP1	2.08	0.53
25:AQ:22:VAL:HG22	25:AQ:65:ILE:HD13	1.89	0.53
29:AU:57:ARG:CZ	80:B2:1382:A:N3	2.71	0.53
35:BA:34:TYR:CG	81:B5:2525:G:C5	2.96	0.53
37:BC:326:ARG:O	40:BF:41:ARG:NH2	2.41	0.53
40:BF:155:LYS:C	40:BF:156:ILE:HG12	2.32	0.53
41:BG:78:PHE:CD2	41:BG:179:ILE:HD13	2.43	0.53
48:BN:8:GLU:HG3	48:BN:50:ARG:NH1	2.16	0.53
50:BP:133:HIS:NE2	81:B5:880:G:C6	2.76	0.53
60:BZ:110:ALA:O	60:BZ:114:VAL:HG23	2.08	0.53
79:By:29:VAL:CG2	79:CL:32:LEU:O	2.50	0.53
79:By:73:ARG:HA	79:CL:73:ARG:HG3	1.90	0.53
79:By:112:ALA:CA	79:CL:136:LEU:HD21	2.38	0.53
79:By:174:PRO:HD3	84:CN:2144:G:O2'	2.09	0.53
79:By:174:PRO:HG3	84:CN:2145:G:H5'	1.87	0.53
79:By:177:LYS:NZ	84:CN:2147:A:OP1	2.40	0.53
79:By:178:ALA:O	79:CL:178:ALA:HB3	2.08	0.53
79:By:183:GLU:OE1	79:CL:183:GLU:CG	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:212:VAL:CG2	79:CL:224:ILE:O	2.55	0.53
80:B2:237:C:H4'	80:B2:238:U:H5'	1.90	0.53
80:B2:290:G:O6	89:B2:2043:OHX:N2	2.41	0.53
89:B2:1954:OHX:N3	89:B2:2068:OHX:N5	2.56	0.53
81:B5:252:U:H4'	81:B5:253:A:O5'	2.08	0.53
81:B5:916:G:H5'	81:B5:917:A:OP1	2.08	0.53
81:B5:2778:G:C2'	81:B5:2779:A:H5'	2.38	0.53
81:B5:2778:G:H2'	81:B5:2779:A:H5'	1.90	0.53
5:A4:12:GLY:HA2	32:AX:90:ASP:OD1	2.08	0.53
8:A7:61:ILE:HG23	27:AS:125:ILE:HG12	1.90	0.53
10:AB:180:THR:O	10:AB:184:LEU:HB2	2.08	0.53
12:AD:204:ASP:OD1	80:B2:1330:G:C6	2.56	0.53
14:AF:94:THR:O	14:AF:97:LEU:HB2	2.08	0.53
16:AH:30:SER:HB2	16:AH:34:LEU:HB2	1.90	0.53
17:AI:8:ARG:HH11	17:AI:21:PHE:N	2.07	0.53
17:AI:75:LYS:CB	80:B2:258:C:H5'	2.38	0.53
19:AK:33:GLU:CD	19:AK:33:GLU:H	2.16	0.53
20:AL:130:PRO:CD	80:B2:115:G:C5	2.91	0.53
28:AT:63:ARG:HG3	28:AT:67:MET:HE1	1.90	0.53
33:AY:36:SER:O	33:AY:40:LEU:HG	2.08	0.53
35:BA:116:VAL:HG11	35:BA:134:VAL:HG11	1.89	0.53
39:BE:78:ARG:HH11	39:BE:78:ARG:CG	2.21	0.53
50:BP:108:ASP:N	50:BP:152:GLU:OE2	2.31	0.53
52:BR:105:LEU:HG	52:BR:138:LEU:HD12	1.89	0.53
67:Bg:31:ARG:NH1	81:B5:1598:G:OP2	2.40	0.53
79:By:60:GLY:O	79:CL:163:PHE:C	2.45	0.53
79:By:81:GLU:HB3	79:CL:80:GLY:CA	2.37	0.53
79:By:145:VAL:CB	79:CL:145:VAL:N	2.70	0.53
79:By:175:VAL:HG23	79:CL:41:VAL:CG1	2.37	0.53
79:By:196:LEU:C	79:CL:196:LEU:C	2.76	0.53
79:By:211:SER:CB	79:CL:223:ARG:NH1	2.71	0.53
80:B2:414:C:O2	85:CP:289:LEU:HG	1.49	0.53
80:B2:577:G:H8	80:B2:577:G:H3'	1.72	0.53
80:B2:1114:G:O2'	80:B2:1130:G:O6	2.23	0.53
81:B5:420:G:O5'	81:B5:420:G:OP1	2.26	0.53
81:B5:2844:C:H5"	81:B5:2845:A:OP2	2.09	0.53
3:A2:32:PHE:HZ	3:A2:38:ARG:CZ	2.21	0.53
12:AD:3:ALA:O	12:AD:4:LEU:HB2	2.09	0.53
12:AD:176:LEU:H	12:AD:176:LEU:HD12	1.73	0.53
20:AL:34:TRP:HZ2	80:B2:248:U:O3'	1.92	0.53
25:AQ:15:SER:OG	80:B2:1608:U:P	2.65	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AS:31:ALA:O	27:AS:34:THR:HG23	2.08	0.53
27:AS:118:LYS:HZ1	44:BJ:108:GLU:CD	2.14	0.53
35:BA:149:ARG:NH2	35:BA:252:THR:O	2.42	0.53
37:BC:162:THR:HG21	81:B5:209:A:C5	2.43	0.53
38:BD:265:TYR:HE1	82:B7:121:U:H5"	1.74	0.53
38:BD:270:LYS:CB	82:B7:2:G:C4'	2.86	0.53
41:BG:108:ARG:O	41:BG:112:GLU:N	2.31	0.53
47:BM:98:SER:HB2	81:B5:3205:G:OP1	2.08	0.53
50:BP:139:TYR:CZ	81:B5:1507:G:H1'	2.43	0.53
53:BS:119:ARG:HD2	82:B7:95:A:N3	2.23	0.53
53:BS:155:ARG:HH11	53:BS:172:TYR:H	1.54	0.53
53:BS:155:ARG:NH1	53:BS:172:TYR:H	2.06	0.53
68:Bh:45:LYS:O	68:Bh:49:LYS:HG2	2.09	0.53
75:Bo:77:CYS:SG	75:Bo:79:THR:CG2	2.95	0.53
79:By:6:ARG:HD2	84:CN:2181:G:O6	2.07	0.53
79:By:14:VAL:HG23	79:CL:7:TYR:CE1	2.43	0.53
79:By:24:GLU:CB	79:CL:20:TYR:HE2	2.21	0.53
79:By:174:PRO:HG3	84:CN:2145:G:C5'	2.39	0.53
79:By:212:VAL:CB	79:CL:224:ILE:CG1	2.85	0.53
80:B2:93:A:H4'	80:B2:94:U:OP2	2.07	0.53
80:B2:1062:A:H2'	80:B2:1063:U:O4'	2.09	0.53
81:B5:776:U:C5	81:B5:2719:U:O2	2.52	0.53
81:B5:1214:U:H2'	81:B5:1215:U:C6	2.43	0.53
81:B5:2995:A:H5"	81:B5:2996:U:OP2	2.08	0.53
7:A6:192:PHE:HD2	7:A6:223:TRP:CE3	2.26	0.53
15:AG:172:ALA:C	80:B2:79:C:C5'	2.82	0.53
16:AH:35:LYS:NZ	16:AH:39:ARG:HD2	2.23	0.53
16:AH:46:ILE:HG12	16:AH:60:ILE:HG23	1.90	0.53
16:AH:122:HIS:HA	16:AH:125:ILE:HD12	1.89	0.53
17:AI:27:PHE:CZ	80:B2:301:A:H5"	2.44	0.53
20:AL:6:THR:CB	20:AL:9:SER:HB3	2.38	0.53
20:AL:57:LYS:HB2	20:AL:110:HIS:NE2	2.24	0.53
23:AO:18:ARG:NH1	80:B2:918:U:C2'	2.72	0.53
23:AO:18:ARG:HH12	80:B2:919:A:H5'	0.72	0.53
27:AS:40:ARG:CZ	80:B2:1539:G:C4'	2.84	0.53
28:AT:42:GLY:HA2	28:AT:84:LYS:HB2	1.89	0.53
34:AZ:85:LYS:HG3	34:AZ:86:GLU:N	2.22	0.53
37:BC:91:GLY:O	37:BC:94:CYS:HB2	2.09	0.53
42:BH:63:LYS:HD3	81:B5:3122:A:O2'	2.08	0.53
42:BH:163:GLN:HB3	42:BH:166:ARG:HH21	1.74	0.53
46:BL:61:PRO:HD2	46:BL:70:ARG:HH21	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BR:166:ASN:HA	80:B2:850:A:C8	2.43	0.53
53:BS:16:THR:HG1	53:BS:19:VAL:H	1.54	0.53
55:BU:54:VAL:HG13	55:BU:67:SER:HB2	1.90	0.53
63:Bc:29:SER:HA	63:Bc:32:LYS:HD3	1.91	0.53
79:By:40:THR:HA	79:CL:40:THR:H	1.74	0.53
79:By:131:LEU:HD13	79:CL:131:LEU:CG	2.39	0.53
79:By:161:ILE:HG22	79:CL:174:PRO:HD2	1.89	0.53
79:By:176:GLY:HA2	79:CL:176:GLY:CA	2.31	0.53
79:By:180:PHE:N	79:CL:179:SER:HB3	2.12	0.53
79:By:190:ARG:C	79:CL:22:ILE:CD1	2.57	0.53
79:By:217:THR:C	79:CL:218:MET:N	2.67	0.53
80:B2:851:U:H2'	80:B2:852:C:C6	2.42	0.53
89:B2:1969:OHX:N5	89:B2:2013:OHX:N6	2.55	0.53
81:B5:112:U:O2'	81:B5:113:C:OP2	2.24	0.53
81:B5:2211:U:C5	81:B5:2234:G:O6	2.59	0.53
81:B5:3380:U:O2'	81:B5:3381:U:H5'	2.09	0.53
84:CN:2155:A:C8	84:CN:2180:G:O2'	2.60	0.53
2:A1:17:ARG:HD3	80:B2:1070:C:O3'	2.08	0.53
7:A6:273:ASP:CG	7:A6:275:ARG:HH22	2.17	0.53
9:AA:69:ASN:HB3	9:AA:71:GLU:CD	2.34	0.53
10:AB:165:ARG:NE	80:B2:947:U:OP1	2.33	0.53
12:AD:127:MET:HE1	12:AD:133:GLY:HA2	1.91	0.53
17:AI:36:THR:HG21	17:AI:173:PRO:HB2	1.90	0.53
20:AL:55:ASP:OD2	20:AL:110:HIS:HE1	1.92	0.53
20:AL:80:MET:HE2	80:B2:325:G:O4'	2.08	0.53
23:AO:13:VAL:N	23:AO:77:THR:OG1	2.38	0.53
23:AO:120:PRO:HB2	80:B2:887:A:C5'	2.37	0.53
25:AQ:47:LYS:HZ1	25:AQ:114:ARG:CD	2.21	0.53
26:AR:44:LYS:HG2	26:AR:48:ASN:HD21	1.74	0.53
33:AY:119:PHE:CE1	80:B2:86:A:OP1	2.61	0.53
38:BD:202:GLY:O	38:BD:206:GLN:HG3	2.08	0.53
38:BD:271:LYS:HE2	82:B7:1:G:O2'	2.07	0.53
58:BX:105:VAL:HG11	58:BX:126:LEU:HD13	1.89	0.53
67:Bg:8:ARG:NH2	67:Bg:31:ARG:HD2	2.23	0.53
71:Bk:53:THR:HG21	81:B5:1748:G:OP1	2.08	0.53
76:Bq:5:ARG:NE	81:B5:1221:A:H1'	2.23	0.53
79:By:15:ASP:C	79:CL:220:PRO:CB	2.81	0.53
79:By:136:LEU:O	79:CL:136:LEU:CA	2.57	0.53
79:By:152:ILE:N	79:CL:152:ILE:O	2.40	0.53
79:By:154:ARG:CD	79:CL:154:ARG:HA	2.38	0.53
79:By:198:ALA:C	79:CL:199:HIS:H	2.01	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:204:ALA:CB	79:CL:201:PRO:CD	2.52	0.53
80:B2:138:A:N6	80:B2:266:A:H61	2.06	0.53
80:B2:711:U:H4'	80:B2:712:G:OP1	2.07	0.53
80:B2:981:U:H2'	80:B2:982:U:H5'	1.91	0.53
82:B7:49:G:H4'	82:B7:50:U:O5'	2.08	0.53
85:CP:20:LYS:HG3	90:CP:401:GCP:O5'	2.09	0.53
7:A6:136:ILE:HD13	7:A6:136:ILE:N	2.24	0.53
10:AB:116:LYS:HA	80:B2:931:C:C3'	2.38	0.53
15:AG:56:ASN:OD1	80:B2:153:G:C2	2.59	0.53
15:AG:84:TYR:HD1	80:B2:161:U:OP1	1.90	0.53
15:AG:132:ARG:C	80:B2:68:A:N6	2.56	0.53
16:AH:107:ARG:CZ	80:B2:741:C:O2	2.57	0.53
18:AJ:17:ARG:NH2	80:B2:4:C:O2'	2.38	0.53
25:AQ:113:ASP:CG	25:AQ:114:ARG:N	2.66	0.53
28:AT:126:GLU:H	28:AT:126:GLU:CD	2.17	0.53
29:AU:88:LYS:HE3	80:B2:1516:A:OP1	2.07	0.53
31:AW:72:CYS:HB3	31:AW:129:VAL:HG13	1.90	0.53
34:AZ:65:LEU:HB3	34:AZ:71:ILE:HD13	1.89	0.53
35:BA:143:GLU:O	35:BA:145:LYS:N	2.42	0.53
37:BC:191:LYS:HG3	37:BC:194:TYR:CZ	2.44	0.53
37:BC:311:HIS:NE2	37:BC:314:LYS:HA	2.24	0.53
40:BF:92:ILE:HD11	81:B5:1159:A:H2	1.73	0.53
51:BQ:171:LYS:NZ	81:B5:90:C:H41	2.07	0.53
52:BR:74:ARG:NH1	81:B5:1942:U:P	2.81	0.53
52:BR:74:ARG:CD	81:B5:1942:U:OP2	2.57	0.53
59:BY:52:ARG:HA	59:BY:70:ILE:CG2	2.39	0.53
63:Bc:78:GLY:HA2	63:Bc:87:VAL:HG13	1.89	0.53
79:By:40:THR:CA	79:CL:217:THR:CG2	2.73	0.53
79:By:199:HIS:HB3	79:CL:199:HIS:HB3	1.91	0.53
80:B2:61:A:H8	80:B2:269:G:HO2'	1.52	0.53
80:B2:1595:U:H3	80:B2:1600:A:H2	1.56	0.53
80:B2:1655:A:N1	81:B5:2291:A:O2'	2.32	0.53
81:B5:929:A:H2'	81:B5:930:U:C6	2.44	0.53
81:B5:1085:A:H8	81:B5:1085:A:H5'	1.72	0.53
81:B5:1940:G:H21	81:B5:3362:A:H8	1.55	0.53
81:B5:2209:U:H4'	81:B5:2210:G:OP1	2.08	0.53
81:B5:2733:A:H2'	81:B5:2734:A:O4'	2.09	0.53
81:B5:3242:G:H5"	81:B5:3245:A:H8	1.74	0.53
84:CN:2157:C:N3	84:CN:2158:C:C5	2.77	0.53
84:CN:2200:C:O2'	84:CN:2201:U:OP2	2.23	0.53
9:AA:49:ASN:HB3	9:AA:52:LYS:CG	2.32	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AA:59:LEU:HD11	30:AV:79:LEU:HD11	1.91	0.53
18:AJ:90:LYS:HB2	18:AJ:95:TYR:CD2	2.43	0.53
18:AJ:105:LEU:O	18:AJ:108:ARG:HG3	2.09	0.53
20:AL:133:LYS:HB2	80:B2:338:C:OP1	2.08	0.53
23:AO:125:SER:HB3	80:B2:926:A:N3	2.23	0.53
24:AP:128:HIS:ND1	80:B2:1180:C:O2'	2.42	0.53
25:AQ:123:ARG:N	80:B2:1584:G:C5'	2.52	0.53
29:AU:23:ARG:HD3	29:AU:92:ASP:OD1	2.09	0.53
36:BB:332:ARG:NH1	36:BB:333:LYS:HD2	2.24	0.53
37:BC:144:LYS:H	37:BC:144:LYS:HZ2	1.57	0.53
42:BH:137:SER:HB2	42:BH:143:GLU:HB3	1.91	0.53
44:BJ:82:ARG:HD2	44:BJ:112:LEU:HB2	1.89	0.53
46:BL:63:VAL:HG13	81:B5:72:C:C5'	2.39	0.53
52:BR:125:LYS:CE	81:B5:1720:U:O4	2.56	0.53
62:Bb:37:PRO:HG2	81:B5:776:U:O2	2.08	0.53
62:Bb:58:LYS:HA	62:Bb:58:LYS:NZ	2.23	0.53
63:Bc:75:ASN:HA	63:Bc:86:ARG:HB2	1.89	0.53
66:Bf:8:TYR:CE2	66:Bf:99:ARG:HG2	2.43	0.53
70:Bj:32:LYS:HE2	83:B8:111:A:OP1	2.09	0.53
75:Bo:40:LYS:HE3	75:Bo:44:ASP:OD2	2.08	0.53
79:By:73:ARG:HA	79:CL:73:ARG:CG	2.38	0.53
79:By:116:THR:OG1	79:CL:115:ALA:HB2	2.04	0.53
79:By:177:LYS:O	79:CL:178:ALA:CB	2.57	0.53
79:By:206:GLY:C	79:CL:208:PHE:CB	2.61	0.53
80:B2:226:A:C2'	80:B2:227:U:H5'	2.38	0.53
80:B2:542:A:O2'	80:B2:543:C:P	2.67	0.53
80:B2:542:A:H5"	80:B2:544:A:C8	2.43	0.53
80:B2:830:U:OP1	89:B2:2084:OHX:N3	2.41	0.53
81:B5:644:G:H2'	81:B5:2372:A:N7	2.24	0.53
81:B5:1283:C:O2'	81:B5:1284:C:H5'	2.08	0.53
81:B5:2943:G:H2'	81:B5:2944:U:O4'	2.09	0.53
81:B5:3057:U:O2'	81:B5:3059:G:OP1	2.27	0.53
85:CP:79:GLY:HA2	90:CP:401:GCP:PG	2.48	0.53
1:A0:10:ARG:HB2	1:A0:34:LYS:HG3	1.90	0.53
4:A3:22:ARG:HD2	4:A3:38:ILE:HD11	1.91	0.53
4:A3:32:ARG:HB2	80:B2:1595:U:OP1	2.09	0.53
5:A4:28:LYS:HZ1	80:B2:477:A:P	2.30	0.53
9:AA:74:VAL:HG22	9:AA:96:THR:HG23	1.91	0.53
9:AA:109:ASN:O	9:AA:112:THR:HG22	2.08	0.53
10:AB:34:ALA:HB2	10:AB:43:VAL:HG23	1.89	0.53
10:AB:133:TYR:CD1	10:AB:181:LEU:HD11	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AF:145:ASP:CG	14:AF:146:THR:H	2.17	0.53
15:AG:172:ALA:CB	80:B2:78:A:O3'	2.56	0.53
17:AI:105:ASP:OD2	17:AI:107:THR:HG23	2.09	0.53
19:AK:53:GLY:O	19:AK:55:VAL:N	2.39	0.53
23:AO:54:GLU:OE1	80:B2:902:G:O6	2.27	0.53
24:AP:115:TYR:CD2	80:B2:1557:U:O4'	2.62	0.53
25:AQ:35:PRO:HG2	25:AQ:38:LEU:HG	1.90	0.53
31:AW:37:PHE:CD2	31:AW:103:ILE:HD12	2.43	0.53
33:AY:119:PHE:CZ	80:B2:86:A:C4'	2.91	0.53
35:BA:70:ARG:HB3	81:B5:1650:G:H5"	1.90	0.53
35:BA:204:MET:HE3	81:B5:914:A:C2	2.44	0.53
35:BA:247:ARG:O	80:B2:1013:A:OP1	2.26	0.53
37:BC:138:ARG:HH21	37:BC:240:PRO:HB2	1.72	0.53
41:BG:241:LYS:HG3	81:B5:2527:G:O4'	2.09	0.53
67:Bg:9:ARG:O	67:Bg:11:ASN:N	2.42	0.53
69:Bi:74:LYS:HG3	69:Bi:80:PHE:HA	1.90	0.53
70:Bj:28:HIS:CE1	70:Bj:31:LYS:HG3	2.44	0.53
79:By:14:VAL:CG1	79:CL:10:LEU:HD22	2.38	0.53
79:By:51:PRO:HG3	79:CL:46:LYS:HZ1	1.73	0.53
79:By:75:LEU:HD21	79:CL:107:TRP:HE3	1.68	0.53
79:By:83:ILE:HA	79:CL:95:GLY:N	2.24	0.53
80:B2:872:G:H2'	80:B2:873:U:O4'	2.09	0.53
89:B2:1922:OHX:N2	89:B2:1977:OHX:N6	2.56	0.53
81:B5:2403:G:H22	81:B5:2404:A:H62	1.55	0.53
79:CL:28:LEU:HD12	79:CL:28:LEU:O	2.08	0.53
3:A2:45:LYS:HB3	14:AF:162:VAL:HB	1.90	0.53
9:AA:14:ALA:O	9:AA:18:LEU:HG	2.09	0.53
17:AI:5:ARG:NH1	80:B2:332:U:O2'	2.41	0.53
25:AQ:122:ARG:CB	80:B2:1584:G:H5"	2.39	0.53
35:BA:34:TYR:CG	81:B5:2525:G:C6	2.96	0.53
47:BM:132:LYS:HD3	81:B5:3230:G:H4'	1.90	0.53
48:BN:73:ARG:O	48:BN:75:VAL:N	2.38	0.53
49:BO:172[A]:ARG:HA	49:BO:175[A]:THR:HG23	1.89	0.53
51:BQ:178:ARG:CD	61:Ba:50:PRO:HB2	2.37	0.53
52:BR:170:ARG:O	80:B2:852:C:H3'	2.09	0.53
58:BX:44:PRO:O	58:BX:45:LYS:HB2	2.08	0.53
58:BX:50:ALA:N	68:Bh:79:ASP:OD2	2.37	0.53
63:Bc:84:LEU:HB2	81:B5:1715:A:N6	2.23	0.53
76:Bq:5:ARG:NE	81:B5:1221:A:C1'	2.63	0.53
79:By:59:ARG:CD	79:CL:59:ARG:HH21	2.00	0.53
79:By:66:HIS:N	79:CL:188:ASN:HD21	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:74:VAL:HG21	79:CL:72:VAL:HG22	1.90	0.53
79:By:78:ALA:HB2	79:CL:94:VAL:HG13	1.74	0.53
79:By:178:ALA:CA	79:CL:178:ALA:CB	2.86	0.53
79:By:226:PRO:HB3	79:CL:226:PRO:HD3	1.90	0.53
80:B2:133:U:OP2	80:B2:133:U:H3'	2.07	0.53
80:B2:501:U:HO2'	80:B2:502:U:H6	1.56	0.53
89:B2:1954:OHX:N4	89:B2:2068:OHX:N2	2.57	0.53
81:B5:725:G:C2'	81:B5:726:G:H5"	2.39	0.53
81:B5:741:U:H2'	81:B5:742:G:O4'	2.09	0.53
81:B5:1554:U:H4'	81:B5:1555:U:OP1	2.08	0.53
81:B5:1878:G:O2'	81:B5:1879:A:OP1	2.25	0.53
81:B5:1915:A:H2'	81:B5:1916:U:C6	2.43	0.53
81:B5:2541:U:H4'	81:B5:2542:U:OP1	2.09	0.53
81:B5:3153:U:H4'	81:B5:3154:C:H5'	1.90	0.53
6:A5:86:UNK:C	6:A5:87:UNK:HG3	2.38	0.53
7:A6:7:LEU:HD23	7:A6:315:VAL:HG22	1.90	0.53
7:A6:285:ALA:CB	80:B2:1394:G:P	2.97	0.53
11:AC:173:PRO:O	11:AC:176:SER:OG	2.27	0.53
15:AG:130:PRO:C	57:BW:82:ILE:HG23	2.33	0.53
15:AG:159:ARG:CZ	80:B2:77:U:N1	2.72	0.53
23:AO:16:VAL:O	23:AO:30:VAL:HA	2.09	0.53
23:AO:117:ASP:OD1	23:AO:119:THR:HG23	2.08	0.53
27:AS:118:LYS:CG	44:BJ:108:GLU:OE2	2.57	0.53
27:AS:118:LYS:HG3	44:BJ:108:GLU:OE2	2.09	0.53
32:AX:6:PRO:HG3	32:AX:14:LYS:HG2	1.91	0.53
32:AX:107:PHE:CE2	32:AX:114:LYS:HB2	2.44	0.53
34:AZ:94:LYS:HD3	34:AZ:95:HIS:HB3	1.90	0.53
35:BA:15:ILE:CD1	81:B5:822:G:H1'	2.39	0.53
41:BG:38:GLN:HA	81:B5:2557:A:H2	1.72	0.53
41:BG:129:PRO:HG3	81:B5:121:A:N1	2.23	0.53
46:BL:5:LYS:NZ	81:B5:796:U:H5"	2.23	0.53
48:BN:47:LYS:HE3	48:BN:51:LEU:HD11	1.91	0.53
49:BO:64[A]:PHE:HE2	49:BO:68[A]:ARG:NH1	2.05	0.53
51:BQ:107:THR:HG21	81:B5:676:G:H3'	1.91	0.53
60:BZ:67:LYS:HE2	60:BZ:115:LYS:HZ1	1.74	0.53
61:Ba:21:ARG:HB3	81:B5:641:C:OP1	2.09	0.53
61:Ba:34:MET:CG	81:B5:96:G:OP2	2.55	0.53
79:By:107:TRP:CE3	79:CL:103:ILE:CA	2.92	0.53
79:By:149:ILE:HG22	79:CL:76:ALA:HB1	1.78	0.53
80:B2:206:A:OP2	89:B2:1979:OHX:N5	2.41	0.53
80:B2:1473:U:O2	80:B2:1473:U:H2'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
89:B2:2016:OHX:N6	89:B2:2073:OHX:N2	2.57	0.53
81:B5:1307:G:C2	81:B5:1308:A:C2	2.96	0.53
81:B5:2364:G:H22	81:B5:2396:G:H1'	1.74	0.53
85:CP:19:THR:OG1	90:CP:401:GCP:O1B	2.26	0.53
10:AB:157:GLN:H	10:AB:160:HIS:HB2	1.73	0.52
10:AB:179:SER:HB3	10:AB:183:GLN:CD	2.34	0.52
11:AC:205:ARG:NH1	80:B2:7:G:N7	2.53	0.52
11:AC:234:PRO:O	11:AC:235:LEU:HB2	2.09	0.52
12:AD:20:GLU:HG3	19:AK:61:TRP:CD2	2.45	0.52
12:AD:156:PHE:HE2	80:B2:1326:A:O3'	1.92	0.52
19:AK:1:MET:HG2	19:AK:2:LEU:H	1.73	0.52
19:AK:12:HIS:NE2	19:AK:49:LEU:HD21	2.24	0.52
20:AL:84:ILE:HD12	20:AL:86:ILE:HG23	1.90	0.52
23:AO:38:THR:HG21	80:B2:896:U:C5'	2.38	0.52
23:AO:46:MET:CA	80:B2:899:G:O5'	2.56	0.52
23:AO:54:GLU:CD	80:B2:901:G:N1	2.42	0.52
36:BB:147:GLU:OE1	36:BB:150:ARG:NH2	2.42	0.52
36:BB:210:GLU:O	36:BB:213:GLU:HB2	2.09	0.52
48:BN:35:VAL:N	81:B5:1543:G:OP1	2.35	0.52
53:BS:46:GLN:HG2	53:BS:51:VAL:O	2.09	0.52
54:BT:4:SER:HB2	81:B5:2630:C:C5	2.43	0.52
61:Ba:133:LEU:HD12	81:B5:715:A:OP1	2.09	0.52
73:Bm:112:LYS:NZ	81:B5:3107:U:P	2.82	0.52
79:By:2:LYS:HB3	84:CN:2181:G:C2	2.43	0.52
79:By:14:VAL:HG11	79:CL:32:LEU:HB3	1.90	0.52
79:By:34:THR:O	84:CN:2149:C:C6	2.62	0.52
79:By:40:THR:O	79:CL:217:THR:CA	2.53	0.52
79:By:51:PRO:CG	79:CL:46:LYS:NZ	2.70	0.52
79:By:56:GLN:CA	79:CL:57:ASN:OD1	2.56	0.52
79:By:63:SER:HB3	79:CL:64:LEU:N	2.22	0.52
79:By:64:LEU:HD13	79:CL:188:ASN:C	2.32	0.52
79:By:153:ILE:O	79:CL:72:VAL:CG2	2.55	0.52
79:By:176:GLY:N	79:CL:41:VAL:CA	2.70	0.52
79:By:223:ARG:HG2	79:CL:16:PRO:O	2.09	0.52
80:B2:1487:A:H2'	80:B2:1488:G:C8	2.44	0.52
80:B2:1760:G:C2'	80:B2:1761:U:H5'	2.39	0.52
81:B5:398:A:O2'	81:B5:1416:C:OP1	2.20	0.52
81:B5:2220:A:H4'	79:CL:205:LYS:HG2	1.91	0.52
2:A1:67:THR:C	80:B2:871:G:HO2'	2.15	0.52
6:A5:136:LYS:H	6:A5:138:ARG:HB2	1.73	0.52
10:AB:172:LEU:O	10:AB:176:VAL:HG23	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AG:59:GLN:HA	80:B2:155:U:C1'	2.39	0.52
16:AH:96:ARG:CZ	16:AH:124:LYS:HB3	2.39	0.52
23:AO:129:LYS:HB3	80:B2:990:C:H5"	1.88	0.52
28:AT:57:ARG:NH2	28:AT:80:TYR:HB3	2.24	0.52
32:AX:23:ARG:HA	32:AX:26:GLU:OE2	2.10	0.52
36:BB:2:SER:HB3	81:B5:2943:G:C8	2.44	0.52
37:BC:241:GLY:HA3	81:B5:1383:G:O4'	2.10	0.52
38:BD:94:ASN:CA	82:B7:47:C:OP1	2.57	0.52
40:BF:96:PRO:O	40:BF:99:PRO:HD2	2.09	0.52
57:BW:63:ILE:O	57:BW:65:GLU:N	2.36	0.52
61:Ba:62:HIS:CG	81:B5:304:G:C4	2.97	0.52
70:Bj:79:GLN:NE2	83:B8:95:G:C5	2.78	0.52
79:By:42:GLU:HG2	84:CN:2145:G:C4'	2.39	0.52
79:By:81:GLU:N	79:CL:83:ILE:CG1	2.58	0.52
79:By:138:PRO:O	79:CL:137:LEU:HD12	2.09	0.52
79:By:187:ASP:HB3	79:CL:185:LEU:N	2.15	0.52
80:B2:520:A:H2'	80:B2:521:A:C8	2.44	0.52
80:B2:779:U:OP2	80:B2:780:A:H2	1.93	0.52
80:B2:1320:U:O2	80:B2:1322:A:H5'	2.09	0.52
80:B2:1676:U:O2'	80:B2:1677:C:H5'	2.09	0.52
81:B5:1560:G:HO2'	81:B5:1561:G:P	2.33	0.52
81:B5:1716:U:H5'	81:B5:1716:U:C6	2.44	0.52
81:B5:3218:A:H5"	81:B5:3219:G:C5	2.44	0.52
10:AB:127:VAL:HG11	10:AB:176:VAL:HG21	1.91	0.52
10:AB:128:LYS:HE3	10:AB:132:ASP:HB3	1.90	0.52
10:AB:138:PHE:CE2	80:B2:885:G:H5'	2.43	0.52
10:AB:174:LYS:HB2	10:AB:174:LYS:NZ	2.25	0.52
10:AB:181:LEU:O	10:AB:182:ALA:C	2.52	0.52
15:AG:58:LYS:CA	80:B2:155:U:C5'	2.85	0.52
15:AG:134:GLY:HA3	80:B2:66:U:O4	1.94	0.52
17:AI:76:THR:HG22	17:AI:108:PRO:HG2	1.91	0.52
20:AL:14:GLN:HB3	20:AL:54:ILE:HG21	1.91	0.52
20:AL:75:VAL:HG12	20:AL:119:VAL:HA	1.91	0.52
22:AN:92:ILE:O	22:AN:96:VAL:HG23	2.09	0.52
34:AZ:41:ILE:HG13	34:AZ:42:LEU:HG	1.91	0.52
38:BD:152:ARG:CD	81:B5:2663:G:H5'	2.35	0.52
41:BG:105:LYS:HG3	41:BG:109:LEU:HD23	1.91	0.52
46:BL:18:TRP:CD1	46:BL:18:TRP:H	2.26	0.52
52:BR:163:ARG:O	52:BR:167:ARG:HG2	2.09	0.52
61:Ba:73:LEU:HD23	61:Ba:109:TYR:CZ	2.45	0.52
61:Ba:126:LYS:HB3	61:Ba:148:ILE:HG21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:Be:37:GLY:HA3	81:B5:639:G:OP1	2.09	0.52
79:By:77:ILE:HG12	79:CL:99:ILE:HG12	1.91	0.52
79:By:87:GLU:CG	79:CL:93:TYR:HB3	2.39	0.52
79:By:142:ALA:HB2	79:CL:162:GLU:OE2	2.10	0.52
79:By:144:THR:HB	79:CL:138:PRO:HA	1.89	0.52
79:By:146:GLY:CA	79:CL:145:VAL:CA	2.81	0.52
80:B2:513:U:H2'	80:B2:514:G:C8	2.44	0.52
80:B2:555:A:C8	80:B2:555:A:H3'	2.45	0.52
80:B2:1334:U:H2'	80:B2:1335:U:C6	2.45	0.52
80:B2:1655:A:O4'	81:B5:2302:G:O2'	2.26	0.52
89:B2:1974:OHX:N3	89:B2:1988:OHX:N5	2.57	0.52
81:B5:1566:A:C2'	81:B5:1567:U:H5'	2.38	0.52
81:B5:2523:A:H4'	81:B5:2524:A:OP2	2.10	0.52
81:B5:3354:U:H4'	81:B5:3355:U:H5"	1.91	0.52
83:B8:66:A:H2'	83:B8:67:U:C6	2.45	0.52
84:CN:2137:G:H3'	84:CN:2138:A:C8	2.43	0.52
84:CN:2162:G:H2'	84:CN:2163:C:C6	2.44	0.52
1:A0:22:ARG:HH12	23:AO:127:ARG:HG3	1.75	0.52
4:A3:31:ILE:CD1	80:B2:1199:G:N1	2.72	0.52
6:A5:138:ARG:HH21	80:B2:1235:C:H2'	1.71	0.52
9:AA:73:VAL:O	9:AA:95:ALA:HA	2.09	0.52
13:AE:241:GLY:O	13:AE:244:ILE:HG12	2.10	0.52
15:AG:54:GLY:HA3	80:B2:163:G:C5'	2.32	0.52
17:AI:117:TYR:CD1	17:AI:150:ALA:HB2	2.44	0.52
25:AQ:75:VAL:CG1	80:B2:1610:G:P	2.98	0.52
25:AQ:76:SER:CB	80:B2:1609:U:P	2.83	0.52
26:AR:10:LYS:HZ2	80:B2:1401:A:C3'	2.11	0.52
35:BA:235:ALA:CB	81:B5:2184:U:OP1	2.58	0.52
37:BC:119:ARG:HA	37:BC:122:THR:HG23	1.91	0.52
41:BG:144:GLU:OE2	69:Bi:36:ARG:NH2	2.43	0.52
43:BI:67:ALA:HB2	81:B5:2852:C:C2'	2.39	0.52
46:BL:37:ASN:O	46:BL:41:THR:HG23	2.09	0.52
52:BR:166:ASN:HB2	80:B2:850:A:OP2	2.09	0.52
52:BR:169:ALA:O	80:B2:852:C:N1	2.41	0.52
54:BT:129:LYS:HB2	81:B5:1098:A:C5'	2.40	0.52
70:Bj:52:LYS:HA	70:Bj:55:ARG:HD2	1.92	0.52
79:By:44:HIS:NE2	84:CN:2197:A:N3	2.52	0.52
79:By:93:TYR:C	79:CL:93:TYR:CG	2.71	0.52
79:By:131:LEU:CA	79:CL:133:PRO:HD2	2.37	0.52
80:B2:61:A:H8	80:B2:269:G:O2'	1.92	0.52
80:B2:287:G:O2'	80:B2:288:A:OP2	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:542:A:O2'	80:B2:543:C:O5'	2.26	0.52
80:B2:1011:G:OP2	89:B2:1969:OHX:N6	2.42	0.52
89:B2:1964:OHX:N1	89:B2:2027:OHX:N3	2.58	0.52
81:B5:374:A:N3	81:B5:376:G:H5"	2.25	0.52
81:B5:1481:A:O2'	81:B5:1858:A:N3	2.40	0.52
81:B5:2438:A:C6	81:B5:2510:U:N3	2.77	0.52
4:A3:9:SER:HA	80:B2:1451:C:OP1	2.10	0.52
10:AB:116:LYS:CA	80:B2:931:C:O3'	2.57	0.52
11:AC:185:LYS:O	11:AC:189:GLN:HG3	2.10	0.52
15:AG:57:ASP:OD2	15:AG:72:ARG:NH1	2.43	0.52
15:AG:60:GLY:HA2	80:B2:154:G:C2'	2.40	0.52
15:AG:139:ASN:HA	15:AG:142:ARG:HB2	1.91	0.52
15:AG:175:ILE:HD11	80:B2:78:A:H1'	0.52	0.52
18:AJ:88:GLU:HG3	18:AJ:91:LYS:HE3	1.90	0.52
25:AQ:76:SER:HB2	80:B2:1609:U:OP2	2.08	0.52
28:AT:60:SER:OG	80:B2:1479:A:H5"	2.08	0.52
33:AY:49:LYS:HD3	33:AY:49:LYS:N	2.24	0.52
34:AZ:71:ILE:HB	34:AZ:76:ALA:HB2	1.92	0.52
35:BA:203:ALA:CB	81:B5:2146:C:H5"	2.39	0.52
40:BF:224:ILE:CG2	82:B7:97:A:H4'	2.39	0.52
46:BL:3:ILE:HG21	61:Ba:45:MET:HE3	1.91	0.52
46:BL:64:LYS:HD3	46:BL:65:TYR:CE2	2.45	0.52
52:BR:166:ASN:CA	80:B2:850:A:H5"	2.13	0.52
52:BR:170:ARG:H	80:B2:851:U:H3'	1.74	0.52
68:Bh:81:ARG:NH2	81:B5:18:G:OP1	2.43	0.52
73:Bm:99:CYS:HB2	73:Bm:114:LYS:HD3	1.92	0.52
74:Bn:17:ARG:NH2	80:B2:1116:A:C5'	2.72	0.52
76:Bq:32:ASN:HB3	81:B5:1260:A:C6	2.45	0.52
79:By:51:PRO:CG	79:CL:46:LYS:HZ2	2.23	0.52
79:By:100:ILE:HD13	79:CL:98:GLU:C	2.29	0.52
79:By:142:ALA:HB1	79:CL:162:GLU:OE1	2.09	0.52
79:By:152:ILE:HD11	79:CL:144:THR:HA	1.89	0.52
79:By:185:LEU:HB3	79:CL:41:VAL:CG1	2.22	0.52
79:By:186:ALA:O	79:CL:22:ILE:HG23	2.08	0.52
79:By:190:ARG:CZ	79:CL:21:THR:O	2.52	0.52
79:By:201:PRO:CB	79:CL:58:VAL:CA	2.88	0.52
79:By:212:VAL:CG1	79:CL:213:TYR:HA	2.19	0.52
79:By:214:VAL:HG11	79:CL:29:VAL:HG23	1.90	0.52
80:B2:240:U:H1'	80:B2:241:U:P	2.49	0.52
80:B2:912:U:H4'	80:B2:913:G:O5'	2.10	0.52
89:B2:1921:OHX:N2	89:B2:2050:OHX:N6	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2101:C:O2'	81:B5:2102:U:OP1	2.23	0.52
4:A3:32:ARG:CB	80:B2:1595:U:OP1	2.58	0.52
8:A7:51:ARG:HD2	81:B5:2677:G:C1'	2.39	0.52
27:AS:18:LEU:HD21	27:AS:70:VAL:HG13	1.92	0.52
33:AY:9:THR:H	80:B2:780:A:H1'	1.74	0.52
36:BB:84:VAL:HG13	36:BB:162:VAL:HB	1.91	0.52
37:BC:126:ILE:HG13	37:BC:238:LEU:HD13	1.92	0.52
48:BN:72:LYS:HD3	81:B5:2166:A:C3'	2.40	0.52
48:BN:112:ASN:HA	81:B5:19:U:O2'	2.07	0.52
49:BO:15[A]:LEU:HD11	49:BO:129[A]:LEU:HD13	1.92	0.52
49:BO:110[B]:PRO:HB2	49:BO:111[B]:PRO:HD2	1.91	0.52
63:Bc:45:ALA:O	63:Bc:48:THR:HG23	2.10	0.52
69:Bi:15:LYS:H	81:B5:73:C:P	2.32	0.52
70:Bj:66:TYR:OH	70:Bj:73:ARG:NH2	2.43	0.52
79:By:41:VAL:HG23	79:CL:39:GLU:HB3	1.92	0.52
79:By:130:ILE:O	79:CL:130:ILE:HG12	2.10	0.52
79:By:200:LYS:HZ1	79:CL:208:PHE:CB	2.22	0.52
79:By:217:THR:HG23	84:CN:2145:G:N1	2.08	0.52
79:By:222:VAL:HG22	79:CL:220:PRO:CD	2.30	0.52
80:B2:20:G:H5'	80:B2:571:G:C5	2.43	0.52
80:B2:114:C:H6	80:B2:114:C:H5'	1.74	0.52
80:B2:487:G:H3'	80:B2:488:G:H5"	1.92	0.52
80:B2:1655:A:N3	81:B5:2302:G:H1'	2.24	0.52
81:B5:1269:U:H6	81:B5:1269:U:O5'	1.93	0.52
81:B5:2590:A:H2'	81:B5:2591:A:O5'	2.09	0.52
3:A2:15:VAL:HA	3:A2:28:VAL:HG22	1.92	0.52
4:A3:31:ILE:CD1	80:B2:1199:G:C6	2.90	0.52
10:AB:39:GLU:HG3	10:AB:40:ASN:N	2.21	0.52
11:AC:40:LYS:HA	11:AC:43:ARG:NH1	2.25	0.52
12:AD:159:HIS:O	80:B2:1421:A:C4'	2.55	0.52
15:AG:6:SER:HB2	80:B2:164:A:O2'	2.10	0.52
15:AG:62:PRO:HG3	80:B2:161:U:HO2'	1.69	0.52
16:AH:104:ARG:O	16:AH:106:SER:N	2.42	0.52
17:AI:50:GLY:HA2	80:B2:397:A:C3'	2.40	0.52
18:AJ:104:PHE:O	18:AJ:147:MET:HE1	2.10	0.52
20:AL:5:LEU:O	20:AL:7:VAL:N	2.34	0.52
20:AL:50:GLU:OE2	80:B2:827:C:O2'	2.17	0.52
23:AO:38:THR:HG21	80:B2:896:U:O5'	2.09	0.52
23:AO:125:SER:CB	80:B2:926:A:C2	2.93	0.52
28:AT:52:GLY:C	28:AT:54:PHE:H	2.15	0.52
30:AV:72:LEU:O	30:AV:76:ASP:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AY:33:ALA:CB	80:B2:533:U:H4'	2.40	0.52
35:BA:231:SER:HB2	81:B5:2163:C:C5'	2.23	0.52
35:BA:234:LYS:NZ	81:B5:2162:U:P	2.83	0.52
36:BB:159:ARG:HG2	36:BB:182:GLN:HA	1.91	0.52
48:BN:172:ARG:NH1	81:B5:29:C:O3'	2.42	0.52
52:BR:9:ARG:NH2	81:B5:1602:A:O3'	2.43	0.52
59:BY:116:LYS:HE3	83:B8:84:C:N3	2.24	0.52
66:Bf:75:HIS:HB3	66:Bf:80:VAL:HG12	1.91	0.52
67:Bg:74:ARG:NH2	81:B5:1639:C:P	2.82	0.52
69:Bi:15:LYS:HE2	81:B5:73:C:N3	2.24	0.52
70:Bj:8:PHE:HA	70:Bj:11:ARG:HD3	1.91	0.52
79:By:39:GLU:HG2	79:CL:218:MET:HG2	1.91	0.52
79:By:99:ILE:C	79:CL:103:ILE:H	2.17	0.52
79:By:107:TRP:CZ2	79:CL:103:ILE:HD13	2.45	0.52
79:By:144:THR:CG2	79:CL:137:LEU:CA	2.70	0.52
79:By:152:ILE:CB	79:CL:114:VAL:HG11	2.39	0.52
79:By:171:ILE:HB	79:CL:47:LEU:CG	2.37	0.52
80:B2:256:A:H2'	80:B2:257:A:O4'	2.09	0.52
80:B2:515:A:OP2	89:B2:1949:OHX:N3	2.43	0.52
80:B2:838:G:C6	89:B2:2071:OHX:N2	2.78	0.52
80:B2:1002:G:H2'	80:B2:1003:A:H5'	1.92	0.52
81:B5:920:A:OP1	81:B5:922:U:C5	2.63	0.52
81:B5:996:A:H2'	81:B5:997:A:O4'	2.09	0.52
8:A7:51:ARG:CD	81:B5:2677:G:C1'	2.88	0.52
10:AB:119:THR:HB	10:AB:143:THR:HG23	1.92	0.52
17:AI:146:ARG:NH2	80:B2:186:C:OP1	2.34	0.52
29:AU:67:THR:HG23	80:B2:1199:G:N7	2.25	0.52
35:BA:237:LEU:HD21	81:B5:2153:U:O2	2.10	0.52
36:BB:35:ASP:OD2	36:BB:37:ARG:HD2	2.09	0.52
37:BC:48:GLN:HG3	81:B5:337:G:O4'	2.10	0.52
46:BL:16:LYS:HE3	81:B5:49:A:OP1	2.10	0.52
48:BN:71:ARG:NH1	81:B5:1546:A:N7	2.58	0.52
50:BP:139:TYR:CE2	81:B5:2355:G:H5'	2.45	0.52
52:BR:167:ARG:HB3	52:BR:167:ARG:HH11	1.75	0.52
55:BU:90:ARG:O	55:BU:91:ASP:HB2	2.10	0.52
68:Bh:34:GLN:HB3	68:Bh:38:ARG:NH1	2.24	0.52
75:Bo:67:LYS:CB	81:B5:2793:G:OP1	2.57	0.52
79:By:8:ARG:CA	79:CL:4:GLY:CA	2.68	0.52
79:By:86:ALA:O	79:CL:93:TYR:O	2.28	0.52
79:By:177:LYS:O	79:CL:178:ALA:HB2	2.10	0.52
79:By:191:ALA:CB	79:CL:188:ASN:C	2.63	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:142:G:N2	80:B2:173:A:H2	2.00	0.52
80:B2:144:U:O2'	80:B2:145:A:H5'	2.10	0.52
80:B2:710:U:H2'	80:B2:711:U:H5'	1.91	0.52
80:B2:1234:A:O2'	80:B2:1235:C:O5'	2.20	0.52
80:B2:1291:G:H22	80:B2:1324:G:N2	2.07	0.52
81:B5:2444:C:P	84:CN:2124:C:C2	3.03	0.52
1:A0:86:VAL:HG23	80:B2:1795:U:OP1	2.09	0.52
4:A3:56:ARG:HG3	80:B2:1418:G:H1'	1.92	0.52
10:AB:128:LYS:CE	10:AB:132:ASP:HB3	2.40	0.52
14:AF:205:SER:O	14:AF:207:THR:N	2.43	0.52
20:AL:6:THR:HB	20:AL:9:SER:HB3	1.92	0.52
26:AR:106:THR:O	26:AR:109:LEU:HB3	2.10	0.52
34:AZ:77:ARG:NH2	80:B2:1533:C:C6	2.76	0.52
37:BC:181:VAL:HG21	37:BC:224:GLY:HA3	1.92	0.52
40:BF:151:ARG:NH1	40:BF:244:ASN:O	2.43	0.52
41:BG:137:ASN:HB2	81:B5:148:G:O6	2.10	0.52
41:BG:242:ALA:HB3	81:B5:2586:G:O6	2.09	0.52
51:BQ:105:ARG:HH12	81:B5:674:G:P	2.33	0.52
70:Bj:21:ARG:NH2	70:Bj:41:ALA:O	2.38	0.52
79:By:2:LYS:HB3	84:CN:2181:G:C6	2.44	0.52
79:By:21:THR:HB	79:CL:24:GLU:CG	1.88	0.52
79:By:74:VAL:HG21	79:CL:72:VAL:HG23	1.92	0.52
79:By:75:LEU:HB2	79:CL:108:MET:O	2.10	0.52
79:By:137:LEU:H	79:CL:132:GLY:C	2.11	0.52
79:By:158:ALA:HB3	79:CL:157:LYS:C	2.35	0.52
79:By:183:GLU:HG3	79:CL:183:GLU:OE2	2.10	0.52
79:By:186:ALA:C	79:CL:26:ALA:HB2	1.86	0.52
79:By:214:VAL:HG12	79:CL:215:THR:O	2.10	0.52
80:B2:929:A:OP2	80:B2:931:C:N4	2.43	0.52
81:B5:1017:C:P	81:B5:1017:C:H2'	2.50	0.52
81:B5:1831:U:O2'	83:B8:114:G:OP1	2.19	0.52
81:B5:2568:C:N4	81:B5:2574:G:O6	2.42	0.52
2:A1:4:VAL:HA	31:AW:24:GLN:NE2	2.24	0.52
2:A1:67:THR:C	80:B2:872:G:O4'	2.53	0.52
9:AA:189:VAL:HG22	9:AA:190:ASP:H	1.75	0.52
10:AB:81:PHE:HA	10:AB:106:THR:HG23	1.92	0.52
12:AD:105:MET:HG2	12:AD:122:VAL:HG21	1.92	0.52
15:AG:88:ARG:CG	80:B2:92:A:N1	2.71	0.52
18:AJ:38:ASN:HB3	18:AJ:40:LYS:H	1.75	0.52
21:AM:52:LEU:HD13	21:AM:85:LYS:NZ	2.25	0.52
21:AM:60:VAL:HG13	21:AM:122:VAL:HG22	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:15:ILE:CG1	81:B5:822:G:C1'	2.88	0.52
38:BD:265:TYR:HE1	82:B7:120:C:H2'	1.66	0.52
46:BL:16:LYS:HG3	81:B5:48:A:O5'	2.09	0.52
48:BN:31:ARG:HG3	48:BN:129:TYR:OH	2.09	0.52
52:BR:85:ARG:HH12	81:B5:2104:A:P	2.33	0.52
52:BR:128:LYS:HG2	52:BR:128:LYS:O	2.08	0.52
56:BV:2:SER:O	56:BV:57:MET:N	2.42	0.52
58:BX:63:ILE:HD13	58:BX:63:ILE:C	2.34	0.52
67:Bg:41:ARG:NH1	81:B5:1739:U:H1'	2.25	0.52
79:By:130:ILE:HD13	79:CL:129:ARG:HD3	1.92	0.52
79:By:136:LEU:H	79:CL:132:GLY:N	2.08	0.52
79:By:154:ARG:O	79:CL:72:VAL:HG13	2.10	0.52
79:By:179:SER:OG	79:CL:38:ASP:N	2.42	0.52
80:B2:539:G:H8	80:B2:539:G:OP2	1.93	0.52
80:B2:651:G:C2	80:B2:684:A:C6	2.98	0.52
80:B2:677:G:H2'	80:B2:678:A:H8	1.73	0.52
80:B2:717:C:H2'	80:B2:718:U:H5"	1.90	0.52
80:B2:749:U:H3	80:B2:800:U:H3	1.58	0.52
80:B2:1149:G:H1'	80:B2:1765:A:C4	2.44	0.52
80:B2:1191:U:C1'	86:CW:35:A:OP2	2.51	0.52
80:B2:1217:A:H5'	80:B2:1217:A:H8	1.73	0.52
80:B2:1370:U:O4	89:B2:2001:OHX:N5	2.43	0.52
81:B5:152:U:H5"	81:B5:153:U:OP2	2.09	0.52
81:B5:1200:A:H5'	81:B5:1201:C:O5'	2.10	0.52
81:B5:1267:U:H3'	81:B5:1268:G:H8	1.75	0.52
81:B5:2257:C:H2'	81:B5:2258:U:O4'	2.09	0.52
81:B5:2439:A:C2'	81:B5:2440:G:H5"	2.40	0.52
81:B5:3165:A:H2'	81:B5:3166:C:C6	2.43	0.52
10:AB:116:LYS:CG	80:B2:931:C:H5"	2.41	0.51
10:AB:116:LYS:HG3	80:B2:931:C:OP1	2.10	0.51
11:AC:67:GLN:HA	11:AC:70:ASP:HB2	1.92	0.51
11:AC:91:ARG:HH11	80:B2:1625:C:P	2.22	0.51
14:AF:102:ARG:HH22	80:B2:1472:C:P	2.33	0.51
14:AF:205:SER:O	14:AF:205:SER:OG	2.25	0.51
15:AG:67:VAL:O	15:AG:68:LEU:HB2	2.10	0.51
26:AR:49:LYS:HG3	80:B2:1389:C:O3'	2.09	0.51
29:AU:54:GLY:CA	80:B2:1345:A:OP1	2.53	0.51
38:BD:265:TYR:OH	82:B7:120:C:H3'	2.10	0.51
48:BN:119:TYR:OH	48:BN:131:GLU:OE1	2.16	0.51
49:BO:36[A]:VAL:HB	49:BO:108[A]:ILE:HB	1.92	0.51
52:BR:74:ARG:HH11	81:B5:1942:U:P	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BR:82:LYS:HB2	81:B5:1863:G:H4'	1.91	0.51
54:BT:104:GLU:HG3	54:BT:105:PHE:N	2.24	0.51
58:BX:132:ALA:O	58:BX:136:ALA:N	2.33	0.51
79:By:2:LYS:O	84:CN:2149:C:C2	2.63	0.51
79:By:75:LEU:HD11	79:CL:107:TRP:O	2.09	0.51
79:By:82:LYS:HB2	79:CL:86:ALA:HB3	1.70	0.51
79:By:100:ILE:N	79:CL:98:GLU:O	2.36	0.51
79:By:110:PHE:HZ	79:CL:130:ILE:CG2	2.23	0.51
79:By:174:PRO:N	84:CN:2144:G:O2'	2.42	0.51
79:By:226:PRO:CG	79:CL:223:ARG:CZ	2.82	0.51
80:B2:1191:U:O5'	86:CW:35:A:OP1	2.29	0.51
81:B5:209:A:H4'	81:B5:211:A:N7	2.26	0.51
81:B5:243:G:O2'	81:B5:244:G:H5'	2.10	0.51
81:B5:385:A:O2'	81:B5:386:A:H5'	2.10	0.51
81:B5:409:A:H2	81:B5:1441:G:N3	2.08	0.51
81:B5:558:U:H4'	81:B5:559:A:OP2	2.09	0.51
81:B5:1876:U:H5"	81:B5:1876:U:H6	1.75	0.51
81:B5:2444:C:C4'	84:CN:2208:G:H1'	2.25	0.51
81:B5:3330:A:H5"	81:B5:3330:A:C8	2.43	0.51
84:CN:2130:U:H1'	84:CN:2202:G:N2	2.25	0.51
84:CN:2161:C:H5	84:CN:2172:G:H1	1.56	0.51
4:A3:14:TYR:HE2	80:B2:1597:A:C5	2.29	0.51
4:A3:34:TYR:CE1	80:B2:1487:A:OP1	2.63	0.51
6:A5:108:VAL:HG13	21:AM:73:LYS:NZ	2.26	0.51
12:AD:179:GLN:NE2	12:AD:179:GLN:C	2.68	0.51
16:AH:97:ARG:N	80:B2:856:A:N7	2.55	0.51
16:AH:99:LEU:HD12	16:AH:116:ARG:HG2	1.92	0.51
23:AO:18:ARG:HD3	80:B2:918:U:O3'	2.10	0.51
23:AO:29:HIS:HB2	23:AO:41:ARG:HA	1.92	0.51
29:AU:53:LYS:HA	80:B2:1345:A:OP2	2.11	0.51
29:AU:88:LYS:CE	80:B2:1516:A:OP1	2.57	0.51
29:AU:102:ARG:O	29:AU:106:ILE:HG22	2.10	0.51
31:AW:107:SER:O	80:B2:803:A:H4'	2.10	0.51
39:BE:68:PRO:HG2	39:BE:71:VAL:CG2	2.40	0.51
48:BN:155:VAL:HG13	81:B5:58:G:H4'	1.91	0.51
49:BO:61[A]:ALA:HB1	49:BO:66[A]:LYS:HG3	1.92	0.51
65:Be:40:SER:HB2	81:B5:639:G:OP1	2.11	0.51
70:Bj:56:ARG:HG2	81:B5:353:G:O2'	2.10	0.51
79:By:2:LYS:HA	84:CN:2148:G:C2	2.41	0.51
79:By:136:LEU:C	79:CL:136:LEU:N	2.68	0.51
79:By:203:GLY:O	79:CL:49:ILE:CB	2.51	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:542:A:H5”	80:B2:544:A:N7	2.26	0.51
81:B5:428:A:H2’	81:B5:429:U:C6	2.45	0.51
81:B5:441:U:O2’	81:B5:442:G:O4’	2.22	0.51
81:B5:847:A:H2’	81:B5:848:A:C8	2.45	0.51
81:B5:1228:C:C2	81:B5:1283:C:C2	2.98	0.51
81:B5:1638:A:H5”	81:B5:1639:C:OP2	2.10	0.51
81:B5:1655:G:H8	81:B5:1655:G:H5”	1.73	0.51
81:B5:2573:G:H2’	81:B5:2574:G:O4’	2.09	0.51
4:A3:21:CYS:SG	4:A3:23:VAL:HB	2.50	0.51
9:AA:81:PHE:HB3	9:AA:170:ILE:HD13	1.91	0.51
10:AB:124:ASN:HD22	80:B2:884:A:H4’	1.71	0.51
18:AJ:8:TYR:HB2	80:B2:770:A:O2’	2.10	0.51
18:AJ:117:GLY:C	18:AJ:119:ALA:H	2.17	0.51
21:AM:31:VAL:HG21	21:AM:136:ILE:HD13	1.92	0.51
22:AN:54:LEU:HB3	22:AN:60:VAL:CG2	2.40	0.51
27:AS:26:ILE:HD13	27:AS:30:TYR:HB2	1.91	0.51
35:BA:140:ASN:OD1	35:BA:142:ASP:HB3	2.10	0.51
37:BC:189:ALA:O	81:B5:1420:C:OP2	2.28	0.51
43:BI:50:VAL:HG13	43:BI:167:LEU:HA	1.92	0.51
46:BL:76:THR:O	46:BL:80:VAL:HG23	2.10	0.51
48:BN:113:LEU:HD11	83:B8:142:C:H4’	1.91	0.51
51:BQ:69:ARG:CZ	81:B5:784:A:C8	2.93	0.51
67:Bg:9:ARG:CZ	81:B5:1606:U:O4	2.58	0.51
71:Bk:64:LYS:HG3	71:Bk:65:LEU:N	2.24	0.51
72:Bl:21:ARG:HD3	72:Bl:22:PRO:O	2.09	0.51
79:By:51:PRO:HA	79:CL:49:ILE:O	2.10	0.51
79:By:147:PHE:HD2	79:CL:148:ASN:OD1	1.92	0.51
79:By:155:GLU:HG3	79:CL:160:ARG:H	1.75	0.51
79:By:165:ASN:HD21	79:CL:57:ASN:CB	2.21	0.51
79:By:214:VAL:O	79:CL:221:SER:CB	2.59	0.51
80:B2:1655:A:O4’	81:B5:2302:G:H4’	2.10	0.51
81:B5:2443:A:C3’	84:CN:2208:G:C5	2.83	0.51
2:A1:67:THR:C	80:B2:871:G:O2’	2.54	0.51
6:A5:133:ALA:HB2	80:B2:1252:C:O4’	2.09	0.51
6:A5:138:ARG:CZ	80:B2:1235:C:O2	2.59	0.51
10:AB:134:VAL:O	10:AB:218:LEU:HD22	2.10	0.51
11:AC:178:ILE:HB	11:AC:185:LYS:HG3	1.93	0.51
17:AI:47:ARG:NH2	80:B2:397:A:H5”	2.25	0.51
20:AL:20:PHE:HB2	80:B2:211:U:H5”	1.91	0.51
22:AN:123:HIS:CE1	81:B5:847:A:H4’	2.46	0.51
24:AP:29:SER:OG	24:AP:31:GLU:HG3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AZ:77:ARG:NH2	80:B2:1534:G:C5	2.74	0.51
35:BA:199:THR:OG1	81:B5:913:A:H4'	2.09	0.51
36:BB:153:LYS:HG2	36:BB:154:TYR:CZ	2.46	0.51
37:BC:81:GLY:HA3	81:B5:357:A:O4'	2.11	0.51
38:BD:72:ASP:N	82:B7:7:G:O2'	2.42	0.51
41:BG:156:ASP:N	41:BG:156:ASP:OD1	2.43	0.51
46:BL:65:TYR:HD2	81:B5:102:C:O2'	1.92	0.51
48:BN:45:PRO:O	48:BN:49:ARG:HB2	2.09	0.51
48:BN:190:THR:O	48:BN:194:GLN:HG2	2.10	0.51
49:BO:133[B]:ARG:CZ	81:B5:1189:C:C4	2.93	0.51
52:BR:82:LYS:HE3	81:B5:2115:G:O2'	2.09	0.51
54:BT:130:ARG:HD3	81:B5:1098:A:OP2	2.09	0.51
66:Bf:8:TYR:CD2	66:Bf:99:ARG:HG2	2.46	0.51
75:Bo:77:CYS:O	75:Bo:79:THR:CG2	2.59	0.51
79:By:14:VAL:O	79:CL:7:TYR:O	2.29	0.51
79:By:70:LYS:CA	79:CL:68:LEU:HD13	2.41	0.51
79:By:78:ALA:N	79:CL:77:ILE:HG12	2.19	0.51
79:By:161:ILE:HG23	79:CL:174:PRO:O	2.08	0.51
79:By:165:ASN:CG	79:CL:57:ASN:HA	2.36	0.51
79:By:198:ALA:HB3	79:CL:194:ARG:C	2.29	0.51
79:By:210:ARG:CD	79:CL:210:ARG:HH21	2.24	0.51
80:B2:838:G:C5	89:B2:2071:OHX:N2	2.78	0.51
80:B2:1366:U:O4	89:B2:1988:OHX:N6	2.44	0.51
81:B5:1819:U:H2'	81:B5:1820:U:H5'	1.93	0.51
81:B5:3058:U:H5'	81:B5:3059:G:OP1	2.09	0.51
7:A6:167:VAL:HG12	7:A6:183:LEU:HB2	1.92	0.51
7:A6:286:GLU:HG2	89:A6:401:OHX:N5	2.25	0.51
7:A6:295:SER:HB2	7:A6:300:THR:HB	1.92	0.51
8:A7:78:ASP:CG	86:CW:29:G:OP1	2.53	0.51
10:AB:104:ASP:OD1	10:AB:214:LYS:NZ	2.43	0.51
14:AF:185:ARG:NH2	80:B2:1572:G:H1'	2.25	0.51
17:AI:171:SER:HB3	80:B2:209:U:H5'	1.91	0.51
23:AO:38:THR:OG1	80:B2:896:U:O4'	2.28	0.51
26:AR:13:SER:HA	26:AR:54:THR:HG22	1.92	0.51
28:AT:137:ALA:O	28:AT:141:GLU:HG2	2.10	0.51
29:AU:51:VAL:HG13	29:AU:94:GLU:HB2	1.92	0.51
29:AU:117:VAL:HG22	29:AU:118:VAL:H	1.75	0.51
35:BA:64:ARG:HD2	81:B5:2557:A:C5	2.46	0.51
35:BA:187:HIS:CE1	81:B5:1794:G:N2	2.78	0.51
35:BA:200:ARG:HE	81:B5:2147:A:P	2.34	0.51
37:BC:271:LYS:HB2	37:BC:274:TYR:HB3	1.90	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:17:GLN:HB2	54:BT:20:ARG:HG2	1.93	0.51
40:BF:80:GLN:HG3	54:BT:136:ARG:CB	2.41	0.51
52:BR:175:GLN:CB	80:B2:852:C:H4'	2.40	0.51
58:BX:73:MET:HE1	58:BX:141:TYR:HE2	1.75	0.51
62:Bb:18:ARG:HB2	81:B5:969:C:H5"	1.92	0.51
63:Bc:87:VAL:HA	81:B5:1728:G:HO2'	1.63	0.51
65:Be:24:ARG:HD3	65:Be:25:TYR:CZ	2.45	0.51
74:Bn:9:ARG:HG3	74:Bn:9:ARG:NH1	2.25	0.51
79:By:88:GLU:HG3	79:CL:92:ASP:O	2.00	0.51
79:By:97:GLU:CG	79:CL:99:ILE:HD12	2.34	0.51
79:By:208:PHE:CE1	79:CL:58:VAL:CG2	2.80	0.51
80:B2:577:G:H3'	80:B2:577:G:C8	2.45	0.51
80:B2:698:U:O4	89:B2:1975:OHX:N3	2.44	0.51
80:B2:1474:G:H2'	80:B2:1475:A:H8	1.73	0.51
80:B2:1535:U:OP1	80:B2:1535:U:H4'	2.10	0.51
89:B2:1954:OHX:N3	89:B2:2068:OHX:N1	2.59	0.51
81:B5:172:G:H2'	81:B5:173:G:H5"	1.91	0.51
81:B5:249:U:H2'	81:B5:249:U:OP2	2.11	0.51
81:B5:715:A:H4'	81:B5:716:A:OP1	2.10	0.51
81:B5:1229:G:C6	81:B5:1230:G:C2	2.99	0.51
82:B7:64:A:H5'	82:B7:65:G:H5"	1.91	0.51
86:CW:43:C:C5	86:CW:44:G:C5	2.99	0.51
3:A2:34:GLU:O	3:A2:35:ASP:HB2	2.09	0.51
7:A6:286:GLU:CG	89:A6:401:OHX:N5	2.73	0.51
10:AB:71:ALA:C	10:AB:73:LEU:H	2.19	0.51
11:AC:99:LYS:HZ2	80:B2:1300:A:P	2.33	0.51
12:AD:4:LEU:CD1	80:B2:1514:U:N1	2.74	0.51
14:AF:43:PHE:HA	14:AF:68:ILE:O	2.11	0.51
14:AF:103:ASN:HA	14:AF:106:LYS:HD2	1.92	0.51
18:AJ:106:GLU:OE2	18:AJ:115:LYS:HE2	2.11	0.51
20:AL:93:TYR:HB2	20:AL:100:TYR:CE2	2.45	0.51
23:AO:126:THR:CG2	80:B2:988:A:C2	2.67	0.51
34:AZ:37:GLN:O	34:AZ:38:HIS:HB3	2.10	0.51
37:BC:220:ARG:HG3	81:B5:211:A:OP1	2.10	0.51
40:BF:70:LYS:NZ	81:B5:519:A:P	2.84	0.51
41:BG:215:VAL:O	41:BG:219:ASP:HB2	2.10	0.51
42:BH:48:VAL:HG21	42:BH:52:LEU:HD13	1.92	0.51
43:BI:60:LEU:HD11	43:BI:135:ILE:HD13	1.93	0.51
51:BQ:166:LEU:O	51:BQ:167:SER:HB2	2.11	0.51
56:BV:18:PRO:CG	81:B5:1898:G:H1'	2.40	0.51
60:BZ:80:LEU:O	60:BZ:82:PRO:HD3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Ba:8:THR:HG21	81:B5:662:U:P	2.50	0.51
61:Ba:62:HIS:HB2	81:B5:304:G:N9	2.25	0.51
65:Be:4:LEU:HB3	65:Be:5:PRO:CD	2.40	0.51
67:Bg:9:ARG:HD3	81:B5:1527:C:H4'	1.93	0.51
79:By:28:LEU:CD1	79:CL:28:LEU:HD13	2.41	0.51
79:By:45:ALA:CA	79:CL:44:HIS:C	2.84	0.51
79:By:56:GLN:HE22	79:CL:49:ILE:HD12	1.75	0.51
79:By:99:ILE:HD13	79:CL:102:LYS:HD2	1.93	0.51
79:By:113:VAL:CB	79:CL:136:LEU:HD13	2.41	0.51
80:B2:446:A:N6	80:B2:461:G:H21	2.08	0.51
89:B2:1964:OHX:N5	89:B2:2027:OHX:N6	2.59	0.51
81:B5:2896:A:H5"	81:B5:2896:A:H8	1.75	0.51
2:A1:34:ASP:N	2:A1:34:ASP:OD1	2.43	0.51
4:A3:10:HIS:CG	4:A3:11:PRO:HD2	2.46	0.51
9:AA:27:ARG:HG2	9:AA:28:ASN:H	1.75	0.51
10:AB:186:SER:O	10:AB:190:PRO:HD2	2.10	0.51
14:AF:84:LYS:HE3	80:B2:1613:U:OP2	2.10	0.51
17:AI:170:SER:C	80:B2:209:U:C5'	2.84	0.51
25:AQ:127:LYS:NZ	25:AQ:131:GLY:O	2.38	0.51
26:AR:4:VAL:CG2	80:B2:1402:G:H4'	2.40	0.51
29:AU:104:THR:HG21	29:AU:116:VAL:HG21	1.93	0.51
30:AV:71:ARG:HG3	30:AV:83:TRP:CH2	2.46	0.51
35:BA:187:HIS:CG	81:B5:1794:G:C4	2.99	0.51
35:BA:220:GLY:O	35:BA:221:LYS:HG3	2.11	0.51
37:BC:157:GLU:HG2	37:BC:209:TYR:HB2	1.91	0.51
37:BC:300:ARG:HG2	37:BC:300:ARG:NH1	2.24	0.51
42:BH:1:MET:O	42:BH:2:LYS:HB2	2.11	0.51
49:BO:116[A]:LYS:HG3	49:BO:117[A]:ARG:N	2.26	0.51
53:BS:26:ARG:NH1	54:BT:150:THR:HG21	2.26	0.51
54:BT:32:LYS:HE3	54:BT:98:HIS:HD2	1.75	0.51
58:BX:82:LEU:HD11	58:BX:135:ILE:HD12	1.92	0.51
60:BZ:46:ILE:HD11	60:BZ:49:TYR:CD2	2.45	0.51
61:Ba:82:ILE:HG22	61:Ba:87:ARG:HG3	1.92	0.51
64:Bd:19:ARG:HD3	64:Bd:35:GLU:CG	2.40	0.51
74:Bn:15:ARG:NE	80:B2:1125:A:H5"	2.26	0.51
79:By:23:ASP:CA	79:CL:27:HIS:N	2.73	0.51
79:By:55:ASP:OD2	79:CL:56:GLN:N	2.43	0.51
79:By:209:LEU:HD12	79:CL:209:LEU:HB3	1.91	0.51
79:By:223:ARG:NE	79:CL:223:ARG:HG2	2.17	0.51
79:By:223:ARG:O	79:CL:222:VAL:HA	1.68	0.51
80:B2:229:U:H2'	80:B2:230:C:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:279:G:H3'	80:B2:279:G:H8	1.75	0.51
80:B2:429:G:O2'	85:CP:243:PHE:CD1	2.63	0.51
80:B2:927:C:H2'	80:B2:928:U:C6	2.46	0.51
80:B2:1215:C:N4	89:B2:2083:OHX:N3	2.59	0.51
80:B2:1644:C:C2	81:B5:2255:A:C2	2.95	0.51
81:B5:308:A:H5'	81:B5:2223:A:O2'	2.11	0.51
81:B5:787:G:H2'	81:B5:788:C:C6	2.46	0.51
81:B5:1176:C:H2'	81:B5:1177:G:N2	2.26	0.51
81:B5:3027:A:C3'	85:CP:109:GLN:HB2	2.39	0.51
84:CN:2142:G:H2'	84:CN:2143:U:C6	2.46	0.51
3:A2:50:GLU:O	3:A2:51:ASN:HB2	2.10	0.51
6:A5:135:HIS:HB2	6:A5:138:ARG:HB3	1.93	0.51
8:A7:78:ASP:OD2	86:CW:29:G:OP1	2.28	0.51
17:AI:138:ASN:HB3	80:B2:197:A:H61	1.76	0.51
20:AL:72:THR:O	20:AL:88:ARG:HD2	2.11	0.51
20:AL:105:LYS:HD2	80:B2:306:U:P	2.50	0.51
23:AO:122:PRO:CB	80:B2:887:A:C1'	2.74	0.51
24:AP:87:PRO:HD3	24:AP:112:LEU:HD22	1.91	0.51
25:AQ:7:VAL:HG22	25:AQ:22:VAL:HB	1.92	0.51
25:AQ:73:GLY:H	25:AQ:76:SER:HB3	1.76	0.51
29:AU:106:ILE:C	29:AU:108:ILE:H	2.19	0.51
33:AY:31:ASN:O	33:AY:32:ARG:HB2	2.11	0.51
36:BB:116:ARG:HG2	36:BB:175:LYS:HA	1.92	0.51
36:BB:226:PHE:O	81:B5:1886:A:O2'	2.20	0.51
36:BB:228:GLY:N	81:B5:1887:A:H4'	2.25	0.51
36:BB:309:GLY:O	81:B5:3379:C:H1'	2.11	0.51
36:BB:323:MET:HE1	36:BB:356:LEU:HD11	1.92	0.51
41:BG:59:GLN:NE2	83:B8:150:G:C1'	2.71	0.51
70:Bj:6:PRO:O	81:B5:1852:G:O2'	2.21	0.51
79:By:175:VAL:HG23	79:CL:41:VAL:HG12	1.93	0.51
79:By:217:THR:CG2	79:CL:217:THR:CG2	2.86	0.51
80:B2:1081:A:H4'	80:B2:1082:C:O5'	2.10	0.51
80:B2:1410:A:H2'	80:B2:1411:A:O4'	2.11	0.51
89:B2:1907:OHX:N1	89:B2:2083:OHX:N4	2.58	0.51
89:B2:1915:OHX:N2	89:B2:2071:OHX:N5	2.58	0.51
81:B5:435:C:H2'	81:B5:436:A:O4'	2.11	0.51
81:B5:3000:A:H2'	81:B5:3001:C:C6	2.45	0.51
9:AA:163:ASN:C	9:AA:165:ARG:H	2.18	0.51
12:AD:156:PHE:CE2	80:B2:1327:C:H5'	2.45	0.51
15:AG:28:PHE:CE2	15:AG:104:PRO:HG3	2.46	0.51
15:AG:157:VAL:CG1	80:B2:78:A:C4'	2.60	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AM:29:LYS:HE2	21:AM:100:TRP:NE1	2.26	0.51
27:AS:134:ARG:HG3	80:B2:1545:A:P	2.50	0.51
35:BA:187:HIS:ND1	35:BA:190:ARG:NH1	2.58	0.51
35:BA:219:ILE:HD11	81:B5:2185:G:H4'	1.93	0.51
35:BA:240:ALA:HA	81:B5:2155:G:P	2.51	0.51
36:BB:53:MET:HB2	81:B5:3049:A:H5"	1.93	0.51
37:BC:286:VAL:HG11	51:BQ:31:LYS:HD2	1.93	0.51
38:BD:55:PHE:CZ	38:BD:158:ARG:HB3	2.45	0.51
41:BG:205:ALA:C	41:BG:207:ASP:H	2.18	0.51
43:BI:57:LEU:HD12	82:B7:93:C:H5'	1.91	0.51
44:BJ:54:VAL:HG23	44:BJ:57:PHE:HB2	1.93	0.51
60:BZ:4:PHE:O	60:BZ:5:LEU:HG	2.10	0.51
67:Bg:83:ASN:ND2	81:B5:1708:C:O3'	2.44	0.51
79:By:63:SER:HB2	79:CL:63:SER:HA	0.66	0.51
79:By:68:LEU:C	79:CL:174:PRO:C	2.78	0.51
79:By:113:VAL:O	79:CL:136:LEU:O	2.28	0.51
79:By:116:THR:HG1	79:CL:115:ALA:HB2	1.75	0.51
79:By:164:ARG:CG	79:CL:165:ASN:C	2.74	0.51
79:By:175:VAL:HG11	79:CL:43:VAL:CB	2.37	0.51
79:By:218:MET:CG	84:CN:2195:C:C1'	2.65	0.51
80:B2:56:U:H4'	80:B2:57:G:H5'	1.93	0.51
89:B2:1974:OHX:N4	89:B2:1988:OHX:N2	2.59	0.51
81:B5:2112:U:O2'	89:B5:3401:OHX:N1	2.44	0.51
13:AE:163:ASP:O	13:AE:164:LEU:HB2	2.11	0.51
17:AI:123:LYS:O	89:AI:302:OHX:N6	2.44	0.51
17:AI:170:SER:OG	80:B2:209:U:C4'	2.55	0.51
20:AL:80:MET:CE	80:B2:325:G:H4'	2.32	0.51
28:AT:118:PRO:C	28:AT:120:GLY:H	2.18	0.51
35:BA:225:ILE:O	35:BA:238:ILE:O	2.29	0.51
38:BD:266:ALA:HA	82:B7:1:G:H1'	1.92	0.51
41:BG:59:GLN:HE22	83:B8:150:G:C1'	2.20	0.51
42:BH:96:HIS:HA	85:CP:164:ARG:NH2	2.26	0.51
44:BJ:130:VAL:CG1	81:B5:2683:U:O2'	2.59	0.51
47:BM:109:ARG:NH1	81:B5:3210:A:OP1	2.44	0.51
47:BM:134:ALA:O	47:BM:136:ALA:N	2.44	0.51
51:BQ:178:ARG:HG2	61:Ba:51:GLY:CA	2.41	0.51
54:BT:2:GLY:HA3	81:B5:2626:A:O5'	2.11	0.51
60:BZ:53:VAL:HA	60:BZ:57:HIS:HD2	1.76	0.51
65:Be:26:HIS:O	65:Be:28:VAL:N	2.44	0.51
67:Bg:24:LYS:HB3	81:B5:1695:U:C5'	2.39	0.51
79:By:55:ASP:C	79:CL:53:ARG:N	2.69	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:107:TRP:CH2	79:CL:103:ILE:HD13	2.42	0.51
79:By:215:THR:CB	84:CN:2197:A:C4’	2.89	0.51
80:B2:707:A:H2’	80:B2:708:C:H5”	1.92	0.51
80:B2:868:G:H1	80:B2:960:U:H3	1.59	0.51
80:B2:1367:G:N7	89:B2:1988:OHX:N6	2.59	0.51
80:B2:1570:A:OP1	89:B2:2046:OHX:N5	2.43	0.51
81:B5:200:C:H5’	81:B5:221:A:C2	2.46	0.51
81:B5:1567:U:H1’	81:B5:1570:U:C5	2.45	0.51
81:B5:2249:G:C8	81:B5:2249:G:H3’	2.46	0.51
86:CW:46:G:H3’	86:CW:47:U:C5’	2.41	0.51
10:AB:165:ARG:CZ	80:B2:946:U:O3’	2.60	0.50
12:AD:192:PRO:O	12:AD:195:SER:HB2	2.11	0.50
14:AF:69:PHE:HD2	25:AQ:50:GLU:HG2	1.75	0.50
17:AI:29:LEU:C	17:AI:29:LEU:HD23	2.36	0.50
20:AL:10:GLU:HG2	80:B2:327:U:C2’	2.35	0.50
23:AO:136:ARG:HH12	80:B2:1785:U:H5”	1.76	0.50
24:AP:85:ILE:HD11	24:AP:116:LEU:HD23	1.93	0.50
26:AR:21:TYR:HA	26:AR:58:MET:HE1	1.92	0.50
27:AS:88:ARG:NH2	27:AS:112:ASP:OD1	2.45	0.50
34:AZ:55:PRO:C	34:AZ:57:TYR:H	2.19	0.50
42:BH:12:VAL:N	42:BH:51:GLN:O	2.35	0.50
44:BJ:139:THR:HG22	44:BJ:146:GLY:O	2.12	0.50
52:BR:43:LYS:NZ	81:B5:1765:U:H5’	2.26	0.50
53:BS:38:LYS:HD2	53:BS:58:ILE:HD13	1.94	0.50
54:BT:89:LEU:HD12	81:B5:2723:U:C5’	2.39	0.50
57:BW:120:LYS:HA	57:BW:123:ARG:HD2	1.93	0.50
66:Bf:18:ARG:HD3	81:B5:1178:G:H5”	1.92	0.50
72:Bl:15:LYS:CE	83:B8:46:G:OP2	2.58	0.50
79:By:14:VAL:CA	79:CL:11:LEU:H	2.24	0.50
79:By:222:VAL:CB	79:CL:32:LEU:HD13	2.40	0.50
80:B2:76:A:H5’	89:B2:2039:OHX:N1	2.25	0.50
80:B2:501:U:H4’	80:B2:502:U:OP1	2.11	0.50
80:B2:734:A:O2’	80:B2:735:C:H5’	2.12	0.50
80:B2:1061:A:H2’	80:B2:1062:A:H5’	1.92	0.50
80:B2:1202:A:H61	80:B2:1457:C:H5”	1.76	0.50
80:B2:1458:G:H2’	80:B2:1458:G:N3	2.26	0.50
81:B5:508:U:H2’	81:B5:509:U:C6	2.46	0.50
81:B5:621:A:H2’	81:B5:622:A:C8	2.46	0.50
81:B5:1876:U:H6	81:B5:1876:U:C5’	2.24	0.50
81:B5:3167:A:O2’	81:B5:3168:A:OP1	2.27	0.50
11:AC:88:LYS:HB2	80:B2:1301:U:OP1	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
89:AC:301:OHX:N3	89:B2:1906:OHX:N5	2.60	0.50
15:AG:59:GLN:HA	80:B2:155:U:O2'	2.11	0.50
15:AG:108:VAL:HG11	80:B2:153:G:HO2'	1.75	0.50
15:AG:182:GLN:CD	80:B2:270:C:H41	2.19	0.50
17:AI:171:SER:HB3	80:B2:208:U:O2'	2.11	0.50
31:AW:82:LYS:HB2	31:AW:85:ASP:OD2	2.12	0.50
35:BA:243:THR:OG1	81:B5:2244:A:H5"	2.11	0.50
37:BC:283:THR:HG21	37:BC:288:ARG:NH2	2.26	0.50
38:BD:155:THR:O	82:B7:36:C:H5'	2.11	0.50
38:BD:277:LEU:HD11	82:B7:62:U:H5"	1.92	0.50
44:BJ:13:LYS:HE2	44:BJ:132:ASN:HD21	1.76	0.50
50:BP:29:THR:HA	50:BP:32:THR:HG23	1.93	0.50
51:BQ:46:LYS:O	51:BQ:50:LYS:HG3	2.11	0.50
51:BQ:170:ARG:O	51:BQ:170:ARG:HG3	2.11	0.50
61:Ba:59:ARG:HD2	81:B5:90:C:OP1	2.11	0.50
76:Bq:39:HIS:CG	81:B5:1259:A:H5'	2.46	0.50
79:By:53:ARG:CD	79:CL:50:ASP:O	2.54	0.50
79:By:62:VAL:HG11	79:CL:195:ALA:CB	2.41	0.50
79:By:100:ILE:N	79:CL:99:ILE:CA	2.73	0.50
79:By:142:ALA:N	79:CL:59:ARG:CZ	2.74	0.50
79:By:152:ILE:CD1	79:CL:152:ILE:HG23	2.33	0.50
79:By:223:ARG:HD3	79:CL:213:TYR:CE2	2.43	0.50
80:B2:606:A:H4'	80:B2:607:G:H5"	1.93	0.50
80:B2:902:G:H8	80:B2:902:G:O5'	1.93	0.50
81:B5:65:A:H2'	81:B5:110:G:N7	2.25	0.50
81:B5:707:U:H2'	81:B5:708:G:H5"	1.93	0.50
81:B5:839:C:H1'	81:B5:1724:U:OP1	2.11	0.50
81:B5:1312:C:H5"	81:B5:1313:G:OP2	2.11	0.50
81:B5:3241:G:H2'	81:B5:3245:A:H8	1.76	0.50
13:AE:3:ARG:HB3	80:B2:93:A:O3'	2.11	0.50
17:AI:58:LEU:O	17:AI:59:ARG:HB2	2.10	0.50
17:AI:76:THR:CG2	17:AI:108:PRO:HG2	2.41	0.50
17:AI:136:SER:OG	17:AI:137:LYS:N	2.43	0.50
25:AQ:106:LYS:O	25:AQ:110:THR:HB	2.10	0.50
26:AR:4:VAL:CG1	80:B2:1315:U:O2	2.53	0.50
35:BA:22:LEU:HD22	81:B5:1796:G:H5"	1.93	0.50
35:BA:85:GLY:HA3	81:B5:2554:A:C4	2.45	0.50
46:BL:65:TYR:CZ	81:B5:103:G:O4'	2.65	0.50
46:BL:121:SER:O	46:BL:121:SER:OG	2.30	0.50
49:BO:65[A]:ASN:HB3	49:BO:68[A]:ARG:HD2	1.94	0.50
49:BO:127[A]:LEU:HD11	53:BS:168:PRO:HG3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BT:17:ARG:HG2	54:BT:17:ARG:HH11	1.76	0.50
56:BV:48:ARG:NH2	81:B5:3043:C:OP2	2.44	0.50
59:BY:114:ASP:CB	83:B8:85:G:O6	2.59	0.50
60:BZ:65:ARG:HH11	60:BZ:65:ARG:HG3	1.76	0.50
60:BZ:88:ASP:O	60:BZ:121:ARG:NH2	2.44	0.50
61:Ba:35:ALA:HB2	81:B5:39:A:C5'	2.37	0.50
70:Bj:72:ARG:NH1	83:B8:95:G:OP2	2.39	0.50
72:Bl:13:MET:HG2	81:B5:1493:G:O2'	2.12	0.50
79:By:2:LYS:CA	84:CN:2149:C:N3	2.73	0.50
79:By:46:LYS:HB2	84:CN:2199:C:P	2.50	0.50
79:By:83:ILE:CA	79:CL:95:GLY:N	2.74	0.50
79:By:93:TYR:O	79:CL:107:TRP:CZ2	2.56	0.50
79:By:113:VAL:CG2	79:CL:108:MET:CE	2.90	0.50
80:B2:647:G:H1	80:B2:687:G:H1	1.58	0.50
80:B2:838:G:C5	89:B2:2071:OHX:N6	2.78	0.50
80:B2:1686:C:C6	80:B2:1687:U:C5	2.99	0.50
89:B2:1964:OHX:N2	89:B2:2027:OHX:N4	2.59	0.50
81:B5:1225:A:C8	81:B5:1287:A:H2'	2.46	0.50
81:B5:1267:U:H3'	81:B5:1268:G:C8	2.47	0.50
81:B5:2660:G:O3'	81:B5:2749:G:N2	2.44	0.50
6:A5:138:ARG:HH22	80:B2:1236:A:C1'	2.24	0.50
7:A6:29:GLN:HG3	7:A6:32:LEU:HB2	1.93	0.50
11:AC:148:LEU:O	30:AV:4:ASP:HB2	2.12	0.50
16:AH:28:GLU:O	16:AH:35:LYS:HB2	2.12	0.50
22:AN:3:ARG:HA	80:B2:867:G:OP1	2.11	0.50
28:AT:113:ILE:O	28:AT:124:ILE:HD12	2.11	0.50
35:BA:204:MET:CG	81:B5:914:A:C2	2.93	0.50
36:BB:2:SER:HB3	81:B5:2943:G:H8	1.77	0.50
36:BB:150:ARG:HG2	36:BB:150:ARG:NH1	2.26	0.50
42:BH:162:GLN:HG3	42:BH:163:GLN:N	2.25	0.50
50:BP:71:ALA:O	50:BP:74:LYS:HB2	2.10	0.50
52:BR:8:LYS:HZ2	81:B5:1473:G:P	2.32	0.50
52:BR:151:ARG:O	52:BR:155:LEU:HG	2.11	0.50
52:BR:165:LYS:HZ2	80:B2:824:G:C1'	2.23	0.50
79:By:39:GLU:CB	79:CL:39:GLU:CG	2.21	0.50
79:By:46:LYS:N	79:CL:46:LYS:HB3	1.88	0.50
79:By:136:LEU:HD23	79:CL:136:LEU:CD1	2.30	0.50
79:By:136:LEU:C	79:CL:137:LEU:H	2.15	0.50
79:By:148:ASN:O	79:CL:152:ILE:C	2.54	0.50
79:By:148:ASN:O	79:CL:152:ILE:HB	2.11	0.50
79:By:160:ARG:HD2	79:CL:160:ARG:HE	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:220:A:H5”	80:B2:832:U:H1’	1.93	0.50
80:B2:415:C:H6	85:CP:288:ARG:N	2.10	0.50
80:B2:1168:U:C2’	80:B2:1169:G:H5’	2.41	0.50
80:B2:1201:G:O2’	89:B2:1991:OHX:N1	2.45	0.50
89:B2:1964:OHX:N5	89:B2:2027:OHX:N3	2.60	0.50
81:B5:736:A:H2’	81:B5:737:G:O4’	2.12	0.50
79:CL:17:ASN:O	79:CL:18:LYS:C	2.54	0.50
3:A2:26:THR:H	3:A2:44:VAL:HG22	1.76	0.50
8:A7:99:LYS:O	89:B2:1917:OHX:N3	2.44	0.50
10:AB:126:THR:HG22	10:AB:136:ARG:HE	1.76	0.50
13:AE:15:PRO:HG2	13:AE:18:TRP:CE2	2.46	0.50
18:AJ:120:LYS:O	18:AJ:121:SER:HB2	2.12	0.50
21:AM:123:VAL:HG11	21:AM:126:TRP:HB3	1.94	0.50
24:AP:110:GLU:HG3	27:AS:119:ILE:HD11	1.94	0.50
27:AS:91:ASP:HB3	27:AS:95:GLY:H	1.77	0.50
28:AT:40:SER:OG	28:AT:96:ALA:HA	2.11	0.50
31:AW:89:TRP:O	31:AW:93:LEU:HD22	2.11	0.50
33:AY:113:ASN:HD22	80:B2:54:C:H5”	1.76	0.50
35:BA:209:HIS:CD2	35:BA:211:HIS:H	2.29	0.50
37:BC:302:ALA:HB2	51:BQ:39:ARG:NH1	2.26	0.50
39:BE:2:SER:N	81:B5:1387:G:HO2’	2.09	0.50
39:BE:98:VAL:HA	39:BE:101:PHE:CD2	2.45	0.50
41:BG:204:ARG:O	41:BG:207:ASP:HB2	2.11	0.50
46:BL:122:LYS:HA	68:Bh:120:ALA:HA	1.92	0.50
48:BN:138:GLN:OE1	81:B5:19:U:H4’	2.11	0.50
64:Bd:56:ASN:ND2	81:B5:1459:C:H1’	2.27	0.50
65:Be:26:HIS:HB2	81:B5:655:C:H5”	1.92	0.50
70:Bj:21:ARG:HD2	70:Bj:37:CYS:SG	2.52	0.50
71:Bk:2:ALA:HB2	81:B5:1613:A:OP1	2.11	0.50
79:By:23:ASP:CB	79:CL:27:HIS:N	2.68	0.50
79:By:113:VAL:HG23	79:CL:108:MET:HE3	1.94	0.50
80:B2:484:C:N4	80:B2:503:G:H22	2.05	0.50
80:B2:647:G:H22	80:B2:687:G:N2	2.09	0.50
80:B2:882:U:H2’	80:B2:883:C:C6	2.46	0.50
80:B2:1686:C:O2’	80:B2:1687:U:O4’	2.30	0.50
81:B5:1655:G:C5’	81:B5:1655:G:C8	2.91	0.50
81:B5:2555:G:H5’	81:B5:2556:C:OP2	2.10	0.50
83:B8:27:U:O5’	83:B8:27:U:H6	1.95	0.50
1:A0:23:CYS:SG	1:A0:74:CYS:HB3	2.52	0.50
2:A1:67:THR:HA	80:B2:872:G:O4’	2.11	0.50
7:A6:154:VAL:HG12	7:A6:171:SER:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AE:22:LYS:HB2	80:B2:773:C:P	2.51	0.50
16:AH:10:SER:HB3	16:AH:43:PHE:O	2.11	0.50
17:AI:180:ASP:OD2	80:B2:208:U:O2	2.29	0.50
19:AK:77:ARG:HD3	19:AK:84:GLU:HA	1.94	0.50
20:AL:97:TYR:O	20:AL:99:ARG:HG2	2.12	0.50
22:AN:117:LEU:CD2	80:B2:627:C:H4'	2.41	0.50
23:AO:29:HIS:NE2	80:B2:917:U:O2	2.45	0.50
23:AO:52:ARG:NH1	80:B2:905:A:H4'	2.25	0.50
32:AX:97:ASP:HB2	32:AX:100:ASP:OD2	2.12	0.50
35:BA:194:ASN:ND2	81:B5:822:G:O4'	2.44	0.50
36:BB:169:THR:CG2	36:BB:171:LEU:H	2.18	0.50
37:BC:305:ALA:HA	81:B5:1347:U:C1'	2.41	0.50
38:BD:146:LEU:CD1	81:B5:2746:A:C2	2.95	0.50
39:BE:40:LEU:HD13	39:BE:84:VAL:HG11	1.94	0.50
41:BG:29:SER:O	41:BG:31:PRO:HD3	2.12	0.50
46:BL:131:LYS:HD3	46:BL:131:LYS:H	1.77	0.50
47:BM:13:ARG:NH1	47:BM:65:LEU:O	2.44	0.50
48:BN:72:LYS:HZ3	81:B5:2167:A:P	2.32	0.50
48:BN:93:LYS:NZ	81:B5:2600:C:OP1	2.44	0.50
49:BO:72[B]:HIS:HD2	81:B5:3008:A:OP1	1.93	0.50
49:BO:96[B]:LYS:HE2	81:B5:2384:A:N1	2.27	0.50
50:BP:109:ALA:HA	50:BP:112:LEU:HD22	1.94	0.50
60:BZ:115:LYS:NZ	60:BZ:119:GLU:OE1	2.32	0.50
61:Ba:14:HIS:O	81:B5:943:U:OP2	2.29	0.50
61:Ba:62:HIS:NE2	81:B5:304:G:N1	2.60	0.50
67:Bg:9:ARG:NH2	81:B5:1606:U:O4	2.45	0.50
68:Bh:118:ILE:O	68:Bh:119:LYS:HB2	2.12	0.50
69:Bi:30:LYS:CE	81:B5:266:A:H2'	2.41	0.50
70:Bj:9:GLY:HA2	81:B5:1844:C:O2	2.11	0.50
73:Bm:125:LYS:CD	81:B5:2897:A:H5"	2.42	0.50
79:By:30:LYS:HD3	79:CL:30:LYS:C	2.23	0.50
79:By:40:THR:CA	79:CL:40:THR:H	2.25	0.50
79:By:107:TRP:CZ2	79:CL:103:ILE:CD1	2.93	0.50
79:By:152:ILE:CB	79:CL:114:VAL:CG1	2.84	0.50
79:By:168:THR:H	79:CL:167:LYS:HG2	1.77	0.50
80:B2:1267:G:H21	80:B2:1448:G:C5'	2.23	0.50
89:B2:1974:OHX:N3	89:B2:1988:OHX:N1	2.60	0.50
81:B5:1717:U:H2'	81:B5:1718:G:C8	2.47	0.50
81:B5:3027:A:C2'	85:CP:109:GLN:HB2	2.31	0.50
83:B8:26:U:H2'	83:B8:27:U:C6	2.47	0.50
83:B8:145:U:H2'	83:B8:146:U:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:CN:2124:C:C3’	84:CN:2125:G:H5”	2.42	0.50
10:AB:61:LEU:HD13	10:AB:61:LEU:H	1.77	0.50
10:AB:109:LYS:HD2	10:AB:113:MET:HG3	1.93	0.50
11:AC:89:GLN:HB3	80:B2:1146:G:H1’	1.92	0.50
17:AI:23:LYS:N	80:B2:386:G:OP1	2.38	0.50
17:AI:73:SER:O	80:B2:257:A:H4’	2.11	0.50
17:AI:146:ARG:HH22	80:B2:186:C:P	2.35	0.50
19:AK:19:GLY:HA2	19:AK:68:LEU:HD23	1.93	0.50
22:AN:124:ARG:NH2	80:B2:966:A:OP2	2.38	0.50
23:AO:25:ASP:HA	23:AO:54:GLU:O	2.12	0.50
25:AQ:25:GLY:H	25:AQ:63:ILE:HA	1.76	0.50
26:AR:24:LEU:HD13	26:AR:58:MET:HE3	1.93	0.50
27:AS:29:VAL:O	27:AS:43:SER:OG	2.30	0.50
27:AS:40:ARG:NH1	80:B2:1539:G:H4’	2.20	0.50
27:AS:126:ARG:NH1	80:B2:1459:C:OP1	2.45	0.50
31:AW:77:PRO:HD2	31:AW:79:PHE:CE1	2.47	0.50
40:BF:97:PRO:HD3	81:B5:1138:U:O3’	2.11	0.50
44:BJ:15:GLU:HB3	44:BJ:130:VAL:HG22	1.93	0.50
49:BO:171[A]:LYS:O	49:BO:175[A]:THR:HG22	2.12	0.50
51:BQ:176:ARG:HG3	81:B5:2763:U:H5’	1.94	0.50
61:Ba:46:ASP:O	61:Ba:47:LYS:HB3	2.12	0.50
65:Be:14:THR:OG1	81:B5:626:U:OP1	2.30	0.50
79:By:46:LYS:N	79:CL:46:LYS:H	2.00	0.50
79:By:157:LYS:HA	79:CL:70:LYS:HB3	1.93	0.50
79:By:164:ARG:O	79:CL:170:ALA:O	2.29	0.50
79:By:193:ILE:CD1	79:CL:226:PRO:CA	2.74	0.50
80:B2:702:G:O6	80:B2:737:A:N6	2.45	0.50
80:B2:1655:A:C1’	81:B5:2302:G:C1’	2.64	0.50
89:B2:1915:OHX:N2	89:B2:2071:OHX:N1	2.59	0.50
89:B2:1964:OHX:N2	89:B2:2027:OHX:N6	2.60	0.50
89:B2:1974:OHX:N4	89:B2:1988:OHX:N1	2.59	0.50
81:B5:256:G:H2’	81:B5:257:U:C6	2.47	0.50
81:B5:3273:A:O2’	81:B5:3274:A:H5’	2.11	0.50
85:CP:62:TYR:O	85:CP:210:TRP:CE2	2.64	0.50
10:AB:115:ARG:C	80:B2:931:C:H4’	2.37	0.50
11:AC:99:LYS:NZ	80:B2:1300:A:P	2.85	0.50
14:AF:59:VAL:O	14:AF:60:ASP:HB2	2.12	0.50
17:AI:72:ILE:HA	80:B2:256:A:C1’	2.42	0.50
26:AR:2:GLY:CA	80:B2:1312:A:OP1	2.60	0.50
27:AS:118:LYS:NZ	44:BJ:108:GLU:OE2	2.45	0.50
35:BA:15:ILE:CG1	81:B5:822:G:H1’	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:361:THR:HG22	36:BB:371:GLN:HB3	1.94	0.50
40:BF:223:PHE:HA	40:BF:227:GLY:HA2	1.93	0.50
44:BJ:104:PHE:O	44:BJ:127:PHE:HB2	2.11	0.50
46:BL:153:ASP:OD1	46:BL:157:ARG:HD3	2.12	0.50
51:BQ:122:ILE:HD11	51:BQ:130:ARG:CZ	2.41	0.50
54:BT:14:MET:CE	54:BT:55:LYS:HB2	2.40	0.50
60:BZ:79:HIS:CE1	81:B5:1637:A:O4'	2.64	0.50
62:Bb:39:PHE:C	62:Bb:39:PHE:CD1	2.90	0.50
67:Bg:53:GLY:CA	81:B5:1640:G:OP1	2.60	0.50
76:Bq:56:ASN:HD21	81:B5:1230:G:H1	1.58	0.50
79:By:42:GLU:N	79:CL:42:GLU:OE2	2.43	0.50
79:By:70:LYS:C	79:CL:68:LEU:HD13	2.36	0.50
79:By:77:ILE:CG2	79:CL:99:ILE:HG12	2.35	0.50
79:By:136:LEU:HD21	79:CL:134:ARG:CD	2.41	0.50
79:By:149:ILE:HD11	79:CL:113:VAL:HG12	1.93	0.50
79:By:185:LEU:CD1	79:CL:29:VAL:HG22	2.42	0.50
79:By:223:ARG:CG	79:CL:16:PRO:O	2.60	0.50
80:B2:1154:G:N7	89:B2:2016:OHX:N1	2.60	0.50
80:B2:1156:C:OP1	89:B2:2078:OHX:N2	2.45	0.50
80:B2:1622:G:H2'	80:B2:1623:C:C6	2.47	0.50
81:B5:94:G:H2'	81:B5:95:A:C8	2.47	0.50
81:B5:132:C:C4	81:B5:134:U:H5	2.30	0.50
81:B5:1576:G:H5'	81:B5:1577:G:OP2	2.12	0.50
81:B5:1810:A:H2'	81:B5:1811:G:C8	2.46	0.50
82:B7:3:U:H2'	82:B7:4:U:H6	1.76	0.50
1:A0:8:ASN:HB3	80:B2:1791:A:OP1	2.11	0.50
9:AA:120:LEU:HD13	9:AA:142:PRO:HB2	1.94	0.50
9:AA:136:ALA:HB1	9:AA:141:ILE:HB	1.94	0.50
11:AC:89:GLN:OE1	11:AC:94:GLN:NE2	2.41	0.50
11:AC:139:ILE:CD1	11:AC:191:ALA:HB1	2.42	0.50
17:AI:2:GLY:N	80:B2:400:A:H62	2.09	0.50
17:AI:43:ILE:N	80:B2:260:U:C5	2.80	0.50
18:AJ:95:TYR:O	18:AJ:99:LEU:N	2.45	0.50
23:AO:135:ARG:NH2	80:B2:1007:C:O3'	2.45	0.50
24:AP:115:TYR:CD2	80:B2:1557:U:H5'	2.47	0.50
28:AT:31:PRO:HG3	28:AT:103:LYS:HG2	1.94	0.50
35:BA:15:ILE:HD11	81:B5:822:G:N9	2.25	0.50
35:BA:44:ILE:HD12	35:BA:44:ILE:H	1.76	0.50
36:BB:39:LYS:HB2	36:BB:40:PRO:CD	2.41	0.50
37:BC:56:ALA:HA	81:B5:347:G:OP1	2.11	0.50
37:BC:237:GLN:O	37:BC:246:ARG:HG3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BE:47:PHE:O	39:BE:50:LYS:HB2	2.11	0.50
40:BF:97:PRO:HG3	81:B5:1139:G:OP1	2.11	0.50
43:BI:35:ASP:OD2	81:B5:1008:U:O2'	2.29	0.50
47:BM:47:ASP:C	47:BM:49:PRO:HD3	2.36	0.50
50:BP:122:ALA:HB3	50:BP:143:PRO:HB2	1.94	0.50
52:BR:46:LYS:NZ	81:B5:1766:G:H8	2.03	0.50
52:BR:101:VAL:HG22	81:B5:1949:G:OP1	2.11	0.50
53:BS:146:LYS:HE2	81:B5:535:G:P	2.51	0.50
79:By:59:ARG:CB	79:CL:164:ARG:CB	2.57	0.50
79:By:68:LEU:HD13	79:CL:161:ILE:HD13	1.94	0.50
79:By:136:LEU:CA	79:CL:136:LEU:N	2.53	0.50
79:By:153:ILE:HG22	79:CL:157:LYS:NZ	2.27	0.50
79:By:210:ARG:CD	79:CL:210:ARG:NH2	2.75	0.50
80:B2:190:C:O2'	80:B2:191:C:OP2	2.23	0.50
80:B2:425:A:H5'	80:B2:425:A:C8	2.46	0.50
89:B2:1922:OHX:N2	89:B2:1977:OHX:N3	2.60	0.50
81:B5:1295:G:H2'	81:B5:1296:C:C6	2.47	0.50
81:B5:2927:C:H2'	81:B5:2928:C:C6	2.47	0.50
84:CN:2176:G:C6	84:CN:2177:G:C4	3.00	0.50
3:A2:22:ARG:HE	80:B2:1619:C:H1'	1.77	0.49
6:A5:86:UNK:O	6:A5:87:UNK:CG	2.51	0.49
10:AB:56:SER:OG	10:AB:59:ASP:OD1	2.29	0.49
12:AD:203:PRO:HB2	80:B2:1331:A:H2'	1.94	0.49
15:AG:133:LEU:CD1	80:B2:66:U:O2	2.48	0.49
16:AH:110:GLN:OE1	80:B2:817:A:C1'	2.60	0.49
23:AO:25:ASP:N	23:AO:55:SER:HB3	2.26	0.49
26:AR:10:LYS:HE2	80:B2:1316:G:H4'	1.94	0.49
26:AR:32:LYS:NZ	80:B2:1388:A:OP1	2.44	0.49
27:AS:11:PHE:CD1	27:AS:11:PHE:C	2.90	0.49
27:AS:27:LYS:O	27:AS:29:VAL:N	2.44	0.49
28:AT:12:GLN:CD	80:B2:1529:C:HO2'	2.11	0.49
28:AT:48:GLN:OE1	80:B2:1531:G:N2	2.42	0.49
31:AW:16:ASN:HB2	80:B2:1037:C:O2'	2.12	0.49
37:BC:48:GLN:HG3	81:B5:337:G:H4'	1.93	0.49
37:BC:148:ILE:HA	37:BC:149:PRO:C	2.37	0.49
40:BF:157:ASN:O	40:BF:159:GLN:N	2.39	0.49
49:BO:68[A]:ARG:HH12	81:B5:2988:C:P	2.34	0.49
59:BY:32:SER:HA	59:BY:49:PRO:HA	1.93	0.49
60:BZ:124:ALA:O	60:BZ:126:LYS:N	2.45	0.49
61:Ba:4:ARG:NE	81:B5:1427:U:C5	2.80	0.49
61:Ba:62:HIS:CD2	81:B5:304:G:N1	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:Bd:55:LEU:O	64:Bd:59:ILE:HG13	2.12	0.49
72:Bl:30:ARG:HA	83:B8:75:G:O4'	2.10	0.49
74:Bn:4:LYS:HE2	80:B2:1774:G:C5'	2.42	0.49
79:By:62:VAL:HB	79:CL:163:PHE:CE1	2.46	0.49
79:By:204:ALA:HA	79:CL:49:ILE:HA	1.92	0.49
80:B2:320:U:H3'	80:B2:321:C:H5"	1.94	0.49
80:B2:393:C:H4'	80:B2:1673:G:O2'	2.12	0.49
80:B2:498:G:H2'	80:B2:499:U:C5	2.47	0.49
81:B5:1097:G:H4'	81:B5:1098:A:O5'	2.12	0.49
81:B5:1131:G:C4	81:B5:2373:A:C2	3.00	0.49
81:B5:1875:G:C2'	81:B5:1876:U:H5"	2.40	0.49
81:B5:3227:A:C2'	81:B5:3228:C:H5'	2.41	0.49
85:CP:199:ALA:HB3	90:CP:401:GCP:N7	2.27	0.49
2:A1:51:GLN:HA	80:B2:871:G:H4'	1.93	0.49
9:AA:33:GLN:C	9:AA:34:GLU:HG2	2.36	0.49
10:AB:61:LEU:HG	10:AB:64:ARG:HH21	1.77	0.49
12:AD:33:GLY:O	12:AD:53:THR:HG23	2.12	0.49
15:AG:53:SER:C	80:B2:163:G:C5'	2.71	0.49
15:AG:136:LYS:CD	80:B2:66:U:OP1	2.52	0.49
17:AI:24:LYS:O	80:B2:400:A:C5'	2.50	0.49
23:AO:46:MET:N	80:B2:899:G:H5'	2.27	0.49
26:AR:2:GLY:CA	80:B2:1312:A:P	3.00	0.49
27:AS:22:VAL:CG1	27:AS:31:ALA:HB1	2.43	0.49
28:AT:117:SER:OG	28:AT:118:PRO:O	2.20	0.49
33:AY:9:THR:OG1	80:B2:781:U:P	2.69	0.49
35:BA:219:ILE:CD1	81:B5:2185:G:H5'	2.36	0.49
36:BB:247:ARG:HB2	81:B5:1888:U:H5"	1.94	0.49
38:BD:36:LEU:HD23	81:B5:2748:A:N3	2.27	0.49
38:BD:36:LEU:CG	81:B5:2748:A:N3	2.75	0.49
49:BO:27[A]:LEU:O	49:BO:101[A]:ARG:NH1	2.45	0.49
56:BV:49:LEU:HG	81:B5:2338:C:H1'	1.94	0.49
60:BZ:75:VAL:HA	81:B5:1636:U:H4'	1.94	0.49
62:Bb:15:LYS:HD3	81:B5:953:G:OP1	2.12	0.49
62:Bb:21:ILE:O	62:Bb:22:LYS:C	2.55	0.49
63:Bc:25:LEU:HD22	63:Bc:90:VAL:HG22	1.93	0.49
65:Be:125:ARG:HH22	81:B5:1392:G:H3'	1.77	0.49
67:Bg:13:TYR:HE1	81:B5:1855:U:H1'	1.76	0.49
69:Bi:58:ILE:HG22	69:Bi:90:MET:CG	2.38	0.49
71:Bk:8:ILE:H	71:Bk:8:ILE:HD12	1.76	0.49
79:By:13:LYS:N	79:CL:7:TYR:CA	2.39	0.49
79:By:179:SER:N	79:CL:178:ALA:HB3	2.24	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:217:THR:O	79:CL:217:THR:HG22	2.11	0.49
79:By:224:ILE:HA	79:CL:222:VAL:HG12	1.79	0.49
81:B5:1944:U:H2'	81:B5:1945:A:C8	2.47	0.49
81:B5:2443:A:C5	84:CN:2208:G:H3'	2.47	0.49
82:B7:2:G:O2'	82:B7:23:A:N1	2.44	0.49
84:CN:2201:U:OP2	84:CN:2201:U:H3'	2.12	0.49
1:A0:3:LYS:HE2	80:B2:1030:A:P	2.52	0.49
1:A0:85:ARG:O	1:A0:86:VAL:HB	2.12	0.49
10:AB:70:LEU:HD11	10:AB:79:HIS:HB3	1.94	0.49
12:AD:116:ARG:O	12:AD:120:TYR:HB2	2.12	0.49
14:AF:21:THR:O	14:AF:21:THR:OG1	2.31	0.49
23:AO:27:PHE:HZ	80:B2:916:U:HO2'	0.57	0.49
23:AO:133:ARG:HH22	80:B2:1785:U:P	2.36	0.49
24:AP:22:LEU:HD21	24:AP:109:PRO:HB3	1.94	0.49
35:BA:15:ILE:HG13	81:B5:822:G:H1'	1.91	0.49
36:BB:18:PRO:HG2	36:BB:20:LYS:HD2	1.95	0.49
37:BC:305:ALA:HA	81:B5:1347:U:H1'	1.95	0.49
38:BD:270:LYS:HG2	82:B7:2:G:H4'	1.93	0.49
39:BE:80:ASN:HB2	81:B5:3272:C:O2	2.12	0.49
49:BO:37[A]:ARG:HG3	49:BO:108[A]:ILE:HG22	1.94	0.49
49:BO:108[A]:ILE:HD11	49:BO:113[A]:ASP:HA	1.94	0.49
56:BV:57:MET:HE3	56:BV:126:TRP:CH2	2.47	0.49
57:BW:105:ARG:HG2	57:BW:109:LEU:HD11	1.94	0.49
59:BY:13:ARG:HD3	83:B8:24:G:OP2	2.13	0.49
65:Be:77:ALA:HB1	81:B5:1388:U:H5'	1.93	0.49
66:Bf:58:GLU:OE1	66:Bf:61:GLY:HA2	2.13	0.49
70:Bj:59:THR:HA	83:B8:41:A:O3'	2.12	0.49
74:Bn:9:ARG:HH11	74:Bn:9:ARG:CG	2.24	0.49
75:Bo:93:LEU:HD12	75:Bo:93:LEU:H	1.77	0.49
79:By:81:GLU:O	79:CL:81:GLU:C	2.56	0.49
79:By:89:ALA:HB3	79:CL:92:ASP:OD1	2.13	0.49
79:By:155:GLU:HB2	79:CL:160:ARG:N	2.24	0.49
79:By:171:ILE:O	79:CL:45:ALA:N	2.45	0.49
79:By:214:VAL:HG23	79:CL:222:VAL:HB	1.93	0.49
81:B5:36:C:H2'	81:B5:37:U:H5'	1.94	0.49
81:B5:1580:A:O2'	81:B5:1581:C:OP2	2.30	0.49
81:B5:1595:U:C2	81:B5:1596:C:C5	2.99	0.49
81:B5:2622:C:H5"	81:B5:2623:G:OP2	2.10	0.49
82:B7:23:A:H2'	82:B7:24:A:C8	2.47	0.49
85:CP:63:GLU:HB2	85:CP:210:TRP:CE3	2.48	0.49
1:A0:15:ARG:NH1	80:B2:936:G:C5	2.79	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A5:87:UNK:HG2	6:A5:87:UNK:O	2.13	0.49
9:AA:29:VAL:HG13	9:AA:150:ASP:HB3	1.93	0.49
10:AB:86:LEU:HB3	10:AB:98:THR:OG1	2.11	0.49
10:AB:125:VAL:HG21	10:AB:173:THR:HG22	1.94	0.49
10:AB:184:LEU:O	10:AB:188:LEU:HG	2.12	0.49
15:AG:188:ARG:NH1	80:B2:283:U:C4	2.80	0.49
16:AH:167:GLU:HG3	16:AH:170:GLN:OE1	2.11	0.49
17:AI:2:GLY:CA	80:B2:393:C:OP2	2.60	0.49
19:AK:49:LEU:HB3	19:AK:55:VAL:CG1	2.42	0.49
23:AO:38:THR:CB	80:B2:896:U:O4’	2.61	0.49
23:AO:85:ALA:H	23:AO:119:THR:CG2	2.15	0.49
29:AU:20:ILE:HG13	29:AU:95:ALA:O	2.11	0.49
38:BD:266:ALA:O	82:B7:1:G:H1’	2.12	0.49
39:BE:55:LEU:HD12	39:BE:64:LEU:HD13	1.94	0.49
40:BF:229:PHE:CD1	40:BF:229:PHE:C	2.91	0.49
47:BM:133:LYS:NZ	81:B5:3227:A:O2’	2.25	0.49
49:BO:62[B]:THR:HG21	49:BO:68[B]:ARG:HG3	1.95	0.49
54:BT:4:SER:OG	81:B5:2630:C:C5	2.66	0.49
61:Ba:26:ARG:NH2	81:B5:939:U:C5	2.80	0.49
68:Bh:89:ARG:CD	83:B8:38:U:C5	2.91	0.49
75:Bo:63:LYS:NZ	81:B5:2795:U:OP2	2.41	0.49
79:By:13:LYS:CB	79:CL:9:ALA:CB	2.71	0.49
79:By:22:ILE:CD1	79:CL:22:ILE:HA	2.42	0.49
79:By:113:VAL:CB	79:CL:131:LEU:CD2	2.89	0.49
79:By:154:ARG:NE	79:CL:90:GLY:HA3	2.27	0.49
79:By:220:PRO:CD	79:CL:7:TYR:CG	2.88	0.49
80:B2:194:U:O2’	80:B2:195:G:O4’	2.30	0.49
80:B2:489:C:H2’	80:B2:490:C:C6	2.48	0.49
80:B2:498:G:C4	80:B2:499:U:N3	2.81	0.49
80:B2:1352:G:O6	89:B2:2026:OHX:N1	2.45	0.49
80:B2:1716:C:O2’	80:B2:1717:G:O5’	2.30	0.49
81:B5:1226:G:N1	81:B5:1285:G:C2	2.80	0.49
81:B5:3029:A:H5’	85:CP:81:GLU:OE1	2.10	0.49
1:A0:79:ILE:HA	1:A0:84:VAL:HG21	1.93	0.49
4:A3:32:ARG:NH2	80:B2:1596:C:H3’	2.27	0.49
10:AB:124:ASN:N	10:AB:124:ASN:OD1	2.44	0.49
10:AB:185:THR:O	10:AB:189:ILE:HG13	2.12	0.49
11:AC:183:ALA:HB1	11:AC:211:LEU:HD21	1.94	0.49
14:AF:124:LEU:O	14:AF:125:THR:OG1	2.29	0.49
16:AH:64:VAL:HG11	80:B2:856:A:H1’	1.94	0.49
22:AN:22:ALA:HB1	22:AN:23:PRO:C	2.38	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AU:89:ARG:NH2	80:B2:1383:G:OP1	2.45	0.49
36:BB:259:HIS:HB3	81:B5:2987:A:O2'	2.12	0.49
37:BC:98:ARG:HD2	37:BC:99:MET:O	2.13	0.49
41:BG:138:HIS:CE1	81:B5:119:U:C2	3.01	0.49
43:BI:115:MET:HB2	81:B5:2865:U:P	2.51	0.49
44:BJ:152:HIS:O	44:BJ:153:LYS:HB3	2.11	0.49
54:BT:23:GLY:H	81:B5:2701:U:P	2.27	0.49
56:BV:21:ALA:HA	81:B5:1898:G:O3'	2.12	0.49
63:Bc:32:LYS:NZ	81:B5:1712:G:OP2	2.43	0.49
70:Bj:76:ASN:O	70:Bj:79:GLN:HG3	2.12	0.49
79:By:215:THR:HG22	79:CL:215:THR:HG21	1.40	0.49
80:B2:487:G:H3'	80:B2:488:G:C5'	2.43	0.49
80:B2:1156:C:C2'	80:B2:1157:A:H5'	2.43	0.49
80:B2:1446:A:OP1	89:B2:2083:OHX:N2	2.46	0.49
81:B5:2546:C:H2'	81:B5:2547:A:C8	2.46	0.49
11:AC:140:ARG:NH2	11:AC:226:THR:HG23	2.27	0.49
15:AG:136:LYS:HE2	80:B2:65:A:O5'	2.13	0.49
17:AI:136:SER:HG	17:AI:137:LYS:H	1.58	0.49
17:AI:170:SER:HB2	80:B2:210:A:P	2.53	0.49
18:AJ:142:ASN:OD1	80:B2:767:U:H5	1.96	0.49
26:AR:17:ILE:HG23	26:AR:58:MET:HE2	1.95	0.49
26:AR:82:ASP:O	26:AR:83:GLN:HB2	2.12	0.49
31:AW:19:LYS:NZ	80:B2:1095:U:H4'	2.28	0.49
35:BA:15:ILE:HD13	81:B5:904:A:C2	2.48	0.49
37:BC:141:ARG:CZ	37:BC:180:LYS:HD3	2.43	0.49
44:BJ:105:GLY:CA	81:B5:2674:A:O4'	2.52	0.49
46:BL:99:HIS:ND1	81:B5:156:G:C5	2.80	0.49
52:BR:165:LYS:HE3	80:B2:824:G:H21	1.70	0.49
52:BR:177:VAL:HG11	80:B2:854:U:P	2.53	0.49
57:BW:82:ILE:HG22	57:BW:82:ILE:O	2.13	0.49
64:Bd:26:LYS:HE2	81:B5:1456:A:N7	2.28	0.49
72:Bl:44:TRP:CH2	72:Bl:45:ARG:HG3	2.47	0.49
73:Bm:125:LYS:NZ	81:B5:2847:A:O4'	2.42	0.49
74:Bn:6:ARG:HH12	80:B2:1113:A:C4'	2.05	0.49
79:By:75:LEU:CB	79:CL:110:PHE:N	2.74	0.49
79:By:85:GLU:HG2	79:CL:88:GLU:CG	2.43	0.49
80:B2:70:C:H2'	80:B2:71:A:O4'	2.12	0.49
80:B2:730:G:H21	80:B2:731:C:H5"	1.78	0.49
80:B2:1049:U:H2'	80:B2:1050:G:C8	2.47	0.49
81:B5:407:A:C2	83:B8:17:A:H1'	2.47	0.49
81:B5:439:C:H4'	81:B5:440:A:OP1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2263:C:C2’	81:B5:2264:U:H5’	2.42	0.49
81:B5:2568:C:O2’	81:B5:2569:A:O5’	2.28	0.49
81:B5:3259:U:C6	81:B5:3259:U:H5’	2.47	0.49
81:B5:3346:U:H2’	81:B5:3347:A:O4’	2.13	0.49
83:B8:79:A:OP1	83:B8:79:A:H4’	2.11	0.49
17:AI:8:ARG:C	17:AI:9:HIS:O	2.53	0.49
17:AI:141:ARG:NH2	80:B2:196:G:C5	2.51	0.49
19:AK:80:LEU:O	19:AK:82:LEU:N	2.41	0.49
26:AR:53:TYR:OH	80:B2:1401:A:C5’	2.34	0.49
29:AU:22:ILE:HD12	29:AU:118:VAL:HA	1.93	0.49
31:AW:36:LYS:O	31:AW:40:VAL:HG23	2.13	0.49
31:AW:78:ARG:NH1	80:B2:805:U:O2’	2.45	0.49
33:AY:15:ASN:OD1	33:AY:17:LEU:HD12	2.12	0.49
38:BD:269:SER:CB	82:B7:1:G:N2	2.62	0.49
41:BG:51:LYS:CD	81:B5:2523:A:OP2	2.54	0.49
41:BG:97:TYR:O	41:BG:132:VAL:HG13	2.13	0.49
41:BG:150:LEU:HD22	41:BG:151:VAL:H	1.77	0.49
52:BR:3:ASN:OD1	81:B5:1471:U:H4’	2.13	0.49
56:BV:80:ARG:HD3	56:BV:117:PRO:O	2.13	0.49
61:Ba:54:GLY:N	81:B5:94:G:OP2	2.41	0.49
65:Be:16:LYS:O	65:Be:17:PHE:HB2	2.13	0.49
67:Bg:52:GLN:HA	81:B5:1738:C:O2’	2.13	0.49
79:By:14:VAL:O	79:CL:7:TYR:CE2	2.66	0.49
79:By:100:ILE:H	79:CL:99:ILE:CA	2.26	0.49
79:By:153:ILE:N	79:CL:74:VAL:HG13	2.18	0.49
89:B2:1922:OHX:N4	89:B2:1977:OHX:N4	2.61	0.49
81:B5:629:U:H2’	81:B5:630:A:C8	2.48	0.49
81:B5:662:U:H2’	81:B5:663:C:C6	2.47	0.49
81:B5:873:C:H4’	81:B5:874:U:OP2	2.12	0.49
81:B5:1643:A:H4’	81:B5:1822:C:H5’	1.95	0.49
79:CL:76:ALA:HB3	79:CL:94:VAL:HG22	1.94	0.49
7:A6:123:ILE:HG22	7:A6:133:VAL:HG22	1.95	0.49
7:A6:130:THR:HG22	7:A6:145:LEU:HD22	1.94	0.49
8:A7:31:SER:C	81:B5:2707:C:H4’	2.25	0.49
11:AC:208:GLU:OE1	80:B2:1299:G:H4’	2.12	0.49
14:AF:185:ARG:HH12	80:B2:1572:G:C1’	2.25	0.49
16:AH:23:ALA:O	16:AH:27:LEU:HG	2.12	0.49
17:AI:8:ARG:NH1	17:AI:21:PHE:HB3	2.28	0.49
21:AM:132:GLU:O	21:AM:136:ILE:HG12	2.13	0.49
25:AQ:16:ALA:HB2	25:AQ:72:GLY:HA3	1.94	0.49
28:AT:57:ARG:NH1	80:B2:1479:A:OP1	2.33	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AZ:50:ILE:O	34:AZ:54:VAL:HG23	2.11	0.49
35:BA:242:ARG:NH1	35:BA:246:LEU:HD12	2.28	0.49
36:BB:303:LYS:HZ1	36:BB:361:THR:HB	1.78	0.49
37:BC:44:LYS:HB3	37:BC:47:ARG:NH1	2.28	0.49
38:BD:40:HIS:HD2	38:BD:42:ALA:N	2.06	0.49
46:BL:154:VAL:HG23	46:BL:157:ARG:HG2	1.94	0.49
52:BR:61:SER:HB3	81:B5:1689:U:C5'	2.42	0.49
57:BW:35:LYS:O	57:BW:39:LEU:HD22	2.13	0.49
67:Bg:4:ARG:HD3	81:B5:1481:A:C2	2.48	0.49
79:By:30:LYS:CD	79:CL:31:GLU:CA	2.79	0.49
79:By:75:LEU:C	79:CL:75:LEU:CD2	2.82	0.49
79:By:136:LEU:HA	79:CL:136:LEU:CB	2.42	0.49
79:By:147:PHE:CB	79:CL:148:ASN:N	2.76	0.49
80:B2:358:U:O2'	80:B2:360:A:H5"	2.13	0.49
80:B2:393:C:H2'	80:B2:394:C:C6	2.48	0.49
80:B2:1114:G:O6	89:B2:1953:OHX:N5	2.45	0.49
80:B2:1282:U:O4	89:B2:2027:OHX:N2	2.45	0.49
80:B2:1446:A:H2'	89:B2:2083:OHX:N2	2.28	0.49
80:B2:1686:C:C5	80:B2:1687:U:C5	3.01	0.49
80:B2:1746:A:H2'	80:B2:1747:G:O4'	2.13	0.49
89:B2:1982:OHX:N2	89:B2:2079:OHX:N4	2.60	0.49
81:B5:996:A:C2	81:B5:1054:A:C4	3.01	0.49
7:A6:153:GLN:HG2	7:A6:202:LEU:HD23	1.95	0.49
15:AG:126:ASP:OD1	15:AG:127:THR:HG22	2.13	0.49
15:AG:133:LEU:HG	80:B2:66:U:C6	2.47	0.49
17:AI:21:PHE:CE2	80:B2:385:A:H5'	2.48	0.49
17:AI:52:ASN:ND2	80:B2:118:U:OP1	2.45	0.49
17:AI:72:ILE:HB	80:B2:256:A:O2'	2.13	0.49
20:AL:65:SER:CB	80:B2:114:C:H1'	2.42	0.49
21:AM:29:LYS:HE2	21:AM:100:TRP:HE1	1.77	0.49
27:AS:32:LEU:O	27:AS:38:VAL:HG21	2.12	0.49
38:BD:11:ALA:HB1	81:B5:1003:A:H5'	1.94	0.49
41:BG:57:ARG:O	41:BG:61:GLN:HG3	2.13	0.49
46:BL:39:ARG:NH1	81:B5:107:A:OP1	2.42	0.49
48:BN:138:GLN:HA	48:BN:143:ARG:HD2	1.95	0.49
52:BR:154:ALA:O	52:BR:158:GLU:HG2	2.13	0.49
58:BX:38:LEU:O	58:BX:39:LYS:HB2	2.11	0.49
69:Bi:74:LYS:HA	69:Bi:83:ALA:HB2	1.95	0.49
70:Bj:10:LYS:HE3	81:B5:1853:U:C5'	2.41	0.49
75:Bo:69:VAL:CG2	81:B5:2792:A:H4'	2.43	0.49
75:Bo:82:GLN:CD	81:B5:2768:U:HO2'	2.14	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:21:THR:HG23	79:CL:20:TYR:C	2.38	0.49
79:By:118:ASP:CG	79:CL:119:VAL:CG2	2.81	0.49
79:By:137:LEU:HA	79:CL:131:LEU:HB3	1.94	0.49
79:By:142:ALA:C	79:CL:162:GLU:OE1	2.56	0.49
79:By:156:ILE:HB	79:CL:72:VAL:HG21	0.71	0.49
79:By:183:GLU:OE1	79:CL:183:GLU:HG3	2.13	0.49
79:By:184:LYS:HZ1	79:CL:181:PRO:HD2	1.75	0.49
80:B2:51:A:H1'	85:CP:242:GLY:CA	2.02	0.49
80:B2:61:A:C8	80:B2:269:G:O2'	2.65	0.49
80:B2:713:A:H61	80:B2:725:U:H3	1.58	0.49
80:B2:818:C:N4	80:B2:819:G:C6	2.80	0.49
80:B2:838:G:O6	89:B2:2071:OHX:N4	2.46	0.49
80:B2:1253:U:H2'	80:B2:1254:U:C6	2.48	0.49
80:B2:1686:C:O2'	80:B2:1687:U:O5'	2.30	0.49
81:B5:59:G:H2'	83:B8:33:A:O2'	2.12	0.49
81:B5:690:A:H4'	81:B5:691:A:OP1	2.13	0.49
79:CL:42:GLU:OE2	84:CN:2145:G:O2'	2.31	0.49
85:CP:83:PHE:H	85:CP:84:SER:HA	1.78	0.49
1:A0:36:ILE:HG23	1:A0:73:TYR:HB2	1.95	0.49
8:A7:47:ALA:HB2	81:B5:2678:A:C4	2.48	0.49
10:AB:22:ASP:O	10:AB:24:PHE:N	2.46	0.49
12:AD:4:LEU:CD1	80:B2:1514:U:C6	2.96	0.49
14:AF:129:PRO:O	14:AF:133:VAL:HG23	2.13	0.49
15:AG:70:PRO:O	15:AG:98:ARG:NH2	2.42	0.49
21:AM:82:PRO:O	21:AM:83:GLU:HB2	2.13	0.49
23:AO:16:VAL:HG22	23:AO:33:LEU:HA	1.95	0.49
25:AQ:112:TYR:OH	25:AQ:114:ARG:NH2	2.45	0.49
35:BA:15:ILE:CD1	81:B5:822:G:N9	2.76	0.49
35:BA:71:LEU:HD22	81:B5:1651:U:H5"	1.95	0.49
35:BA:202:VAL:HG23	35:BA:211:HIS:HB3	1.95	0.49
36:BB:92:TYR:HB2	36:BB:157:VAL:HG22	1.95	0.49
40:BF:160:ARG:HD3	81:B5:1363:A:OP1	2.13	0.49
46:BL:16:LYS:O	46:BL:17:HIS:HB2	2.13	0.49
46:BL:27:ASP:CG	46:BL:31:LYS:HD2	2.38	0.49
52:BR:61:SER:CB	81:B5:3069:G:HO2'	2.24	0.49
53:BS:155:ARG:NH1	53:BS:172:TYR:N	2.61	0.49
57:BW:127:LYS:O	57:BW:131:ALA:N	2.45	0.49
63:Bc:84:LEU:HD13	81:B5:1715:A:C8	2.48	0.49
79:By:39:GLU:OE1	79:CL:35:ALA:HB3	2.12	0.49
79:By:46:LYS:CB	84:CN:2199:C:O5'	2.46	0.49
79:By:132:GLY:C	79:CL:132:GLY:HA3	2.38	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:171:ILE:HD12	79:CL:171:ILE:CG1	2.17	0.49
79:By:185:LEU:CG	79:CL:29:VAL:HG11	2.39	0.49
79:By:227:HIS:CD2	79:CL:227:HIS:CA	2.96	0.49
80:B2:1715:G:O6	80:B2:1716:C:C4	2.56	0.49
81:B5:735:A:O2'	81:B5:736:A:OP1	2.30	0.49
81:B5:959:C:OP2	81:B5:960:U:H5	1.96	0.49
81:B5:1239:C:C4	81:B5:1250:G:C6	3.00	0.49
81:B5:2228:A:H5"	81:B5:2228:A:H8	1.78	0.49
83:B8:66:A:H2'	83:B8:67:U:H6	1.78	0.49
6:A5:120:GLU:HG3	6:A5:128:ALA:HB1	1.94	0.48
7:A6:112:SER:CB	7:A6:153:GLN:HA	2.43	0.48
8:A7:44:PRO:HA	81:B5:2678:A:N3	2.29	0.48
21:AM:33:ARG:O	21:AM:37:VAL:HG23	2.13	0.48
23:AO:120:PRO:CA	80:B2:887:A:C5'	2.89	0.48
26:AR:13:SER:OG	26:AR:54:THR:HG22	2.13	0.48
27:AS:24:GLY:O	27:AS:26:ILE:N	2.45	0.48
29:AU:58:LEU:HD12	29:AU:88:LYS:C	2.38	0.48
29:AU:74:GLU:HG2	80:B2:1429:G:C1'	2.43	0.48
29:AU:106:ILE:HD12	29:AU:108:ILE:HD11	1.93	0.48
33:AY:105:ARG:CD	80:B2:444:C:OP2	2.61	0.48
34:AZ:50:ILE:HG22	34:AZ:51:LEU:HD12	1.96	0.48
35:BA:227:ARG:NH2	81:B5:2161:G:O3'	2.38	0.48
38:BD:265:TYR:CD2	82:B7:120:C:N4	2.81	0.48
40:BF:80:GLN:HG3	54:BT:136:ARG:HB3	1.95	0.48
43:BI:100:ASN:O	43:BI:101:LYS:HB3	2.12	0.48
49:BO:61[A]:ALA:HA	49:BO:70[A]:PRO:HD2	1.94	0.48
57:BW:105:ARG:HG2	57:BW:105:ARG:HH11	1.78	0.48
60:BZ:79:HIS:CE1	81:B5:1636:U:C2'	2.95	0.48
60:BZ:95:VAL:HG11	60:BZ:110:ALA:HA	1.93	0.48
60:BZ:115:LYS:CD	81:B5:1629:U:C1'	2.90	0.48
61:Ba:13:GLY:HA2	81:B5:943:U:O5'	2.13	0.48
67:Bg:42:PRO:HG2	67:Bg:54:ILE:HG22	1.95	0.48
68:Bh:85:THR:HG22	68:Bh:88:LEU:N	2.28	0.48
70:Bj:55:ARG:NH1	81:B5:353:G:O6	2.46	0.48
75:Bo:77:CYS:O	75:Bo:79:THR:HG23	2.13	0.48
79:By:157:LYS:CB	79:CL:70:LYS:C	2.81	0.48
79:By:168:THR:N	79:CL:167:LYS:HG2	2.28	0.48
79:By:176:GLY:HA3	79:CL:41:VAL:HG23	1.93	0.48
79:By:205:LYS:CG	79:CL:200:LYS:HZ1	2.26	0.48
80:B2:190:C:H1'	80:B2:191:C:H5'	1.93	0.48
80:B2:929:A:N6	80:B2:930:A:C6	2.80	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:976:G:O6	89:B2:1928:OHX:N3	2.45	0.48
80:B2:1369:U:O4	89:B2:1974:OHX:N5	2.45	0.48
81:B5:998:A:O2'	81:B5:999:G:H5'	2.12	0.48
81:B5:1036:A:H2'	81:B5:1037:C:O4'	2.13	0.48
81:B5:2403:G:N2	81:B5:2404:A:N7	2.55	0.48
79:CL:10:LEU:HD21	79:CL:34:THR:HG21	1.95	0.48
84:CN:2163:C:H5"	84:CN:2164:C:OP2	2.13	0.48
1:A0:84:VAL:HG13	1:A0:85:ARG:H	1.79	0.48
2:A1:51:GLN:CD	80:B2:870:C:O2'	2.56	0.48
6:A5:149:LYS:HD3	80:B2:1235:C:O2'	2.12	0.48
9:AA:108:THR:OG1	80:B2:1294:G:O2'	2.29	0.48
9:AA:185:ARG:N	30:AV:45:ALA:H	2.09	0.48
10:AB:116:LYS:CE	80:B2:933:A:P	2.97	0.48
15:AG:67:VAL:HG23	15:AG:68:LEU:O	2.13	0.48
15:AG:182:GLN:CD	80:B2:270:C:N4	2.72	0.48
16:AH:119:THR:HG23	80:B2:639:U:P	2.53	0.48
21:AM:46:ARG:HD2	80:B2:1255:G:O6	2.13	0.48
22:AN:109:LYS:HE2	80:B2:975:C:H5"	1.94	0.48
23:AO:123:SER:OG	80:B2:886:U:C2	2.66	0.48
24:AP:15:HIS:O	24:AP:21:ASP:HA	2.12	0.48
28:AT:63:ARG:HD2	28:AT:67:MET:HE1	1.95	0.48
29:AU:89:ARG:NH1	80:B2:1383:G:P	2.69	0.48
35:BA:200:ARG:NE	81:B5:2147:A:P	2.86	0.48
35:BA:209:HIS:CE1	81:B5:2184:U:OP1	2.62	0.48
35:BA:234:LYS:HB2	81:B5:2163:C:OP1	2.13	0.48
36:BB:37:ARG:HA	36:BB:186:GLY:HA2	1.94	0.48
36:BB:37:ARG:CG	36:BB:187:SER:H	2.19	0.48
36:BB:296:THR:HG21	36:BB:357:LYS:HA	1.95	0.48
38:BD:266:ALA:HB2	82:B7:1:G:N7	2.28	0.48
39:BE:89:THR:HG21	47:BM:115:PHE:HB2	1.94	0.48
41:BG:38:GLN:CA	81:B5:2557:A:H2	2.26	0.48
41:BG:244:ALA:HA	41:BG:247:ASP:HB2	1.95	0.48
42:BH:19:SER:HB3	47:BM:6:ILE:H	1.78	0.48
46:BL:87:ALA:O	46:BL:91:ARG:HG3	2.14	0.48
50:BP:94:LEU:HD12	50:BP:94:LEU:HA	1.71	0.48
51:BQ:183:GLY:H	81:B5:2763:U:P	2.35	0.48
56:BV:13:ILE:CD1	56:BV:53:SER:HB2	2.42	0.48
56:BV:45:ARG:O	56:BV:46:LEU:C	2.55	0.48
59:BY:39:LEU:HD21	59:BY:107:THR:O	2.13	0.48
63:Bc:84:LEU:HB2	81:B5:1715:A:C6	2.48	0.48
66:Bf:53:TYR:OH	81:B5:431:U:OP1	2.23	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:28:LEU:HA	79:CL:13:LYS:NZ	2.28	0.48
79:By:64:LEU:HD12	79:CL:64:LEU:HD21	1.34	0.48
79:By:81:GLU:HB3	79:CL:80:GLY:N	2.27	0.48
79:By:116:THR:C	79:CL:119:VAL:HG23	2.38	0.48
79:By:117:PRO:CB	79:CL:121:GLY:N	2.76	0.48
79:By:157:LYS:CA	79:CL:72:VAL:HB	2.43	0.48
80:B2:383:G:N7	89:B2:2012:OHX:N4	2.61	0.48
81:B5:653:A:H5'	81:B5:2361:A:H5"	1.95	0.48
84:CN:2144:G:H2'	84:CN:2145:G:O4'	2.13	0.48
2:A1:54:VAL:O	2:A1:63:LEU:HB2	2.13	0.48
4:A3:36:LEU:HD21	29:AU:65:ILE:HD11	1.95	0.48
4:A3:40:ARG:HG2	4:A3:41:GLN:OE1	2.14	0.48
9:AA:110:TYR:CD1	9:AA:110:TYR:N	2.80	0.48
12:AD:20:GLU:OE2	12:AD:76:ARG:NH2	2.44	0.48
14:AF:24:VAL:HG22	14:AF:25:LEU:H	1.78	0.48
15:AG:188:ARG:NH1	80:B2:284:G:O6	2.43	0.48
22:AN:27:LYS:H	22:AN:27:LYS:CE	2.26	0.48
23:AO:25:ASP:OD2	80:B2:900:A:C5'	2.55	0.48
24:AP:70:ASN:ND2	44:BJ:172:LEU:HD23	2.28	0.48
25:AQ:114:ARG:O	25:AQ:115:THR:OG1	2.26	0.48
31:AW:71:LYS:NZ	80:B2:1099:U:OP1	2.45	0.48
38:BD:15:ARG:NE	81:B5:1003:A:O4'	2.46	0.48
38:BD:152:ARG:HH11	38:BD:152:ARG:CG	2.25	0.48
43:BI:9:TYR:CG	43:BI:97:LEU:HD13	2.48	0.48
54:BT:116:ARG:NH2	81:B5:1097:G:N7	2.61	0.48
60:BZ:54:THR:HG22	60:BZ:57:HIS:CE1	2.48	0.48
67:Bg:23:VAL:HG11	81:B5:1696:A:H4'	1.94	0.48
74:Bn:4:LYS:O	74:Bn:7:LYS:HB3	2.13	0.48
79:By:28:LEU:O	79:CL:32:LEU:HA	2.12	0.48
79:By:85:GLU:OE1	79:CL:85:GLU:CA	2.57	0.48
79:By:212:VAL:CG2	79:CL:212:VAL:N	2.57	0.48
80:B2:497:G:O2'	80:B2:498:G:O4'	2.29	0.48
80:B2:978:A:OP1	89:B2:2060:OHX:N5	2.45	0.48
80:B2:992:A:H2	80:B2:1012:U:N3	2.06	0.48
81:B5:1750:A:H4'	81:B5:1751:G:H5'	1.95	0.48
81:B5:3013:U:H2'	81:B5:3014:U:C6	2.48	0.48
84:CN:2134:U:H5"	84:CN:2135:A:OP2	2.13	0.48
1:A0:38:ARG:HH21	1:A0:83:ILE:HG13	1.78	0.48
8:A7:34:LYS:CE	81:B5:2692:A:O3'	2.59	0.48
14:AF:120:ILE:O	14:AF:124:LEU:HD12	2.13	0.48
15:AG:188:ARG:HD3	80:B2:283:U:H5"	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AO:122:PRO:HB3	80:B2:887:A:O2'	2.13	0.48
23:AO:122:PRO:C	80:B2:886:U:O2	2.55	0.48
30:AV:40:ASP:HB3	30:AV:46:ILE:HD11	1.94	0.48
33:AY:11:LYS:HG3	80:B2:777:C:N4	2.28	0.48
36:BB:255:TRP:CD1	81:B5:2395:G:C5'	2.92	0.48
36:BB:339:ARG:HG2	36:BB:340:LYS:O	2.12	0.48
38:BD:270:LYS:HG3	38:BD:273:ARG:HB2	1.96	0.48
38:BD:272:TYR:CE2	82:B7:22:A:C8	3.02	0.48
40:BF:22:THR:HA	40:BF:25:GLN:HG2	1.94	0.48
44:BJ:10:ARG:HA	44:BJ:134:PRO:HD2	1.94	0.48
48:BN:76:PRO:O	81:B5:2166:A:P	2.71	0.48
48:BN:109:ARG:HD2	83:B8:141:C:H5'	1.95	0.48
52:BR:134:HIS:CB	81:B5:1947:G:H5"	2.44	0.48
52:BR:173:ARG:O	80:B2:853:G:C5'	2.61	0.48
54:BT:17:ARG:HD2	54:BT:47:SER:HB3	1.96	0.48
55:BU:92:TRP:O	55:BU:108:TYR:N	2.44	0.48
79:By:21:THR:HG23	79:CL:21:THR:CB	2.43	0.48
79:By:21:THR:CA	79:CL:24:GLU:HB3	2.42	0.48
79:By:35:ALA:CA	84:CN:2149:C:C6	2.82	0.48
79:By:69:GLY:CA	79:CL:174:PRO:CB	2.91	0.48
79:By:73:ARG:O	79:CL:111:ASP:HA	2.13	0.48
79:By:79:LYS:HG2	79:CL:82:LYS:CB	2.28	0.48
80:B2:350:U:O2	80:B2:352:A:C6	2.66	0.48
80:B2:495:C:H3'	80:B2:496:G:C4'	2.43	0.48
80:B2:738:G:O6	89:B2:1975:OHX:N4	2.46	0.48
80:B2:1482:C:OP2	80:B2:1521:G:N2	2.46	0.48
80:B2:1639:C:O2	80:B2:1763:A:N1	2.46	0.48
89:B2:1969:OHX:N5	89:B2:2013:OHX:N2	2.61	0.48
81:B5:3274:A:H3'	81:B5:3275:U:H5"	1.94	0.48
79:CL:218:MET:H	84:CN:2196:C:H1'	1.78	0.48
85:CP:19:THR:HA	90:CP:401:GCP:O3A	2.10	0.48
9:AA:52:LYS:NZ	30:AV:82:VAL:O	2.35	0.48
9:AA:119:ARG:HD2	11:AC:241:ASP:OD1	2.12	0.48
10:AB:61:LEU:O	10:AB:63:GLY:N	2.47	0.48
15:AG:141:ILE:HG21	15:AG:153:VAL:HG13	1.94	0.48
16:AH:158:ASP:O	16:AH:160:GLN:N	2.46	0.48
19:AK:1:MET:CG	80:B2:1217:A:H5"	2.44	0.48
19:AK:2:LEU:HD13	80:B2:1258:U:H4'	1.94	0.48
23:AO:122:PRO:C	23:AO:124:ASP:N	2.71	0.48
24:AP:19:GLY:N	27:AS:93:THR:O	2.47	0.48
29:AU:57:ARG:HG3	80:B2:1382:A:H4'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AZ:46:LYS:HE2	34:AZ:70:LYS:HD2	1.94	0.48
35:BA:183:GLY:HA2	81:B5:896:A:H5'	1.94	0.48
35:BA:191:LEU:HG	81:B5:1795:U:OP1	2.13	0.48
36:BB:228:GLY:H	81:B5:1887:A:H4'	1.78	0.48
36:BB:255:TRP:NE1	81:B5:2395:G:H5"	2.26	0.48
43:BI:81:GLY:C	43:BI:83:ASP:H	2.21	0.48
46:BL:63:VAL:HG13	81:B5:72:C:H5"	1.94	0.48
46:BL:100:ARG:O	46:BL:101:ARG:HB3	2.14	0.48
56:BV:67:PRO:HG2	80:B2:1660:A:H5"	1.96	0.48
58:BX:33:ARG:HE	81:B5:1580:A:N6	2.09	0.48
60:BZ:23:VAL:HG12	60:BZ:45:GLY:HA3	1.96	0.48
69:Bi:14:GLY:HA2	81:B5:73:C:OP1	2.14	0.48
79:By:9:ALA:CB	79:CL:5:LYS:HE2	2.42	0.48
79:By:22:ILE:HD12	79:CL:22:ILE:HG13	1.94	0.48
79:By:46:LYS:HE2	84:CN:2200:C:P	2.47	0.48
79:By:48:GLY:O	79:CL:207:THR:O	2.32	0.48
79:By:68:LEU:HD13	79:CL:161:ILE:CD1	2.43	0.48
79:By:116:THR:HB	79:CL:77:ILE:C	2.37	0.48
79:By:179:SER:CB	79:CL:38:ASP:CB	2.63	0.48
79:By:182:PRO:CA	79:CL:30:LYS:HB3	2.32	0.48
80:B2:209:U:H2'	80:B2:210:A:C8	2.49	0.48
80:B2:526:A:H2'	80:B2:527:A:O4'	2.14	0.48
80:B2:680:U:H2'	80:B2:681:U:C6	2.49	0.48
80:B2:881:A:H2'	80:B2:882:U:O4'	2.13	0.48
80:B2:1522:U:OP1	89:B2:1937:OHX:N3	2.46	0.48
80:B2:1780:G:N1	81:B5:2263:C:O4'	2.46	0.48
81:B5:1018:G:H2'	81:B5:1019:G:O4'	2.13	0.48
81:B5:1085:A:C8	81:B5:1085:A:H5"	2.49	0.48
81:B5:2960:C:H2'	81:B5:2961:G:C8	2.47	0.48
81:B5:3241:G:H2'	81:B5:3245:A:C8	2.49	0.48
5:A4:53:LYS:HG3	5:A4:54:ARG:H	1.79	0.48
7:A6:221:MET:HG3	7:A6:233:THR:HG23	1.94	0.48
10:AB:146:GLN:H	10:AB:149:GLN:NE2	2.11	0.48
14:AF:109:LYS:NZ	80:B2:1474:G:P	2.87	0.48
17:AI:8:ARG:HD2	17:AI:21:PHE:HD1	1.79	0.48
17:AI:96:LEU:HD13	17:AI:179:CYS:SG	2.53	0.48
17:AI:197:THR:HA	17:AI:200:LYS:HB2	1.96	0.48
18:AJ:91:LYS:O	18:AJ:92:LYS:HG2	2.13	0.48
18:AJ:173:ALA:CA	80:B2:511:A:H5'	2.44	0.48
19:AK:55:VAL:HA	19:AK:69:THR:HG23	1.94	0.48
23:AO:18:ARG:NH1	80:B2:919:A:O5'	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AQ:60:PHE:HA	25:AQ:63:ILE:HD11	1.96	0.48
28:AT:53:TRP:HA	28:AT:56:LYS:HB2	1.95	0.48
28:AT:79:LEU:HD11	80:B2:1481:C:C4	2.49	0.48
31:AW:55:ASP:C	31:AW:57:ARG:H	2.20	0.48
33:AY:9:THR:OG1	80:B2:781:U:OP2	2.31	0.48
33:AY:33:ALA:HB2	80:B2:533:U:C5'	2.43	0.48
35:BA:94:ALA:CA	81:B5:2551:U:O4	2.62	0.48
50:BP:62:ARG:NH1	81:B5:412:G:OP1	2.47	0.48
52:BR:167:ARG:HB3	52:BR:167:ARG:NH1	2.28	0.48
79:By:42:GLU:CG	84:CN:2145:G:O4'	2.41	0.48
79:By:62:VAL:HG11	79:CL:195:ALA:HB3	1.96	0.48
79:By:78:ALA:HB2	79:CL:94:VAL:CB	2.43	0.48
79:By:148:ASN:O	79:CL:152:ILE:CB	2.62	0.48
80:B2:11:A:C2'	80:B2:12:U:H5'	2.44	0.48
80:B2:545:A:H4'	80:B2:546:U:OP1	2.14	0.48
80:B2:694:U:H2'	80:B2:695:U:H5	1.78	0.48
80:B2:1230:A:HO2'	80:B2:1258:U:H5	1.62	0.48
81:B5:1081:U:O2'	81:B5:1082:U:O5'	2.28	0.48
81:B5:1573:G:C5	81:B5:1574:C:H1'	2.48	0.48
81:B5:3121:U:H1'	81:B5:3122:A:H5"	1.96	0.48
81:B5:3245:A:H2	81:B5:3246:G:N1	2.12	0.48
83:B8:82:U:H1'	83:B8:87:G:H5'	1.96	0.48
10:AB:77:GLU:C	10:AB:79:HIS:H	2.21	0.48
12:AD:46:THR:HB	12:AD:84:ILE:HG12	1.96	0.48
17:AI:33:PRO:CA	80:B2:331:A:H5'	2.42	0.48
17:AI:136:SER:OG	80:B2:188:A:OP2	2.28	0.48
17:AI:138:ASN:CB	80:B2:197:A:H61	2.27	0.48
22:AN:73:ARG:HD3	80:B2:859:A:C5	2.46	0.48
24:AP:44:ARG:CG	80:B2:1556:A:OP1	2.62	0.48
24:AP:70:ASN:CG	44:BJ:172:LEU:CD2	2.87	0.48
26:AR:7:LYS:H	80:B2:1316:G:P	2.37	0.48
28:AT:33:TYR:C	28:AT:33:TYR:HD1	2.21	0.48
34:AZ:92:ILE:HG12	34:AZ:100:ILE:CG2	2.44	0.48
38:BD:148:ILE:HA	38:BD:148:ILE:HD12	1.56	0.48
38:BD:148:ILE:HG13	38:BD:159:VAL:HG11	1.96	0.48
38:BD:265:TYR:O	38:BD:269:SER:HB3	2.13	0.48
38:BD:283:ALA:O	38:BD:286:VAL:HB	2.14	0.48
46:BL:66:ASN:ND2	81:B5:72:C:O2'	2.40	0.48
49:BO:34[B]:VAL:HB	49:BO:103[B]:LYS:HB2	1.96	0.48
49:BO:65[B]:ASN:O	49:BO:68[B]:ARG:HG2	2.14	0.48
51:BQ:43:PRO:HD2	81:B5:729:C:OP1	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:BQ:96:PHE:CG	51:BQ:97:PRO:HD2	2.49	0.48
51:BQ:176:ARG:HG3	81:B5:2763:U:C5'	2.43	0.48
52:BR:169:ALA:O	80:B2:851:U:H2'	1.77	0.48
52:BR:169:ALA:CB	80:B2:850:A:N1	2.75	0.48
59:BY:3:LYS:HA	81:B5:228:U:O3'	2.13	0.48
73:Bm:100:TYR:CD1	81:B5:2895:G:N2	2.77	0.48
75:Bo:84:THR:HG21	81:B5:2792:A:H5'	1.96	0.48
79:By:3:HIS:CA	84:CN:2182:C:H1'	2.42	0.48
79:By:34:THR:OG1	79:CL:36:LYS:CD	2.55	0.48
79:By:100:ILE:CD1	79:CL:101:GLN:HE22	2.24	0.48
79:By:113:VAL:HG21	79:CL:108:MET:CE	2.44	0.48
79:By:163:PHE:CE1	79:CL:60:GLY:CA	2.96	0.48
79:By:177:LYS:CD	79:CL:38:ASP:O	2.61	0.48
80:B2:507:U:H3'	80:B2:507:U:O2	2.13	0.48
80:B2:700:C:H42	80:B2:738:G:H1	1.62	0.48
80:B2:812:A:OP1	80:B2:858:G:N2	2.47	0.48
80:B2:1196:A:H1'	80:B2:1602:C:O2'	2.13	0.48
80:B2:1203:A:OP2	89:B2:1991:OHX:N5	2.47	0.48
80:B2:1351:G:C2	80:B2:1375:A:C2	3.02	0.48
80:B2:1553:G:N2	80:B2:1555:A:H3'	2.28	0.48
80:B2:1670:G:N7	89:B2:2004:OHX:N5	2.62	0.48
80:B2:1729:C:H5"	80:B2:1730:A:OP2	2.12	0.48
81:B5:135:C:H4'	81:B5:136:G:OP2	2.12	0.48
81:B5:677:A:H4'	81:B5:678:G:O5'	2.14	0.48
81:B5:1307:G:H1'	81:B5:1308:A:N7	2.28	0.48
14:AF:133:VAL:HG22	14:AF:198:LEU:HD13	1.96	0.48
14:AF:172:ILE:O	14:AF:176:THR:HG23	2.14	0.48
16:AH:71:HIS:CG	16:AH:131:PHE:CZ	3.02	0.48
17:AI:87:ASN:O	17:AI:90:LEU:HB2	2.14	0.48
18:AJ:93:LEU:HA	18:AJ:96:VAL:CG1	2.38	0.48
18:AJ:122:VAL:O	18:AJ:125:ALA:HB3	2.14	0.48
19:AK:12:HIS:CD2	19:AK:79:TYR:CD2	3.02	0.48
31:AW:32:LYS:HG3	80:B2:637:C:OP1	2.14	0.48
38:BD:110:LEU:HA	38:BD:113:LEU:HB2	1.95	0.48
38:BD:155:THR:O	82:B7:36:C:C5'	2.62	0.48
41:BG:194:THR:CG2	81:B5:7:C:O3'	2.61	0.48
43:BI:38:LYS:HG3	43:BI:41:ALA:HB2	1.95	0.48
43:BI:193:ASP:CG	81:B5:1010:G:N2	2.69	0.48
44:BJ:142:LYS:HD3	44:BJ:142:LYS:HA	1.67	0.48
49:BO:171[B]:LYS:NZ	81:B5:3180:A:OP1	2.46	0.48
50:BP:139:TYR:OH	81:B5:2354:C:O2'	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BW:126:GLU:OE2	57:BW:129:LYS:NZ	2.47	0.48
58:BX:135:ILE:HD13	58:BX:135:ILE:C	2.39	0.48
60:BZ:4:PHE:HE1	63:Bc:63:SER:HB3	1.79	0.48
61:Ba:27:LYS:CE	81:B5:801:A:OP1	2.62	0.48
63:Bc:30:THR:HB	63:Bc:91:SER:HB2	1.95	0.48
63:Bc:39:SER:C	63:Bc:40:LYS:HD2	2.38	0.48
67:Bg:24:LYS:O	81:B5:1695:U:C5'	2.61	0.48
67:Bg:46:ASP:CG	67:Bg:80:ARG:HD2	2.39	0.48
67:Bg:52:GLN:HG2	81:B5:1639:C:C5'	2.39	0.48
68:Bh:47:VAL:O	68:Bh:51:ILE:HG13	2.14	0.48
68:Bh:86:ARG:O	68:Bh:90:ARG:HG2	2.14	0.48
79:By:20:TYR:HB2	79:CL:222:VAL:HG13	1.95	0.48
79:By:23:ASP:CA	79:CL:27:HIS:H	2.27	0.48
79:By:100:ILE:C	79:CL:101:GLN:NE2	2.72	0.48
79:By:201:PRO:CA	79:CL:201:PRO:CB	2.81	0.48
80:B2:711:U:C1'	80:B2:712:G:H5'	2.44	0.48
89:B2:1918:OHX:N4	89:B2:2064:OHX:N4	2.62	0.48
81:B5:2206:G:O2'	81:B5:2207:A:H5'	2.13	0.48
81:B5:2443:A:O5'	84:CN:2122:G:N1	2.47	0.48
84:CN:2158:C:H5'	84:CN:2159:C:OP2	2.13	0.48
1:A0:7:SER:HB2	1:A0:11:ASN:H	1.78	0.48
7:A6:40:LYS:HG2	7:A6:66:HIS:O	2.14	0.48
8:A7:62:ARG:HD2	81:B5:2675:C:O2'	2.12	0.48
14:AF:84:LYS:NZ	80:B2:1614:A:OP2	2.36	0.48
15:AG:63:MET:HG2	15:AG:99:GLY:O	2.14	0.48
17:AI:141:ARG:NH2	80:B2:190:C:H42	2.12	0.48
24:AP:115:TYR:HD2	80:B2:1557:U:O4'	1.97	0.48
26:AR:28:PHE:CD2	80:B2:1389:C:H5	2.30	0.48
29:AU:35:GLU:OE2	80:B2:1383:G:C4'	2.62	0.48
34:AZ:72:GLY:O	34:AZ:74:SER:N	2.47	0.48
35:BA:241:ARG:N	81:B5:2155:G:OP1	2.22	0.48
38:BD:36:LEU:CD2	81:B5:2748:A:N3	2.77	0.48
41:BG:38:GLN:HB3	81:B5:2557:A:H2	1.79	0.48
41:BG:181:LYS:HG3	83:B8:154:C:H5"	1.94	0.48
43:BI:174:THR:O	43:BI:175:ASN:HB2	2.13	0.48
44:BJ:124:GLY:C	81:B5:2674:A:C6	2.92	0.48
47:BM:54:PRO:O	47:BM:56:GLN:NE2	2.37	0.48
52:BR:172:ARG:CZ	80:B2:851:U:H1'	2.43	0.48
54:BT:16:GLN:HA	81:B5:2699:G:O3'	2.14	0.48
55:BU:23:THR:HA	55:BU:28:PHE:HB3	1.95	0.48
58:BX:64:GLU:OE2	58:BX:87:SER:HA	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:BX:73:MET:HE1	58:BX:141:TYR:CE2	2.49	0.48
61:Ba:28:HIS:CD2	81:B5:936:A:OP1	2.67	0.48
65:Be:105:ARG:HE	65:Be:124:GLY:HA3	1.78	0.48
70:Bj:64:MET:HB2	70:Bj:68:LYS:HB3	1.96	0.48
75:Bo:56:PRO:HB3	86:CW:75:C:N4	2.27	0.48
79:By:41:VAL:HG12	79:CL:215:THR:O	2.00	0.48
79:By:50:ASP:C	79:CL:51:PRO:HD3	2.29	0.48
79:By:131:LEU:CA	79:CL:128:GLY:C	2.84	0.48
79:By:144:THR:CB	79:CL:137:LEU:O	2.48	0.48
79:By:147:PHE:H	79:CL:146:GLY:N	2.08	0.48
79:By:172:HIS:CD2	79:CL:172:HIS:N	2.64	0.48
79:By:196:LEU:HD13	79:By:209:LEU:HD21	1.96	0.48
79:By:208:PHE:CE2	79:CL:208:PHE:HZ	2.24	0.48
79:By:212:VAL:HG23	79:CL:224:ILE:O	2.13	0.48
79:By:213:TYR:CB	84:CN:2198:C:H5'	2.44	0.48
80:B2:130:C:O2'	80:B2:131:C:OP1	2.29	0.48
80:B2:440:U:C5	85:CP:277:ALA:CB	2.92	0.48
80:B2:740:A:C2'	80:B2:741:C:H5"	2.43	0.48
89:B2:1969:OHX:N1	89:B2:2013:OHX:N4	2.62	0.48
81:B5:1280:C:C5	81:B5:1281:G:C2	3.02	0.48
81:B5:3177:G:O2'	81:B5:3179:U:OP1	2.22	0.48
1:A0:75:VAL:HG11	80:B2:1793:G:C2	2.49	0.48
2:A1:61:THR:HG23	2:A1:62:ILE:H	1.79	0.48
10:AB:62:LYS:HD2	10:AB:91:VAL:HB	1.94	0.48
11:AC:139:ILE:HD11	11:AC:191:ALA:HB1	1.95	0.48
12:AD:181:VAL:HG22	80:B2:1277:G:O4'	2.14	0.48
15:AG:137:ARG:HH12	80:B2:169:A:P	2.36	0.48
16:AH:30:SER:O	16:AH:32:PRO:HD2	2.14	0.48
26:AR:43:SER:OG	80:B2:1332:C:OP1	2.31	0.48
32:AX:127:VAL:O	32:AX:130:VAL:HG22	2.14	0.48
34:AZ:40:VAL:C	34:AZ:75:LEU:HD11	2.38	0.48
35:BA:203:ALA:HB1	81:B5:2146:C:C5'	2.44	0.48
37:BC:288:ARG:O	37:BC:291:ASN:N	2.31	0.48
42:BH:103:ILE:HD11	42:BH:134:ILE:CG2	2.44	0.48
43:BI:3:ARG:CZ	43:BI:63:GLU:HG3	2.44	0.48
46:BL:99:HIS:CD2	81:B5:156:G:C5	3.02	0.48
49:BO:156[B]:LEU:HB3	81:B5:3243:A:N7	2.29	0.48
61:Ba:59:ARG:HD2	81:B5:90:C:P	2.53	0.48
66:Bf:60:ARG:HD2	81:B5:3275:U:C4	2.49	0.48
67:Bg:60:ARG:CZ	81:B5:1593:A:H1'	2.44	0.48
68:Bh:53:CYS:O	68:Bh:56:THR:HB	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:9:ALA:CA	79:CL:6:ARG:N	2.61	0.48
79:By:22:ILE:CD1	79:CL:22:ILE:CA	2.88	0.48
79:By:29:VAL:HG21	79:CL:216:THR:HG23	1.95	0.48
79:By:43:VAL:CG2	79:CL:214:VAL:HG13	2.44	0.48
79:By:53:ARG:HG3	79:CL:51:PRO:CD	2.40	0.48
79:By:73:ARG:O	79:CL:111:ASP:CA	2.52	0.48
79:By:168:THR:HG21	84:CN:2201:U:C5	2.49	0.48
80:B2:131:C:HO2'	80:B2:132:U:P	2.34	0.48
80:B2:269:G:C6	80:B2:287:G:C6	3.02	0.48
80:B2:894:U:H2'	80:B2:895:G:C8	2.49	0.48
81:B5:2702:A:H5'	81:B5:2704:A:O4'	2.13	0.48
85:CP:20:LYS:HG3	90:CP:401:GCP:H8	1.09	0.48
2:A1:28:PRO:CB	80:B2:959:U:H5'	2.27	0.47
6:A5:144:CYS:O	6:A5:146:SER:N	2.47	0.47
14:AF:133:VAL:O	14:AF:137:ILE:HG12	2.13	0.47
18:AJ:172:VAL:CG1	80:B2:512:A:OP2	2.39	0.47
18:AJ:173:ALA:HA	80:B2:511:A:OP2	2.14	0.47
19:AK:1:MET:HG3	80:B2:1217:A:O5'	2.14	0.47
23:AO:25:ASP:HB3	80:B2:901:G:P	2.53	0.47
23:AO:41:ARG:NH2	80:B2:915:A:C6	2.80	0.47
23:AO:122:PRO:HA	80:B2:887:A:O4'	2.14	0.47
27:AS:11:PHE:CD1	27:AS:59:GLY:HA2	2.49	0.47
27:AS:80:LYS:HA	27:AS:80:LYS:HD2	1.54	0.47
27:AS:139:LYS:HE2	80:B2:1459:C:H42	1.79	0.47
28:AT:52:GLY:HA2	28:AT:55:TYR:CD2	2.48	0.47
33:AY:59:GLY:O	33:AY:60:PHE:HB2	2.14	0.47
33:AY:102:LYS:H	33:AY:102:LYS:HD2	1.79	0.47
39:BE:54:TYR:HA	39:BE:65:ILE:CD1	2.44	0.47
41:BG:244:ALA:HB1	81:B5:2528:G:H4'	1.96	0.47
44:BJ:100:GLY:O	44:BJ:159:THR:HG21	2.13	0.47
50:BP:69:ARG:NH1	81:B5:3308:C:N3	2.62	0.47
54:BT:16:GLN:HG3	81:B5:2699:G:H5"	1.95	0.47
55:BU:100:THR:O	55:BU:101:ASN:HB2	2.14	0.47
60:BZ:121:ARG:CG	60:BZ:121:ARG:HH11	2.27	0.47
65:Be:71:HIS:CE1	65:Be:118:LYS:HD3	2.49	0.47
67:Bg:74:ARG:HH22	81:B5:1639:C:P	2.37	0.47
69:Bi:30:LYS:HD2	81:B5:266:A:C4	2.49	0.47
70:Bj:3:LYS:HB3	81:B5:2138:A:C4	2.49	0.47
79:By:21:THR:HG23	79:CL:21:THR:CG2	2.44	0.47
79:By:34:THR:HA	79:CL:36:LYS:HD2	1.96	0.47
79:By:51:PRO:CA	79:CL:49:ILE:O	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:68:LEU:CD1	79:CL:161:ILE:HG12	2.44	0.47
79:By:212:VAL:HB	79:CL:224:ILE:HG12	1.91	0.47
80:B2:192:U:H2'	80:B2:192:U:O2	2.13	0.47
80:B2:542:A:HO2'	80:B2:542:A:H8	1.62	0.47
80:B2:992:A:O2'	80:B2:1785:U:O2	2.31	0.47
80:B2:1783:C:H2'	80:B2:1784:C:C6	2.49	0.47
81:B5:217:U:H2'	81:B5:218:G:OP1	2.13	0.47
81:B5:1470:U:H2'	81:B5:1471:U:C6	2.49	0.47
81:B5:1879:A:N3	81:B5:1879:A:H2'	2.29	0.47
81:B5:2263:C:H2'	81:B5:2264:U:H5'	1.96	0.47
81:B5:2793:G:N2	86:CW:76:A:N3	2.19	0.47
1:A0:15:ARG:HD3	80:B2:936:G:O6	2.14	0.47
9:AA:184:LEU:HB3	30:AV:45:ALA:HB2	1.96	0.47
10:AB:30:PHE:CE1	10:AB:96:LEU:HB3	2.50	0.47
12:AD:203:PRO:CB	80:B2:1331:A:H2'	2.45	0.47
17:AI:66:SER:HB3	17:AI:73:SER:OG	2.14	0.47
18:AJ:175:ARG:HD3	18:AJ:179:ARG:HH11	1.78	0.47
23:AO:126:THR:C	80:B2:989:U:O2'	2.57	0.47
27:AS:109:LEU:HG	27:AS:113:LEU:HD11	1.96	0.47
28:AT:99:SER:HB2	80:B2:1504:G:P	2.54	0.47
30:AV:62:ARG:HH22	80:B2:1039:A:H5"	1.67	0.47
35:BA:237:LEU:CD2	81:B5:2153:U:O2	2.62	0.47
38:BD:148:ILE:HG23	38:BD:151:GLN:HB3	1.96	0.47
48:BN:160:GLU:OE1	48:BN:160:GLU:N	2.41	0.47
51:BQ:62:VAL:O	51:BQ:87:VAL:HA	2.14	0.47
51:BQ:100:THR:CG2	51:BQ:120:GLU:HB3	2.43	0.47
52:BR:172:ARG:H	80:B2:851:U:C2'	2.26	0.47
62:Bb:41:ARG:NE	81:B5:776:U:OP1	2.37	0.47
64:Bd:17:HIS:ND1	81:B5:3374:U:OP1	2.39	0.47
65:Be:33:ARG:HD3	81:B5:944:C:OP1	2.14	0.47
74:Bn:24:SER:O	89:B2:1968:OHX:N6	2.47	0.47
79:By:25:ALA:HB2	79:CL:222:VAL:HG11	1.96	0.47
79:By:37:PHE:CA	84:CN:2148:G:P	2.85	0.47
79:By:137:LEU:CD1	79:CL:137:LEU:HD11	2.13	0.47
79:By:183:GLU:O	79:CL:184:LYS:CA	2.62	0.47
79:By:202:GLU:HB2	79:CL:55:ASP:OD2	2.06	0.47
79:By:226:PRO:O	79:CL:19:ILE:CG2	2.62	0.47
80:B2:190:C:N4	80:B2:196:G:C6	2.82	0.47
80:B2:190:C:O2'	80:B2:191:C:H5'	2.14	0.47
80:B2:196:G:O2'	80:B2:197:A:C8	2.65	0.47
80:B2:413:U:O2	85:CP:289:LEU:CD2	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:1657:U:C4	89:B2:1968:OHX:N4	2.82	0.47
89:B2:1974:OHX:N6	89:B2:1988:OHX:N5	2.61	0.47
89:B2:1974:OHX:N6	89:B2:1988:OHX:N2	2.62	0.47
89:B2:2016:OHX:N5	89:B2:2035:OHX:N3	2.62	0.47
81:B5:191:U:H2'	81:B5:192:C:C6	2.49	0.47
81:B5:1724:U:O2	81:B5:1725:C:C2	2.66	0.47
81:B5:2641:U:H5"	81:B5:2642:A:OP1	2.13	0.47
79:CL:84:LYS:C	79:CL:86:ALA:N	2.72	0.47
86:CW:53:G:C5	86:CW:54:U:C5	3.02	0.47
7:A6:133:VAL:HB	7:A6:142:ALA:HB3	1.96	0.47
8:A7:68:ARG:NH1	27:AS:145:ARG:HD3	2.29	0.47
10:AB:63:GLY:HA2	10:AB:88:VAL:O	2.13	0.47
10:AB:105:PHE:H	10:AB:214:LYS:HZ1	1.61	0.47
11:AC:205:ARG:NH2	80:B2:7:G:O6	2.47	0.47
11:AC:214:ALA:O	11:AC:218:ILE:HG13	2.14	0.47
12:AD:84:ILE:HD13	12:AD:85:VAL:H	1.79	0.47
12:AD:159:HIS:CD2	80:B2:1422:A:H4'	2.48	0.47
12:AD:183:GLY:HA3	80:B2:1277:G:O3'	2.15	0.47
17:AI:22:ARG:NH2	80:B2:302:U:OP1	2.47	0.47
17:AI:66:SER:OG	80:B2:210:A:H1'	2.13	0.47
20:AL:25:VAL:CG1	80:B2:837:G:O2'	2.57	0.47
23:AO:46:MET:HG2	80:B2:898:A:H4'	1.95	0.47
23:AO:135:ARG:CD	80:B2:1008:G:OP1	2.62	0.47
25:AQ:112:TYR:CZ	25:AQ:114:ARG:NH2	2.82	0.47
31:AW:19:LYS:HZ2	80:B2:1095:U:H4'	1.80	0.47
33:AY:51:GLU:OE1	33:AY:53:ASP:N	2.34	0.47
33:AY:84:LYS:HD2	33:AY:85:PHE:CE1	2.50	0.47
34:AZ:94:LYS:CE	80:B2:1530:C:OP1	2.62	0.47
35:BA:71:LEU:HD22	81:B5:1651:U:C5'	2.44	0.47
37:BC:53:SER:N	81:B5:346:C:OP1	2.38	0.47
37:BC:334:PHE:CD2	81:B5:578:A:C5	3.02	0.47
38:BD:260:PHE:HE2	82:B7:121:U:O5'	1.96	0.47
43:BI:63:GLU:CB	81:B5:2853:A:OP1	2.61	0.47
44:BJ:16:LYS:HG3	44:BJ:130:VAL:HG13	1.96	0.47
46:BL:99:HIS:CB	81:B5:156:G:C4	2.97	0.47
50:BP:84:PRO:HB2	50:BP:87:SER:HB2	1.96	0.47
60:BZ:48:ARG:NH2	81:B5:1631:C:P	2.79	0.47
64:Bd:13:THR:HG22	64:Bd:72:ARG:CD	2.44	0.47
68:Bh:9:LEU:HD23	68:Bh:12:LYS:HE3	1.97	0.47
79:By:36:LYS:HB2	84:CN:2147:A:C2	2.49	0.47
79:By:52:ARG:NH1	84:CN:2200:C:O3'	2.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:91:ALA:CB	79:CL:93:TYR:N	2.78	0.47
79:By:136:LEU:HD11	79:CL:134:ARG:HD2	0.55	0.47
79:By:189:ILE:HG12	79:CL:43:VAL:HG22	1.96	0.47
79:By:194:ARG:CB	79:CL:194:ARG:HB2	2.41	0.47
80:B2:539:G:OP2	80:B2:539:G:C8	2.68	0.47
80:B2:819:G:C6	80:B2:853:G:N1	2.83	0.47
80:B2:823:G:H2'	80:B2:824:G:C8	2.49	0.47
80:B2:823:G:H2'	80:B2:824:G:O4'	2.14	0.47
80:B2:1231:U:O5'	80:B2:1259:U:H1'	2.14	0.47
80:B2:1644:C:C1'	81:B5:2255:A:C6	2.98	0.47
80:B2:1757:G:N2	81:B5:2255:A:C4	2.82	0.47
80:B2:1789:G:H5"	80:B2:1789:G:C8	2.46	0.47
81:B5:1819:U:C2'	81:B5:1820:U:H5'	2.45	0.47
81:B5:3335:A:H5'	81:B5:3335:A:H8	1.78	0.47
84:CN:2186:G:H2'	84:CN:2187:G:C5'	2.42	0.47
5:A4:21:VAL:HG22	80:B2:586:G:C4'	2.45	0.47
9:AA:124:THR:HG22	9:AA:174:TRP:CZ2	2.49	0.47
11:AC:150:GLN:HA	11:AC:151:PRO:HD3	1.79	0.47
16:AH:16:LEU:O	16:AH:20:VAL:HG23	2.14	0.47
20:AL:28:SER:CB	80:B2:839:U:H5"	2.43	0.47
23:AO:41:ARG:NH2	80:B2:916:U:C4	2.80	0.47
27:AS:143:ARG:NH1	80:B2:1461:C:C4	2.82	0.47
28:AT:60:SER:HG	80:B2:1480:G:P	2.36	0.47
29:AU:48:HIS:O	29:AU:48:HIS:CG	2.67	0.47
38:BD:269:SER:HB3	82:B7:1:G:H21	1.73	0.47
38:BD:289:LYS:O	38:BD:292:ALA:HB3	2.14	0.47
40:BF:214:TRP:CZ2	40:BF:219:LYS:HE3	2.49	0.47
46:BL:65:TYR:CE2	81:B5:103:G:O4'	2.67	0.47
46:BL:89:TYR:HB2	68:Bh:111:PHE:HE1	1.79	0.47
48:BN:40:ALA:HB2	81:B5:10:C:OP2	2.15	0.47
49:BO:65[A]:ASN:C	49:BO:67[A]:THR:H	2.21	0.47
49:BO:65[B]:ASN:HB3	49:BO:68[B]:ARG:HD3	1.97	0.47
54:BT:32:LYS:HE3	54:BT:98:HIS:CD2	2.49	0.47
61:Ba:48:TYR:O	61:Ba:49:HIS:CD2	2.67	0.47
79:By:91:ALA:HB2	79:CL:74:VAL:O	2.14	0.47
79:By:102:LYS:HD3	79:CL:102:LYS:CG	2.44	0.47
79:By:129:ARG:HG2	79:CL:129:ARG:HH22	1.61	0.47
79:By:146:GLY:O	79:CL:114:VAL:HB	2.13	0.47
79:By:214:VAL:HG13	79:CL:214:VAL:CG1	2.09	0.47
80:B2:51:A:N9	85:CP:242:GLY:CA	0.72	0.47
80:B2:1486:G:H1'	80:B2:1592:A:O2'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:1758:U:H6	81:B5:2255:A:HO2'	1.51	0.47
80:B2:1781:A:O4'	81:B5:2262:A:O2'	2.32	0.47
81:B5:547:G:C5	81:B5:548:G:H1'	2.48	0.47
81:B5:1017:C:OP1	81:B5:1017:C:H2'	2.13	0.47
81:B5:1204:A:C2'	81:B5:1205:A:H5'	2.45	0.47
81:B5:1355:A:H1'	81:B5:1356:U:OP2	2.15	0.47
81:B5:1816:A:O2'	81:B5:1817:G:H5"	2.14	0.47
81:B5:2444:C:C5	84:CN:2208:G:P	2.92	0.47
81:B5:2696:A:H2'	81:B5:2697:A:C8	2.50	0.47
84:CN:2146:G:H5"	84:CN:2147:A:OP1	2.15	0.47
1:A0:37:LYS:C	1:A0:38:ARG:HD2	2.38	0.47
6:A5:127:GLY:O	6:A5:129:GLY:N	2.47	0.47
10:AB:62:LYS:O	10:AB:88:VAL:HB	2.15	0.47
12:AD:174:HIS:CE1	80:B2:1278:G:H4'	2.49	0.47
16:AH:114:ARG:C	16:AH:116:ARG:H	2.22	0.47
19:AK:12:HIS:CD2	19:AK:79:TYR:HD2	2.33	0.47
20:AL:129:ARG:HB3	80:B2:115:G:OP2	2.14	0.47
23:AO:120:PRO:HA	80:B2:887:A:H5"	1.91	0.47
24:AP:43:ARG:NH1	80:B2:1553:G:O6	2.41	0.47
24:AP:81:ARG:HH12	24:AP:120:SER:HB3	1.78	0.47
25:AQ:75:VAL:CB	80:B2:1610:G:OP1	2.61	0.47
26:AR:28:PHE:CZ	80:B2:1389:C:H1'	2.49	0.47
29:AU:35:GLU:HG2	80:B2:1383:G:O2'	2.14	0.47
30:AV:9:VAL:HG22	30:AV:10:GLU:H	1.79	0.47
31:AW:23:ARG:H	31:AW:24:GLN:NE2	2.13	0.47
35:BA:247:ARG:NH2	80:B2:1013:A:O2'	2.47	0.47
36:BB:153:LYS:HG2	36:BB:154:TYR:CE2	2.49	0.47
37:BC:33:ASP:O	37:BC:37:THR:HG23	2.14	0.47
38:BD:269:SER:CA	82:B7:22:A:N1	2.75	0.47
38:BD:274:GLN:NE2	82:B7:60:G:N2	2.62	0.47
40:BF:158:LYS:HD2	40:BF:159:GLN:N	2.30	0.47
41:BG:169:LEU:HD22	41:BG:173:MET:HG2	1.97	0.47
43:BI:63:GLU:HB3	81:B5:2853:A:OP1	2.14	0.47
47:BM:13:ARG:NH2	81:B5:3206:C:N3	2.61	0.47
54:BT:7:TYR:CZ	54:BT:54:HIS:HB2	2.49	0.47
59:BY:75:ARG:NH2	83:B8:72:A:H4'	2.30	0.47
60:BZ:65:ARG:HH11	60:BZ:65:ARG:CG	2.27	0.47
79:By:5:LYS:O	84:CN:2151:U:P	2.72	0.47
79:By:52:ARG:NH2	84:CN:2201:U:C5	2.82	0.47
79:By:119:VAL:HG21	79:CL:97:GLU:N	2.29	0.47
80:B2:499:U:O2'	80:B2:500:C:P	2.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:503:G:O2'	80:B2:504:U:OP1	2.27	0.47
80:B2:717:C:O2	80:B2:722:G:N1	2.47	0.47
80:B2:1317:C:H2'	80:B2:1318:G:O4'	2.14	0.47
80:B2:1537:C:C4	89:B2:2046:OHX:N3	2.82	0.47
81:B5:687:U:O2'	81:B5:688:G:H5'	2.14	0.47
81:B5:731:U:H2'	81:B5:732:C:H6	1.79	0.47
81:B5:1481:A:H2'	81:B5:1858:A:N3	2.30	0.47
81:B5:1565:G:N2	81:B5:1566:A:H1'	2.30	0.47
81:B5:2257:C:O5'	81:B5:2257:C:H6	1.98	0.47
83:B8:130:C:H2'	83:B8:131:A:C8	2.49	0.47
79:CL:15:ASP:HB3	79:CL:18:LYS:HB3	1.96	0.47
1:A0:3:LYS:CE	80:B2:1030:A:P	3.02	0.47
8:A7:136:ALA:O	8:A7:140:ASP:N	2.31	0.47
10:AB:231:LEU:C	10:AB:232:HIS:CD2	2.93	0.47
13:AE:32:SER:HB2	13:AE:83:PRO:HD3	1.96	0.47
15:AG:45:PHE:HA	15:AG:48:TYR:HD2	1.79	0.47
17:AI:26:LYS:CE	80:B2:396:G:O6	2.62	0.47
35:BA:70:ARG:HB2	81:B5:1650:G:O3'	2.14	0.47
35:BA:244:GLY:N	81:B5:2244:A:OP1	2.47	0.47
38:BD:68:THR:HG22	38:BD:70:THR:N	2.30	0.47
41:BG:55:TYR:HH	83:B8:149:A:HO2'	1.38	0.47
48:BN:10:LEU:HD23	48:BN:10:LEU:HA	1.72	0.47
49:BO:110[A]:PRO:HA	49:BO:113[A]:ASP:OD1	2.14	0.47
60:BZ:128:GLN:O	60:BZ:130:PHE:N	2.48	0.47
63:Bc:68:TYR:C	63:Bc:68:TYR:HD1	2.22	0.47
63:Bc:68:TYR:C	63:Bc:68:TYR:CD1	2.93	0.47
67:Bg:99:LYS:C	67:Bg:103:LYS:HG2	2.39	0.47
69:Bi:59:ASP:O	69:Bi:63:ASN:HB2	2.14	0.47
73:Bm:102:ARG:NE	81:B5:2896:A:OP1	2.34	0.47
79:By:22:ILE:HD12	79:CL:22:ILE:CG1	2.45	0.47
79:By:40:THR:C	79:CL:217:THR:N	2.72	0.47
79:By:214:VAL:HG11	79:CL:29:VAL:HG21	1.95	0.47
79:By:226:PRO:HG3	79:CL:223:ARG:CZ	2.39	0.47
80:B2:143:G:C2'	80:B2:144:U:H5"	2.44	0.47
80:B2:372:G:H1'	80:B2:612:U:O2	2.14	0.47
81:B5:879:U:O2	81:B5:2357:A:H1'	2.14	0.47
81:B5:2520:A:H2'	81:B5:2521:U:C6	2.50	0.47
79:CL:84:LYS:C	79:CL:86:ALA:H	2.21	0.47
1:A0:19:LYS:HG3	1:A0:20:PRO:HD2	1.96	0.47
2:A1:47:PHE:CD2	2:A1:49:HIS:O	2.68	0.47
4:A3:8:PHE:HA	80:B2:1450:U:O2'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A5:147:VAL:O	6:A5:148:TYR:HB2	2.14	0.47
7:A6:156:VAL:HG22	7:A6:169:ILE:HG22	1.95	0.47
8:A7:30:THR:HA	81:B5:2707:C:C2'	2.45	0.47
8:A7:81:THR:OG1	86:CW:30:G:OP2	2.23	0.47
8:A7:89:ARG:C	8:A7:91:THR:H	2.23	0.47
8:A7:101:ASP:OD2	12:AD:144:ALA:HB1	2.14	0.47
9:AA:140:ASN:HD21	30:AV:29:HIS:HA	1.80	0.47
10:AB:61:LEU:CD2	10:AB:62:LYS:H	2.27	0.47
13:AE:7:LYS:HG2	80:B2:450:U:OP1	2.13	0.47
15:AG:13:GLN:NE2	80:B2:151:G:C1'	2.74	0.47
15:AG:107:ALA:HB2	80:B2:154:G:O3'	2.13	0.47
15:AG:159:ARG:CZ	80:B2:77:U:O4'	2.62	0.47
16:AH:96:ARG:HB3	80:B2:856:A:C6	2.49	0.47
18:AJ:143:ILE:HD13	80:B2:768:C:N1	2.30	0.47
18:AJ:176:ASN:CB	80:B2:511:A:OP2	2.62	0.47
20:AL:22:ASN:OD1	20:AL:24:LYS:HB2	2.14	0.47
25:AQ:94:GLN:HB2	25:AQ:102:LYS:HD2	1.96	0.47
28:AT:57:ARG:CG	80:B2:1479:A:OP1	2.52	0.47
28:AT:63:ARG:HG3	28:AT:67:MET:CE	2.45	0.47
28:AT:87:GLY:CA	80:B2:1542:G:H3'	2.45	0.47
29:AU:74:GLU:HG2	80:B2:1429:G:H1'	1.96	0.47
31:AW:17:ALA:HB2	31:AW:25:VAL:HG13	1.97	0.47
32:AX:33:LEU:HD23	32:AX:33:LEU:HA	1.70	0.47
33:AY:105:ARG:HD2	80:B2:444:C:OP2	2.13	0.47
35:BA:203:ALA:HB2	81:B5:2146:C:H5"	1.97	0.47
35:BA:245:LEU:CD1	81:B5:2152:A:H4'	2.45	0.47
37:BC:305:ALA:H	81:B5:1347:U:C4'	2.27	0.47
41:BG:150:LEU:HD22	41:BG:151:VAL:N	2.29	0.47
41:BG:194:THR:CG2	81:B5:7:C:O2'	2.63	0.47
43:BI:3:ARG:NH2	81:B5:2854:U:OP2	2.48	0.47
44:BJ:81:GLU:HA	44:BJ:84:LEU:HD12	1.95	0.47
48:BN:5:LYS:HA	48:BN:5:LYS:HD3	1.73	0.47
48:BN:14:LYS:HA	48:BN:19:LEU:HD23	1.97	0.47
50:BP:30:ARG:HA	50:BP:119:VAL:HG11	1.95	0.47
51:BQ:63:SER:CB	81:B5:785:G:N2	2.77	0.47
52:BR:95:TRP:CZ2	52:BR:99:LEU:HG	2.49	0.47
52:BR:172:ARG:N	80:B2:851:U:C2'	2.77	0.47
54:BT:7:TYR:CE1	81:B5:2724:U:H1'	2.50	0.47
54:BT:120:LYS:C	54:BT:122:GLN:H	2.22	0.47
56:BV:16:GLY:O	81:B5:1897:G:O2'	2.27	0.47
56:BV:49:LEU:HG	81:B5:2338:C:C1'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BV:67:PRO:C	56:BV:69:LEU:H	2.22	0.47
58:BX:49:LYS:CD	83:B8:135:G:OP1	2.62	0.47
68:Bh:78:LYS:HA	68:Bh:81:ARG:CD	2.44	0.47
79:By:9:ALA:HA	79:CL:6:ARG:N	2.30	0.47
79:By:15:ASP:CA	79:CL:220:PRO:HB3	2.44	0.47
79:By:74:VAL:CG2	79:CL:72:VAL:HG23	2.45	0.47
79:By:79:LYS:CD	79:CL:116:THR:N	2.74	0.47
79:By:115:ALA:HB1	79:CL:77:ILE:HD12	1.97	0.47
79:By:153:ILE:C	79:CL:156:ILE:HG22	2.40	0.47
79:By:160:ARG:NE	79:CL:160:ARG:NE	2.24	0.47
79:By:163:PHE:CG	79:CL:171:ILE:CD1	2.90	0.47
79:By:183:GLU:O	79:CL:182:PRO:O	2.32	0.47
80:B2:72:A:C3'	80:B2:73:U:H5"	2.44	0.47
80:B2:77:U:H4'	80:B2:78:A:O5'	2.14	0.47
80:B2:279:G:H3'	80:B2:279:G:C8	2.48	0.47
80:B2:349:U:O4	89:B2:2009:OHX:N3	2.47	0.47
80:B2:414:C:H2'	85:CP:288:ARG:HG2	1.97	0.47
80:B2:710:U:HO2'	80:B2:729:G:H1	1.63	0.47
80:B2:1244:A:HO2'	80:B2:1245:G:P	2.37	0.47
80:B2:1480:G:H3'	80:B2:1481:C:C6	2.49	0.47
80:B2:1509:C:H2'	80:B2:1510:U:O4'	2.14	0.47
80:B2:1745:G:O6	89:B2:1965:OHX:N5	2.48	0.47
81:B5:128:G:H2'	81:B5:129:U:O4'	2.14	0.47
81:B5:253:A:O2'	81:B5:254:A:H8	1.97	0.47
81:B5:818:C:H2'	81:B5:819:U:O4'	2.14	0.47
81:B5:1228:C:N3	81:B5:1283:C:C2	2.82	0.47
81:B5:1541:G:C2'	81:B5:1542:G:O5'	2.63	0.47
81:B5:1701:C:H2'	81:B5:1702:U:O4'	2.15	0.47
81:B5:2514:U:C6	81:B5:2514:U:OP1	2.68	0.47
81:B5:2947:G:N2	81:B5:2948:C:C2	2.83	0.47
79:CL:65:PRO:O	79:CL:188:ASN:OD1	2.32	0.47
2:A1:47:PHE:CD2	22:AN:55:ARG:HD2	2.49	0.47
2:A1:63:LEU:O	2:A1:74:SER:N	2.48	0.47
9:AA:35:PRO:C	9:AA:37:VAL:H	2.22	0.47
12:AD:133:GLY:HA3	12:AD:156:PHE:H	1.79	0.47
12:AD:179:GLN:C	12:AD:179:GLN:HE21	2.23	0.47
15:AG:15:THR:HG23	80:B2:152:U:O2'	2.15	0.47
15:AG:60:GLY:CA	80:B2:154:G:N3	2.78	0.47
15:AG:87:ARG:NH1	80:B2:159:U:H1'	2.30	0.47
17:AI:41:LYS:HD3	80:B2:260:U:O4'	2.14	0.47
17:AI:172:ARG:NH2	80:B2:332:U:O4	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AJ:149:ARG:HD2	80:B2:765:G:N1	2.30	0.47
23:AO:135:ARG:NE	80:B2:1007:C:O3'	2.48	0.47
24:AP:125:PRO:O	24:AP:126:VAL:HB	2.14	0.47
28:AT:33:TYR:C	28:AT:33:TYR:CD1	2.93	0.47
28:AT:52:GLY:HA2	28:AT:55:TYR:HD2	1.80	0.47
32:AX:50:LYS:HD3	32:AX:101:GLU:HG2	1.97	0.47
37:BC:152:VAL:HG22	37:BC:172:VAL:HG21	1.97	0.47
39:BE:3:ALA:HB1	65:Be:75:LEU:HD13	1.95	0.47
39:BE:58:LEU:HD12	39:BE:78:ARG:HD3	1.97	0.47
41:BG:74:THR:O	41:BG:77:GLN:HG3	2.15	0.47
41:BG:239:GLY:O	41:BG:240:ASN:C	2.58	0.47
43:BI:206:LEU:HD13	82:B7:64:A:C8	2.49	0.47
48:BN:94:TYR:CE1	81:B5:1546:A:H1'	2.49	0.47
49:BO:42[B]:ASN:OD1	49:BO:125[B]:ARG:HD3	2.13	0.47
53:BS:137:ARG:HD3	81:B5:1213:G:P	2.53	0.47
57:BW:122:ALA:O	57:BW:125:ALA:HB3	2.15	0.47
66:Bf:16:TYR:OH	66:Bf:91:ALA:HB2	2.15	0.47
74:Bn:6:ARG:NH1	80:B2:1113:A:C4'	2.77	0.47
79:By:66:HIS:CD2	79:CL:188:ASN:ND2	2.81	0.47
79:By:83:ILE:HG23	79:CL:83:ILE:CG1	2.26	0.47
79:By:90:GLY:CA	79:CL:157:LYS:HZ2	2.25	0.47
79:By:103:ILE:HD11	79:CL:100:ILE:HA	1.95	0.47
79:By:113:VAL:HG23	79:CL:136:LEU:HD13	1.97	0.47
79:By:134:ARG:NE	84:CN:2191:A:P	2.80	0.47
79:By:145:VAL:CB	79:CL:138:PRO:C	2.87	0.47
79:By:168:THR:HG21	84:CN:2201:U:H5	1.79	0.47
80:B2:558:U:O2	80:B2:558:U:H2'	2.14	0.47
80:B2:840:U:O2'	80:B2:841:U:H5"	2.15	0.47
80:B2:1450:U:H2'	80:B2:1451:C:C6	2.50	0.47
80:B2:1617:U:O2'	80:B2:1618:C:H5'	2.14	0.47
81:B5:181:U:H2'	81:B5:182:U:O4'	2.14	0.47
81:B5:1621:A:H2'	81:B5:1622:U:C6	2.50	0.47
81:B5:1765:U:H2'	81:B5:1766:G:O4'	2.15	0.47
2:A1:56:CYS:SG	2:A1:57:GLU:N	2.87	0.47
7:A6:13:LEU:HB2	7:A6:310:ILE:HB	1.97	0.47
8:A7:34:LYS:HG2	81:B5:2693:C:OP1	2.10	0.47
19:AK:26:ASP:OD2	19:AK:29:GLN:HG3	2.14	0.47
20:AL:53:TYR:CD1	20:AL:113:PRO:HG2	2.50	0.47
23:AO:124:ASP:O	23:AO:125:SER:HB2	2.13	0.47
27:AS:36:LYS:HB3	27:AS:105:VAL:HG11	1.96	0.47
29:AU:117:VAL:HG13	29:AU:118:VAL:N	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:285:ARG:NH1	82:B7:62:U:C3'	2.76	0.47
41:BG:230:LYS:O	41:BG:230:LYS:HG3	2.14	0.47
42:BH:103:ILE:HD11	42:BH:134:ILE:HG21	1.97	0.47
43:BI:86:HIS:ND1	43:BI:139:ARG:NH1	2.57	0.47
43:BI:157:TYR:CB	81:B5:2836:C:H1'	2.44	0.47
49:BO:138[A]:LEU:HD12	49:BO:138[A]:LEU:HA	1.66	0.47
61:Ba:61:PHE:HB2	81:B5:304:G:O2'	2.14	0.47
61:Ba:96:LYS:HE2	61:Ba:142:GLY:O	2.15	0.47
74:Bn:6:ARG:O	74:Bn:10:THR:HG23	2.15	0.47
79:By:8:ARG:HH12	84:CN:2154:G:C5'	2.23	0.47
79:By:13:LYS:HB3	79:CL:10:LEU:CD2	2.45	0.47
79:By:40:THR:HG22	79:CL:40:THR:HG21	1.95	0.47
79:By:147:PHE:CB	79:CL:149:ILE:N	2.72	0.47
79:By:158:ALA:HB1	79:CL:158:ALA:HA	1.93	0.47
80:B2:417:A:H62	85:CP:287:LEU:HD21	1.80	0.47
80:B2:1644:C:C2'	81:B5:2255:A:N1	2.77	0.47
80:B2:1646:C:H5'	81:B5:2258:U:C4	2.50	0.47
81:B5:663:C:H2'	81:B5:664:U:C6	2.50	0.47
81:B5:1033:U:HO2'	81:B5:1034:U:P	2.38	0.47
81:B5:2102:U:H2'	81:B5:2103:U:C6	2.50	0.47
81:B5:2397:A:OP1	81:B5:2398:A:C5'	2.60	0.47
81:B5:2440:G:O2'	81:B5:2441:A:P	2.73	0.47
81:B5:3225:C:H2'	81:B5:3226:A:O4'	2.15	0.47
79:CL:131:LEU:CB	79:CL:137:LEU:HD23	2.39	0.47
7:A6:211:ILE:HG22	7:A6:223:TRP:CD1	2.50	0.47
8:A7:28:SER:HB2	81:B5:2708:C:C1'	2.45	0.47
9:AA:105:GLY:O	9:AA:108:THR:O	2.33	0.47
14:AF:36:ALA:HB3	14:AF:45:LYS:NZ	2.29	0.47
15:AG:173:PRO:HA	80:B2:66:U:C5'	2.40	0.47
15:AG:188:ARG:CD	80:B2:283:U:H3'	2.44	0.47
16:AH:133:THR:HG21	16:AH:162:ILE:HD11	1.96	0.47
18:AJ:60:LEU:HD22	18:AJ:60:LEU:HA	1.49	0.47
21:AM:66:VAL:HG11	21:AM:71:ILE:HG21	1.97	0.47
22:AN:11:ILE:O	22:AN:11:ILE:HG13	2.15	0.47
23:AO:121:VAL:O	80:B2:886:U:C2'	2.59	0.47
24:AP:86:VAL:HG23	24:AP:87:PRO:HD2	1.96	0.47
25:AQ:53:LEU:H	25:AQ:53:LEU:HG	1.47	0.47
26:AR:115:LEU:HD13	26:AR:116:LYS:H	1.80	0.47
30:AV:80:LYS:NZ	30:AV:80:LYS:HB3	2.30	0.47
34:AZ:73:GLY:O	34:AZ:77:ARG:NH1	2.48	0.47
35:BA:53:GLY:O	35:BA:192:LYS:HE3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:221:THR:CG2	36:BB:273:HIS:H	2.28	0.47
37:BC:295:ILE:O	37:BC:299:ILE:HG12	2.15	0.47
48:BN:4:TYR:HH	81:B5:148:G:P	2.35	0.47
48:BN:113:LEU:HD11	83:B8:142:C:C4’	2.45	0.47
49:BO:124[B]:LEU:O	49:BO:128[B]:ARG:HB2	2.15	0.47
53:BS:42:TRP:O	53:BS:46:GLN:HG3	2.15	0.47
54:BT:85:LEU:HA	54:BT:85:LEU:HD23	1.67	0.47
55:BU:12:ALA:HB2	55:BU:68:THR:HG23	1.97	0.47
56:BV:48:ARG:CG	81:B5:2339:C:P	3.03	0.47
61:Ba:73:LEU:HB2	61:Ba:109:TYR:CD1	2.49	0.47
67:Bg:45:GLY:HA3	81:B5:1652:G:O2’	2.14	0.47
70:Bj:42:ALA:CB	83:B8:105:A:P	3.03	0.47
79:By:45:ALA:N	79:CL:45:ALA:N	2.62	0.47
79:By:136:LEU:N	79:CL:132:GLY:O	2.32	0.47
79:By:157:LYS:CE	79:CL:71:GLN:CG	2.85	0.47
79:By:179:SER:N	79:CL:38:ASP:OD1	2.47	0.47
80:B2:782:U:H4’	80:B2:783:G:OP2	2.14	0.47
80:B2:1004:U:H4’	80:B2:1005:A:OP2	2.15	0.47
80:B2:1347:U:O2	80:B2:1516:A:H5’	2.14	0.47
80:B2:1450:U:OP2	89:B2:1940:OHX:N5	2.48	0.47
81:B5:322:U:H5”	81:B5:323:A:OP1	2.14	0.47
81:B5:380:U:H2’	81:B5:381:U:C6	2.50	0.47
81:B5:1655:G:H8	81:B5:1655:G:H5’	1.80	0.47
83:B8:125:U:O2’	83:B8:126:A:H5’	2.15	0.47
84:CN:2155:A:H8	84:CN:2180:G:O2’	1.97	0.47
7:A6:183:LEU:HA	7:A6:183:LEU:HD23	1.71	0.46
8:A7:168:UNK:HA	21:AM:125:ASN:ND2	2.22	0.46
9:AA:52:LYS:HB3	30:AV:82:VAL:HG22	1.97	0.46
9:AA:76:ILE:O	9:AA:124:THR:HG23	2.15	0.46
11:AC:168:ARG:HG3	80:B2:1097:U:O2’	2.15	0.46
12:AD:21:LEU:HD22	12:AD:25:PHE:CE2	2.50	0.46
20:AL:104:HIS:O	20:AL:105:LYS:HG2	2.15	0.46
21:AM:136:ILE:O	21:AM:140:PHE:HB2	2.14	0.46
22:AN:151:ASN:HA	89:AN:201:OHX:N3	2.29	0.46
23:AO:17:ALA:HB3	23:AO:81:VAL:HB	1.96	0.46
27:AS:35:ILE:HB	27:AS:38:VAL:HG21	1.96	0.46
32:AX:131:SER:HB2	80:B2:30:G:H4’	1.97	0.46
33:AY:9:THR:N	80:B2:780:A:H1’	2.30	0.46
34:AZ:54:VAL:HG22	34:AZ:57:TYR:CE2	2.50	0.46
35:BA:15:ILE:CD1	81:B5:904:A:C2	2.98	0.46
36:BB:39:LYS:HB2	36:BB:40:PRO:HD2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:147:GLU:CD	36:BB:150:ARG:NH2	2.73	0.46
37:BC:11:LEU:HD13	37:BC:159:ILE:HD11	1.97	0.46
37:BC:140:HIS:CG	37:BC:247:PHE:HB2	2.50	0.46
37:BC:150:LEU:HD13	37:BC:249:ILE:HG12	1.96	0.46
39:BE:51:ARG:NH1	47:BM:114:ASP:OD2	2.48	0.46
41:BG:71:VAL:HG13	41:BG:235:GLY:N	2.30	0.46
41:BG:136:LEU:N	81:B5:147:U:OP2	2.46	0.46
54:BT:130:ARG:NH1	81:B5:1062:A:N3	2.60	0.46
55:BU:56:VAL:HG22	55:BU:65:VAL:HG22	1.96	0.46
58:BX:49:LYS:HD2	83:B8:135:G:OP1	2.14	0.46
61:Ba:126:LYS:HA	61:Ba:146:GLU:O	2.15	0.46
67:Bg:99:LYS:O	67:Bg:102:LYS:N	2.48	0.46
70:Bj:16:HIS:HA	70:Bj:27:PHE:O	2.15	0.46
72:Bl:22:PRO:HD2	81:B5:1518:U:OP1	2.15	0.46
79:By:19:ILE:CB	79:CL:18:LYS:CA	2.77	0.46
79:By:30:LYS:CB	79:CL:33:ALA:HB3	2.45	0.46
79:By:39:GLU:CG	79:CL:37:PHE:CE1	2.97	0.46
79:By:48:GLY:HA3	79:CL:208:PHE:O	2.15	0.46
79:By:113:VAL:CG1	79:CL:131:LEU:CG	2.90	0.46
79:By:185:LEU:O	79:CL:185:LEU:CA	2.63	0.46
79:By:205:LYS:CG	79:CL:204:ALA:N	2.70	0.46
79:By:223:ARG:HG3	79:CL:223:ARG:HB3	1.97	0.46
80:B2:114:C:H5'	80:B2:114:C:C6	2.49	0.46
80:B2:239:C:H3'	80:B2:240:U:O4'	2.15	0.46
80:B2:507:U:H2'	80:B2:508:U:O5'	2.16	0.46
80:B2:1071:U:H2'	80:B2:1072:C:H6	1.79	0.46
80:B2:1244:A:H3'	80:B2:1244:A:N3	2.29	0.46
80:B2:1585:U:N3	80:B2:1611:A:C2	2.67	0.46
80:B2:1715:G:C5	80:B2:1716:C:C5	3.03	0.46
81:B5:620:U:OP2	81:B5:620:U:H6	1.98	0.46
81:B5:736:A:C4	81:B5:737:G:H1'	2.50	0.46
81:B5:792:G:H2'	81:B5:793:C:C6	2.50	0.46
81:B5:1481:A:C2'	81:B5:1858:A:N3	2.78	0.46
81:B5:2897:A:H2'	81:B5:2899:C:H5'	1.97	0.46
84:CN:2159:C:H6	84:CN:2159:C:H5"	1.79	0.46
85:CP:17:GLY:HA2	85:CP:79:GLY:HA2	1.95	0.46
1:A0:73:TYR:CZ	1:A0:82:ARG:HD2	2.50	0.46
6:A5:103:LEU:HD23	6:A5:103:LEU:HA	1.71	0.46
8:A7:34:LYS:HZ1	81:B5:2693:C:C5'	2.17	0.46
9:AA:140:ASN:ND2	30:AV:29:HIS:HA	2.30	0.46
10:AB:101:HIS:HD2	10:AB:217:LEU:HD22	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AB:150:VAL:HB	80:B2:1067:C:OP1	2.14	0.46
89:AC:301:OHX:N3	89:B2:1906:OHX:N1	2.63	0.46
12:AD:159:HIS:O	80:B2:1421:A:C5'	2.63	0.46
14:AF:187:ILE:H	14:AF:187:ILE:HD12	1.81	0.46
15:AG:148:SER:C	15:AG:150:GLU:H	2.22	0.46
16:AH:108:GLN:HB2	80:B2:743:U:P	2.55	0.46
17:AI:26:LYS:O	17:AI:26:LYS:HG3	2.12	0.46
17:AI:138:ASN:ND2	80:B2:187:G:C4	2.83	0.46
18:AJ:60:LEU:HD23	18:AJ:93:LEU:HD11	1.97	0.46
20:AL:129:ARG:HB2	80:B2:115:G:C8	2.49	0.46
20:AL:131:ILE:HD13	20:AL:131:ILE:HA	1.45	0.46
23:AO:132:ARG:CZ	80:B2:1788:G:H8	2.22	0.46
29:AU:53:LYS:C	80:B2:1345:A:O5'	2.58	0.46
31:AW:53:ILE:HG12	31:AW:60:LYS:HB2	1.96	0.46
34:AZ:59:TYR:HD1	34:AZ:60:VAL:N	2.13	0.46
35:BA:34:TYR:CE2	81:B5:2525:G:C6	3.02	0.46
36:BB:35:ASP:OD1	36:BB:184:ASN:O	2.32	0.46
38:BD:122:VAL:HG23	38:BD:123:GLU:N	2.30	0.46
38:BD:273:ARG:O	38:BD:273:ARG:HG2	2.15	0.46
42:BH:175:PHE:CE1	81:B5:2901:G:H5'	2.50	0.46
43:BI:169:LYS:O	43:BI:170:LYS:HD3	2.15	0.46
46:BL:89:TYR:CE2	46:BL:93:ILE:HD11	2.50	0.46
48:BN:145:ASP:OD1	48:BN:147:ARG:HB2	2.15	0.46
50:BP:68:GLY:HA3	81:B5:2350:C:O3'	2.15	0.46
52:BR:165:LYS:HD3	80:B2:849:C:C2	2.43	0.46
53:BS:139:TYR:CD1	53:BS:140:VAL:HG23	2.51	0.46
53:BS:171:PHE:O	53:BS:172:TYR:C	2.56	0.46
54:BT:14:MET:HE2	54:BT:15:PHE:CE1	2.50	0.46
54:BT:129:LYS:HB3	81:B5:1098:A:O5'	2.15	0.46
54:BT:138:SER:C	54:BT:139:ARG:HG3	2.38	0.46
69:Bi:53:TYR:O	69:Bi:57:LEU:HB2	2.14	0.46
79:By:29:VAL:HB	79:CL:32:LEU:HD12	1.43	0.46
79:By:57:ASN:N	79:CL:57:ASN:CG	2.62	0.46
79:By:64:LEU:HD22	79:CL:65:PRO:HD2	1.97	0.46
79:By:82:LYS:HD3	79:CL:85:GLU:O	2.15	0.46
79:By:171:ILE:HB	79:CL:47:LEU:CD1	2.44	0.46
80:B2:702:G:C6	80:B2:737:A:C6	3.03	0.46
80:B2:1064:G:H2'	80:B2:1065:A:C8	2.49	0.46
81:B5:217:U:C2'	81:B5:218:G:OP1	2.62	0.46
81:B5:546:C:H4'	81:B5:547:G:O5'	2.14	0.46
81:B5:1118:C:O5'	81:B5:1118:C:H6	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:1283:C:C5	81:B5:1284:C:C5	3.03	0.46
81:B5:1313:G:H2'	81:B5:1314:C:H6	1.80	0.46
81:B5:3242:G:H5"	81:B5:3245:A:C8	2.50	0.46
81:B5:3340:G:H4'	81:B5:3341:U:OP1	2.15	0.46
79:CL:7:TYR:OH	84:CN:2197:A:OP1	2.34	0.46
84:CN:2194:A:H5"	84:CN:2195:C:OP2	2.16	0.46
4:A3:40:ARG:HD2	80:B2:1199:G:C8	2.50	0.46
8:A7:30:THR:CA	81:B5:2707:C:H1'	2.46	0.46
8:A7:34:LYS:CE	81:B5:2693:C:OP1	2.55	0.46
8:A7:68:ARG:NH2	27:AS:146:ALA:H	2.14	0.46
15:AG:78:THR:HG22	15:AG:79:LYS:H	1.80	0.46
16:AH:14:THR:HG23	16:AH:15:GLU:H	1.80	0.46
17:AI:66:SER:HA	17:AI:73:SER:HA	1.98	0.46
18:AJ:174:ARG:HA	18:AJ:174:ARG:HE	1.81	0.46
21:AM:45:LEU:O	21:AM:49:THR:HG23	2.14	0.46
21:AM:125:ASN:C	21:AM:127:GLY:H	2.23	0.46
22:AN:115:LEU:O	22:AN:119:GLU:HG3	2.16	0.46
25:AQ:123:ARG:HG3	25:AQ:124:PRO:HD2	1.96	0.46
27:AS:139:LYS:HG3	80:B2:1459:C:N4	2.30	0.46
29:AU:43:LYS:HD2	29:AU:43:LYS:HA	1.52	0.46
32:AX:41:SER:HA	32:AX:42:PRO:HD3	1.75	0.46
32:AX:69:ARG:NH1	80:B2:570:A:N6	2.63	0.46
37:BC:118:LYS:HE2	81:B5:694:C:OP2	2.15	0.46
39:BE:98:VAL:HA	39:BE:101:PHE:HD2	1.80	0.46
41:BG:73:PRO:HD3	41:BG:233:TRP:CG	2.50	0.46
41:BG:149:LYS:HD3	41:BG:201:THR:O	2.16	0.46
43:BI:19:LYS:HG3	43:BI:26:VAL:HG22	1.96	0.46
51:BQ:8:LYS:NZ	81:B5:971:G:OP1	2.44	0.46
53:BS:46:GLN:O	82:B7:77:G:C3'	2.64	0.46
63:Bc:17:VAL:HG11	63:Bc:92:ILE:HD12	1.97	0.46
63:Bc:99:ASP:O	63:Bc:102:THR:N	2.40	0.46
72:Bl:23:LEU:CD2	72:Bl:24:PRO:HD2	2.41	0.46
79:By:3:HIS:CB	84:CN:2182:C:C1'	2.79	0.46
79:By:9:ALA:HA	79:CL:5:LYS:CB	2.45	0.46
79:By:11:LEU:O	79:CL:7:TYR:CG	2.33	0.46
79:By:117:PRO:HB2	79:CL:121:GLY:N	2.31	0.46
79:By:152:ILE:HG12	79:CL:156:ILE:HG13	1.39	0.46
79:By:168:THR:O	79:CL:168:THR:O	2.26	0.46
80:B2:705:U:H4'	80:B2:705:U:OP1	2.14	0.46
80:B2:1039:A:O2'	80:B2:1040:G:P	2.74	0.46
81:B5:1464:G:N2	81:B5:1466:G:H3'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2816:G:C8	81:B5:2869:U:H3'	2.50	0.46
81:B5:3174:A:H2'	81:B5:3175:U:C5'	2.46	0.46
82:B7:43:U:C4	82:B7:44:C:C4	3.03	0.46
82:B7:106:U:H2'	82:B7:107:C:C6	2.50	0.46
79:CL:84:LYS:O	79:CL:86:ALA:N	2.41	0.46
79:CL:217:THR:HG23	84:CN:2145:G:H2'	1.96	0.46
1:A0:87:ARG:HD2	80:B2:1797:A:H61	1.76	0.46
10:AB:117:TRP:NE1	10:AB:152:ARG:CZ	2.77	0.46
12:AD:203:PRO:HD2	80:B2:1331:A:H2	1.79	0.46
13:AE:104:ASP:OD2	13:AE:108:ARG:NE	2.41	0.46
14:AF:64:VAL:HG12	14:AF:65:ARG:HD3	1.97	0.46
16:AH:12:ALA:HB3	16:AH:13:PRO:HD3	1.98	0.46
17:AI:64:ASN:CB	80:B2:258:C:H1'	2.45	0.46
18:AJ:127:VAL:CG2	80:B2:478:A:H4'	2.39	0.46
23:AO:132:ARG:CZ	80:B2:1788:G:N7	2.67	0.46
25:AQ:13:LYS:CE	80:B2:1584:G:C6	2.76	0.46
25:AQ:36:ILE:O	25:AQ:36:ILE:HG12	2.15	0.46
31:AW:37:PHE:CE2	31:AW:103:ILE:HD12	2.50	0.46
32:AX:134:ALA:HB1	32:AX:140:LYS:HB2	1.98	0.46
33:AY:33:ALA:HB2	80:B2:533:U:H5'	1.98	0.46
35:BA:244:GLY:O	81:B5:2153:U:H5'	2.12	0.46
37:BC:209:TYR:O	37:BC:230:VAL:HG22	2.16	0.46
38:BD:115:LEU:HD12	38:BD:119:TYR:HD2	1.80	0.46
38:BD:155:THR:O	82:B7:36:C:H4'	2.16	0.46
42:BH:156:GLN:NE2	42:BH:160:ASP:OD1	2.46	0.46
48:BN:57:GLN:OE1	81:B5:126:U:H1'	2.15	0.46
51:BQ:67:ILE:HG23	51:BQ:81:VAL:HG11	1.97	0.46
53:BS:26:ARG:HB3	54:BT:150:THR:HG22	1.97	0.46
56:BV:46:LEU:HG	56:BV:47:ASN:OD1	2.15	0.46
59:BY:10:SER:OG	81:B5:213:A:N3	2.45	0.46
79:By:6:ARG:HA	84:CN:2151:U:C5	2.50	0.46
79:By:49:ILE:CG2	79:CL:49:ILE:HG23	2.45	0.46
79:By:65:PRO:C	79:CL:66:HIS:CB	2.72	0.46
79:By:75:LEU:HB2	79:CL:108:MET:C	2.41	0.46
79:By:93:TYR:N	79:CL:109:ASP:O	2.49	0.46
79:By:103:ILE:HG12	79:CL:103:ILE:HG22	1.91	0.46
79:By:163:PHE:CE1	79:CL:60:GLY:HA3	2.48	0.46
79:By:164:ARG:HB2	79:CL:164:ARG:HB3	1.25	0.46
80:B2:58:U:O4	89:B2:1924:OHX:N1	2.49	0.46
80:B2:258:C:N4	80:B2:259:U:O4	2.48	0.46
80:B2:494:U:HO2'	80:B2:495:C:P	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:505:A:N3	80:B2:505:A:H2'	2.30	0.46
80:B2:1349:G:N2	80:B2:1350:U:C2	2.83	0.46
80:B2:1655:A:C1'	81:B5:2302:G:O4'	2.61	0.46
81:B5:508:U:H2'	81:B5:509:U:H6	1.78	0.46
81:B5:1024:G:C2'	81:B5:1026:A:H8	2.26	0.46
81:B5:1085:A:H8	81:B5:1085:A:H5"	1.78	0.46
81:B5:1096:U:H4'	81:B5:1097:G:O5'	2.16	0.46
81:B5:2111:G:H4'	81:B5:2112:U:OP2	2.15	0.46
81:B5:2805:G:N3	81:B5:2967:A:H2	2.13	0.46
81:B5:2946:A:C5'	81:B5:2947:G:H5'	2.45	0.46
81:B5:3238:G:C5'	81:B5:3238:G:H8	2.29	0.46
81:B5:3288:G:O2'	81:B5:3289:G:H8	1.97	0.46
1:A0:15:ARG:CG	80:B2:943:C:H42	2.21	0.46
3:A2:44:VAL:HA	14:AF:161:ASP:O	2.15	0.46
9:AA:71:GLU:OE1	9:AA:71:GLU:N	2.37	0.46
13:AE:98:ASN:HD22	13:AE:119:ALA:HB1	1.80	0.46
15:AG:107:ALA:CB	80:B2:154:G:C3'	2.94	0.46
16:AH:173:TYR:HE2	16:AH:179:LYS:HB2	1.80	0.46
22:AN:14:SER:HG	80:B2:960:U:H5	1.40	0.46
25:AQ:122:ARG:HG2	80:B2:1584:G:OP2	2.14	0.46
27:AS:41:ARG:NH1	28:AT:38:LYS:HG3	2.31	0.46
27:AS:108:LYS:HE3	27:AS:111:ASP:OD2	2.15	0.46
31:AW:7:LEU:HD22	31:AW:11:LEU:HG	1.97	0.46
31:AW:57:ARG:CZ	80:B2:863:A:OP1	2.63	0.46
32:AX:144:ARG:NH2	85:CP:267:MET:SD	2.89	0.46
35:BA:200:ARG:CG	81:B5:2147:A:OP1	2.52	0.46
35:BA:247:ARG:HB3	80:B2:1013:A:OP1	2.16	0.46
36:BB:331:ASN:OD1	36:BB:331:ASN:N	2.49	0.46
37:BC:272:VAL:N	81:B5:696:C:OP1	2.48	0.46
38:BD:36:LEU:HD23	81:B5:2748:A:H1'	1.98	0.46
38:BD:285:ARG:HH12	82:B7:62:U:C3'	2.28	0.46
41:BG:134:TYR:CG	41:BG:190:VAL:HG11	2.50	0.46
41:BG:136:LEU:CB	81:B5:147:U:OP2	2.63	0.46
44:BJ:106:ILE:CD1	44:BJ:125:MET:HG2	2.45	0.46
51:BQ:94:PHE:CZ	61:Ba:119:PRO:HD3	2.51	0.46
55:BU:27:VAL:HG21	55:BU:107:PHE:HE2	1.80	0.46
56:BV:71:LYS:HB3	56:BV:71:LYS:HE3	1.59	0.46
70:Bj:18:LEU:HG	72:Bl:51:ILE:HG21	1.98	0.46
74:Bn:10:THR:HB	80:B2:1115:U:C5'	2.45	0.46
75:Bo:56:PRO:HB3	81:B5:2802:A:C8	2.50	0.46
79:By:36:LYS:O	84:CN:2183:G:N2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:61:THR:CG2	79:CL:162:GLU:CG	2.88	0.46
79:By:61:THR:HG22	79:CL:162:GLU:CG	2.35	0.46
79:By:77:ILE:O	79:CL:77:ILE:N	2.33	0.46
79:By:179:SER:H	79:CL:38:ASP:C	2.24	0.46
79:By:200:LYS:HZ3	79:CL:200:LYS:HB2	1.63	0.46
79:By:202:GLU:N	79:CL:56:GLN:HA	1.90	0.46
79:By:222:VAL:HA	79:CL:220:PRO:HB2	1.97	0.46
80:B2:417:A:H5'	80:B2:418:G:C5	2.50	0.46
80:B2:616:G:C2	80:B2:622:A:N7	2.84	0.46
80:B2:909:U:H2'	80:B2:910:C:H6	1.80	0.46
80:B2:1194:A:H2'	80:B2:1195:C:H5'	1.98	0.46
80:B2:1589:C:OP1	89:B2:2063:OHX:N1	2.48	0.46
81:B5:123:A:C6	81:B5:150:A:C5	3.04	0.46
81:B5:208:C:H2'	81:B5:209:A:H5'	1.97	0.46
81:B5:528:U:H2'	81:B5:529:A:H8	1.78	0.46
84:CN:2187:G:O2'	84:CN:2188:U:H5'	2.16	0.46
1:A0:92:ARG:O	80:B2:1796:C:H2'	2.15	0.46
8:A7:172:UNK:O	21:AM:54:ARG:HB2	2.15	0.46
9:AA:108:THR:HG23	9:AA:135:GLU:OE2	2.16	0.46
10:AB:107:THR:OG1	10:AB:108:ASP:N	2.49	0.46
12:AD:168:ILE:O	12:AD:168:ILE:HD12	2.15	0.46
13:AE:42:LEU:HD23	13:AE:46:VAL:HB	1.97	0.46
15:AG:107:ALA:HB1	80:B2:154:G:C4'	2.42	0.46
16:AH:159:VAL:O	16:AH:162:ILE:HG13	2.16	0.46
17:AI:27:PHE:CE1	80:B2:301:A:H5"	2.51	0.46
17:AI:142:LYS:HZ3	80:B2:186:C:H5'	1.79	0.46
18:AJ:7:THR:HG21	80:B2:758:U:OP1	2.16	0.46
18:AJ:85:VAL:HG12	18:AJ:99:LEU:HD11	1.98	0.46
20:AL:130:PRO:HD2	80:B2:115:G:N7	2.31	0.46
27:AS:22:VAL:HG13	27:AS:31:ALA:HB1	1.96	0.46
27:AS:139:LYS:HG3	80:B2:1459:C:C4	2.50	0.46
29:AU:23:ARG:NH2	80:B2:1347:U:P	2.76	0.46
31:AW:10:ALA:HB1	31:AW:27:ILE:HD12	1.97	0.46
33:AY:10:ARG:HG2	80:B2:778:G:C6	2.48	0.46
35:BA:33:ASP:OD1	35:BA:33:ASP:N	2.48	0.46
35:BA:66:PRO:HB2	35:BA:67:TYR:CE2	2.50	0.46
35:BA:94:ALA:C	81:B5:2551:U:O4	2.52	0.46
35:BA:174:ARG:CD	81:B5:1793:C:O4'	2.63	0.46
35:BA:187:HIS:CB	81:B5:1794:G:C4	2.98	0.46
35:BA:204:MET:HE3	35:BA:208:ASP:CB	2.45	0.46
35:BA:240:ALA:CB	81:B5:2154:U:C4'	2.76	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:347:SER:HB3	36:BB:350:ALA:N	2.26	0.46
37:BC:222:VAL:HA	37:BC:223:PRO:HD3	1.69	0.46
38:BD:269:SER:C	82:B7:22:A:N1	2.74	0.46
41:BG:156:ASP:OD2	41:BG:183:LYS:HG2	2.15	0.46
42:BH:93:VAL:O	42:BH:177:ASP:HA	2.16	0.46
46:BL:100:ARG:NH2	81:B5:66:A:OP2	2.49	0.46
46:BL:140:SER:HG	46:BL:143:ALA:H	1.61	0.46
49:BO:10[B]:ASP:HB2	49:BO:117[B]:ARG:HG3	1.97	0.46
52:BR:104:ARG:HH12	81:B5:1949:G:H5'	1.79	0.46
53:BS:53:LYS:HD3	82:B7:99:G:P	2.55	0.46
59:BY:2:ALA:HA	81:B5:213:A:O4'	2.15	0.46
61:Ba:55:LYS:HG3	81:B5:93:C:O2'	2.16	0.46
65:Be:4:LEU:HD13	65:Be:90:LYS:HB3	1.97	0.46
79:By:22:ILE:CA	79:CL:21:THR:O	2.64	0.46
79:By:86:ALA:O	79:CL:91:ALA:CB	2.33	0.46
79:By:112:ALA:CA	79:CL:136:LEU:CD2	2.94	0.46
79:By:123:VAL:HG23	79:CL:123:VAL:HG13	1.98	0.46
79:By:141:LYS:CA	79:CL:59:ARG:CZ	2.89	0.46
79:By:160:ARG:NH2	79:CL:61:THR:HG21	2.30	0.46
79:By:164:ARG:HA	79:CL:164:ARG:CG	2.43	0.46
79:By:177:LYS:O	79:CL:178:ALA:CA	2.64	0.46
79:By:187:ASP:O	79:CL:190:ARG:N	2.48	0.46
80:B2:25:C:OP2	80:B2:26:A:H2'	2.15	0.46
80:B2:485:A:H2'	80:B2:486:G:O4'	2.15	0.46
80:B2:795:U:C5	80:B2:796:A:C8	3.04	0.46
80:B2:1200:G:H4'	80:B2:1201:G:C5'	2.45	0.46
81:B5:65:A:C4	81:B5:110:G:N7	2.84	0.46
81:B5:1025:A:H5'	81:B5:1026:A:OP2	2.16	0.46
81:B5:2746:A:H2'	81:B5:2747:A:O4'	2.16	0.46
83:B8:155:A:H2'	83:B8:156:U:O4'	2.16	0.46
1:A0:18:VAL:O	1:A0:19:LYS:HB2	2.16	0.46
4:A3:5:ASN:C	4:A3:7:TRP:H	2.23	0.46
7:A6:29:GLN:C	7:A6:31:ASN:H	2.23	0.46
10:AB:65:VAL:O	23:AO:34:SER:HA	2.16	0.46
10:AB:110:LEU:HA	10:AB:113:MET:HB2	1.98	0.46
10:AB:179:SER:HB3	10:AB:183:GLN:NE2	2.30	0.46
10:AB:193:ILE:H	10:AB:193:ILE:HG12	1.40	0.46
15:AG:63:MET:HE2	15:AG:106:LEU:HD22	1.96	0.46
16:AH:113:PRO:HD3	80:B2:811:A:N6	2.29	0.46
20:AL:20:PHE:CG	80:B2:211:U:H5"	2.51	0.46
23:AO:20:TYR:CD2	80:B2:917:U:C5'	2.93	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AU:77:LYS:HE2	80:B2:1195:C:OP1	2.15	0.46
32:AX:69:ARG:HH11	80:B2:570:A:N6	2.14	0.46
34:AZ:94:LYS:NZ	80:B2:1530:C:OP1	2.48	0.46
36:BB:20:LYS:HB2	81:B5:2991:A:OP1	2.16	0.46
36:BB:312:VAL:HA	81:B5:3378:C:O2'	2.16	0.46
41:BG:106:LYS:O	41:BG:110:THR:HG23	2.15	0.46
41:BG:160:ILE:HD12	41:BG:164:VAL:HG13	1.98	0.46
44:BJ:17:LEU:HD21	44:BJ:19:LEU:HD21	1.98	0.46
46:BL:168:ARG:O	46:BL:172:LEU:HG	2.15	0.46
50:BP:31:GLU:CG	50:BP:60:PHE:HA	2.46	0.46
54:BT:14:MET:HE1	54:BT:55:LYS:CB	2.46	0.46
65:Be:75:LEU:HD22	65:Be:76:VAL:H	1.81	0.46
70:Bj:65:ARG:HG3	70:Bj:65:ARG:NH1	2.31	0.46
72:Bl:3:ALA:H	72:Bl:5:LYS:HE2	1.81	0.46
79:By:66:HIS:NE2	79:CL:184:LYS:CA	2.74	0.46
79:By:80:GLY:O	79:CL:83:ILE:CG1	2.63	0.46
79:By:102:LYS:CG	79:CL:102:LYS:CA	2.91	0.46
79:By:102:LYS:HB3	79:CL:104:LEU:H	1.68	0.46
79:By:107:TRP:CE3	79:CL:103:ILE:HA	2.51	0.46
79:By:123:VAL:CA	79:CL:100:ILE:CG2	2.85	0.46
79:By:140:PRO:CA	79:CL:140:PRO:CD	2.93	0.46
79:By:174:PRO:CD	84:CN:2144:G:O2'	2.64	0.46
80:B2:1477:G:H2'	80:B2:1478:G:C8	2.50	0.46
80:B2:1759:C:C1'	81:B5:2262:A:H2	2.17	0.46
89:B2:1969:OHX:N1	89:B2:2013:OHX:N2	2.64	0.46
81:B5:208:C:O2'	81:B5:209:A:H5'	2.16	0.46
81:B5:655:C:H2'	81:B5:656:A:C8	2.51	0.46
81:B5:2664:C:O2'	81:B5:2665:U:H5'	2.15	0.46
83:B8:9:A:H2'	83:B8:10:A:C8	2.50	0.46
86:CW:47:U:H3'	86:CW:48:C:H5"	1.98	0.46
2:A1:28:PRO:HG3	80:B2:959:U:C2	2.50	0.46
2:A1:67:THR:CA	80:B2:871:G:O2'	2.64	0.46
4:A3:33:LYS:HG3	80:B2:1594:G:H5"	1.98	0.46
7:A6:42:LEU:HB2	7:A6:61:PHE:HB2	1.98	0.46
7:A6:285:ALA:HB2	80:B2:1394:G:P	2.54	0.46
8:A7:54:PRO:HB2	8:A7:59:GLY:HA2	1.98	0.46
8:A7:68:ARG:NE	27:AS:145:ARG:HH11	2.13	0.46
10:AB:180:THR:HB	10:AB:181:LEU:HD22	1.98	0.46
11:AC:84:LYS:HA	11:AC:85:PRO:HD3	1.79	0.46
15:AG:175:ILE:HG13	80:B2:78:A:N9	2.23	0.46
19:AK:14:TYR:CD1	19:AK:14:TYR:C	2.93	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AK:25:LYS:HD3	19:AK:59:PHE:CZ	2.50	0.46
28:AT:49:ASP:OD2	28:AT:53:TRP:N	2.48	0.46
28:AT:124:ILE:HG13	28:AT:125:SER:O	2.16	0.46
32:AX:107:PHE:CD2	32:AX:114:LYS:HB2	2.51	0.46
35:BA:72:ARG:HG3	35:BA:72:ARG:HH11	1.80	0.46
35:BA:72:ARG:HG3	35:BA:72:ARG:NH1	2.31	0.46
36:BB:236:LYS:HD3	81:B5:2340:U:OP2	2.16	0.46
37:BC:331:ALA:HA	81:B5:578:A:N3	2.30	0.46
38:BD:265:TYR:CD1	82:B7:120:C:C2	3.03	0.46
40:BF:219:LYS:HA	40:BF:228:SER:HB2	1.97	0.46
40:BF:221:LYS:O	40:BF:228:SER:O	2.34	0.46
41:BG:54:GLU:HG3	81:B5:1558:A:P	2.55	0.46
42:BH:26:LYS:HB2	81:B5:3198:U:C4	2.51	0.46
43:BI:168:SER:HB2	54:BT:160:ILE:C	2.41	0.46
48:BN:109:ARG:HD2	83:B8:140:G:O2'	2.16	0.46
54:BT:127:GLN:HG2	81:B5:1095:U:H3	1.78	0.46
54:BT:129:LYS:CB	81:B5:1098:A:P	3.03	0.46
63:Bc:85:PHE:CD1	81:B5:1728:G:C4	3.04	0.46
64:Bd:21:HIS:ND1	81:B5:3376:A:C4	2.84	0.46
65:Be:32:TRP:HB3	81:B5:1407:A:H5'	1.97	0.46
65:Be:55:ILE:CD1	81:B5:1405:U:C4	2.99	0.46
65:Be:125:ARG:NH2	81:B5:1392:G:H3'	2.31	0.46
79:By:25:ALA:HB2	79:CL:222:VAL:CB	2.39	0.46
79:By:44:HIS:CB	79:CL:172:HIS:HD1	2.28	0.46
79:By:81:GLU:HA	79:CL:80:GLY:N	2.31	0.46
79:By:190:ARG:O	79:CL:22:ILE:HD13	2.03	0.46
79:By:225:ASN:N	79:CL:20:TYR:N	2.55	0.46
79:By:228:SER:HB3	79:CL:21:THR:HG22	0.88	0.46
80:B2:544:A:H5"	80:B2:545:A:OP2	2.15	0.46
80:B2:1053:G:N7	89:B2:2061:OHX:N5	2.63	0.46
80:B2:1280:C:H2'	80:B2:1281:G:H8	1.80	0.46
80:B2:1558:U:H3'	80:B2:1559:A:H4'	1.98	0.46
81:B5:491:C:H5"	81:B5:492:U:OP2	2.15	0.46
81:B5:725:G:H3'	81:B5:726:G:H5"	1.96	0.46
83:B8:83:C:H4'	83:B8:85:G:N3	2.31	0.46
1:A0:10:ARG:HB3	1:A0:34:LYS:HA	1.97	0.46
2:A1:51:GLN:CB	80:B2:870:C:O2'	2.63	0.46
9:AA:41:ARG:HE	9:AA:45:VAL:CG2	2.29	0.46
9:AA:71:GLU:HA	9:AA:95:ALA:N	2.31	0.46
10:AB:101:HIS:O	10:AB:217:LEU:HD13	2.16	0.46
13:AE:22:LYS:HZ2	80:B2:772:G:P	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AG:172:ALA:CB	80:B2:79:C:OP1	2.46	0.46
22:AN:99:ARG:O	22:AN:103:GLU:HG2	2.16	0.46
25:AQ:107:LYS:O	25:AQ:111:SER:HB2	2.16	0.46
27:AS:139:LYS:HE2	80:B2:1459:C:N4	2.30	0.46
35:BA:130:SER:HA	35:BA:169:ILE:HG22	1.97	0.46
36:BB:243:HIS:HD2	81:B5:876:A:OP1	1.99	0.46
37:BC:305:ALA:HA	81:B5:1347:U:O4'	2.16	0.46
38:BD:256:THR:CG2	82:B7:119:U:H5"	2.46	0.46
41:BG:202:GLU:O	41:BG:203:VAL:HB	2.15	0.46
46:BL:168:ARG:HH22	81:B5:769:G:H4'	1.81	0.46
47:BM:125:LYS:NZ	81:B5:3215:A:OP2	2.49	0.46
48:BN:67:ARG:HB2	81:B5:1545:A:OP2	2.16	0.46
52:BR:143:ILE:HG22	52:BR:144:GLN:N	2.31	0.46
58:BX:67:ILE:HB	58:BX:83:VAL:HG12	1.97	0.46
58:BX:131:ASP:O	58:BX:135:ILE:HG22	2.15	0.46
61:Ba:4:ARG:NH2	81:B5:1427:U:OP2	2.49	0.46
65:Be:24:ARG:HG2	65:Be:25:TYR:CE2	2.51	0.46
72:Bl:21:ARG:NH2	83:B8:51:G:OP2	2.49	0.46
76:Bq:22:TYR:CD2	76:Bq:88:PHE:HB3	2.51	0.46
79:By:23:ASP:HB3	79:CL:27:HIS:CA	2.45	0.46
79:By:152:ILE:HD13	79:CL:144:THR:CG2	2.44	0.46
79:By:157:LYS:CB	79:CL:71:GLN:H	2.15	0.46
79:By:205:LYS:CG	79:CL:200:LYS:NZ	2.79	0.46
80:B2:688:G:O6	89:B2:2040:OHX:N2	2.48	0.46
80:B2:1552:U:H2'	80:B2:1553:G:O4'	2.16	0.46
80:B2:1612:U:C2'	80:B2:1613:U:H5'	2.46	0.46
80:B2:1629:G:H2'	80:B2:1630:U:C6	2.51	0.46
80:B2:1655:A:H1'	81:B5:2302:G:O2'	2.15	0.46
81:B5:627:U:H4'	81:B5:1399:A:O2'	2.16	0.46
81:B5:801:A:H4'	81:B5:802:C:O5'	2.15	0.46
81:B5:1227:C:N3	81:B5:1284:C:C2	2.83	0.46
81:B5:2772:C:H1'	81:B5:2773:C:OP2	2.16	0.46
81:B5:2898:G:OP2	81:B5:2899:C:H5'	2.15	0.46
81:B5:3275:U:OP1	81:B5:3275:U:C6	2.69	0.46
84:CN:2156:A:H2'	84:CN:2157:C:O4'	2.16	0.46
1:A0:75:VAL:CG1	80:B2:1793:G:N1	2.79	0.46
1:A0:84:VAL:HG13	1:A0:85:ARG:N	2.31	0.46
3:A2:12:VAL:HA	3:A2:30:VAL:HG12	1.97	0.46
10:AB:81:PHE:HD1	10:AB:82:ARG:HG3	1.81	0.46
10:AB:109:LYS:HA	10:AB:109:LYS:HD3	1.75	0.46
13:AE:3:ARG:NH2	80:B2:94:U:OP2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AE:42:LEU:HD22	13:AE:47:PHE:HB2	1.98	0.46
14:AF:25:LEU:HB2	25:AQ:27:GLY:HA3	1.98	0.46
14:AF:109:LYS:HD3	80:B2:1473:U:O4'	2.16	0.46
15:AG:10:ASN:CA	57:BW:80:ARG:CB	2.83	0.46
15:AG:163:THR:HA	15:AG:168:THR:HA	1.98	0.46
17:AI:9:HIS:O	17:AI:10:LYS:CB	2.64	0.46
17:AI:27:PHE:CD1	80:B2:301:A:H4'	2.51	0.46
31:AW:30:SER:O	80:B2:636:A:H4'	2.16	0.46
35:BA:208:ASP:OD1	81:B5:912:G:C2	2.58	0.46
36:BB:53:MET:HG2	36:BB:77:THR:HB	1.97	0.46
36:BB:68:HIS:CD2	36:BB:69:LYS:HG3	2.50	0.46
36:BB:81:THR:CG2	36:BB:81:THR:O	2.64	0.46
37:BC:197:ARG:NH1	81:B5:1381:A:OP1	2.49	0.46
37:BC:302:ALA:HB2	51:BQ:39:ARG:CZ	2.45	0.46
38:BD:211:LEU:HD13	38:BD:219:PHE:CA	2.46	0.46
43:BI:55:ASN:O	43:BI:131:ILE:HG12	2.16	0.46
61:Ba:42:ARG:NH2	81:B5:2799:A:H1'	2.31	0.46
64:Bd:46:THR:HG21	64:Bd:91:SER:HB2	1.98	0.46
67:Bg:60:ARG:HH21	81:B5:1616:U:C4'	2.17	0.46
69:Bi:76:ARG:C	81:B5:293:C:HO2'	2.22	0.46
79:By:224:ILE:HA	79:CL:222:VAL:CG1	2.40	0.46
79:By:225:ASN:CA	79:CL:223:ARG:HG3	2.43	0.46
80:B2:287:G:O2'	80:B2:288:A:P	2.74	0.46
80:B2:920:U:H2'	80:B2:921:U:O4'	2.15	0.46
80:B2:1657:U:C4	89:B2:1968:OHX:N2	2.84	0.46
81:B5:1012:G:O2'	81:B5:1013:G:H5'	2.16	0.46
81:B5:1614:C:H2'	81:B5:1615:C:H6	1.81	0.46
81:B5:1655:G:H5"	81:B5:1655:G:C8	2.51	0.46
81:B5:2437:G:H5'	81:B5:2437:G:C8	2.44	0.46
81:B5:3159:C:H4'	81:B5:3395:G:C5	2.51	0.46
83:B8:10:A:H2'	83:B8:11:C:C6	2.51	0.46
83:B8:84:C:H5'	83:B8:85:G:H5'	1.97	0.46
79:CL:91:ALA:HB2	79:CL:153:ILE:HD13	1.97	0.46
84:CN:2185:C:C4	84:CN:2186:G:C8	3.04	0.46
1:A0:75:VAL:HG21	80:B2:1793:G:O6	2.16	0.45
7:A6:44:SER:OG	7:A6:59:ARG:HB2	2.16	0.45
7:A6:201:THR:HG21	7:A6:242:SER:HA	1.98	0.45
13:AE:42:LEU:HD12	13:AE:109:PHE:CB	2.45	0.45
13:AE:163:ASP:HB3	13:AE:166:SER:O	2.16	0.45
14:AF:30:PRO:O	14:AF:33:VAL:HB	2.17	0.45
20:AL:98:ASN:HD22	31:AW:79:PHE:HD2	1.59	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AO:120:PRO:HG2	80:B2:888:U:OP1	2.17	0.45
23:AO:132:ARG:HH11	23:AO:132:ARG:HG3	1.81	0.45
27:AS:145:ARG:HB3	27:AS:146:ALA:H	1.58	0.45
34:AZ:42:LEU:O	34:AZ:46:LYS:HB2	2.16	0.45
36:BB:120:LYS:NZ	81:B5:3001:C:OP1	2.49	0.45
39:BE:162:SER:HB2	81:B5:3219:G:H1	1.79	0.45
42:BH:75:VAL:HG22	42:BH:78:MET:CE	2.46	0.45
42:BH:168:ARG:NH1	81:B5:2894:C:OP1	2.48	0.45
43:BI:156:ARG:C	43:BI:158:LYS:H	2.24	0.45
44:BJ:13:LYS:HE2	44:BJ:132:ASN:ND2	2.31	0.45
50:BP:133:HIS:CD2	81:B5:880:G:O6	2.68	0.45
54:BT:90:ASN:O	81:B5:2735:U:O2'	2.33	0.45
60:BZ:46:ILE:HD11	60:BZ:49:TYR:CE2	2.51	0.45
63:Bc:99:ASP:HB2	63:Bc:103:THR:HG23	1.97	0.45
73:Bm:78:ILE:HD11	73:Bm:83:LYS:CA	2.44	0.45
79:By:152:ILE:HD12	79:CL:144:THR:CA	2.43	0.45
79:By:197:GLU:OE1	79:CL:227:HIS:NE2	2.40	0.45
79:By:217:THR:CG2	84:CN:2146:G:O4'	2.60	0.45
80:B2:694:U:H2'	80:B2:695:U:C5	2.52	0.45
80:B2:1541:G:C6	80:B2:1542:G:N1	2.84	0.45
81:B5:709:A:H2'	81:B5:710:A:O4'	2.16	0.45
81:B5:1225:A:C4	81:B5:1287:A:O3'	2.67	0.45
81:B5:1352:A:H1'	81:B5:1353:U:H5'	1.97	0.45
81:B5:2180:G:H2'	81:B5:2181:C:C6	2.51	0.45
81:B5:3287:U:N3	81:B5:3288:G:N7	2.64	0.45
1:A0:50:VAL:O	1:A0:53:LEU:HB3	2.16	0.45
3:A2:46:GLY:HA3	14:AF:166:ARG:HB2	1.98	0.45
5:A4:10:ARG:HH21	80:B2:567:A:P	2.39	0.45
7:A6:16:HIS:CD2	7:A6:20:VAL:HG22	2.52	0.45
8:A7:40:PRO:HD2	81:B5:2668:U:OP1	2.16	0.45
8:A7:51:ARG:CD	81:B5:2677:G:C3'	2.95	0.45
14:AF:100:ASN:O	14:AF:102:ARG:N	2.49	0.45
15:AG:133:LEU:HD11	80:B2:66:U:C1'	2.46	0.45
15:AG:137:ARG:HD3	15:AG:177:ARG:HE	1.80	0.45
15:AG:169:TYR:CZ	80:B2:73:U:H5	2.34	0.45
15:AG:215:ARG:HD3	15:AG:215:ARG:HA	1.57	0.45
18:AJ:109:LEU:HD22	18:AJ:113:VAL:HG23	1.98	0.45
20:AL:133:LYS:CD	80:B2:338:C:OP2	2.61	0.45
25:AQ:72:GLY:CA	80:B2:1608:U:H5"	2.43	0.45
33:AY:120:GLY:HA2	80:B2:85:A:C4'	2.46	0.45
36:BB:130:PHE:CE2	81:B5:3149:G:H4'	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:244:ARG:HG2	36:BB:244:ARG:HH11	1.81	0.45
38:BD:261:THR:H	38:BD:264:GLN:CD	2.24	0.45
47:BM:55:ARG:NH2	47:BM:77:ARG:HA	2.31	0.45
54:BT:48:ILE:HG13	54:BT:94:GLU:HG2	1.97	0.45
61:Ba:19:LYS:HE3	81:B5:661:G:N7	2.31	0.45
70:Bj:83:ALA:HB3	83:B8:67:U:O4'	2.16	0.45
74:Bn:2:ARG:NH2	80:B2:1773:C:N4	2.52	0.45
76:Bq:39:HIS:CD2	76:Bq:40:GLU:OE2	2.70	0.45
79:By:8:ARG:CG	84:CN:2150:C:C2'	2.65	0.45
79:By:10:LEU:CD1	84:CN:2149:C:C5'	2.94	0.45
79:By:39:GLU:OE1	79:CL:35:ALA:CB	2.64	0.45
79:By:40:THR:CB	84:CN:2146:G:O5'	2.30	0.45
79:By:82:LYS:NZ	79:CL:85:GLU:O	2.49	0.45
79:By:100:ILE:CB	79:CL:98:GLU:C	2.89	0.45
79:By:116:THR:N	79:CL:77:ILE:CG1	2.76	0.45
79:By:126:LYS:HA	79:CL:126:LYS:HG2	1.62	0.45
79:By:156:ILE:CB	79:CL:72:VAL:CG2	2.50	0.45
79:By:158:ALA:C	79:CL:159:GLY:N	2.74	0.45
79:By:162:GLU:HG3	79:CL:164:ARG:HB2	1.92	0.45
79:By:191:ALA:CB	79:CL:188:ASN:O	2.56	0.45
80:B2:381:C:H1'	80:B2:756:A:C2	2.51	0.45
80:B2:491:C:H42	80:B2:496:G:H1	1.63	0.45
80:B2:1111:G:C2'	80:B2:1112:G:H5'	2.46	0.45
80:B2:1138:A:H2'	80:B2:1139:A:C8	2.51	0.45
80:B2:1519:U:H2'	80:B2:1520:U:C5	2.51	0.45
80:B2:1698:N:O2'	80:B2:1699:N:P	2.74	0.45
89:B2:2016:OHX:N6	89:B2:2073:OHX:N5	2.64	0.45
81:B5:90:C:C2'	81:B5:91:G:H5'	2.47	0.45
81:B5:174:C:H2'	81:B5:175:C:C6	2.51	0.45
81:B5:244:G:C6	81:B5:245:U:C4	3.04	0.45
81:B5:1354:G:C6	81:B5:1358:C:H5'	2.51	0.45
81:B5:2298:U:O4	81:B5:2923:U:H5	2.00	0.45
82:B7:3:U:H2'	82:B7:4:U:C6	2.51	0.45
86:CW:47:U:H3'	86:CW:48:C:C5'	2.46	0.45
1:A0:97:PRO:HA	80:B2:1798:U:C5	2.51	0.45
9:AA:80:THR:C	9:AA:82:GLY:H	2.25	0.45
9:AA:88:LYS:HE2	9:AA:88:LYS:HA	1.97	0.45
12:AD:159:HIS:C	80:B2:1421:A:H4'	2.41	0.45
15:AG:64:LYS:O	15:AG:67:VAL:HG22	2.17	0.45
15:AG:153:VAL:HG12	15:AG:154:ARG:N	2.31	0.45
24:AP:126:VAL:CG1	24:AP:127:ARG:H	2.19	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AV:50:TYR:HB2	30:AV:52:THR:HG22	1.99	0.45
31:AW:25:VAL:O	31:AW:62:VAL:HA	2.16	0.45
35:BA:19:HIS:CE1	81:B5:823:C:OP1	2.69	0.45
35:BA:68:LYS:HE2	81:B5:1650:G:OP1	2.17	0.45
35:BA:69:TYR:O	81:B5:1650:G:H5'	2.16	0.45
35:BA:137:ILE:HG12	35:BA:147:ARG:HG3	1.98	0.45
36:BB:380:MET:HE2	36:BB:380:MET:HB3	1.80	0.45
37:BC:78:GLY:O	37:BC:85:SER:HB3	2.15	0.45
37:BC:301:PRO:C	51:BQ:39:ARG:HH12	2.23	0.45
41:BG:99:PRO:HG2	41:BG:190:VAL:HG13	1.99	0.45
41:BG:219:ASP:O	41:BG:223:ALA:HB3	2.16	0.45
42:BH:139:ASN:OD1	42:BH:139:ASN:N	2.47	0.45
49:BO:128[A]:ARG:HD3	49:BO:128[A]:ARG:HA	1.50	0.45
50:BP:105:LYS:HB3	50:BP:107:LEU:HD13	1.97	0.45
51:BQ:8:LYS:HB2	51:BQ:8:LYS:HE3	1.53	0.45
60:BZ:46:ILE:HD13	60:BZ:49:TYR:N	2.32	0.45
60:BZ:54:THR:HG22	60:BZ:57:HIS:NE2	2.31	0.45
61:Ba:36:GLY:HA2	81:B5:40:A:OP2	2.17	0.45
71:Bk:11:PHE:O	71:Bk:14:LEU:HB2	2.16	0.45
75:Bo:67:LYS:HG3	81:B5:2793:G:OP1	2.17	0.45
79:By:32:LEU:HD11	79:CL:219:GLY:CA	2.38	0.45
79:By:40:THR:HG22	79:CL:40:THR:CG2	2.46	0.45
79:By:53:ARG:HH21	79:CL:49:ILE:C	2.21	0.45
79:By:91:ALA:HB3	79:CL:93:TYR:N	2.26	0.45
79:By:112:ALA:HA	79:CL:136:LEU:HD21	1.99	0.45
79:By:116:THR:HB	79:CL:77:ILE:CA	2.32	0.45
79:By:123:VAL:CA	79:CL:126:LYS:HB2	2.46	0.45
79:By:149:ILE:HG12	79:CL:114:VAL:H	1.68	0.45
79:By:182:PRO:CB	79:CL:27:HIS:O	2.64	0.45
79:By:219:GLY:C	79:CL:218:MET:C	2.84	0.45
80:B2:192:U:O2'	80:B2:193:U:O4'	2.33	0.45
80:B2:260:U:H5'	80:B2:261:U:H5"	1.98	0.45
80:B2:707:A:H2	80:B2:731:C:H2'	1.81	0.45
80:B2:730:G:H2'	80:B2:730:G:N3	2.31	0.45
80:B2:1217:A:H5'	80:B2:1217:A:C8	2.51	0.45
81:B5:1710:C:H2'	81:B5:1711:C:H6	1.81	0.45
81:B5:1801:U:H2'	81:B5:1802:C:C6	2.52	0.45
81:B5:1816:A:C2'	81:B5:1817:G:H5"	2.46	0.45
81:B5:2304:C:C5	81:B5:2305:G:C6	3.04	0.45
81:B5:3163:A:O2'	81:B5:3164:C:H5'	2.16	0.45
82:B7:22:A:C6	82:B7:23:A:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:CN:2172:G:C6	84:CN:2173:G:C5	3.04	0.45
2:A1:36:LYS:HE2	2:A1:43:ILE:HG21	1.99	0.45
7:A6:149:ASP:HB2	7:A6:175:ASP:HB3	1.97	0.45
8:A7:81:THR:CB	86:CW:29:G:C4'	2.90	0.45
8:A7:167:UNK:O	21:AM:127:GLY:HA2	2.16	0.45
12:AD:57:ASP:N	12:AD:57:ASP:OD1	2.50	0.45
15:AG:4:ASN:HA	15:AG:15:THR:HG22	1.98	0.45
15:AG:28:PHE:C	15:AG:30:LYS:H	2.25	0.45
16:AH:76:LYS:HE2	16:AH:76:LYS:HB3	1.86	0.45
17:AI:66:SER:HB3	17:AI:73:SER:CB	2.46	0.45
22:AN:142:GLU:HG3	22:AN:145:THR:HG23	1.98	0.45
23:AO:25:ASP:OD1	23:AO:26:THR:N	2.44	0.45
26:AR:106:THR:O	26:AR:110:VAL:HG23	2.17	0.45
29:AU:53:LYS:CB	80:B2:1345:A:H4'	2.34	0.45
30:AV:71:ARG:HG3	30:AV:83:TRP:CZ2	2.52	0.45
31:AW:90:THR:HB	31:AW:94:LEU:HD12	1.98	0.45
32:AX:108:GLY:O	32:AX:109:ARG:HG2	2.16	0.45
34:AZ:54:VAL:HG13	34:AZ:57:TYR:HD2	1.81	0.45
35:BA:85:GLY:HA3	81:B5:2554:A:C8	2.51	0.45
36:BB:20:LYS:HB2	81:B5:2991:A:P	2.56	0.45
41:BG:56:VAL:HG13	83:B8:150:G:H4'	1.98	0.45
48:BN:140:LYS:HB2	81:B5:126:U:O3'	2.17	0.45
48:BN:192:LYS:O	48:BN:196:THR:OG1	2.35	0.45
50:BP:26:PHE:HE1	50:BP:120:ASN:HA	1.81	0.45
61:Ba:55:LYS:HE2	81:B5:93:C:C2	2.51	0.45
62:Bb:2:ALA:CB	81:B5:2817:A:O2'	2.64	0.45
71:Bk:21:LYS:HA	71:Bk:21:LYS:HD3	1.69	0.45
72:Bl:15:LYS:HB2	83:B8:46:G:P	2.57	0.45
74:Bn:4:LYS:HE2	80:B2:1774:G:C3'	2.46	0.45
79:By:8:ARG:HE	84:CN:2150:C:H2'	1.81	0.45
79:By:28:LEU:HD23	79:CL:13:LYS:NZ	2.31	0.45
79:By:91:ALA:HB2	79:CL:92:ASP:H	1.81	0.45
79:By:107:TRP:CE2	79:CL:103:ILE:HA	2.51	0.45
79:By:129:ARG:HD3	86:CW:57:G:P	2.36	0.45
79:By:156:ILE:C	79:CL:72:VAL:HB	2.42	0.45
80:B2:196:G:O2'	80:B2:197:A:OP2	2.34	0.45
80:B2:1281:G:H2'	80:B2:1282:U:H6	1.82	0.45
80:B2:1417:A:OP1	89:B2:1950:OHX:N5	2.49	0.45
80:B2:1649:G:N7	89:B2:1929:OHX:N1	2.64	0.45
80:B2:1686:C:C4	80:B2:1687:U:C4	3.05	0.45
81:B5:92:G:H5"	81:B5:94:G:N7	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:578:A:H5”	81:B5:579:G:O5’	2.15	0.45
81:B5:611:A:H4’	81:B5:611:A:OP2	2.16	0.45
81:B5:1876:U:C5’	81:B5:1876:U:C6	2.99	0.45
81:B5:2514:U:OP1	81:B5:2514:U:H6	1.99	0.45
81:B5:3242:G:N2	81:B5:3245:A:H5”	2.30	0.45
84:CN:2135:A:H2’	84:CN:2188:U:O2’	2.17	0.45
3:A2:49:ARG:HG2	3:A2:52:ASP:OD1	2.16	0.45
89:A3:102:OHX:N6	89:B2:1940:OHX:N4	2.65	0.45
5:A4:18:THR:HG21	80:B2:584:C:C1’	2.41	0.45
6:A5:108:VAL:HB	6:A5:114:VAL:HG22	1.98	0.45
8:A7:87:THR:O	8:A7:88:ARG:HB3	2.17	0.45
8:A7:102:THR:HG23	8:A7:105:LYS:HB2	1.98	0.45
11:AC:140:ARG:NH2	11:AC:229:LEU:HD22	2.32	0.45
15:AG:53:SER:CB	80:B2:163:G:C4’	2.94	0.45
15:AG:72:ARG:HG2	15:AG:98:ARG:HA	1.99	0.45
16:AH:16:LEU:HD22	16:AH:58:LEU:HD21	1.99	0.45
18:AJ:118:LEU:HG	18:AJ:158:PHE:CZ	2.51	0.45
23:AO:24:ASN:HB3	80:B2:902:G:N7	2.32	0.45
28:AT:43:ASN:OD1	80:B2:1477:G:OP1	2.34	0.45
38:BD:126:GLU:HA	38:BD:196:ARG:HD2	1.97	0.45
38:BD:274:GLN:HB3	82:B7:61:G:O4’	2.16	0.45
43:BI:178:ARG:H	43:BI:178:ARG:HG2	1.51	0.45
43:BI:210:ILE:HA	43:BI:217:PHE:HE1	1.79	0.45
52:BR:114:LYS:HD3	81:B5:2093:A:H61	1.77	0.45
54:BT:129:LYS:NZ	81:B5:1097:G:H5’	2.31	0.45
61:Ba:2:PRO:CB	81:B5:1428:A:OP2	2.65	0.45
75:Bo:46:LYS:HD3	75:Bo:54:THR:HB	1.97	0.45
79:By:7:TYR:CD1	84:CN:2150:C:H5’	2.45	0.45
79:By:22:ILE:CD1	79:CL:22:ILE:CG1	2.95	0.45
79:By:43:VAL:HG21	79:CL:43:VAL:HG22	1.09	0.45
79:By:98:GLU:O	79:CL:101:GLN:HB2	2.16	0.45
80:B2:231:U:O2’	80:B2:232:U:H5”	2.17	0.45
80:B2:702:G:H4’	80:B2:702:G:OP1	2.17	0.45
80:B2:794:U:O2’	80:B2:795:U:O2	2.27	0.45
80:B2:915:A:H5’	80:B2:916:U:OP2	2.17	0.45
80:B2:918:U:H2’	80:B2:919:A:H8	1.81	0.45
80:B2:1363:U:H2’	80:B2:1363:U:O2	2.16	0.45
80:B2:1646:C:H5’	81:B5:2258:U:H3	1.81	0.45
81:B5:1024:G:H5”	81:B5:1025:A:OP2	2.17	0.45
81:B5:2282:U:O2	81:B5:2310:U:H4’	2.16	0.45
81:B5:3195:U:C1’	81:B5:3196:U:OP1	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CL:45:ALA:HB3	79:CL:171:ILE:HG22	1.99	0.45
2:A1:20:LYS:CE	80:B2:958:U:OP2	2.65	0.45
2:A1:63:LEU:HD23	2:A1:63:LEU:HA	1.72	0.45
9:AA:120:LEU:HD12	9:AA:121:VAL:H	1.81	0.45
9:AA:124:THR:HG22	9:AA:174:TRP:HZ2	1.82	0.45
11:AC:53:ILE:HG23	11:AC:56:ILE:HD12	1.98	0.45
13:AE:212:ASP:OD1	13:AE:214:LEU:N	2.49	0.45
14:AF:198:LEU:HA	14:AF:198:LEU:HD23	1.69	0.45
17:AI:170:SER:OG	80:B2:209:U:O3'	2.34	0.45
18:AJ:108:ARG:HH11	18:AJ:110:GLN:HG2	1.82	0.45
18:AJ:163:PRO:HG2	18:AJ:164:PHE:CD2	2.51	0.45
19:AK:25:LYS:HD3	19:AK:59:PHE:HZ	1.80	0.45
26:AR:28:PHE:CE1	80:B2:1389:C:H6	2.28	0.45
27:AS:139:LYS:HG2	80:B2:1461:C:H41	1.81	0.45
31:AW:83:ILE:HG13	31:AW:117:ARG:HH12	1.80	0.45
35:BA:174:ARG:CG	81:B5:1793:C:O4'	2.64	0.45
39:BE:173:MET:HE3	39:BE:173:MET:HB3	1.45	0.45
41:BG:26:LEU:HD23	41:BG:26:LEU:HA	1.84	0.45
44:BJ:107:ASP:O	44:BJ:108:GLU:HG2	2.17	0.45
49:BO:167[B]:TYR:CD1	49:BO:167[B]:TYR:C	2.92	0.45
57:BW:102:LYS:HG2	57:BW:105:ARG:NH2	2.32	0.45
62:Bb:3:LYS:HD3	81:B5:2617:U:H3'	1.99	0.45
70:Bj:29:VAL:CG1	83:B8:111:A:N7	2.79	0.45
79:By:8:ARG:CG	84:CN:2150:C:HO2'	1.91	0.45
79:By:18:LYS:O	79:CL:14:VAL:CG2	2.65	0.45
79:By:46:LYS:HB3	79:CL:46:LYS:HB3	1.91	0.45
79:By:71:GLN:HG2	79:CL:70:LYS:HD2	1.04	0.45
79:By:146:GLY:HA2	79:CL:145:VAL:CA	2.46	0.45
79:By:152:ILE:CD1	79:CL:144:THR:CA	2.87	0.45
79:By:176:GLY:HA2	79:CL:176:GLY:O	0.64	0.45
79:By:201:PRO:HD2	79:CL:58:VAL:HG22	1.76	0.45
80:B2:87:C:O2'	80:B2:169:A:N1	2.47	0.45
80:B2:489:C:O5'	80:B2:489:C:H6	1.99	0.45
89:B2:1982:OHX:N5	89:B2:2079:OHX:N3	2.64	0.45
81:B5:958:C:C4	81:B5:960:U:H1'	2.51	0.45
81:B5:3163:A:C6	81:B5:3164:C:N4	2.85	0.45
83:B8:62:C:H4'	83:B8:63:G:O5'	2.16	0.45
85:CP:77:THR:H	85:CP:78:PRO:CD	2.29	0.45
12:AD:92:GLN:O	12:AD:92:GLN:NE2	2.46	0.45
22:AN:71:ILE:HD13	80:B2:961:U:H5"	1.99	0.45
23:AO:120:PRO:HB2	80:B2:888:U:P	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AT:85:SER:C	28:AT:87:GLY:H	2.24	0.45
29:AU:74:GLU:HG2	80:B2:1429:G:O4'	2.17	0.45
32:AX:73:ARG:NE	32:AX:84:THR:HG22	2.27	0.45
33:AY:105:ARG:NE	80:B2:444:C:OP2	2.50	0.45
35:BA:236:GLY:HA2	81:B5:2184:U:C4'	2.47	0.45
36:BB:229:VAL:HG13	36:BB:235:THR:HG21	1.98	0.45
38:BD:63:GLN:NE2	82:B7:5:G:O2'	2.42	0.45
38:BD:265:TYR:CD2	82:B7:120:C:N3	2.85	0.45
41:BG:136:LEU:HB2	81:B5:147:U:C5'	2.46	0.45
43:BI:24:ARG:H	43:BI:24:ARG:HG3	1.43	0.45
43:BI:158:LYS:O	81:B5:2854:U:H5'	2.17	0.45
47:BM:133:LYS:HZ2	81:B5:3227:A:HO2'	1.57	0.45
49:BO:25[B]:LYS:HG3	81:B5:1175:C:H5"	1.99	0.45
50:BP:66:SER:HB2	81:B5:1448:U:H5"	1.98	0.45
51:BQ:151:ARG:HH11	51:BQ:151:ARG:HD2	1.57	0.45
54:BT:68:THR:HG22	54:BT:71:SER:N	2.27	0.45
59:BY:5:SER:C	59:BY:7:ASP:H	2.24	0.45
59:BY:83:ASP:O	59:BY:84:LYS:HB2	2.17	0.45
62:Bb:24:PRO:CD	62:Bb:25:LYS:H	2.29	0.45
70:Bj:42:ALA:O	83:B8:104:A:H4'	2.17	0.45
79:By:14:VAL:C	79:CL:11:LEU:H	2.23	0.45
79:By:32:LEU:CD1	79:CL:32:LEU:O	2.65	0.45
79:By:69:GLY:N	79:CL:40:THR:HG23	2.31	0.45
79:By:100:ILE:HG13	79:CL:101:GLN:HE21	0.62	0.45
79:By:110:PHE:HD2	79:CL:107:TRP:O	2.00	0.45
79:By:114:VAL:HG21	79:CL:75:LEU:O	2.14	0.45
79:By:123:VAL:C	79:CL:126:LYS:HB2	2.42	0.45
79:By:144:THR:HA	79:CL:144:THR:HG21	1.63	0.45
79:By:155:GLU:CA	79:CL:158:ALA:N	2.69	0.45
79:By:227:HIS:CE1	79:CL:225:ASN:HD21	2.35	0.45
80:B2:51:A:H1'	85:CP:242:GLY:HA3	1.66	0.45
80:B2:68:A:O2'	80:B2:69:G:OP2	2.25	0.45
80:B2:240:U:H4'	80:B2:240:U:OP1	2.16	0.45
80:B2:414:C:C2	85:CP:289:LEU:CD1	2.69	0.45
80:B2:1051:G:O2'	80:B2:1052:U:P	2.75	0.45
80:B2:1686:C:C2'	80:B2:1687:U:C6	2.79	0.45
80:B2:1727:G:H2'	80:B2:1728:A:C8	2.51	0.45
81:B5:183:G:H2'	81:B5:184:U:O4'	2.17	0.45
81:B5:247:C:N3	81:B5:248:U:H1'	2.32	0.45
81:B5:312:C:O2'	81:B5:313:A:H5'	2.16	0.45
81:B5:1109:U:H2'	81:B5:1110:U:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:1567:U:H2'	81:B5:1568:U:C4'	2.47	0.45
81:B5:1658:G:H2'	81:B5:1659:U:C6	2.50	0.45
81:B5:2567:C:H42	81:B5:2568:C:H41	1.64	0.45
81:B5:2770:G:H2'	81:B5:2771:U:H5'	1.99	0.45
85:CP:19:THR:CA	90:CP:401:GCP:O3A	2.59	0.45
4:A3:42:CYS:O	4:A3:45:GLU:N	2.49	0.45
4:A3:52:PHE:HB3	29:AU:82:TYR:HB3	1.99	0.45
12:AD:203:PRO:HB3	80:B2:1332:C:C5'	2.43	0.45
15:AG:211:LEU:O	15:AG:215:ARG:HB2	2.16	0.45
18:AJ:176:ASN:ND2	80:B2:511:A:P	2.88	0.45
22:AN:15:ALA:O	80:B2:959:U:C5'	2.63	0.45
32:AX:88:PRO:O	32:AX:89:ASN:HB2	2.17	0.45
33:AY:35:VAL:O	33:AY:36:SER:HB3	2.16	0.45
33:AY:105:ARG:HB2	80:B2:443:C:OP1	2.16	0.45
36:BB:325:LYS:HG2	36:BB:326:GLY:N	2.32	0.45
42:BH:92:TYR:N	42:BH:92:TYR:CD1	2.84	0.45
46:BL:26:PHE:HB2	83:B8:28:C:O3'	2.17	0.45
55:BU:29:ASP:O	55:BU:32:SER:N	2.50	0.45
60:BZ:115:LYS:HD2	81:B5:1629:U:H1'	1.98	0.45
65:Be:19:ARG:NH2	81:B5:1433:A:OP2	2.50	0.45
65:Be:80:LYS:HD3	81:B5:1386:A:OP1	2.17	0.45
70:Bj:64:MET:O	70:Bj:65:ARG:C	2.59	0.45
79:By:3:HIS:N	84:CN:2182:C:H1'	2.32	0.45
79:By:6:ARG:CA	84:CN:2151:U:C5	2.99	0.45
79:By:12:GLU:HA	79:CL:8:ARG:HB2	1.18	0.45
79:By:14:VAL:CG1	79:CL:10:LEU:CD2	2.87	0.45
79:By:16:PRO:HD3	84:CN:2197:A:OP1	2.16	0.45
79:By:45:ALA:HB2	79:CL:45:ALA:N	2.24	0.45
79:By:61:THR:HB	79:CL:161:ILE:C	2.39	0.45
80:B2:72:A:C2	80:B2:73:U:C4	3.05	0.45
80:B2:782:U:C4'	80:B2:783:G:OP2	2.64	0.45
80:B2:960:U:H2'	80:B2:961:U:H6	1.81	0.45
80:B2:1082:C:H2'	80:B2:1083:G:H5'	1.98	0.45
80:B2:1396:U:H2'	80:B2:1397:U:C6	2.51	0.45
80:B2:1537:C:N4	89:B2:2046:OHX:N6	2.64	0.45
80:B2:1578:U:O2'	80:B2:1579:U:H5'	2.17	0.45
80:B2:1686:C:C2	80:B2:1687:U:N1	2.85	0.45
81:B5:138:U:H2'	81:B5:139:G:C8	2.52	0.45
81:B5:181:U:O5'	81:B5:181:U:H6	2.00	0.45
81:B5:406:G:H1'	83:B8:16:G:N2	2.32	0.45
81:B5:1103:A:H3'	81:B5:1104:G:H5'	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:1204:A:H2'	81:B5:1205:A:H5'	1.98	0.45
81:B5:1229:G:O6	81:B5:1230:G:C5	2.70	0.45
81:B5:1686:U:O2	81:B5:1688:U:H1'	2.17	0.45
81:B5:3276:G:H4'	81:B5:3277:U:OP1	2.17	0.45
1:A0:38:ARG:NH2	1:A0:83:ILE:HG21	2.32	0.45
2:A1:51:GLN:HA	80:B2:871:G:C4'	2.47	0.45
7:A6:43:ILE:HD13	7:A6:60:SER:HA	1.98	0.45
8:A7:26:VAL:HG11	44:BJ:49:LYS:NZ	2.32	0.45
8:A7:84:LYS:HD3	8:A7:86:ASN:HB2	1.98	0.45
10:AB:55:LYS:HA	10:AB:55:LYS:HD3	1.67	0.45
10:AB:165:ARG:CZ	80:B2:946:U:C5'	2.77	0.45
12:AD:216:PRO:HB2	12:AD:217:ILE:H	1.58	0.45
15:AG:73:ILE:HD12	15:AG:75:LEU:HD21	1.98	0.45
17:AI:43:ILE:CB	80:B2:260:U:H5	2.29	0.45
17:AI:142:LYS:NZ	80:B2:187:G:N7	2.57	0.45
18:AJ:132:ARG:HG3	18:AJ:132:ARG:HH11	1.82	0.45
20:AL:40:LEU:HD22	80:B2:246:G:C2	2.52	0.45
28:AT:65:ILE:HG23	28:AT:71:VAL:HG22	1.99	0.45
31:AW:105:THR:HG23	31:AW:110:ILE:CG1	2.44	0.45
36:BB:188:ILE:HA	36:BB:191:LYS:HD2	1.98	0.45
37:BC:182:LEU:HD13	37:BC:182:LEU:HA	1.71	0.45
38:BD:95:TRP:HZ3	38:BD:156:GLY:O	2.00	0.45
38:BD:272:TYR:CE2	82:B7:22:A:N9	2.85	0.45
40:BF:179:LEU:HD22	40:BF:183:ASP:OD2	2.17	0.45
42:BH:94:TYR:CD2	42:BH:98:PRO:HA	2.52	0.45
43:BI:170:LYS:HG3	43:BI:175:ASN:HA	1.98	0.45
47:BM:50:LYS:HD3	47:BM:91:CYS:SG	2.56	0.45
48:BN:109:ARG:O	83:B8:140:G:O2'	2.25	0.45
48:BN:184:LYS:C	48:BN:186:GLY:N	2.73	0.45
51:BQ:55:SER:CB	81:B5:671:U:H5"	2.47	0.45
51:BQ:147:ARG:HH21	81:B5:670:C:P	2.40	0.45
56:BV:27:ASP:HA	56:BV:113:ALA:O	2.17	0.45
56:BV:120:LYS:H	56:BV:137:VAL:HG23	1.81	0.45
58:BX:48:SER:CB	83:B8:136:G:OP1	2.65	0.45
61:Ba:9:ARG:NH2	81:B5:1430:U:H2'	2.32	0.45
61:Ba:128:ARG:HB2	69:Bi:8:ALA:CB	2.47	0.45
66:Bf:85:PHE:CZ	66:Bf:89:LEU:HD11	2.52	0.45
69:Bi:36:ARG:HH11	81:B5:116:A:P	2.40	0.45
79:By:11:LEU:HD12	79:CL:7:TYR:CG	2.48	0.45
79:By:64:LEU:CD2	79:CL:65:PRO:CD	2.95	0.45
79:By:65:PRO:O	79:CL:64:LEU:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:145:VAL:HG21	79:CL:145:VAL:HB	1.34	0.45
80:B2:417:A:H4'	80:B2:418:G:O5'	2.17	0.45
80:B2:595:G:H2'	80:B2:596:C:C6	2.52	0.45
80:B2:725:U:H2'	80:B2:726:C:O4'	2.16	0.45
80:B2:861:U:H5'	80:B2:862:A:OP2	2.16	0.45
80:B2:1111:G:H2'	80:B2:1112:G:H5'	1.99	0.45
80:B2:1166:A:H2'	80:B2:1167:G:O4'	2.17	0.45
80:B2:1277:G:H2'	80:B2:1278:G:O4'	2.17	0.45
80:B2:1629:G:H2'	80:B2:1630:U:H6	1.80	0.45
81:B5:92:G:H5'	81:B5:93:C:H5"	1.98	0.45
81:B5:173:G:H1'	81:B5:174:C:H5'	1.98	0.45
81:B5:182:U:H4'	81:B5:182:U:OP1	2.16	0.45
81:B5:1564:U:H2'	81:B5:1565:G:H8	1.80	0.45
81:B5:1565:G:C2	81:B5:1566:A:H1'	2.51	0.45
81:B5:2681:U:O2'	81:B5:2682:C:H5'	2.16	0.45
81:B5:2949:U:C5	81:B5:2950:G:C6	3.05	0.45
83:B8:154:C:H2'	83:B8:155:A:O4'	2.16	0.45
84:CN:2158:C:N4	84:CN:2175:G:O6	2.50	0.45
5:A4:47:VAL:HG22	5:A4:48:THR:H	1.82	0.45
7:A6:43:ILE:HA	7:A6:59:ARG:O	2.16	0.45
7:A6:147:HIS:CE1	7:A6:179:LYS:HD2	2.52	0.45
9:AA:48:ILE:HG21	9:AA:161:PRO:HB2	1.98	0.45
10:AB:110:LEU:CD2	10:AB:213:ARG:HD2	2.46	0.45
10:AB:138:PHE:HE2	80:B2:885:G:H5'	1.82	0.45
14:AF:166:ARG:HH12	14:AF:170:GLN:HE22	1.64	0.45
15:AG:108:VAL:HG23	80:B2:154:G:C4'	2.47	0.45
16:AH:22:GLN:HA	16:AH:25:VAL:HG23	1.99	0.45
24:AP:20:VAL:HG13	24:AP:24:LYS:HD2	1.98	0.45
25:AQ:124:PRO:CA	80:B2:1585:U:OP1	2.56	0.45
26:AR:81:LYS:HE3	26:AR:81:LYS:HB2	1.72	0.45
41:BG:236:GLY:O	41:BG:237:ILE:HB	2.17	0.45
42:BH:90:MET:HE2	42:BH:179:ILE:HG22	1.97	0.45
44:BJ:20:ASN:HB3	44:BJ:126:ASP:HB2	1.98	0.45
46:BL:45:LYS:HA	81:B5:241:G:O2'	2.17	0.45
48:BN:111:ALA:HB3	81:B5:20:A:H1'	1.98	0.45
51:BQ:55:SER:HB2	81:B5:672:A:OP2	2.17	0.45
52:BR:101:VAL:HG21	81:B5:1948:G:C4'	2.45	0.45
60:BZ:46:ILE:HD12	60:BZ:47:GLU:N	2.32	0.45
61:Ba:30:GLY:N	81:B5:40:A:N7	2.65	0.45
71:Bk:27:ILE:HD12	71:Bk:39:ARG:NH2	2.32	0.45
79:By:61:THR:CG2	79:CL:162:GLU:N	2.74	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:78:ALA:CB	79:CL:94:VAL:CA	2.90	0.45
79:By:202:GLU:CG	79:CL:57:ASN:HB2	2.47	0.45
79:By:227:HIS:ND1	79:CL:227:HIS:ND1	2.60	0.45
80:B2:47:A:N1	80:B2:386:G:H1'	2.32	0.45
80:B2:139:C:H4'	80:B2:140:A:O5'	2.17	0.45
80:B2:501:U:H2'	80:B2:502:U:C6	2.51	0.45
80:B2:779:U:O2'	80:B2:780:A:H5"	2.16	0.45
80:B2:1060:U:H5"	80:B2:1061:A:OP2	2.16	0.45
80:B2:1316:G:H2'	80:B2:1317:C:H6	1.81	0.45
81:B5:183:G:C8	81:B5:183:G:H3'	2.52	0.45
81:B5:412:G:H2'	81:B5:413:U:C6	2.53	0.45
81:B5:642:U:O5'	81:B5:642:U:H6	1.99	0.45
81:B5:1494:U:H4'	81:B5:1495:U:O5'	2.16	0.45
81:B5:3228:C:HO2'	81:B5:3229:G:P	2.40	0.45
81:B5:3245:A:H2	81:B5:3246:G:C2	2.35	0.45
81:B5:3330:A:H8	81:B5:3330:A:C5'	2.29	0.45
81:B5:3330:A:C8	81:B5:3330:A:C5'	3.00	0.45
79:CL:149:ILE:O	79:CL:153:ILE:HG13	2.17	0.45
85:CP:138:TRP:CD2	85:CP:153:GLN:OE1	2.70	0.45
2:A1:25:VAL:HG13	31:AW:55:ASP:HA	1.99	0.44
89:A3:102:OHX:N5	89:B2:1940:OHX:N3	2.65	0.44
9:AA:109:ASN:HB2	80:B2:1294:G:O2'	2.17	0.44
9:AA:202:TYR:O	9:AA:203:PHE:CG	2.70	0.44
12:AD:11:LEU:HD12	29:AU:86:ILE:HG12	1.99	0.44
12:AD:176:LEU:HD23	80:B2:1437:U:H5'	1.98	0.44
13:AE:22:LYS:HB2	80:B2:773:C:OP1	2.17	0.44
14:AF:25:LEU:HB2	14:AF:26:ALA:H	1.68	0.44
16:AH:39:ARG:N	16:AH:40:PRO:HD2	2.32	0.44
26:AR:59:LYS:HE2	80:B2:1393:C:OP2	2.17	0.44
29:AU:35:GLU:HG3	80:B2:1383:G:O2'	2.17	0.44
30:AV:11:LEU:H	30:AV:11:LEU:HG	1.34	0.44
35:BA:50:HIS:CD2	81:B5:1795:U:O2'	2.70	0.44
35:BA:187:HIS:CG	81:B5:1794:G:C6	3.05	0.44
37:BC:322:GLN:CB	81:B5:608:A:H5'	2.47	0.44
40:BF:158:LYS:O	40:BF:203:TRP:HZ3	1.99	0.44
41:BG:59:GLN:NE2	83:B8:150:G:O2'	2.48	0.44
46:BL:80:VAL:HG12	46:BL:85:LEU:O	2.17	0.44
52:BR:162:ARG:HH22	80:B2:848:C:H4'	0.81	0.44
56:BV:48:ARG:HG2	81:B5:2339:C:OP1	2.17	0.44
57:BW:119:GLU:O	57:BW:122:ALA:HB3	2.17	0.44
60:BZ:36:HIS:H	60:BZ:37:PRO:HD3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:Bb:14:ARG:CZ	62:Bb:18:ARG:HH11	2.29	0.44
63:Bc:22:LYS:HB2	63:Bc:94:GLU:HB2	1.99	0.44
64:Bd:77:ARG:HG3	64:Bd:90:PHE:O	2.18	0.44
65:Be:119:VAL:O	65:Be:122:PRO:HD3	2.17	0.44
69:Bi:76:ARG:O	81:B5:293:C:C2'	2.65	0.44
70:Bj:21:ARG:O	83:B8:43:A:H1'	2.16	0.44
73:Bm:106:ARG:HB2	73:Bm:106:ARG:NH1	2.23	0.44
75:Bo:56:PRO:HA	86:CW:75:C:H41	1.20	0.44
75:Bo:73:GLU:OE2	75:Bo:80:ARG:NH1	2.49	0.44
79:By:3:HIS:CB	84:CN:2182:C:C2'	2.95	0.44
79:By:21:THR:CG2	79:CL:21:THR:CB	2.94	0.44
79:By:28:LEU:H	79:CL:28:LEU:HD12	0.57	0.44
79:By:113:VAL:CG2	79:CL:108:MET:HE3	2.48	0.44
79:By:179:SER:H	79:CL:38:ASP:HA	1.81	0.44
80:B2:492:A:H2'	80:B2:494:U:H5"	1.98	0.44
80:B2:1238:A:OP2	89:B2:1925:OHX:N2	2.50	0.44
89:B2:1918:OHX:N3	89:B2:2049:OHX:N1	2.65	0.44
81:B5:163:C:H42	81:B5:258:G:H1	1.65	0.44
81:B5:620:U:H5"	81:B5:621:A:O5'	2.16	0.44
81:B5:731:U:H2'	81:B5:732:C:C6	2.52	0.44
81:B5:1229:G:C5	81:B5:1230:G:C2	3.05	0.44
81:B5:1256:G:O2'	81:B5:1257:C:H5'	2.18	0.44
81:B5:2443:A:C2	84:CN:2208:G:C3'	2.98	0.44
81:B5:2768:U:H2'	81:B5:2769:A:C8	2.52	0.44
81:B5:2836:C:C5	81:B5:2852:C:N4	2.71	0.44
84:CN:2160:C:C2'	84:CN:2161:C:OP2	2.63	0.44
3:A2:16:LEU:HB2	3:A2:27:GLN:HB2	1.99	0.44
7:A6:211:ILE:HG22	7:A6:223:TRP:HD1	1.83	0.44
8:A7:32:SER:CB	81:B5:2692:A:O4'	2.64	0.44
14:AF:109:LYS:HD2	80:B2:1473:U:C1'	2.41	0.44
15:AG:132:ARG:NH2	80:B2:68:A:H2'	2.32	0.44
15:AG:211:LEU:HD11	15:AG:215:ARG:NH2	2.32	0.44
17:AI:8:ARG:NH1	17:AI:19:ALA:O	2.49	0.44
24:AP:34:VAL:HG21	24:AP:45:PHE:HB2	1.99	0.44
25:AQ:47:LYS:NZ	25:AQ:114:ARG:HG2	2.33	0.44
26:AR:24:LEU:O	26:AR:25:THR:HG23	2.18	0.44
28:AT:135:ILE:HA	28:AT:138:GLN:HG3	1.99	0.44
30:AV:71:ARG:HB2	30:AV:83:TRP:CE2	2.51	0.44
36:BB:232:ARG:NH2	81:B5:2989:U:O2'	2.51	0.44
38:BD:91:GLY:CA	82:B7:48:U:OP1	2.64	0.44
38:BD:125:VAL:O	38:BD:125:VAL:HG12	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:222:LEU:HD23	38:BD:222:LEU:HA	1.77	0.44
40:BF:150:LYS:HE2	40:BF:151:ARG:NH1	2.33	0.44
41:BG:123:GLN:C	41:BG:125:ALA:H	2.25	0.44
44:BJ:137:ARG:NH2	82:B7:44:C:P	2.80	0.44
47:BM:40:ASP:HA	53:BS:143:PHE:CE2	2.52	0.44
51:BQ:43:PRO:HG2	81:B5:729:C:OP2	2.16	0.44
79:By:91:ALA:HB2	79:CL:92:ASP:CA	2.43	0.44
80:B2:156:A:H2'	80:B2:157:A:O4'	2.17	0.44
80:B2:416:A:H4'	80:B2:417:A:OP2	2.17	0.44
80:B2:1253:U:H2'	80:B2:1254:U:H6	1.82	0.44
80:B2:1256:A:H4'	80:B2:1257:U:O5'	2.17	0.44
80:B2:1287:A:N6	80:B2:1329:A:H5'	2.32	0.44
80:B2:1480:G:H3'	80:B2:1481:C:H6	1.82	0.44
80:B2:1758:U:H1'	81:B5:2255:A:N3	2.26	0.44
89:B2:1961:OHX:N3	89:B2:1963:OHX:N5	2.65	0.44
81:B5:1807:G:C6	81:B5:1808:G:N1	2.85	0.44
81:B5:1838:G:H4'	81:B5:1839:A:N3	2.32	0.44
81:B5:2174:G:H4'	81:B5:2175:U:O5'	2.17	0.44
81:B5:2872:A:O2'	81:B5:2873:U:OP1	2.35	0.44
81:B5:3279:A:H2'	81:B5:3280:U:H5'	1.99	0.44
9:AA:120:LEU:HD12	9:AA:142:PRO:O	2.17	0.44
12:AD:9:ARG:CZ	80:B2:1489:U:P	3.05	0.44
14:AF:37:GLN:CG	25:AQ:53:LEU:HD13	2.41	0.44
15:AG:31:ARG:H	15:AG:34:GLN:HG3	1.82	0.44
18:AJ:83:VAL:HG23	18:AJ:85:VAL:HG23	1.99	0.44
21:AM:41:LEU:HD23	21:AM:41:LEU:HA	1.76	0.44
21:AM:84:ASN:O	21:AM:86:VAL:HG22	2.17	0.44
24:AP:22:LEU:HD13	24:AP:26:LEU:HD11	1.99	0.44
25:AQ:14:LYS:HE2	80:B2:1584:G:C5	2.52	0.44
33:AY:29:HIS:CE1	33:AY:68:LYS:N	2.85	0.44
35:BA:21:ARG:CD	81:B5:825:U:OP1	2.63	0.44
35:BA:211:HIS:ND1	81:B5:2185:G:P	2.86	0.44
36:BB:243:HIS:CD2	81:B5:876:A:OP1	2.70	0.44
36:BB:296:THR:HG22	36:BB:297:SER:N	2.33	0.44
37:BC:131:VAL:O	37:BC:135:VAL:HG23	2.18	0.44
37:BC:271:LYS:O	37:BC:272:VAL:C	2.60	0.44
38:BD:94:ASN:CB	82:B7:47:C:P	3.05	0.44
42:BH:4:ILE:HD13	42:BH:4:ILE:HG21	1.66	0.44
42:BH:7:GLU:HA	42:BH:68:LEU:HD11	2.00	0.44
48:BN:112:ASN:ND2	81:B5:18:G:N2	2.65	0.44
53:BS:155:ARG:HD3	53:BS:172:TYR:CD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:BW:55:PHE:CD1	57:BW:55:PHE:C	2.95	0.44
64:Bd:46:THR:CG2	64:Bd:47:ASP:N	2.80	0.44
65:Be:126:LEU:HD23	65:Be:126:LEU:HA	1.78	0.44
69:Bi:82:ARG:CZ	81:B5:295:A:N3	2.80	0.44
79:By:31:GLU:HG2	79:CL:34:THR:HG21	1.29	0.44
79:By:85:GLU:CG	79:CL:87:GLU:CB	2.71	0.44
79:By:152:ILE:HG13	79:CL:114:VAL:HG11	1.99	0.44
80:B2:1057:U:H1'	80:B2:1058:U:H2'	1.99	0.44
80:B2:1231:U:C4	80:B2:1255:G:N2	2.85	0.44
80:B2:1393:C:H2'	80:B2:1394:G:O4'	2.18	0.44
81:B5:2224:A:H5"	81:B5:2225:U:OP2	2.17	0.44
81:B5:3085:G:H5"	81:B5:3086:A:OP1	2.17	0.44
85:CP:310:ASN:HD22	85:CP:310:ASN:H	1.64	0.44
3:A2:19:THR:O	3:A2:23:GLY:HA2	2.17	0.44
10:AB:149:GLN:NE2	80:B2:1066:C:H4'	2.32	0.44
12:AD:84:ILE:HD13	12:AD:85:VAL:N	2.32	0.44
13:AE:8:HIS:CE1	80:B2:449:C:C4'	3.00	0.44
13:AE:19:LEU:CD2	80:B2:788:A:H2'	2.44	0.44
16:AH:46:ILE:HD11	16:AH:60:ILE:HG12	1.98	0.44
16:AH:181:ILE:HD12	16:AH:181:ILE:HA	1.72	0.44
17:AI:81:VAL:HG12	17:AI:91:VAL:HG22	1.98	0.44
20:AL:20:PHE:CB	80:B2:211:U:H5"	2.48	0.44
20:AL:78:THR:HG22	20:AL:84:ILE:CG2	2.46	0.44
23:AO:37:GLU:CA	80:B2:895:G:H4'	2.44	0.44
25:AQ:135:ARG:HB3	80:B2:1581:C:C4'	2.44	0.44
31:AW:78:ARG:CD	31:AW:126:LEU:HD23	2.47	0.44
38:BD:146:LEU:HD12	81:B5:2746:A:N3	2.32	0.44
38:BD:270:LYS:CG	82:B7:2:G:H5'	2.42	0.44
40:BF:67:ARG:NH2	81:B5:517:G:H5"	2.32	0.44
43:BI:98:ARG:HH21	81:B5:1127:G:P	2.40	0.44
46:BL:26:PHE:HB2	83:B8:29:U:P	2.58	0.44
46:BL:120:GLN:C	46:BL:122:LYS:H	2.26	0.44
46:BL:126:PHE:HB2	68:Bh:115:LYS:HB3	1.98	0.44
60:BZ:28:PRO:O	60:BZ:29:HIS:C	2.60	0.44
61:Ba:19:LYS:HG3	81:B5:661:G:O6	2.17	0.44
61:Ba:44:ASN:O	61:Ba:47:LYS:O	2.36	0.44
63:Bc:103:THR:O	63:Bc:105:ALA:N	2.50	0.44
79:By:43:VAL:HG12	79:CL:43:VAL:HG12	1.90	0.44
79:By:53:ARG:CZ	79:CL:56:GLN:CD	2.90	0.44
79:By:53:ARG:HG3	79:CL:51:PRO:N	1.69	0.44
79:By:218:MET:HE3	84:CN:2194:A:H2'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:226:PRO:CD	79:CL:223:ARG:NE	2.52	0.44
80:B2:277:U:H2'	80:B2:278:U:OP1	2.17	0.44
80:B2:1225:U:O2	80:B2:1230:A:H4'	2.16	0.44
89:B2:1922:OHX:N1	89:B2:1977:OHX:N3	2.66	0.44
81:B5:622:A:H2'	81:B5:623:U:O4'	2.17	0.44
81:B5:1456:A:H4'	81:B5:1457:U:O5'	2.17	0.44
81:B5:1815:U:O2'	81:B5:1816:A:P	2.72	0.44
79:CL:96:GLY:O	79:CL:97:GLU:HG3	2.18	0.44
84:CN:2202:G:H2'	84:CN:2203:G:O5'	2.17	0.44
86:CW:55:U:C6	86:CW:57:G:N7	2.85	0.44
1:A0:75:VAL:HG21	80:B2:1793:G:C6	2.53	0.44
1:A0:87:ARG:HH12	80:B2:1796:C:C5'	2.27	0.44
6:A5:83:UNK:O	6:A5:84:UNK:HG3	2.18	0.44
8:A7:94:HIS:NE2	80:B2:1638:G:OP1	2.44	0.44
10:AB:183:GLN:O	10:AB:187:LYS:HG3	2.17	0.44
10:AB:229:MET:HA	10:AB:232:HIS:CE1	2.52	0.44
14:AF:25:LEU:H	14:AF:25:LEU:HD22	1.82	0.44
14:AF:63:GLN:HB3	14:AF:64:VAL:H	1.70	0.44
15:AG:63:MET:O	80:B2:162:A:H4'	2.18	0.44
15:AG:67:VAL:HG23	15:AG:100:ALA:H	1.83	0.44
16:AH:91:ILE:HD12	16:AH:91:ILE:HA	1.88	0.44
19:AK:29:GLN:O	19:AK:30:ALA:HB3	2.18	0.44
24:AP:125:PRO:HG3	27:AS:129:TRP:CH2	2.53	0.44
28:AT:14:PHE:CZ	28:AT:132:LEU:HD23	2.50	0.44
29:AU:27:THR:HB	29:AU:88:LYS:CG	2.47	0.44
29:AU:50:LEU:CD2	29:AU:95:ALA:HB2	2.47	0.44
33:AY:11:LYS:NZ	80:B2:775:G:C6	2.85	0.44
33:AY:11:LYS:NZ	80:B2:776:G:O6	2.48	0.44
33:AY:33:ALA:CB	80:B2:533:U:H5'	2.47	0.44
35:BA:246:LEU:HD13	81:B5:2153:U:OP1	2.17	0.44
36:BB:106:TRP:CH2	36:BB:161:LEU:HD13	2.52	0.44
38:BD:277:LEU:CD1	82:B7:62:U:H5"	2.48	0.44
42:BH:90:MET:O	42:BH:143:GLU:O	2.34	0.44
42:BH:161:LEU:O	42:BH:164:ILE:HG22	2.18	0.44
44:BJ:92:ARG:HG2	44:BJ:92:ARG:NH1	2.26	0.44
46:BL:2:ALA:N	61:Ba:33:GLY:O	2.50	0.44
46:BL:119:TYR:HD1	46:BL:145:PHE:CE2	2.35	0.44
48:BN:113:LEU:HD11	83:B8:142:C:H5'	1.99	0.44
49:BO:18[B]:ARG:NH1	81:B5:1314:C:O3'	2.51	0.44
51:BQ:90:ASP:C	51:BQ:92:ARG:H	2.26	0.44
52:BR:90:PRO:CD	81:B5:1779:C:N3	2.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BR:170:ARG:NH2	89:BR:201:OHX:N3	2.58	0.44
62:Bb:37:PRO:HB3	81:B5:776:U:O4'	2.18	0.44
79:By:19:ILE:O	79:CL:20:TYR:OH	2.34	0.44
79:By:27:HIS:CE1	79:CL:27:HIS:CB	2.66	0.44
79:By:27:HIS:CG	79:CL:27:HIS:C	2.95	0.44
79:By:31:GLU:HG2	79:CL:10:LEU:CD2	2.43	0.44
79:By:69:GLY:HA3	79:CL:174:PRO:CB	2.48	0.44
79:By:196:LEU:HB3	79:CL:209:LEU:CD2	2.48	0.44
80:B2:71:A:O3'	80:B2:72:A:H4'	2.17	0.44
80:B2:105:A:H2'	80:B2:106:U:O4'	2.17	0.44
80:B2:273:G:H1	80:B2:283:U:H3	1.65	0.44
80:B2:413:U:H2'	80:B2:414:C:C6	2.52	0.44
80:B2:489:C:N4	80:B2:497:G:H22	2.15	0.44
80:B2:960:U:H2'	80:B2:961:U:C6	2.53	0.44
80:B2:1248:C:H2'	80:B2:1249:U:C6	2.52	0.44
80:B2:1617:U:H2'	80:B2:1618:C:C6	2.52	0.44
81:B5:29:C:H4'	81:B5:62:A:H4'	2.00	0.44
81:B5:1783:U:H2'	81:B5:1784:G:C8	2.53	0.44
81:B5:1942:U:H2'	81:B5:1943:C:O4'	2.18	0.44
81:B5:2209:U:H1'	81:B5:2210:G:H5"	1.99	0.44
81:B5:3362:A:C2	81:B5:3363:U:C2	3.06	0.44
84:CN:2129:C:H6	84:CN:2129:C:H5"	1.82	0.44
85:CP:26:ARG:HH21	85:CP:45:THR:HG23	1.82	0.44
5:A4:39:LEU:HD12	5:A4:43:ARG:NH2	2.33	0.44
9:AA:11:PRO:O	9:AA:15:GLN:HG3	2.18	0.44
10:AB:205:PHE:HA	10:AB:206:PRO:HD2	1.71	0.44
11:AC:165:VAL:HA	11:AC:201:ASN:O	2.17	0.44
15:AG:13:GLN:CD	80:B2:151:G:O2'	2.60	0.44
20:AL:91:LEU:HD23	20:AL:91:LEU:HA	1.79	0.44
23:AO:85:ALA:N	23:AO:119:THR:HG22	2.18	0.44
24:AP:12:PHE:CD1	44:BJ:85:LYS:CE	2.88	0.44
24:AP:82:ASN:CB	80:B2:1557:U:O4	2.66	0.44
28:AT:118:PRO:O	28:AT:119:LYS:HB2	2.18	0.44
29:AU:57:ARG:HB3	80:B2:1382:A:C4'	2.48	0.44
31:AW:103:ILE:HD13	31:AW:126:LEU:HB2	2.00	0.44
33:AY:47:VAL:O	33:AY:49:LYS:NZ	2.49	0.44
36:BB:13:HIS:HB2	81:B5:3044:G:O3'	2.18	0.44
38:BD:145:PHE:CE2	81:B5:2748:A:H4'	2.52	0.44
38:BD:266:ALA:CA	82:B7:1:G:H1'	2.47	0.44
42:BH:90:MET:HE2	42:BH:90:MET:HB3	1.82	0.44
43:BI:171:TRP:HE3	43:BI:178:ARG:HB3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BN:56:LYS:NZ	48:BN:145:ASP:OD2	2.50	0.44
51:BQ:176:ARG:HB2	81:B5:2763:U:H4'	2.00	0.44
52:BR:61:SER:CB	81:B5:3069:G:O2'	2.65	0.44
67:Bg:81:CYS:O	67:Bg:83:ASN:N	2.51	0.44
68:Bh:119:LYS:HA	68:Bh:119:LYS:HD2	1.38	0.44
70:Bj:29:VAL:HG11	83:B8:111:A:N7	2.33	0.44
71:Bk:14:LEU:HD23	71:Bk:17:ARG:HD3	1.99	0.44
71:Bk:18:ALA:C	71:Bk:20:VAL:N	2.74	0.44
79:By:59:ARG:HH11	79:CL:59:ARG:NH2	2.16	0.44
79:By:99:ILE:CA	79:CL:99:ILE:O	2.65	0.44
79:By:116:THR:H	79:CL:77:ILE:CB	2.31	0.44
79:By:152:ILE:HD13	79:CL:160:ARG:NH2	2.32	0.44
80:B2:443:C:H2'	80:B2:444:C:O4'	2.18	0.44
80:B2:823:G:O2'	80:B2:824:G:OP1	2.36	0.44
80:B2:1346:A:C8	80:B2:1370:U:O2	2.71	0.44
81:B5:422:A:C2	81:B5:2363:A:H4'	2.52	0.44
81:B5:499:G:H2'	81:B5:500:C:C6	2.52	0.44
84:CN:2176:G:H2'	84:CN:2177:G:O5'	2.18	0.44
9:AA:142:PRO:HG3	30:AV:32:VAL:HG13	1.99	0.44
9:AA:175:TYR:CD2	9:AA:199:PRO:HA	2.53	0.44
10:AB:157:GLN:OE1	80:B2:874:C:H5"	2.18	0.44
12:AD:105:MET:O	12:AD:106:LYS:C	2.61	0.44
13:AE:8:HIS:ND1	80:B2:449:C:H4'	2.33	0.44
23:AO:29:HIS:CB	23:AO:41:ARG:HA	2.48	0.44
23:AO:30:VAL:HG13	23:AO:39:ILE:O	2.18	0.44
27:AS:26:ILE:CD1	27:AS:30:TYR:HB2	2.48	0.44
27:AS:49:LYS:NZ	27:AS:79:TYR:O	2.51	0.44
28:AT:28:LEU:O	28:AT:29:GLU:HB2	2.17	0.44
31:AW:24:GLN:HA	31:AW:63:VAL:O	2.18	0.44
31:AW:107:SER:HB3	80:B2:802:G:H21	1.83	0.44
33:AY:29:HIS:HE2	33:AY:34:ASN:HA	1.83	0.44
34:AZ:56:THR:HA	34:AZ:103:ARG:HH21	1.83	0.44
35:BA:105:GLY:CA	35:BA:160:SER:HB3	2.47	0.44
36:BB:365:PHE:CE1	81:B5:3378:C:H1'	2.52	0.44
38:BD:257:GLU:O	38:BD:258:LYS:HD3	2.18	0.44
38:BD:269:SER:O	82:B7:22:A:C6	2.70	0.44
43:BI:4:ARG:HA	81:B5:2829:U:OP1	2.17	0.44
46:BL:181:GLY:CA	81:B5:2780:A:O2'	2.65	0.44
48:BN:186:GLY:HA2	81:B5:30:G:OP1	2.18	0.44
52:BR:90:PRO:HG2	52:BR:93:VAL:CG2	2.47	0.44
59:BY:114:ASP:OD2	83:B8:85:G:C6	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:Bd:85:ALA:O	64:Bd:87:ASN:N	2.51	0.44
68:Bh:86:ARG:HG3	68:Bh:90:ARG:NH2	2.32	0.44
74:Bn:2:ARG:CD	80:B2:1772:C:H3'	2.30	0.44
79:By:7:TYR:HE1	84:CN:2196:C:OP1	1.99	0.44
79:By:100:ILE:CG1	79:CL:98:GLU:CA	2.80	0.44
79:By:179:SER:HG	79:CL:38:ASP:HA	1.76	0.44
80:B2:186:C:H3'	80:B2:187:G:H8	1.83	0.44
80:B2:1171:A:H2'	80:B2:1172:G:C8	2.52	0.44
80:B2:1584:G:O2'	80:B2:1610:G:O6	2.29	0.44
80:B2:1645:G:C1'	81:B5:2259:A:N1	2.81	0.44
81:B5:892:U:H2'	81:B5:893:C:H5'	1.99	0.44
81:B5:1128:U:H2'	81:B5:1129:A:O4'	2.18	0.44
81:B5:1510:G:H8	81:B5:1510:G:O5'	2.00	0.44
81:B5:1523:U:H3'	81:B5:1607:U:O2	2.18	0.44
81:B5:1802:C:H2'	81:B5:1803:C:C6	2.53	0.44
81:B5:1819:U:O2'	81:B5:1820:U:OP1	2.26	0.44
81:B5:1864:A:H2'	81:B5:1865:A:C8	2.53	0.44
81:B5:2437:G:H2'	81:B5:2438:A:O4'	2.18	0.44
81:B5:2596:U:H2'	81:B5:2597:U:C6	2.53	0.44
1:A0:3:LYS:CA	80:B2:1792:G:H5"	2.41	0.44
1:A0:96:ALA:C	1:A0:98:PRO:HD2	2.42	0.44
7:A6:40:LYS:HA	7:A6:68:VAL:HG23	1.98	0.44
7:A6:238:ASP:OD2	7:A6:258:THR:OG1	2.32	0.44
8:A7:32:SER:HB2	81:B5:2706:G:O2'	2.13	0.44
9:AA:20:ALA:HB3	9:AA:22:THR:HG23	2.00	0.44
9:AA:172:LEU:O	9:AA:176:LEU:HG	2.17	0.44
10:AB:27:LYS:HE3	80:B2:896:U:OP1	2.18	0.44
11:AC:81:MET:HE1	11:AC:186:LYS:HB3	1.99	0.44
12:AD:4:LEU:HD12	80:B2:1514:U:C5	2.53	0.44
13:AE:180:LEU:HD22	13:AE:192:ILE:HG22	1.99	0.44
15:AG:2:LYS:HB3	15:AG:108:VAL:HG22	1.99	0.44
15:AG:98:ARG:HD3	15:AG:99:GLY:O	2.17	0.44
15:AG:188:ARG:CZ	80:B2:283:U:C5	3.01	0.44
21:AM:74:LEU:HD23	21:AM:74:LEU:HA	1.85	0.44
24:AP:83:MET:SD	24:AP:89:MET:HE1	2.58	0.44
26:AR:113:LEU:HG	26:AR:114:GLY:N	2.31	0.44
28:AT:64:HIS:CE1	28:AT:68:ARG:CZ	3.01	0.44
35:BA:85:GLY:HA3	81:B5:2554:A:C5	2.52	0.44
38:BD:260:PHE:CD2	82:B7:121:U:H5"	2.53	0.44
41:BG:153:ILE:HD13	41:BG:166:LEU:HB3	2.00	0.44
41:BG:190:VAL:O	41:BG:190:VAL:HG12	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BS:48:LEU:O	53:BS:49:HIS:ND1	2.48	0.44
58:BX:58:ASP:O	58:BX:62:VAL:HG23	2.18	0.44
62:Bb:22:LYS:HB2	62:Bb:23:LYS:H	1.61	0.44
63:Bc:24:THR:O	63:Bc:25:LEU:HD23	2.18	0.44
65:Be:33:ARG:HH22	81:B5:1408:G:P	2.40	0.44
66:Bf:23:ASN:ND2	81:B5:633:C:H1'	2.32	0.44
68:Bh:68:GLN:C	68:Bh:70:TYR:H	2.25	0.44
68:Bh:95:PHE:CB	81:B5:136:G:H5'	2.42	0.44
70:Bj:5:THR:HG21	81:B5:1845:G:H21	1.83	0.44
70:Bj:85:LYS:NZ	83:B8:86:U:O2	2.51	0.44
76:Bq:39:HIS:CD2	76:Bq:39:HIS:N	2.84	0.44
79:By:75:LEU:HD11	79:CL:107:TRP:C	2.42	0.44
79:By:122:ALA:O	79:CL:126:LYS:HB2	2.18	0.44
79:By:126:LYS:HE2	79:CL:126:LYS:CD	2.41	0.44
79:By:148:ASN:CB	79:CL:148:ASN:O	2.66	0.44
79:By:162:GLU:CG	79:CL:163:PHE:O	2.58	0.44
79:By:171:ILE:HG21	79:CL:45:ALA:CB	2.46	0.44
79:By:186:ALA:H	79:CL:26:ALA:HA	1.78	0.44
79:By:190:ARG:HB3	79:CL:22:ILE:HD12	1.73	0.44
79:By:206:GLY:O	79:CL:208:PHE:CA	2.55	0.44
80:B2:281:G:H2'	80:B2:282:C:C6	2.52	0.44
80:B2:296:U:H2'	80:B2:297:U:C6	2.52	0.44
80:B2:538:A:C8	80:B2:543:C:C4	3.03	0.44
80:B2:560:U:H2'	80:B2:561:G:H8	1.83	0.44
80:B2:1334:U:H2'	80:B2:1335:U:H6	1.83	0.44
80:B2:1536:G:C6	80:B2:1538:U:H1'	2.53	0.44
80:B2:1657:U:N3	89:B2:1968:OHX:N2	2.65	0.44
81:B5:439:C:H4'	81:B5:440:A:C5'	2.46	0.44
81:B5:1753:G:H2'	81:B5:1754:G:O5'	2.17	0.44
81:B5:2427:U:H2'	81:B5:2428:U:C6	2.53	0.44
81:B5:2792:A:C2	86:CW:76:A:N7	2.83	0.44
79:CL:129:ARG:HH22	86:CW:56:C:H4'	1.69	0.44
3:A2:58:GLU:HG2	14:AF:225:ARG:CZ	2.48	0.44
4:A3:6:VAL:HG23	4:A3:7:TRP:CZ3	2.53	0.44
7:A6:16:HIS:NE2	7:A6:35:SER:OG	2.45	0.44
9:AA:17:LEU:HD23	9:AA:172:LEU:HD13	1.99	0.44
9:AA:131:GLN:O	9:AA:135:GLU:HB2	2.17	0.44
9:AA:167:LYS:HB3	9:AA:168:HIS:H	1.50	0.44
11:AC:65:GLU:O	11:AC:68:ILE:HB	2.18	0.44
20:AL:21:ASN:HD22	20:AL:31:THR:HA	1.82	0.44
22:AN:34:ILE:HD11	22:AN:67:THR:HG21	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AV:1:MET:HE2	30:AV:13:VAL:HG22	1.99	0.44
34:AZ:39:ALA:HB1	34:AZ:70:LYS:C	2.43	0.44
35:BA:68:LYS:HD3	35:BA:70:ARG:HH21	1.83	0.44
36:BB:218:ILE:CG1	36:BB:276:THR:HG23	2.48	0.44
38:BD:181:PRO:HD2	38:BD:195:LEU:HD13	2.00	0.44
38:BD:272:TYR:CE1	82:B7:22:A:C4	3.06	0.44
41:BG:181:LYS:CD	83:B8:155:A:P	3.03	0.44
43:BI:36:LEU:N	43:BI:36:LEU:HD12	2.33	0.44
43:BI:196:PHE:CD2	81:B5:1042:U:H4'	2.53	0.44
48:BN:143:ARG:NH2	68:Bh:92:LEU:HD23	2.33	0.44
56:BV:71:LYS:HA	81:B5:2295:A:OP2	2.18	0.44
58:BX:125:ARG:HH22	81:B5:1610:G:P	2.41	0.44
62:Bb:29:TYR:O	81:B5:748:U:C4'	2.66	0.44
65:Be:55:ILE:CB	81:B5:947:G:H5'	2.43	0.44
79:By:34:THR:HG23	79:CL:36:LYS:HD2	2.00	0.44
79:By:47:LEU:HB2	79:CL:46:LYS:HD2	1.50	0.44
79:By:72:VAL:HG13	79:CL:111:ASP:HB3	0.52	0.44
80:B2:501:U:H2'	80:B2:502:U:C5	2.53	0.44
80:B2:542:A:O2'	80:B2:542:A:H8	2.01	0.44
80:B2:1002:G:N1	80:B2:1761:U:OP1	2.43	0.44
80:B2:1196:A:OP1	80:B2:1196:A:H3'	2.17	0.44
81:B5:238:A:H2'	81:B5:239:G:O4'	2.17	0.44
81:B5:702:C:O2	81:B5:788:C:H4'	2.18	0.44
81:B5:1151:U:H3'	81:B5:1152:G:C8	2.53	0.44
81:B5:1565:G:H1'	81:B5:1575:A:C2	2.52	0.44
81:B5:2540:A:O2'	81:B5:2541:U:H2'	2.18	0.44
81:B5:2726:C:O2	81:B5:2726:C:O5'	2.36	0.44
81:B5:3060:C:H1'	81:B5:3332:U:H1'	1.99	0.44
83:B8:47:C:H1'	83:B8:61:A:H2'	2.00	0.44
84:CN:2160:C:O2'	84:CN:2161:C:O2	2.36	0.44
2:A1:59:CYS:O	2:A1:61:THR:HG22	2.17	0.43
4:A3:33:LYS:HD3	4:A3:34:TYR:CE2	2.53	0.43
9:AA:57:LEU:HD23	9:AA:177:LEU:HD23	2.00	0.43
13:AE:196:VAL:N	13:AE:209:HIS:O	2.43	0.43
15:AG:132:ARG:HG2	15:AG:132:ARG:HH11	1.83	0.43
22:AN:26:PHE:HE2	22:AN:59:GLY:O	2.01	0.43
23:AO:129:LYS:NZ	89:B2:2013:OHX:N1	2.65	0.43
23:AO:136:ARG:NH2	80:B2:1786:G:OP2	2.51	0.43
25:AQ:75:VAL:HB	80:B2:1610:G:OP2	2.18	0.43
25:AQ:127:LYS:C	25:AQ:128:LYS:HG2	2.41	0.43
26:AR:5:ARG:CZ	80:B2:1402:G:OP2	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AR:45:ARG:HA	80:B2:1389:C:P	2.58	0.43
28:AT:65:ILE:HG12	28:AT:71:VAL:HG21	2.00	0.43
28:AT:79:LEU:HD11	80:B2:1481:C:N4	2.32	0.43
28:AT:138:GLN:HE21	28:AT:138:GLN:HB3	1.68	0.43
32:AX:79:ASN:HD22	32:AX:81:LYS:HB2	1.83	0.43
36:BB:95:THR:C	36:BB:97:ARG:H	2.26	0.43
36:BB:148:LEU:HD21	36:BB:196:ARG:HD3	1.98	0.43
36:BB:260:VAL:HB	81:B5:2988:C:H1'	2.00	0.43
38:BD:16:PHE:HZ	81:B5:2688:U:C4	2.31	0.43
38:BD:59:ASP:OD2	38:BD:81:HIS:CD2	2.71	0.43
38:BD:269:SER:OG	82:B7:1:G:C2	2.69	0.43
43:BI:174:THR:OG1	43:BI:175:ASN:N	2.48	0.43
51:BQ:125:ASP:OD1	51:BQ:125:ASP:N	2.49	0.43
51:BQ:158:HIS:H	51:BQ:186:VAL:CG1	2.28	0.43
51:BQ:176:ARG:NH2	61:Ba:46:ASP:OD1	2.51	0.43
52:BR:165:LYS:CD	80:B2:849:C:C2	2.78	0.43
59:BY:75:ARG:CZ	83:B8:72:A:H4'	2.48	0.43
63:Bc:40:LYS:HB3	63:Bc:101:LEU:HD11	1.99	0.43
63:Bc:96:GLY:C	63:Bc:98:SER:H	2.25	0.43
65:Be:123:LYS:O	65:Be:124:GLY:O	2.35	0.43
66:Bf:91:ALA:C	66:Bf:93:THR:N	2.76	0.43
79:By:14:VAL:HG12	79:CL:10:LEU:HB3	1.03	0.43
79:By:46:LYS:HA	79:CL:46:LYS:HD3	1.63	0.43
79:By:64:LEU:CG	79:CL:65:PRO:HD2	2.42	0.43
79:By:193:ILE:CG1	79:CL:212:VAL:HG11	2.37	0.43
79:By:223:ARG:NH2	79:CL:223:ARG:HD3	2.33	0.43
80:B2:1165:G:C6	80:B2:1166:A:C6	3.06	0.43
80:B2:1586:A:H1'	80:B2:1611:A:N6	2.32	0.43
80:B2:1747:G:H1'	81:B5:2303:A:O2'	2.18	0.43
81:B5:261:U:H2'	81:B5:262:U:C6	2.53	0.43
81:B5:625:G:H2'	81:B5:626:U:O4'	2.18	0.43
81:B5:1230:G:H2'	81:B5:1231:A:H62	1.82	0.43
81:B5:1817:G:O2'	81:B5:1818:U:P	2.76	0.43
81:B5:2358:A:H2'	81:B5:2359:C:O4'	2.18	0.43
81:B5:3287:U:H2'	81:B5:3288:G:H5'	2.00	0.43
79:CL:190:ARG:NH2	79:CL:228:SER:O	2.45	0.43
1:A0:60:PRO:C	1:A0:62:TYR:H	2.26	0.43
1:A0:92:ARG:HG2	80:B2:1796:C:P	2.58	0.43
4:A3:34:TYR:HE1	80:B2:1487:A:OP1	1.99	0.43
7:A6:159:ASN:ND2	7:A6:166:SER:O	2.51	0.43
8:A7:88:ARG:HG2	8:A7:91:THR:OG1	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AB:105:PHE:CE1	10:AB:213:ARG:HA	2.53	0.43
12:AD:97:SER:O	12:AD:98:ALA:C	2.60	0.43
12:AD:132:LYS:HB3	12:AD:189:MET:HG3	1.99	0.43
15:AG:53:SER:CA	80:B2:163:G:H4'	2.41	0.43
17:AI:176:SER:CB	80:B2:208:U:C5'	2.95	0.43
25:AQ:6:SER:HA	25:AQ:23:LYS:HA	2.00	0.43
25:AQ:136:SER:OG	80:B2:1587:A:OP1	2.32	0.43
26:AR:23:LYS:HB3	26:AR:34:LEU:HD11	1.99	0.43
29:AU:20:ILE:HD13	29:AU:22:ILE:HD13	1.99	0.43
31:AW:43:LYS:O	31:AW:43:LYS:HG3	2.18	0.43
31:AW:82:LYS:O	31:AW:83:ILE:HG22	2.18	0.43
35:BA:219:ILE:HD11	81:B5:2185:G:C4'	2.48	0.43
37:BC:89:ALA:O	37:BC:90:PHE:O	2.36	0.43
37:BC:177:ASP:O	37:BC:180:LYS:HB3	2.18	0.43
37:BC:220:ARG:HD2	81:B5:211:A:OP1	2.18	0.43
37:BC:338:LYS:O	37:BC:340:GLY:N	2.50	0.43
40:BF:30:ARG:NH2	81:B5:595:G:OP2	2.51	0.43
40:BF:141:TYR:O	40:BF:142:SER:C	2.61	0.43
42:BH:93:VAL:HG13	73:Bm:78:ILE:HD12	2.01	0.43
43:BI:61:SER:OG	81:B5:2854:U:OP1	2.36	0.43
44:BJ:8:PRO:HD2	44:BJ:10:ARG:HG2	1.99	0.43
46:BL:45:LYS:HB2	81:B5:241:G:H1'	1.98	0.43
46:BL:105:ASN:C	46:BL:105:ASN:OD1	2.61	0.43
47:BM:77:ARG:NH1	81:B5:562:C:OP2	2.49	0.43
49:BO:115[B]:LYS:HG2	81:B5:3178:A:C2	2.53	0.43
52:BR:28:GLU:O	52:BR:32:ILE:HG13	2.18	0.43
54:BT:129:LYS:HB2	81:B5:1098:A:P	2.57	0.43
60:BZ:92:PHE:O	60:BZ:93:LYS:C	2.61	0.43
60:BZ:135:ARG:HH11	60:BZ:135:ARG:CB	2.31	0.43
67:Bg:42:PRO:HG2	67:Bg:54:ILE:CG2	2.48	0.43
73:Bm:100:TYR:O	81:B5:2895:G:O2'	2.27	0.43
73:Bm:125:LYS:HD2	81:B5:2897:A:C5'	2.45	0.43
79:By:35:ALA:CB	84:CN:2149:C:C5'	2.50	0.43
79:By:42:GLU:O	79:CL:215:THR:CG2	2.63	0.43
79:By:63:SER:HB3	79:CL:159:GLY:O	2.17	0.43
79:By:161:ILE:HD11	79:CL:192:PHE:CE1	2.12	0.43
79:By:187:ASP:HB2	79:CL:186:ALA:HB3	1.69	0.43
79:By:199:HIS:CE1	79:CL:163:PHE:CZ	3.06	0.43
80:B2:187:G:C4'	80:B2:188:A:OP1	2.61	0.43
80:B2:604:A:OP2	89:B2:1990:OHX:N5	2.51	0.43
80:B2:981:U:C2'	80:B2:982:U:H5'	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:1142:A:H2'	80:B2:1143:A:C8	2.53	0.43
80:B2:1149:G:H5"	80:B2:1150:G:OP1	2.18	0.43
81:B5:278:U:O5'	81:B5:278:U:H6	2.00	0.43
81:B5:507:U:H2'	81:B5:508:U:C6	2.53	0.43
81:B5:736:A:C5	81:B5:737:G:H1'	2.52	0.43
81:B5:1226:G:O4'	81:B5:1288:U:C5'	2.66	0.43
81:B5:1313:G:H2'	81:B5:1314:C:C6	2.53	0.43
81:B5:1952:G:H1	81:B5:2094:C:N4	2.09	0.43
81:B5:2140:U:O2'	81:B5:2978:U:H5'	2.18	0.43
81:B5:3287:U:N3	81:B5:3288:G:C8	2.87	0.43
84:CN:2133:G:O6	86:CW:56:C:N3	2.52	0.43
84:CN:2161:C:H5	84:CN:2172:G:N1	2.16	0.43
5:A4:33:ARG:HG3	18:AJ:36:LEU:O	2.18	0.43
10:AB:116:LYS:HE2	80:B2:933:A:P	2.59	0.43
10:AB:138:PHE:CZ	80:B2:885:G:OP1	2.68	0.43
11:AC:140:ARG:HB3	11:AC:221:THR:HB	1.99	0.43
15:AG:83:CYS:HG	80:B2:162:A:H5"	1.79	0.43
15:AG:95:LYS:CE	80:B2:160:C:O3'	2.66	0.43
16:AH:86:GLN:CG	16:AH:87:ASP:H	2.31	0.43
17:AI:49:ARG:NH2	80:B2:398:G:H4'	2.32	0.43
18:AJ:31:ALA:HA	18:AJ:36:LEU:HD12	2.00	0.43
18:AJ:129:ILE:HG12	18:AJ:134:ILE:HD12	2.00	0.43
26:AR:17:ILE:HG12	26:AR:58:MET:HE2	2.01	0.43
27:AS:26:ILE:HD12	27:AS:26:ILE:C	2.43	0.43
27:AS:110:ARG:HH22	44:BJ:122:ILE:HG12	1.84	0.43
28:AT:9:VAL:CG1	28:AT:14:PHE:HB2	2.48	0.43
37:BC:145:ILE:HA	37:BC:146:PRO:HD3	1.87	0.43
38:BD:99:TYR:CD1	38:BD:199:ILE:HG12	2.54	0.43
41:BG:55:TYR:CE1	81:B5:1558:A:C5	3.07	0.43
41:BG:81:THR:OG1	41:BG:82:LEU:N	2.51	0.43
41:BG:185:ARG:HD2	83:B8:155:A:C5'	2.46	0.43
42:BH:13:PRO:HG2	42:BH:16:VAL:CG1	2.49	0.43
50:BP:4:TYR:CZ	50:BP:18:ARG:HG3	2.53	0.43
54:BT:80:VAL:HG11	54:BT:85:LEU:HD12	1.99	0.43
56:BV:33:ASN:ND2	56:BV:64:LYS:HB2	2.33	0.43
59:BY:120:GLN:OE1	59:BY:126:LEU:HD23	2.17	0.43
60:BZ:34:LYS:HA	60:BZ:34:LYS:HD2	1.67	0.43
60:BZ:129:TRP:O	60:BZ:132:SER:OG	2.36	0.43
61:Ba:49:HIS:N	61:Ba:50:PRO:HD3	2.33	0.43
63:Bc:68:TYR:HD1	63:Bc:69:TYR:N	2.15	0.43
64:Bd:19:ARG:HD3	64:Bd:35:GLU:HG3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:Be:67:SER:O	65:Be:68:PRO:C	2.60	0.43
73:Bm:127:LEU:HD23	73:Bm:127:LEU:HA	1.66	0.43
75:Bo:71:ARG:HG3	75:Bo:71:ARG:NH1	2.33	0.43
79:By:13:LYS:HB3	79:CL:10:LEU:CG	2.41	0.43
79:By:23:ASP:CA	79:CL:26:ALA:N	2.67	0.43
79:By:49:ILE:HG12	79:CL:47:LEU:C	2.43	0.43
79:By:80:GLY:HA2	79:CL:96:GLY:O	2.18	0.43
80:B2:886:U:H2'	80:B2:887:A:O4'	2.18	0.43
81:B5:174:C:H2'	81:B5:175:C:H6	1.84	0.43
81:B5:248:U:C3'	81:B5:249:U:H5'	2.48	0.43
81:B5:378:A:N7	81:B5:391:A:H2	2.16	0.43
81:B5:437:G:H5"	81:B5:438:A:OP2	2.18	0.43
81:B5:1093:A:H2	81:B5:1096:U:O2	2.01	0.43
81:B5:1225:A:H8	81:B5:1288:U:O4'	2.01	0.43
81:B5:3094:A:H2'	81:B5:3095:U:C6	2.54	0.43
81:B5:3350:C:H2'	81:B5:3351:U:C2	2.54	0.43
79:CL:46:LYS:NZ	79:CL:168:THR:O	2.52	0.43
84:CN:2165:U:O2	84:CN:2168:G:O6	2.37	0.43
85:CP:83:PHE:CD1	85:CP:110:GLN:HB3	2.54	0.43
86:CW:59:U:C4	86:CW:60:U:C4	3.06	0.43
1:A0:98:PRO:C	80:B2:1798:U:O4	2.61	0.43
7:A6:17:ASN:HD21	80:B2:1408:G:C4'	2.30	0.43
9:AA:182:LEU:HB3	9:AA:188:LEU:HD23	2.00	0.43
14:AF:87:CYS:SG	14:AF:92:ARG:HG3	2.59	0.43
14:AF:109:LYS:O	14:AF:113:ILE:HG13	2.17	0.43
17:AI:85:PRO:HG2	80:B2:328:A:O2'	2.19	0.43
18:AJ:143:ILE:HA	18:AJ:144:PRO:HD3	1.84	0.43
18:AJ:170:GLY:HA2	18:AJ:171:ARG:HH21	1.83	0.43
19:AK:33:GLU:OE1	19:AK:33:GLU:N	2.46	0.43
21:AM:29:LYS:HA	21:AM:32:LEU:HD12	2.01	0.43
22:AN:29:SER:C	22:AN:66:ILE:HD11	2.43	0.43
25:AQ:132:LYS:NZ	80:B2:1587:A:OP1	2.52	0.43
32:AX:4:GLY:O	32:AX:5:LYS:C	2.60	0.43
36:BB:228:GLY:HA3	81:B5:1887:A:O3'	2.18	0.43
37:BC:8:VAL:O	37:BC:16:THR:HB	2.18	0.43
37:BC:205:PRO:HB3	37:BC:247:PHE:CD2	2.53	0.43
42:BH:117:PHE:CE1	42:BH:165:CYS:HB3	2.53	0.43
44:BJ:95:ASN:HA	81:B5:2673:A:H5'	2.00	0.43
49:BO:8[B]:VAL:HG12	49:BO:117[B]:ARG:HB3	1.99	0.43
49:BO:10[B]:ASP:OD2	49:BO:37[B]:ARG:NH2	2.35	0.43
51:BQ:60:PRO:HG2	51:BQ:142:GLY:C	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BR:99:LEU:O	52:BR:103:ARG:HG3	2.18	0.43
56:BV:84:SER:HA	56:BV:94:TYR:HB3	2.00	0.43
58:BX:105:VAL:HG13	58:BX:130:TYR:CD2	2.53	0.43
59:BY:103:LYS:HD3	59:BY:103:LYS:HA	1.45	0.43
64:Bd:82:GLU:O	64:Bd:83:GLU:C	2.61	0.43
66:Bf:89:LEU:HD23	66:Bf:89:LEU:HA	1.76	0.43
67:Bg:94:LEU:HD23	67:Bg:94:LEU:HA	1.66	0.43
70:Bj:59:THR:CG2	83:B8:41:A:O2'	2.61	0.43
79:By:92:ASP:N	79:CL:73:ARG:HB3	2.33	0.43
79:By:190:ARG:NH2	79:CL:21:THR:CA	2.74	0.43
80:B2:273:G:H2'	80:B2:274:G:O4'	2.18	0.43
80:B2:477:A:N7	80:B2:538:A:N1	2.66	0.43
80:B2:560:U:H2'	80:B2:561:G:C8	2.54	0.43
80:B2:1002:G:C2'	80:B2:1003:A:H5'	2.48	0.43
80:B2:1497:U:OP2	89:B2:1909:OHX:N1	2.52	0.43
81:B5:32:U:O5'	81:B5:32:U:H6	2.00	0.43
81:B5:1614:C:H2'	81:B5:1615:C:C6	2.53	0.43
81:B5:2818:U:C6	81:B5:2818:U:C5'	2.95	0.43
81:B5:2836:C:O2	81:B5:2836:C:O4'	2.33	0.43
2:A1:51:GLN:CG	80:B2:870:C:O2'	2.66	0.43
3:A2:26:THR:O	3:A2:44:VAL:HG13	2.18	0.43
6:A5:131:PHE:CD2	80:B2:1253:U:OP1	2.70	0.43
7:A6:286:GLU:HA	7:A6:287:PRO:HD3	1.62	0.43
10:AB:87:ARG:HE	10:AB:87:ARG:HB3	1.49	0.43
15:AG:55:GLY:C	15:AG:63:MET:HE3	2.44	0.43
15:AG:188:ARG:HD2	80:B2:284:G:H8	1.76	0.43
18:AJ:149:ARG:CZ	80:B2:765:G:C4	3.01	0.43
19:AK:7:ASP:HB3	19:AK:37:THR:HG21	2.01	0.43
21:AM:63:VAL:HB	21:AM:64:SER:H	1.54	0.43
22:AN:28:LEU:HB3	22:AN:29:SER:H	1.67	0.43
22:AN:114:ARG:HA	22:AN:114:ARG:HD3	1.69	0.43
23:AO:125:SER:CB	80:B2:927:C:O4'	2.67	0.43
24:AP:69:GLU:OE1	89:AP:201:OHX:N4	2.51	0.43
25:AQ:11:GLY:C	25:AQ:12:LYS:HG2	2.43	0.43
32:AX:5:LYS:NZ	80:B2:614:C:OP2	2.47	0.43
33:AY:33:ALA:HB2	80:B2:533:U:H4'	2.01	0.43
33:AY:37:LYS:HZ1	80:B2:522:U:P	2.42	0.43
34:AZ:40:VAL:HA	34:AZ:75:LEU:HD11	2.01	0.43
36:BB:245:GLY:CA	81:B5:1889:G:O5'	2.67	0.43
38:BD:68:THR:CG2	38:BD:70:THR:H	2.31	0.43
38:BD:214:ASP:O	38:BD:215:ASP:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:162:LEU:HD23	48:BN:7:LEU:HD21	1.99	0.43
47:BM:14:LEU:H	47:BM:19:ARG:NH2	2.16	0.43
48:BN:73:ARG:HB2	48:BN:92:LEU:HD23	2.00	0.43
48:BN:153:ASP:OD1	48:BN:155:VAL:HG22	2.18	0.43
49:BO:10[A]:ASP:CG	49:BO:37[A]:ARG:HH21	2.21	0.43
56:BV:93:LEU:HD23	56:BV:93:LEU:H	1.83	0.43
59:BY:59:VAL:O	59:BY:64:LYS:HD2	2.18	0.43
60:BZ:53:VAL:HA	60:BZ:57:HIS:CD2	2.54	0.43
65:Be:9:ILE:HG12	65:Be:63:THR:HB	2.00	0.43
68:Bh:83:LYS:HA	83:B8:38:U:C5	2.53	0.43
79:By:12:GLU:HB3	79:CL:5:LYS:HA	1.46	0.43
79:By:22:ILE:HB	79:CL:22:ILE:C	2.43	0.43
79:By:26:ALA:CB	79:CL:26:ALA:HA	2.33	0.43
79:By:85:GLU:OE1	79:CL:85:GLU:HA	2.19	0.43
79:By:90:GLY:N	79:CL:90:GLY:O	2.41	0.43
79:By:219:GLY:HA3	79:CL:218:MET:CB	2.47	0.43
80:B2:72:A:O2'	80:B2:73:U:H5"	2.18	0.43
80:B2:924:A:O2'	80:B2:987:G:OP1	2.36	0.43
80:B2:1796:C:H4'	80:B2:1797:A:OP2	2.18	0.43
81:B5:242:C:H2'	81:B5:243:G:H8	1.83	0.43
81:B5:1152:G:H8	81:B5:1152:G:OP2	2.01	0.43
81:B5:1165:A:H2'	81:B5:1166:G:O4'	2.19	0.43
81:B5:1480:G:N2	81:B5:1872:C:C5	2.87	0.43
81:B5:1498:A:H2'	81:B5:1499:C:C6	2.54	0.43
81:B5:1753:G:C2'	81:B5:1754:G:O5'	2.66	0.43
81:B5:1758:G:H5"	81:B5:1759:C:OP2	2.18	0.43
81:B5:1764:U:H3'	81:B5:1765:U:C5'	2.47	0.43
81:B5:1895:A:O2'	81:B5:3053:G:H4'	2.18	0.43
1:A0:62:TYR:CZ	23:AO:114:ARG:HA	2.54	0.43
8:A7:110:TRP:HB3	12:AD:150:MET:CE	2.48	0.43
11:AC:227:PRO:HA	11:AC:230:TRP:CD1	2.54	0.43
12:AD:94:ARG:H	12:AD:94:ARG:HG3	1.51	0.43
14:AF:101:GLY:HA2	80:B2:1166:A:H5"	1.99	0.43
18:AJ:39:LYS:HG2	80:B2:592:A:OP1	2.19	0.43
18:AJ:173:ALA:HA	80:B2:511:A:H5'	1.99	0.43
18:AJ:175:ARG:HD2	18:AJ:176:ASN:N	2.34	0.43
20:AL:28:SER:OG	80:B2:839:U:C5'	2.64	0.43
25:AQ:143:ARG:HE	25:AQ:143:ARG:HB2	1.58	0.43
27:AS:56:LYS:HD3	27:AS:60:GLU:HG3	2.00	0.43
33:AY:52:LYS:C	33:AY:54:ALA:H	2.26	0.43
35:BA:116:VAL:CG1	35:BA:134:VAL:HG11	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BC:23:PRO:HD2	37:BC:26:PHE:CD2	2.54	0.43
37:BC:193:LYS:HB2	37:BC:193:LYS:HE3	1.66	0.43
38:BD:207:TYR:CE2	82:B7:33:U:C6	3.04	0.43
40:BF:94:LYS:HA	81:B5:1139:G:O3'	2.19	0.43
40:BF:224:ILE:HG21	82:B7:97:A:H4'	2.00	0.43
42:BH:17:THR:O	42:BH:17:THR:OG1	2.30	0.43
42:BH:70:THR:HB	81:B5:3112:G:HO2'	1.84	0.43
46:BL:64:LYS:HD2	61:Ba:66:ALA:HB1	1.99	0.43
48:BN:179:LYS:O	81:B5:287:G:H5'	2.19	0.43
49:BO:18[A]:ARG:NH1	81:B5:1315:U:OP1	2.49	0.43
61:Ba:132:LYS:O	61:Ba:136:GLU:HG3	2.18	0.43
63:Bc:99:ASP:O	63:Bc:100:ILE:C	2.61	0.43
64:Bd:55:LEU:O	64:Bd:55:LEU:HD22	2.19	0.43
65:Be:99:ASN:O	81:B5:1389:G:H5'	2.19	0.43
68:Bh:83:LYS:O	68:Bh:84:LYS:C	2.61	0.43
79:By:15:ASP:CA	79:CL:7:TYR:CZ	2.67	0.43
79:By:34:THR:CG2	79:CL:36:LYS:HD2	2.47	0.43
79:By:62:VAL:O	79:CL:62:VAL:CG1	2.44	0.43
79:By:63:SER:CA	79:CL:62:VAL:HG13	2.48	0.43
79:By:78:ALA:O	79:CL:77:ILE:CG2	2.43	0.43
79:By:83:ILE:N	79:CL:94:VAL:HG12	2.31	0.43
79:By:183:GLU:HB3	79:CL:184:LYS:H	1.84	0.43
80:B2:88:U:H4'	80:B2:171:A:O4'	2.19	0.43
80:B2:517:U:H3	80:B2:535:A:H61	1.65	0.43
80:B2:729:G:H2'	80:B2:729:G:N3	2.33	0.43
80:B2:1487:A:H2'	80:B2:1488:G:H8	1.83	0.43
80:B2:1600:A:O2'	80:B2:1602:C:N4	2.52	0.43
80:B2:1780:G:C2	81:B5:2263:C:O4'	2.72	0.43
81:B5:48:A:O4'	81:B5:50:U:C6	2.71	0.43
81:B5:1563:C:N3	81:B5:1576:G:O6	2.51	0.43
81:B5:2101:C:HO2'	81:B5:2102:U:P	2.39	0.43
81:B5:2900:A:N3	81:B5:3025:C:O2'	2.50	0.43
83:B8:121:U:O2'	83:B8:122:U:H5'	2.19	0.43
79:CL:193:ILE:HG23	79:CL:209:LEU:HD11	2.00	0.43
7:A6:201:THR:CB	7:A6:242:SER:HA	2.49	0.43
7:A6:282:SER:H	7:A6:285:ALA:HB3	1.84	0.43
8:A7:114:LYS:HB2	8:A7:114:LYS:HE3	1.84	0.43
9:AA:69:ASN:HB3	9:AA:71:GLU:OE1	2.18	0.43
9:AA:200:ASP:HA	9:AA:203:PHE:CE2	2.54	0.43
11:AC:203:LYS:HD2	80:B2:14:C:H5"	2.00	0.43
12:AD:137:VAL:HG22	12:AD:151:LYS:HG3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AE:19:LEU:HD11	13:AE:108:ARG:HD2	1.99	0.43
13:AE:61:VAL:HG12	13:AE:65:LEU:HD12	2.00	0.43
15:AG:2:LYS:NZ	80:B2:153:G:O3'	2.46	0.43
15:AG:63:MET:HA	15:AG:98:ARG:O	2.18	0.43
17:AI:48:THR:HG21	17:AI:54:LYS:HE3	2.00	0.43
29:AU:20:ILE:N	29:AU:95:ALA:O	2.50	0.43
32:AX:40:SER:O	32:AX:41:SER:O	2.36	0.43
35:BA:70:ARG:HA	81:B5:1650:G:O3'	2.18	0.43
38:BD:91:GLY:HA2	82:B7:48:U:P	2.59	0.43
43:BI:171:TRP:O	43:BI:174:THR:CG2	2.66	0.43
44:BJ:171:VAL:HG13	44:BJ:172:LEU:N	2.31	0.43
49:BO:15[B]:LEU:HD21	49:BO:125[B]:ARG:HG3	2.00	0.43
50:BP:52:LEU:HD13	50:BP:88:VAL:HG11	2.00	0.43
52:BR:104:ARG:HD3	81:B5:1950:U:OP1	2.18	0.43
53:BS:104:GLU:O	53:BS:104:GLU:HG3	2.14	0.43
60:BZ:16:GLY:CA	81:B5:1638:A:OP2	2.66	0.43
67:Bg:16:ARG:HH11	67:Bg:16:ARG:CG	2.29	0.43
70:Bj:14:LYS:HE2	72:Bl:51:ILE:HG13	2.01	0.43
75:Bo:45:ARG:NH1	81:B5:279:U:O4	2.51	0.43
75:Bo:73:GLU:HG3	75:Bo:80:ARG:HG2	2.01	0.43
79:By:30:LYS:CG	79:CL:31:GLU:CA	2.15	0.43
79:By:66:HIS:N	79:CL:67:GLY:O	2.23	0.43
79:By:75:LEU:HD13	79:CL:107:TRP:C	2.41	0.43
79:By:116:THR:CG2	79:CL:119:VAL:HG21	2.41	0.43
79:By:196:LEU:HG	79:CL:196:LEU:HG	1.50	0.43
79:By:212:VAL:CB	79:CL:212:VAL:HG12	2.26	0.43
79:By:222:VAL:HG23	79:CL:220:PRO:N	2.32	0.43
80:B2:51:A:H2	85:CP:243:PHE:HB2	1.53	0.43
80:B2:473:A:C2'	80:B2:474:A:H5'	2.49	0.43
80:B2:719:U:O2	80:B2:719:U:H2'	2.18	0.43
80:B2:839:U:O4	80:B2:840:U:C4	2.71	0.43
80:B2:1720:G:O6	89:B2:1960:OHX:N5	2.52	0.43
81:B5:342:A:C2	81:B5:368:G:C8	3.06	0.43
81:B5:911:C:O2	81:B5:917:A:N1	2.51	0.43
81:B5:1237:G:C5	81:B5:1238:C:C5	3.06	0.43
81:B5:1390:A:N3	81:B5:1390:A:H5'	2.33	0.43
81:B5:1715:A:H4'	81:B5:1716:U:OP1	2.18	0.43
81:B5:2147:A:H2'	81:B5:2148:U:O4'	2.19	0.43
81:B5:2802:A:C1'	86:CW:75:C:N4	2.72	0.43
81:B5:3238:G:H8	81:B5:3238:G:H5"	1.84	0.43
1:A0:87:ARG:HD3	80:B2:1796:C:OP1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A5:109:ASP:HB2	6:A5:113:LYS:HG2	2.00	0.43
7:A6:38:ARG:HG2	7:A6:67:ILE:CG2	2.48	0.43
7:A6:198:ASN:O	7:A6:215:GLY:HA3	2.19	0.43
8:A7:51:ARG:CZ	81:B5:2677:G:N9	2.77	0.43
12:AD:127:MET:HG2	12:AD:154:ASP:OD2	2.19	0.43
13:AE:147:ILE:HD13	13:AE:169:ILE:HG13	2.00	0.43
14:AF:144:GLU:HB2	14:AF:160:VAL:O	2.19	0.43
20:AL:20:PHE:CD2	80:B2:211:U:H5"	2.54	0.43
23:AO:46:MET:CG	80:B2:899:G:O5'	2.65	0.43
23:AO:122:PRO:CA	80:B2:887:A:C1'	2.97	0.43
25:AQ:9:THR:OG1	25:AQ:20:ALA:HB3	2.19	0.43
29:AU:85:ARG:NH2	80:B2:1334:U:O2'	2.51	0.43
35:BA:250:GLN:HG2	35:BA:251:LYS:H	1.84	0.43
36:BB:186:GLY:O	36:BB:190:GLU:HB2	2.19	0.43
46:BL:59:ARG:HG3	46:BL:59:ARG:O	2.18	0.43
51:BQ:107:THR:HB	81:B5:676:G:O5'	2.18	0.43
54:BT:17:ARG:HH11	54:BT:17:ARG:CG	2.31	0.43
56:BV:120:LYS:H	56:BV:137:VAL:CG2	2.30	0.43
57:BW:61:LYS:HE3	81:B5:3369:G:OP2	2.18	0.43
57:BW:125:ALA:C	57:BW:127:LYS:H	2.26	0.43
61:Ba:34:MET:HB2	81:B5:96:G:P	2.58	0.43
63:Bc:9:SER:OG	63:Bc:12:GLN:HB3	2.18	0.43
69:Bi:55:ARG:O	69:Bi:58:ILE:HD13	2.18	0.43
79:By:22:ILE:CD1	79:CL:22:ILE:HG13	2.49	0.43
79:By:75:LEU:CD1	79:CL:108:MET:N	2.82	0.43
79:By:122:ALA:O	79:CL:126:LYS:HG3	2.19	0.43
79:By:142:ALA:CB	79:CL:162:GLU:OE1	2.66	0.43
79:By:162:GLU:HG2	79:CL:164:ARG:HB3	1.91	0.43
79:By:177:LYS:CB	79:CL:177:LYS:CD	2.66	0.43
79:By:201:PRO:HD3	79:CL:58:VAL:CG2	2.31	0.43
80:B2:237:C:C4'	80:B2:238:U:H5'	2.49	0.43
80:B2:498:G:H2'	80:B2:499:U:C4	2.54	0.43
80:B2:712:G:C8	80:B2:712:G:H3'	2.53	0.43
80:B2:1321:A:H4'	80:B2:1322:A:O5'	2.19	0.43
80:B2:1402:G:H2'	80:B2:1403:C:C6	2.54	0.43
80:B2:1535:U:H6	80:B2:1535:U:H2'	1.60	0.43
80:B2:1681:A:H2	80:B2:1720:G:H21	1.64	0.43
81:B5:123:A:H5'	81:B5:124:U:OP2	2.18	0.43
81:B5:492:U:C2'	81:B5:493:G:H5'	2.49	0.43
81:B5:1262:G:H3'	81:B5:1262:G:C8	2.53	0.43
81:B5:1763:U:H3'	81:B5:1764:U:C5	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2192:C:H2'	81:B5:2193:U:O4'	2.18	0.43
81:B5:2796:G:H5"	81:B5:2798:C:O4'	2.19	0.43
81:B5:2802:A:N9	86:CW:75:C:N4	2.66	0.43
82:B7:11:A:O2'	82:B7:13:A:H2'	2.19	0.43
82:B7:106:U:H2'	82:B7:107:C:O4'	2.19	0.43
85:CP:131:LYS:HD2	90:CP:401:GCP:N2	2.29	0.43
2:A1:66:PRO:HB2	80:B2:871:G:H4'	2.00	0.43
4:A3:19:ARG:HD2	4:A3:32:ARG:HD2	1.99	0.43
7:A6:195:HIS:HD2	7:A6:199:ILE:HD13	1.81	0.43
8:A7:100:THR:O	80:B2:577:G:O6	2.36	0.43
9:AA:88:LYS:HE3	26:AR:82:ASP:OD2	2.19	0.43
10:AB:70:LEU:HD12	10:AB:82:ARG:O	2.18	0.43
12:AD:134:CYS:N	12:AD:157:LEU:HD11	2.34	0.43
15:AG:69:LEU:HD12	15:AG:69:LEU:HA	1.82	0.43
19:AK:24:LYS:HB3	19:AK:24:LYS:HE2	1.74	0.43
21:AM:24:ILE:C	21:AM:26:ASP:H	2.27	0.43
21:AM:54:ARG:C	21:AM:56:GLU:H	2.21	0.43
22:AN:67:THR:C	22:AN:69:ASN:H	2.24	0.43
23:AO:38:THR:CG2	80:B2:895:G:H2'	2.29	0.43
26:AR:34:LEU:O	26:AR:38:ILE:HG22	2.18	0.43
26:AR:66:VAL:O	26:AR:69:ILE:HG12	2.19	0.43
27:AS:143:ARG:HB3	80:B2:1461:C:OP1	2.18	0.43
32:AX:29:TYR:CZ	32:AX:33:LEU:HD12	2.54	0.43
32:AX:106:GLY:O	80:B2:599:A:H4'	2.19	0.43
34:AZ:70:LYS:HD3	34:AZ:70:LYS:HA	1.69	0.43
35:BA:15:ILE:CD1	81:B5:822:G:C1'	2.97	0.43
35:BA:208:ASP:CG	81:B5:912:G:N1	2.64	0.43
38:BD:113:LEU:HD12	38:BD:113:LEU:HA	1.68	0.43
39:BE:26:ARG:O	81:B5:502:U:H4'	2.19	0.43
50:BP:30:ARG:HD3	50:BP:30:ARG:C	2.44	0.43
51:BQ:99:THR:HB	51:BQ:100:THR:H	1.55	0.43
55:BU:36:TYR:O	55:BU:40:HIS:HD2	2.01	0.43
58:BX:133:LEU:HD23	58:BX:133:LEU:HA	1.90	0.43
60:BZ:135:ARG:HH11	60:BZ:135:ARG:CG	2.32	0.43
67:Bg:22:VAL:HG12	81:B5:1668:G:H4'	2.00	0.43
76:Bq:197:PHE:HB3	76:Bq:199:SER:HA	1.99	0.43
79:By:5:LYS:HA	79:By:8:ARG:HE	1.84	0.43
79:By:26:ALA:CB	79:CL:27:HIS:C	2.89	0.43
79:By:44:HIS:ND1	84:CN:2197:A:C2	2.74	0.43
79:By:81:GLU:CD	79:CL:80:GLY:O	2.58	0.43
79:By:100:ILE:H	79:CL:98:GLU:C	2.24	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:107:TRP:H	79:CL:105:ASP:H	1.66	0.43
79:By:161:ILE:HB	79:CL:173:ALA:HB2	1.99	0.43
79:By:182:PRO:C	79:CL:26:ALA:O	2.61	0.43
80:B2:609:U:H4'	80:B2:610:G:O5'	2.18	0.43
80:B2:685:A:O2'	80:B2:686:C:H5'	2.19	0.43
80:B2:1491:U:H5"	80:B2:1491:U:O2	2.19	0.43
80:B2:1781:A:H2'	80:B2:1782:A:O4'	2.18	0.43
81:B5:237:G:C2	81:B5:238:A:C8	3.06	0.43
81:B5:726:G:H1'	81:B5:744:A:N6	2.33	0.43
81:B5:1237:G:C6	81:B5:1238:C:C4	3.07	0.43
81:B5:1239:C:C5'	81:B5:1239:C:C6	3.02	0.43
81:B5:2213:A:H61	81:B5:2429:G:H1'	1.84	0.43
81:B5:2406:C:H2'	81:B5:2407:C:C6	2.53	0.43
81:B5:2442:G:N2	81:B5:2506:U:H3	2.17	0.43
81:B5:2585:G:N3	81:B5:2585:G:H2'	2.33	0.43
81:B5:2882:U:H2'	81:B5:2883:U:C6	2.54	0.43
81:B5:3164:C:O2'	81:B5:3165:A:P	2.77	0.43
83:B8:157:U:O2'	83:B8:158:U:H5'	2.19	0.43
1:A0:61:GLU:O	1:A0:62:TYR:HB3	2.18	0.43
1:A0:87:ARG:NE	80:B2:1797:A:C6	2.87	0.43
3:A2:32:PHE:N	3:A2:32:PHE:CD1	2.87	0.43
4:A3:34:TYR:CE1	29:AU:63:LEU:HD22	2.53	0.43
6:A5:144:CYS:CB	6:A5:147:VAL:HG13	2.49	0.43
9:AA:64:ILE:HG12	9:AA:122:ILE:HD11	2.01	0.43
10:AB:97:LEU:HD22	10:AB:97:LEU:HA	1.65	0.43
10:AB:116:LYS:HD3	10:AB:117:TRP:CZ3	2.53	0.43
10:AB:146:GLN:CB	10:AB:149:GLN:HE22	2.32	0.43
13:AE:131:LEU:HD13	13:AE:135:GLY:HA2	2.01	0.43
14:AF:45:LYS:HD3	14:AF:45:LYS:HA	1.45	0.43
16:AH:131:PHE:CD1	16:AH:132:PRO:N	2.87	0.43
22:AN:46:THR:HG23	22:AN:49:GLN:OE1	2.17	0.43
23:AO:38:THR:O	23:AO:39:ILE:HG23	2.19	0.43
27:AS:90:ASN:O	27:AS:91:ASP:C	2.61	0.43
27:AS:134:ARG:CG	80:B2:1545:A:P	3.07	0.43
28:AT:89:ARG:HD2	80:B2:1601:G:C5	2.52	0.43
29:AU:54:GLY:C	80:B2:1344:A:O2'	2.62	0.43
32:AX:69:ARG:NH1	32:AX:116:ASP:OD2	2.52	0.43
34:AZ:75:LEU:H	34:AZ:75:LEU:HG	1.46	0.43
34:AZ:77:ARG:HH22	80:B2:1533:C:H6	1.67	0.43
35:BA:15:ILE:HD12	35:BA:15:ILE:HA	1.66	0.43
35:BA:199:THR:HG21	81:B5:914:A:N7	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BB:275:ARG:NH1	81:B5:3045:G:O3'	2.52	0.43
37:BC:141:ARG:NH1	81:B5:1385:C:OP1	2.51	0.43
41:BG:134:TYR:CD1	41:BG:190:VAL:HG11	2.54	0.43
44:BJ:13:LYS:CE	44:BJ:132:ASN:HD21	2.32	0.43
44:BJ:21:ILE:HG13	44:BJ:37:LEU:HD11	2.01	0.43
44:BJ:96:PHE:CD2	44:BJ:160:VAL:HG23	2.54	0.43
47:BM:115:PHE:O	47:BM:119:GLN:HG3	2.19	0.43
49:BO:106[A]:GLU:H	49:BO:106[A]:GLU:HG2	1.57	0.43
50:BP:137:ASN:HB3	81:B5:2356:A:O2'	2.18	0.43
54:BT:101:CYS:HB3	81:B5:990:U:C1'	2.49	0.43
61:Ba:10:LYS:HE3	81:B5:1375:G:O6	2.19	0.43
64:Bd:26:LYS:NZ	81:B5:1456:A:N7	2.64	0.43
68:Bh:6:ALA:O	68:Bh:10:ARG:HG3	2.18	0.43
68:Bh:94:LYS:O	68:Bh:98:SER:HB2	2.19	0.43
76:Bq:186:THR:HG22	81:B5:1259:A:N7	2.33	0.43
79:By:114:VAL:HA	79:CL:136:LEU:O	2.18	0.43
80:B2:480:G:H22	80:B2:509:G:H1'	1.84	0.43
80:B2:542:A:H8	80:B2:543:C:H2'	1.84	0.43
80:B2:763:G:C6	80:B2:764:U:C4	3.07	0.43
80:B2:1710:U:H2'	80:B2:1711:C:C5	2.54	0.43
81:B5:178:U:H2'	81:B5:179:C:O4'	2.18	0.43
81:B5:243:G:H2'	81:B5:244:G:H8	1.83	0.43
81:B5:1597:C:H5'	81:B5:1696:A:H1'	2.01	0.43
81:B5:2257:C:O2'	81:B5:2258:U:OP1	2.34	0.43
81:B5:2436:U:C2'	81:B5:2437:G:H5"	2.48	0.43
81:B5:2957:G:H5'	81:B5:2957:G:C8	2.45	0.43
81:B5:3027:A:H2'	81:B5:3028:G:O4'	2.19	0.43
10:AB:116:LYS:CA	80:B2:931:C:H4'	2.49	0.42
11:AC:61:LEU:HA	11:AC:62:PRO:HD2	1.80	0.42
13:AE:95:THR:HG22	33:AY:16:PRO:HG2	2.00	0.42
15:AG:149:LYS:CD	80:B2:141:U:OP2	2.65	0.42
17:AI:73:SER:O	80:B2:257:A:C4'	2.67	0.42
20:AL:3:THR:CG2	20:AL:82:ARG:HH21	2.32	0.42
20:AL:127:GLN:HG3	20:AL:137:PHE:CZ	2.54	0.42
21:AM:129:GLU:O	21:AM:133:LEU:HD13	2.18	0.42
24:AP:78:THR:OG1	24:AP:79:HIS:N	2.52	0.42
25:AQ:73:GLY:HA3	80:B2:1608:U:O3'	2.19	0.42
29:AU:31:VAL:O	29:AU:35:GLU:HB2	2.18	0.42
29:AU:54:GLY:N	80:B2:1344:A:O2'	2.52	0.42
32:AX:78:LYS:HA	80:B2:434:G:OP1	2.19	0.42
35:BA:204:MET:HE2	35:BA:204:MET:HB2	1.79	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BD:211:LEU:HD23	38:BD:211:LEU:HA	1.71	0.42
38:BD:277:LEU:N	82:B7:62:U:OP1	2.34	0.42
38:BD:279:LYS:HD3	38:BD:282:ARG:CZ	2.48	0.42
40:BF:137:GLY:HA3	40:BF:236:ILE:HB	2.01	0.42
40:BF:148:VAL:HG12	40:BF:181:ILE:HD11	2.01	0.42
41:BG:50:VAL:HG22	41:BG:52:TRP:CE2	2.54	0.42
42:BH:87:LYS:NZ	42:BH:191:LEU:HD21	2.34	0.42
46:BL:166:ALA:HB1	61:Ba:147:LEU:HD21	2.01	0.42
51:BQ:176:ARG:HA	51:BQ:182:LYS:HB3	2.00	0.42
52:BR:5:ARG:CZ	52:BR:5:ARG:HB2	2.49	0.42
57:BW:63:ILE:HB	57:BW:64:THR:H	1.52	0.42
57:BW:97:LYS:O	57:BW:100:VAL:HG23	2.18	0.42
63:Bc:77:LEU:HD12	63:Bc:77:LEU:O	2.19	0.42
65:Be:6:HIS:HA	65:Be:7:PRO:HD2	1.85	0.42
67:Bg:67:LYS:HA	67:Bg:70:LYS:HE3	2.01	0.42
79:By:13:LYS:HG3	79:CL:6:ARG:HA	2.01	0.42
79:By:29:VAL:HG21	79:CL:216:THR:CG2	2.49	0.42
79:By:54:SER:OG	79:CL:53:ARG:HA	2.19	0.42
79:By:66:HIS:CA	79:CL:66:HIS:CB	2.86	0.42
79:By:97:GLU:O	79:CL:98:GLU:HB3	1.78	0.42
79:By:146:GLY:CA	79:CL:145:VAL:HA	2.39	0.42
79:By:149:ILE:HB	79:CL:149:ILE:HD11	2.00	0.42
79:By:162:GLU:CD	79:CL:162:GLU:HG2	2.40	0.42
79:By:179:SER:HG	79:CL:37:PHE:C	2.24	0.42
79:By:224:ILE:HD13	79:CL:214:VAL:CG2	2.48	0.42
80:B2:12:U:H2'	80:B2:13:C:C6	2.54	0.42
80:B2:479:C:O2	80:B2:510:G:N2	2.52	0.42
80:B2:577:G:C8	80:B2:577:G:C3'	3.01	0.42
80:B2:978:A:H2'	80:B2:979:A:O4'	2.19	0.42
89:B2:2016:OHX:N2	89:B2:2035:OHX:N4	2.67	0.42
81:B5:735:A:H5"	81:B5:735:A:H8	1.84	0.42
81:B5:958:C:OP1	81:B5:2799:A:H3'	2.19	0.42
81:B5:1084:A:H2'	81:B5:1085:A:H5"	2.00	0.42
81:B5:1307:G:H1'	81:B5:1308:A:C8	2.54	0.42
81:B5:1620:U:H2'	81:B5:1621:A:C8	2.54	0.42
81:B5:1638:A:H2	81:B5:1736:G:N3	2.16	0.42
81:B5:1770:G:H5'	81:B5:1771:C:OP2	2.18	0.42
81:B5:2561:A:O2'	81:B5:2562:A:H8	2.02	0.42
79:CL:5:LYS:HB3	84:CN:2151:U:OP1	2.19	0.42
2:A1:61:THR:HG23	2:A1:62:ILE:O	2.19	0.42
3:A2:55:VAL:HG11	14:AF:143:ARG:HD3	1.99	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
89:A3:102:OHX:N2	89:B2:1940:OHX:N1	2.67	0.42
9:AA:35:PRO:HG3	30:AV:87:ARG:HH21	1.84	0.42
9:AA:185:ARG:CA	30:AV:44:ARG:HA	2.49	0.42
11:AC:67:GLN:O	11:AC:71:THR:HG23	2.19	0.42
11:AC:111:VAL:HG21	11:AC:218:ILE:HD13	2.01	0.42
14:AF:29:ILE:HG21	25:AQ:57:LEU:HD11	2.00	0.42
14:AF:43:PHE:CZ	14:AF:90:ILE:HG21	2.54	0.42
16:AH:74:GLN:O	16:AH:78:THR:HG23	2.19	0.42
20:AL:6:THR:OG1	20:AL:7:VAL:N	2.52	0.42
20:AL:57:LYS:HB2	20:AL:110:HIS:CE1	2.54	0.42
20:AL:65:SER:HB3	80:B2:114:C:O2	2.20	0.42
21:AM:125:ASN:O	21:AM:126:TRP:CD1	2.72	0.42
21:AM:129:GLU:HA	21:AM:133:LEU:HD22	2.00	0.42
24:AP:57:MET:O	24:AP:60:LEU:HB3	2.19	0.42
24:AP:108:ARG:HD2	24:AP:110:GLU:OE2	2.19	0.42
25:AQ:18:ALA:CB	25:AQ:69:VAL:HG13	2.46	0.42
25:AQ:27:GLY:HA2	25:AQ:63:ILE:O	2.19	0.42
28:AT:99:SER:N	80:B2:1504:G:OP1	2.51	0.42
30:AV:3:ASN:O	30:AV:4:ASP:C	2.62	0.42
31:AW:2:THR:HG21	80:B2:966:A:O2'	2.18	0.42
34:AZ:71:ILE:HG22	34:AZ:75:LEU:HD12	2.02	0.42
35:BA:129:ALA:O	35:BA:130:SER:C	2.62	0.42
35:BA:234:LYS:HD2	81:B5:2163:C:OP1	2.18	0.42
37:BC:52:VAL:HG13	37:BC:53:SER:O	2.19	0.42
37:BC:141:ARG:NH1	37:BC:180:LYS:HD3	2.33	0.42
38:BD:16:PHE:CD1	81:B5:2688:U:C2	3.07	0.42
40:BF:140:SER:O	40:BF:144:ILE:HG13	2.18	0.42
40:BF:185:ILE:O	40:BF:189:ILE:HG22	2.19	0.42
43:BI:81:GLY:C	43:BI:83:ASP:N	2.77	0.42
44:BJ:116:TYR:O	44:BJ:117:ASP:C	2.62	0.42
46:BL:6:ASN:HB2	61:Ba:48:TYR:CE1	2.54	0.42
49:BO:127[B]:LEU:HD11	53:BS:168:PRO:HG3	2.00	0.42
52:BR:110:ARG:O	52:BR:110:ARG:HG2	2.19	0.42
55:BU:36:TYR:O	55:BU:40:HIS:CD2	2.72	0.42
60:BZ:61:LYS:O	60:BZ:65:ARG:HG2	2.19	0.42
60:BZ:121:ARG:HH11	60:BZ:121:ARG:HG3	1.85	0.42
61:Ba:14:HIS:C	61:Ba:15:VAL:O	2.55	0.42
66:Bf:89:LEU:HA	66:Bf:90:PRO:HD3	1.87	0.42
70:Bj:15:SER:HG	81:B5:817:A:H8	1.65	0.42
79:By:78:ALA:CB	79:CL:76:ALA:HB3	2.49	0.42
79:By:78:ALA:CB	79:CL:94:VAL:CB	2.96	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:112:ALA:CB	79:CL:136:LEU:CD2	2.85	0.42
79:By:154:ARG:NH1	79:CL:154:ARG:HG2	2.34	0.42
79:By:154:ARG:C	79:CL:156:ILE:HG22	2.44	0.42
80:B2:538:A:H8	80:B2:543:C:N4	2.16	0.42
80:B2:781:U:O2'	80:B2:782:U:H6	2.02	0.42
80:B2:839:U:C2'	80:B2:840:U:H5'	2.47	0.42
80:B2:1150:G:O2'	80:B2:1151:A:OP2	2.33	0.42
89:B2:1986:OHX:N4	89:B2:2065:OHX:N6	2.67	0.42
81:B5:83:U:H2'	81:B5:84:U:O4'	2.18	0.42
81:B5:630:A:H2'	81:B5:631:U:C6	2.54	0.42
81:B5:999:G:C6	81:B5:1000:C:N4	2.87	0.42
81:B5:1014:U:H2'	81:B5:1015:U:H5"	2.00	0.42
81:B5:1471:U:H2'	81:B5:1472:U:C6	2.54	0.42
81:B5:1525:G:C6	81:B5:1526:U:O4	2.72	0.42
81:B5:1661:G:H2'	81:B5:1662:G:C8	2.53	0.42
81:B5:1668:G:H2'	81:B5:1669:C:O4'	2.19	0.42
81:B5:1912:U:N3	81:B5:2122:G:OP2	2.46	0.42
81:B5:1940:G:N2	81:B5:3362:A:H8	2.17	0.42
81:B5:2289:U:H2'	81:B5:2290:C:C6	2.55	0.42
81:B5:3174:A:H2'	81:B5:3175:U:H5'	2.01	0.42
1:A0:70:LYS:HZ1	80:B2:931:C:P	2.39	0.42
7:A6:98:GLU:HG3	7:A6:99:THR:O	2.19	0.42
7:A6:266:ASP:HA	7:A6:267:PRO:HA	1.89	0.42
12:AD:61:GLU:O	12:AD:63:GLY:N	2.52	0.42
12:AD:151:LYS:HD2	80:B2:1424:A:OP1	2.19	0.42
14:AF:94:THR:CB	14:AF:114:ILE:HG13	2.48	0.42
15:AG:66:GLY:CA	80:B2:1681:A:H8	2.31	0.42
17:AI:43:ILE:HD13	80:B2:260:U:OP1	2.19	0.42
18:AJ:143:ILE:HG21	80:B2:768:C:H1'	2.01	0.42
20:AL:87:ARG:HH21	20:AL:104:HIS:CE1	2.38	0.42
20:AL:132:SER:O	20:AL:134:THR:N	2.52	0.42
23:AO:84:ARG:HG3	23:AO:119:THR:HA	2.01	0.42
23:AO:125:SER:CB	80:B2:926:A:H2	2.31	0.42
23:AO:125:SER:HB3	23:AO:126:THR:H	1.45	0.42
27:AS:27:LYS:N	27:AS:57:ARG:HH21	2.16	0.42
28:AT:126:GLU:CD	28:AT:126:GLU:N	2.76	0.42
32:AX:5:LYS:HA	32:AX:6:PRO:HD2	1.81	0.42
32:AX:23:ARG:HD2	32:AX:26:GLU:OE2	2.18	0.42
33:AY:37:LYS:NZ	80:B2:522:U:OP1	2.50	0.42
33:AY:120:GLY:HA2	80:B2:85:A:H4'	2.00	0.42
35:BA:34:TYR:O	35:BA:35:ALA:C	2.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:199:THR:HG1	81:B5:913:A:H5'	1.82	0.42
36:BB:81:THR:HB	36:BB:321:PHE:HA	2.01	0.42
36:BB:139:GLN:C	36:BB:141:GLY:N	2.77	0.42
36:BB:169:THR:CG2	36:BB:171:LEU:HG	2.49	0.42
36:BB:258:ALA:C	36:BB:259:HIS:CG	2.97	0.42
37:BC:258:LEU:HD12	37:BC:258:LEU:HA	1.91	0.42
39:BE:145:LEU:HD23	39:BE:145:LEU:HA	1.71	0.42
39:BE:175:LYS:HD2	47:BM:111:ALA:HA	2.00	0.42
41:BG:136:LEU:HA	41:BG:136:LEU:HD23	1.72	0.42
49:BO:122[B]:GLN:NE2	81:B5:1181:U:H2'	2.34	0.42
60:BZ:36:HIS:N	60:BZ:37:PRO:HD3	2.33	0.42
60:BZ:81:LEU:HD22	60:BZ:81:LEU:HA	1.48	0.42
63:Bc:10:ILE:HD12	63:Bc:10:ILE:HA	1.91	0.42
66:Bf:16:TYR:CG	66:Bf:25:PRO:HA	2.54	0.42
69:Bi:77:LEU:CD2	81:B5:294:U:O3'	2.67	0.42
79:By:79:LYS:CG	79:CL:82:LYS:CB	2.95	0.42
79:By:86:ALA:CB	79:CL:76:ALA:CB	2.57	0.42
79:By:102:LYS:CE	79:CL:104:LEU:CG	2.52	0.42
79:By:107:TRP:CD2	79:CL:103:ILE:HA	2.55	0.42
79:By:171:ILE:HG12	79:CL:47:LEU:HD21	2.01	0.42
79:By:181:PRO:HA	79:CL:30:LYS:HD3	1.95	0.42
79:By:201:PRO:HB3	79:CL:58:VAL:CA	2.40	0.42
79:By:201:PRO:N	79:CL:201:PRO:CB	2.81	0.42
79:By:219:GLY:HA2	84:CN:2196:C:H5'	1.39	0.42
80:B2:233:C:O2'	80:B2:234:G:P	2.76	0.42
80:B2:506:A:OP1	80:B2:506:A:H3'	2.18	0.42
80:B2:794:U:H3'	80:B2:794:U:OP2	2.20	0.42
80:B2:1151:A:H2'	80:B2:1152:A:C8	2.54	0.42
80:B2:1318:G:O2'	80:B2:1319:A:H5'	2.19	0.42
80:B2:1370:U:O2'	80:B2:1371:A:OP2	2.20	0.42
80:B2:1645:G:H1'	81:B5:2259:A:H61	1.84	0.42
81:B5:79:U:H2'	81:B5:80:G:C8	2.54	0.42
81:B5:1813:A:O2'	81:B5:1816:A:N3	2.47	0.42
81:B5:2373:A:N7	81:B5:2867:C:H1'	2.34	0.42
81:B5:2511:A:C3'	81:B5:2512:C:H5"	2.49	0.42
81:B5:2590:A:C2'	81:B5:2591:A:O5'	2.67	0.42
83:B8:59:A:H3'	83:B8:59:A:OP2	2.19	0.42
8:A7:31:SER:OG	8:A7:33:LYS:HB2	2.19	0.42
11:AC:130:ILE:O	11:AC:134:LEU:HD22	2.19	0.42
13:AE:141:THR:O	13:AE:143:ASP:N	2.53	0.42
14:AF:157:ARG:HB2	14:AF:224:ASN:OD1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AG:15:THR:HG23	80:B2:152:U:C2'	2.49	0.42
17:AI:147:ALA:H	17:AI:149:SER:HB3	1.84	0.42
17:AI:195:ARG:HA	17:AI:195:ARG:HD3	1.85	0.42
18:AJ:134:ILE:HA	18:AJ:158:PHE:HA	2.00	0.42
35:BA:116:VAL:CG1	35:BA:126:LEU:HB2	2.47	0.42
36:BB:4:ARG:HH11	36:BB:4:ARG:HG3	1.85	0.42
37:BC:50:TYR:HB3	81:B5:337:G:H21	1.84	0.42
38:BD:63:GLN:HB3	38:BD:65:ILE:HD11	2.01	0.42
38:BD:187:THR:CG2	38:BD:189:GLU:HB2	2.45	0.42
46:BL:122:LYS:HG3	68:Bh:119:LYS:O	2.19	0.42
48:BN:6:TYR:CE2	69:Bi:40:VAL:HG22	2.55	0.42
48:BN:20:ARG:HG2	48:BN:20:ARG:H	1.67	0.42
48:BN:49:ARG:HB3	48:BN:50:ARG:H	1.68	0.42
49:BO:60[B]:LYS:H	49:BO:60[B]:LYS:HG2	1.58	0.42
52:BR:138:LEU:O	52:BR:142:ILE:HG13	2.19	0.42
54:BT:49:GLN:HE21	81:B5:2755:C:C2'	2.28	0.42
59:BY:4:GLN:N	81:B5:229:G:OP1	2.32	0.42
60:BZ:46:ILE:HD12	60:BZ:47:GLU:C	2.45	0.42
61:Ba:54:GLY:H	81:B5:94:G:P	2.41	0.42
62:Bb:3:LYS:HE3	81:B5:2618:G:C4'	2.48	0.42
63:Bc:61:MET:HE3	63:Bc:62:LEU:HG	2.01	0.42
67:Bg:53:GLY:HA2	81:B5:1738:C:O3'	2.19	0.42
70:Bj:2:GLY:O	70:Bj:7:SER:HB3	2.20	0.42
70:Bj:64:MET:O	70:Bj:68:LYS:HB3	2.19	0.42
79:By:14:VAL:C	79:CL:11:LEU:N	2.78	0.42
79:By:47:LEU:HD13	79:CL:49:ILE:CG1	2.49	0.42
79:By:87:GLU:HG3	79:CL:93:TYR:CB	2.47	0.42
79:By:166:ASP:OD1	79:CL:168:THR:OG1	2.38	0.42
79:By:224:ILE:HD13	79:CL:222:VAL:HB	2.02	0.42
79:By:224:ILE:CB	79:CL:223:ARG:O	2.40	0.42
80:B2:40:A:H2'	80:B2:41:A:O4'	2.19	0.42
80:B2:68:A:H3'	80:B2:68:A:H8	1.85	0.42
80:B2:328:A:H2'	80:B2:329:G:O4'	2.19	0.42
80:B2:993:A:H4'	80:B2:1777:G:O2'	2.19	0.42
80:B2:1560:U:O2	80:B2:1560:U:O4'	2.37	0.42
89:B2:1907:OHX:N5	89:B2:2083:OHX:N4	2.67	0.42
81:B5:536:U:H1'	81:B5:559:A:C8	2.55	0.42
81:B5:1243:G:C6	81:B5:1244:A:C2	3.07	0.42
81:B5:2207:A:H2'	81:B5:2208:A:O4'	2.18	0.42
81:B5:2509:U:H2'	81:B5:2510:U:C5'	2.45	0.42
81:B5:3006:A:H2'	81:B5:3007:U:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:B7:55:A:H2'	82:B7:56:A:O4'	2.20	0.42
83:B8:126:A:H8	83:B8:126:A:OP2	2.02	0.42
1:A0:87:ARG:CZ	80:B2:1797:A:C4	3.02	0.42
7:A6:42:LEU:O	7:A6:61:PHE:HD1	2.03	0.42
8:A7:43:ASP:CG	8:A7:45:SER:HB2	2.44	0.42
8:A7:84:LYS:HD2	8:A7:85:SER:N	2.35	0.42
10:AB:140:ILE:O	10:AB:210:ILE:HA	2.20	0.42
16:AH:131:PHE:HB3	16:AH:132:PRO:HD3	2.01	0.42
19:AK:88:PRO:C	19:AK:90:THR:H	2.26	0.42
20:AL:28:SER:O	20:AL:29:LYS:HB3	2.19	0.42
23:AO:84:ARG:HA	23:AO:119:THR:HG22	2.00	0.42
23:AO:129:LYS:CA	80:B2:990:C:H4'	2.45	0.42
26:AR:6:THR:HA	80:B2:1315:U:O2'	2.20	0.42
26:AR:57:LEU:O	26:AR:61:ILE:HG13	2.19	0.42
30:AV:21:ASN:OD1	31:AW:23:ARG:NH2	2.53	0.42
35:BA:200:ARG:NE	81:B5:2187:G:O6	2.52	0.42
35:BA:211:HIS:ND1	81:B5:2184:U:O3'	2.52	0.42
36:BB:67:PHE:O	36:BB:70:ARG:HB2	2.19	0.42
38:BD:223:PHE:O	38:BD:224:LYS:C	2.62	0.42
40:BF:32:ALA:O	40:BF:35:ALA:HB3	2.19	0.42
43:BI:47:PRO:HB3	43:BI:171:TRP:CZ2	2.55	0.42
46:BL:133:PRO:O	46:BL:135:ALA:N	2.52	0.42
48:BN:49:ARG:NH2	81:B5:149:U:OP1	2.22	0.42
49:BO:156[A]:LEU:HB3	81:B5:3243:A:N7	2.34	0.42
51:BQ:90:ASP:OD1	81:B5:785:G:C6	2.72	0.42
55:BU:17:VAL:HB	55:BU:63:VAL:HG23	2.01	0.42
60:BZ:17:ARG:HG2	67:Bg:73:SER:O	2.19	0.42
66:Bf:45:LEU:HA	66:Bf:71:VAL:HG12	2.02	0.42
71:Bk:17:ARG:O	71:Bk:18:ALA:CB	2.67	0.42
79:By:91:ALA:C	79:CL:73:ARG:HB3	2.45	0.42
79:By:160:ARG:NH2	79:CL:143:GLY:HA3	2.29	0.42
79:By:224:ILE:HB	79:CL:223:ARG:O	2.18	0.42
80:B2:67:A:C2	80:B2:69:G:H1'	2.54	0.42
80:B2:460:A:H3'	80:B2:461:G:H8	1.85	0.42
80:B2:648:G:C4	80:B2:687:G:N2	2.88	0.42
80:B2:720:G:O2'	80:B2:721:U:H5'	2.18	0.42
80:B2:1340:U:N3	80:B2:1378:U:H4'	2.34	0.42
80:B2:1370:U:H4'	80:B2:1371:A:H5'	2.01	0.42
80:B2:1511:U:H2'	80:B2:1512:G:H8	1.83	0.42
89:B2:1907:OHX:N2	89:B2:2083:OHX:N4	2.66	0.42
89:B2:1907:OHX:N2	89:B2:2083:OHX:N6	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
89:B2:1961:OHX:N4	89:B2:1963:OHX:N1	2.67	0.42
89:B2:1961:OHX:N6	89:B2:1963:OHX:N5	2.67	0.42
81:B5:1014:U:H3'	81:B5:1015:U:H5'	2.01	0.42
81:B5:1553:U:H1'	81:B5:1554:U:H5	1.84	0.42
81:B5:1561:G:O2'	81:B5:1562:C:OP2	2.26	0.42
81:B5:1880:U:H2'	81:B5:1881:A:O4'	2.19	0.42
81:B5:2443:A:H62	84:CN:2208:G:C5'	2.25	0.42
81:B5:2518:C:C2	81:B5:2590:A:C2	3.06	0.42
81:B5:2534:G:OP2	81:B5:2534:G:H8	2.03	0.42
81:B5:2537:U:HO2'	81:B5:2538:U:P	2.38	0.42
81:B5:2667:A:H8	81:B5:2667:A:C5'	2.28	0.42
81:B5:2953:U:H5"	81:B5:2954:U:OP2	2.20	0.42
79:CL:81:GLU:O	79:CL:82:LYS:C	2.63	0.42
85:CP:322:LEU:HD21	85:CP:333:LEU:HD11	2.02	0.42
2:A1:20:LYS:HE3	80:B2:958:U:OP2	2.19	0.42
4:A3:54:LYS:HZ3	29:AU:80:GLU:HG3	1.84	0.42
5:A4:31:LYS:HG2	80:B2:477:A:OP1	2.19	0.42
10:AB:59:ASP:HA	10:AB:62:LYS:HZ2	1.84	0.42
10:AB:97:LEU:HD12	10:AB:232:HIS:NE2	2.35	0.42
11:AC:137:ILE:HG12	11:AC:138:PRO:HD2	2.01	0.42
12:AD:142:LEU:O	12:AD:144:ALA:N	2.44	0.42
15:AG:147:LEU:O	15:AG:148:SER:OG	2.34	0.42
16:AH:131:PHE:O	16:AH:133:THR:OG1	2.27	0.42
17:AI:26:LYS:HE2	80:B2:396:G:O6	2.19	0.42
17:AI:157:GLU:O	17:AI:160:PHE:HB2	2.19	0.42
18:AJ:49:LEU:HD22	18:AJ:53:ARG:HG3	2.01	0.42
20:AL:130:PRO:HD2	80:B2:115:G:C6	2.53	0.42
24:AP:108:ARG:HG2	24:AP:109:PRO:HD2	2.00	0.42
25:AQ:53:LEU:N	25:AQ:53:LEU:HD23	2.35	0.42
25:AQ:139:GLN:OE1	80:B2:1579:U:H1'	2.20	0.42
26:AR:5:ARG:N	26:AR:5:ARG:HD3	2.35	0.42
29:AU:28:SER:HB2	29:AU:112:VAL:HA	2.02	0.42
29:AU:77:LYS:H	29:AU:77:LYS:HG2	1.66	0.42
31:AW:80:ASN:ND2	31:AW:124:LYS:HG2	2.34	0.42
32:AX:144:ARG:H	32:AX:144:ARG:HG3	1.66	0.42
35:BA:61:VAL:HG22	35:BA:63:PHE:CE1	2.55	0.42
36:BB:37:ARG:O	36:BB:186:GLY:HA3	2.20	0.42
36:BB:49:TYR:O	36:BB:79:VAL:HG23	2.19	0.42
36:BB:236:LYS:HD3	81:B5:2340:U:P	2.59	0.42
37:BC:156:LEU:C	37:BC:158:SER:H	2.26	0.42
38:BD:270:LYS:O	38:BD:271:LYS:HD3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BG:54:GLU:O	41:BG:58:VAL:HG23	2.19	0.42
41:BG:122:LYS:C	41:BG:124:ASP:H	2.28	0.42
44:BJ:92:ARG:HH11	44:BJ:92:ARG:CG	2.25	0.42
44:BJ:128:TYR:CZ	81:B5:2672:G:N3	2.87	0.42
48:BN:44:ARG:HB3	48:BN:47:LYS:HB3	2.02	0.42
49:BO:65[A]:ASN:ND2	81:B5:2988:C:OP1	2.35	0.42
52:BR:165:LYS:CD	80:B2:824:G:N2	2.83	0.42
54:BT:54:HIS:CG	54:BT:55:LYS:N	2.87	0.42
54:BT:93:VAL:H	54:BT:93:VAL:HG22	1.55	0.42
62:Bb:9:ALA:O	62:Bb:10:HIS:C	2.63	0.42
63:Bc:26:GLY:HA3	81:B5:1730:G:N1	2.24	0.42
66:Bf:12:LYS:HD3	66:Bf:12:LYS:HA	1.84	0.42
75:Bo:38:GLN:NE2	81:B5:284:A:OP2	2.51	0.42
79:By:102:LYS:HZ1	79:CL:104:LEU:CG	2.33	0.42
79:By:141:LYS:HG3	79:CL:141:LYS:HE2	1.84	0.42
79:By:193:ILE:HD12	79:CL:226:PRO:HA	1.98	0.42
80:B2:1489:U:H2'	80:B2:1490:C:OP1	2.19	0.42
80:B2:1590:G:OP2	89:B2:2022:OHX:N3	2.52	0.42
80:B2:1644:C:O2	81:B5:2255:A:C6	2.72	0.42
81:B5:339:C:OP1	81:B5:1380:G:O2'	2.30	0.42
81:B5:567:G:H2'	81:B5:568:G:C8	2.55	0.42
81:B5:926:A:H2'	81:B5:927:C:C6	2.55	0.42
81:B5:1867:A:H2'	81:B5:1868:G:C8	2.54	0.42
81:B5:2656:A:C8	81:B5:2658:G:C8	3.07	0.42
81:B5:2910:A:H5"	81:B5:2910:A:H8	1.85	0.42
81:B5:2935:U:O2	81:B5:2935:U:H2'	2.19	0.42
81:B5:3158:G:C5	81:B5:3159:C:C5	3.08	0.42
81:B5:3294:A:H2'	81:B5:3295:A:O4'	2.19	0.42
84:CN:2136:G:H2'	84:CN:2138:A:N7	2.34	0.42
86:CW:1:G:C5	86:CW:2:C:C5	3.08	0.42
8:A7:34:LYS:HZ2	81:B5:2693:C:C5'	2.18	0.42
8:A7:61:ILE:HD12	8:A7:62:ARG:N	2.35	0.42
10:AB:90:GLU:HG2	10:AB:223:PHE:HZ	1.84	0.42
12:AD:28:GLU:OE1	12:AD:28:GLU:HA	2.18	0.42
13:AE:22:LYS:NZ	80:B2:772:G:P	2.93	0.42
14:AF:95:ASN:O	14:AF:98:MET:HG2	2.20	0.42
15:AG:76:LEU:HD22	15:AG:92:ARG:HB3	2.01	0.42
15:AG:79:LYS:O	15:AG:80:ASN:HB2	2.19	0.42
16:AH:117:THR:HG23	16:AH:120:ALA:H	1.85	0.42
16:AH:159:VAL:HG23	16:AH:163:ASP:OD1	2.20	0.42
17:AI:50:GLY:C	80:B2:397:A:H4'	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AK:16:PHE:HD2	19:AK:76:LEU:HD23	1.84	0.42
19:AK:54:TYR:N	19:AK:54:TYR:CD1	2.86	0.42
20:AL:53:TYR:CD1	20:AL:53:TYR:C	2.97	0.42
20:AL:103:ARG:NH1	80:B2:307:G:H5"	2.35	0.42
22:AN:46:THR:HG23	22:AN:49:GLN:CD	2.45	0.42
23:AO:126:THR:O	23:AO:127:ARG:C	2.62	0.42
24:AP:40:ARG:CZ	80:B2:1556:A:H2'	2.50	0.42
25:AQ:47:LYS:HZ1	25:AQ:114:ARG:HH11	1.67	0.42
30:AV:74:GLN:C	30:AV:76:ASP:N	2.77	0.42
33:AY:35:VAL:HG11	33:AY:40:LEU:HD11	2.01	0.42
33:AY:105:ARG:CB	80:B2:443:C:OP1	2.68	0.42
35:BA:84:THR:HB	81:B5:2554:A:C2	2.53	0.42
35:BA:191:LEU:CG	81:B5:1795:U:OP1	2.68	0.42
37:BC:93:MET:HE2	37:BC:93:MET:H	1.85	0.42
38:BD:265:TYR:CE1	82:B7:120:C:C2'	2.91	0.42
40:BF:169:ILE:HD13	40:BF:181:ILE:HA	2.01	0.42
41:BG:187:GLY:C	41:BG:189:LEU:H	2.28	0.42
41:BG:241:LYS:HD3	81:B5:2584:G:H21	1.84	0.42
42:BH:31:ARG:HB2	42:BH:82:VAL:HA	2.02	0.42
42:BH:161:LEU:HD13	42:BH:179:ILE:HG21	2.02	0.42
42:BH:166:ARG:O	42:BH:167:VAL:HB	2.20	0.42
42:BH:191:LEU:HD13	42:BH:191:LEU:HA	1.89	0.42
46:BL:61:PRO:C	46:BL:62:THR:HG23	2.45	0.42
49:BO:61[A]:ALA:CB	49:BO:66[A]:LYS:HG3	2.48	0.42
49:BO:85[B]:ARG:HD3	49:BO:90[B]:HIS:ND1	2.33	0.42
51:BQ:170:ARG:HD2	61:Ba:56:VAL:O	2.20	0.42
54:BT:92:ARG:HD2	81:B5:2736:A:OP1	2.19	0.42
59:BY:50:ILE:HD12	59:BY:70:ILE:HG12	2.02	0.42
67:Bg:24:LYS:O	81:B5:1695:U:C4'	2.62	0.42
70:Bj:72:ARG:HD2	83:B8:94:C:H3'	2.02	0.42
71:Bk:18:ALA:O	71:Bk:20:VAL:N	2.53	0.42
79:By:7:TYR:CE1	84:CN:2196:C:OP1	2.71	0.42
79:By:56:GLN:HE22	79:CL:49:ILE:CD1	2.32	0.42
79:By:114:VAL:O	79:CL:75:LEU:HD23	2.19	0.42
79:By:136:LEU:HB3	79:CL:136:LEU:HB2	2.02	0.42
79:By:212:VAL:HG23	79:CL:212:VAL:N	2.33	0.42
80:B2:36:C:H2'	80:B2:37:U:O4'	2.20	0.42
80:B2:429:G:O2'	85:CP:276:ARG:NE	2.52	0.42
80:B2:429:G:C4'	85:CP:276:ARG:HD2	2.24	0.42
80:B2:505:A:H2'	80:B2:506:A:OP1	2.19	0.42
80:B2:681:U:O4	80:B2:682:C:N4	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:B2:778:G:C5	80:B2:783:G:N1	2.88	0.42
80:B2:805:U:H2'	80:B2:806:A:H5"	2.02	0.42
80:B2:1201:G:H22	80:B2:1600:A:H5'	1.85	0.42
80:B2:1244:A:O2'	80:B2:1245:G:OP1	2.29	0.42
80:B2:1456:C:O2	80:B2:1456:C:O4'	2.38	0.42
80:B2:1595:U:H5	80:B2:1596:C:C5	2.37	0.42
81:B5:806:A:H5"	81:B5:936:A:H61	1.85	0.42
81:B5:863:C:H2'	81:B5:864:G:O4'	2.18	0.42
81:B5:1483:G:C8	81:B5:1485:G:C8	3.07	0.42
81:B5:1815:U:H1'	81:B5:1816:A:O5'	2.19	0.42
81:B5:2443:A:C5'	84:CN:2122:G:C6	2.95	0.42
81:B5:2985:C:H2'	81:B5:2986:U:C6	2.55	0.42
81:B5:3227:A:N3	81:B5:3227:A:O4'	2.51	0.42
81:B5:3329:U:H2'	81:B5:3330:A:H5"	2.00	0.42
81:B5:3393:U:H2'	81:B5:3394:U:O4'	2.20	0.42
83:B8:92:A:H2'	83:B8:93:U:O4'	2.19	0.42
84:CN:2172:G:C2	84:CN:2173:G:C4	3.07	0.42
8:A7:78:ASP:CG	86:CW:28:G:O3'	2.63	0.42
9:AA:69:ASN:HB3	9:AA:71:GLU:OE2	2.19	0.42
10:AB:132:ASP:HB2	10:AB:221:PRO:HB3	2.02	0.42
12:AD:195:SER:O	12:AD:196:ARG:HB3	2.20	0.42
13:AE:3:ARG:NH1	80:B2:93:A:O4'	2.52	0.42
15:AG:115:LYS:NZ	57:BW:74:LYS:C	2.78	0.42
15:AG:119:GLN:HG3	15:AG:120:GLU:N	2.35	0.42
16:AH:133:THR:O	16:AH:134:GLU:HB2	2.19	0.42
19:AK:81:ASN:HB3	21:AM:37:VAL:HG11	2.00	0.42
23:AO:124:ASP:O	80:B2:927:C:H1'	2.19	0.42
24:AP:18:ARG:O	27:AS:95:GLY:HA3	2.20	0.42
25:AQ:127:LYS:HA	25:AQ:134:ALA:HA	2.02	0.42
26:AR:107:SER:HA	26:AR:110:VAL:HG23	2.01	0.42
29:AU:109:GLU:HA	29:AU:110:PRO:HD2	1.78	0.42
31:AW:105:THR:CG2	80:B2:804:A:O2'	2.68	0.42
32:AX:13:ARG:HA	32:AX:16:ARG:HD3	2.01	0.42
36:BB:346:THR:O	36:BB:348:ARG:N	2.53	0.42
38:BD:33:ARG:O	38:BD:34:LYS:C	2.63	0.42
38:BD:269:SER:O	82:B7:22:A:N1	2.52	0.42
40:BF:102:VAL:HG12	40:BF:130:ILE:CD1	2.50	0.42
40:BF:106:LEU:HA	40:BF:106:LEU:HD23	1.84	0.42
53:BS:50:LYS:HE3	82:B7:76:A:H2	1.82	0.42
56:BV:18:PRO:CD	81:B5:1898:G:H1'	2.50	0.42
57:BW:127:LYS:HA	57:BW:130:SER:OG	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Ba:110:GLY:O	61:Ba:128:ARG:O	2.37	0.42
62:Bb:15:LYS:O	81:B5:969:C:H5'	2.19	0.42
72:Bl:7:PHE:CE2	83:B8:113:U:C4	3.08	0.42
72:Bl:10:LYS:HD3	81:B5:1833:G:OP1	2.19	0.42
73:Bm:77:ILE:HG13	73:Bm:78:ILE:N	2.33	0.42
73:Bm:99:CYS:HB3	73:Bm:115:CYS:HB3	2.01	0.42
73:Bm:110:CYS:SG	73:Bm:112:LYS:HB2	2.59	0.42
75:Bo:49:GLY:HA3	81:B5:278:U:P	2.60	0.42
79:By:155:GLU:HA	79:CL:159:GLY:N	2.35	0.42
79:By:158:ALA:CA	79:CL:159:GLY:N	2.83	0.42
79:By:191:ALA:O	79:CL:192:PHE:C	2.62	0.42
79:By:193:ILE:CG1	79:CL:193:ILE:CD1	2.92	0.42
80:B2:812:A:OP1	80:B2:814:A:C8	2.73	0.42
80:B2:1151:A:H2'	80:B2:1152:A:H8	1.85	0.42
80:B2:1686:C:C4	80:B2:1687:U:C5	3.08	0.42
89:B2:2016:OHX:N4	89:B2:2073:OHX:N1	2.68	0.42
81:B5:815:G:C6	81:B5:906:A:C4	3.08	0.42
81:B5:2294:U:C2	81:B5:2297:U:C5	3.07	0.42
84:CN:2186:G:C5	84:CN:2187:G:C6	3.06	0.42
85:CP:131:LYS:CG	90:CP:401:GCP:O6	2.46	0.42
1:A0:76:SER:O	1:A0:80:HIS:N	2.53	0.42
14:AF:69:PHE:CD2	25:AQ:50:GLU:HG2	2.54	0.42
16:AH:74:GLN:O	16:AH:75:THR:C	2.63	0.42
16:AH:75:THR:OG1	16:AH:76:LYS:N	2.52	0.42
18:AJ:30:LEU:HA	18:AJ:30:LEU:HD23	1.80	0.42
18:AJ:92:LYS:HA	18:AJ:92:LYS:HE3	2.01	0.42
18:AJ:127:VAL:HG12	18:AJ:131:GLN:NE2	2.35	0.42
19:AK:3:MET:HE3	19:AK:8:ARG:NH1	2.35	0.42
23:AO:20:TYR:CE2	80:B2:917:U:OP1	2.64	0.42
23:AO:24:ASN:O	23:AO:25:ASP:HB2	2.19	0.42
25:AQ:82:ARG:HH12	25:AQ:114:ARG:HB3	1.84	0.42
32:AX:23:ARG:HH11	32:AX:23:ARG:HG3	1.85	0.42
32:AX:50:LYS:HB2	80:B2:435:C:H5'	2.02	0.42
34:AZ:59:TYR:HE1	34:AZ:61:SER:CB	2.31	0.42
35:BA:30:ARG:NH2	35:BA:33:ASP:OD1	2.51	0.42
35:BA:242:ARG:HH11	35:BA:242:ARG:HG3	1.84	0.42
36:BB:361:THR:HG23	36:BB:371:GLN:O	2.20	0.42
37:BC:22:LEU:HA	37:BC:23:PRO:HD3	1.68	0.42
38:BD:68:THR:HG22	38:BD:70:THR:H	1.85	0.42
38:BD:92:LEU:HA	38:BD:92:LEU:HD23	1.68	0.42
38:BD:124:GLU:O	38:BD:125:VAL:HB	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BF:103:LEU:HD23	40:BF:103:LEU:HA	1.66	0.42
41:BG:136:LEU:HB2	81:B5:147:U:H5"	2.01	0.42
44:BJ:132:ASN:H	44:BJ:132:ASN:HD22	1.65	0.42
44:BJ:132:ASN:HD22	44:BJ:132:ASN:N	2.16	0.42
46:BL:46:ILE:HA	46:BL:46:ILE:HD13	1.45	0.42
46:BL:99:HIS:HB2	81:B5:156:G:C1'	2.49	0.42
49:BO:128[B]:ARG:HD3	49:BO:128[B]:ARG:HA	1.75	0.42
53:BS:34:GLU:O	53:BS:38:LYS:HG3	2.20	0.42
53:BS:106:LEU:HD13	53:BS:106:LEU:C	2.45	0.42
54:BT:54:HIS:NE2	81:B5:2724:U:H4'	2.34	0.42
55:BU:42:LYS:NZ	81:B5:1686:U:OP1	2.38	0.42
64:Bd:46:THR:HG21	64:Bd:91:SER:CB	2.50	0.42
65:Be:38:ILE:CD1	81:B5:640:U:C5	3.01	0.42
79:By:136:LEU:CB	79:CL:136:LEU:HB2	2.49	0.42
79:By:148:ASN:O	79:CL:152:ILE:CG2	2.67	0.42
79:By:185:LEU:CB	79:CL:41:VAL:CG1	2.88	0.42
79:By:197:GLU:OE2	79:CL:227:HIS:CD2	2.71	0.42
80:B2:71:A:C2	80:B2:72:A:C2	3.08	0.42
80:B2:568:G:O2'	80:B2:569:C:H5'	2.20	0.42
80:B2:709:C:N4	80:B2:730:G:C4	2.87	0.42
80:B2:1570:A:H2'	80:B2:1571:C:O4'	2.20	0.42
80:B2:1586:A:H2'	80:B2:1587:A:C8	2.54	0.42
80:B2:1642:G:O6	89:B2:1901:OHX:N6	2.53	0.42
80:B2:1740:A:O2'	80:B2:1741:U:H5'	2.19	0.42
81:B5:283:G:O6	81:B5:304:G:H1'	2.20	0.42
81:B5:748:U:H2'	81:B5:749:C:C6	2.55	0.42
81:B5:806:A:O2'	81:B5:807:A:H5'	2.19	0.42
81:B5:1565:G:N1	81:B5:1574:C:C2	2.83	0.42
83:B8:156:U:HO2'	83:B8:157:U:P	2.43	0.42
79:CL:99:ILE:O	79:CL:103:ILE:N	2.50	0.42
84:CN:2156:A:H4'	84:CN:2181:G:H4'	2.02	0.42
7:A6:123:ILE:HD11	7:A6:156:VAL:HG23	2.01	0.42
7:A6:222:LEU:HD23	7:A6:234:LEU:CD1	2.49	0.42
8:A7:33:LYS:HE3	81:B5:2692:A:P	2.60	0.42
8:A7:46:LYS:CG	81:B5:2678:A:H4'	2.42	0.42
9:AA:20:ALA:O	9:AA:21:ASN:HB2	2.19	0.42
9:AA:30:GLN:NE2	9:AA:149:LEU:HD13	2.35	0.42
11:AC:125:ILE:O	11:AC:129:ILE:HG13	2.19	0.42
12:AD:5:ILE:CG2	12:AD:9:ARG:HB3	2.50	0.42
15:AG:27:PHE:C	15:AG:30:LYS:HG2	2.45	0.42
15:AG:32:ILE:HD12	15:AG:100:ALA:HB1	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AI:37:LYS:O	17:AI:59:ARG:HA	2.20	0.42
23:AO:81:VAL:HG13	23:AO:115:ILE:CG2	2.50	0.42
25:AQ:58:ASP:OD1	25:AQ:59:LYS:N	2.53	0.42
25:AQ:75:VAL:CG2	80:B2:1610:G:OP1	2.65	0.42
26:AR:8:THR:HG21	80:B2:1330:G:N2	2.35	0.42
27:AS:10:SER:OG	27:AS:11:PHE:N	2.52	0.42
27:AS:33:THR:C	27:AS:35:ILE:H	2.28	0.42
29:AU:96:PRO:HG2	29:AU:99:ILE:HG22	2.02	0.42
33:AY:105:ARG:O	33:AY:109:LYS:HG3	2.20	0.42
34:AZ:65:LEU:HB3	34:AZ:71:ILE:CD1	2.50	0.42
36:BB:39:LYS:HE2	36:BB:39:LYS:HB3	1.69	0.42
36:BB:226:PHE:HB2	81:B5:3307:A:OP1	2.20	0.42
37:BC:119:ARG:HH21	81:B5:695:C:P	2.43	0.42
40:BF:236:ILE:O	40:BF:240:VAL:HG23	2.20	0.42
41:BG:124:ASP:HA	81:B5:120:G:H22	1.85	0.42
41:BG:181:LYS:HG2	83:B8:154:C:C5'	2.46	0.42
42:BH:20:ILE:HG13	47:BM:7:VAL:HG22	2.01	0.42
42:BH:129:ARG:O	42:BH:132:VAL:HG13	2.20	0.42
46:BL:67:ARG:H	46:BL:67:ARG:HG3	1.40	0.42
47:BM:38:ILE:HA	47:BM:44:VAL:HG12	2.02	0.42
49:BO:156[A]:LEU:HD13	81:B5:3243:A:C8	2.54	0.42
52:BR:43:LYS:CE	81:B5:1765:U:H5'	2.50	0.42
53:BS:16:THR:OG1	53:BS:19:VAL:N	2.52	0.42
54:BT:68:THR:HG21	81:B5:2736:A:C2'	2.49	0.42
63:Bc:85:PHE:CD1	81:B5:1728:G:N1	2.85	0.42
67:Bg:52:GLN:CG	81:B5:1738:C:O4'	2.65	0.42
67:Bg:76:TYR:CZ	81:B5:1806:A:H5'	2.55	0.42
72:Bl:48:LYS:HA	81:B5:1493:G:OP1	2.20	0.42
79:By:13:LYS:HG3	79:CL:6:ARG:C	2.45	0.42
79:By:22:ILE:HD12	79:CL:22:ILE:H	1.68	0.42
79:By:83:ILE:CD1	79:CL:83:ILE:HD13	2.49	0.42
79:By:199:HIS:CB	79:CL:199:HIS:C	2.69	0.42
79:By:215:THR:CB	84:CN:2197:A:O4'	2.67	0.42
80:B2:420:A:C2	85:CP:289:LEU:CD2	3.03	0.42
80:B2:717:C:H42	80:B2:720:G:N2	2.09	0.42
80:B2:814:A:C5	80:B2:816:G:C8	3.07	0.42
80:B2:1337:A:H5'	80:B2:1338:C:OP2	2.20	0.42
81:B5:275:U:H2'	81:B5:276:U:C6	2.54	0.42
81:B5:971:G:H2'	81:B5:972:A:O4'	2.20	0.42
81:B5:1049:C:H2'	81:B5:1050:U:C6	2.55	0.42
81:B5:1190:A:C8	81:B5:1193:A:H1'	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:1226:G:O4'	81:B5:1288:U:C3'	2.65	0.42
81:B5:1449:A:C2	81:B5:2356:A:C4	3.08	0.42
81:B5:2441:A:N1	81:B5:2507:C:C2	2.87	0.42
81:B5:2827:U:O2	81:B5:2827:U:H2'	2.20	0.42
81:B5:2896:A:H8	81:B5:2896:A:C5'	2.32	0.42
84:CN:2173:G:H4'	84:CN:2173:G:OP1	2.19	0.42
2:A1:66:PRO:CB	80:B2:871:G:H4'	2.49	0.41
3:A2:29:ARG:HG3	3:A2:39:THR:OG1	2.19	0.41
4:A3:41:GLN:OE1	4:A3:41:GLN:N	2.51	0.41
8:A7:132:ALA:O	8:A7:133:GLU:C	2.63	0.41
9:AA:63:ILE:HG12	30:AV:36:VAL:HG22	2.01	0.41
9:AA:172:LEU:HD13	9:AA:176:LEU:HD11	2.01	0.41
10:AB:168:ILE:O	10:AB:172:LEU:HG	2.19	0.41
11:AC:230:TRP:CE2	31:AW:68:ARG:HB3	2.55	0.41
12:AD:70:THR:OG1	12:AD:71:LEU:N	2.51	0.41
13:AE:108:ARG:HH12	80:B2:788:A:P	2.43	0.41
13:AE:114:ILE:HB	13:AE:118:GLU:OE1	2.20	0.41
15:AG:95:LYS:CE	80:B2:161:U:P	3.03	0.41
16:AH:17:GLU:HG2	16:AH:46:ILE:HB	2.01	0.41
16:AH:104:ARG:HB2	16:AH:105:THR:H	1.45	0.41
16:AH:129:LEU:HD21	16:AH:172:VAL:HG11	2.02	0.41
17:AI:87:ASN:HB3	17:AI:90:LEU:HD12	2.02	0.41
19:AK:50:THR:HB	19:AK:55:VAL:O	2.19	0.41
19:AK:72:GLY:O	19:AK:76:LEU:HD22	2.20	0.41
21:AM:131:ASP:HB2	21:AM:132:GLU:CD	2.45	0.41
25:AQ:73:GLY:N	80:B2:1608:U:O3'	2.52	0.41
27:AS:109:LEU:HG	27:AS:113:LEU:CD1	2.50	0.41
34:AZ:97:LYS:HG3	34:AZ:98:GLN:H	1.84	0.41
42:BH:89:LYS:HG2	42:BH:145:VAL:HG22	2.02	0.41
43:BI:74:LYS:HD3	43:BI:74:LYS:HA	1.75	0.41
44:BJ:24:GLY:HA2	81:B5:2680:A:H2	1.81	0.41
46:BL:45:LYS:HB2	81:B5:241:G:C1'	2.49	0.41
46:BL:99:HIS:CD2	81:B5:156:G:C4	3.08	0.41
48:BN:60:VAL:CG2	83:B8:142:C:O3'	2.68	0.41
48:BN:179:LYS:HB3	81:B5:287:G:C5'	2.49	0.41
51:BQ:90:ASP:O	51:BQ:92:ARG:N	2.53	0.41
51:BQ:161:LYS:N	51:BQ:161:LYS:HD2	2.35	0.41
56:BV:87:ARG:HH22	56:BV:137:VAL:CG2	2.31	0.41
60:BZ:95:VAL:CG1	60:BZ:110:ALA:HA	2.50	0.41
60:BZ:103:GLN:HA	60:BZ:104:PRO:HD2	1.95	0.41
60:BZ:108:GLU:O	60:BZ:112:LYS:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:Bd:9:THR:OG1	64:Bd:76:SER:HB3	2.20	0.41
64:Bd:19:ARG:HD3	64:Bd:35:GLU:HG2	2.02	0.41
68:Bh:85:THR:HG22	68:Bh:88:LEU:HB2	2.02	0.41
74:Bn:16:LYS:HB3	74:Bn:16:LYS:HE2	1.75	0.41
75:Bo:58:PHE:O	86:CW:75:C:O2	2.33	0.41
75:Bo:71:ARG:HG3	75:Bo:71:ARG:HH11	1.85	0.41
76:Bq:6:GLU:C	76:Bq:6:GLU:CD	2.87	0.41
79:By:5:LYS:HG2	84:CN:2150:C:N3	2.35	0.41
79:By:40:THR:HB	79:CL:217:THR:HG23	2.01	0.41
79:By:66:HIS:CB	79:CL:180:PHE:CD2	2.79	0.41
79:By:66:HIS:CG	79:CL:180:PHE:HD2	2.36	0.41
79:By:116:THR:N	79:CL:77:ILE:CB	2.82	0.41
79:By:123:VAL:C	79:CL:100:ILE:CG2	2.93	0.41
79:By:137:LEU:CA	79:CL:132:GLY:N	2.81	0.41
79:By:214:VAL:CG1	79:CL:215:THR:O	2.68	0.41
80:B2:68:A:C8	80:B2:68:A:H3'	2.55	0.41
80:B2:143:G:C2	80:B2:173:A:N3	2.88	0.41
80:B2:488:G:N7	80:B2:498:G:N2	2.68	0.41
80:B2:992:A:N3	80:B2:992:A:O4'	2.53	0.41
80:B2:1013:A:H2'	80:B2:1014:G:O4'	2.19	0.41
80:B2:1449:U:O4	89:B2:1907:OHX:N1	2.53	0.41
80:B2:1535:U:H1'	80:B2:1536:G:C2	2.55	0.41
89:B2:1986:OHX:N1	89:B2:2065:OHX:N5	2.68	0.41
81:B5:314:U:H2'	81:B5:315:C:C6	2.55	0.41
81:B5:1560:G:O2'	81:B5:1561:G:P	2.76	0.41
81:B5:1648:A:H2'	81:B5:1649:U:O4'	2.19	0.41
81:B5:1690:C:H2'	81:B5:1691:U:O4'	2.20	0.41
81:B5:2777:G:C8	81:B5:2777:G:C5'	3.02	0.41
81:B5:3288:G:O2'	81:B5:3289:G:P	2.78	0.41
83:B8:6:U:H2'	83:B8:7:U:C6	2.54	0.41
4:A3:5:ASN:HB3	4:A3:7:TRP:NE1	2.35	0.41
7:A6:116:ASP:HB2	7:A6:117:LYS:HD2	2.01	0.41
8:A7:117:LEU:HD21	8:A7:121:LYS:HD2	2.03	0.41
11:AC:242:ILE:HG22	11:AC:243:TYR:CE2	2.55	0.41
12:AD:162:GLN:HG2	80:B2:1333:C:H4'	1.99	0.41
13:AE:22:LYS:HB2	80:B2:773:C:OP2	2.20	0.41
13:AE:106:LYS:HG3	13:AE:108:ARG:NH2	2.34	0.41
15:AG:62:PRO:CB	80:B2:162:A:C5'	2.96	0.41
17:AI:106:ALA:O	17:AI:109:PHE:N	2.53	0.41
23:AO:25:ASP:HB2	80:B2:901:G:P	2.41	0.41
24:AP:47:ARG:HD3	80:B2:1555:A:OP1	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AS:47:CYS:HB3	27:AS:54:LEU:CD1	2.50	0.41
31:AW:6:VAL:HG13	31:AW:29:PRO:HD2	2.02	0.41
31:AW:28:ARG:HA	31:AW:29:PRO:HA	1.73	0.41
31:AW:30:SER:HB2	31:AW:61:ILE:CD1	2.50	0.41
31:AW:111:MET:CE	31:AW:116:ALA:HA	2.50	0.41
33:AY:8:ARG:HA	80:B2:780:A:HO2'	1.79	0.41
35:BA:69:TYR:CZ	81:B5:2558:U:C4	3.08	0.41
35:BA:187:HIS:HB3	81:B5:1794:G:N9	2.34	0.41
35:BA:217:GLN:O	35:BA:218:HIS:HB3	2.18	0.41
35:BA:239:ALA:C	81:B5:2155:G:H5'	2.44	0.41
35:BA:247:ARG:NE	80:B2:1013:A:C5'	2.83	0.41
38:BD:122:VAL:O	38:BD:124:GLU:N	2.44	0.41
42:BH:13:PRO:HG2	42:BH:16:VAL:HG13	2.02	0.41
42:BH:29:GLY:HA3	42:BH:82:VAL:HG13	2.01	0.41
46:BL:157:ARG:NH2	61:Ba:146:GLU:OE2	2.52	0.41
49:BO:54[B]:TYR:O	49:BO:57[B]:PHE:HB3	2.20	0.41
50:BP:32:THR:HG21	50:BP:87:SER:HB3	2.02	0.41
52:BR:146:LYS:O	52:BR:149:ALA:N	2.53	0.41
56:BV:125:LEU:HB3	56:BV:126:TRP:CD1	2.55	0.41
56:BV:125:LEU:HD12	56:BV:125:LEU:HA	1.84	0.41
58:BX:40:LEU:HB3	58:BX:41:ALA:H	1.58	0.41
67:Bg:96:GLU:OE2	81:B5:2555:G:N2	2.52	0.41
69:Bi:26:ILE:HD12	81:B5:155:G:O3'	2.20	0.41
69:Bi:76:ARG:HA	69:Bi:76:ARG:HE	1.85	0.41
71:Bk:5:ILE:HG22	71:Bk:54:LEU:HB2	2.02	0.41
79:By:20:TYR:CD2	79:CL:28:LEU:HD21	2.55	0.41
79:By:22:ILE:HD13	79:CL:22:ILE:HG12	2.03	0.41
79:By:77:ILE:CG1	79:CL:77:ILE:HD11	2.40	0.41
79:By:123:VAL:C	79:CL:100:ILE:HG21	2.45	0.41
79:By:153:ILE:O	79:CL:72:VAL:CB	2.67	0.41
79:By:156:ILE:CG2	79:CL:72:VAL:CG2	2.97	0.41
79:By:161:ILE:HD12	79:CL:173:ALA:CB	2.50	0.41
79:By:161:ILE:CD1	79:CL:173:ALA:CB	2.98	0.41
79:By:163:PHE:CE2	79:CL:199:HIS:HB3	2.54	0.41
80:B2:73:U:C2	80:B2:74:U:O2	2.73	0.41
80:B2:81:G:C6	80:B2:82:U:N3	2.88	0.41
80:B2:240:U:H4'	80:B2:241:U:OP2	2.20	0.41
80:B2:686:C:H2'	80:B2:687:G:C8	2.55	0.41
80:B2:901:G:C6	80:B2:902:G:C6	3.08	0.41
80:B2:1645:G:O2'	81:B5:2259:A:N6	2.52	0.41
80:B2:1780:G:C2'	81:B5:2262:A:C2'	2.98	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:173:G:N1	81:B5:246:U:C2	2.88	0.41
81:B5:726:G:C8	81:B5:726:G:C5'	3.01	0.41
81:B5:956:U:H2'	81:B5:957:C:C6	2.55	0.41
81:B5:1366:A:C2	81:B5:1367:G:C4	3.08	0.41
81:B5:2179:C:H4'	81:B5:2180:G:OP2	2.20	0.41
86:CW:9:A:C4	86:CW:45:U:C5	3.09	0.41
3:A2:64:ARG:HB3	3:A2:65:ARG:H	1.66	0.41
5:A4:34:ALA:O	5:A4:37:ARG:HB3	2.20	0.41
8:A7:32:SER:HB2	81:B5:2692:A:O2'	2.20	0.41
8:A7:93:ARG:HE	8:A7:93:ARG:HB3	1.80	0.41
9:AA:202:TYR:H	9:AA:202:TYR:HD1	1.68	0.41
10:AB:29:TRP:CZ2	10:AB:45:LYS:HB3	2.55	0.41
10:AB:72:ASP:OD2	23:AO:114:ARG:HD2	2.20	0.41
10:AB:111:ARG:HD3	10:AB:111:ARG:HA	1.93	0.41
10:AB:137:ILE:HG22	10:AB:215:VAL:CG2	2.50	0.41
12:AD:66:ILE:O	12:AD:70:THR:HG23	2.20	0.41
14:AF:104:ASN:ND2	80:B2:1166:A:C4'	2.83	0.41
15:AG:107:ALA:HB3	80:B2:154:G:C3'	2.51	0.41
15:AG:159:ARG:HD3	80:B2:77:U:O2	1.89	0.41
16:AH:51:VAL:HG23	16:AH:53:GLY:N	2.34	0.41
21:AM:55:GLY:HA2	21:AM:85:LYS:CD	2.50	0.41
23:AO:26:THR:HG21	23:AO:97:GLY:C	2.45	0.41
25:AQ:122:ARG:HA	80:B2:1584:G:C5'	2.45	0.41
26:AR:84:TYR:C	26:AR:85:VAL:HG23	2.45	0.41
28:AT:12:GLN:CD	80:B2:1529:C:O2'	2.58	0.41
28:AT:49:ASP:O	28:AT:51:GLU:N	2.54	0.41
29:AU:106:ILE:CG1	29:AU:107:THR:H	2.28	0.41
30:AV:16:LYS:HG2	30:AV:21:ASN:HA	2.03	0.41
32:AX:69:ARG:HH11	80:B2:570:A:H61	1.67	0.41
33:AY:18:LEU:HD23	33:AY:18:LEU:HA	1.90	0.41
33:AY:94:TYR:CD2	33:AY:96:LEU:HD11	2.55	0.41
34:AZ:54:VAL:HG13	34:AZ:57:TYR:CD2	2.55	0.41
35:BA:85:GLY:HA2	81:B5:2554:A:N9	2.36	0.41
35:BA:236:GLY:CA	81:B5:2183:A:O2'	2.66	0.41
36:BB:5:LYS:HE3	81:B5:2878:G:OP1	2.20	0.41
39:BE:93:VAL:HG13	39:BE:93:VAL:O	2.19	0.41
51:BQ:12:ARG:O	51:BQ:13:SER:C	2.63	0.41
51:BQ:178:ARG:HA	51:BQ:178:ARG:HD2	1.82	0.41
53:BS:82:ASP:OD1	53:BS:87:THR:HB	2.20	0.41
54:BT:7:TYR:HE1	81:B5:2724:U:H1'	1.85	0.41
57:BW:44:LYS:NZ	81:B5:2111:G:O2'	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BY:102:SER:O	59:BY:103:LYS:HD3	2.20	0.41
62:Bb:3:LYS:HD3	81:B5:2617:U:H5"	2.02	0.41
63:Bc:10:ILE:HD11	63:Bc:68:TYR:HE2	1.86	0.41
73:Bm:98:LYS:HD3	73:Bm:115:CYS:HB2	2.02	0.41
79:By:115:ALA:O	79:CL:115:ALA:HB2	2.20	0.41
79:By:123:VAL:O	79:CL:100:ILE:HG21	2.18	0.41
79:By:138:PRO:O	79:CL:137:LEU:HD13	2.02	0.41
80:B2:11:A:H2'	80:B2:12:U:H5'	2.03	0.41
80:B2:322:G:OP1	89:B2:1970:OHX:N4	2.53	0.41
80:B2:739:G:O6	89:B2:1975:OHX:N4	2.53	0.41
80:B2:1042:G:C6	80:B2:1043:A:N7	2.88	0.41
80:B2:1250:U:O2'	80:B2:1251:U:OP1	2.31	0.41
81:B5:171:G:H1	81:B5:247:C:H42	1.67	0.41
81:B5:291:C:H2'	81:B5:292:U:C6	2.56	0.41
81:B5:353:G:O2'	81:B5:364:G:O6	2.37	0.41
81:B5:438:A:H2'	81:B5:494:G:N2	2.33	0.41
81:B5:1932:A:H5'	81:B5:1933:A:OP2	2.19	0.41
81:B5:2298:U:C5	81:B5:2921:U:H1'	2.55	0.41
81:B5:2313:A:H4'	81:B5:2314:U:C5'	2.50	0.41
81:B5:2561:A:HO2'	81:B5:2562:A:H8	1.69	0.41
81:B5:2572:C:HO2'	81:B5:2573:G:P	2.39	0.41
81:B5:2764:C:H42	86:CW:76:A:H3'	1.14	0.41
81:B5:2971:A:H4'	81:B5:2972:G:OP2	2.20	0.41
81:B5:3245:A:C2	81:B5:3246:G:C2	3.08	0.41
81:B5:3349:C:H2'	81:B5:3350:C:O4'	2.20	0.41
82:B7:4:U:H2'	82:B7:5:G:H8	1.86	0.41
84:CN:2191:A:C3'	84:CN:2192:A:H5"	2.51	0.41
1:A0:23:CYS:CB	1:A0:74:CYS:HB3	2.50	0.41
7:A6:38:ARG:HG2	7:A6:67:ILE:HG23	2.01	0.41
10:AB:81:PHE:HA	10:AB:106:THR:CG2	2.51	0.41
11:AC:104:VAL:HG22	11:AC:132:ALA:HB1	2.00	0.41
13:AE:87:MET:SD	13:AE:123:LEU:HB2	2.60	0.41
15:AG:21:GLU:H	15:AG:21:GLU:HG2	1.60	0.41
15:AG:59:GLN:HA	80:B2:155:U:C2'	2.50	0.41
16:AH:35:LYS:NZ	16:AH:36:ALA:H	2.17	0.41
17:AI:54:LYS:NZ	80:B2:333:A:H5"	2.36	0.41
18:AJ:108:ARG:HG2	18:AJ:147:MET:HE2	2.02	0.41
21:AM:67:THR:HB	80:B2:1228:G:H1	1.85	0.41
21:AM:98:GLY:CA	21:AM:118:ALA:HB2	2.50	0.41
21:AM:131:ASP:OD1	21:AM:132:GLU:N	2.53	0.41
23:AO:130:GLY:N	80:B2:991:G:P	2.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AP:39:ALA:N	80:B2:1549:C:OP2	2.49	0.41
28:AT:6:VAL:C	28:AT:8:ASP:N	2.78	0.41
29:AU:57:ARG:HG2	80:B2:1382:A:H1'	1.99	0.41
35:BA:23:ARG:C	35:BA:24:GLN:O	2.63	0.41
35:BA:68:LYS:NZ	81:B5:1650:G:OP1	2.53	0.41
35:BA:246:LEU:HD13	81:B5:2153:U:H5"	2.02	0.41
36:BB:120:LYS:HB2	81:B5:3296:A:OP1	2.20	0.41
40:BF:102:VAL:HG12	40:BF:130:ILE:HD12	2.02	0.41
41:BG:71:VAL:CG2	41:BG:76:ALA:HB2	2.50	0.41
42:BH:91:ARG:HG2	42:BH:182:SER:HB3	2.02	0.41
43:BI:198:LYS:HE3	81:B5:1041:U:H1'	2.01	0.41
46:BL:109:PHE:O	46:BL:113:VAL:HG23	2.20	0.41
46:BL:144:THR:C	46:BL:146:PRO:HD3	2.45	0.41
48:BN:113:LEU:HD11	83:B8:142:C:C5'	2.51	0.41
52:BR:58:HIS:O	81:B5:1690:C:H5"	2.20	0.41
53:BS:50:LYS:NZ	82:B7:76:A:N3	2.67	0.41
54:BT:9:SER:N	81:B5:2631:U:OP1	2.53	0.41
58:BX:105:VAL:HG13	58:BX:130:TYR:CG	2.56	0.41
60:BZ:46:ILE:HD12	60:BZ:46:ILE:C	2.46	0.41
64:Bd:15:ASN:HB3	81:B5:3324:C:OP1	2.20	0.41
65:Be:23:ASP:OD2	81:B5:424:G:O2'	2.36	0.41
65:Be:123:LYS:HA	65:Be:126:LEU:CG	2.51	0.41
70:Bj:6:PRO:HB3	81:B5:1851:G:O2'	2.21	0.41
73:Bm:100:TYR:CE2	81:B5:2907:G:O4'	2.74	0.41
79:By:22:ILE:CG1	79:CL:21:THR:CA	2.88	0.41
79:By:176:GLY:HA3	79:CL:41:VAL:N	2.08	0.41
79:By:208:PHE:CA	79:CL:209:LEU:CD2	2.56	0.41
79:By:219:GLY:O	79:CL:218:MET:HA	2.21	0.41
79:By:220:PRO:HG3	79:CL:3:HIS:CE1	2.56	0.41
79:By:225:ASN:HA	79:CL:19:ILE:HG12	1.62	0.41
79:By:225:ASN:N	79:CL:224:ILE:HA	1.99	0.41
80:B2:132:U:C1'	80:B2:133:U:OP2	2.58	0.41
80:B2:420:A:H2	85:CP:289:LEU:CD2	2.32	0.41
80:B2:830:U:O2	80:B2:830:U:H2'	2.20	0.41
80:B2:1540:G:C6	80:B2:1541:G:C4	3.07	0.41
80:B2:1654:G:H2'	80:B2:1745:G:N2	2.35	0.41
89:B2:2022:OHX:N1	89:B2:2069:OHX:N4	2.68	0.41
81:B5:594:U:C5'	81:B5:609:G:H1	2.34	0.41
81:B5:629:U:H2'	81:B5:630:A:H8	1.86	0.41
81:B5:949:C:O2'	81:B5:971:G:OP1	2.38	0.41
81:B5:1760:A:H5'	81:B5:1761:C:OP2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:1939:G:C6	81:B5:2110:G:O6	2.74	0.41
81:B5:2840:C:H2'	81:B5:2841:G:O4'	2.20	0.41
81:B5:3089:C:H2'	81:B5:3090:U:O4'	2.21	0.41
84:CN:2124:C:H3'	84:CN:2125:G:H5"	2.01	0.41
84:CN:2158:C:H3'	84:CN:2159:C:H5"	2.02	0.41
85:CP:131:LYS:HD3	90:CP:401:GCP:N1	2.13	0.41
7:A6:74:THR:CG2	7:A6:79:TYR:HB2	2.48	0.41
9:AA:198:MET:SD	9:AA:199:PRO:HD2	2.61	0.41
10:AB:37:THR:C	10:AB:38:PHE:CG	2.98	0.41
10:AB:115:ARG:HD3	10:AB:115:ARG:HA	1.73	0.41
11:AC:91:ARG:HA	80:B2:1147:A:P	2.60	0.41
13:AE:2:ALA:O	80:B2:94:U:OP1	2.37	0.41
13:AE:3:ARG:HB2	80:B2:94:U:P	2.60	0.41
14:AF:65:ARG:HA	14:AF:66:GLN:C	2.45	0.41
14:AF:185:ARG:NH2	80:B2:1572:G:O3'	2.53	0.41
16:AH:99:LEU:HD23	16:AH:100:PRO:HD2	2.02	0.41
20:AL:98:ASN:ND2	31:AW:79:PHE:HD2	2.19	0.41
22:AN:123:HIS:CD2	81:B5:847:A:H4'	2.56	0.41
25:AQ:22:VAL:HG22	25:AQ:65:ILE:CD1	2.49	0.41
25:AQ:39:VAL:O	25:AQ:40:GLU:C	2.63	0.41
26:AR:60:ARG:NH1	80:B2:1400:A:O3'	2.53	0.41
27:AS:8:GLN:HB2	27:AS:9:GLY:H	1.56	0.41
27:AS:30:TYR:HE2	80:B2:1539:G:H5'	1.86	0.41
30:AV:28:ASP:C	30:AV:30:ALA:H	2.29	0.41
32:AX:47:SER:HB3	80:B2:600:U:H1'	2.01	0.41
33:AY:44:LEU:HA	33:AY:47:VAL:HG22	2.03	0.41
36:BB:102:LEU:O	81:B5:3147:G:H4'	2.21	0.41
37:BC:195:ARG:O	37:BC:196:ASN:HB2	2.21	0.41
38:BD:110:LEU:HD23	38:BD:110:LEU:C	2.44	0.41
38:BD:266:ALA:CA	82:B7:1:G:C1'	2.99	0.41
40:BF:73:GLY:O	54:BT:143:THR:HB	2.20	0.41
43:BI:24:ARG:O	43:BI:25:ALA:HB3	2.21	0.41
44:BJ:97:SER:HB2	81:B5:2672:G:C1'	2.38	0.41
46:BL:65:TYR:CG	81:B5:103:G:H5'	2.55	0.41
51:BQ:55:SER:HB3	81:B5:671:U:H5"	2.03	0.41
55:BU:14:THR:HG23	55:BU:66:VAL:HG13	2.02	0.41
58:BX:125:ARG:NH2	81:B5:1610:G:OP1	2.49	0.41
60:BZ:70:PRO:CD	81:B5:1629:U:O2	2.67	0.41
60:BZ:81:LEU:HD12	67:Bg:93:PHE:CD2	2.55	0.41
60:BZ:92:PHE:HA	60:BZ:95:VAL:HG23	2.01	0.41
61:Ba:14:HIS:ND1	61:Ba:14:HIS:N	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Ba:64:GLN:NE2	81:B5:70:A:H5'	2.29	0.41
74:Bn:2:ARG:CD	80:B2:1772:C:C3'	2.59	0.41
79:By:20:TYR:OH	79:CL:13:LYS:N	2.52	0.41
79:By:125:SER:N	79:CL:123:VAL:O	2.47	0.41
79:By:138:PRO:CG	79:CL:137:LEU:HA	2.47	0.41
79:By:187:ASP:H	79:CL:185:LEU:CB	2.31	0.41
79:By:199:HIS:HB3	79:CL:199:HIS:CA	2.50	0.41
79:By:215:THR:HB	79:CL:215:THR:HG21	1.45	0.41
80:B2:51:A:N9	85:CP:242:GLY:HA2	0.45	0.41
80:B2:74:U:H1'	80:B2:75:U:O5'	2.20	0.41
80:B2:499:U:H2'	80:B2:500:C:C6	2.55	0.41
80:B2:948:G:H2'	80:B2:949:C:O4'	2.21	0.41
80:B2:1344:A:H4'	80:B2:1345:A:OP1	2.19	0.41
80:B2:1346:A:H8	80:B2:1370:U:O2	2.03	0.41
81:B5:240:U:O2'	81:B5:241:G:H8	2.02	0.41
81:B5:1403:C:C2	81:B5:1409:G:C2	3.08	0.41
81:B5:2191:U:H2'	81:B5:2192:C:O4'	2.20	0.41
81:B5:2222:A:H8	81:B5:2222:A:O5'	2.04	0.41
81:B5:2397:A:C2	81:B5:2873:U:H5'	2.55	0.41
81:B5:2775:U:H2'	81:B5:2776:C:C6	2.56	0.41
82:B7:110:G:C6	82:B7:111:U:C4	3.08	0.41
79:CL:53:ARG:O	79:CL:55:ASP:CG	2.63	0.41
84:CN:2175:G:C5'	84:CN:2175:G:C8	3.03	0.41
1:A0:98:PRO:C	80:B2:1798:U:C4	2.99	0.41
2:A1:67:THR:CA	80:B2:872:G:O4'	2.68	0.41
3:A2:46:GLY:HA2	14:AF:166:ARG:HD2	2.02	0.41
8:A7:104:LYS:HB3	80:B2:575:C:H5'	2.01	0.41
9:AA:13:ASP:O	9:AA:16:LEU:HB2	2.21	0.41
9:AA:83:GLN:HG2	9:AA:100:GLY:H	1.84	0.41
9:AA:177:LEU:HD23	9:AA:177:LEU:HA	1.94	0.41
10:AB:96:LEU:O	10:AB:96:LEU:HD23	2.20	0.41
11:AC:106:ASP:OD1	11:AC:106:ASP:N	2.44	0.41
12:AD:159:HIS:CG	80:B2:1422:A:C4'	2.98	0.41
12:AD:167:PHE:HD1	12:AD:190:ARG:HD3	1.85	0.41
13:AE:36:HIS:HE2	13:AE:88:ASP:CG	2.28	0.41
13:AE:121:TYR:HA	13:AE:163:ASP:O	2.21	0.41
15:AG:1:MET:CE	15:AG:106:LEU:HB2	2.50	0.41
15:AG:133:LEU:HG	80:B2:66:U:C5	2.55	0.41
16:AH:162:ILE:HA	16:AH:165:LYS:HG3	2.02	0.41
23:AO:105:LEU:HD12	23:AO:106:ALA:N	2.36	0.41
24:AP:12:PHE:CB	44:BJ:85:LYS:HD2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AR:24:LEU:HA	26:AR:31:ASN:OD1	2.21	0.41
28:AT:86:ARG:HG3	28:AT:86:ARG:NH1	2.31	0.41
33:AY:14:SER:HB3	33:AY:21:LYS:HE3	2.02	0.41
33:AY:47:VAL:HG23	33:AY:48:TYR:HD1	1.84	0.41
36:BB:73:VAL:HG13	56:BV:89:ASP:C	2.46	0.41
36:BB:199:PHE:C	36:BB:201:LYS:H	2.28	0.41
37:BC:52:VAL:HB	37:BC:99:MET:CE	2.51	0.41
37:BC:80:GLY:HA2	37:BC:85:SER:OG	2.20	0.41
37:BC:118:LYS:O	37:BC:122:THR:HG22	2.20	0.41
38:BD:49:TYR:CE1	38:BD:75:LEU:HD12	2.56	0.41
40:BF:121:LYS:HB2	54:BT:133:ALA:HB3	2.03	0.41
41:BG:241:LYS:CD	81:B5:2584:G:N2	2.84	0.41
43:BI:4:ARG:HB2	81:B5:2828:G:O3’	2.20	0.41
43:BI:212:GLU:C	43:BI:214:PRO:HD3	2.46	0.41
44:BJ:92:ARG:HH12	44:BJ:94:ARG:HH11	1.67	0.41
48:BN:194:GLN:HG2	48:BN:194:GLN:H	1.55	0.41
49:BO:88[B]:VAL:HG12	49:BO:89[B]:SER:N	2.36	0.41
49:BO:156[B]:LEU:HD13	81:B5:3243:A:C8	2.56	0.41
50:BP:46:LYS:HE3	50:BP:46:LYS:HB2	1.87	0.41
52:BR:162:ARG:HG2	80:B2:849:C:H6	1.85	0.41
56:BV:87:ARG:HH12	56:BV:137:VAL:HG11	1.85	0.41
58:BX:51:VAL:HA	58:BX:52:PRO:HD3	1.95	0.41
60:BZ:65:ARG:HG3	60:BZ:65:ARG:NH1	2.34	0.41
73:Bm:112:LYS:HZ2	81:B5:3107:U:P	2.42	0.41
75:Bo:34:SER:C	75:Bo:36:PHE:H	2.29	0.41
79:By:23:ASP:OD2	79:CL:27:HIS:CD2	2.74	0.41
79:By:32:LEU:HD11	79:CL:10:LEU:HD13	1.79	0.41
79:By:87:GLU:HG2	79:CL:93:TYR:HA	1.81	0.41
79:By:116:THR:O	79:CL:77:ILE:CG2	2.59	0.41
79:By:191:ALA:C	79:CL:193:ILE:N	2.78	0.41
80:B2:570:A:H5”	80:B2:571:G:OP2	2.21	0.41
80:B2:1133:A:H2’	80:B2:1134:C:O4’	2.19	0.41
80:B2:1172:G:C5	80:B2:1173:C:C4	3.09	0.41
80:B2:1655:A:C1’	81:B5:2302:G:C4’	2.99	0.41
89:B2:1922:OHX:N6	89:B2:1977:OHX:N6	2.68	0.41
81:B5:118:U:C5	81:B5:119:U:C4	3.09	0.41
81:B5:372:A:C6	81:B5:373:A:C6	3.09	0.41
81:B5:600:G:H5’	81:B5:601:U:OP2	2.20	0.41
81:B5:916:G:C5’	81:B5:917:A:OP1	2.69	0.41
81:B5:1393:A:N3	81:B5:1419:A:O2’	2.50	0.41
81:B5:2558:U:O2’	81:B5:2559:U:H5’	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2572:C:O2'	81:B5:2573:G:P	2.79	0.41
81:B5:2666:C:H2'	81:B5:2667:A:H5"	2.03	0.41
81:B5:3242:G:C5'	81:B5:3245:A:C8	3.03	0.41
79:CL:88:GLU:O	79:CL:89:ALA:CB	2.68	0.41
84:CN:2132:C:C5	84:CN:2139:U:C2	3.08	0.41
84:CN:2170:G:N3	84:CN:2170:G:O4'	2.52	0.41
85:CP:232:ALA:HB3	85:CP:321:LEU:HB3	2.02	0.41
1:A0:44:ILE:H	1:A0:44:ILE:CD1	2.24	0.41
2:A1:15:GLU:OE2	2:A1:24:LEU:N	2.50	0.41
2:A1:32:PHE:CZ	22:AN:61:THR:HG22	2.56	0.41
7:A6:236:ALA:C	7:A6:237:GLN:HG2	2.45	0.41
8:A7:117:LEU:O	8:A7:118:SER:C	2.63	0.41
9:AA:63:ILE:HG23	30:AV:35:ASN:O	2.20	0.41
10:AB:171:ILE:O	10:AB:175:GLU:HG2	2.21	0.41
10:AB:207:LEU:HB3	10:AB:210:ILE:HD11	2.02	0.41
12:AD:7:LYS:HB2	80:B2:1515:A:OP2	2.21	0.41
12:AD:138:VAL:O	12:AD:149:ALA:HA	2.20	0.41
12:AD:204:ASP:OD1	80:B2:1330:G:C2	2.59	0.41
13:AE:104:ASP:HB3	13:AE:106:LYS:N	2.33	0.41
13:AE:180:LEU:HD23	13:AE:180:LEU:HA	1.81	0.41
14:AF:217:LEU:HD23	14:AF:217:LEU:HA	1.90	0.41
15:AG:173:PRO:HB2	15:AG:174:LYS:H	1.55	0.41
26:AR:10:LYS:HG2	26:AR:53:TYR:CE2	2.56	0.41
27:AS:11:PHE:HE1	27:AS:13:HIS:HA	1.86	0.41
28:AT:130:ARG:HH11	28:AT:130:ARG:HG2	1.86	0.41
30:AV:3:ASN:OD1	30:AV:7:GLN:HB2	2.20	0.41
34:AZ:90:LYS:HB3	34:AZ:90:LYS:HE2	1.74	0.41
35:BA:152:SER:HB3	81:B5:2157:G:C6	2.39	0.41
37:BC:44:LYS:HB3	37:BC:47:ARG:HH11	1.84	0.41
37:BC:255:PHE:O	37:BC:258:LEU:HB2	2.21	0.41
37:BC:352:ALA:O	37:BC:354:VAL:N	2.52	0.41
39:BE:47:PHE:CD1	39:BE:74:VAL:HG22	2.56	0.41
45:BK:123:UNK:O	81:B5:1257:C:C6	2.73	0.41
48:BN:183:THR:O	48:BN:183:THR:CG2	2.68	0.41
49:BO:49[B]:ARG:O	49:BO:52[B]:LEU:HB2	2.21	0.41
52:BR:134:HIS:HB3	81:B5:1947:G:H4'	2.01	0.41
52:BR:167:ARG:O	80:B2:851:U:H3'	2.19	0.41
59:BY:37:LYS:HE2	59:BY:37:LYS:H	1.85	0.41
61:Ba:79:TRP:CH2	61:Ba:91:LEU:HD13	2.56	0.41
70:Bj:8:PHE:CD2	81:B5:1845:G:O2'	2.63	0.41
74:Bn:22:ALA:C	74:Bn:24:SER:H	2.29	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:30:LYS:HB2	79:CL:33:ALA:O	2.20	0.41
79:By:47:LEU:O	79:CL:210:ARG:CZ	2.68	0.41
79:By:92:ASP:CA	79:CL:93:TYR:HE2	2.31	0.41
79:By:217:THR:CA	79:CL:218:MET:H	2.27	0.41
79:By:227:HIS:HD2	79:CL:227:HIS:CA	2.30	0.41
80:B2:82:U:H2'	80:B2:83:G:O4'	2.21	0.41
80:B2:279:G:C3'	80:B2:279:G:C8	3.03	0.41
80:B2:732:G:N1	89:B2:2011:OHX:N3	2.68	0.41
80:B2:817:A:C6	80:B2:818:C:N4	2.89	0.41
80:B2:926:A:OP1	80:B2:1016:C:O2'	2.22	0.41
80:B2:1244:A:O2'	80:B2:1245:G:P	2.78	0.41
89:B2:1982:OHX:N5	89:B2:2079:OHX:N6	2.68	0.41
89:B2:2022:OHX:N1	89:B2:2069:OHX:N3	2.69	0.41
81:B5:945:C:H2'	81:B5:946:U:C6	2.56	0.41
81:B5:1283:C:C2'	81:B5:1284:C:H5'	2.51	0.41
81:B5:1596:C:H2'	81:B5:1597:C:C6	2.56	0.41
81:B5:1766:G:C2'	81:B5:1767:C:H5'	2.51	0.41
81:B5:2101:C:O2'	81:B5:2102:U:P	2.78	0.41
81:B5:2504:U:O2'	81:B5:2505:U:OP1	2.35	0.41
81:B5:2660:G:H4'	81:B5:2750:U:O2	2.21	0.41
81:B5:2802:A:C4	86:CW:75:C:N4	2.88	0.41
81:B5:3155:U:C3'	81:B5:3156:U:H5"	2.49	0.41
1:A0:3:LYS:HE3	80:B2:1030:A:P	2.61	0.41
1:A0:82:ARG:O	1:A0:84:VAL:HG12	2.20	0.41
1:A0:87:ARG:HH11	80:B2:1796:C:P	2.44	0.41
1:A0:95:ARG:O	80:B2:1797:A:H4'	2.21	0.41
4:A3:41:GLN:HG2	80:B2:1433:G:C8	2.56	0.41
6:A5:108:VAL:HG13	21:AM:73:LYS:HZ2	1.86	0.41
6:A5:133:ALA:HB2	80:B2:1252:C:C1'	2.51	0.41
7:A6:38:ARG:HG2	7:A6:67:ILE:HD13	2.03	0.41
7:A6:52:GLN:CD	7:A6:52:GLN:H	2.29	0.41
7:A6:222:LEU:HA	7:A6:222:LEU:HD13	1.78	0.41
7:A6:307:ASP:O	7:A6:309:VAL:HG23	2.21	0.41
10:AB:77:GLU:C	10:AB:79:HIS:N	2.78	0.41
10:AB:131:ASP:OD2	10:AB:180:THR:HG21	2.19	0.41
14:AF:49:GLU:O	14:AF:51:VAL:HG23	2.21	0.41
15:AG:87:ARG:HD2	80:B2:159:U:O2	2.21	0.41
15:AG:133:LEU:HD11	80:B2:66:U:C2	2.40	0.41
15:AG:159:ARG:CZ	80:B2:77:U:C2	3.04	0.41
16:AH:28:GLU:O	16:AH:30:SER:N	2.52	0.41
18:AJ:133:HIS:CD2	18:AJ:133:HIS:H	2.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AP:42:ARG:NH1	80:B2:1549:C:P	2.93	0.41
24:AP:128:HIS:O	24:AP:130:ARG:HG2	2.20	0.41
25:AQ:59:LYS:HA	25:AQ:59:LYS:HD3	1.90	0.41
26:AR:23:LYS:O	26:AR:24:LEU:HB2	2.21	0.41
29:AU:34:LEU:HD23	29:AU:112:VAL:HG13	2.02	0.41
33:AY:11:LYS:HE2	80:B2:776:G:N7	2.36	0.41
33:AY:14:SER:CB	33:AY:21:LYS:HE3	2.49	0.41
34:AZ:54:VAL:HG22	34:AZ:57:TYR:HE2	1.85	0.41
36:BB:43:LEU:HG	36:BB:181:ILE:HG21	2.03	0.41
36:BB:57:VAL:HG23	36:BB:358:TRP:HE3	1.85	0.41
36:BB:245:GLY:HA2	81:B5:1889:G:C5'	2.47	0.41
38:BD:179:ARG:NE	81:B5:2746:A:OP1	2.51	0.41
39:BE:18:LEU:O	81:B5:592:A:H4'	2.20	0.41
41:BG:230:LYS:HE3	41:BG:230:LYS:HB2	1.88	0.41
42:BH:37:ASN:OD1	42:BH:39:LYS:HB2	2.21	0.41
42:BH:117:PHE:CZ	42:BH:165:CYS:HB3	2.55	0.41
43:BI:157:TYR:HB3	81:B5:2836:C:H1'	2.03	0.41
47:BM:47:ASP:CG	47:BM:55:ARG:HB2	2.46	0.41
48:BN:28:TRP:O	48:BN:32:GLN:HG2	2.21	0.41
49:BO:108[A]:ILE:HD13	49:BO:160[A]:ARG:HD2	2.02	0.41
49:BO:121[A]:PRO:HA	49:BO:124[A]:LEU:HD22	2.02	0.41
52:BR:7:GLN:H	52:BR:7:GLN:HG2	1.41	0.41
53:BS:7:TYR:CE2	53:BS:34:GLU:HG2	2.56	0.41
54:BT:69:LYS:HB3	81:B5:2737:C:OP1	2.21	0.41
56:BV:128:ARG:CZ	56:BV:128:ARG:HB3	2.51	0.41
58:BX:40:LEU:HD13	58:BX:40:LEU:HA	1.82	0.41
60:BZ:68:ILE:O	60:BZ:115:LYS:HG3	2.21	0.41
66:Bf:67:MET:HE1	81:B5:430:U:H5'	2.01	0.41
69:Bi:36:ARG:NH1	81:B5:116:A:OP2	2.53	0.41
69:Bi:76:ARG:HD3	81:B5:294:U:P	2.55	0.41
70:Bj:4:GLY:O	70:Bj:5:THR:C	2.64	0.41
79:By:102:LYS:HB2	79:CL:102:LYS:CA	2.51	0.41
79:By:117:PRO:N	79:CL:119:VAL:C	2.69	0.41
79:By:196:LEU:CD2	79:CL:171:ILE:HG21	2.51	0.41
79:By:213:TYR:CE2	79:CL:213:TYR:CD2	3.02	0.41
80:B2:229:U:H2'	80:B2:230:C:H6	1.85	0.41
80:B2:714:G:C6	80:B2:715:U:C2	3.08	0.41
80:B2:1162:C:H5"	80:B2:1163:A:OP2	2.20	0.41
80:B2:1274:C:H4'	80:B2:1275:A:O5'	2.21	0.41
80:B2:1301:U:H2'	80:B2:1302:U:O4'	2.21	0.41
80:B2:1748:G:O6	89:B2:1983:OHX:N4	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
89:B2:2016:OHX:N4	89:B2:2073:OHX:N2	2.69	0.41
81:B5:1056:U:H2'	81:B5:1057:A:O5'	2.21	0.41
81:B5:1480:G:H4'	81:B5:1481:A:OP1	2.21	0.41
81:B5:1685:C:H2'	81:B5:1686:U:C6	2.56	0.41
81:B5:1821:U:H4'	81:B5:1822:C:OP2	2.21	0.41
81:B5:2405:C:O2	81:B5:2819:A:N1	2.53	0.41
81:B5:2442:G:C2	81:B5:2443:A:N7	2.89	0.41
81:B5:2443:A:N3	84:CN:2208:G:O3'	2.41	0.41
81:B5:2926:A:O2'	81:B5:2927:C:H5'	2.21	0.41
84:CN:2155:A:C8	84:CN:2156:A:C8	3.07	0.41
84:CN:2157:C:H6	84:CN:2157:C:O5'	2.03	0.41
1:A0:92:ARG:CB	80:B2:1796:C:O2	2.60	0.41
4:A3:5:ASN:HB3	4:A3:7:TRP:CD1	2.56	0.41
5:A4:38:LEU:O	5:A4:42:ARG:HB2	2.21	0.41
8:A7:29:ASN:N	81:B5:2708:C:H5'	2.22	0.41
8:A7:64:LYS:O	8:A7:65:THR:HG23	2.20	0.41
8:A7:68:ARG:HD3	80:B2:1460:A:OP2	2.21	0.41
10:AB:36:SER:HB2	10:AB:231:LEU:HB3	2.03	0.41
10:AB:141:ALA:HB1	10:AB:207:LEU:CD2	2.49	0.41
12:AD:53:THR:HG22	12:AD:91:VAL:HG11	2.03	0.41
13:AE:3:ARG:CB	80:B2:93:A:O3'	2.69	0.41
13:AE:19:LEU:HD23	13:AE:19:LEU:HA	1.80	0.41
13:AE:68:ARG:NH1	13:AE:76:VAL:HG21	2.35	0.41
13:AE:123:LEU:HD22	13:AE:236:ILE:HG23	2.03	0.41
13:AE:129:VAL:HB	13:AE:139:VAL:HG12	2.03	0.41
14:AF:103:ASN:OD1	80:B2:1473:U:C2	2.74	0.41
16:AH:129:LEU:HA	16:AH:129:LEU:HD23	1.79	0.41
17:AI:2:GLY:HA3	80:B2:400:A:N6	2.36	0.41
18:AJ:146:PHE:CZ	18:AJ:149:ARG:HD3	2.56	0.41
20:AL:118:GLN:HG3	20:AL:119:VAL:N	2.35	0.41
22:AN:20:ARG:NE	80:B2:862:A:OP1	2.51	0.41
22:AN:33:VAL:HA	22:AN:36:GLN:HB2	2.02	0.41
22:AN:93:LYS:HG3	22:AN:150:VAL:HG11	2.03	0.41
23:AO:35:GLY:CA	80:B2:919:A:C4'	2.72	0.41
23:AO:51:ASP:CB	80:B2:902:G:H1	2.34	0.41
23:AO:137:LEU:HB3	80:B2:1007:C:H5'	2.02	0.41
24:AP:68:PRO:HG2	24:AP:71:GLU:OE1	2.21	0.41
24:AP:96:ILE:CD1	24:AP:116:LEU:HD22	2.51	0.41
26:AR:88:VAL:CG2	26:AR:89:SER:H	2.26	0.41
27:AS:27:LYS:HA	27:AS:57:ARG:HE	1.84	0.41
28:AT:72:GLY:O	28:AT:76:LEU:HG	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AU:37:VAL:O	29:AU:41:ILE:HD13	2.21	0.41
33:AY:44:LEU:HA	33:AY:47:VAL:CG2	2.51	0.41
33:AY:47:VAL:HG12	80:B2:781:U:O2	2.20	0.41
35:BA:179:LEU:O	35:BA:184:ARG:HD2	2.21	0.41
36:BB:30:LYS:NZ	81:B5:3139:A:OP2	2.40	0.41
36:BB:233:TRP:CD1	36:BB:265:ALA:HB1	2.56	0.41
37:BC:305:ALA:N	81:B5:1347:U:H4'	2.36	0.41
38:BD:16:PHE:HA	81:B5:2688:U:O2'	2.19	0.41
38:BD:155:THR:HG22	38:BD:179:ARG:NH1	2.36	0.41
38:BD:257:GLU:N	38:BD:257:GLU:CD	2.79	0.41
40:BF:22:THR:HA	40:BF:25:GLN:OE1	2.20	0.41
40:BF:69:ALA:O	40:BF:70:LYS:C	2.63	0.41
40:BF:229:PHE:C	40:BF:229:PHE:HD1	2.29	0.41
41:BG:205:ALA:HA	41:BG:208:GLU:OE1	2.21	0.41
42:BH:66:ALA:O	42:BH:70:THR:HG22	2.21	0.41
42:BH:98:PRO:HB2	85:CP:136:TYR:HD2	1.11	0.41
42:BH:150:SER:O	42:BH:151:VAL:C	2.64	0.41
44:BJ:128:TYR:CD2	81:B5:2683:U:H1'	2.56	0.41
48:BN:78:GLY:HA2	48:BN:89:VAL:HG21	2.02	0.41
48:BN:102:ALA:O	48:BN:106:VAL:HG13	2.21	0.41
48:BN:135:VAL:O	48:BN:137:PRO:HD3	2.21	0.41
49:BO:96[A]:LYS:HE2	81:B5:2384:A:N1	2.36	0.41
54:BT:49:GLN:CB	81:B5:2756:C:O4'	2.69	0.41
54:BT:85:LEU:HD13	81:B5:2728:G:C8	2.56	0.41
54:BT:129:LYS:CA	81:B5:1098:A:OP2	2.69	0.41
58:BX:33:ARG:CZ	81:B5:1580:A:H62	2.34	0.41
59:BY:11:ASP:HB3	59:BY:14:LYS:HG3	2.02	0.41
61:Ba:13:GLY:O	65:Be:36:LYS:HE2	2.20	0.41
62:Bb:37:PRO:HG3	81:B5:776:U:H1'	2.02	0.41
62:Bb:47:LEU:HD12	81:B5:749:C:O2'	2.20	0.41
64:Bd:9:THR:HA	64:Bd:76:SER:HA	2.03	0.41
65:Be:34:LYS:O	65:Be:36:LYS:HD3	2.21	0.41
65:Be:44:ARG:O	65:Be:45:ARG:HB2	2.21	0.41
70:Bj:63:ARG:O	70:Bj:68:LYS:HE2	2.19	0.41
73:Bm:88:LYS:HB3	73:Bm:88:LYS:HE3	1.63	0.41
75:Bo:43:TYR:OH	75:Bo:47:GLN:NE2	2.54	0.41
79:By:46:LYS:HD2	84:CN:2199:C:H4'	2.01	0.41
79:By:79:LYS:HD2	79:CL:116:THR:H	1.86	0.41
79:By:98:GLU:OE1	79:CL:98:GLU:CD	2.58	0.41
79:By:102:LYS:NZ	79:CL:104:LEU:HD21	2.28	0.41
79:By:141:LYS:CA	79:CL:141:LYS:C	2.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:145:VAL:HG12	79:CL:138:PRO:HB3	1.73	0.41
79:By:157:LYS:NZ	79:CL:71:GLN:CG	2.83	0.41
79:By:186:ALA:O	79:CL:22:ILE:O	2.37	0.41
79:By:208:PHE:CD2	79:CL:209:LEU:CD2	3.04	0.41
79:By:214:VAL:HG13	79:CL:215:THR:H	1.46	0.41
80:B2:5:U:H2'	80:B2:6:G:H8	1.86	0.41
80:B2:74:U:O2'	80:B2:75:U:H5'	2.20	0.41
80:B2:190:C:C4	80:B2:196:G:C6	3.09	0.41
80:B2:196:G:O2'	80:B2:197:A:H8	2.02	0.41
80:B2:419:G:H22	85:CP:289:LEU:HD11	1.84	0.41
80:B2:458:G:H5"	80:B2:459:G:OP1	2.21	0.41
80:B2:473:A:H2'	80:B2:474:A:H5'	2.03	0.41
80:B2:487:G:C6	80:B2:488:G:C8	3.09	0.41
80:B2:1053:G:C8	80:B2:1053:G:H5'	2.56	0.41
80:B2:1138:A:H2'	80:B2:1139:A:H8	1.86	0.41
80:B2:1281:G:C5	80:B2:1282:U:C5	3.09	0.41
80:B2:1340:U:C2	80:B2:1378:U:H4'	2.56	0.41
80:B2:1413:U:O2	89:B2:1950:OHX:N4	2.54	0.41
80:B2:1490:C:O4'	80:B2:1490:C:P	2.78	0.41
80:B2:1756[A]:A:OP2	80:B2:1756[A]:A:H8	2.04	0.41
80:B2:1762:A:C1'	80:B2:1783:C:H5'	2.49	0.41
81:B5:36:C:C2'	81:B5:37:U:H5'	2.51	0.41
81:B5:242:C:H2'	81:B5:243:G:C8	2.55	0.41
81:B5:248:U:O2	81:B5:248:U:H2'	2.20	0.41
81:B5:438:A:O2'	81:B5:439:C:P	2.79	0.41
81:B5:594:U:O2'	81:B5:595:G:H5'	2.21	0.41
81:B5:622:A:H8	81:B5:622:A:O5'	2.03	0.41
81:B5:1072:G:H2'	81:B5:1073:U:C6	2.56	0.41
81:B5:1116:G:H4'	81:B5:1117:G:OP2	2.20	0.41
81:B5:1284:C:H4'	81:B5:1285:G:OP1	2.21	0.41
81:B5:1358:C:H2'	81:B5:1359:C:O4'	2.21	0.41
81:B5:1622:U:H2'	81:B5:1623:G:O4'	2.20	0.41
81:B5:2199:G:H2'	81:B5:2200:U:H6	1.86	0.41
81:B5:2911:A:H4'	81:B5:2912:G:C8	2.56	0.41
81:B5:2995:A:H8	81:B5:2995:A:O5'	2.03	0.41
81:B5:3132:C:H2'	81:B5:3133:C:C6	2.56	0.41
82:B7:24:A:H2'	82:B7:25:G:O4'	2.21	0.41
82:B7:90:U:O5'	82:B7:90:U:H6	2.04	0.41
83:B8:65:A:H2'	83:B8:66:A:O4'	2.21	0.41
85:CP:63:GLU:CA	85:CP:63:GLU:N	2.84	0.41
1:A0:85:ARG:HD3	1:A0:85:ARG:HA	1.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A2:21:SER:OG	3:A2:22:ARG:N	2.54	0.41
4:A3:14:TYR:CE2	80:B2:1597:A:N7	2.89	0.41
8:A7:116:GLU:O	8:A7:117:LEU:C	2.63	0.41
9:AA:59:LEU:O	9:AA:63:ILE:HG13	2.21	0.41
11:AC:54:GLU:OE2	11:AC:110:HIS:NE2	2.53	0.41
12:AD:71:LEU:HD23	12:AD:71:LEU:HA	1.85	0.41
13:AE:52:LEU:O	13:AE:54:TYR:N	2.54	0.41
13:AE:208:VAL:HG12	13:AE:210:ILE:HD11	2.02	0.41
15:AG:39:GLU:HB2	15:AG:46:LYS:HG3	2.03	0.41
15:AG:60:GLY:C	80:B2:154:G:N3	2.79	0.41
15:AG:185:GLN:HB2	80:B2:284:G:O6	2.21	0.41
17:AI:103:GLN:NE2	17:AI:166:TYR:CE1	2.89	0.41
20:AL:22:ASN:HA	20:AL:23:PRO:HD3	1.78	0.41
21:AM:28:LEU:HD22	21:AM:32:LEU:HG	2.02	0.41
27:AS:39:GLY:CA	80:B2:1567:U:OP2	2.69	0.41
28:AT:135:ILE:H	28:AT:135:ILE:HG13	1.53	0.41
32:AX:126:LYS:HA	32:AX:131:SER:HA	2.01	0.41
35:BA:240:ALA:HB2	81:B5:2154:U:O2'	2.21	0.41
36:BB:142:ALA:O	36:BB:146:ARG:N	2.54	0.41
36:BB:245:GLY:CA	81:B5:1889:G:C5'	2.99	0.41
37:BC:203:ARG:NH1	37:BC:226:GLU:OE2	2.54	0.41
41:BG:40:VAL:CG2	81:B5:2558:U:H5'	2.51	0.41
41:BG:229:VAL:C	41:BG:231:LYS:H	2.29	0.41
42:BH:90:MET:HA	42:BH:180:TYR:O	2.21	0.41
44:BJ:151:SER:O	44:BJ:152:HIS:CB	2.68	0.41
48:BN:72:LYS:CD	81:B5:2166:A:O2'	2.68	0.41
48:BN:110:ALA:CB	83:B8:141:C:O2'	2.69	0.41
57:BW:120:LYS:O	57:BW:123:ARG:HB2	2.21	0.41
59:BY:33:ALA:HB2	59:BY:101:PRO:HB2	2.02	0.41
60:BZ:22:LYS:HE2	60:BZ:129:TRP:CH2	2.56	0.41
60:BZ:136:PHE:HB2	67:Bg:88:ARG:HG3	2.03	0.41
61:Ba:79:TRP:CZ3	61:Ba:91:LEU:HD13	2.55	0.41
65:Be:24:ARG:HD3	65:Be:25:TYR:CE2	2.56	0.41
66:Bf:67:MET:CE	81:B5:430:U:H5'	2.51	0.41
67:Bg:101:VAL:C	67:Bg:103:LYS:N	2.78	0.41
72:Bl:44:TRP:CE3	81:B5:1495:U:H6	2.38	0.41
79:By:33:ALA:CB	79:CL:37:PHE:N	2.84	0.41
79:By:42:GLU:OE2	79:CL:42:GLU:OE1	2.39	0.41
79:By:47:LEU:HD13	79:CL:49:ILE:HG12	2.03	0.41
79:By:68:LEU:HD12	79:CL:161:ILE:CG2	2.49	0.41
79:By:71:GLN:O	79:CL:71:GLN:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:By:92:ASP:CA	79:CL:93:TYR:CE2	3.05	0.41
79:By:123:VAL:HG22	79:CL:123:VAL:CG2	2.45	0.41
79:By:163:PHE:HE1	79:CL:60:GLY:CA	2.34	0.41
79:By:187:ASP:C	79:CL:189:ILE:CB	2.94	0.41
79:By:209:LEU:HD12	79:CL:226:PRO:HG3	2.02	0.41
79:By:224:ILE:CA	79:CL:222:VAL:CG1	2.60	0.41
80:B2:1233:G:OP2	89:B2:2042:OHX:N1	2.54	0.41
80:B2:1294:G:O2'	80:B2:1321:A:N1	2.48	0.41
80:B2:1360:A:H2'	80:B2:1361:U:C1'	2.51	0.41
89:B2:1914:OHX:N3	89:B2:1938:OHX:N4	2.69	0.41
89:B2:1918:OHX:N5	89:B2:2049:OHX:N1	2.69	0.41
81:B5:167:U:H2'	81:B5:168:U:H6	1.86	0.41
81:B5:174:C:H2'	81:B5:175:C:O4'	2.21	0.41
81:B5:371:G:H4'	81:B5:396:A:N1	2.36	0.41
81:B5:411:U:H2'	81:B5:412:G:H8	1.86	0.41
81:B5:436:A:H8	81:B5:436:A:H5"	1.86	0.41
81:B5:1064:A:N6	81:B5:1096:U:H3	2.19	0.41
81:B5:2444:C:H2'	84:CN:2208:G:H1'	1.26	0.41
81:B5:2537:U:H6	81:B5:2537:U:O5'	2.04	0.41
81:B5:2573:G:H3'	81:B5:2574:G:H5"	2.02	0.41
81:B5:3156:U:O2'	81:B5:3157:U:O2	2.35	0.41
81:B5:3237:U:H2'	81:B5:3238:G:H5"	2.03	0.41
79:CL:21:THR:O	79:CL:23:ASP:N	2.54	0.41
85:CP:133:ASP:C	85:CP:135:LEU:H	2.29	0.41
1:A0:97:PRO:CA	80:B2:1798:U:C6	3.04	0.40
7:A6:10:ARG:HG2	7:A6:54:PHE:CE1	2.56	0.40
9:AA:148:ASP:OD1	9:AA:149:LEU:N	2.46	0.40
11:AC:44:LEU:HG	11:AC:247:ALA:HB2	2.02	0.40
11:AC:82:ASN:ND2	11:AC:207:LEU:HD12	2.37	0.40
12:AD:74:GLN:OE1	12:AD:81:PRO:HA	2.20	0.40
13:AE:7:LYS:O	80:B2:449:C:H5"	2.20	0.40
13:AE:98:ASN:HD22	13:AE:119:ALA:CB	2.35	0.40
13:AE:100:ARG:NH2	13:AE:121:TYR:O	2.54	0.40
14:AF:29:ILE:HG22	14:AF:34:GLN:CG	2.51	0.40
14:AF:190:ILE:HG23	14:AF:190:ILE:HD12	1.73	0.40
15:AG:70:PRO:C	15:AG:98:ARG:NH2	2.78	0.40
17:AI:21:PHE:O	17:AI:22:ARG:HG2	2.20	0.40
18:AJ:127:VAL:HG21	80:B2:478:A:O4'	2.19	0.40
19:AK:1:MET:CG	19:AK:2:LEU:H	2.35	0.40
20:AL:12:ALA:CB	80:B2:328:A:H4'	2.51	0.40
21:AM:57:ALA:HB3	21:AM:85:LYS:NZ	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AN:28:LEU:HD23	22:AN:28:LEU:HA	1.85	0.40
23:AO:120:PRO:CG	80:B2:888:U:P	3.10	0.40
25:AQ:35:PRO:C	25:AQ:37:THR:H	2.29	0.40
25:AQ:71:GLY:HA2	80:B2:1483:A:H4'	2.02	0.40
25:AQ:73:GLY:C	80:B2:1609:U:OP1	2.64	0.40
27:AS:23:ASP:OD1	27:AS:24:GLY:N	2.54	0.40
27:AS:143:ARG:CZ	80:B2:1461:C:C5	3.04	0.40
34:AZ:41:ILE:O	34:AZ:75:LEU:HD13	2.21	0.40
35:BA:68:LYS:HG3	35:BA:69:TYR:N	2.36	0.40
35:BA:144:ASN:O	35:BA:160:SER:N	2.45	0.40
36:BB:247:ARG:HD3	81:B5:1888:U:P	2.58	0.40
36:BB:365:PHE:CE2	81:B5:3378:C:C2	3.09	0.40
38:BD:257:GLU:CD	38:BD:257:GLU:H	2.29	0.40
38:BD:274:GLN:HE22	82:B7:60:G:N2	2.18	0.40
40:BF:158:LYS:HD2	40:BF:158:LYS:C	2.46	0.40
41:BG:53:PRO:HD2	41:BG:56:VAL:HG21	2.02	0.40
42:BH:23:ARG:HH11	42:BH:23:ARG:HD2	1.59	0.40
44:BJ:9:MET:HG3	44:BJ:10:ARG:H	1.85	0.40
44:BJ:155:THR:OG1	44:BJ:158:ASP:HB2	2.21	0.40
52:BR:38:ARG:O	52:BR:42:ARG:HG3	2.21	0.40
54:BT:22:HIS:ND1	81:B5:2701:U:OP2	2.54	0.40
55:BU:90:ARG:H	55:BU:90:ARG:HG2	1.73	0.40
59:BY:120:GLN:CD	59:BY:126:LEU:HA	2.46	0.40
60:BZ:109:GLU:O	60:BZ:113:VAL:HG23	2.21	0.40
66:Bf:20:LYS:HE3	66:Bf:20:LYS:HB2	1.91	0.40
67:Bg:96:GLU:O	67:Bg:99:LYS:HB2	2.21	0.40
75:Bo:93:LEU:HD12	75:Bo:93:LEU:N	2.36	0.40
79:By:18:LYS:CG	79:CL:15:ASP:HA	2.01	0.40
79:By:66:HIS:NE2	79:CL:184:LYS:HA	2.35	0.40
79:By:82:LYS:HE2	79:CL:82:LYS:HD3	2.02	0.40
79:By:152:ILE:CG1	79:CL:114:VAL:CG1	2.99	0.40
79:By:209:LEU:HD22	79:CL:212:VAL:HG22	1.62	0.40
80:B2:74:U:O2'	80:B2:75:U:P	2.78	0.40
80:B2:377:G:O6	89:B2:1957:OHX:N5	2.55	0.40
80:B2:1096:C:O2	80:B2:1096:C:H2'	2.20	0.40
89:B2:1961:OHX:N3	89:B2:1963:OHX:N1	2.68	0.40
89:B2:1972:OHX:N4	89:B2:1987:OHX:N3	2.68	0.40
81:B5:384:A:H1'	81:B5:1465:A:C8	2.56	0.40
81:B5:529:A:H2'	81:B5:530:G:O4'	2.20	0.40
81:B5:561:C:H2'	81:B5:562:C:H6	1.86	0.40
81:B5:1064:A:N6	81:B5:1096:U:N3	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:1763:U:H3’	81:B5:1764:U:C6	2.56	0.40
81:B5:2314:U:H4’	81:B5:2314:U:OP2	2.20	0.40
81:B5:3028:G:H2’	81:B5:3029:A:C8	2.56	0.40
81:B5:3131:U:H2’	81:B5:3132:C:C6	2.56	0.40
82:B7:27:A:H2’	82:B7:28:C:C6	2.56	0.40
84:CN:2172:G:N1	84:CN:2173:G:C5	2.90	0.40
86:CW:46:G:H3’	86:CW:47:U:H5”	2.03	0.40
1:A0:90:GLU:C	1:A0:92:ARG:H	2.27	0.40
89:A3:102:OHX:N6	89:B2:1940:OHX:N3	2.69	0.40
8:A7:33:LYS:CE	81:B5:2692:A:P	3.02	0.40
14:AF:112:ARG:HD3	34:AZ:95:HIS:NE2	2.35	0.40
15:AG:55:GLY:CA	15:AG:63:MET:HE3	2.51	0.40
17:AI:21:PHE:CZ	17:AI:22:ARG:HD3	2.56	0.40
18:AJ:17:ARG:HA	18:AJ:18:PRO:HD3	1.96	0.40
18:AJ:45:ILE:HD13	18:AJ:45:ILE:HA	1.84	0.40
19:AK:48:SER:HA	80:B2:1219:A:O2’	2.20	0.40
20:AL:103:ARG:NH1	80:B2:307:G:OP1	2.37	0.40
22:AN:27:LYS:HD2	22:AN:28:LEU:H	1.86	0.40
23:AO:50:ALA:C	23:AO:52:ARG:N	2.78	0.40
24:AP:75:PRO:HA	24:AP:93:VAL:HG12	2.03	0.40
25:AQ:123:ARG:N	80:B2:1584:G:H2’	2.36	0.40
27:AS:41:ARG:NE	28:AT:46:PRO:HD3	2.37	0.40
28:AT:89:ARG:HD2	80:B2:1601:G:O6	2.18	0.40
29:AU:50:LEU:HB3	29:AU:51:VAL:H	1.64	0.40
34:AZ:67:ASP:C	34:AZ:69:LEU:H	2.29	0.40
35:BA:85:GLY:CA	81:B5:2554:A:N9	2.85	0.40
38:BD:95:TRP:CZ2	38:BD:181:PRO:HD3	2.54	0.40
38:BD:207:TYR:CD2	82:B7:33:U:C4	3.09	0.40
38:BD:270:LYS:HG3	38:BD:273:ARG:HB3	2.01	0.40
41:BG:52:TRP:NE1	41:BG:60:ARG:HH12	2.19	0.40
41:BG:82:LEU:HD13	41:BG:178:ALA:HB1	2.02	0.40
44:BJ:150:ASN:ND2	82:B7:17:A:OP1	2.52	0.40
46:BL:59:ARG:O	46:BL:60:ALA:HB3	2.20	0.40
48:BN:159:ARG:H	48:BN:159:ARG:HG2	1.73	0.40
49:BO:60[B]:LYS:HE2	81:B5:1307:G:OP1	2.21	0.40
49:BO:133[B]:ARG:HD2	81:B5:1315:U:O2’	2.22	0.40
54:BT:8:ARG:CD	81:B5:2757:U:C4’	2.95	0.40
59:BY:75:ARG:O	59:BY:77:LYS:N	2.53	0.40
62:Bb:12:GLN:CD	81:B5:954:U:H1’	2.46	0.40
62:Bb:21:ILE:C	62:Bb:22:LYS:HG3	2.47	0.40
62:Bb:41:ARG:HD3	81:B5:775:A:H5”	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:Be:55:ILE:HB	81:B5:947:G:C5'	2.43	0.40
66:Bf:102:LEU:HD23	66:Bf:102:LEU:HA	1.84	0.40
67:Bg:52:GLN:HG3	81:B5:1738:C:H4'	2.01	0.40
67:Bg:68:THR:CG2	81:B5:1643:A:O5'	2.70	0.40
79:By:68:LEU:HD22	79:CL:175:VAL:CB	2.43	0.40
79:By:155:GLU:CD	79:CL:155:GLU:HG3	2.39	0.40
79:By:178:ALA:HA	79:CL:33:ALA:HB2	2.03	0.40
79:By:182:PRO:O	79:CL:182:PRO:HA	1.96	0.40
80:B2:142:G:C8	80:B2:266:A:N1	2.89	0.40
80:B2:734:A:H4'	80:B2:735:C:H5'	2.02	0.40
80:B2:830:U:O2'	80:B2:831:U:OP2	2.34	0.40
80:B2:1157:A:HO2'	80:B2:1158:C:P	2.43	0.40
80:B2:1181:U:H2'	80:B2:1182:U:O4'	2.21	0.40
80:B2:1280:C:H2'	80:B2:1281:G:C8	2.55	0.40
80:B2:1361:U:O2	80:B2:1361:U:H2'	2.21	0.40
81:B5:1014:U:H3'	81:B5:1015:U:C5'	2.51	0.40
81:B5:1070:U:C2'	81:B5:1071:U:H5'	2.51	0.40
81:B5:1547:G:H2'	81:B5:1548:C:C6	2.56	0.40
81:B5:2567:C:N4	81:B5:2568:C:H41	2.19	0.40
81:B5:2663:G:H2'	81:B5:2664:C:O4'	2.21	0.40
81:B5:2881:C:H2'	81:B5:2882:U:C6	2.57	0.40
81:B5:3084:C:H2'	81:B5:3085:G:O4'	2.21	0.40
81:B5:3205:G:H2'	81:B5:3206:C:C5	2.56	0.40
82:B7:4:U:H2'	82:B7:5:G:C8	2.56	0.40
84:CN:2173:G:C8	84:CN:2173:G:C5'	3.05	0.40
85:CP:180:GLU:CD	85:CP:185:ASN:HA	2.46	0.40
2:A1:49:HIS:CE1	2:A1:70:LYS:HG2	2.57	0.40
4:A3:54:LYS:HZ1	80:B2:1420:C:P	2.44	0.40
8:A7:30:THR:O	81:B5:2707:C:O4'	2.39	0.40
10:AB:21:VAL:HG23	10:AB:22:ASP:H	1.86	0.40
10:AB:28:GLU:HB3	10:AB:49:ASN:H	1.87	0.40
10:AB:124:ASN:HD21	80:B2:884:A:H4'	1.79	0.40
11:AC:89:GLN:CD	11:AC:94:GLN:HE21	2.26	0.40
13:AE:19:LEU:HD13	80:B2:788:A:H2'	2.03	0.40
13:AE:156:VAL:O	13:AE:157:ASN:HB2	2.20	0.40
14:AF:205:SER:C	14:AF:207:THR:H	2.30	0.40
22:AN:26:PHE:HA	22:AN:27:LYS:HE2	2.03	0.40
23:AO:132:ARG:CB	80:B2:1787:C:P	3.09	0.40
24:AP:85:ILE:HA	24:AP:89:MET:SD	2.62	0.40
25:AQ:82:ARG:NH2	25:AQ:114:ARG:HG2	2.36	0.40
28:AT:118:PRO:C	28:AT:120:GLY:N	2.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:208:ASP:CB	81:B5:914:A:H2	2.34	0.40
36:BB:221:THR:HG22	36:BB:272:TYR:N	2.36	0.40
36:BB:360:ASP:OD1	36:BB:361:THR:N	2.52	0.40
37:BC:341:SER:O	37:BC:342:LYS:HB3	2.21	0.40
41:BG:157:VAL:HG13	81:B5:147:U:O4	2.18	0.40
42:BH:128:VAL:HG22	42:BH:134:ILE:HD13	2.03	0.40
45:BK:13:UNK:HA	45:BK:64:UNK:HA	2.03	0.40
46:BL:113:VAL:HG12	46:BL:117:LYS:HD2	2.03	0.40
47:BM:62:GLN:H	47:BM:62:GLN:HG2	1.78	0.40
48:BN:38:ARG:NH1	83:B8:142:C:OP1	2.47	0.40
48:BN:83:LYS:HB2	81:B5:35:A:OP1	2.22	0.40
50:BP:36:ILE:O	50:BP:39:TRP:HB2	2.21	0.40
51:BQ:157:PRO:CB	81:B5:2729:U:H4'	2.51	0.40
53:BS:74:ASN:OD1	53:BS:95:ARG:NH1	2.54	0.40
54:BT:25:VAL:HG22	54:BT:30:TYR:HE2	1.85	0.40
54:BT:54:HIS:CG	81:B5:2724:U:H4'	2.57	0.40
55:BU:90:ARG:HB3	55:BU:90:ARG:NH1	2.36	0.40
59:BY:63:LYS:HA	59:BY:63:LYS:HD3	1.82	0.40
60:BZ:17:ARG:HG3	81:B5:1639:C:H42	1.86	0.40
61:Ba:59:ARG:HE	61:Ba:59:ARG:HB2	1.76	0.40
68:Bh:17:LEU:HA	68:Bh:20:GLN:HB2	2.02	0.40
68:Bh:83:LYS:HA	83:B8:38:U:C6	2.57	0.40
71:Bk:24:THR:HG23	71:Bk:44:LYS:HB2	2.03	0.40
73:Bm:100:TYR:CE2	81:B5:2907:G:C1'	3.04	0.40
79:By:15:ASP:CA	79:CL:7:TYR:CE2	2.91	0.40
79:By:59:ARG:HA	79:CL:164:ARG:HA	2.02	0.40
79:By:197:GLU:CG	79:CL:197:GLU:OE2	2.33	0.40
79:By:213:TYR:HB3	79:CL:221:SER:HB3	2.03	0.40
79:By:226:PRO:CB	79:CL:225:ASN:HA	2.21	0.40
80:B2:205:U:H2'	80:B2:206:A:O4'	2.21	0.40
80:B2:330:G:H2'	80:B2:331:A:O4'	2.22	0.40
80:B2:827:C:H2'	80:B2:828:U:H6	1.84	0.40
80:B2:1182:U:O2	80:B2:1184:A:H8	2.04	0.40
80:B2:1191:U:C2	86:CW:35:A:OP2	2.64	0.40
81:B5:797:U:O2'	81:B5:798:G:H5'	2.21	0.40
81:B5:1046:A:H2'	81:B5:1049:C:C5	2.56	0.40
81:B5:1352:A:P	81:B5:1352:A:H3'	2.61	0.40
81:B5:1572:U:O2'	81:B5:1573:G:H8	2.04	0.40
81:B5:1886:A:O4'	81:B5:3307:A:H5'	2.21	0.40
81:B5:2166:A:H2'	81:B5:2167:A:C8	2.57	0.40
81:B5:2697:A:H2'	81:B5:2698:G:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:2872:A:O2'	81:B5:2873:U:P	2.79	0.40
84:CN:2162:G:N2	84:CN:2172:G:H1'	2.36	0.40
2:A1:67:THR:HA	80:B2:872:G:H5'	2.03	0.40
8:A7:68:ARG:CZ	27:AS:145:ARG:HH11	2.34	0.40
10:AB:70:LEU:CD1	10:AB:79:HIS:HB3	2.52	0.40
10:AB:78:ASP:O	10:AB:79:HIS:ND1	2.55	0.40
15:AG:19:ASP:O	15:AG:20:ASP:HB2	2.22	0.40
15:AG:28:PHE:CZ	15:AG:104:PRO:HG3	2.56	0.40
16:AH:56:LYS:O	16:AH:88:ARG:HA	2.22	0.40
17:AI:142:LYS:NZ	80:B2:186:C:H5'	2.36	0.40
18:AJ:27:GLU:HB3	18:AJ:39:LYS:HD2	2.03	0.40
18:AJ:105:LEU:O	18:AJ:111:THR:HG21	2.21	0.40
18:AJ:110:GLN:HE22	18:AJ:126:ARG:CG	2.23	0.40
19:AK:52:LYS:HG3	19:AK:54:TYR:CE2	2.57	0.40
89:AL:201:OHX:N2	80:B2:212:U:OP2	2.54	0.40
21:AM:68:GLU:C	21:AM:70:ASN:H	2.29	0.40
30:AV:74:GLN:HE22	30:AV:83:TRP:H	1.69	0.40
33:AY:23:PHE:HE2	33:AY:75:VAL:HG12	1.87	0.40
35:BA:22:LEU:HD21	81:B5:1797:A:O5'	2.22	0.40
38:BD:8:LYS:CE	81:B5:2687:G:OP1	2.69	0.40
38:BD:16:PHE:CE1	81:B5:2688:U:C4	3.06	0.40
38:BD:155:THR:HB	38:BD:179:ARG:HD3	2.04	0.40
39:BE:46:ARG:HG2	39:BE:47:PHE:CE2	2.57	0.40
39:BE:172:HIS:CD2	39:BE:173:MET:HG2	2.56	0.40
40:BF:195:PHE:CD1	40:BF:195:PHE:C	3.00	0.40
42:BH:12:VAL:CG1	42:BH:16:VAL:HG22	2.49	0.40
42:BH:57:VAL:HG23	42:BH:68:LEU:HG	2.04	0.40
44:BJ:115:LYS:HB3	44:BJ:116:TYR:H	1.58	0.40
47:BM:59:ASN:O	47:BM:62:GLN:HG2	2.21	0.40
47:BM:121:MET:CE	81:B5:3214:U:H2'	2.51	0.40
49:BO:58[A]:LEU:HD12	49:BO:58[A]:LEU:HA	1.82	0.40
49:BO:78[B]:ARG:NH1	49:BO:78[B]:ARG:HG3	2.36	0.40
51:BQ:164:ARG:CZ	81:B5:668:G:O2'	2.69	0.40
52:BR:61:SER:HB3	81:B5:1689:U:H5"	2.03	0.40
52:BR:127:SER:HB3	52:BR:132:PHE:HD2	1.86	0.40
52:BR:138:LEU:O	52:BR:138:LEU:HD22	2.22	0.40
54:BT:71:SER:OG	81:B5:2736:A:C5'	2.69	0.40
56:BV:39:VAL:HG21	56:BV:51:ALA:C	2.46	0.40
59:BY:31:LEU:HA	59:BY:31:LEU:HD23	1.85	0.40
63:Bc:69:TYR:N	63:Bc:69:TYR:CD1	2.89	0.40
65:Be:11:LYS:HD3	65:Be:11:LYS:HA	1.88	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:Bg:82:ALA:HB1	81:B5:1638:A:C5'	2.48	0.40
69:Bi:78:GLY:HA3	81:B5:273:A:H1'	2.04	0.40
79:By:19:ILE:C	79:CL:20:TYR:OH	2.61	0.40
79:By:36:LYS:C	84:CN:2147:A:H1'	2.46	0.40
79:By:40:THR:O	79:CL:217:THR:N	2.55	0.40
79:By:81:GLU:HG2	79:CL:79:LYS:O	2.14	0.40
79:By:140:PRO:CA	79:CL:140:PRO:HD2	2.50	0.40
79:By:149:ILE:HG22	79:CL:149:ILE:CG1	2.50	0.40
79:By:151:GLU:HG3	79:CL:156:ILE:H	1.87	0.40
79:By:158:ALA:CA	79:CL:159:GLY:H	2.33	0.40
79:By:197:GLU:CG	79:CL:209:LEU:HD11	2.45	0.40
80:B2:755:A:O2'	80:B2:756:A:OP1	2.36	0.40
80:B2:830:U:O2'	80:B2:831:U:P	2.80	0.40
80:B2:964:U:H4'	80:B2:965:U:O5'	2.21	0.40
80:B2:1018:U:H2'	80:B2:1019:A:C8	2.57	0.40
80:B2:1163:A:N6	80:B2:1164:G:C6	2.89	0.40
80:B2:1441:C:H2'	80:B2:1442:U:C6	2.57	0.40
80:B2:1644:C:O2	81:B5:2255:A:C4	2.74	0.40
89:B2:1948:OHX:N6	89:B2:2075:OHX:N5	2.69	0.40
81:B5:237:G:N2	81:B5:238:A:O4'	2.54	0.40
81:B5:1077:U:H2'	81:B5:1078:U:C6	2.56	0.40
81:B5:1267:U:C5	81:B5:1268:G:C5	3.09	0.40
81:B5:2443:A:C4	84:CN:2208:G:C3'	2.98	0.40
81:B5:3255:U:O5'	81:B5:3255:U:H6	2.04	0.40
4:A3:20:GLN:HB2	4:A3:21:CYS:H	1.70	0.40
7:A6:22:SER:HB3	7:A6:36:ALA:HB3	2.03	0.40
10:AB:157:GLN:C	10:AB:159:SER:N	2.78	0.40
12:AD:161:GLY:O	12:AD:164:VAL:HB	2.22	0.40
14:AF:29:ILE:HG22	14:AF:34:GLN:HG2	2.04	0.40
15:AG:69:LEU:HA	15:AG:70:PRO:HD3	1.96	0.40
15:AG:193:LEU:HD23	15:AG:193:LEU:HA	1.85	0.40
21:AM:48:SER:HB3	21:AM:122:VAL:HG23	2.04	0.40
21:AM:55:GLY:HA2	21:AM:85:LYS:HD2	2.02	0.40
21:AM:97:LEU:HA	21:AM:100:TRP:HE3	1.87	0.40
27:AS:81:ILE:HG23	27:AS:82:PRO:HD2	2.03	0.40
27:AS:108:LYS:HD2	27:AS:108:LYS:HA	1.63	0.40
29:AU:50:LEU:HD23	29:AU:95:ALA:HB2	2.04	0.40
29:AU:109:GLU:OE1	29:AU:110:PRO:HD2	2.20	0.40
30:AV:74:GLN:C	30:AV:76:ASP:H	2.29	0.40
31:AW:31:SER:HB3	80:B2:636:A:H5"	2.03	0.40
32:AX:4:GLY:CA	80:B2:1105:C:H41	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BA:3:ARG:HG2	35:BA:4:VAL:N	2.37	0.40
36:BB:258:ALA:O	36:BB:259:HIS:CD2	2.75	0.40
38:BD:16:PHE:CE1	81:B5:2688:U:N3	2.90	0.40
41:BG:241:LYS:NZ	81:B5:2526:C:O2'	2.54	0.40
43:BI:64:ALA:HB2	81:B5:2853:A:O3'	2.22	0.40
44:BJ:71:VAL:HG12	44:BJ:72:ARG:N	2.36	0.40
47:BM:133:LYS:HB2	47:BM:133:LYS:HE3	1.86	0.40
49:BO:10[B]:ASP:CG	49:BO:37[B]:ARG:HH21	2.23	0.40
49:BO:64[A]:PHE:CE2	49:BO:68[A]:ARG:HD3	2.56	0.40
54:BT:68:THR:HG23	54:BT:69:LYS:N	2.35	0.40
54:BT:129:LYS:H	54:BT:129:LYS:HG2	1.75	0.40
55:BU:105:LEU:HA	55:BU:105:LEU:HD12	1.87	0.40
58:BX:23:ALA:O	58:BX:24:LEU:HB2	2.21	0.40
58:BX:125:ARG:NH2	81:B5:1610:G:P	2.94	0.40
64:Bd:26:LYS:CE	81:B5:1456:A:N7	2.84	0.40
65:Be:121:ASN:C	65:Be:122:PRO:O	2.63	0.40
70:Bj:79:GLN:CD	83:B8:95:G:C4	2.99	0.40
76:Bq:76:LEU:HD23	76:Bq:76:LEU:O	2.22	0.40
79:By:14:VAL:HG21	79:CL:219:GLY:CA	2.43	0.40
79:By:39:GLU:O	79:CL:37:PHE:HE2	2.02	0.40
79:By:92:ASP:O	79:CL:109:ASP:HB2	2.22	0.40
79:By:148:ASN:C	79:CL:149:ILE:HG13	2.41	0.40
79:By:151:GLU:HG2	79:CL:151:GLU:C	2.46	0.40
79:By:204:ALA:N	79:CL:201:PRO:HG2	2.29	0.40
80:B2:143:G:C2	80:B2:173:A:C2	3.10	0.40
80:B2:333:A:C6	80:B2:334:G:C6	3.09	0.40
80:B2:414:C:C6	85:CP:289:LEU:CD2	2.70	0.40
80:B2:440:U:O4'	85:CP:276:ARG:CG	2.69	0.40
80:B2:633:U:H2'	80:B2:634:G:O4'	2.22	0.40
80:B2:781:U:O2'	80:B2:782:U:O5'	2.38	0.40
80:B2:991:G:O6	89:B2:1969:OHX:N2	2.54	0.40
80:B2:1357:A:C6	80:B2:1358:G:C6	3.10	0.40
80:B2:1459:C:OP2	80:B2:1459:C:H6	2.04	0.40
80:B2:1490:C:H1'	80:B2:1491:U:O4'	2.22	0.40
89:B2:1982:OHX:N2	89:B2:2079:OHX:N6	2.69	0.40
81:B5:345:G:H2'	83:B8:25:G:O2'	2.22	0.40
81:B5:703:G:O2'	81:B5:787:G:H4'	2.22	0.40
81:B5:734:C:H6	81:B5:734:C:OP1	2.04	0.40
81:B5:856:G:C6	81:B5:857:G:N1	2.90	0.40
81:B5:953:G:H2'	81:B5:1117:G:H5"	2.04	0.40
81:B5:973:A:H5"	81:B5:974:G:OP2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:B5:3164:C:C2	81:B5:3165:A:C8	3.10	0.40
81:B5:3257:C:H2'	81:B5:3258:U:O4'	2.20	0.40
84:CN:2144:G:O6	84:CN:2196:C:N3	2.54	0.40
84:CN:2188:U:H2'	84:CN:2189:G:O4'	2.21	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	A0	95/119 (80%)	57 (60%)	21 (22%)	17 (18%)	0 2
2	A1	79/82 (96%)	62 (78%)	13 (16%)	4 (5%)	1 15
3	A2	61/67 (91%)	47 (77%)	9 (15%)	5 (8%)	0 9
4	A3	51/56 (91%)	43 (84%)	6 (12%)	2 (4%)	2 19
5	A4	58/63 (92%)	49 (84%)	7 (12%)	2 (3%)	3 21
6	A5	50/152 (33%)	30 (60%)	9 (18%)	11 (22%)	0 1
7	A6	316/319 (99%)	273 (86%)	30 (10%)	13 (4%)	2 18
8	A7	120/273 (44%)	92 (77%)	17 (14%)	11 (9%)	0 8
9	AA	204/252 (81%)	143 (70%)	35 (17%)	26 (13%)	0 4
10	AB	212/255 (83%)	132 (62%)	42 (20%)	38 (18%)	0 2
11	AC	215/254 (85%)	187 (87%)	16 (7%)	12 (6%)	1 15
12	AD	221/240 (92%)	180 (81%)	27 (12%)	14 (6%)	1 13
13	AE	258/261 (99%)	201 (78%)	36 (14%)	21 (8%)	1 9
14	AF	204/225 (91%)	155 (76%)	30 (15%)	19 (9%)	0 8
15	AG	224/236 (95%)	190 (85%)	23 (10%)	11 (5%)	1 16
16	AH	182/190 (96%)	128 (70%)	27 (15%)	27 (15%)	0 2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
17	AI	184/200 (92%)	155 (84%)	14 (8%)	15 (8%)	0 9
18	AJ	183/197 (93%)	153 (84%)	18 (10%)	12 (7%)	1 12
19	AK	94/105 (90%)	66 (70%)	18 (19%)	10 (11%)	0 6
20	AL	153/156 (98%)	125 (82%)	19 (12%)	9 (6%)	1 14
21	AM	122/143 (85%)	66 (54%)	23 (19%)	33 (27%)	0 0
22	AN	148/151 (98%)	125 (84%)	15 (10%)	8 (5%)	1 15
23	AO	125/137 (91%)	94 (75%)	16 (13%)	15 (12%)	0 4
24	AP	122/142 (86%)	92 (75%)	15 (12%)	15 (12%)	0 4
25	AQ	139/143 (97%)	114 (82%)	14 (10%)	11 (8%)	1 9
26	AR	116/136 (85%)	87 (75%)	17 (15%)	12 (10%)	0 6
27	AS	143/146 (98%)	110 (77%)	19 (13%)	14 (10%)	0 7
28	AT	141/144 (98%)	111 (79%)	18 (13%)	12 (8%)	0 9
29	AU	105/121 (87%)	87 (83%)	13 (12%)	5 (5%)	2 16
30	AV	85/87 (98%)	64 (75%)	11 (13%)	10 (12%)	0 4
31	AW	127/130 (98%)	114 (90%)	10 (8%)	3 (2%)	4 27
32	AX	142/145 (98%)	111 (78%)	13 (9%)	18 (13%)	0 4
33	AY	132/135 (98%)	106 (80%)	13 (10%)	13 (10%)	0 7
34	AZ	68/108 (63%)	46 (68%)	11 (16%)	11 (16%)	0 2
35	BA	250/253 (99%)	213 (85%)	30 (12%)	7 (3%)	4 24
36	BB	384/386 (100%)	341 (89%)	34 (9%)	9 (2%)	5 28
37	BC	359/361 (99%)	306 (85%)	32 (9%)	21 (6%)	1 14
38	BD	292/296 (99%)	267 (91%)	19 (6%)	6 (2%)	5 30
39	BE	153/175 (87%)	134 (88%)	15 (10%)	4 (3%)	4 25
40	BF	221/243 (91%)	201 (91%)	16 (7%)	4 (2%)	6 33
41	BG	229/255 (90%)	180 (79%)	28 (12%)	21 (9%)	0 8
42	BH	189/191 (99%)	172 (91%)	13 (7%)	4 (2%)	5 30
43	BI	209/220 (95%)	175 (84%)	22 (10%)	12 (6%)	1 14
44	BJ	167/173 (96%)	135 (81%)	19 (11%)	13 (8%)	1 10
46	BL	192/198 (97%)	161 (84%)	20 (10%)	11 (6%)	1 14
47	BM	135/137 (98%)	124 (92%)	10 (7%)	1 (1%)	18 55
48	BN	201/203 (99%)	182 (90%)	13 (6%)	6 (3%)	3 22

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
49	BO	352/218 (162%)	324 (92%)	18 (5%)	10 (3%)	4 24
50	BP	153/183 (84%)	142 (93%)	9 (6%)	2 (1%)	9 41
51	BQ	183/185 (99%)	168 (92%)	9 (5%)	6 (3%)	3 21
52	BR	186/188 (99%)	167 (90%)	16 (9%)	3 (2%)	7 37
53	BS	170/172 (99%)	163 (96%)	6 (4%)	1 (1%)	21 58
54	BT	157/159 (99%)	146 (93%)	9 (6%)	2 (1%)	9 41
55	BU	96/120 (80%)	80 (83%)	13 (14%)	3 (3%)	3 22
56	BV	134/136 (98%)	124 (92%)	8 (6%)	2 (2%)	8 38
57	BW	133/155 (86%)	106 (80%)	19 (14%)	8 (6%)	1 13
58	BX	118/141 (84%)	104 (88%)	6 (5%)	8 (7%)	1 12
59	BY	124/126 (98%)	107 (86%)	12 (10%)	5 (4%)	2 18
60	BZ	133/135 (98%)	107 (80%)	13 (10%)	13 (10%)	0 7
61	Ba	146/148 (99%)	123 (84%)	18 (12%)	5 (3%)	3 21
62	Bb	56/58 (97%)	44 (79%)	7 (12%)	5 (9%)	0 8
63	Bc	98/104 (94%)	87 (89%)	8 (8%)	3 (3%)	3 22
64	Bd	107/112 (96%)	88 (82%)	13 (12%)	6 (6%)	1 15
65	Be	125/129 (97%)	110 (88%)	9 (7%)	6 (5%)	2 16
66	Bf	104/106 (98%)	96 (92%)	5 (5%)	3 (3%)	3 23
67	Bg	110/120 (92%)	93 (84%)	13 (12%)	4 (4%)	2 20
68	Bh	117/119 (98%)	99 (85%)	14 (12%)	4 (3%)	3 21
69	Bi	97/99 (98%)	77 (79%)	13 (13%)	7 (7%)	1 11
70	Bj	85/87 (98%)	75 (88%)	8 (9%)	2 (2%)	4 27
71	Bk	75/77 (97%)	61 (81%)	10 (13%)	4 (5%)	1 15
72	Bl	48/50 (96%)	41 (85%)	6 (12%)	1 (2%)	5 30
73	Bm	50/128 (39%)	48 (96%)	1 (2%)	1 (2%)	6 31
74	Bn	23/25 (92%)	22 (96%)	0	1 (4%)	2 17
75	Bo	103/105 (98%)	90 (87%)	11 (11%)	2 (2%)	6 32
76	Bq	139/312 (45%)	104 (75%)	14 (10%)	21 (15%)	0 2
79	By	219/229 (96%)	178 (81%)	24 (11%)	17 (8%)	1 10
79	CL	219/229 (96%)	165 (75%)	35 (16%)	19 (9%)	0 9
85	CP	337/339 (99%)	280 (83%)	34 (10%)	23 (7%)	1 12

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
All	All	12057/13155 (92%)	10005 (83%)	1277 (11%)	775 (6%)	2 13

All (775) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A0	19	LYS
1	A0	45	VAL
1	A0	46	GLU
1	A0	62	TYR
1	A0	65	PRO
1	A0	82	ARG
1	A0	84	VAL
1	A0	85	ARG
2	A1	38	PRO
2	A1	62	ILE
3	A2	36	THR
3	A2	51	ASN
4	A3	8	PHE
5	A4	47	VAL
6	A5	102	VAL
6	A5	103	LEU
6	A5	106	TYR
6	A5	111	GLU
6	A5	128	ALA
6	A5	148	TYR
7	A6	51	ASP
7	A6	160	GLU
7	A6	318	ALA
8	A7	47	ALA
8	A7	52	PRO
8	A7	85	SER
8	A7	87	THR
9	AA	4	PRO
9	AA	29	VAL
9	AA	30	GLN
9	AA	39	ASN
9	AA	66	ALA
9	AA	95	ALA
9	AA	111	ILE
9	AA	191	ARG
9	AA	203	PHE
9	AA	205	ARG

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Mol	Chain	Res	Type
10	AB	21	VAL
10	AB	26	ARG
10	AB	49	ASN
10	AB	58	SER
10	AB	60	ALA
10	AB	63	GLY
10	AB	113	MET
10	AB	116	LYS
10	AB	176	VAL
10	AB	177	GLN
10	AB	179	SER
10	AB	182	ALA
10	AB	206	PRO
10	AB	221	PRO
11	AC	146	THR
11	AC	148	LEU
12	AD	4	LEU
12	AD	62	ASN
12	AD	65	ARG
12	AD	93	ASP
12	AD	211	PRO
12	AD	212	LYS
12	AD	216	PRO
12	AD	220	PRO
13	AE	104	ASP
13	AE	142	HIS
13	AE	153	ASN
13	AE	164	LEU
13	AE	260	GLY
14	AF	26	ALA
14	AF	39	GLU
14	AF	43	PHE
14	AF	58	LEU
14	AF	63	GLN
14	AF	101	GLY
14	AF	153	GLY
14	AF	206	SER
15	AG	20	ASP
15	AG	25	ARG
15	AG	154	ARG
15	AG	173	PRO
15	AG	174	LYS

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Mol	Chain	Res	Type
16	AH	31	SER
16	AH	36	ALA
16	AH	64	VAL
16	AH	67	LEU
16	AH	98	ILE
16	AH	105	THR
16	AH	111	LYS
16	AH	112	ARG
16	AH	131	PHE
16	AH	133	THR
16	AH	134	GLU
16	AH	155	ASP
17	AI	13	ALA
17	AI	22	ARG
17	AI	147	ALA
17	AI	149	SER
18	AJ	98	ALA
18	AJ	100	LYS
18	AJ	118	LEU
18	AJ	121	SER
18	AJ	164	PHE
19	AK	60	SER
19	AK	81	ASN
19	AK	87	VAL
19	AK	88	PRO
19	AK	93	GLN
20	AL	7	VAL
20	AL	29	LYS
20	AL	133	LYS
21	AM	21	GLU
21	AM	25	GLU
21	AM	45	LEU
21	AM	55	GLY
21	AM	83	GLU
21	AM	87	PRO
21	AM	89	ILE
21	AM	90	LYS
21	AM	93	ASP
21	AM	126	TRP
22	AN	19	SER
22	AN	22	ALA
23	AO	38	THR

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Mol	Chain	Res	Type
23	AO	39	ILE
23	AO	124	ASP
23	AO	125	SER
23	AO	126	THR
24	AP	29	SER
24	AP	54	ALA
24	AP	125	PRO
24	AP	126	VAL
25	AQ	41	PRO
25	AQ	58	ASP
25	AQ	59	LYS
25	AQ	114	ARG
25	AQ	116	LEU
25	AQ	138	PHE
26	AR	6	THR
26	AR	26	LEU
26	AR	85	VAL
26	AR	86	PRO
26	AR	88	VAL
26	AR	96	SER
26	AR	124	VAL
27	AS	14	ILE
27	AS	25	ASN
27	AS	28	ILE
27	AS	60	GLU
27	AS	91	ASP
27	AS	92	ILE
28	AT	31	PRO
28	AT	53	TRP
28	AT	69	LYS
29	AU	118	VAL
30	AV	4	ASP
30	AV	7	GLN
30	AV	11	LEU
32	AX	3	LYS
32	AX	41	SER
32	AX	96	VAL
32	AX	114	LYS
32	AX	128	SER
32	AX	131	SER
32	AX	137	LYS
32	AX	138	GLU

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Mol	Chain	Res	Type
32	AX	144	ARG
33	AY	32	ARG
33	AY	36	SER
33	AY	78	SER
34	AZ	38	HIS
34	AZ	39	ALA
34	AZ	43	ASP
34	AZ	44	GLN
34	AZ	54	VAL
34	AZ	71	ILE
34	AZ	88	ILE
35	BA	96	LEU
36	BB	129	ALA
36	BB	140	ASP
36	BB	347	SER
37	BC	14	GLU
37	BC	15	ALA
37	BC	90	PHE
37	BC	145	ILE
37	BC	302	ALA
37	BC	311	HIS
37	BC	329	PRO
37	BC	330	TYR
37	BC	361	HIS
38	BD	215	ASP
38	BD	260	PHE
39	BE	97	ASN
39	BE	98	VAL
40	BF	158	LYS
41	BG	25	PRO
41	BG	26	LEU
41	BG	34	PHE
41	BG	122	LYS
43	BI	25	ALA
43	BI	82	ARG
43	BI	170	LYS
43	BI	175	ASN
43	BI	187	ALA
44	BJ	8	PRO
44	BJ	10	ARG
44	BJ	12	LEU
44	BJ	94	ARG

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Mol	Chain	Res	Type
44	BJ	95	ASN
44	BJ	108	GLU
44	BJ	115	LYS
44	BJ	167	TYR
46	BL	47	ALA
46	BL	129	ASN
46	BL	134	GLU
46	BL	150	PRO
47	BM	136	ALA
48	BN	49	ARG
48	BN	146	ALA
48	BN	147	ARG
49	BO	110[A]	PRO
49	BO	110[B]	PRO
49	BO	111[A]	PRO
49	BO	111[B]	PRO
49	BO	180[A]	SER
49	BO	180[B]	SER
49	BO	181[A]	ALA
49	BO	181[B]	ALA
51	BQ	41	ASP
51	BQ	99	THR
52	BR	35	ALA
53	BS	2	ALA
54	BT	136	ARG
56	BV	42	SER
57	BW	26	SER
57	BW	71	ARG
57	BW	76	VAL
58	BX	24	LEU
58	BX	25	LYS
58	BX	40	LEU
58	BX	44	PRO
58	BX	45	LYS
59	BY	77	LYS
59	BY	83	ASP
59	BY	84	LYS
59	BY	125	LYS
59	BY	126	LEU
60	BZ	5	LEU
60	BZ	125	GLY
60	BZ	129	TRP

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Mol	Chain	Res	Type
61	Ba	76	ASP
62	Bb	21	ILE
62	Bb	23	LYS
62	Bb	25	LYS
62	Bb	39	PHE
63	Bc	100	ILE
63	Bc	104	LEU
64	Bd	7	VAL
64	Bd	45	GLY
64	Bd	84	ASP
65	Be	4	LEU
65	Be	5	PRO
65	Be	27	ARG
66	Bf	88	ASN
67	Bg	10	ARG
67	Bg	100	ILE
68	Bh	40	SER
68	Bh	82	ALA
69	Bi	33	ALA
69	Bi	63	ASN
69	Bi	64	SER
69	Bi	98	ARG
70	Bj	87	SER
71	Bk	17	ARG
71	Bk	18	ALA
72	Bl	3	ALA
75	Bo	78	LYS
76	Bq	36	GLN
76	Bq	37	GLN
76	Bq	91	GLU
76	Bq	105	VAL
76	Bq	186	THR
76	Bq	203	ASP
79	By	71	GLN
79	By	83	ILE
79	By	89	ALA
79	By	109	ASP
79	By	170	ALA
79	By	186	ALA
79	CL	54	SER
79	CL	55	ASP
79	CL	80	GLY

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Mol	Chain	Res	Type
79	CL	83	ILE
79	CL	85	GLU
79	CL	97	GLU
79	CL	109	ASP
79	CL	186	ALA
85	CP	60	ALA
85	CP	77	THR
85	CP	83	PHE
85	CP	187	ASN
85	CP	244	GLY
1	A0	36	ILE
1	A0	63	ALA
1	A0	75	VAL
1	A0	86	VAL
2	A1	63	LEU
3	A2	35	ASP
3	A2	61	ARG
4	A3	34	TYR
6	A5	118	ARG
6	A5	127	GLY
7	A6	3	SER
7	A6	28	GLY
7	A6	161	LYS
7	A6	217	ASP
8	A7	46	LYS
8	A7	82	THR
8	A7	89	ARG
8	A7	140	ASP
9	AA	5	ALA
9	AA	49	ASN
9	AA	81	PHE
9	AA	94	GLY
9	AA	190	ASP
9	AA	194	PRO
9	AA	196	SER
10	AB	23	PRO
10	AB	55	LYS
10	AB	72	ASP
10	AB	79	HIS
10	AB	82	ARG
10	AB	93	GLY
10	AB	108	ASP

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Mol	Chain	Res	Type
10	AB	148	ASN
10	AB	181	LEU
10	AB	207	LEU
11	AC	35	TRP
11	AC	203	LYS
11	AC	248	SER
12	AD	44	THR
12	AD	218	LEU
13	AE	12	LEU
13	AE	152	PRO
13	AE	157	ASN
13	AE	195	ILE
13	AE	245	LYS
14	AF	35	GLN
14	AF	45	LYS
14	AF	127	GLN
14	AF	150	GLY
14	AF	223	SER
15	AG	24	ILE
15	AG	146	GLY
15	AG	152	ASP
15	AG	153	VAL
16	AH	32	PRO
16	AH	104	ARG
16	AH	156	SER
16	AH	186	PRO
17	AI	40	ALA
17	AI	105	ASP
17	AI	120	THR
17	AI	199	LYS
18	AJ	134	ILE
18	AJ	167	ALA
18	AJ	171	ARG
19	AK	30	ALA
19	AK	64	TYR
19	AK	82	LEU
21	AM	54	ARG
21	AM	63	VAL
21	AM	66	VAL
21	AM	84	ASN
21	AM	91	VAL
21	AM	113	ARG

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Mol	Chain	Res	Type
21	AM	128	ALA
22	AN	13	SER
22	AN	28	LEU
22	AN	68	GLY
23	AO	40	ALA
23	AO	42	VAL
23	AO	46	MET
23	AO	50	ALA
23	AO	51	ASP
23	AO	114	ARG
24	AP	48	GLY
24	AP	51	SER
24	AP	101	ALA
25	AQ	40	GLU
25	AQ	113	ASP
26	AR	25	THR
27	AS	59	GLY
27	AS	61	LEU
27	AS	142	GLY
28	AT	11	ALA
28	AT	28	LEU
28	AT	50	ALA
29	AU	17	GLN
30	AV	12	TYR
31	AW	66	ASN
32	AX	8	GLY
32	AX	97	ASP
33	AY	5	VAL
33	AY	11	LYS
34	AZ	73	GLY
35	BA	24	GLN
35	BA	194	ASN
36	BB	235	THR
36	BB	293	ASN
37	BC	71	VAL
37	BC	190	GLY
37	BC	272	VAL
37	BC	345	GLU
37	BC	353	ALA
38	BD	125	VAL
38	BD	178	ASN
41	BG	81	THR

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Mol	Chain	Res	Type
41	BG	121	SER
41	BG	188	THR
41	BG	203	VAL
41	BG	223	ALA
41	BG	240	ASN
42	BH	144	ILE
42	BH	189	GLU
43	BI	220	GLN
44	BJ	55	ARG
46	BL	135	ALA
46	BL	141	ALA
48	BN	184	LYS
50	BP	66	SER
50	BP	67	ILE
51	BQ	91	ALA
51	BQ	167	SER
55	BU	49	ASN
55	BU	91	ASP
56	BV	41	GLY
57	BW	63	ILE
57	BW	77	LYS
60	BZ	17	ARG
60	BZ	93	LYS
60	BZ	130	PHE
60	BZ	134	LEU
61	Ba	24	LYS
63	Bc	10	ILE
64	Bd	83	GLU
65	Be	6	HIS
65	Be	12	LYS
65	Be	124	GLY
66	Bf	91	ALA
68	Bh	119	LYS
74	Bn	23	ARG
76	Bq	33	VAL
76	Bq	92	PRO
76	Bq	104	ARG
76	Bq	204	ILE
76	Bq	205	THR
76	Bq	210	VAL
76	Bq	214	VAL
79	By	85	GLU

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Mol	Chain	Res	Type
79	By	86	ALA
79	By	185	LEU
79	By	227	HIS
79	CL	86	ALA
79	CL	89	ALA
79	CL	185	LEU
85	CP	56	THR
85	CP	73	LEU
85	CP	94	CYS
85	CP	138	TRP
1	A0	66	LYS
6	A5	138	ARG
7	A6	15	GLY
7	A6	96	THR
7	A6	98	GLU
9	AA	27	ARG
9	AA	103	THR
10	AB	35	PRO
10	AB	38	PHE
10	AB	62	LYS
10	AB	209	ASN
11	AC	106	ASP
11	AC	150	GLN
11	AC	235	LEU
12	AD	54	ARG
13	AE	200	ARG
14	AF	33	VAL
14	AF	156	ARG
16	AH	5	GLN
16	AH	29	ASN
16	AH	74	GLN
16	AH	75	THR
16	AH	110	GLN
17	AI	41	LYS
17	AI	136	SER
17	AI	153	GLU
18	AJ	163	PRO
20	AL	4	GLU
20	AL	55	ASP
20	AL	146	ALA
20	AL	153	PHE
20	AL	154	ALA

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Mol	Chain	Res	Type
21	AM	22	VAL
21	AM	81	ASP
21	AM	82	PRO
21	AM	85	LYS
21	AM	112	ALA
21	AM	135	MET
22	AN	27	LYS
23	AO	18	ARG
23	AO	123	SER
24	AP	11	VAL
24	AP	22	LEU
24	AP	52	LYS
26	AR	83	GLN
26	AR	115	LEU
27	AS	10	SER
27	AS	80	LYS
27	AS	83	ALA
28	AT	25	GLN
29	AU	55	PRO
30	AV	2	GLU
30	AV	10	GLU
30	AV	15	ARG
32	AX	37	ALA
32	AX	40	SER
32	AX	89	ASN
33	AY	34	ASN
33	AY	51	GLU
33	AY	53	ASP
34	AZ	41	ILE
34	AZ	55	PRO
34	AZ	97	LYS
35	BA	56	ALA
35	BA	144	ASN
35	BA	249	SER
36	BB	138	ALA
36	BB	155	ALA
37	BC	146	PRO
38	BD	270	LYS
39	BE	10	TYR
39	BE	32	ALA
41	BG	39	ALA
41	BG	123	GLN

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Mol	Chain	Res	Type
41	BG	133	LYS
41	BG	237	ILE
43	BI	83	ASP
43	BI	101	LYS
43	BI	174	THR
43	BI	176	LEU
46	BL	101	ARG
46	BL	140	SER
48	BN	181	ASN
49	BO	12[A]	LYS
49	BO	12[B]	LYS
55	BU	48	GLY
57	BW	74	LYS
57	BW	134	GLN
58	BX	38	LEU
58	BX	47	ALA
58	BX	55	ASN
60	BZ	16	GLY
61	Ba	47	LYS
64	Bd	5	LYS
64	Bd	86	LYS
67	Bg	79	SER
69	Bi	34	SER
76	Bq	81	LYS
76	Bq	187	VAL
76	Bq	200	SER
79	By	106	GLY
79	CL	141	LYS
79	CL	181	PRO
85	CP	16	THR
85	CP	32	GLY
85	CP	41	GLN
85	CP	61	GLU
85	CP	79	GLY
85	CP	109	GLN
85	CP	280	THR
85	CP	283	PRO
85	CP	286	GLU
85	CP	290	LYS
1	A0	64	LEU
3	A2	6	PRO
5	A4	50	VAL

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Mol	Chain	Res	Type
6	A5	145	HIS
7	A6	136	ILE
7	A6	163	ASP
7	A6	237	GLN
9	AA	33	GLN
9	AA	158	VAL
9	AA	164	ASN
9	AA	185	ARG
9	AA	189	VAL
10	AB	54	LEU
10	AB	61	LEU
10	AB	81	PHE
10	AB	112	SER
10	AB	154	SER
10	AB	215	VAL
11	AC	39	THR
12	AD	217	ILE
13	AE	77	ARG
13	AE	80	THR
13	AE	163	ASP
13	AE	188	ASN
13	AE	193	GLY
14	AF	51	VAL
14	AF	79	ASN
15	AG	69	LEU
16	AH	13	PRO
16	AH	84	LYS
16	AH	132	PRO
17	AI	59	ARG
17	AI	152	ILE
19	AK	94	GLU
20	AL	145	ALA
21	AM	39	ASP
21	AM	68	GLU
21	AM	106	ILE
21	AM	107	ASP
21	AM	108	ARG
21	AM	129	GLU
21	AM	130	THR
22	AN	138	ASN
23	AO	69	ALA
25	AQ	142	TYR

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Mol	Chain	Res	Type
26	AR	23	LYS
26	AR	72	LYS
28	AT	7	ARG
28	AT	23	GLN
28	AT	39	THR
30	AV	44	ARG
32	AX	92	CYS
32	AX	109	ARG
32	AX	112	LYS
33	AY	60	PHE
35	BA	143	GLU
36	BB	333	LYS
37	BC	233	LEU
37	BC	306	THR
37	BC	331	ALA
37	BC	342	LYS
38	BD	124	GLU
40	BF	191	VAL
41	BG	206	GLU
42	BH	167	VAL
43	BI	207	GLU
46	BL	60	ALA
46	BL	76	THR
48	BN	48	ALA
52	BR	147	ALA
57	BW	25	ASP
60	BZ	34	LYS
60	BZ	36	HIS
61	Ba	121	VAL
67	Bg	99	LYS
70	Bj	85	LYS
71	Bk	8	ILE
76	Bq	21	GLU
76	Bq	34	SER
79	CL	118	ASP
79	CL	140	PRO
85	CP	82	SER
2	A1	51	GLN
8	A7	53	ARG
8	A7	102	THR
10	AB	64	ARG
11	AC	36	VAL

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Mol	Chain	Res	Type
12	AD	59	LEU
13	AE	233	LYS
14	AF	21	THR
14	AF	64	VAL
16	AH	73	VAL
16	AH	185	ILE
18	AJ	162	SER
21	AM	101	ALA
24	AP	38	PRO
28	AT	29	GLU
29	AU	49	ASN
30	AV	46	ILE
30	AV	49	GLU
31	AW	67	GLY
31	AW	83	ILE
32	AX	70	LYS
33	AY	6	THR
33	AY	47	VAL
37	BC	5	GLN
40	BF	229	PHE
41	BG	69	LEU
41	BG	120	LYS
41	BG	124	ASP
42	BH	110	LYS
44	BJ	111	ASP
44	BJ	153	LYS
46	BL	121	SER
51	BQ	98	LYS
52	BR	183	ALA
54	BT	20	ARG
60	BZ	7	ALA
61	Ba	129	PHE
62	Bb	24	PRO
69	Bi	9	ILE
71	Bk	19	ASP
73	Bm	78	ILE
76	Bq	103	ASN
79	By	51	PRO
79	By	218	MET
79	CL	159	GLY
85	CP	154	SER
85	CP	267	MET

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Mol	Chain	Res	Type
1	A0	10	ARG
8	A7	88	ARG
9	AA	139	VAL
10	AB	78	ASP
10	AB	210	ILE
12	AD	89	GLU
13	AE	3	ARG
13	AE	53	LYS
16	AH	11	GLN
17	AI	10	LYS
17	AI	186	GLY
18	AJ	132	ARG
22	AN	60	VAL
24	AP	10	ARG
24	AP	23	GLU
24	AP	69	GLU
24	AP	130	ARG
27	AS	7	GLU
27	AS	34	THR
29	AU	117	VAL
33	AY	58	PHE
33	AY	77	ASN
36	BB	187	SER
37	BC	328	ASN
41	BG	202	GLU
43	BI	204	GLY
44	BJ	114	ILE
60	BZ	29	HIS
68	Bh	83	LYS
79	By	132	GLY
79	By	210	ARG
79	CL	11	LEU
79	CL	96	GLY
85	CP	136	TYR
13	AE	234	PRO
18	AJ	117	GLY
23	AO	48	VAL
25	AQ	97	VAL
40	BF	178	ILE
41	BG	190	VAL
76	Bq	196	VAL
1	A0	50	VAL

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Mol	Chain	Res	Type
1	A0	59	TYR
9	AA	117	GLU
21	AM	40	GLY
60	BZ	103	GLN
69	Bi	3	VAL
75	Bo	31	GLY
76	Bq	197	PHE
6	A5	147	VAL
10	AB	197	ILE
11	AC	145	GLY
25	AQ	29	ILE
28	AT	100	ILE
41	BG	73	PRO
44	BJ	118	PRO
51	BQ	42	ALA
79	CL	103	ILE
11	AC	163	GLY
13	AE	45	ILE
15	AG	70	PRO
19	AK	89	GLY
21	AM	117	GLY
66	Bf	59	VAL
79	By	103	ILE
79	By	220	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	A0	83/101 (82%)	61 (74%)	22 (26%)	0 3
2	A1	70/71 (99%)	60 (86%)	10 (14%)	3 15
3	A2	56/60 (93%)	36 (64%)	20 (36%)	0 1
4	A3	47/49 (96%)	40 (85%)	7 (15%)	3 14
5	A4	51/54 (94%)	41 (80%)	10 (20%)	1 8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
6	A5	43/116 (37%)	31 (72%)	12 (28%)	0 3
7	A6	259/262 (99%)	215 (83%)	44 (17%)	2 12
8	A7	97/195 (50%)	71 (73%)	26 (27%)	0 3
9	AA	164/210 (78%)	114 (70%)	50 (30%)	0 2
10	AB	191/224 (85%)	137 (72%)	54 (28%)	0 3
11	AC	176/205 (86%)	124 (70%)	52 (30%)	0 2
12	AD	182/195 (93%)	133 (73%)	49 (27%)	0 3
13	AE	221/222 (100%)	160 (72%)	61 (28%)	0 3
14	AF	173/191 (91%)	139 (80%)	34 (20%)	1 8
15	AG	188/201 (94%)	145 (77%)	43 (23%)	1 6
16	AH	165/170 (97%)	116 (70%)	49 (30%)	0 2
17	AI	150/161 (93%)	114 (76%)	36 (24%)	1 4
18	AJ	158/166 (95%)	121 (77%)	37 (23%)	1 5
19	AK	77/98 (79%)	57 (74%)	20 (26%)	0 3
20	AL	129/137 (94%)	102 (79%)	27 (21%)	1 7
21	AM	88/119 (74%)	53 (60%)	35 (40%)	0 1
22	AN	127/128 (99%)	86 (68%)	41 (32%)	0 2
23	AO	81/105 (77%)	57 (70%)	24 (30%)	0 2
24	AP	101/118 (86%)	81 (80%)	20 (20%)	1 8
25	AQ	117/119 (98%)	82 (70%)	35 (30%)	0 2
26	AR	94/124 (76%)	72 (77%)	22 (23%)	1 5
27	AS	128/129 (99%)	87 (68%)	41 (32%)	0 2
28	AT	115/116 (99%)	84 (73%)	31 (27%)	0 3
29	AU	100/114 (88%)	69 (69%)	31 (31%)	0 2
30	AV	74/74 (100%)	54 (73%)	20 (27%)	0 3
31	AW	110/111 (99%)	82 (74%)	28 (26%)	0 3
32	AX	119/120 (99%)	93 (78%)	26 (22%)	1 6
33	AY	112/113 (99%)	81 (72%)	31 (28%)	0 3
34	AZ	61/89 (68%)	42 (69%)	19 (31%)	0 2
35	BA	192/195 (98%)	149 (78%)	43 (22%)	1 6
36	BB	320/322 (99%)	241 (75%)	79 (25%)	1 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
37	BC	288/288 (100%)	213 (74%)	75 (26%)	0 3
38	BD	243/244 (100%)	185 (76%)	58 (24%)	1 5
39	BE	135/152 (89%)	113 (84%)	22 (16%)	2 12
40	BF	187/204 (92%)	158 (84%)	29 (16%)	2 13
41	BG	177/207 (86%)	136 (77%)	41 (23%)	1 5
42	BH	171/171 (100%)	128 (75%)	43 (25%)	0 4
43	BI	179/186 (96%)	134 (75%)	45 (25%)	0 4
44	BJ	147/149 (99%)	113 (77%)	34 (23%)	1 5
46	BL	154/158 (98%)	126 (82%)	28 (18%)	2 10
47	BM	108/108 (100%)	80 (74%)	28 (26%)	0 3
48	BN	175/175 (100%)	139 (79%)	36 (21%)	1 7
49	BO	323/178 (182%)	254 (79%)	69 (21%)	1 6
50	BP	125/145 (86%)	98 (78%)	27 (22%)	1 6
51	BQ	150/150 (100%)	121 (81%)	29 (19%)	1 8
52	BR	153/153 (100%)	113 (74%)	40 (26%)	0 3
53	BS	156/156 (100%)	119 (76%)	37 (24%)	1 5
54	BT	136/136 (100%)	107 (79%)	29 (21%)	1 6
55	BU	85/106 (80%)	60 (71%)	25 (29%)	0 2
56	BV	104/104 (100%)	93 (89%)	11 (11%)	6 22
57	BW	100/129 (78%)	83 (83%)	17 (17%)	2 12
58	BX	104/117 (89%)	77 (74%)	27 (26%)	0 3
59	BY	109/109 (100%)	81 (74%)	28 (26%)	0 3
60	BZ	115/115 (100%)	87 (76%)	28 (24%)	1 4
61	Ba	118/118 (100%)	90 (76%)	28 (24%)	1 5
62	Bb	46/46 (100%)	32 (70%)	14 (30%)	0 2
63	Bc	84/87 (97%)	65 (77%)	19 (23%)	1 6
64	Bd	94/96 (98%)	72 (77%)	22 (23%)	1 5
65	Be	109/110 (99%)	85 (78%)	24 (22%)	1 6
66	Bf	90/90 (100%)	80 (89%)	10 (11%)	6 21
67	Bg	95/102 (93%)	70 (74%)	25 (26%)	0 3
68	Bh	103/104 (99%)	75 (73%)	28 (27%)	0 3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
69	Bi	80/81 (99%)	51 (64%)	29 (36%)	0 1
70	Bj	70/70 (100%)	55 (79%)	15 (21%)	1 6
71	Bk	67/68 (98%)	50 (75%)	17 (25%)	0 3
72	Bl	45/45 (100%)	30 (67%)	15 (33%)	0 2
73	Bm	47/116 (40%)	35 (74%)	12 (26%)	0 3
74	Bn	23/23 (100%)	13 (56%)	10 (44%)	0 0
75	Bo	90/90 (100%)	72 (80%)	18 (20%)	1 8
76	Bq	105/254 (41%)	94 (90%)	11 (10%)	6 23
79	By	177/181 (98%)	174 (98%)	3 (2%)	53 67
79	CL	177/181 (98%)	147 (83%)	30 (17%)	2 12
85	CP	296/296 (100%)	276 (93%)	20 (7%)	14 37
All	All	10159/10982 (92%)	7814 (77%)	2345 (23%)	2 5

All (2345) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A0	12	LYS
1	A0	30	ILE
1	A0	36	ILE
1	A0	41	ILE
1	A0	44	ILE
1	A0	45	VAL
1	A0	50	VAL
1	A0	53	LEU
1	A0	58	VAL
1	A0	61	GLU
1	A0	64	LEU
1	A0	66	LYS
1	A0	67	THR
1	A0	69	ASN
1	A0	70	LYS
1	A0	82	ARG
1	A0	83	ILE
1	A0	84	VAL
1	A0	85	ARG
1	A0	86	VAL
1	A0	87	ARG
1	A0	90	GLU

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Mol	Chain	Res	Type
2	A1	2	VAL
2	A1	3	LEU
2	A1	4	VAL
2	A1	20	LYS
2	A1	26	GLN
2	A1	29	ARG
2	A1	33	LEU
2	A1	34	ASP
2	A1	41	LEU
2	A1	67	THR
3	A2	5	THR
3	A2	13	ILE
3	A2	14	LYS
3	A2	15	VAL
3	A2	19	THR
3	A2	25	VAL
3	A2	32	PHE
3	A2	33	LEU
3	A2	34	GLU
3	A2	38	ARG
3	A2	39	THR
3	A2	49	ARG
3	A2	52	ASP
3	A2	54	LEU
3	A2	57	MET
3	A2	58	GLU
3	A2	59	SER
3	A2	62	GLU
3	A2	64	ARG
3	A2	65	ARG
4	A3	6	VAL
4	A3	22	ARG
4	A3	25	SER
4	A3	30	LEU
4	A3	32	ARG
4	A3	36	LEU
4	A3	48	ASN
5	A4	3	LYS
5	A4	20	LYS
5	A4	21	VAL
5	A4	25	GLU
5	A4	28	LYS

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Mol	Chain	Res	Type
5	A4	29	LYS
5	A4	42	ARG
5	A4	48	THR
5	A4	49	LEU
5	A4	50	VAL
6	A5	102	VAL
6	A5	108	VAL
6	A5	120	GLU
6	A5	121	CYS
6	A5	125	THR
6	A5	130	VAL
6	A5	137	ASP
6	A5	146	SER
6	A5	147	VAL
6	A5	149	LYS
6	A5	150	VAL
6	A5	151	ASN
7	A6	6	VAL
7	A6	7	LEU
7	A6	8	VAL
7	A6	10	ARG
7	A6	46	LYS
7	A6	47	LEU
7	A6	48	THR
7	A6	51	ASP
7	A6	52	GLN
7	A6	58	VAL
7	A6	76	ASP
7	A6	87	LYS
7	A6	88	THR
7	A6	91	LEU
7	A6	94	VAL
7	A6	96	THR
7	A6	112	SER
7	A6	117	LYS
7	A6	118	LYS
7	A6	129	LYS
7	A6	134	TRP
7	A6	136	ILE
7	A6	137	LYS
7	A6	141	LEU
7	A6	153	GLN

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Mol	Chain	Res	Type
7	A6	165	ASP
7	A6	166	SER
7	A6	185	GLN
7	A6	188	ILE
7	A6	193	ILE
7	A6	199	ILE
7	A6	211	ILE
7	A6	216	LYS
7	A6	222	LEU
7	A6	238	ASP
7	A6	248	ASN
7	A6	250	TYR
7	A6	265	LEU
7	A6	266	ASP
7	A6	268	GLN
7	A6	292	LEU
7	A6	300	THR
7	A6	316	MET
7	A6	317	THR
8	A7	24	GLU
8	A7	25	ILE
8	A7	28	SER
8	A7	34	LYS
8	A7	46	LYS
8	A7	51	ARG
8	A7	61	ILE
8	A7	64	LYS
8	A7	65	THR
8	A7	68	ARG
8	A7	75	ASP
8	A7	78	ASP
8	A7	82	THR
8	A7	84	LYS
8	A7	88	ARG
8	A7	89	ARG
8	A7	96	ARG
8	A7	97	THR
8	A7	100	THR
8	A7	102	THR
8	A7	105	LYS
8	A7	112	ASP
8	A7	116	GLU

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Mol	Chain	Res	Type
8	A7	130	GLU
8	A7	131	ILE
8	A7	139	GLU
9	AA	7	PHE
9	AA	9	LEU
9	AA	10	THR
9	AA	24	LEU
9	AA	27	ARG
9	AA	29	VAL
9	AA	33	GLN
9	AA	34	GLU
9	AA	37	VAL
9	AA	43	ASP
9	AA	45	VAL
9	AA	47	VAL
9	AA	50	VAL
9	AA	52	LYS
9	AA	55	GLU
9	AA	57	LEU
9	AA	59	LEU
9	AA	62	ARG
9	AA	76	ILE
9	AA	79	ARG
9	AA	84	ARG
9	AA	87	LEU
9	AA	88	LYS
9	AA	96	THR
9	AA	98	ILE
9	AA	101	ARG
9	AA	103	THR
9	AA	110	TYR
9	AA	111	ILE
9	AA	114	SER
9	AA	117	GLU
9	AA	119	ARG
9	AA	123	VAL
9	AA	124	THR
9	AA	131	GLN
9	AA	133	ILE
9	AA	135	GLU
9	AA	140	ASN
9	AA	154	GLU

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Mol	Chain	Res	Type
9	AA	156	VAL
9	AA	157	ASP
9	AA	162	CYS
9	AA	168	HIS
9	AA	170	ILE
9	AA	172	LEU
9	AA	177	LEU
9	AA	184	LEU
9	AA	185	ARG
9	AA	196	SER
9	AA	197	ILE
10	AB	21	VAL
10	AB	22	ASP
10	AB	36	SER
10	AB	38	PHE
10	AB	42	ASN
10	AB	47	LEU
10	AB	54	LEU
10	AB	55	LYS
10	AB	58	SER
10	AB	61	LEU
10	AB	65	VAL
10	AB	68	VAL
10	AB	70	LEU
10	AB	73	LEU
10	AB	77	GLU
10	AB	78	ASP
10	AB	80	SER
10	AB	81	PHE
10	AB	83	LYS
10	AB	85	LYS
10	AB	91	VAL
10	AB	94	LYS
10	AB	96	LEU
10	AB	97	LEU
10	AB	105	PHE
10	AB	108	ASP
10	AB	109	LYS
10	AB	110	LEU
10	AB	115	ARG
10	AB	124	ASN
10	AB	131	ASP

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Mol	Chain	Res	Type
10	AB	135	LEU
10	AB	146	GLN
10	AB	148	ASN
10	AB	149	GLN
10	AB	154	SER
10	AB	167	VAL
10	AB	170	GLU
10	AB	174	LYS
10	AB	177	GLN
10	AB	179	SER
10	AB	180	THR
10	AB	181	LEU
10	AB	183	GLN
10	AB	184	LEU
10	AB	193	ILE
10	AB	202	LYS
10	AB	214	LYS
10	AB	215	VAL
10	AB	218	LEU
10	AB	220	GLN
10	AB	223	PHE
10	AB	225	VAL
10	AB	228	LEU
11	AC	41	LEU
11	AC	50	ILE
11	AC	53	ILE
11	AC	58	LEU
11	AC	64	LYS
11	AC	68	ILE
11	AC	70	ASP
11	AC	71	THR
11	AC	72	LEU
11	AC	73	LEU
11	AC	76	LEU
11	AC	77	GLN
11	AC	80	VAL
11	AC	87	GLN
11	AC	89	GLN
11	AC	90	THR
11	AC	95	ARG
11	AC	96	THR
11	AC	97	ARG

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Mol	Chain	Res	Type
11	AC	103	VAL
11	AC	106	ASP
11	AC	111	VAL
11	AC	117	THR
11	AC	119	LYS
11	AC	125	ILE
11	AC	130	ILE
11	AC	134	LEU
11	AC	137	ILE
11	AC	139	ILE
11	AC	140	ARG
11	AC	141	ARG
11	AC	146	THR
11	AC	148	LEU
11	AC	156	THR
11	AC	159	THR
11	AC	166	THR
11	AC	174	ARG
11	AC	185	LYS
11	AC	187	LEU
11	AC	206	THR
11	AC	208	GLU
11	AC	218	ILE
11	AC	221	THR
11	AC	222	TYR
11	AC	226	THR
11	AC	227	PRO
11	AC	229	LEU
11	AC	235	LEU
11	AC	237	VAL
11	AC	240	LEU
11	AC	245	ASP
11	AC	246	GLU
12	AD	4	LEU
12	AD	5	ILE
12	AD	7	LYS
12	AD	9	ARG
12	AD	21	LEU
12	AD	23	GLU
12	AD	29	LEU
12	AD	37	VAL
12	AD	39	VAL

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Mol	Chain	Res	Type
12	AD	41	VAL
12	AD	49	ILE
12	AD	53	THR
12	AD	65	ARG
12	AD	66	ILE
12	AD	81	PRO
12	AD	84	ILE
12	AD	89	GLU
12	AD	91	VAL
12	AD	92	GLN
12	AD	93	ASP
12	AD	94	ARG
12	AD	96	LEU
12	AD	103	GLU
12	AD	105	MET
12	AD	117	ARG
12	AD	127	MET
12	AD	129	SER
12	AD	134	CYS
12	AD	141	LYS
12	AD	142	LEU
12	AD	151	LYS
12	AD	158	ILE
12	AD	164	VAL
12	AD	170	THR
12	AD	172	THR
12	AD	176	LEU
12	AD	178	ARG
12	AD	181	VAL
12	AD	182	LEU
12	AD	187	LYS
12	AD	190	ARG
12	AD	200	LYS
12	AD	204	ASP
12	AD	207	THR
12	AD	212	LYS
12	AD	215	GLU
12	AD	220	PRO
12	AD	221	SER
12	AD	222	VAL
13	AE	6	LYS
13	AE	7	LYS

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Mol	Chain	Res	Type
13	AE	9	LEU
13	AE	12	LEU
13	AE	23	LEU
13	AE	26	CYS
13	AE	38	LEU
13	AE	39	ARG
13	AE	45	ILE
13	AE	48	LEU
13	AE	49	ARG
13	AE	56	LEU
13	AE	59	ARG
13	AE	62	LYS
13	AE	67	GLN
13	AE	68	ARG
13	AE	70	VAL
13	AE	72	VAL
13	AE	77	ARG
13	AE	92	LEU
13	AE	95	THR
13	AE	102	VAL
13	AE	105	VAL
13	AE	116	ASP
13	AE	117	GLU
13	AE	123	LEU
13	AE	126	VAL
13	AE	128	LYS
13	AE	129	VAL
13	AE	131	LEU
13	AE	133	LYS
13	AE	146	THR
13	AE	153	ASN
13	AE	155	LYS
13	AE	158	ASP
13	AE	160	VAL
13	AE	164	LEU
13	AE	166	SER
13	AE	176	ASP
13	AE	180	LEU
13	AE	181	VAL
13	AE	187	ARG
13	AE	192	ILE
13	AE	197	HIS

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Mol	Chain	Res	Type
13	AE	198	LYS
13	AE	211	LYS
13	AE	214	LEU
13	AE	215	ASP
13	AE	220	THR
13	AE	221	ARG
13	AE	222	LEU
13	AE	227	VAL
13	AE	231	GLN
13	AE	236	ILE
13	AE	237	SER
13	AE	240	LYS
13	AE	242	LYS
13	AE	246	LEU
13	AE	248	ILE
13	AE	259	GLN
13	AE	261	LEU
14	AF	21	THR
14	AF	23	VAL
14	AF	24	VAL
14	AF	25	LEU
14	AF	27	THR
14	AF	32	GLU
14	AF	41	LYS
14	AF	45	LYS
14	AF	53	VAL
14	AF	63	GLN
14	AF	68	ILE
14	AF	70	VAL
14	AF	79	ASN
14	AF	89	ILE
14	AF	93	LEU
14	AF	94	THR
14	AF	109	LYS
14	AF	114	ILE
14	AF	117	THR
14	AF	119	ASP
14	AF	130	ILE
14	AF	140	THR
14	AF	146	THR
14	AF	147	THR
14	AF	149	VAL

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Mol	Chain	Res	Type
14	AF	156	ARG
14	AF	160	VAL
14	AF	162	VAL
14	AF	163	SER
14	AF	193	THR
14	AF	203	LYS
14	AF	206	SER
14	AF	216	GLU
14	AF	225	ARG
15	AG	9	VAL
15	AG	21	GLU
15	AG	25	ARG
15	AG	30	LYS
15	AG	32	ILE
15	AG	45	PHE
15	AG	58	LYS
15	AG	59	GLN
15	AG	69	LEU
15	AG	71	THR
15	AG	76	LEU
15	AG	78	THR
15	AG	79	LYS
15	AG	82	SER
15	AG	87	ARG
15	AG	97	VAL
15	AG	98	ARG
15	AG	105	ASP
15	AG	109	LEU
15	AG	111	LEU
15	AG	120	GLU
15	AG	124	LEU
15	AG	126	ASP
15	AG	127	THR
15	AG	129	VAL
15	AG	132	ARG
15	AG	133	LEU
15	AG	137	ARG
15	AG	142	ARG
15	AG	143	LYS
15	AG	150	GLU
15	AG	155	ASP
15	AG	158	ILE

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Mol	Chain	Res	Type
15	AG	162	VAL
15	AG	170	THR
15	AG	175	ILE
15	AG	176	GLN
15	AG	177	ARG
15	AG	179	VAL
15	AG	211	LEU
15	AG	212	LEU
15	AG	217	SER
15	AG	223	LYS
16	AH	7	LYS
16	AH	9	LEU
16	AH	25	VAL
16	AH	37	GLU
16	AH	38	LEU
16	AH	42	GLN
16	AH	46	ILE
16	AH	49	ILE
16	AH	50	ASP
16	AH	51	VAL
16	AH	58	LEU
16	AH	60	ILE
16	AH	66	SER
16	AH	67	LEU
16	AH	70	PHE
16	AH	74	GLN
16	AH	75	THR
16	AH	77	LEU
16	AH	78	THR
16	AH	79	ARG
16	AH	80	GLU
16	AH	87	ASP
16	AH	95	GLU
16	AH	97	ARG
16	AH	103	SER
16	AH	105	THR
16	AH	108	GLN
16	AH	109	VAL
16	AH	110	GLN
16	AH	114	ARG
16	AH	116	ARG
16	AH	117	THR

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Mol	Chain	Res	Type
16	AH	121	VAL
16	AH	126	LEU
16	AH	130	VAL
16	AH	136	VAL
16	AH	143	LEU
16	AH	144	VAL
16	AH	148	LYS
16	AH	150	GLN
16	AH	154	LEU
16	AH	161	GLN
16	AH	162	ILE
16	AH	166	LEU
16	AH	167	GLU
16	AH	175	LYS
16	AH	181	ILE
16	AH	184	GLU
16	AH	185	ILE
17	AI	7	SER
17	AI	8	ARG
17	AI	14	THR
17	AI	20	GLN
17	AI	21	PHE
17	AI	26	LYS
17	AI	28	GLU
17	AI	29	LEU
17	AI	32	GLN
17	AI	36	THR
17	AI	46	VAL
17	AI	56	ARG
17	AI	58	LEU
17	AI	60	ILE
17	AI	72	ILE
17	AI	74	LYS
17	AI	76	THR
17	AI	82	VAL
17	AI	103	GLN
17	AI	107	THR
17	AI	120	THR
17	AI	121	LEU
17	AI	123	LYS
17	AI	135	LYS
17	AI	137	LYS

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Mol	Chain	Res	Type
17	AI	138	ASN
17	AI	140	GLU
17	AI	142	LYS
17	AI	151	LYS
17	AI	152	ILE
17	AI	154	SER
17	AI	155	SER
17	AI	164	ARG
17	AI	184	LEU
17	AI	196	LEU
17	AI	199	LYS
18	AJ	3	ARG
18	AJ	7	THR
18	AJ	13	SER
18	AJ	14	THR
18	AJ	22	SER
18	AJ	28	LEU
18	AJ	39	LYS
18	AJ	46	SER
18	AJ	49	LEU
18	AJ	54	ARG
18	AJ	60	LEU
18	AJ	78	ARG
18	AJ	79	ARG
18	AJ	82	ARG
18	AJ	88	GLU
18	AJ	89	ASP
18	AJ	92	LYS
18	AJ	93	LEU
18	AJ	96	VAL
18	AJ	99	LEU
18	AJ	101	VAL
18	AJ	105	LEU
18	AJ	109	LEU
18	AJ	110	GLN
18	AJ	111	THR
18	AJ	113	VAL
18	AJ	120	LYS
18	AJ	130	THR
18	AJ	133	HIS
18	AJ	134	ILE
18	AJ	138	LYS

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Mol	Chain	Res	Type
18	AJ	149	ARG
18	AJ	161	THR
18	AJ	171	ARG
18	AJ	172	VAL
18	AJ	175	ARG
18	AJ	182	GLU
19	AK	8	ARG
19	AK	13	GLN
19	AK	20	VAL
19	AK	22	VAL
19	AK	27	PHE
19	AK	29	GLN
19	AK	31	LYS
19	AK	32	HIS
19	AK	40	LEU
19	AK	46	LEU
19	AK	47	GLN
19	AK	49	LEU
19	AK	50	THR
19	AK	55	VAL
19	AK	56	LYS
19	AK	71	GLU
19	AK	76	LEU
19	AK	78	GLU
19	AK	80	LEU
19	AK	82	LEU
20	AL	3	THR
20	AL	4	GLU
20	AL	7	VAL
20	AL	8	GLN
20	AL	21	ASN
20	AL	27	THR
20	AL	29	LYS
20	AL	30	ARG
20	AL	40	LEU
20	AL	43	LYS
20	AL	44	THR
20	AL	54	ILE
20	AL	56	LYS
20	AL	63	LEU
20	AL	67	ARG
20	AL	74	THR

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Mol	Chain	Res	Type
20	AL	79	LYS
20	AL	80	MET
20	AL	83	THR
20	AL	94	ILE
20	AL	99	ARG
20	AL	109	VAL
20	AL	123	VAL
20	AL	127	GLN
20	AL	131	ILE
20	AL	140	VAL
20	AL	141	LYS
21	AM	25	GLU
21	AM	28	LEU
21	AM	31	VAL
21	AM	33	ARG
21	AM	36	LEU
21	AM	41	LEU
21	AM	43	ARG
21	AM	45	LEU
21	AM	50	LYS
21	AM	52	LEU
21	AM	53	THR
21	AM	58	LEU
21	AM	59	LEU
21	AM	61	VAL
21	AM	62	LEU
21	AM	63	VAL
21	AM	66	VAL
21	AM	71	ILE
21	AM	74	LEU
21	AM	75	VAL
21	AM	83	GLU
21	AM	88	LEU
21	AM	89	ILE
21	AM	97	LEU
21	AM	103	LEU
21	AM	116	VAL
21	AM	119	SER
21	AM	121	VAL
21	AM	129	GLU
21	AM	132	GLU
21	AM	135	MET

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Mol	Chain	Res	Type
21	AM	138	GLU
21	AM	139	HIS
21	AM	140	PHE
21	AM	141	SER
22	AN	3	ARG
22	AN	4	MET
22	AN	12	SER
22	AN	16	ILE
22	AN	21	ASN
22	AN	27	LYS
22	AN	33	VAL
22	AN	36	GLN
22	AN	39	LYS
22	AN	42	ARG
22	AN	45	LEU
22	AN	50	ILE
22	AN	55	ARG
22	AN	56	ASP
22	AN	58	HIS
22	AN	60	VAL
22	AN	62	GLN
22	AN	64	ARG
22	AN	65	VAL
22	AN	66	ILE
22	AN	67	THR
22	AN	71	ILE
22	AN	77	SER
22	AN	83	GLU
22	AN	84	ILE
22	AN	88	LEU
22	AN	93	LYS
22	AN	94	LYS
22	AN	97	SER
22	AN	102	LEU
22	AN	105	ASN
22	AN	109	LYS
22	AN	114	ARG
22	AN	115	LEU
22	AN	125	LEU
22	AN	134	VAL
22	AN	142	GLU
22	AN	145	THR

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Mol	Chain	Res	Type
22	AN	149	LEU
22	AN	150	VAL
22	AN	151	ASN
23	AO	13	VAL
23	AO	14	PHE
23	AO	16	VAL
23	AO	24	ASN
23	AO	26	THR
23	AO	28	VAL
23	AO	29	HIS
23	AO	30	VAL
23	AO	31	THR
23	AO	39	ILE
23	AO	42	VAL
23	AO	43	THR
23	AO	81	VAL
23	AO	92	LYS
23	AO	99	GLN
23	AO	102	LEU
23	AO	103	ARG
23	AO	107	ARG
23	AO	108	SER
23	AO	118	VAL
23	AO	123	SER
23	AO	124	ASP
23	AO	125	SER
23	AO	137	LEU
24	AP	14	THR
24	AP	22	LEU
24	AP	24	LYS
24	AP	26	LEU
24	AP	30	THR
24	AP	31	GLU
24	AP	34	VAL
24	AP	35	LYS
24	AP	44	ARG
24	AP	47	ARG
24	AP	50	THR
24	AP	52	LYS
24	AP	69	GLU
24	AP	86	VAL
24	AP	92	SER

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Mol	Chain	Res	Type
24	AP	100	LYS
24	AP	110	GLU
24	AP	121	ILE
24	AP	125	PRO
24	AP	130	ARG
25	AQ	4	VAL
25	AQ	8	GLN
25	AQ	12	LYS
25	AQ	14	LYS
25	AQ	17	THR
25	AQ	23	LYS
25	AQ	26	LYS
25	AQ	36	ILE
25	AQ	39	VAL
25	AQ	43	ILE
25	AQ	44	LEU
25	AQ	45	ARG
25	AQ	52	LEU
25	AQ	53	LEU
25	AQ	54	LEU
25	AQ	57	LEU
25	AQ	59	LYS
25	AQ	63	ILE
25	AQ	66	ARG
25	AQ	67	VAL
25	AQ	69	VAL
25	AQ	76	SER
25	AQ	90	VAL
25	AQ	94	GLN
25	AQ	98	ASP
25	AQ	101	SER
25	AQ	106	LYS
25	AQ	115	THR
25	AQ	117	LEU
25	AQ	118	ILE
25	AQ	123	ARG
25	AQ	128	LYS
25	AQ	136	SER
25	AQ	137	ARG
25	AQ	141	SER
26	AR	4	VAL
26	AR	25	THR

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Mol	Chain	Res	Type
26	AR	26	LEU
26	AR	29	GLN
26	AR	30	THR
26	AR	34	LEU
26	AR	38	ILE
26	AR	44	LYS
26	AR	46	LEU
26	AR	49	LYS
26	AR	54	THR
26	AR	69	ILE
26	AR	72	LYS
26	AR	73	LEU
26	AR	78	ARG
26	AR	83	GLN
26	AR	105	GLN
26	AR	107	SER
26	AR	111	LYS
26	AR	113	LEU
26	AR	115	LEU
26	AR	119	LEU
27	AS	3	LEU
27	AS	4	VAL
27	AS	5	VAL
27	AS	8	GLN
27	AS	11	PHE
27	AS	12	GLN
27	AS	13	HIS
27	AS	14	ILE
27	AS	15	LEU
27	AS	17	LEU
27	AS	20	THR
27	AS	21	ASN
27	AS	26	ILE
27	AS	28	ILE
27	AS	34	THR
27	AS	38	VAL
27	AS	46	VAL
27	AS	54	LEU
27	AS	57	ARG
27	AS	60	GLU
27	AS	61	LEU
27	AS	71	GLN

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Mol	Chain	Res	Type
27	AS	74	GLN
27	AS	77	THR
27	AS	80	LYS
27	AS	81	ILE
27	AS	86	LEU
27	AS	89	GLN
27	AS	92	ILE
27	AS	93	THR
27	AS	96	LYS
27	AS	107	SER
27	AS	108	LYS
27	AS	110	ARG
27	AS	116	LEU
27	AS	119	ILE
27	AS	132	ARG
27	AS	136	GLN
27	AS	138	THR
27	AS	140	THR
27	AS	143	ARG
28	AT	4	VAL
28	AT	6	VAL
28	AT	13	ASP
28	AT	22	LEU
28	AT	28	LEU
28	AT	30	VAL
28	AT	33	TYR
28	AT	34	VAL
28	AT	35	ASP
28	AT	36	ILE
28	AT	37	VAL
28	AT	38	LYS
28	AT	57	ARG
28	AT	63	ARG
28	AT	67	MET
28	AT	68	ARG
28	AT	84	LYS
28	AT	86	ARG
28	AT	88	VAL
28	AT	89	ARG
28	AT	92	LYS
28	AT	94	ILE
28	AT	103	LYS

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Mol	Chain	Res	Type
28	AT	111	ILE
28	AT	113	ILE
28	AT	126	GLU
28	AT	131	ASP
28	AT	132	LEU
28	AT	134	ARG
28	AT	135	ILE
28	AT	144	GLU
29	AU	15	GLN
29	AU	17	GLN
29	AU	18	GLN
29	AU	20	ILE
29	AU	22	ILE
29	AU	23	ARG
29	AU	27	THR
29	AU	30	LYS
29	AU	31	VAL
29	AU	34	LEU
29	AU	35	GLU
29	AU	42	VAL
29	AU	43	LYS
29	AU	47	GLN
29	AU	48	HIS
29	AU	51	VAL
29	AU	57	ARG
29	AU	58	LEU
29	AU	60	THR
29	AU	61	LYS
29	AU	66	SER
29	AU	74	GLU
29	AU	76	SER
29	AU	81	THR
29	AU	88	LYS
29	AU	89	ARG
29	AU	97	VAL
29	AU	99	ILE
29	AU	103	ILE
29	AU	108	ILE
29	AU	121	ASN
30	AV	1	MET
30	AV	2	GLU
30	AV	3	ASN

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Mol	Chain	Res	Type
30	AV	5	LYS
30	AV	7	GLN
30	AV	11	LEU
30	AV	24	ILE
30	AV	25	LYS
30	AV	32	VAL
30	AV	38	LYS
30	AV	41	GLU
30	AV	49	GLU
30	AV	52	THR
30	AV	60	ARG
30	AV	62	ARG
30	AV	68	SER
30	AV	69	LEU
30	AV	74	GLN
30	AV	78	LEU
30	AV	80	LYS
31	AW	6	VAL
31	AW	7	LEU
31	AW	22	LYS
31	AW	23	ARG
31	AW	24	GLN
31	AW	25	VAL
31	AW	27	ILE
31	AW	30	SER
31	AW	43	LYS
31	AW	47	ILE
31	AW	53	ILE
31	AW	56	HIS
31	AW	65	LEU
31	AW	66	ASN
31	AW	69	LEU
31	AW	74	VAL
31	AW	83	ILE
31	AW	86	ILE
31	AW	87	GLU
31	AW	93	LEU
31	AW	98	GLN
31	AW	103	ILE
31	AW	104	LEU
31	AW	105	THR
31	AW	114	GLU

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Mol	Chain	Res	Type
31	AW	119	LYS
31	AW	121	VAL
31	AW	129	VAL
32	AX	7	ARG
32	AX	9	LEU
32	AX	14	LYS
32	AX	18	HIS
32	AX	19	ARG
32	AX	26	GLU
32	AX	28	ASN
32	AX	40	SER
32	AX	60	GLU
32	AX	62	LYS
32	AX	69	ARG
32	AX	82	LYS
32	AX	83	VAL
32	AX	84	THR
32	AX	103	LEU
32	AX	107	PHE
32	AX	109	ARG
32	AX	110	LYS
32	AX	114	LYS
32	AX	117	ILE
32	AX	131	SER
32	AX	133	LEU
32	AX	137	LYS
32	AX	138	GLU
32	AX	140	LYS
32	AX	144	ARG
33	AY	8	ARG
33	AY	10	ARG
33	AY	17	LEU
33	AY	29	HIS
33	AY	32	ARG
33	AY	34	ASN
33	AY	44	LEU
33	AY	46	GLU
33	AY	47	VAL
33	AY	49	LYS
33	AY	51	GLU
33	AY	52	LYS
33	AY	57	VAL

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Mol	Chain	Res	Type
33	AY	61	ARG
33	AY	62	THR
33	AY	75	VAL
33	AY	81	GLU
33	AY	84	LYS
33	AY	88	THR
33	AY	93	ARG
33	AY	96	LEU
33	AY	99	LYS
33	AY	102	LYS
33	AY	105	ARG
33	AY	107	GLN
33	AY	112	LYS
33	AY	123	LYS
33	AY	127	LYS
33	AY	128	LYS
33	AY	129	VAL
33	AY	135	ASP
34	AZ	38	HIS
34	AZ	42	LEU
34	AZ	49	ARG
34	AZ	50	ILE
34	AZ	58	ARG
34	AZ	68	ARG
34	AZ	69	LEU
34	AZ	71	ILE
34	AZ	75	LEU
34	AZ	77	ARG
34	AZ	80	LEU
34	AZ	85	LYS
34	AZ	88	ILE
34	AZ	92	ILE
34	AZ	93	SER
34	AZ	95	HIS
34	AZ	96	SER
34	AZ	100	ILE
34	AZ	105	THR
35	BA	15	ILE
35	BA	23	ARG
35	BA	32	LEU
35	BA	41	ILE
35	BA	44	ILE

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Mol	Chain	Res	Type
35	BA	45	VAL
35	BA	46	LYS
35	BA	48	ILE
35	BA	61	VAL
35	BA	62	VAL
35	BA	71	LEU
35	BA	82	VAL
35	BA	96	LEU
35	BA	101	VAL
35	BA	104	LEU
35	BA	109	GLU
35	BA	112	ILE
35	BA	113	VAL
35	BA	119	LYS
35	BA	134	VAL
35	BA	137	ILE
35	BA	142	ASP
35	BA	155	LYS
35	BA	157	VAL
35	BA	158	ILE
35	BA	165	VAL
35	BA	169	ILE
35	BA	179	LEU
35	BA	180	LEU
35	BA	181	LYS
35	BA	188	LYS
35	BA	193	ARG
35	BA	202	VAL
35	BA	207	VAL
35	BA	224	THR
35	BA	225	ILE
35	BA	226	SER
35	BA	227	ARG
35	BA	230	VAL
35	BA	238	ILE
35	BA	241	ARG
35	BA	243	THR
35	BA	246	LEU
36	BB	3	HIS
36	BB	4	ARG
36	BB	10	ARG
36	BB	17	LEU

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Mol	Chain	Res	Type
36	BB	19	ARG
36	BB	21	ARG
36	BB	24	SER
36	BB	30	LYS
36	BB	37	ARG
36	BB	43	LEU
36	BB	47	LEU
36	BB	50	LYS
36	BB	56	ILE
36	BB	70	ARG
36	BB	73	VAL
36	BB	77	THR
36	BB	79	VAL
36	BB	81	THR
36	BB	84	VAL
36	BB	85	VAL
36	BB	89	VAL
36	BB	100	ARG
36	BB	103	THR
36	BB	114	VAL
36	BB	116	ARG
36	BB	139	GLN
36	BB	145	GLU
36	BB	146	ARG
36	BB	148	LEU
36	BB	150	ARG
36	BB	153	LYS
36	BB	157	VAL
36	BB	169	THR
36	BB	175	LYS
36	BB	183	LEU
36	BB	187	SER
36	BB	188	ILE
36	BB	192	VAL
36	BB	196	ARG
36	BB	202	THR
36	BB	205	VAL
36	BB	213	GLU
36	BB	218	ILE
36	BB	221	THR
36	BB	229	VAL
36	BB	232	ARG

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Mol	Chain	Res	Type
36	BB	235	THR
36	BB	238	LEU
36	BB	242	THR
36	BB	248	LYS
36	BB	249	VAL
36	BB	252	ILE
36	BB	264	VAL
36	BB	275	ARG
36	BB	282	ILE
36	BB	284	ARG
36	BB	287	LYS
36	BB	291	GLU
36	BB	297	SER
36	BB	301	THR
36	BB	304	THR
36	BB	308	MET
36	BB	317	ILE
36	BB	322	ILE
36	BB	324	VAL
36	BB	328	ILE
36	BB	338	LEU
36	BB	340	LYS
36	BB	346	THR
36	BB	347	SER
36	BB	349	LYS
36	BB	354	VAL
36	BB	355	SER
36	BB	361	THR
36	BB	367	LYS
36	BB	369	ARG
36	BB	380	MET
36	BB	382	THR
36	BB	386	ASP
37	BC	2	SER
37	BC	3	ARG
37	BC	7	THR
37	BC	16	THR
37	BC	18	ASN
37	BC	25	VAL
37	BC	27	SER
37	BC	40	THR
37	BC	47	ARG

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Mol	Chain	Res	Type
37	BC	52	VAL
37	BC	53	SER
37	BC	55	LYS
37	BC	69	ARG
37	BC	71	VAL
37	BC	85	SER
37	BC	93	MET
37	BC	98	ARG
37	BC	112	LYS
37	BC	122	THR
37	BC	136	LEU
37	BC	138	ARG
37	BC	144	LYS
37	BC	145	ILE
37	BC	150	LEU
37	BC	152	VAL
37	BC	153	SER
37	BC	156	LEU
37	BC	158	SER
37	BC	161	LYS
37	BC	170	LYS
37	BC	172	VAL
37	BC	176	SER
37	BC	177	ASP
37	BC	179	LEU
37	BC	182	LEU
37	BC	186	LYS
37	BC	187	LEU
37	BC	191	LYS
37	BC	198	ARG
37	BC	200	THR
37	BC	203	ARG
37	BC	206	LEU
37	BC	215	ILE
37	BC	217	LYS
37	BC	220	ARG
37	BC	222	VAL
37	BC	230	VAL
37	BC	246	ARG
37	BC	258	LEU
37	BC	259	ASP
37	BC	265	GLU

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Mol	Chain	Res	Type
37	BC	267	VAL
37	BC	283	THR
37	BC	286	VAL
37	BC	287	THR
37	BC	289	ILE
37	BC	290	ILE
37	BC	300	ARG
37	BC	307	GLN
37	BC	313	LEU
37	BC	319	LYS
37	BC	323	VAL
37	BC	327	LEU
37	BC	333	VAL
37	BC	339	LEU
37	BC	342	LYS
37	BC	345	GLU
37	BC	349	THR
37	BC	354	VAL
37	BC	356	THR
37	BC	357	GLU
37	BC	358	THR
37	BC	359	LEU
37	BC	360	LYS
37	BC	362	ASP
38	BD	4	GLN
38	BD	5	LYS
38	BD	13	SER
38	BD	34	LYS
38	BD	35	ARG
38	BD	41	LYS
38	BD	51	LEU
38	BD	64	ILE
38	BD	65	ILE
38	BD	68	THR
38	BD	69	ILE
38	BD	70	THR
38	BD	73	VAL
38	BD	74	VAL
38	BD	88	ILE
38	BD	89	THR
38	BD	93	THR
38	BD	110	LEU

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Mol	Chain	Res	Type
38	BD	112	LYS
38	BD	113	LEU
38	BD	115	LEU
38	BD	118	THR
38	BD	124	GLU
38	BD	128	GLU
38	BD	131	LEU
38	BD	132	THR
38	BD	133	GLU
38	BD	136	GLU
38	BD	144	VAL
38	BD	146	LEU
38	BD	148	ILE
38	BD	152	ARG
38	BD	155	THR
38	BD	158	ARG
38	BD	163	LEU
38	BD	164	LYS
38	BD	177	GLU
38	BD	185	PHE
38	BD	186	GLU
38	BD	189	GLU
38	BD	190	ILE
38	BD	194	LEU
38	BD	205	SER
38	BD	211	LEU
38	BD	218	ARG
38	BD	227	LEU
38	BD	232	ASP
38	BD	236	LEU
38	BD	241	THR
38	BD	254	LYS
38	BD	258	LYS
38	BD	259	LYS
38	BD	262	LYS
38	BD	268	GLU
38	BD	273	ARG
38	BD	275	THR
38	BD	279	LYS
38	BD	282	ARG
39	BE	8	LYS
39	BE	20	LYS

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Mol	Chain	Res	Type
39	BE	21	THR
39	BE	46	ARG
39	BE	50	LYS
39	BE	52	VAL
39	BE	64	LEU
39	BE	65	ILE
39	BE	76	LEU
39	BE	78	ARG
39	BE	79	VAL
39	BE	89	THR
39	BE	91	VAL
39	BE	93	VAL
39	BE	98	VAL
39	BE	99	GLU
39	BE	109	GLU
39	BE	143	LYS
39	BE	151	LYS
39	BE	152	THR
39	BE	155	LEU
39	BE	162	SER
40	BF	22	THR
40	BF	26	VAL
40	BF	39	GLU
40	BF	41	ARG
40	BF	45	LEU
40	BF	53	LYS
40	BF	54	GLU
40	BF	56	GLU
40	BF	60	ARG
40	BF	77	VAL
40	BF	83	LEU
40	BF	88	ARG
40	BF	98	LYS
40	BF	101	LYS
40	BF	121	LYS
40	BF	124	LEU
40	BF	130	ILE
40	BF	156	ILE
40	BF	158	LYS
40	BF	159	GLN
40	BF	173	LEU
40	BF	175	LYS

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Mol	Chain	Res	Type
40	BF	179	LEU
40	BF	184	LEU
40	BF	196	LYS
40	BF	206	LYS
40	BF	219	LYS
40	BF	229	PHE
40	BF	239	LEU
41	BG	26	LEU
41	BG	41	GLN
41	BG	50	VAL
41	BG	67	ILE
41	BG	68	ARG
41	BG	70	LYS
41	BG	71	VAL
41	BG	74	THR
41	BG	79	GLN
41	BG	81	THR
41	BG	89	GLU
41	BG	92	LYS
41	BG	95	ASN
41	BG	110	THR
41	BG	126	SER
41	BG	128	LYS
41	BG	136	LEU
41	BG	145	ASN
41	BG	146	LYS
41	BG	149	LYS
41	BG	150	LEU
41	BG	153	ILE
41	BG	160	ILE
41	BG	163	VAL
41	BG	169	LEU
41	BG	172	LYS
41	BG	173	MET
41	BG	183	LYS
41	BG	185	ARG
41	BG	189	LEU
41	BG	208	GLU
41	BG	213	LYS
41	BG	214	LEU
41	BG	216	SER
41	BG	217	THR

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Mol	Chain	Res	Type
41	BG	219	ASP
41	BG	222	PHE
41	BG	230	LYS
41	BG	241	LYS
41	BG	245	LYS
41	BG	248	LYS
42	BH	4	ILE
42	BH	5	GLN
42	BH	6	THR
42	BH	16	VAL
42	BH	18	VAL
42	BH	19	SER
42	BH	20	ILE
42	BH	31	ARG
42	BH	33	THR
42	BH	39	LYS
42	BH	43	VAL
42	BH	44	THR
42	BH	52	LEU
42	BH	55	VAL
42	BH	62	ARG
42	BH	63	LYS
42	BH	68	LEU
42	BH	69	ARG
42	BH	70	THR
42	BH	71	VAL
42	BH	80	THR
42	BH	82	VAL
42	BH	92	TYR
42	BH	106	LYS
42	BH	121	LYS
42	BH	123	ILE
42	BH	124	ARG
42	BH	130	ASP
42	BH	132	VAL
42	BH	133	THR
42	BH	134	ILE
42	BH	138	THR
42	BH	144	ILE
42	BH	151	VAL
42	BH	161	LEU
42	BH	162	GLN

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Mol	Chain	Res	Type
42	BH	164	ILE
42	BH	169	ASN
42	BH	170	LYS
42	BH	173	ARG
42	BH	179	ILE
42	BH	188	THR
42	BH	191	LEU
43	BI	19	LYS
43	BI	24	ARG
43	BI	26	VAL
43	BI	31	ILE
43	BI	32	ARG
43	BI	33	ILE
43	BI	36	LEU
43	BI	42	THR
43	BI	48	LEU
43	BI	52	LEU
43	BI	53	VAL
43	BI	57	LEU
43	BI	58	GLU
43	BI	63	GLU
43	BI	69	ARG
43	BI	76	MET
43	BI	78	THR
43	BI	83	ASP
43	BI	87	LEU
43	BI	91	VAL
43	BI	99	ILE
43	BI	129	VAL
43	BI	135	ILE
43	BI	140	THR
43	BI	143	SER
43	BI	144	ASN
43	BI	145	LYS
43	BI	153	ARG
43	BI	154	ARG
43	BI	167	LEU
43	BI	169	LYS
43	BI	174	THR
43	BI	177	ASP
43	BI	178	ARG
43	BI	182	LEU

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Mol	Chain	Res	Type
43	BI	183	LYS
43	BI	197	VAL
43	BI	200	LEU
43	BI	203	LYS
43	BI	206	LEU
43	BI	210	ILE
43	BI	211	ARG
43	BI	212	GLU
43	BI	215	GLU
43	BI	217	PHE
44	BJ	10	ARG
44	BJ	12	LEU
44	BJ	13	LYS
44	BJ	16	LYS
44	BJ	22	SER
44	BJ	30	LEU
44	BJ	31	THR
44	BJ	34	SER
44	BJ	35	LYS
44	BJ	44	THR
44	BJ	46	VAL
44	BJ	80	LEU
44	BJ	85	LYS
44	BJ	87	LYS
44	BJ	92	ARG
44	BJ	106	ILE
44	BJ	107	ASP
44	BJ	108	GLU
44	BJ	112	LEU
44	BJ	114	ILE
44	BJ	129	VAL
44	BJ	130	VAL
44	BJ	132	ASN
44	BJ	137	ARG
44	BJ	138	VAL
44	BJ	140	ARG
44	BJ	142	LYS
44	BJ	147	THR
44	BJ	152	HIS
44	BJ	158	ASP
44	BJ	159	THR
44	BJ	160	VAL

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Mol	Chain	Res	Type
44	BJ	161	SER
44	BJ	165	GLN
46	BL	45	LYS
46	BL	46	ILE
46	BL	54	LEU
46	BL	58	VAL
46	BL	59	ARG
46	BL	63	VAL
46	BL	67	ARG
46	BL	68	LYS
46	BL	69	VAL
46	BL	73	ARG
46	BL	85	LEU
46	BL	100	ARG
46	BL	107	GLU
46	BL	114	GLN
46	BL	118	GLU
46	BL	121	SER
46	BL	123	ILE
46	BL	124	ILE
46	BL	131	LYS
46	BL	152	THR
46	BL	154	VAL
46	BL	164	GLU
46	BL	168	ARG
46	BL	171	ARG
46	BL	176	GLU
46	BL	184	GLU
46	BL	189	GLU
46	BL	194	GLU
47	BM	3	THR
47	BM	10	SER
47	BM	13	ARG
47	BM	15	VAL
47	BM	20	VAL
47	BM	24	LYS
47	BM	27	GLN
47	BM	42	LYS
47	BM	53	VAL
47	BM	58	ILE
47	BM	62	GLN
47	BM	63	VAL

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Mol	Chain	Res	Type
47	BM	64	VAL
47	BM	72	LEU
47	BM	74	ARG
47	BM	80	THR
47	BM	82	SER
47	BM	92	GLU
47	BM	106	ARG
47	BM	107	GLU
47	BM	108	ARG
47	BM	124	ARG
47	BM	126	GLN
47	BM	128	ARG
47	BM	130	THR
47	BM	132	LYS
47	BM	133	LYS
47	BM	135	LEU
48	BN	5	LYS
48	BN	7	LEU
48	BN	8	GLU
48	BN	10	LEU
48	BN	12	ARG
48	BN	15	GLN
48	BN	18	VAL
48	BN	22	LEU
48	BN	24	ARG
48	BN	41	ARG
48	BN	49	ARG
48	BN	54	LYS
48	BN	60	VAL
48	BN	68	ARG
48	BN	80	THR
48	BN	83	LYS
48	BN	85	THR
48	BN	91	GLU
48	BN	92	LEU
48	BN	96	ARG
48	BN	97	SER
48	BN	98	LEU
48	BN	104	GLU
48	BN	105	ARG
48	BN	106	VAL
48	BN	109	ARG

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Mol	Chain	Res	Type
48	BN	134	LEU
48	BN	138	GLN
48	BN	155	VAL
48	BN	170	LYS
48	BN	176	LYS
48	BN	184	LYS
48	BN	190	THR
48	BN	194	GLN
48	BN	196	THR
48	BN	204	LYS
49	BO	3[A]	VAL
49	BO	3[B]	SER
49	BO	12[A]	LYS
49	BO	12[B]	LYS
49	BO	22[A]	VAL
49	BO	22[B]	THR
49	BO	25[A]	LYS
49	BO	25[B]	LYS
49	BO	34[A]	VAL
49	BO	34[B]	VAL
49	BO	41[A]	LEU
49	BO	41[B]	LEU
49	BO	58[A]	LEU
49	BO	58[B]	LEU
49	BO	59[A]	ARG
49	BO	59[B]	ARG
49	BO	60[A]	LYS
49	BO	60[B]	LYS
49	BO	67[A]	THR
49	BO	67[B]	THR
49	BO	74[A]	ARG
49	BO	74[B]	ARG
49	BO	78[A]	ARG
49	BO	78[B]	ARG
49	BO	85[A]	ARG
49	BO	85[B]	ARG
49	BO	100[A]	GLU
49	BO	100[B]	GLU
49	BO	102[A]	LEU
49	BO	102[B]	LEU
49	BO	106[A]	GLU
49	BO	106[B]	GLU

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Mol	Chain	Res	Type
49	BO	108[A]	ILE
49	BO	108[B]	ILE
49	BO	115[A]	LYS
49	BO	115[B]	LYS
49	BO	117[A]	ARG
49	BO	117[B]	ARG
49	BO	124[A]	LEU
49	BO	124[B]	LEU
49	BO	126[A]	VAL
49	BO	126[B]	VAL
49	BO	128[A]	ARG
49	BO	128[B]	ARG
49	BO	129[A]	LEU
49	BO	129[B]	LEU
49	BO	130[A]	LYS
49	BO	130[B]	LYS
49	BO	134[A]	LYS
49	BO	134[B]	LYS
49	BO	140[A]	LYS
49	BO	140[B]	LYS
49	BO	144[A]	SER
49	BO	144[B]	SER
49	BO	160[A]	ARG
49	BO	160[B]	ARG
49	BO	166[A]	GLU
49	BO	166[B]	GLU
49	BO	171[A]	LYS
49	BO	171[B]	LYS
49	BO	175[A]	THR
49	BO	175[B]	THR
49	BO	182[A]	ASN
49	BO	182[B]	SER
49	BO	184[A]	THR
49	BO	187[A]	GLU
49	BO	187[B]	GLU
49	BO	197[A]	LEU
49	BO	197[B]	PHE
50	BP	9	THR
50	BP	23	ARG
50	BP	24	VAL
50	BP	29	THR
50	BP	31	GLU

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Mol	Chain	Res	Type
50	BP	32	THR
50	BP	41	LEU
50	BP	51	VAL
50	BP	52	LEU
50	BP	56	ARG
50	BP	58	ILE
50	BP	69	ARG
50	BP	74	LYS
50	BP	78	VAL
50	BP	79	THR
50	BP	80	LYS
50	BP	89	LYS
50	BP	94	LEU
50	BP	103	GLU
50	BP	112	LEU
50	BP	114	VAL
50	BP	119	VAL
50	BP	124	LYS
50	BP	126	ARG
50	BP	127	ARG
50	BP	128	ARG
50	BP	138	LYS
51	BQ	3	ILE
51	BQ	7	SER
51	BQ	17	THR
51	BQ	24	VAL
51	BQ	26	LEU
51	BQ	31	LYS
51	BQ	32	LEU
51	BQ	34	THR
51	BQ	49	LEU
51	BQ	57	ILE
51	BQ	64	VAL
51	BQ	72	LYS
51	BQ	80	THR
51	BQ	81	VAL
51	BQ	86	THR
51	BQ	93	ILE
51	BQ	100	THR
51	BQ	105	ARG
51	BQ	113	LYS
51	BQ	129	VAL

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Mol	Chain	Res	Type
51	BQ	135	GLN
51	BQ	138	LEU
51	BQ	141	ARG
51	BQ	150	VAL
51	BQ	161	LYS
51	BQ	165	ILE
51	BQ	166	LEU
51	BQ	168	THR
51	BQ	170	ARG
52	BR	5	ARG
52	BR	7	GLN
52	BR	10	LEU
52	BR	14	VAL
52	BR	17	VAL
52	BR	20	ARG
52	BR	27	ASN
52	BR	29	THR
52	BR	36	ASN
52	BR	43	LYS
52	BR	49	THR
52	BR	55	VAL
52	BR	56	THR
52	BR	57	VAL
52	BR	63	THR
52	BR	70	LYS
52	BR	71	ARG
52	BR	74	ARG
52	BR	98	ARG
52	BR	99	LEU
52	BR	101	VAL
52	BR	105	LEU
52	BR	106	LEU
52	BR	108	LYS
52	BR	114	LYS
52	BR	117	LYS
52	BR	126	GLU
52	BR	128	LYS
52	BR	133	LYS
52	BR	138	LEU
52	BR	146	LYS
52	BR	152	GLU
52	BR	153	LYS

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Mol	Chain	Res	Type
52	BR	158	GLU
52	BR	162	ARG
52	BR	164	LEU
52	BR	167	ARG
52	BR	173	ARG
52	BR	177	VAL
52	BR	180	LYS
53	BS	1	MET
53	BS	13	ARG
53	BS	15	PRO
53	BS	17	GLU
53	BS	21	GLU
53	BS	23	LYS
53	BS	40	ARG
53	BS	45	LEU
53	BS	50	LYS
53	BS	51	VAL
53	BS	52	LYS
53	BS	58	ILE
53	BS	61	ILE
53	BS	71	LYS
53	BS	73	LYS
53	BS	74	ASN
53	BS	80	ARG
53	BS	87	THR
53	BS	97	VAL
53	BS	100	VAL
53	BS	104	GLU
53	BS	105	THR
53	BS	115	ARG
53	BS	117	ARG
53	BS	130	GLU
53	BS	132	THR
53	BS	136	LYS
53	BS	137	ARG
53	BS	146	LYS
53	BS	148	LEU
53	BS	149	LYS
53	BS	155	ARG
53	BS	161	LYS
53	BS	162	THR
53	BS	166	LYS

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Mol	Chain	Res	Type
53	BS	169	SER
53	BS	172	TYR
54	BT	12	ARG
54	BT	17	ARG
54	BT	25	VAL
54	BT	27	LEU
54	BT	35	LYS
54	BT	36	VAL
54	BT	55	LYS
54	BT	68	THR
54	BT	71	SER
54	BT	78	LYS
54	BT	80	VAL
54	BT	83	ARG
54	BT	88	ARG
54	BT	89	LEU
54	BT	96	ILE
54	BT	102	ARG
54	BT	104	GLU
54	BT	118	GLU
54	BT	126	VAL
54	BT	130	ARG
54	BT	131	GLN
54	BT	135	PRO
54	BT	139	ARG
54	BT	140	ILE
54	BT	141	VAL
54	BT	143	THR
54	BT	149	GLN
54	BT	150	THR
54	BT	160	ILE
55	BU	13	LYS
55	BU	14	THR
55	BU	16	THR
55	BU	17	VAL
55	BU	21	SER
55	BU	23	THR
55	BU	27	VAL
55	BU	37	LEU
55	BU	38	ILE
55	BU	39	ASP
55	BU	43	VAL

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Mol	Chain	Res	Type
55	BU	50	LEU
55	BU	54	VAL
55	BU	55	THR
55	BU	58	GLU
55	BU	61	THR
55	BU	62	VAL
55	BU	63	VAL
55	BU	64	THR
55	BU	68	THR
55	BU	81	LYS
55	BU	90	ARG
55	BU	98	THR
55	BU	100	THR
55	BU	105	LEU
56	BV	13	ILE
56	BV	32	ARG
56	BV	48	ARG
56	BV	64	LYS
56	BV	66	LYS
56	BV	70	ARG
56	BV	73	VAL
56	BV	88	ARG
56	BV	91	VAL
56	BV	115	THR
56	BV	125	LEU
57	BW	1	MET
57	BW	5	ILE
57	BW	25	ASP
57	BW	34	SER
57	BW	39	LEU
57	BW	57	LYS
57	BW	63	ILE
57	BW	92	GLU
57	BW	95	SER
57	BW	97	LYS
57	BW	98	PRO
57	BW	100	VAL
57	BW	105	ARG
57	BW	107	GLU
57	BW	126	GLU
57	BW	127	LYS
57	BW	135	SER

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Mol	Chain	Res	Type
58	BX	24	LEU
58	BX	27	ARG
58	BX	34	LEU
58	BX	37	THR
58	BX	38	LEU
58	BX	39	LYS
58	BX	40	LEU
58	BX	45	LYS
58	BX	56	ARG
58	BX	57	LEU
58	BX	63	ILE
58	BX	65	GLN
58	BX	70	GLU
58	BX	71	THR
58	BX	73	MET
58	BX	74	LYS
58	BX	81	ILE
58	BX	86	VAL
58	BX	101	GLU
58	BX	108	LEU
58	BX	109	LYS
58	BX	115	ARG
58	BX	121	LYS
58	BX	125	ARG
58	BX	133	LEU
58	BX	135	ILE
58	BX	142	ILE
59	BY	4	GLN
59	BY	12	ARG
59	BY	13	ARG
59	BY	14	LYS
59	BY	17	LYS
59	BY	37	LYS
59	BY	40	ARG
59	BY	43	TYR
59	BY	45	ILE
59	BY	50	ILE
59	BY	52	ARG
59	BY	56	VAL
59	BY	57	LEU
59	BY	59	VAL
59	BY	66	GLN

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Mol	Chain	Res	Type
59	BY	70	ILE
59	BY	71	SER
59	BY	76	LEU
59	BY	80	VAL
59	BY	83	ASP
59	BY	87	LYS
59	BY	90	VAL
59	BY	94	SER
59	BY	95	VAL
59	BY	97	ILE
59	BY	103	LYS
59	BY	115	ARG
59	BY	120	GLN
60	BZ	3	LYS
60	BZ	14	VAL
60	BZ	17	ARG
60	BZ	24	VAL
60	BZ	30	ASP
60	BZ	31	GLU
60	BZ	34	LYS
60	BZ	36	HIS
60	BZ	55	LYS
60	BZ	65	ARG
60	BZ	72	ILE
60	BZ	81	LEU
60	BZ	83	THR
60	BZ	86	THR
60	BZ	89	VAL
60	BZ	93	LYS
60	BZ	95	VAL
60	BZ	99	GLU
60	BZ	100	THR
60	BZ	102	GLU
60	BZ	103	GLN
60	BZ	105	SER
60	BZ	119	GLU
60	BZ	121	ARG
60	BZ	126	LYS
60	BZ	127	ASN
60	BZ	134	LEU
60	BZ	135	ARG
61	Ba	4	ARG

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Mol	Chain	Res	Type
61	Ba	6	THR
61	Ba	8	THR
61	Ba	12	ARG
61	Ba	16	SER
61	Ba	24	LYS
61	Ba	34	MET
61	Ba	42	ARG
61	Ba	44	ASN
61	Ba	46	ASP
61	Ba	47	LYS
61	Ba	56	VAL
61	Ba	60	TYR
61	Ba	65	GLN
61	Ba	78	LEU
61	Ba	80	THR
61	Ba	82	ILE
61	Ba	85	ASP
61	Ba	91	LEU
61	Ba	97	GLU
61	Ba	98	THR
61	Ba	115	LYS
61	Ba	124	ILE
61	Ba	128	ARG
61	Ba	130	VAL
61	Ba	132	LYS
61	Ba	133	LEU
61	Ba	139	ARG
62	Bb	3	LYS
62	Bb	14	ARG
62	Bb	15	LYS
62	Bb	21	ILE
62	Bb	22	LYS
62	Bb	23	LYS
62	Bb	26	THR
62	Bb	33	LYS
62	Bb	35	VAL
62	Bb	38	LYS
62	Bb	50	THR
62	Bb	52	LYS
62	Bb	58	LYS
62	Bb	59	LYS
63	Bc	8	GLU

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Mol	Chain	Res	Type
63	Bc	10	ILE
63	Bc	17	VAL
63	Bc	18	ILE
63	Bc	19	LYS
63	Bc	30	THR
63	Bc	32	LYS
63	Bc	33	SER
63	Bc	34	LEU
63	Bc	41	LEU
63	Bc	48	THR
63	Bc	68	TYR
63	Bc	69	TYR
63	Bc	76	GLU
63	Bc	83	LYS
63	Bc	86	ARG
63	Bc	87	VAL
63	Bc	99	ASP
63	Bc	100	ILE
64	Bd	6	ASP
64	Bd	8	VAL
64	Bd	13	THR
64	Bd	16	LEU
64	Bd	26	LYS
64	Bd	31	ARG
64	Bd	34	LYS
64	Bd	36	ILE
64	Bd	44	MET
64	Bd	55	LEU
64	Bd	61	LYS
64	Bd	76	SER
64	Bd	82	GLU
64	Bd	89	LEU
64	Bd	90	PHE
64	Bd	96	VAL
64	Bd	100	SER
64	Bd	102	LYS
64	Bd	104	LEU
64	Bd	105	GLN
64	Bd	106	THR
64	Bd	110	GLU
65	Be	4	LEU
65	Be	8	LYS

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Mol	Chain	Res	Type
65	Be	14	THR
65	Be	16	LYS
65	Be	18	LYS
65	Be	19	ARG
65	Be	27	ARG
65	Be	31	ASN
65	Be	33	ARG
65	Be	35	GLN
65	Be	38	ILE
65	Be	41	VAL
65	Be	51	SER
65	Be	61	LYS
65	Be	73	THR
65	Be	75	LEU
65	Be	76	VAL
65	Be	82	LEU
65	Be	87	MET
65	Be	91	THR
65	Be	106	VAL
65	Be	109	LEU
65	Be	125	ARG
65	Be	126	LEU
66	Bf	4	SER
66	Bf	10	LYS
66	Bf	28	SER
66	Bf	31	LYS
66	Bf	49	ILE
66	Bf	70	LYS
66	Bf	81	VAL
66	Bf	84	THR
66	Bf	98	VAL
66	Bf	107	ILE
67	Bg	5	VAL
67	Bg	9	ARG
67	Bg	16	ARG
67	Bg	19	LYS
67	Bg	20	ILE
67	Bg	23	VAL
67	Bg	24	LYS
67	Bg	29	ILE
67	Bg	30	LEU
67	Bg	31	ARG

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Mol	Chain	Res	Type
67	Bg	35	VAL
67	Bg	54	ILE
67	Bg	58	ARG
67	Bg	65	VAL
67	Bg	70	LYS
67	Bg	79	SER
67	Bg	85	VAL
67	Bg	86	LYS
67	Bg	87	GLU
67	Bg	88	ARG
67	Bg	90	ILE
67	Bg	98	GLN
67	Bg	102	LYS
67	Bg	104	VAL
67	Bg	105	VAL
68	Bh	15	GLU
68	Bh	20	GLN
68	Bh	21	LEU
68	Bh	27	GLU
68	Bh	28	LEU
68	Bh	38	ARG
68	Bh	40	SER
68	Bh	45	LYS
68	Bh	47	VAL
68	Bh	48	ARG
68	Bh	57	VAL
68	Bh	62	GLN
68	Bh	66	VAL
68	Bh	68	GLN
68	Bh	69	LEU
68	Bh	79	ASP
68	Bh	81	ARG
68	Bh	84	LYS
68	Bh	85	THR
68	Bh	89	ARG
68	Bh	90	ARG
68	Bh	94	LYS
68	Bh	98	SER
68	Bh	100	VAL
68	Bh	101	THR
68	Bh	107	LYS
68	Bh	115	LYS

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Mol	Chain	Res	Type
68	Bh	119	LYS
69	Bi	3	VAL
69	Bi	7	ILE
69	Bi	9	ILE
69	Bi	11	LEU
69	Bi	17	VAL
69	Bi	18	THR
69	Bi	21	THR
69	Bi	26	ILE
69	Bi	29	LYS
69	Bi	34	SER
69	Bi	36	ARG
69	Bi	37	THR
69	Bi	38	LYS
69	Bi	40	VAL
69	Bi	43	LEU
69	Bi	45	ARG
69	Bi	57	LEU
69	Bi	58	ILE
69	Bi	60	LEU
69	Bi	61	ILE
69	Bi	66	GLU
69	Bi	68	ARG
69	Bi	74	LYS
69	Bi	75	LYS
69	Bi	76	ARG
69	Bi	81	THR
69	Bi	88	GLU
69	Bi	94	ILE
69	Bi	98	ARG
70	Bj	3	LYS
70	Bj	17	THR
70	Bj	25	ARG
70	Bj	33	THR
70	Bj	36	SER
70	Bj	44	THR
70	Bj	55	ARG
70	Bj	58	THR
70	Bj	59	THR
70	Bj	65	ARG
70	Bj	67	LEU
70	Bj	68	LYS

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Mol	Chain	Res	Type
70	Bj	75	LYS
70	Bj	80	THR
70	Bj	84	SER
71	Bk	5	ILE
71	Bk	12	LEU
71	Bk	24	THR
71	Bk	27	ILE
71	Bk	31	LEU
71	Bk	39	ARG
71	Bk	41	THR
71	Bk	46	ARG
71	Bk	50	SER
71	Bk	53	THR
71	Bk	61	LYS
71	Bk	63	LYS
71	Bk	64	LYS
71	Bk	65	LEU
71	Bk	66	ILE
71	Bk	67	GLN
71	Bk	68	SER
72	Bl	11	GLN
72	Bl	12	LYS
72	Bl	15	LYS
72	Bl	17	LYS
72	Bl	21	ARG
72	Bl	23	LEU
72	Bl	27	ILE
72	Bl	28	ARG
72	Bl	29	LEU
72	Bl	30	ARG
72	Bl	41	ARG
72	Bl	45	ARG
72	Bl	47	THR
72	Bl	48	LYS
72	Bl	51	ILE
73	Bm	78	ILE
73	Bm	83	LYS
73	Bm	85	LEU
73	Bm	88	LYS
73	Bm	91	CYS
73	Bm	93	LYS
73	Bm	106	ARG

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Mol	Chain	Res	Type
73	Bm	112	LYS
73	Bm	113	ARG
73	Bm	114	LYS
73	Bm	126	LYS
73	Bm	127	LEU
74	Bn	2	ARG
74	Bn	6	ARG
74	Bn	9	ARG
74	Bn	10	THR
74	Bn	13	LEU
74	Bn	16	LYS
74	Bn	19	LYS
74	Bn	21	ARG
74	Bn	23	ARG
74	Bn	24	SER
75	Bo	7	THR
75	Bo	8	ARG
75	Bo	15	LYS
75	Bo	16	THR
75	Bo	18	ARG
75	Bo	46	LYS
75	Bo	47	GLN
75	Bo	61	LYS
75	Bo	63	LYS
75	Bo	71	ARG
75	Bo	78	LYS
75	Bo	79	THR
75	Bo	83	LEU
75	Bo	84	THR
75	Bo	89	LYS
75	Bo	93	LEU
75	Bo	104	LEU
75	Bo	105	GLN
76	Bq	6	GLU
76	Bq	14	LYS
76	Bq	17	GLU
76	Bq	26	PHE
76	Bq	39	HIS
76	Bq	53	MET
76	Bq	60	ARG
76	Bq	64	ARG
76	Bq	89	THR

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Mol	Chain	Res	Type
76	Bq	96	ILE
76	Bq	186	THR
79	By	104	LEU
79	By	137	LEU
79	By	217	THR
79	CL	5	LYS
79	CL	8	ARG
79	CL	18	LYS
79	CL	23	ASP
79	CL	24	GLU
79	CL	30	LYS
79	CL	53	ARG
79	CL	63	SER
79	CL	68	LEU
79	CL	70	LYS
79	CL	72	VAL
79	CL	73	ARG
79	CL	81	GLU
79	CL	84	LYS
79	CL	92	ASP
79	CL	98	GLU
79	CL	99	ILE
79	CL	104	LEU
79	CL	113	VAL
79	CL	130	ILE
79	CL	131	LEU
79	CL	137	LEU
79	CL	141	LYS
79	CL	156	ILE
79	CL	172	HIS
79	CL	184	LYS
79	CL	205	LYS
79	CL	215	THR
79	CL	217	THR
79	CL	227	HIS
85	CP	13	HIS
85	CP	16	THR
85	CP	23	ASP
85	CP	69	VAL
85	CP	80	HIS
85	CP	86	LEU
85	CP	126	VAL

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Mol	Chain	Res	Type
85	CP	170	LEU
85	CP	172	LEU
85	CP	227	LEU
85	CP	235	LEU
85	CP	237	VAL
85	CP	243	PHE
85	CP	251	LEU
85	CP	255	TYR
85	CP	294	VAL
85	CP	299	VAL
85	CP	310	ASN
85	CP	312	LEU
85	CP	322	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (165) such sidechains are listed below:

Mol	Chain	Res	Type
2	A1	42	ASN
4	A3	48	ASN
7	A6	17	ASN
7	A6	29	GLN
7	A6	101	GLN
7	A6	153	GLN
7	A6	196	ASN
8	A7	108	GLN
9	AA	49	ASN
10	AB	101	HIS
10	AB	146	GLN
10	AB	149	GLN
10	AB	183	GLN
11	AC	82	ASN
11	AC	189	GLN
11	AC	199	GLN
12	AD	159	HIS
12	AD	179	GLN
13	AE	16	HIS
13	AE	50	ASN
13	AE	98	ASN
14	AF	79	ASN
14	AF	103	ASN
14	AF	104	ASN
14	AF	128	ASN

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Mol	Chain	Res	Type
14	AF	139	ASN
14	AF	170	GLN
15	AG	13	GLN
15	AG	22	HIS
15	AG	189	HIS
16	AH	108	GLN
17	AI	44	HIS
17	AI	64	ASN
17	AI	94	ASN
17	AI	103	GLN
18	AJ	48	GLN
18	AJ	110	GLN
18	AJ	112	GLN
18	AJ	131	GLN
18	AJ	133	HIS
19	AK	62	GLN
20	AL	21	ASN
20	AL	110	HIS
20	AL	127	GLN
21	AM	125	ASN
24	AP	82	ASN
24	AP	103	ASN
24	AP	104	GLN
25	AQ	62	ASN
25	AQ	74	HIS
25	AQ	103	ASN
26	AR	62	GLN
26	AR	101	ASN
27	AS	6	GLN
27	AS	21	ASN
27	AS	89	GLN
27	AS	104	ASN
27	AS	127	HIS
28	AT	127	ASN
29	AU	47	GLN
29	AU	72	ASN
29	AU	87	HIS
30	AV	74	GLN
31	AW	24	GLN
31	AW	39	GLN
31	AW	64	GLN
31	AW	80	ASN

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Mol	Chain	Res	Type
32	AX	48	HIS
32	AX	63	GLN
32	AX	75	GLN
33	AY	34	ASN
33	AY	133	ASN
34	AZ	95	HIS
35	BA	50	HIS
35	BA	194	ASN
35	BA	205	ASN
35	BA	209	HIS
35	BA	215	ASN
36	BB	211	GLN
36	BB	243	HIS
36	BB	371	GLN
37	BC	5	GLN
37	BC	48	GLN
37	BC	114	ASN
37	BC	116	ASN
37	BC	175	HIS
37	BC	213	ASN
37	BC	221	ASN
38	BD	4	GLN
38	BD	40	HIS
38	BD	63	GLN
38	BD	81	HIS
39	BE	167	ASN
40	BF	64	GLN
41	BG	38	GLN
41	BG	59	GLN
41	BG	191	ASN
42	BH	58	HIS
42	BH	125	ASN
42	BH	162	GLN
43	BI	59	GLN
44	BJ	101	ASN
44	BJ	109	HIS
44	BJ	132	ASN
46	BL	12	ASN
47	BM	126	GLN
48	BN	90	ASN
50	BP	55	GLN
50	BP	137	ASN

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Mol	Chain	Res	Type
51	BQ	15	HIS
51	BQ	73	GLN
51	BQ	158	HIS
52	BR	118	HIS
52	BR	166	ASN
54	BT	26	HIS
54	BT	49	GLN
55	BU	40	HIS
56	BV	7	GLN
56	BV	33	ASN
57	BW	42	GLN
57	BW	59	HIS
58	BX	94	GLN
58	BX	111	ASN
59	BY	4	GLN
60	BZ	36	HIS
60	BZ	57	HIS
61	Ba	44	ASN
61	Ba	62	HIS
61	Ba	64	GLN
61	Ba	65	GLN
62	Bb	19	ASN
62	Bb	43	HIS
62	Bb	45	HIS
63	Bc	71	GLN
64	Bd	43	HIS
65	Be	49	ASN
66	Bf	77	ASN
67	Bg	33	GLN
67	Bg	98	GLN
68	Bh	104	GLN
70	Bj	79	GLN
71	Bk	10	GLN
72	Bl	4	GLN
72	Bl	11	GLN
72	Bl	19	GLN
72	Bl	33	ASN
76	Bq	32	ASN
76	Bq	39	HIS
76	Bq	56	ASN
76	Bq	189	GLN
79	By	3	HIS

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Mol	Chain	Res	Type
79	By	17	ASN
79	By	44	HIS
79	By	56	GLN
79	By	227	HIS
79	CL	66	HIS
79	CL	71	GLN
79	CL	101	GLN
79	CL	188	ASN
85	CP	65	GLN
85	CP	95	ASN
85	CP	109	GLN
85	CP	153	GLN
85	CP	223	GLN
85	CP	310	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
80	B2	1763/1800 (97%)	548 (31%)	86 (4%)
81	B5	3140/3396 (92%)	756 (24%)	131 (4%)
82	B7	120/121 (99%)	18 (15%)	0
83	B8	157/158 (99%)	33 (21%)	3 (1%)
84	CN	86/87 (98%)	41 (47%)	8 (9%)
86	CW	73/76 (96%)	28 (38%)	7 (9%)
All	All	5339/5638 (94%)	1424 (26%)	235 (4%)

All (1424) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
80	B2	2	A
80	B2	4	C
80	B2	8	U
80	B2	16	G
80	B2	20	G
80	B2	25	C
80	B2	26	A
80	B2	27	U
80	B2	34	G
80	B2	39	A
80	B2	41	A
80	B2	42	G

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Mol	Chain	Res	Type
80	B2	45	U
80	B2	46	A
80	B2	47	A
80	B2	50	C
80	B2	57	G
80	B2	60	U
80	B2	67	A
80	B2	68	A
80	B2	69	G
80	B2	72	A
80	B2	73	U
80	B2	74	U
80	B2	75	U
80	B2	76	A
80	B2	77	U
80	B2	78	A
80	B2	97	C
80	B2	100	A
80	B2	101	U
80	B2	104	A
80	B2	114	C
80	B2	115	G
80	B2	126	A
80	B2	127	G
80	B2	131	C
80	B2	132	U
80	B2	133	U
80	B2	134	U
80	B2	135	A
80	B2	136	C
80	B2	137	U
80	B2	138	A
80	B2	139	C
80	B2	140	A
80	B2	141	U
80	B2	144	U
80	B2	145	A
80	B2	146	U
80	B2	153	G
80	B2	158	U
80	B2	159	U
80	B2	175	G

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Mol	Chain	Res	Type
80	B2	178	U
80	B2	179	A
80	B2	185	U
80	B2	186	C
80	B2	187	G
80	B2	188	A
80	B2	189	C
80	B2	190	C
80	B2	191	C
80	B2	192	U
80	B2	193	U
80	B2	194	U
80	B2	195	G
80	B2	196	G
80	B2	197	A
80	B2	198	A
80	B2	199	G
80	B2	200	A
80	B2	215	A
80	B2	218	A
80	B2	219	A
80	B2	223	U
80	B2	225	A
80	B2	226	A
80	B2	227	U
80	B2	228	G
80	B2	229	U
80	B2	233	C
80	B2	234	G
80	B2	235	G
80	B2	236	A
80	B2	238	U
80	B2	239	C
80	B2	240	U
80	B2	241	U
80	B2	242	U
80	B2	249	U
80	B2	250	C
80	B2	261	U
80	B2	262	U
80	B2	265	A
80	B2	266	A

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Mol	Chain	Res	Type
80	B2	271	A
80	B2	272	U
80	B2	274	G
80	B2	275	C
80	B2	276	C
80	B2	277	U
80	B2	278	U
80	B2	279	G
80	B2	280	U
80	B2	281	G
80	B2	288	A
80	B2	290	G
80	B2	299	A
80	B2	301	A
80	B2	306	U
80	B2	308	C
80	B2	309	C
80	B2	314	C
80	B2	316	A
80	B2	319	U
80	B2	320	U
80	B2	321	C
80	B2	322	G
80	B2	337	G
80	B2	338	C
80	B2	341	A
80	B2	348	U
80	B2	352	A
80	B2	359	A
80	B2	360	A
80	B2	361	C
80	B2	399	A
80	B2	400	A
80	B2	401	A
80	B2	402	C
80	B2	403	G
80	B2	404	G
80	B2	411	C
80	B2	416	A
80	B2	417	A
80	B2	418	G
80	B2	423	G

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Mol	Chain	Res	Type
80	B2	424	C
80	B2	425	A
80	B2	426	G
80	B2	428	A
80	B2	434	G
80	B2	439	U
80	B2	444	C
80	B2	445	A
80	B2	446	A
80	B2	448	C
80	B2	467	G
80	B2	468	A
80	B2	470	A
80	B2	475	A
80	B2	477	A
80	B2	484	C
80	B2	485	A
80	B2	486	G
80	B2	487	G
80	B2	488	G
80	B2	493	U
80	B2	494	U
80	B2	495	C
80	B2	496	G
80	B2	497	G
80	B2	498	G
80	B2	499	U
80	B2	500	C
80	B2	502	U
80	B2	503	G
80	B2	504	U
80	B2	505	A
80	B2	506	A
80	B2	507	U
80	B2	508	U
80	B2	510	G
80	B2	511	A
80	B2	512	A
80	B2	513	U
80	B2	515	A
80	B2	516	G
80	B2	519	C

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Mol	Chain	Res	Type
80	B2	525	A
80	B2	527	A
80	B2	532	U
80	B2	538	A
80	B2	539	G
80	B2	540	G
80	B2	541	A
80	B2	542	A
80	B2	543	C
80	B2	544	A
80	B2	545	A
80	B2	548	G
80	B2	555	A
80	B2	556	A
80	B2	557	G
80	B2	558	U
80	B2	559	C
80	B2	565	C
80	B2	570	A
80	B2	575	C
80	B2	579	A
80	B2	580	A
80	B2	582	U
80	B2	583	C
80	B2	585	A
80	B2	594	A
80	B2	595	G
80	B2	597	G
80	B2	605	A
80	B2	607	G
80	B2	611	U
80	B2	619	A
80	B2	620	A
80	B2	622	A
80	B2	623	A
80	B2	624	G
80	B2	630	A
80	B2	639	U
80	B2	640	U
80	B2	650	U
80	B2	653	C
80	B2	655	G

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Mol	Chain	Res	Type
80	B2	656	G
80	B2	657	U
80	B2	658	C
80	B2	677	G
80	B2	679	U
80	B2	680	U
80	B2	684	A
80	B2	685	A
80	B2	686	C
80	B2	692	C
80	B2	694	U
80	B2	696	C
80	B2	697	C
80	B2	699	U
80	B2	700	C
80	B2	701	U
80	B2	702	G
80	B2	703	G
80	B2	704	C
80	B2	705	U
80	B2	706	A
80	B2	707	A
80	B2	709	C
80	B2	710	U
80	B2	712	G
80	B2	713	A
80	B2	714	G
80	B2	717	C
80	B2	718	U
80	B2	719	U
80	B2	720	G
80	B2	721	U
80	B2	722	G
80	B2	723	G
80	B2	725	U
80	B2	727	U
80	B2	728	U
80	B2	729	G
80	B2	730	G
80	B2	731	C
80	B2	732	G
80	B2	733	A

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Mol	Chain	Res	Type
80	B2	734	A
80	B2	735	C
80	B2	736	C
80	B2	737	A
80	B2	738	G
80	B2	742	U
80	B2	743	U
80	B2	745	U
80	B2	754	A
80	B2	755	A
80	B2	756	A
80	B2	758	U
80	B2	765	G
80	B2	766	U
80	B2	771	A
80	B2	774	A
80	B2	775	G
80	B2	778	G
80	B2	779	U
80	B2	780	A
80	B2	781	U
80	B2	782	U
80	B2	783	G
80	B2	784	C
80	B2	785	U
80	B2	787	G
80	B2	789	A
80	B2	793	A
80	B2	794	U
80	B2	795	U
80	B2	806	A
80	B2	811	A
80	B2	812	A
80	B2	813	U
80	B2	815	G
80	B2	816	G
80	B2	818	C
80	B2	819	G
80	B2	820	U
80	B2	821	U
80	B2	823	G
80	B2	824	G

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Mol	Chain	Res	Type
80	B2	829	A
80	B2	830	U
80	B2	831	U
80	B2	832	U
80	B2	833	U
80	B2	837	G
80	B2	838	G
80	B2	840	U
80	B2	846	G
80	B2	848	C
80	B2	849	C
80	B2	854	U
80	B2	862	A
80	B2	863	A
80	B2	864	U
80	B2	873	U
80	B2	876	G
80	B2	892	A
80	B2	896	U
80	B2	898	A
80	B2	912	U
80	B2	913	G
80	B2	914	G
80	B2	921	U
80	B2	928	U
80	B2	933	A
80	B2	935	U
80	B2	942	G
80	B2	944	A
80	B2	951	A
80	B2	959	U
80	B2	960	U
80	B2	961	U
80	B2	966	A
80	B2	968	U
80	B2	982	U
80	B2	988	A
80	B2	992	A
80	B2	993	A
80	B2	995	A
80	B2	997	G
80	B2	1003	A

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Mol	Chain	Res	Type
80	B2	1004	U
80	B2	1005	A
80	B2	1020	A
80	B2	1021	C
80	B2	1026	A
80	B2	1028	C
80	B2	1031	U
80	B2	1039	A
80	B2	1040	G
80	B2	1052	U
80	B2	1053	G
80	B2	1058	U
80	B2	1059	U
80	B2	1060	U
80	B2	1061	A
80	B2	1064	G
80	B2	1073	G
80	B2	1074	G
80	B2	1079	U
80	B2	1080	U
80	B2	1082	C
80	B2	1083	G
80	B2	1084	A
80	B2	1086	A
80	B2	1087	A
80	B2	1091	A
80	B2	1092	A
80	B2	1093	A
80	B2	1096	C
80	B2	1097	U
80	B2	1100	G
80	B2	1104	U
80	B2	1111	G
80	B2	1138	A
80	B2	1139	A
80	B2	1146	G
80	B2	1149	G
80	B2	1151	A
80	B2	1152	A
80	B2	1155	G
80	B2	1157	A
80	B2	1158	C

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Mol	Chain	Res	Type
80	B2	1160	A
80	B2	1162	C
80	B2	1167	G
80	B2	1185	U
80	B2	1188	G
80	B2	1191	U
80	B2	1194	A
80	B2	1196	A
80	B2	1197	C
80	B2	1199	G
80	B2	1200	G
80	B2	1202	A
80	B2	1207	C
80	B2	1208	A
80	B2	1217	A
80	B2	1218	G
80	B2	1219	A
80	B2	1221	A
80	B2	1226	A
80	B2	1227	A
80	B2	1228	G
80	B2	1229	G
80	B2	1235	C
80	B2	1243	G
80	B2	1244	A
80	B2	1245	G
80	B2	1250	U
80	B2	1251	U
80	B2	1257	U
80	B2	1258	U
80	B2	1260	U
80	B2	1269	U
80	B2	1286	U
80	B2	1301	U
80	B2	1314	U
80	B2	1315	U
80	B2	1321	A
80	B2	1329	A
80	B2	1337	A
80	B2	1339	C
80	B2	1340	U
80	B2	1341	A

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Mol	Chain	Res	Type
80	B2	1344	A
80	B2	1345	A
80	B2	1349	G
80	B2	1354	G
80	B2	1361	U
80	B2	1363	U
80	B2	1364	G
80	B2	1370	U
80	B2	1371	A
80	B2	1372	U
80	B2	1379	C
80	B2	1382	A
80	B2	1383	G
80	B2	1388	A
80	B2	1390	U
80	B2	1398	U
80	B2	1399	C
80	B2	1400	A
80	B2	1412	G
80	B2	1413	U
80	B2	1414	U
80	B2	1415	U
80	B2	1420	C
80	B2	1421	A
80	B2	1427	A
80	B2	1428	G
80	B2	1429	G
80	B2	1431	C
80	B2	1445	G
80	B2	1446	A
80	B2	1448	G
80	B2	1454	G
80	B2	1457	C
80	B2	1459	C
80	B2	1461	C
80	B2	1462	G
80	B2	1471	A
80	B2	1473	U
80	B2	1474	G
80	B2	1475	A
80	B2	1478	G
80	B2	1482	C

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Mol	Chain	Res	Type
80	B2	1486	G
80	B2	1488	G
80	B2	1489	U
80	B2	1490	C
80	B2	1491	U
80	B2	1492	A
80	B2	1493	A
80	B2	1499	G
80	B2	1500	C
80	B2	1506	G
80	B2	1514	U
80	B2	1516	A
80	B2	1518	C
80	B2	1521	G
80	B2	1522	U
80	B2	1523	G
80	B2	1524	A
80	B2	1535	U
80	B2	1536	G
80	B2	1537	C
80	B2	1538	U
80	B2	1539	G
80	B2	1540	G
80	B2	1557	U
80	B2	1559	A
80	B2	1569	A
80	B2	1573	A
80	B2	1574	G
80	B2	1575	G
80	B2	1584	G
80	B2	1590	G
80	B2	1601	G
80	B2	1616	G
80	B2	1619	C
80	B2	1624	C
80	B2	1625	C
80	B2	1631	A
80	B2	1635	A
80	B2	1649	G
80	B2	1657	U
80	B2	1658	G
80	B2	1663	G

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Mol	Chain	Res	Type
80	B2	1680	G
80	B2	1682	U
80	B2	1683	C
80	B2	1684	U
80	B2	1685	G
80	B2	1686	C
80	B2	1687	U
80	B2	1693	A
80	B2	1712	A
80	B2	1713	G
80	B2	1716	C
80	B2	1717	G
80	B2	1727	G
80	B2	1729	C
80	B2	1731	A
80	B2	1759	C
80	B2	1760	G
80	B2	1761	U
80	B2	1762	A
80	B2	1766	A
80	B2	1768	G
80	B2	1769	U
80	B2	1770	U
80	B2	1780	G
80	B2	1782	A
80	B2	1783	C
80	B2	1789	G
80	B2	1792	G
80	B2	1793	G
80	B2	1794	A
80	B2	1795	U
80	B2	1796	C
81	B5	14	U
81	B5	15	C
81	B5	16	A
81	B5	26	A
81	B5	38	U
81	B5	40	A
81	B5	43	A
81	B5	44	U
81	B5	49	A
81	B5	60	A

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Mol	Chain	Res	Type
81	B5	65	A
81	B5	66	A
81	B5	74	G
81	B5	76	G
81	B5	77	A
81	B5	92	G
81	B5	93	C
81	B5	94	G
81	B5	96	G
81	B5	99	A
81	B5	109	A
81	B5	110	G
81	B5	111	C
81	B5	116	A
81	B5	121	A
81	B5	122	A
81	B5	133	U
81	B5	134	U
81	B5	135	C
81	B5	136	G
81	B5	146	U
81	B5	150	A
81	B5	152	U
81	B5	156	G
81	B5	157	A
81	B5	160	G
81	B5	166	C
81	B5	170	G
81	B5	171	G
81	B5	174	C
81	B5	178	U
81	B5	180	C
81	B5	182	U
81	B5	183	G
81	B5	184	U
81	B5	187	A
81	B5	190	U
81	B5	191	U
81	B5	200	C
81	B5	201	A
81	B5	210	U
81	B5	218	G

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Mol	Chain	Res	Type
81	B5	219	A
81	B5	221	A
81	B5	235	A
81	B5	236	G
81	B5	238	A
81	B5	239	G
81	B5	240	U
81	B5	242	C
81	B5	244	G
81	B5	248	U
81	B5	249	U
81	B5	250	U
81	B5	251	G
81	B5	252	U
81	B5	253	A
81	B5	254	A
81	B5	258	G
81	B5	259	C
81	B5	269	G
81	B5	283	G
81	B5	284	A
81	B5	286	U
81	B5	294	U
81	B5	295	A
81	B5	305	U
81	B5	322	U
81	B5	323	A
81	B5	329	U
81	B5	334	A
81	B5	339	C
81	B5	349	A
81	B5	350	C
81	B5	351	A
81	B5	352	A
81	B5	370	U
81	B5	376	G
81	B5	390	G
81	B5	395	A
81	B5	397	A
81	B5	398	A
81	B5	399	A
81	B5	401	U

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Mol	Chain	Res	Type
81	B5	402	A
81	B5	403	C
81	B5	421	G
81	B5	422	A
81	B5	436	A
81	B5	437	G
81	B5	438	A
81	B5	439	C
81	B5	440	A
81	B5	441	U
81	B5	442	G
81	B5	443	G
81	B5	492	U
81	B5	493	G
81	B5	495	G
81	B5	520	U
81	B5	521	A
81	B5	531	G
81	B5	535	G
81	B5	538	G
81	B5	546	C
81	B5	547	G
81	B5	548	G
81	B5	551	A
81	B5	553	U
81	B5	555	U
81	B5	557	A
81	B5	559	A
81	B5	578	A
81	B5	579	G
81	B5	588	G
81	B5	589	A
81	B5	592	A
81	B5	594	U
81	B5	595	G
81	B5	600	G
81	B5	604	G
81	B5	609	G
81	B5	610	G
81	B5	611	A
81	B5	612	U
81	B5	619	A

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Mol	Chain	Res	Type
81	B5	620	U
81	B5	621	A
81	B5	630	A
81	B5	636	C
81	B5	649	A
81	B5	653	A
81	B5	656	A
81	B5	660	A
81	B5	675	C
81	B5	677	A
81	B5	681	U
81	B5	705	A
81	B5	708	G
81	B5	712	G
81	B5	715	A
81	B5	716	A
81	B5	719	U
81	B5	720	A
81	B5	725	G
81	B5	726	G
81	B5	727	G
81	B5	735	A
81	B5	736	A
81	B5	750	G
81	B5	758	C
81	B5	766	U
81	B5	767	U
81	B5	768	C
81	B5	776	U
81	B5	777	U
81	B5	780	A
81	B5	781	G
81	B5	785	G
81	B5	786	A
81	B5	787	G
81	B5	806	A
81	B5	809	G
81	B5	817	A
81	B5	830	A
81	B5	846	A
81	B5	851	C
81	B5	861	C

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Mol	Chain	Res	Type
81	B5	862	U
81	B5	871	U
81	B5	874	U
81	B5	879	U
81	B5	891	G
81	B5	893	C
81	B5	896	A
81	B5	897	U
81	B5	907	G
81	B5	908	G
81	B5	914	A
81	B5	916	G
81	B5	917	A
81	B5	921	A
81	B5	923	C
81	B5	924	G
81	B5	937	G
81	B5	944	C
81	B5	946	U
81	B5	947	G
81	B5	958	C
81	B5	959	C
81	B5	960	U
81	B5	974	G
81	B5	979	U
81	B5	980	A
81	B5	981	U
81	B5	983	A
81	B5	993	G
81	B5	994	G
81	B5	1000	C
81	B5	1001	G
81	B5	1002	A
81	B5	1003	A
81	B5	1010	G
81	B5	1014	U
81	B5	1015	U
81	B5	1016	C
81	B5	1017	C
81	B5	1018	G
81	B5	1020	G
81	B5	1021	G

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Mol	Chain	Res	Type
81	B5	1023	C
81	B5	1024	G
81	B5	1025	A
81	B5	1026	A
81	B5	1027	A
81	B5	1028	U
81	B5	1029	G
81	B5	1032	C
81	B5	1034	U
81	B5	1035	G
81	B5	1047	A
81	B5	1049	C
81	B5	1057	A
81	B5	1064	A
81	B5	1065	A
81	B5	1071	U
81	B5	1072	G
81	B5	1081	U
81	B5	1082	U
81	B5	1085	A
81	B5	1086	C
81	B5	1093	A
81	B5	1094	U
81	B5	1095	U
81	B5	1096	U
81	B5	1097	G
81	B5	1098	A
81	B5	1103	A
81	B5	1104	G
81	B5	1117	G
81	B5	1131	G
81	B5	1153	A
81	B5	1159	A
81	B5	1160	C
81	B5	1174	G
81	B5	1178	G
81	B5	1179	A
81	B5	1180	A
81	B5	1181	U
81	B5	1182	A
81	B5	1191	U
81	B5	1192	C

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Mol	Chain	Res	Type
81	B5	1193	A
81	B5	1201	C
81	B5	1209	G
81	B5	1213	G
81	B5	1229	G
81	B5	1230	G
81	B5	1231	A
81	B5	1232	C
81	B5	1233	G
81	B5	1236	G
81	B5	1237	G
81	B5	1239	C
81	B5	1240	A
81	B5	1241	U
81	B5	1242	G
81	B5	1244	A
81	B5	1245	A
81	B5	1246	G
81	B5	1247	U
81	B5	1248	C
81	B5	1258	U
81	B5	1259	A
81	B5	1261	G
81	B5	1262	G
81	B5	1263	A
81	B5	1264	G
81	B5	1265	U
81	B5	1266	G
81	B5	1271	A
81	B5	1272	C
81	B5	1278	A
81	B5	1279	C
81	B5	1280	C
81	B5	1282	G
81	B5	1283	C
81	B5	1284	C
81	B5	1285	G
81	B5	1294	A
81	B5	1307	G
81	B5	1308	A
81	B5	1309	U
81	B5	1312	C

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Mol	Chain	Res	Type
81	B5	1317	A
81	B5	1318	A
81	B5	1330	A
81	B5	1331	U
81	B5	1332	A
81	B5	1348	U
81	B5	1349	G
81	B5	1350	A
81	B5	1351	U
81	B5	1352	A
81	B5	1353	U
81	B5	1354	G
81	B5	1355	A
81	B5	1356	U
81	B5	1357	G
81	B5	1366	A
81	B5	1385	C
81	B5	1386	A
81	B5	1387	G
81	B5	1399	A
81	B5	1400	G
81	B5	1403	C
81	B5	1419	A
81	B5	1422	G
81	B5	1428	A
81	B5	1434	G
81	B5	1435	A
81	B5	1437	C
81	B5	1440	G
81	B5	1446	A
81	B5	1450	G
81	B5	1460	A
81	B5	1481	A
81	B5	1482	A
81	B5	1490	A
81	B5	1495	U
81	B5	1502	C
81	B5	1503	A
81	B5	1508	C
81	B5	1527	C
81	B5	1541	G
81	B5	1542	G

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Mol	Chain	Res	Type
81	B5	1549	U
81	B5	1554	U
81	B5	1555	U
81	B5	1556	C
81	B5	1557	A
81	B5	1560	G
81	B5	1561	G
81	B5	1562	C
81	B5	1563	C
81	B5	1565	G
81	B5	1566	A
81	B5	1567	U
81	B5	1568	U
81	B5	1569	U
81	B5	1570	U
81	B5	1571	A
81	B5	1572	U
81	B5	1574	C
81	B5	1575	A
81	B5	1576	G
81	B5	1577	G
81	B5	1578	C
81	B5	1580	A
81	B5	1581	C
81	B5	1582	C
81	B5	1583	A
81	B5	1587	A
81	B5	1589	A
81	B5	1593	A
81	B5	1605	A
81	B5	1607	U
81	B5	1608	C
81	B5	1620	U
81	B5	1629	U
81	B5	1633	C
81	B5	1635	G
81	B5	1639	C
81	B5	1641	U
81	B5	1643	A
81	B5	1644	C
81	B5	1645	U
81	B5	1655	G

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Mol	Chain	Res	Type
81	B5	1657	C
81	B5	1680	G
81	B5	1683	A
81	B5	1716	U
81	B5	1717	U
81	B5	1718	G
81	B5	1724	U
81	B5	1725	C
81	B5	1736	G
81	B5	1750	A
81	B5	1751	G
81	B5	1754	G
81	B5	1758	G
81	B5	1760	A
81	B5	1762	C
81	B5	1764	U
81	B5	1765	U
81	B5	1766	G
81	B5	1767	C
81	B5	1770	G
81	B5	1778	G
81	B5	1780	G
81	B5	1783	U
81	B5	1797	A
81	B5	1810	A
81	B5	1812	G
81	B5	1814	A
81	B5	1815	U
81	B5	1816	A
81	B5	1817	G
81	B5	1818	U
81	B5	1820	U
81	B5	1821	U
81	B5	1835	A
81	B5	1841	A
81	B5	1842	A
81	B5	1846	C
81	B5	1849	C
81	B5	1850	A
81	B5	1855	U
81	B5	1871	U
81	B5	1876	U

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Mol	Chain	Res	Type
81	B5	1878	G
81	B5	1879	A
81	B5	1880	U
81	B5	1905	G
81	B5	1906	G
81	B5	1909	A
81	B5	1918	C
81	B5	1927	G
81	B5	1940	G
81	B5	1953	G
81	B5	2100	A
81	B5	2101	C
81	B5	2102	U
81	B5	2112	U
81	B5	2113	A
81	B5	2114	C
81	B5	2121	G
81	B5	2122	G
81	B5	2128	C
81	B5	2131	A
81	B5	2134	G
81	B5	2139	A
81	B5	2144	A
81	B5	2158	A
81	B5	2169	G
81	B5	2170	U
81	B5	2171	G
81	B5	2192	C
81	B5	2201	G
81	B5	2205	U
81	B5	2210	G
81	B5	2213	A
81	B5	2222	A
81	B5	2223	A
81	B5	2228	A
81	B5	2229	A
81	B5	2244	A
81	B5	2250	G
81	B5	2253	G
81	B5	2255	A
81	B5	2256	A
81	B5	2257	C

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Mol	Chain	Res	Type
81	B5	2258	U
81	B5	2264	U
81	B5	2270	A
81	B5	2273	G
81	B5	2276	G
81	B5	2278	C
81	B5	2279	A
81	B5	2288	G
81	B5	2290	C
81	B5	2294	U
81	B5	2298	U
81	B5	2307	G
81	B5	2310	U
81	B5	2313	A
81	B5	2315	G
81	B5	2324	A
81	B5	2329	C
81	B5	2334	U
81	B5	2335	G
81	B5	2336	U
81	B5	2373	A
81	B5	2374	C
81	B5	2375	G
81	B5	2377	G
81	B5	2385	G
81	B5	2388	U
81	B5	2393	G
81	B5	2394	G
81	B5	2396	G
81	B5	2397	A
81	B5	2398	A
81	B5	2400	G
81	B5	2401	A
81	B5	2402	A
81	B5	2403	G
81	B5	2404	A
81	B5	2405	C
81	B5	2406	C
81	B5	2411	U
81	B5	2418	G
81	B5	2435	G
81	B5	2436	U

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Mol	Chain	Res	Type
81	B5	2437	G
81	B5	2438	A
81	B5	2439	A
81	B5	2440	G
81	B5	2441	A
81	B5	2443	A
81	B5	2504	U
81	B5	2505	U
81	B5	2506	U
81	B5	2507	C
81	B5	2508	U
81	B5	2510	U
81	B5	2511	A
81	B5	2512	C
81	B5	2513	U
81	B5	2514	U
81	B5	2515	A
81	B5	2518	C
81	B5	2523	A
81	B5	2524	A
81	B5	2526	C
81	B5	2530	G
81	B5	2531	C
81	B5	2532	U
81	B5	2534	G
81	B5	2538	U
81	B5	2539	C
81	B5	2540	A
81	B5	2543	U
81	B5	2544	U
81	B5	2549	G
81	B5	2552	C
81	B5	2555	G
81	B5	2562	A
81	B5	2567	C
81	B5	2568	C
81	B5	2569	A
81	B5	2570	U
81	B5	2571	U
81	B5	2572	C
81	B5	2573	G
81	B5	2574	G

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Mol	Chain	Res	Type
81	B5	2584	G
81	B5	2585	G
81	B5	2589	G
81	B5	2590	A
81	B5	2591	A
81	B5	2593	A
81	B5	2594	C
81	B5	2598	G
81	B5	2599	U
81	B5	2606	G
81	B5	2607	G
81	B5	2610	G
81	B5	2614	G
81	B5	2615	G
81	B5	2622	C
81	B5	2637	A
81	B5	2639	G
81	B5	2652	U
81	B5	2656	A
81	B5	2662	G
81	B5	2663	G
81	B5	2667	A
81	B5	2674	A
81	B5	2677	G
81	B5	2678	A
81	B5	2681	U
81	B5	2683	U
81	B5	2689	A
81	B5	2691	A
81	B5	2694	A
81	B5	2696	A
81	B5	2714	G
81	B5	2723	U
81	B5	2728	G
81	B5	2729	U
81	B5	2752	U
81	B5	2753	G
81	B5	2762	A
81	B5	2771	U
81	B5	2772	C
81	B5	2773	C
81	B5	2776	C

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Mol	Chain	Res	Type
81	B5	2777	G
81	B5	2778	G
81	B5	2779	A
81	B5	2796	G
81	B5	2799	A
81	B5	2800	G
81	B5	2801	A
81	B5	2810	C
81	B5	2817	A
81	B5	2818	U
81	B5	2819	A
81	B5	2822	U
81	B5	2829	U
81	B5	2839	G
81	B5	2844	C
81	B5	2845	A
81	B5	2853	A
81	B5	2871	G
81	B5	2872	A
81	B5	2873	U
81	B5	2875	U
81	B5	2887	A
81	B5	2888	U
81	B5	2889	C
81	B5	2896	A
81	B5	2897	A
81	B5	2898	G
81	B5	2899	C
81	B5	2904	U
81	B5	2910	A
81	B5	2923	U
81	B5	2928	C
81	B5	2935	U
81	B5	2936	A
81	B5	2941	A
81	B5	2942	C
81	B5	2945	G
81	B5	2947	G
81	B5	2954	U
81	B5	2957	G
81	B5	2970	C
81	B5	2971	A

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Mol	Chain	Res	Type
81	B5	2972	G
81	B5	2979	U
81	B5	2983	C
81	B5	2987	A
81	B5	2990	G
81	B5	2996	U
81	B5	2997	G
81	B5	3012	A
81	B5	3028	G
81	B5	3050	U
81	B5	3056	U
81	B5	3057	U
81	B5	3059	G
81	B5	3078	U
81	B5	3079	U
81	B5	3080	G
81	B5	3086	A
81	B5	3087	A
81	B5	3092	C
81	B5	3130	A
81	B5	3131	U
81	B5	3139	A
81	B5	3142	A
81	B5	3143	C
81	B5	3148	U
81	B5	3153	U
81	B5	3154	C
81	B5	3155	U
81	B5	3156	U
81	B5	3157	U
81	B5	3158	G
81	B5	3159	C
81	B5	3164	C
81	B5	3165	A
81	B5	3166	C
81	B5	3168	A
81	B5	3171	U
81	B5	3172	A
81	B5	3173	G
81	B5	3174	A
81	B5	3175	U
81	B5	3176	G

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Mol	Chain	Res	Type
81	B5	3177	G
81	B5	3179	U
81	B5	3180	A
81	B5	3181	C
81	B5	3187	A
81	B5	3195	U
81	B5	3196	U
81	B5	3207	U
81	B5	3217	C
81	B5	3218	A
81	B5	3219	G
81	B5	3222	U
81	B5	3223	A
81	B5	3224	G
81	B5	3227	A
81	B5	3229	G
81	B5	3238	G
81	B5	3245	A
81	B5	3246	G
81	B5	3247	G
81	B5	3251	U
81	B5	3253	G
81	B5	3259	U
81	B5	3260	G
81	B5	3269	U
81	B5	3270	U
81	B5	3273	A
81	B5	3275	U
81	B5	3276	G
81	B5	3277	U
81	B5	3279	A
81	B5	3280	U
81	B5	3282	U
81	B5	3284	G
81	B5	3285	C
81	B5	3286	G
81	B5	3288	G
81	B5	3289	G
81	B5	3290	G
81	B5	3292	A
81	B5	3294	A
81	B5	3304	U

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Mol	Chain	Res	Type
81	B5	3307	A
81	B5	3313	U
81	B5	3316	A
81	B5	3317	U
81	B5	3318	G
81	B5	3319	U
81	B5	3320	A
81	B5	3330	A
81	B5	3331	U
81	B5	3333	G
81	B5	3335	A
81	B5	3336	A
81	B5	3341	U
81	B5	3342	A
81	B5	3343	G
81	B5	3345	G
81	B5	3349	C
81	B5	3351	U
81	B5	3352	U
81	B5	3354	U
81	B5	3355	U
81	B5	3356	G
81	B5	3357	U
81	B5	3358	U
81	B5	3369	G
81	B5	3378	C
81	B5	3382	U
81	B5	3383	G
81	B5	3389	U
81	B5	3390	G
81	B5	3393	U
81	B5	3396	U
82	B7	7	G
82	B7	22	A
82	B7	27	A
82	B7	33	U
82	B7	38	U
82	B7	42	A
82	B7	54	U
82	B7	61	G
82	B7	65	G
82	B7	66	A

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Mol	Chain	Res	Type
82	B7	73	C
82	B7	74	C
82	B7	93	C
82	B7	101	G
82	B7	102	A
82	B7	103	A
82	B7	104	A
82	B7	112	G
83	B8	21	C
83	B8	34	U
83	B8	35	C
83	B8	48	A
83	B8	52	A
83	B8	53	A
83	B8	59	A
83	B8	62	C
83	B8	63	G
83	B8	79	A
83	B8	80	A
83	B8	81	U
83	B8	83	C
83	B8	84	C
83	B8	86	U
83	B8	87	G
83	B8	90	U
83	B8	95	G
83	B8	104	A
83	B8	105	A
83	B8	106	C
83	B8	111	A
83	B8	112	U
83	B8	113	U
83	B8	122	U
83	B8	125	U
83	B8	126	A
83	B8	127	U
83	B8	138	A
83	B8	152	G
83	B8	156	U
83	B8	157	U
83	B8	158	U
84	CN	2123	U

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Mol	Chain	Res	Type
84	CN	2124	C
84	CN	2125	G
84	CN	2127	G
84	CN	2128	C
84	CN	2129	C
84	CN	2133	G
84	CN	2134	U
84	CN	2136	G
84	CN	2137	G
84	CN	2143	U
84	CN	2144	G
84	CN	2147	A
84	CN	2148	G
84	CN	2152	G
84	CN	2158	C
84	CN	2159	C
84	CN	2161	C
84	CN	2162	G
84	CN	2163	C
84	CN	2166	C
84	CN	2167	C
84	CN	2168	G
84	CN	2169	G
84	CN	2172	G
84	CN	2173	G
84	CN	2174	G
84	CN	2175	G
84	CN	2177	G
84	CN	2179	A
84	CN	2180	G
84	CN	2184	C
84	CN	2193	U
84	CN	2194	A
84	CN	2199	C
84	CN	2200	C
84	CN	2201	U
84	CN	2203	G
84	CN	2204	C
84	CN	2207	G
84	CN	2208	G
86	CW	4	C
86	CW	13	C

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Mol	Chain	Res	Type
86	CW	15	G
86	CW	19	G
86	CW	20	U
86	CW	21	A
86	CW	22	G
86	CW	23	A
86	CW	26	A
86	CW	27	G
86	CW	30	G
86	CW	33	U
86	CW	34	G
86	CW	36	A
86	CW	38	A
86	CW	44	G
86	CW	46	G
86	CW	47	U
86	CW	48	C
86	CW	51	U
86	CW	52	G
86	CW	60	U
86	CW	61	C
86	CW	72	C
86	CW	73	A
86	CW	74	C
86	CW	75	C
86	CW	76	A

All (235) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
80	B2	2	A
80	B2	25	C
80	B2	45	U
80	B2	68	A
80	B2	73	U
80	B2	74	U
80	B2	76	A
80	B2	103	A
80	B2	114	C
80	B2	126	A
80	B2	130	C
80	B2	131	C

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Mol	Chain	Res	Type
80	B2	132	U
80	B2	133	U
80	B2	136	C
80	B2	139	C
80	B2	144	U
80	B2	158	U
80	B2	187	G
80	B2	217	A
80	B2	218	A
80	B2	232	U
80	B2	239	C
80	B2	240	U
80	B2	278	U
80	B2	280	U
80	B2	320	U
80	B2	400	A
80	B2	417	A
80	B2	484	C
80	B2	495	C
80	B2	497	G
80	B2	498	G
80	B2	499	U
80	B2	501	U
80	B2	503	G
80	B2	507	U
80	B2	512	A
80	B2	542	A
80	B2	543	C
80	B2	555	A
80	B2	558	U
80	B2	582	U
80	B2	685	A
80	B2	704	C
80	B2	720	G
80	B2	721	U
80	B2	734	A
80	B2	755	A
80	B2	781	U
80	B2	782	U
80	B2	794	U
80	B2	811	A
80	B2	815	G

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Mol	Chain	Res	Type
80	B2	819	G
80	B2	823	G
80	B2	829	A
80	B2	913	G
80	B2	1051	G
80	B2	1058	U
80	B2	1081	A
80	B2	1137	A
80	B2	1157	A
80	B2	1187	U
80	B2	1195	C
80	B2	1196	A
80	B2	1207	C
80	B2	1226	A
80	B2	1234	A
80	B2	1244	A
80	B2	1250	U
80	B2	1339	C
80	B2	1344	A
80	B2	1370	U
80	B2	1428	G
80	B2	1481	C
80	B2	1489	U
80	B2	1490	C
80	B2	1521	G
80	B2	1568	C
80	B2	1572	G
80	B2	1573	A
80	B2	1615	C
80	B2	1657	U
80	B2	1711	C
80	B2	1761	U
81	B5	43	A
81	B5	65	A
81	B5	93	C
81	B5	151	A
81	B5	169	U
81	B5	183	G
81	B5	217	U
81	B5	238	A
81	B5	282	G
81	B5	397	A

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Mol	Chain	Res	Type
81	B5	436	A
81	B5	438	A
81	B5	439	C
81	B5	545	U
81	B5	546	C
81	B5	588	G
81	B5	611	A
81	B5	619	A
81	B5	647	A
81	B5	705	A
81	B5	715	A
81	B5	719	U
81	B5	726	G
81	B5	735	A
81	B5	765	C
81	B5	786	A
81	B5	816	A
81	B5	873	C
81	B5	896	A
81	B5	908	G
81	B5	916	G
81	B5	937	G
81	B5	979	U
81	B5	993	G
81	B5	1027	A
81	B5	1033	U
81	B5	1064	A
81	B5	1081	U
81	B5	1085	A
81	B5	1094	U
81	B5	1152	G
81	B5	1181	U
81	B5	1192	C
81	B5	1230	G
81	B5	1231	A
81	B5	1236	G
81	B5	1238	C
81	B5	1241	U
81	B5	1256	G
81	B5	1258	U
81	B5	1284	C
81	B5	1307	G

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Mol	Chain	Res	Type
81	B5	1317	A
81	B5	1329	U
81	B5	1331	U
81	B5	1352	A
81	B5	1355	A
81	B5	1434	G
81	B5	1481	A
81	B5	1507	G
81	B5	1514	G
81	B5	1554	U
81	B5	1560	G
81	B5	1568	U
81	B5	1574	C
81	B5	1580	A
81	B5	1589	A
81	B5	1607	U
81	B5	1716	U
81	B5	1724	U
81	B5	1815	U
81	B5	1816	A
81	B5	1817	G
81	B5	1819	U
81	B5	1841	A
81	B5	1842	A
81	B5	1849	C
81	B5	1878	G
81	B5	1879	A
81	B5	2101	C
81	B5	2112	U
81	B5	2116	G
81	B5	2204	C
81	B5	2209	U
81	B5	2249	G
81	B5	2255	A
81	B5	2257	C
81	B5	2372	A
81	B5	2374	C
81	B5	2440	G
81	B5	2507	C
81	B5	2513	U
81	B5	2531	C
81	B5	2537	U

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Mol	Chain	Res	Type
81	B5	2539	C
81	B5	2583	C
81	B5	2585	G
81	B5	2593	A
81	B5	2662	G
81	B5	2682	C
81	B5	2689	A
81	B5	2714	G
81	B5	2728	G
81	B5	2752	U
81	B5	2772	C
81	B5	2777	G
81	B5	2801	A
81	B5	2817	A
81	B5	2818	U
81	B5	2887	A
81	B5	2896	A
81	B5	2970	C
81	B5	2971	A
81	B5	2996	U
81	B5	3056	U
81	B5	3078	U
81	B5	3154	C
81	B5	3155	U
81	B5	3167	A
81	B5	3195	U
81	B5	3218	A
81	B5	3228	C
81	B5	3259	U
81	B5	3269	U
81	B5	3275	U
81	B5	3289	G
81	B5	3317	U
81	B5	3330	A
81	B5	3340	G
81	B5	3341	U
81	B5	3357	U
83	B8	111	A
83	B8	126	A
83	B8	156	U
84	CN	2139	U
84	CN	2162	G

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Mol	Chain	Res	Type
84	CN	2167	C
84	CN	2170	G
84	CN	2179	A
84	CN	2184	C
84	CN	2200	C
84	CN	2201	U
86	CW	7	A
86	CW	18	G
86	CW	28	G
86	CW	33	U
86	CW	43	C
86	CW	60	U
86	CW	72	C

5.4 Non-standard residues in protein, DNA, RNA chains

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

Of 395 ligands modelled in this entry, 197 are monoatomic - leaving 198 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
89	OHX	B2	2028	-	0,6,6	-	-	-		
89	OHX	B2	1946	-	0,6,6	-	-	-		
89	OHX	AC	301	-	0,6,6	-	-	-		
89	OHX	B2	1931	-	0,6,6	-	-	-		
89	OHX	B2	2060	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
89	OHX	B2	2006	-	0,6,6	-	-	-		
89	OHX	B2	1947	-	0,6,6	-	-	-		
89	OHX	B2	2013	-	0,6,6	-	-	-		
89	OHX	B2	2020	-	0,6,6	-	-	-		
89	OHX	B2	2029	-	0,6,6	-	-	-		
89	OHX	B2	1914	-	0,6,6	-	-	-		
89	OHX	B2	1974	-	0,6,6	-	-	-		
89	OHX	B2	2067	-	0,6,6	-	-	-		
89	OHX	B2	1942	-	0,6,6	-	-	-		
89	OHX	B2	2001	-	0,6,6	-	-	-		
89	OHX	B2	2081	-	0,6,6	-	-	-		
89	OHX	B2	1926	-	0,6,6	-	-	-		
89	OHX	B2	2082	-	0,6,6	-	-	-		
89	OHX	B2	1986	-	0,6,6	-	-	-		
89	OHX	B2	1994	-	0,6,6	-	-	-		
89	OHX	B2	2030	-	0,6,6	-	-	-		
89	OHX	B2	1944	-	0,6,6	-	-	-		
89	OHX	B2	1964	-	0,6,6	-	-	-		
89	OHX	B2	1925	-	0,6,6	-	-	-		
89	OHX	B2	1904	-	0,6,6	-	-	-		
89	OHX	B2	2026	-	0,6,6	-	-	-		
89	OHX	B2	1917	-	0,6,6	-	-	-		
89	OHX	B2	2019	-	0,6,6	-	-	-		
89	OHX	B2	2038	-	0,6,6	-	-	-		
89	OHX	AP	201	-	0,6,6	-	-	-		
89	OHX	B2	1954	-	0,6,6	-	-	-		
89	OHX	B2	1966	-	0,6,6	-	-	-		
89	OHX	B2	1998	-	0,6,6	-	-	-		
89	OHX	AN	201	-	0,6,6	-	-	-		
89	OHX	B2	1965	-	0,6,6	-	-	-		
89	OHX	B2	1950	-	0,6,6	-	-	-		
89	OHX	B2	2025	-	0,6,6	-	-	-		
89	OHX	B2	2033	-	0,6,6	-	-	-		
89	OHX	B2	1909	89	0,6,6	-	-	-		
89	OHX	B2	1976	-	0,6,6	-	-	-		
89	OHX	B2	2055	-	0,6,6	-	-	-		
89	OHX	B2	1959	-	0,6,6	-	-	-		
89	OHX	B2	1915	-	0,6,6	-	-	-		
89	OHX	B5	3401	-	0,6,6	-	-	-		
89	OHX	B2	1952	-	0,6,6	-	-	-		
89	OHX	B2	1981	-	0,6,6	-	-	-		
89	OHX	B2	2007	-	0,6,6	-	-	-		
89	OHX	B2	2063	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
89	OHX	B2	2032	-	0,6,6	-	-	-		
89	OHX	B2	2080	-	0,6,6	-	-	-		
89	OHX	B2	2054	-	0,6,6	-	-	-		
89	OHX	BR	201	-	0,6,6	-	-	-		
89	OHX	B5	3402	-	0,6,6	-	-	-		
89	OHX	B2	2004	-	0,6,6	-	-	-		
89	OHX	B2	2062	-	0,6,6	-	-	-		
89	OHX	B2	2010	-	0,6,6	-	-	-		
89	OHX	A3	102	-	0,6,6	-	-	-		
89	OHX	B2	2068	-	0,6,6	-	-	-		
89	OHX	B2	2078	-	0,6,6	-	-	-		
89	OHX	A6	401	-	0,6,6	-	-	-		
89	OHX	B2	1932	-	0,6,6	-	-	-		
89	OHX	B2	2003	-	0,6,6	-	-	-		
89	OHX	B2	2058	-	0,6,6	-	-	-		
89	OHX	B2	2031	89	0,6,6	-	-	-		
89	OHX	B2	1902	-	0,6,6	-	-	-		
89	OHX	B2	1919	-	0,6,6	-	-	-		
89	OHX	B2	2070	-	0,6,6	-	-	-		
89	OHX	B2	1993	-	0,6,6	-	-	-		
89	OHX	B2	2023	-	0,6,6	-	-	-		
89	OHX	B2	1928	-	0,6,6	-	-	-		
89	OHX	B2	2046	-	0,6,6	-	-	-		
89	OHX	B2	2037	-	0,6,6	-	-	-		
89	OHX	B2	1916	-	0,6,6	-	-	-		
89	OHX	B2	2039	-	0,6,6	-	-	-		
89	OHX	B2	1933	-	0,6,6	-	-	-		
89	OHX	B2	1955	-	0,6,6	-	-	-		
89	OHX	B2	2056	-	0,6,6	-	-	-		
89	OHX	B2	1967	-	0,6,6	-	-	-		
89	OHX	B2	1901	-	0,6,6	-	-	-		
89	OHX	B2	1913	-	0,6,6	-	-	-		
89	OHX	B2	2005	-	0,6,6	-	-	-		
89	OHX	B2	1969	-	0,6,6	-	-	-		
89	OHX	B2	2009	-	0,6,6	-	-	-		
89	OHX	B2	2008	-	0,6,6	-	-	-		
89	OHX	B2	1990	-	0,6,6	-	-	-		
89	OHX	B2	1963	-	0,6,6	-	-	-		
89	OHX	B2	1940	-	0,6,6	-	-	-		
89	OHX	B2	1905	-	0,6,6	-	-	-		
89	OHX	B2	1920	-	0,6,6	-	-	-		
89	OHX	B2	1941	-	0,6,6	-	-	-		
89	OHX	B2	1906	88	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
89	OHX	B2	2034	-	0,6,6	-	-	-		
89	OHX	B2	1962	-	0,6,6	-	-	-		
89	OHX	B2	1975	-	0,6,6	-	-	-		
89	OHX	B2	2053	-	0,6,6	-	-	-		
89	OHX	B2	1924	-	0,6,6	-	-	-		
89	OHX	B2	1961	-	0,6,6	-	-	-		
89	OHX	B2	1980	-	0,6,6	-	-	-		
89	OHX	B2	1939	-	0,6,6	-	-	-		
89	OHX	B2	1987	-	0,6,6	-	-	-		
89	OHX	B2	1983	-	0,6,6	-	-	-		
89	OHX	B2	1938	-	0,6,6	-	-	-		
89	OHX	B2	2047	-	0,6,6	-	-	-		
89	OHX	B2	2052	-	0,6,6	-	-	-		
89	OHX	B2	2050	88	0,6,6	-	-	-		
89	OHX	B2	1930	-	0,6,6	-	-	-		
89	OHX	B2	2059	-	0,6,6	-	-	-		
89	OHX	B2	1982	-	0,6,6	-	-	-		
89	OHX	AI	301	-	0,6,6	-	-	-		
89	OHX	B2	2024	-	0,6,6	-	-	-		
89	OHX	B2	2061	-	0,6,6	-	-	-		
89	OHX	B2	1937	-	0,6,6	-	-	-		
89	OHX	B2	2084	-	0,6,6	-	-	-		
89	OHX	B2	2057	-	0,6,6	-	-	-		
89	OHX	B2	2015	-	0,6,6	-	-	-		
89	OHX	B2	1910	-	0,6,6	-	-	-		
89	OHX	B2	2076	-	0,6,6	-	-	-		
89	OHX	B2	1988	-	0,6,6	-	-	-		
89	OHX	B2	1996	-	0,6,6	-	-	-		
89	OHX	B2	2051	-	0,6,6	-	-	-		
89	OHX	B2	1945	-	0,6,6	-	-	-		
89	OHX	B2	2077	-	0,6,6	-	-	-		
89	OHX	B2	2040	-	0,6,6	-	-	-		
89	OHX	B2	2022	-	0,6,6	-	-	-		
89	OHX	B2	1979	-	0,6,6	-	-	-		
89	OHX	B2	2071	80	0,6,6	-	-	-		
89	OHX	B2	2014	-	0,6,6	-	-	-		
89	OHX	B2	1953	-	0,6,6	-	-	-		
89	OHX	B2	1912	-	0,6,6	-	-	-		
89	OHX	B2	1992	-	0,6,6	-	-	-		
89	OHX	B2	1999	-	0,6,6	-	-	-		
89	OHX	B2	1911	-	0,6,6	-	-	-		
89	OHX	B2	1907	-	0,6,6	-	-	-		
89	OHX	B2	2075	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
89	OHX	B2	1984	-	0,6,6	-	-	-		
89	OHX	B2	1958	-	0,6,6	-	-	-		
89	OHX	B2	2073	-	0,6,6	-	-	-		
89	OHX	B2	2074	-	0,6,6	-	-	-		
89	OHX	B2	2083	-	0,6,6	-	-	-		
89	OHX	B2	2017	-	0,6,6	-	-	-		
89	OHX	B2	2044	-	0,6,6	-	-	-		
89	OHX	B2	1989	-	0,6,6	-	-	-		
89	OHX	B2	1970	-	0,6,6	-	-	-		
89	OHX	B2	2027	-	0,6,6	-	-	-		
89	OHX	B2	1949	-	0,6,6	-	-	-		
89	OHX	B2	2048	-	0,6,6	-	-	-		
89	OHX	B2	1985	-	0,6,6	-	-	-		
89	OHX	B2	1943	-	0,6,6	-	-	-		
89	OHX	B2	2035	-	0,6,6	-	-	-		
89	OHX	B2	2045	-	0,6,6	-	-	-		
89	OHX	B2	1973	-	0,6,6	-	-	-		
89	OHX	AL	201	-	0,6,6	-	-	-		
89	OHX	B2	2036	-	0,6,6	-	-	-		
89	OHX	B2	2072	-	0,6,6	-	-	-		
89	OHX	B2	1948	-	0,6,6	-	-	-		
89	OHX	B2	1929	-	0,6,6	-	-	-		
89	OHX	B2	2066	-	0,6,6	-	-	-		
89	OHX	B2	1957	-	0,6,6	-	-	-		
89	OHX	B2	1951	-	0,6,6	-	-	-		
89	OHX	B2	1960	-	0,6,6	-	-	-		
89	OHX	B2	2065	-	0,6,6	-	-	-		
89	OHX	B2	1918	89	0,6,6	-	-	-		
90	GCP	CP	401	-	32,34,34	1.73	4 (12%)	49,54,54	1.62	5 (10%)
89	OHX	B2	1921	-	0,6,6	-	-	-		
89	OHX	B2	2011	-	0,6,6	-	-	-		
89	OHX	B2	1997	-	0,6,6	-	-	-		
89	OHX	B2	1927	-	0,6,6	-	-	-		
89	OHX	B2	1995	-	0,6,6	-	-	-		
89	OHX	B2	1903	-	0,6,6	-	-	-		
89	OHX	B2	1972	-	0,6,6	-	-	-		
89	OHX	B2	1971	-	0,6,6	-	-	-		
89	OHX	B2	1991	-	0,6,6	-	-	-		
89	OHX	B2	1977	-	0,6,6	-	-	-		
89	OHX	B2	1923	-	0,6,6	-	-	-		
89	OHX	B5	3403	-	0,6,6	-	-	-		
89	OHX	B2	2016	-	0,6,6	-	-	-		
89	OHX	B2	2000	-	0,6,6	-	-	-		

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
89	OHX	B2	1922	-	0,6,6	-	-	-		
89	OHX	B2	1968	-	0,6,6	-	-	-		
89	OHX	B2	1936	-	0,6,6	-	-	-		
89	OHX	B2	1908	-	0,6,6	-	-	-		
89	OHX	B2	2064	89,88	0,6,6	-	-	-		
89	OHX	B2	1956	-	0,6,6	-	-	-		
89	OHX	B2	2049	-	0,6,6	-	-	-		
89	OHX	B2	1935	-	0,6,6	-	-	-		
89	OHX	B2	2079	-	0,6,6	-	-	-		
89	OHX	B2	2069	-	0,6,6	-	-	-		
89	OHX	B2	1978	-	0,6,6	-	-	-		
89	OHX	B2	2021	-	0,6,6	-	-	-		
89	OHX	B2	2018	-	0,6,6	-	-	-		
89	OHX	B2	2042	-	0,6,6	-	-	-		
89	OHX	B2	2041	-	0,6,6	-	-	-		
89	OHX	B2	1934	-	0,6,6	-	-	-		
89	OHX	B2	2002	-	0,6,6	-	-	-		
89	OHX	B2	2012	-	0,6,6	-	-	-		
89	OHX	B2	2043	-	0,6,6	-	-	-		
89	OHX	AI	302	-	0,6,6	-	-	-		
89	OHX	Bn	101	-	0,6,6	-	-	-		

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
90	GCP	CP	401	-	-	1/19/38/38	0/3/3/3

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
90	CP	401	GCP	PA-O3A	-6.63	1.52	1.59
90	CP	401	GCP	C2'-C1'	-3.04	1.43	1.53
90	CP	401	GCP	C4-N3	2.54	1.40	1.34
90	CP	401	GCP	PB-O3A	-2.36	1.55	1.58

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
90	CP	401	GCP	O3G-PG-C3B	-7.36	88.55	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
90	CP	401	GCP	O2A-PA-O3A	3.08	115.59	107.27
90	CP	401	GCP	O1B-PB-C3B	2.91	116.72	109.05
90	CP	401	GCP	O2G-PG-O1G	2.77	119.54	112.39
90	CP	401	GCP	C1'-N9-C8	2.21	133.00	126.73

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
90	CP	401	GCP	PB-C3B-PG-O1G

There are no ring outliers.

121 monomers are involved in 313 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
89	B2	1946	OHX	1	0
89	AC	301	OHX	5	0
89	B2	2060	OHX	1	0
89	B2	2013	OHX	11	0
89	B2	1914	OHX	3	0
89	B2	1974	OHX	7	0
89	B2	1942	OHX	1	0
89	B2	2001	OHX	3	0
89	B2	1926	OHX	1	0
89	B2	1986	OHX	3	0
89	B2	2030	OHX	1	0
89	B2	1964	OHX	6	0
89	B2	1925	OHX	1	0
89	B2	2026	OHX	2	0
89	B2	1917	OHX	2	0
89	B2	2038	OHX	1	0
89	AP	201	OHX	3	0
89	B2	1954	OHX	6	0
89	AN	201	OHX	2	0
89	B2	1965	OHX	2	0
89	B2	1950	OHX	2	0
89	B2	2025	OHX	2	0
89	B2	1909	OHX	2	0
89	B2	1915	OHX	6	0
89	B5	3401	OHX	1	0
89	B2	1952	OHX	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
89	B2	2063	OHX	1	0
89	B2	2080	OHX	1	0
89	BR	201	OHX	9	0
89	B5	3402	OHX	3	0
89	B2	2004	OHX	1	0
89	A3	102	OHX	4	0
89	B2	2068	OHX	6	0
89	B2	2078	OHX	1	0
89	A6	401	OHX	2	0
89	B2	2058	OHX	1	0
89	B2	2031	OHX	1	0
89	B2	1919	OHX	1	0
89	B2	2070	OHX	1	0
89	B2	1928	OHX	1	0
89	B2	2046	OHX	5	0
89	B2	1916	OHX	1	0
89	B2	2039	OHX	1	0
89	B2	1955	OHX	1	0
89	B2	1901	OHX	1	0
89	B2	1969	OHX	7	0
89	B2	2009	OHX	2	0
89	B2	2008	OHX	1	0
89	B2	1990	OHX	1	0
89	B2	1963	OHX	4	0
89	B2	1940	OHX	5	0
89	B2	1906	OHX	3	0
89	B2	2034	OHX	1	0
89	B2	1962	OHX	1	0
89	B2	1975	OHX	3	0
89	B2	2053	OHX	1	0
89	B2	1924	OHX	1	0
89	B2	1961	OHX	4	0
89	B2	1987	OHX	1	0
89	B2	1983	OHX	1	0
89	B2	1938	OHX	1	0
89	B2	2047	OHX	1	0
89	B2	2050	OHX	7	0
89	B2	1930	OHX	1	0
89	B2	2059	OHX	1	0
89	B2	1982	OHX	5	0
89	B2	2024	OHX	1	0
89	B2	2061	OHX	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
89	B2	1937	OHX	1	0
89	B2	2084	OHX	1	0
89	B2	2015	OHX	1	0
89	B2	1910	OHX	2	0
89	B2	2076	OHX	1	0
89	B2	1988	OHX	8	0
89	B2	1996	OHX	1	0
89	B2	1945	OHX	1	0
89	B2	2077	OHX	2	0
89	B2	2040	OHX	1	0
89	B2	2022	OHX	3	0
89	B2	1979	OHX	1	0
89	B2	2071	OHX	17	0
89	B2	2014	OHX	1	0
89	B2	1953	OHX	2	0
89	B2	1907	OHX	6	0
89	B2	2075	OHX	1	0
89	B2	2073	OHX	6	0
89	B2	2083	OHX	11	0
89	B2	1989	OHX	1	0
89	B2	1970	OHX	1	0
89	B2	2027	OHX	7	0
89	B2	1949	OHX	1	0
89	B2	2048	OHX	1	0
89	B2	2035	OHX	2	0
89	B2	2045	OHX	1	0
89	B2	1973	OHX	1	0
89	AL	201	OHX	3	0
89	B2	1948	OHX	1	0
89	B2	1929	OHX	1	0
89	B2	1957	OHX	1	0
89	B2	1960	OHX	1	0
89	B2	2065	OHX	2	0
89	B2	1918	OHX	8	0
90	CP	401	GCP	62	0
89	B2	1921	OHX	6	0
89	B2	2011	OHX	2	0
89	B2	1972	OHX	2	0
89	B2	1991	OHX	3	0
89	B2	1977	OHX	7	0
89	B2	1923	OHX	1	0
89	B2	2016	OHX	7	0

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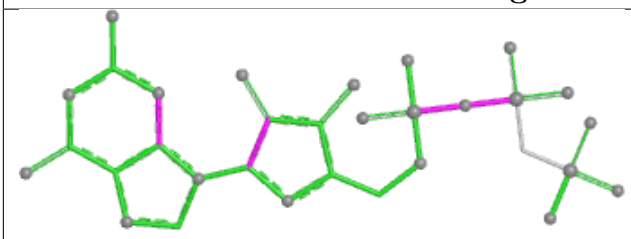
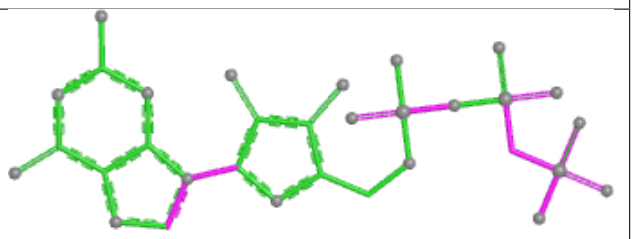
Mol	Chain	Res	Type	Clashes	Symm-Clashes
89	B2	1922	OHX	7	0
89	B2	1968	OHX	5	0
89	B2	2064	OHX	6	0
89	B2	2049	OHX	3	0
89	B2	2079	OHX	5	0
89	B2	2069	OHX	2	0
89	B2	1978	OHX	1	0
89	B2	2042	OHX	1	0
89	B2	2012	OHX	1	0
89	B2	2043	OHX	1	0
89	AI	302	OHX	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

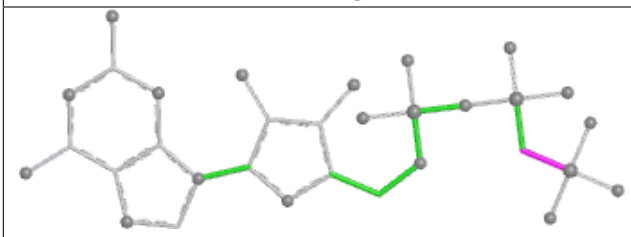
Ligand GCP CP 401



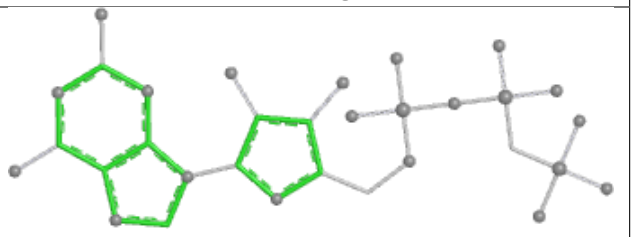
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
45	BK	2
81	B5	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BK	52:UNK	C	54:UNK	N	9.71
1	BK	23:UNK	C	28:UNK	N	8.84
1	B5	1285:G	O3'	1286:A	P	6.77

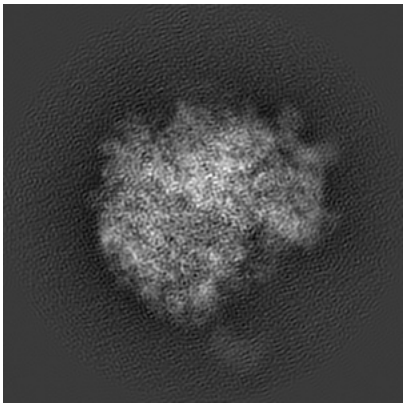
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-2421. These allow visual inspection of the internal detail of the map and identification of artifacts.

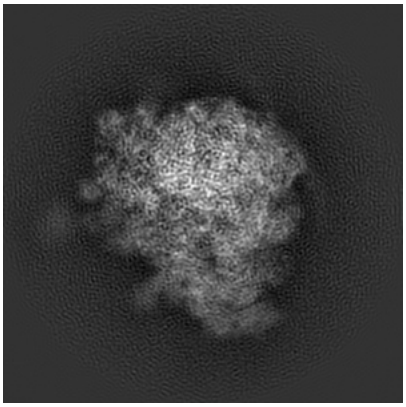
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

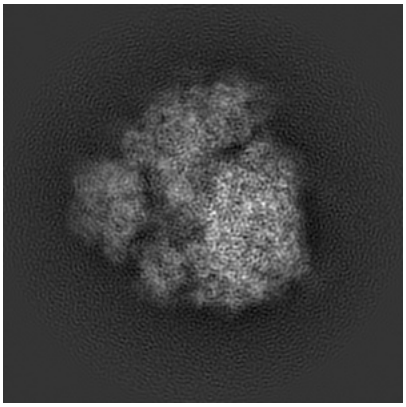
6.1.1 Primary map



X



Y

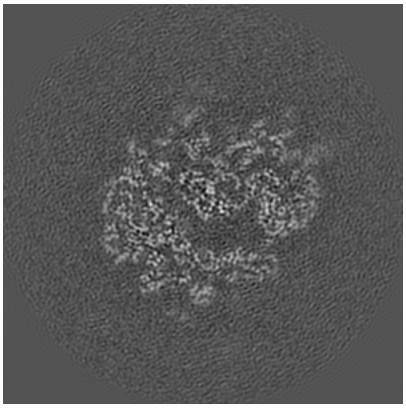


Z

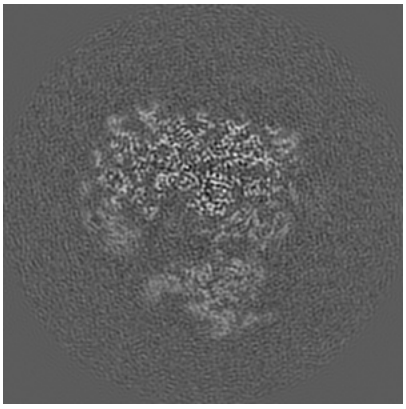
The images above show the map projected in three orthogonal directions.

6.2 Central slices

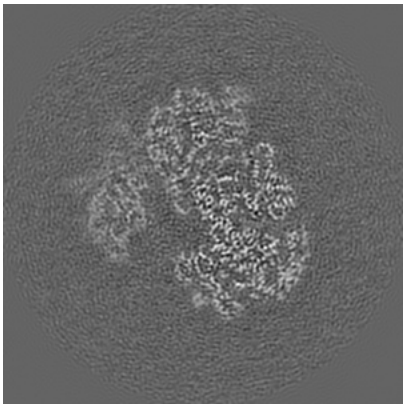
6.2.1 Primary map



X Index: 120



Y Index: 120

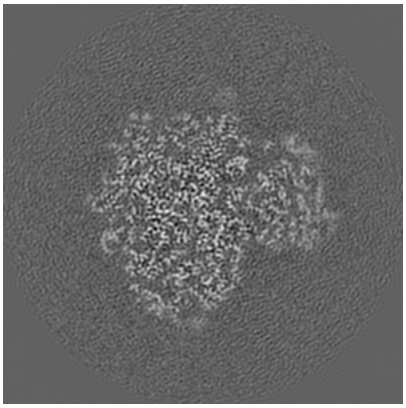


Z Index: 120

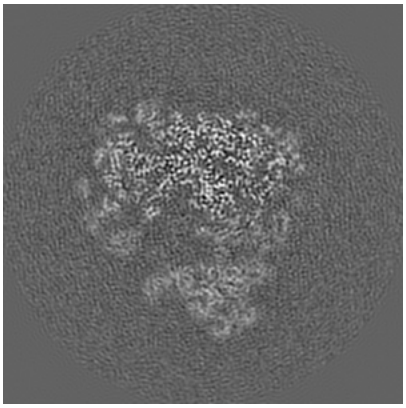
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

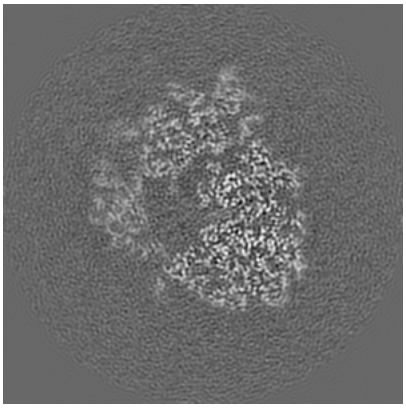
6.3.1 Primary map



X Index: 133



Y Index: 118

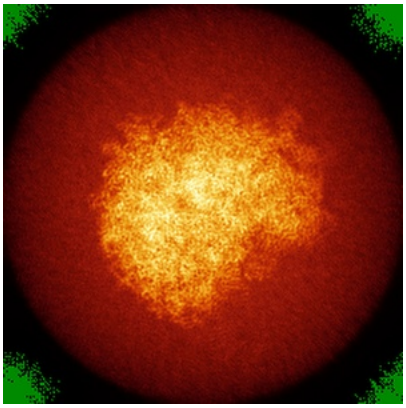


Z Index: 112

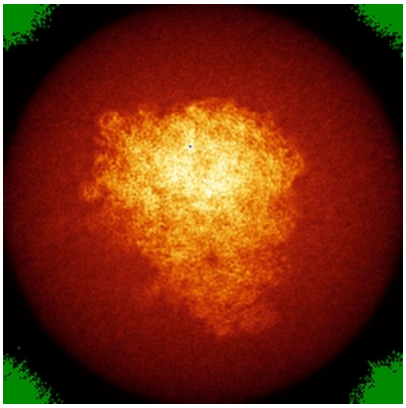
The images above show the largest variance slices of the map in three orthogonal directions.

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

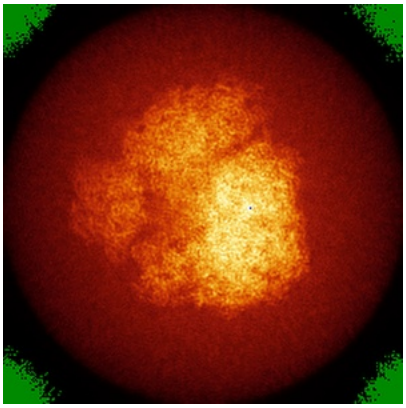
6.4.1 Primary map



X



Y



Z

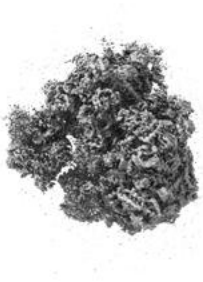
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

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 0.25. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

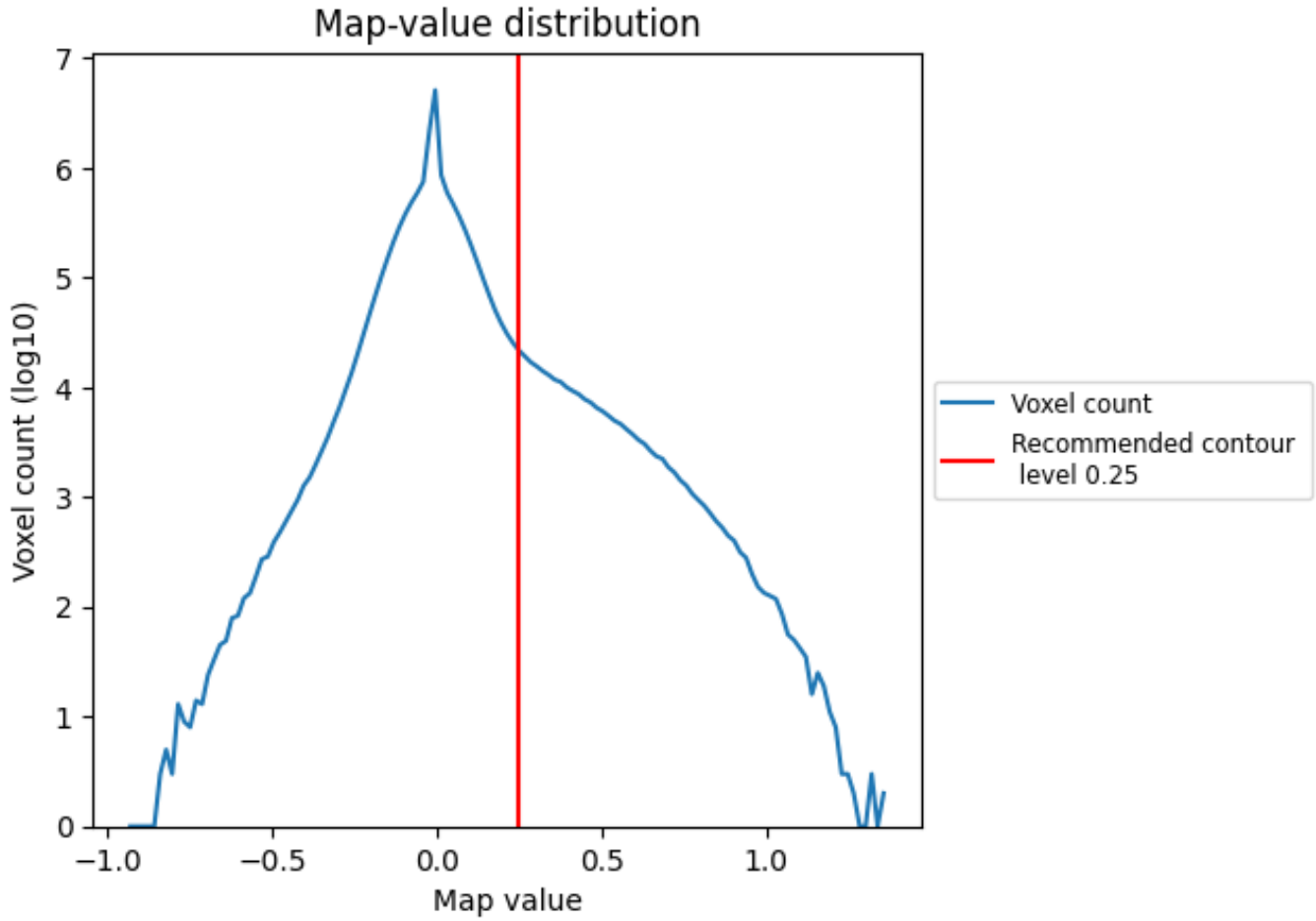
6.6 Mask visualisation (i)

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

7 Map analysis

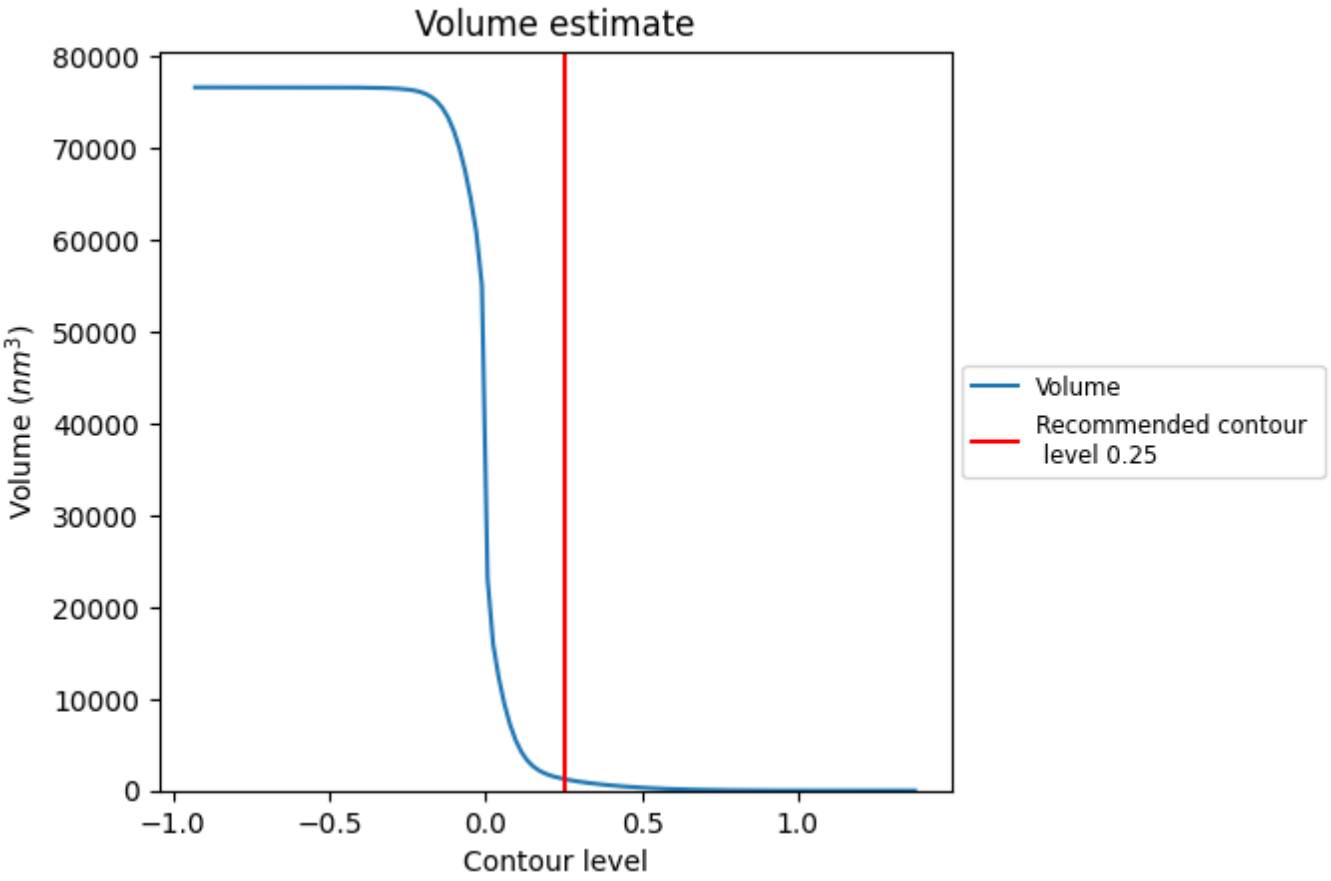
This section contains the results of statistical analysis of the map.

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.

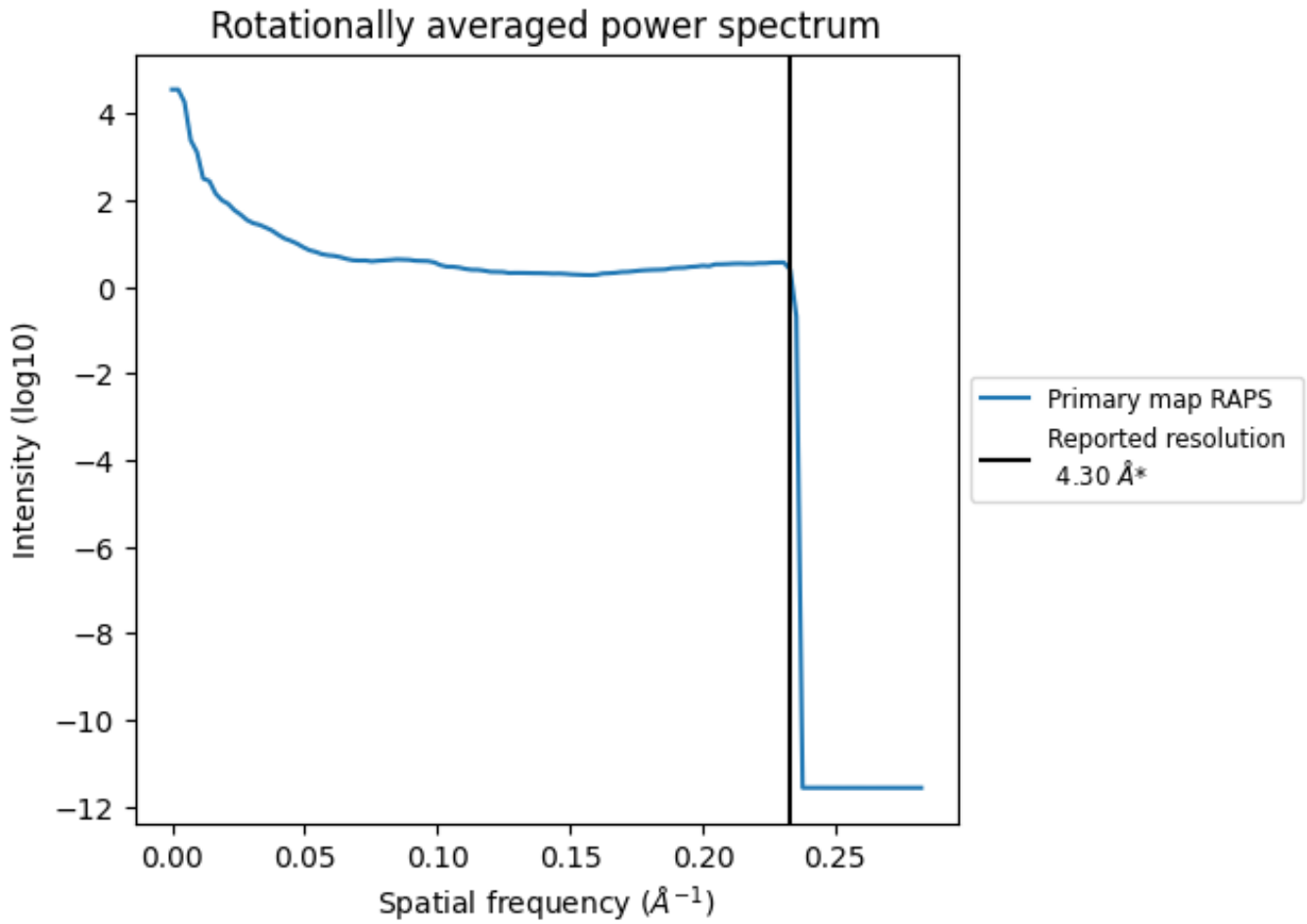
7.2 Volume estimate



The volume at the recommended contour level is 1268 nm^3; this corresponds to an approximate mass of 1145 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 0.233 Å^{-1}

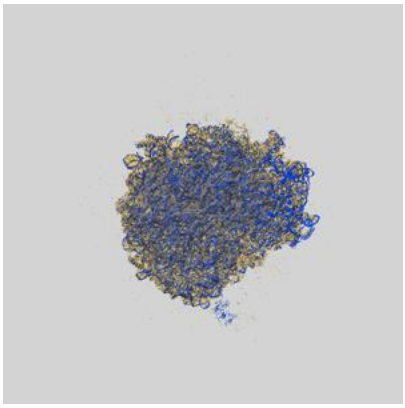
8 Fourier-Shell correlation

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

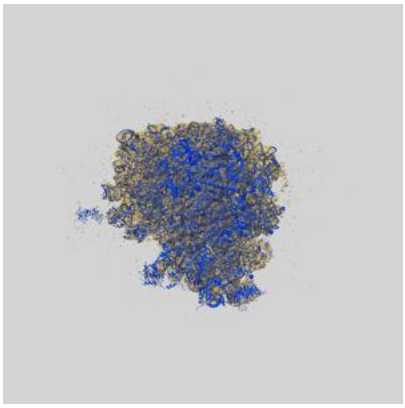
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-2421 and PDB model 4V8Y. Per-residue inclusion information can be found in section 3 on page 35.

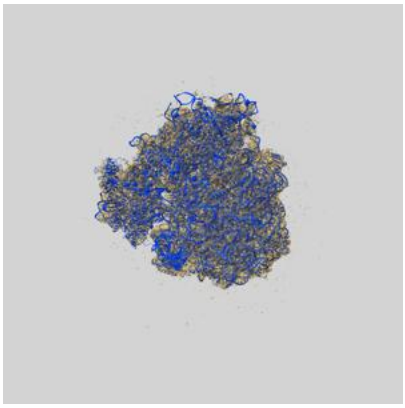
9.1 Map-model overlay



X



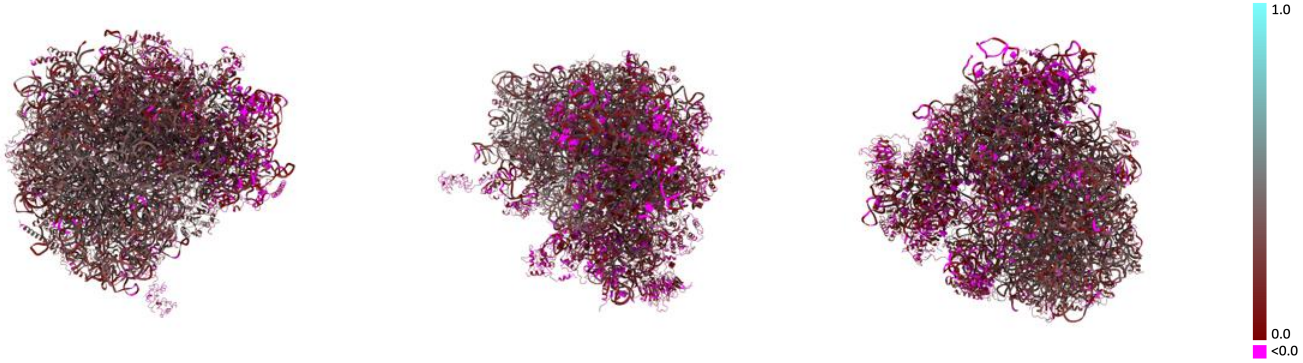
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.25 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

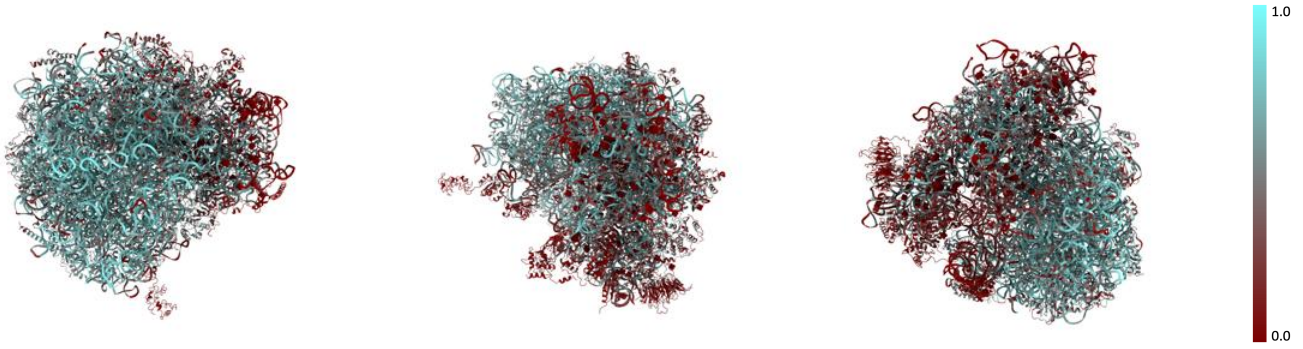
9.2 Q-score mapped to coordinate model (i)



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.

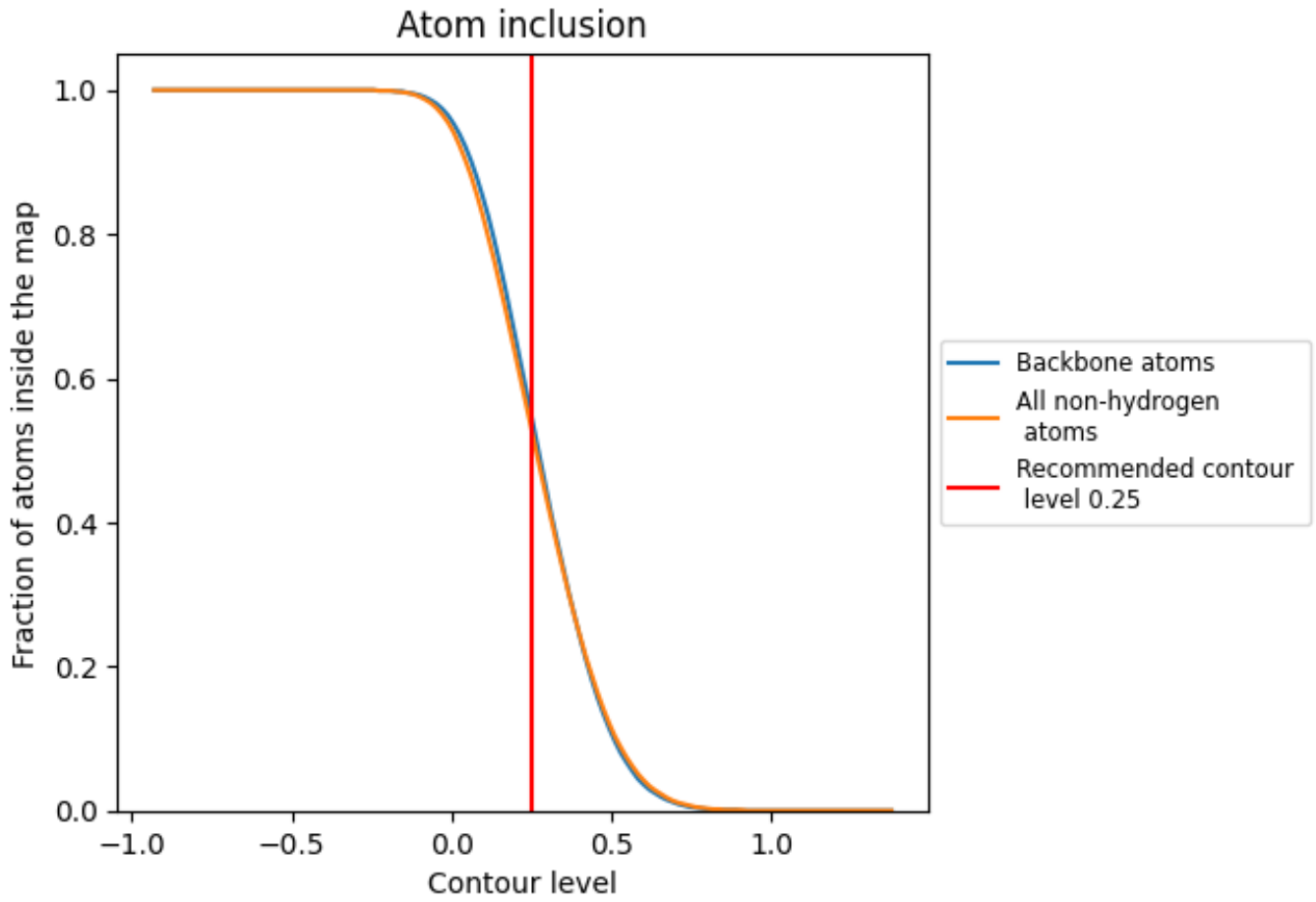
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.25).

9.4 Atom inclusion (i)



At the recommended contour level, 55% of all backbone atoms, 53% 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 (0.25) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5270	0.2420
A0	0.2180	0.1500
A1	0.3320	0.2030
A2	0.1110	0.0850
A3	0.3060	0.1190
A4	0.3680	0.2220
A5	0.0550	0.0540
A6	0.1450	0.1050
A7	0.0260	0.0790
AA	0.3780	0.1600
AB	0.1710	0.1110
AC	0.4440	0.2240
AD	0.1730	0.1070
AE	0.4030	0.1750
AF	0.1670	0.1060
AG	0.2610	0.0990
AH	0.3970	0.2020
AI	0.3590	0.1500
AJ	0.4460	0.2230
AK	0.1690	0.0790
AL	0.4510	0.2490
AM	0.0360	-0.0000
AN	0.4670	0.2480
AO	0.1450	0.1020
AP	0.1740	0.0870
AQ	0.2330	0.1700
AR	0.2900	0.1420
AS	0.1970	0.1080
AT	0.2830	0.1880
AU	0.1640	0.1250
AV	0.3930	0.1690
AW	0.5320	0.2900
AX	0.5030	0.3100
AY	0.3640	0.1540
AZ	0.1150	0.0760

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Chain	Atom inclusion	Q-score
B2	0.5410	0.2310
B5	0.7100	0.3000
B7	0.7170	0.2600
B8	0.7570	0.3200
BA	0.4040	0.1650
BB	0.6060	0.3180
BC	0.5800	0.3070
BD	0.5060	0.2520
BE	0.5360	0.2680
BF	0.6150	0.3410
BG	0.4650	0.2000
BH	0.5660	0.3090
BI	0.5350	0.2970
BJ	0.4740	0.2450
BK	0.1010	0.0740
BL	0.4900	0.2450
BM	0.5740	0.2720
BN	0.5280	0.2690
BO	0.6200	0.3580
BP	0.6110	0.3320
BQ	0.5430	0.2750
BR	0.3970	0.1560
BS	0.6050	0.3220
BT	0.5550	0.3410
BU	0.3680	0.1280
BV	0.5430	0.3280
BW	0.2660	0.1480
BX	0.4710	0.2250
BY	0.5570	0.2910
BZ	0.3320	0.0810
Ba	0.5480	0.2710
Bb	0.5200	0.2800
Bc	0.3110	0.0810
Bd	0.4900	0.2340
Be	0.5940	0.3510
Bf	0.6090	0.3240
Bg	0.3960	0.1360
Bh	0.5220	0.2380
Bi	0.4950	0.2450
Bj	0.5900	0.2960
Bk	0.3260	0.1190
Bl	0.4990	0.2270

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Chain	Atom inclusion	Q-score
Bm	0.5890	0.3320
Bn	0.1280	0.0630
Bo	0.5180	0.3150
Bq	0.1870	0.1280
Br	0.0380	0.0850
Bs	0.0040	0.0850
By	0.0420	0.1160
CL	0.0170	0.0430
CN	0.1000	0.0590
CP	0.3950	0.2720
CW	0.2230	0.2310