Full wwPDB X-ray Structure Validation Report (i)

Dec 16, 2024 – 09:31 AM EST

PDB ID	:	6OSI
Title	:	Unmodified tRNA(Pro) bound to Thermus thermophilus 70S (near cognate)
Authors	:	Hoffer, E.D.; Subaramanian, S.; Hong, S.; Maehigashi, T.; Dunham, C.M.
Deposited on	:	2019-05-01
Resolution	:	4.14 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp
with specific help available everywhere you see the (i) 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 (1)) were used in the production of this report:

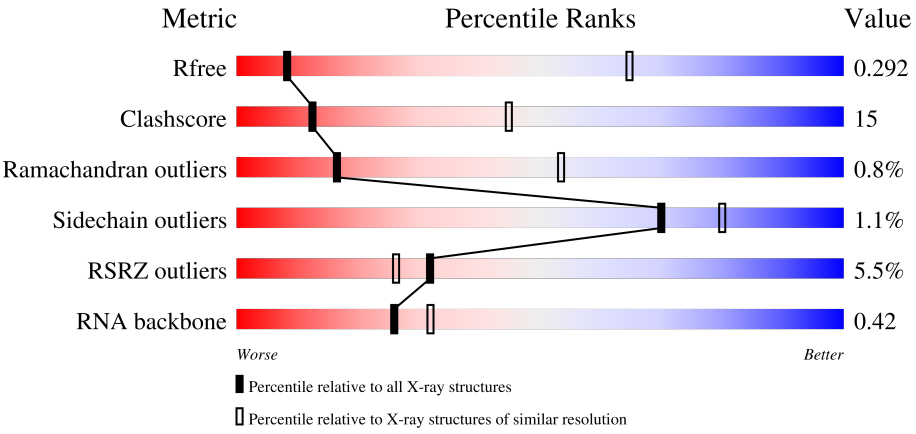
MolProbity	:	4.02b-467
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	1.21
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.004 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.40

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 4.14 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)	Similar resolution (#Entries, resolution range(Å))
R_{free}	164625	1166 (4.48-3.80)
Clashscore	180529	1233 (4.48-3.80)
Ramachandran outliers	177936	1158 (4.48-3.80)
Sidechain outliers	177891	1145 (4.48-3.80)
RSRZ outliers	164620	1164 (4.48-3.80)
RNA backbone	3690	1145 (5.04-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	QA	1521	% 24% 48% 23%
1	XA	1521	% 28% 44% 21% 7%
2	QB	256	4% 64% 28% 8%
2	XB	256	7% 69% 23% 8%

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Mol	Chain	Length	Quality of chain
3	QC	239	5% 61% 25% 14%
3	XC	239	5% 67% 18% 14%
4	QD	209	11% 73% 25%
4	XD	209	9% 72% 25%
5	QE	162	6% 67% 25% 7%
5	XE	162	6% 69% 24% 7%
6	QF	101	6% 81% 19%
6	XF	101	7% 64% 36%
7	QG	156	3% 80% 19%
7	XG	156	3% 78% 22%
8	QH	138	20% 72% 28%
8	XH	138	9% 76% 23%
9	QI	128	% 59% 22% 18%
9	XI	128	2% 67% 16% 16%
10	QJ	105	3% 50% 45% 6%
10	XJ	105	9% 50% 37% 9%
11	QK	129	6% 75% 17% 8%
11	XK	129	7% 72% 17% 10%
12	QL	132	11% 70% 23% 5%
12	XL	132	16% 67% 23% 8%
13	QM	126	2% 55% 37% 9%
13	XM	126	6% 59% 31% 10%
14	QN	61	11% 43% 51% 5%
14	XN	61	20% 41% 48% 10%
15	QO	89	15% 74% 25%

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Mol	Chain	Length	Quality of chain
15	XO	89	10% 79% 19%
16	QP	88	16% 66% 30% 5%
16	XP	88	34% 72% 24% 5%
17	QQ	105	18% 77% 18% 5%
17	XQ	105	15% 76% 19% 5%
18	QR	88	3% 68% 11% 20%
18	XR	88	3% 52% 27% 20%
19	QS	93	4% 57% 31% 11%
19	XS	93	6% 63% 27% 10%
20	QT	106	29% 68% 24% 7%
20	XT	106	18% 62% 27% 7%
21	QU	27	7% 41% 52% 7%
21	XU	27	19% 81% 7% 7%
22	QV	77	% 61% 26% 12%
22	XV	77	47% 35% 6% 12%
23	QX	19	42% 53% 5%
23	XX	19	42% 32% 21% 5%
24	R0	85	18% 81% 13% 5%
24	Y0	85	7% 81% 15%
25	R1	98	20% 77% 20%
25	Y1	98	15% 82% 13% 5%
26	R2	72	6% 81% 15%
26	Y2	72	15% 81% 14% 6%
27	R3	60	12% 75% 23%
27	Y3	60	7% 73% 25%

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Mol	Chain	Length	Quality of chain
28	R4	71	46% 17% 37%
28	Y4	71	39% 21% 35%
29	R5	60	2% 68% 25% 5%
29	Y5	60	2% 63% 30% 5%
30	R6	54	2% 70% 22%
30	Y6	54	4% 63% 28% 6%
31	R7	49	14% 61% 35%
31	Y7	49	18% 82% 16%
32	R8	65	11% 60% 32% 6%
32	Y8	65	23% 63% 35%
33	R9	37	27% 57% 38% 5%
33	Y9	37	16% 62% 35%
34	RA	2905	41% 42% 15%
34	YA	2905	38% 45% 15%
35	RB	122	55% 36% 6%
35	YB	122	% 43% 45% 9%
36	RD	276	14% 76% 21%
36	YD	276	9% 79% 18%
37	RE	206	15% 73% 24%
37	YE	206	12% 75% 24%
38	RF	210	4% 75% 20%
38	YF	210	8% 73% 23%
39	RG	182	3% 74% 25%
39	YG	182	5% 75% 24%
40	RH	180	7% 62% 29% 6%

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Mol	Chain	Length	Quality of chain
40	YH	180	6% 77% 17%
41	RI	148	7% 72% 24%
41	YI	148	5% 69% 29%
42	RN	140	10% 84% 14%
42	YN	140	13% 77% 21%
43	RO	122	7% 74% 26%
43	YO	122	% 82% 18%
44	RP	150	18% 73% 27%
44	YP	150	11% 71% 27%
45	RQ	141	9% 72% 28%
45	YQ	141	4% 72% 27%
46	RR	118	16% 69% 29%
46	YR	118	23% 75% 24%
47	RS	112	9% 76% 23%
47	YS	112	20% 79% 19%
48	RT	146	8% 74% 20% 6%
48	YT	146	10% 66% 28% 6%
49	RU	118	11% 70% 26%
49	YU	118	6% 83% 14%
50	RV	101	10% 76% 24%
50	YV	101	12% 80% 20%
51	RW	113	9% 78% 22%
51	YW	113	11% 78% 22%
52	RX	96	6% 81% 15%
52	YX	96	11% 80% 16%

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Mol	Chain	Length	Quality of chain
53	RY	110	5% 75% 19%
53	YY	110	3% 76% 20%
54	RZ	206	2% 63% 23% 11%
54	YZ	206	4% 67% 23% 6%

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
55	MG	QA	1622	-	-	-	X
55	MG	QE	201	-	-	-	X
55	MG	RA	2912	-	-	-	X
55	MG	RA	2921	-	-	-	X
55	MG	RA	2954	-	-	-	X
55	MG	RA	2970	-	-	-	X
55	MG	RA	2975	-	-	-	X
55	MG	RA	2976	-	-	-	X
55	MG	RA	3013	-	-	-	X
55	MG	RA	3051	-	-	-	X
55	MG	RA	3057	-	-	-	X
55	MG	RA	3064	-	-	-	X
55	MG	RA	3071	-	-	-	X
55	MG	RA	3075	-	-	-	X
55	MG	RA	3078	-	-	-	X
55	MG	RA	3083	-	-	-	X
55	MG	RA	3101	-	-	-	X
55	MG	RA	3103	-	-	-	X
55	MG	RA	3133	-	-	-	X
55	MG	RA	3139	-	-	-	X
55	MG	RA	3144	-	-	-	X
55	MG	RA	3147	-	-	-	X
55	MG	RA	3152	-	-	-	X
55	MG	RA	3162	-	-	-	X
55	MG	RA	3195	-	-	-	X
55	MG	RA	3220	-	-	-	X
55	MG	RA	3221	-	-	-	X
55	MG	RA	3223	-	-	-	X
55	MG	RA	3260	-	-	-	X
55	MG	RA	3286	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	RA	3307	-	-	-	X
55	MG	RA	3310	-	-	-	X
55	MG	RA	3318	-	-	-	X
55	MG	RE	304	-	-	-	X
55	MG	XA	1605	-	-	-	X
55	MG	XA	1610	-	-	-	X
55	MG	XA	1612	-	-	-	X
55	MG	XA	1613	-	-	-	X
55	MG	XA	1621	-	-	-	X
55	MG	XA	1657	-	-	-	X
55	MG	XA	1665	-	-	-	X
55	MG	XA	1688	-	-	X	-
55	MG	Y8	101	-	-	-	X
55	MG	YA	2904	-	-	-	X
55	MG	YA	2905	-	-	-	X
55	MG	YA	2907	-	-	-	X
55	MG	YA	2921	-	-	-	X
55	MG	YA	2930	-	-	-	X
55	MG	YA	2931	-	-	-	X
55	MG	YA	2932	-	-	-	X
55	MG	YA	2933	-	-	-	X
55	MG	YA	2934	-	-	-	X
55	MG	YA	2936	-	-	-	X
55	MG	YA	2952	-	-	-	X
55	MG	YA	2953	-	-	-	X
55	MG	YA	2954	-	-	-	X
55	MG	YA	2955	-	-	-	X
55	MG	YA	2958	-	-	-	X
55	MG	YA	2962	-	-	-	X
55	MG	YA	2974	-	-	-	X
55	MG	YA	2983	-	-	-	X
55	MG	YA	2984	-	-	-	X
55	MG	YA	3004	-	-	-	X
55	MG	YA	3010	-	-	-	X
55	MG	YA	3017	-	-	-	X
55	MG	YA	3018	-	-	-	X
55	MG	YA	3087	-	-	-	X
55	MG	YA	3097	-	-	-	X
55	MG	YA	3101	-	-	-	X
55	MG	YA	3117	-	-	-	X
55	MG	YA	3120	-	-	-	X
55	MG	YA	3122	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	YA	3126	-	-	-	X
55	MG	YA	3153	-	-	-	X
55	MG	YA	3168	-	-	-	X
55	MG	YA	3175	-	-	-	X
55	MG	YA	3192	-	-	X	-
55	MG	YA	3194	-	-	-	X
55	MG	YA	3205	-	-	-	X
55	MG	YA	3210	-	-	-	X
55	MG	YA	3211	-	-	-	X
55	MG	YA	3237	-	-	-	X
55	MG	YA	3239	-	-	-	X
55	MG	YA	3245	-	-	-	X
55	MG	YA	3262	-	-	-	X
55	MG	YA	3276	-	-	-	X
55	MG	YA	3281	-	-	-	X
55	MG	YA	3288	-	-	-	X
55	MG	YA	3290	-	-	-	X
56	SF4	QD	301	-	-	X	-

2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 291185 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	QA	1511	Total	C	N	O	P	0	0	0
			32469	14453	6011	10495	1510			
1	XA	1515	Total	C	N	O	P	0	0	0
			32551	14490	6022	10525	1514			

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	QB	235	Total	C	N	O	S	0	0	0
			1907	1217	342	343	5			
2	XB	236	Total	C	N	O	S	0	0	0
			1915	1223	343	344	5			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	QC	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	XC	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	QD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
4	XD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	QE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	XE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	QF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	XF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	QG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	XG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	QH	137	Total	C	N	O	S	0	0	0
			1108	700	214	192	2			
8	XH	137	Total	C	N	O	S	0	0	0
			1108	700	214	192	2			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	QI	105	Total	C	N	O	0	0	0
			816	519	152	145			
9	XI	107	Total	C	N	O	0	0	0
			834	530	157	147			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	QJ	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	XJ	96	Total	C	N	O	S	0	0	0
			777	487	153	136	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	QK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	XK	116	Total	C	N	O	S	0	0	0
			864	537	164	160	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	QL	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
12	XL	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	QM	115	Total	C	N	O	S	0	0	0
			921	569	190	160	2			
13	XM	114	Total	C	N	O	S	0	0	0
			914	565	189	158	2			

- Molecule 14 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	QN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	XN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	QO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	XO	87	Total	C	N	O	S	0	0	0
			729	457	146	124	2			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	QP	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	XP	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	QQ	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	XQ	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	QR	70	Total	C	N	O	0	0	0
			574	367	112	95			
18	XR	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	QS	83	Total	C	N	O	S	0	0	0
			665	424	124	115	2			
19	XS	84	Total	C	N	O	S	0	0	0
			674	430	126	116	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	QT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
20	XT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 21 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	QU	25	Total 217	C 134	N 52	O 31	0	0	0
21	XU	25	Total 217	C 134	N 52	O 31	0	0	0

- Molecule 22 is a RNA chain called tRNA(Pro).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	QV	68	Total 1452	C 647	N 260	O 477	P 68	0	0	0
22	XV	68	Total 1452	C 647	N 260	O 477	P 68	0	0	0

- Molecule 23 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	QX	19	Total 409	C 184	N 81	O 126	P 18	0	0	0
23	XX	19	Total 409	C 184	N 81	O 126	P 18	0	0	0

- Molecule 24 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	R0	81	Total 643	C 398	N 137	O 107	S 1	0	0	0
24	Y0	82	Total 648	C 401	N 138	O 108	S 1	0	0	0

- Molecule 25 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	R1	95	Total 746	C 469	N 148	O 128	S 1	0	0	0
25	Y1	93	Total 729	C 457	N 145	O 126	S 1	0	0	0

- Molecule 26 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	R2	69	Total 581	C 358	N 118	O 104	S 1	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Y2	68	Total	C	N	O	S	0	0	0
			575	355	117	102	1			

- Molecule 27 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
27	R3	59	Total	C	N	O	0	0	0
			469	298	90	81			
27	Y3	59	Total	C	N	O	0	0	0
			469	298	90	81			

- Molecule 28 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	R4	45	Total	C	N	O	S	0	0	0
			348	224	57	62	5			
28	Y4	46	Total	C	N	O	S	0	0	0
			357	229	59	64	5			

- Molecule 29 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	R5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
29	Y5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 30 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	R6	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
30	Y6	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			

- Molecule 31 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	R7	47	Total	C	N	O	S	0	0	0
			409	251	102	54	2			
31	Y7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 32 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	R8	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
32	Y8	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 33 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	R9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
33	Y9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 34 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	RA	2882	Total	C	N	O	P	0	0	0
			62070	27627	11611	19951	2881			
34	YA	2883	Total	C	N	O	P	0	0	0
			62091	27636	11613	19960	2882			

- Molecule 35 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	RB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			
35	YB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- Molecule 36 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	RD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
36	YD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			

- Molecule 37 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	RE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
37	YE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 38 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	RF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
38	YF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			

- Molecule 39 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	RG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			
39	YG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 40 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	RH	174	Total	C	N	O	S	0	0	0
			1336	848	251	236	1			
40	YH	174	Total	C	N	O	S	0	0	0
			1336	848	251	236	1			

- Molecule 41 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	RI	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
41	YI	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 42 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	RN	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	YN	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 43 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	RO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
43	YO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 44 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	RP	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
44	YP	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			

- Molecule 45 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	RQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
45	YQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 46 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
46	RR	117	Total	C	N	O	0	0	0
			960	599	202	159			
46	YR	117	Total	C	N	O	0	0	0
			960	599	202	159			

- Molecule 47 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
47	RS	111	Total	C	N	O	0	0	0
			882	556	176	150			
47	YS	111	Total	C	N	O	0	0	0
			882	556	176	150			

- Molecule 48 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	RT	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
48	YT	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 49 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	RU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
49	YU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 50 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	RV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
50	YV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 51 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	RW	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			
51	YW	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

- Molecule 52 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
52	RX	92	Total	C	N	O	0	0	0
			725	471	131	123			
52	YX	92	Total	C	N	O	0	0	0
			725	471	131	123			

- Molecule 53 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	RY	107	Total 818	C 525	N 155	O 132	S 6	0	0	0
53	YY	107	Total 818	C 525	N 155	O 132	S 6	0	0	0

- Molecule 54 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	RZ	183	Total 1461	C 933	N 260	O 265	S 3	0	0	0
54	YZ	193	Total 1529	C 973	N 270	O 283	S 3	0	0	0

- Molecule 55 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	QA	70	Total 70	Mg 70	0	0
55	QE	1	Total 1	Mg 1	0	0
55	QF	1	Total 1	Mg 1	0	0
55	QH	2	Total 2	Mg 2	0	0
55	QL	2	Total 2	Mg 2	0	0
55	R0	2	Total 2	Mg 2	0	0
55	R3	1	Total 1	Mg 1	0	0
55	R8	2	Total 2	Mg 2	0	0
55	RA	432	Total 432	Mg 432	0	0
55	RD	1	Total 1	Mg 1	0	0
55	RE	4	Total 4	Mg 4	0	0
55	RF	2	Total 2	Mg 2	0	0
55	RN	1	Total 1	Mg 1	0	0
55	RO	1	Total 1	Mg 1	0	0

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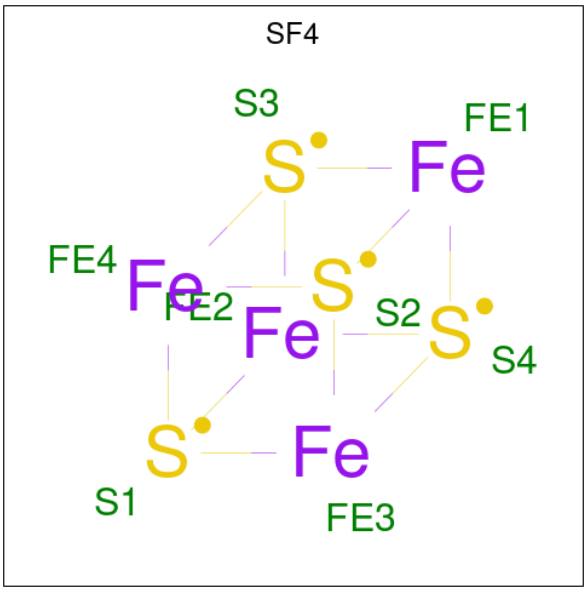
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	XA	88	Total Mg 88 88	0	0
55	XE	1	Total Mg 1 1	0	0
55	XO	1	Total Mg 1 1	0	0
55	Y1	1	Total Mg 1 1	0	0
55	Y2	1	Total Mg 1 1	0	0
55	Y5	1	Total Mg 1 1	0	0
55	Y7	1	Total Mg 1 1	0	0
55	Y8	2	Total Mg 2 2	0	0
55	YA	394	Total Mg 394 394	0	0
55	YB	1	Total Mg 1 1	0	0
55	YD	2	Total Mg 2 2	0	0
55	YE	4	Total Mg 4 4	0	0
55	YF	1	Total Mg 1 1	0	0
55	YP	1	Total Mg 1 1	0	0
55	YQ	1	Total Mg 1 1	0	0
55	YR	2	Total Mg 2 2	0	0
55	YU	1	Total Mg 1 1	0	0
55	YX	1	Total Mg 1 1	0	0

- Molecule 56 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	QD	1	Total Fe S 8 4 4	0	0
56	XD	1	Total Fe S 8 4 4	0	0

- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

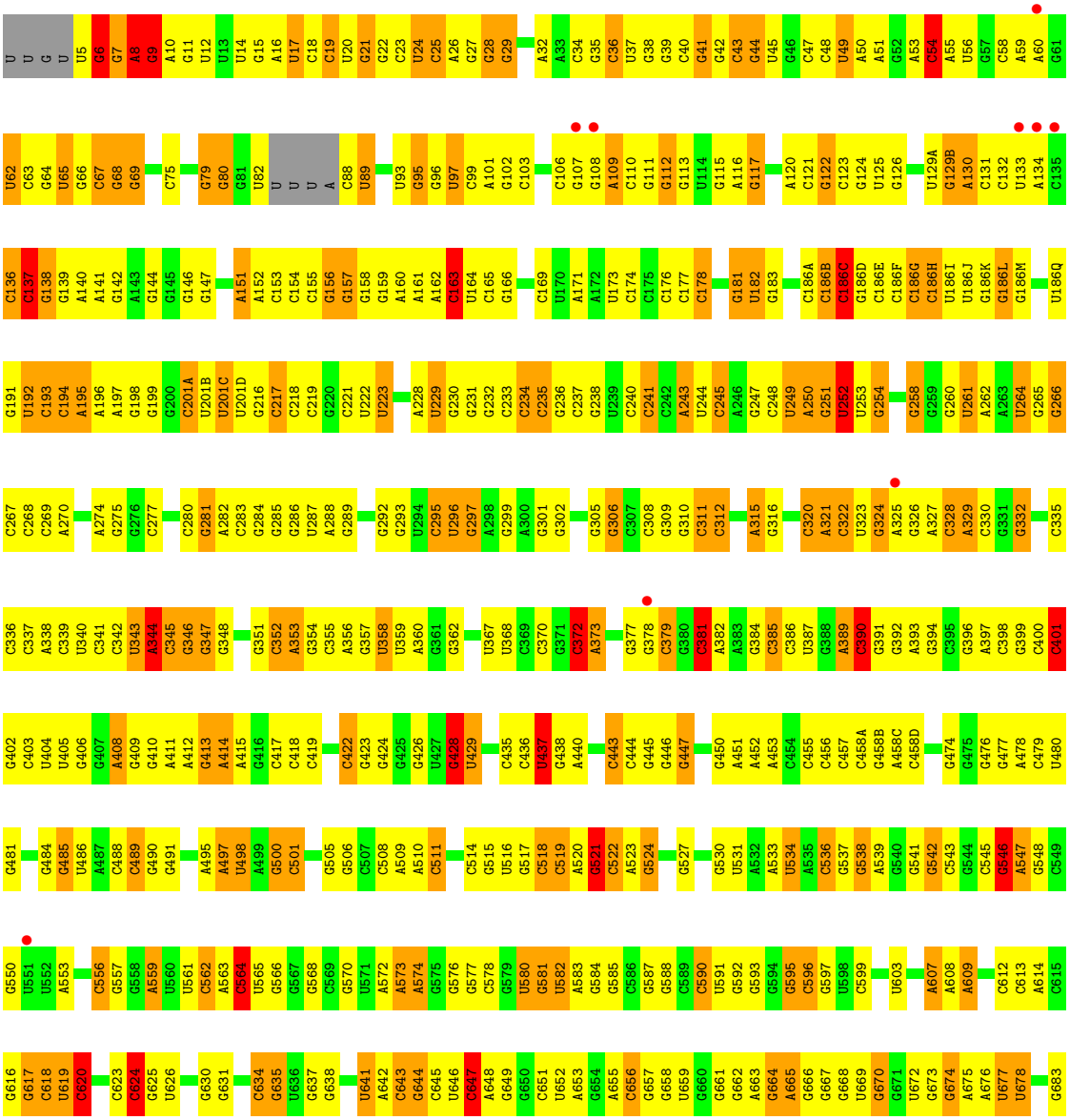
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	QN	1	Total Zn 1 1	0	0
57	R5	1	Total Zn 1 1	0	0
57	R6	1	Total Zn 1 1	0	0
57	R9	1	Total Zn 1 1	0	0
57	RY	1	Total Zn 1 1	0	0
57	XN	1	Total Zn 1 1	0	0
57	Y5	1	Total Zn 1 1	0	0
57	Y6	1	Total Zn 1 1	0	0
57	Y9	1	Total Zn 1 1	0	0
57	YY	1	Total Zn 1 1	0	0

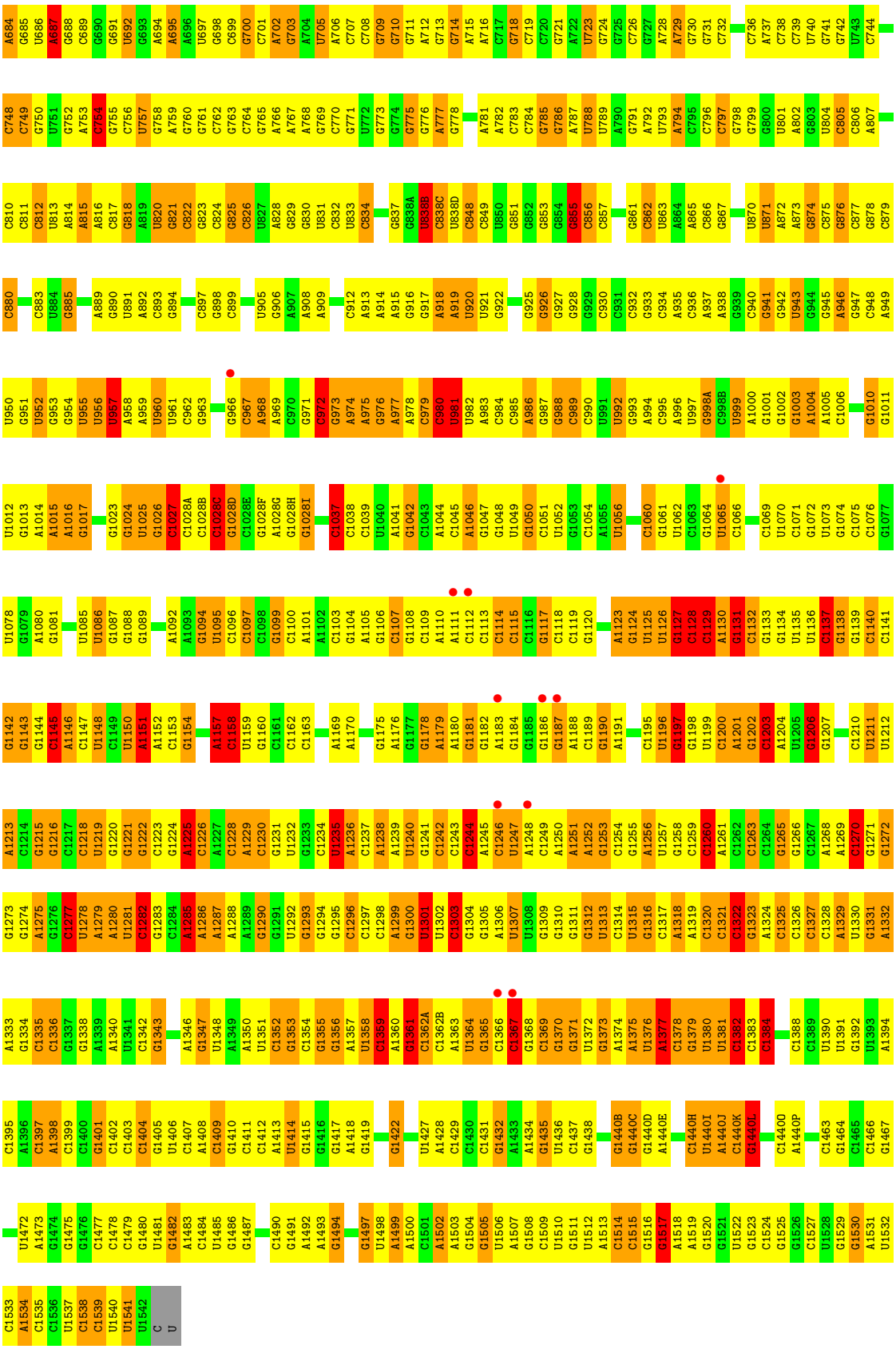
3 Residue-property plots (i)

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 electron 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 dot above a residue indicates a poor fit to the electron density (RSRZ > 2). 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: 16S rRNA

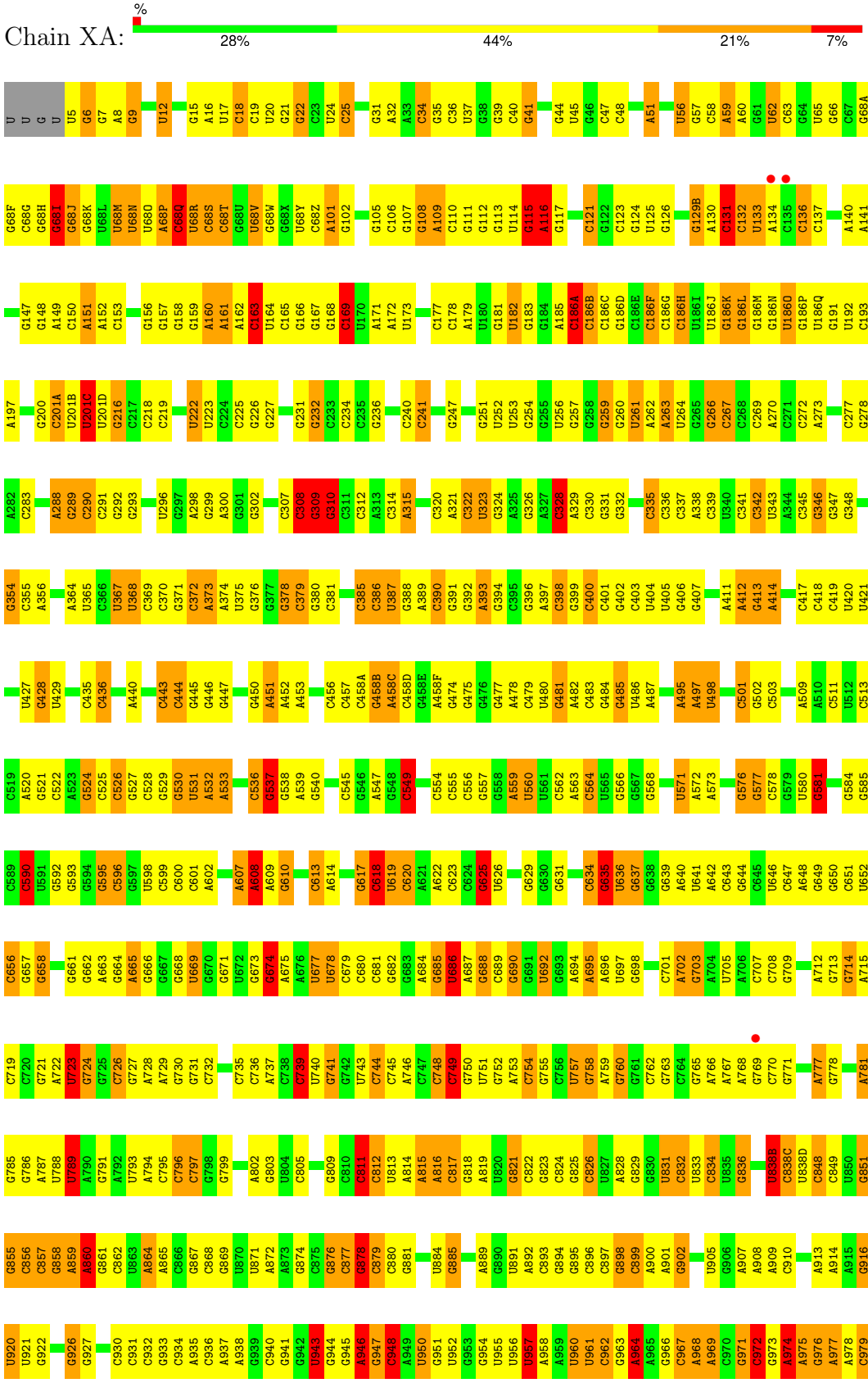
Chain QA:

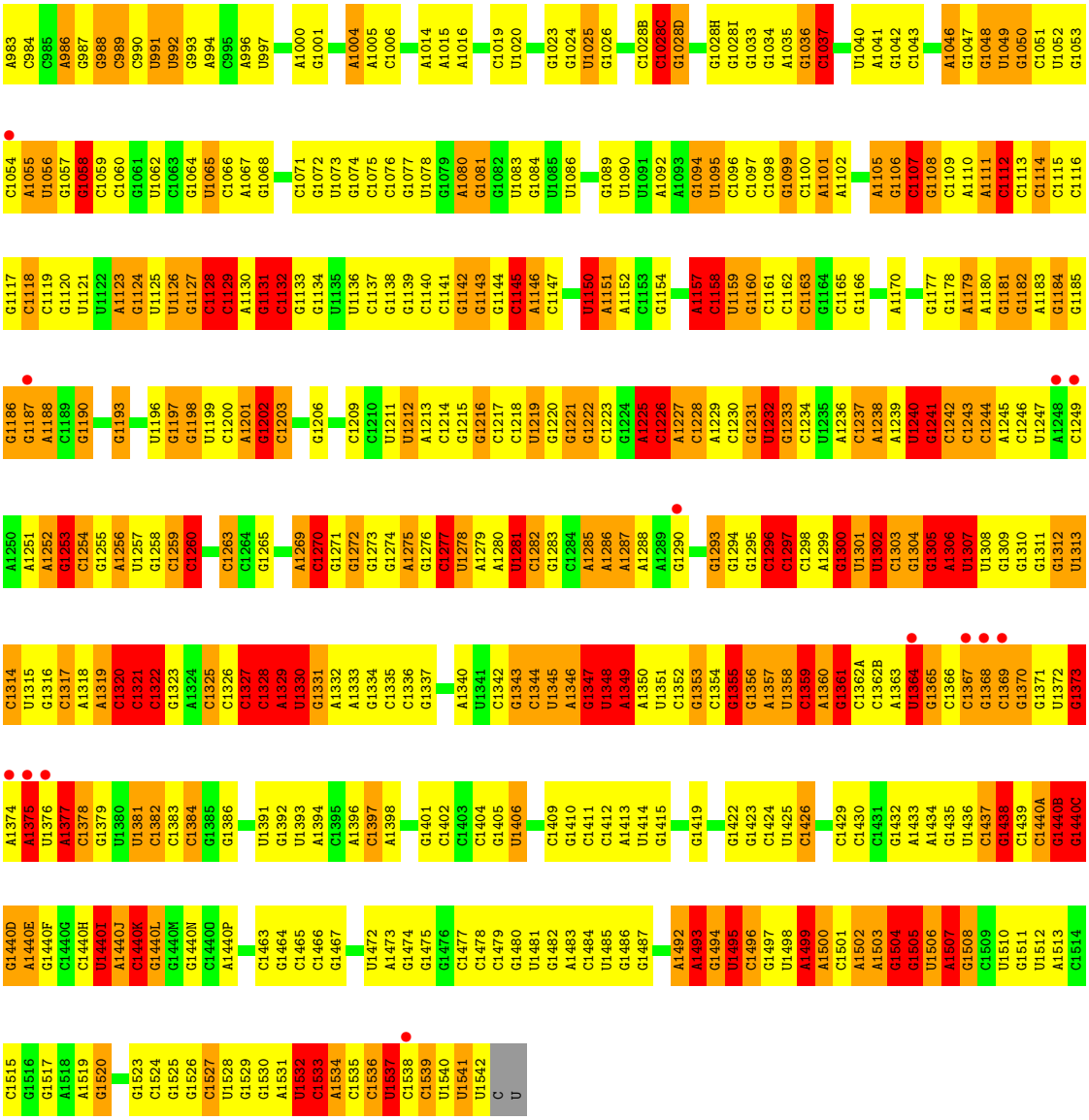




• Molecule 1: 16S rRNA

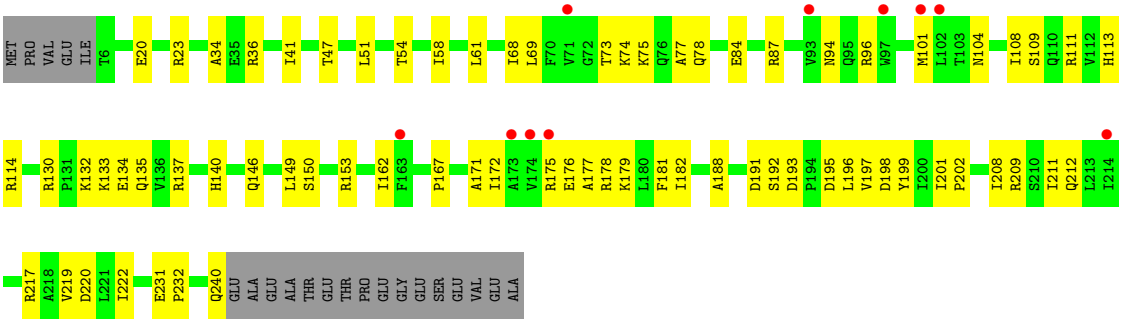
Chain XA:





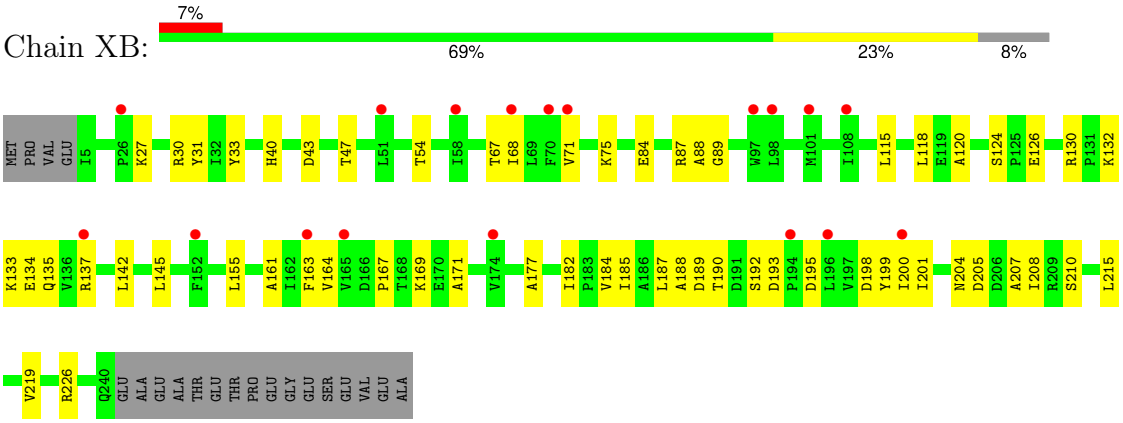
• Molecule 2: 30S ribosomal protein S2

Chain QB:



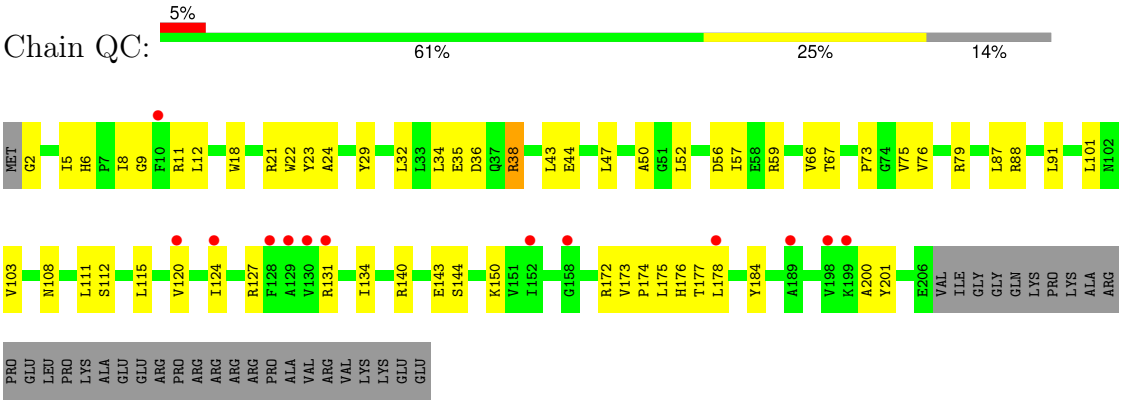
• Molecule 2: 30S ribosomal protein S2

Chain XB:



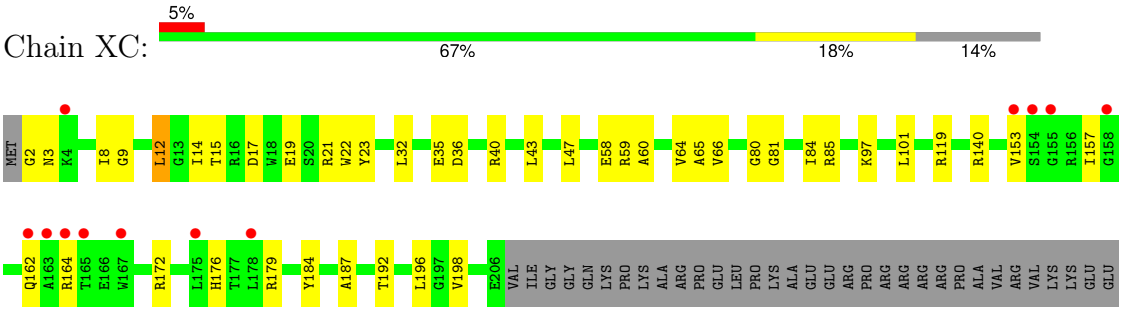
• Molecule 3: 30S ribosomal protein S3

Chain QC:



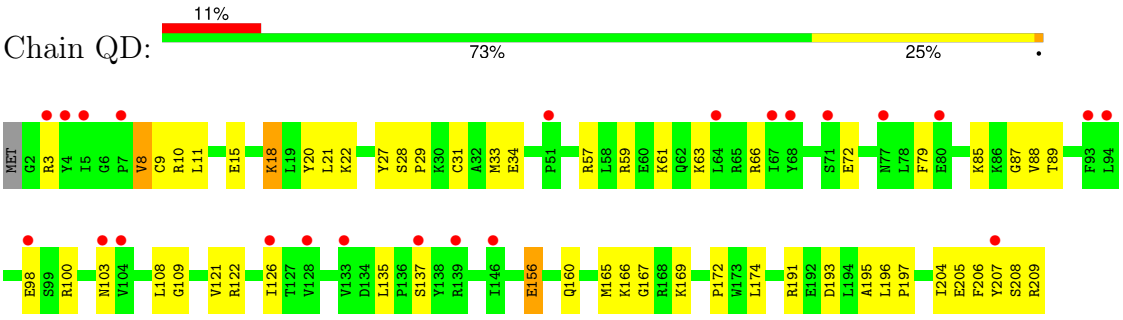
• Molecule 3: 30S ribosomal protein S3

Chain XC:



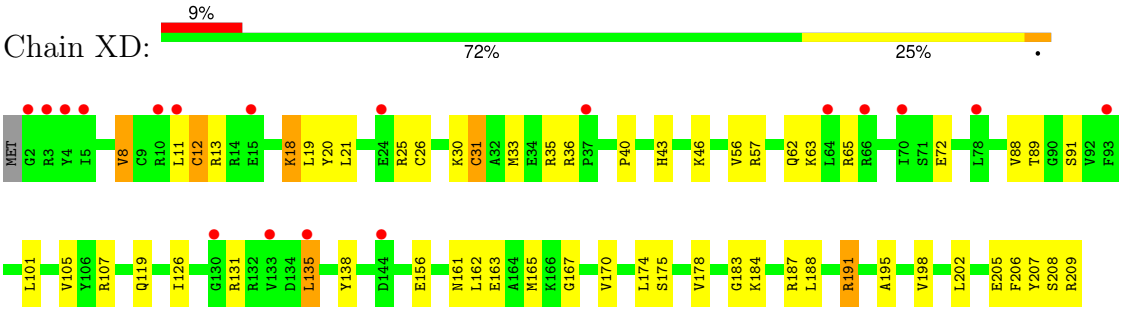
• Molecule 4: 30S ribosomal protein S4

Chain QD:



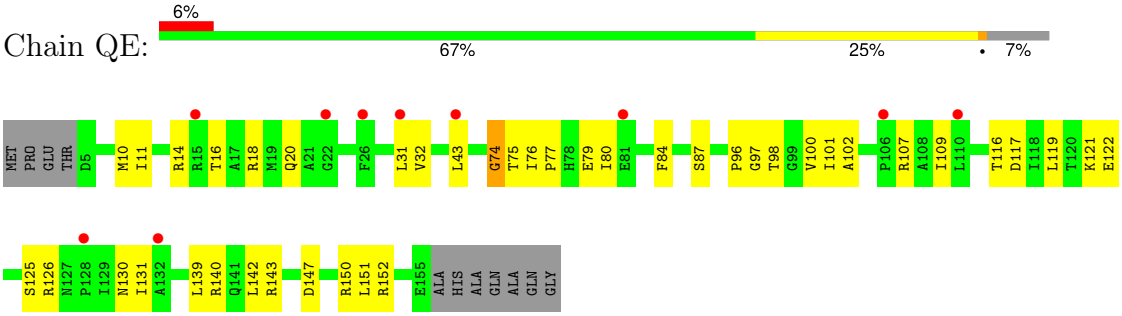
• Molecule 4: 30S ribosomal protein S4

Chain XD:



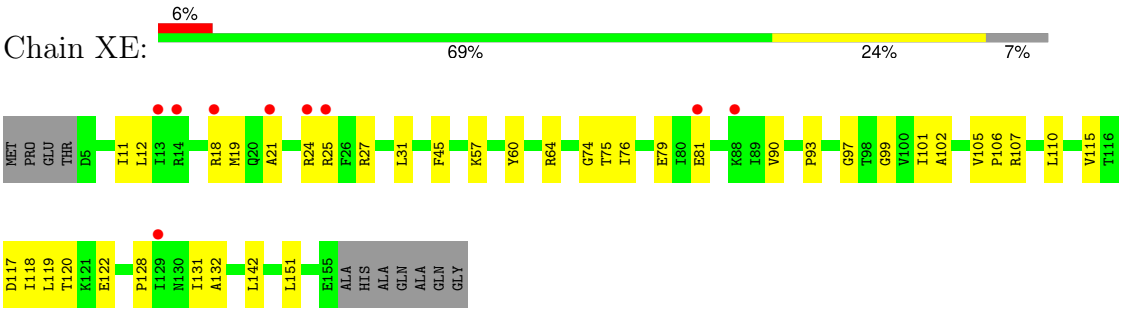
• Molecule 5: 30S ribosomal protein S5

Chain QE:



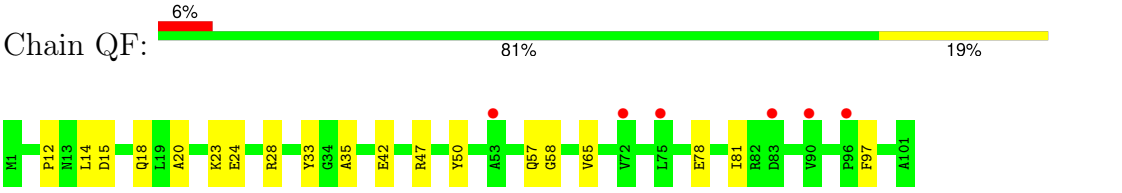
• Molecule 5: 30S ribosomal protein S5

Chain XE:



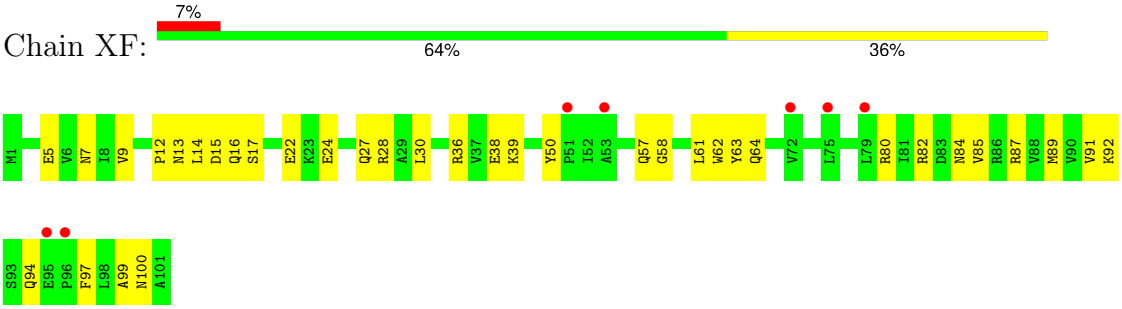
• Molecule 6: 30S ribosomal protein S6

Chain QF:



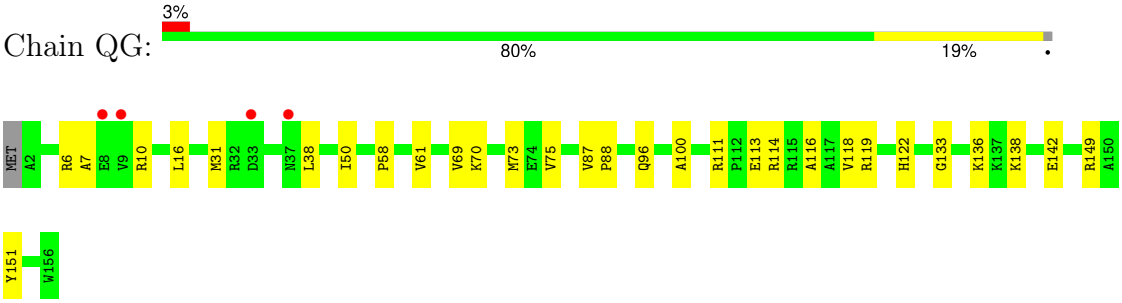
• Molecule 6: 30S ribosomal protein S6

Chain XF:



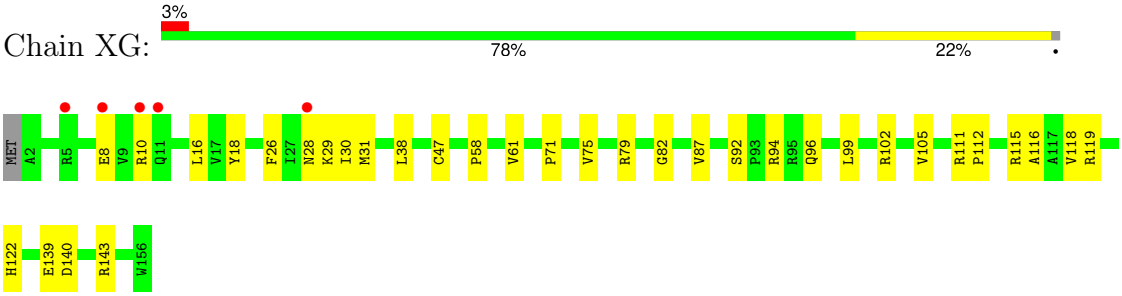
• Molecule 7: 30S ribosomal protein S7

Chain QG:



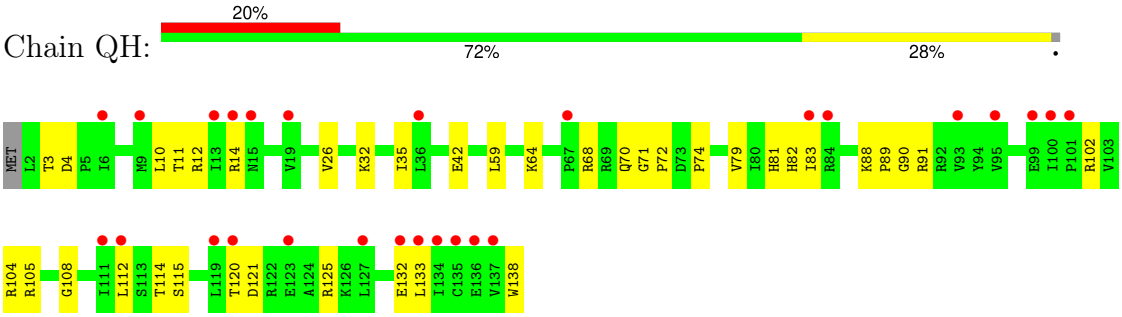
• Molecule 7: 30S ribosomal protein S7

Chain XG:



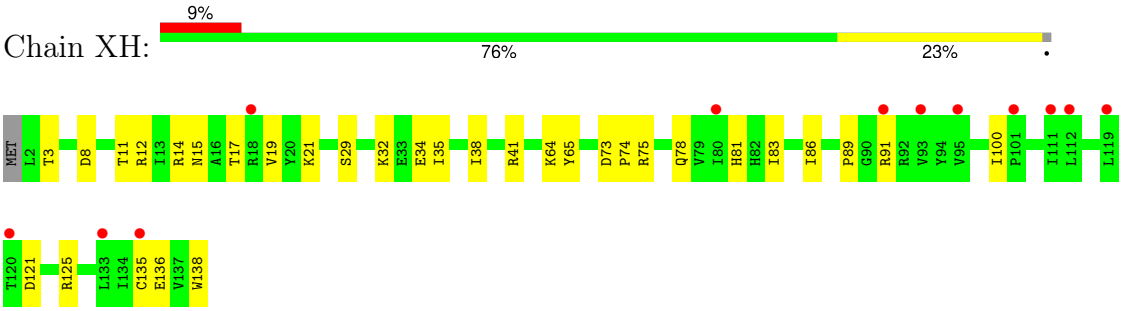
• Molecule 8: 30S ribosomal protein S8

Chain QH:



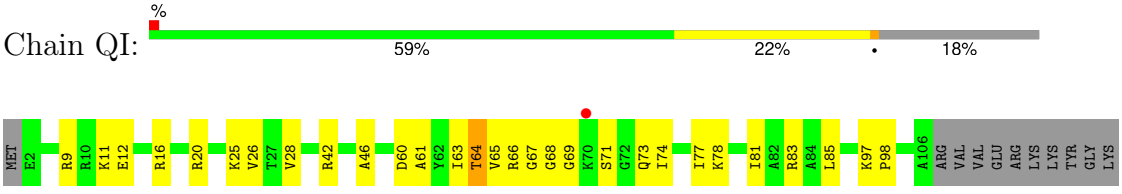
• Molecule 8: 30S ribosomal protein S8

Chain XH:



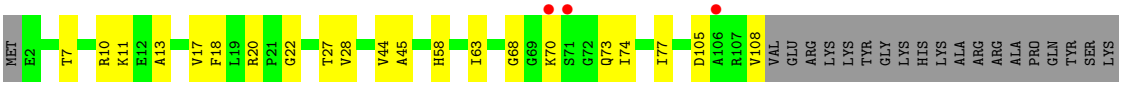
• Molecule 9: 30S ribosomal protein S9

Chain QI:



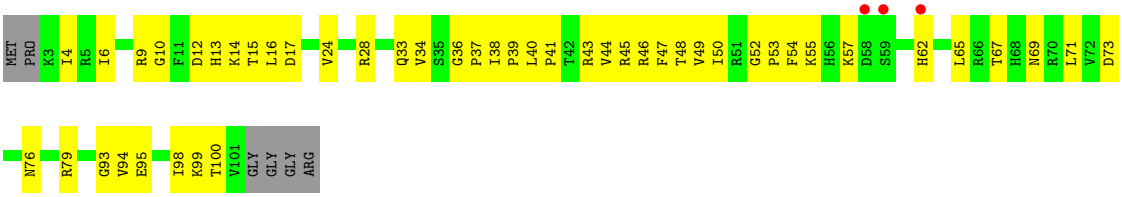
• Molecule 9: 30S ribosomal protein S9

Chain XI:



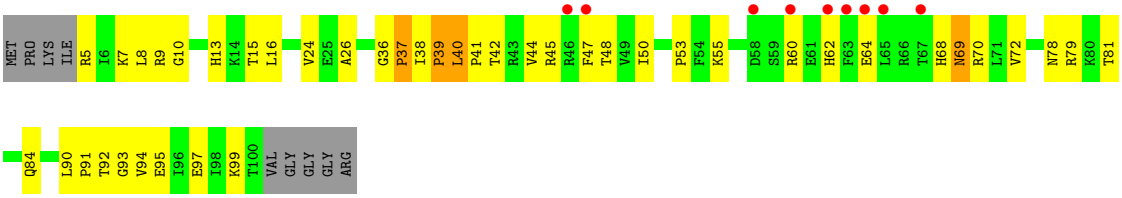
• Molecule 10: 30S ribosomal protein S10

Chain QJ:



• Molecule 10: 30S ribosomal protein S10

Chain XJ:

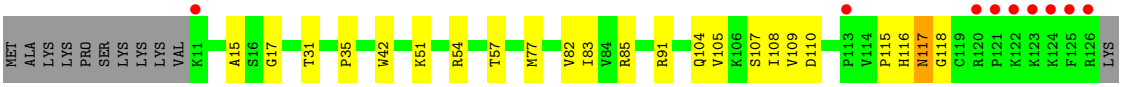


• Molecule 11: 30S ribosomal protein S11

Chain QK:

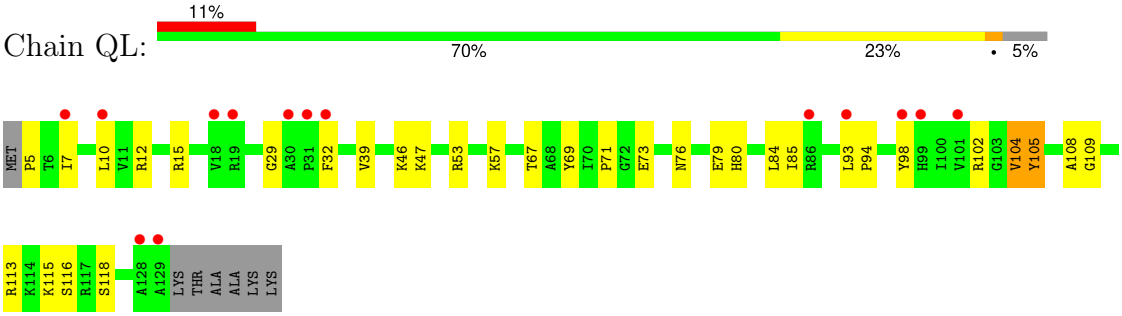
• Molecule 11: 30S ribosomal protein S11

Chain XK:



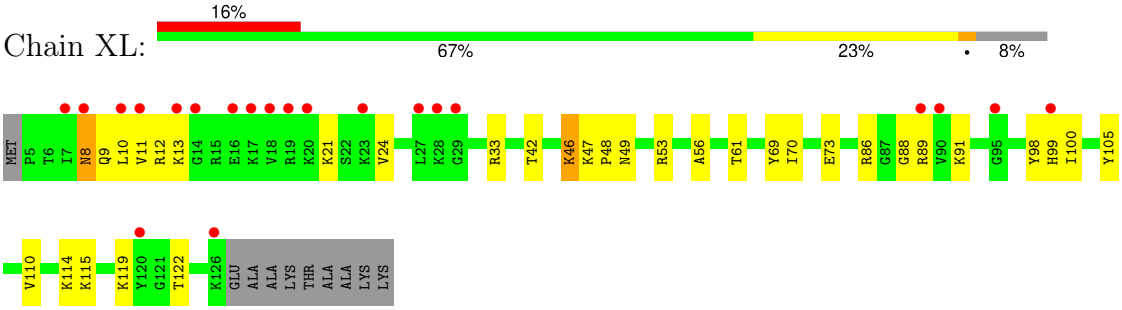
• Molecule 12: 30S ribosomal protein S12

Chain QL:



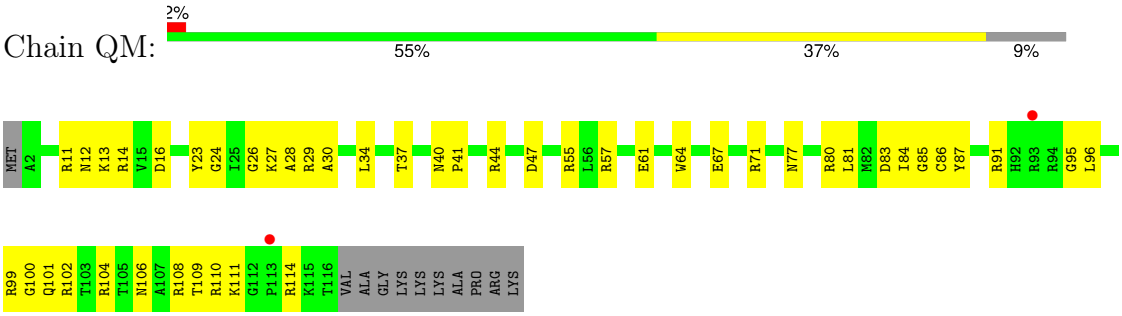
• Molecule 12: 30S ribosomal protein S12

Chain XL:



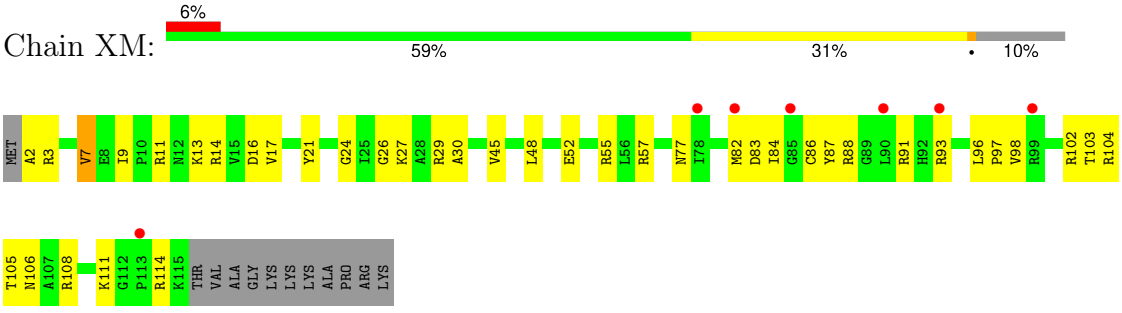
• Molecule 13: 30S ribosomal protein S13

Chain QM:



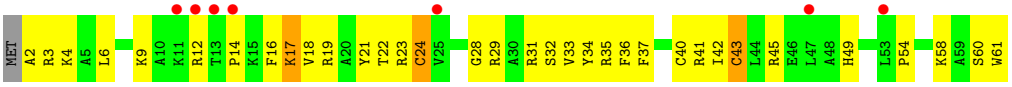
• Molecule 13: 30S ribosomal protein S13

Chain XM:

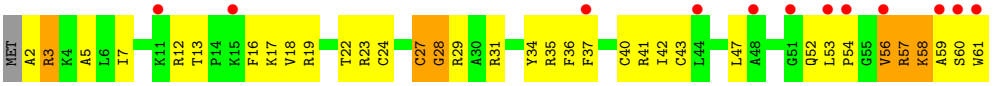


• Molecule 14: 30S ribosomal protein S14 type Z

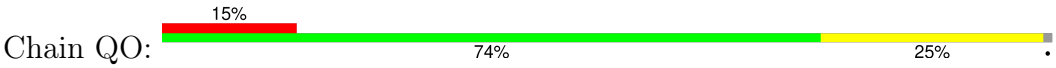
Chain QN:

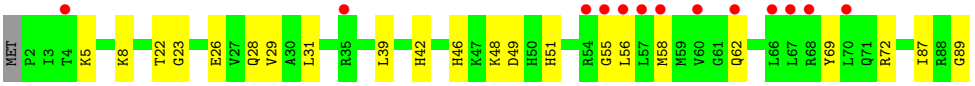


• Molecule 14: 30S ribosomal protein S14 type Z

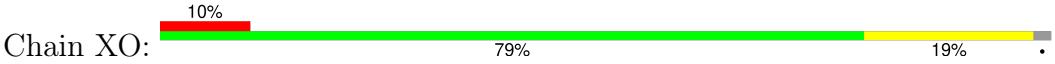


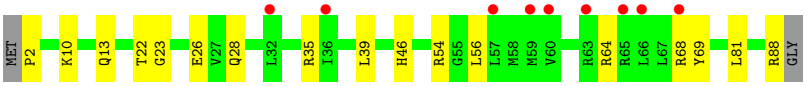
• Molecule 15: 30S ribosomal protein S15



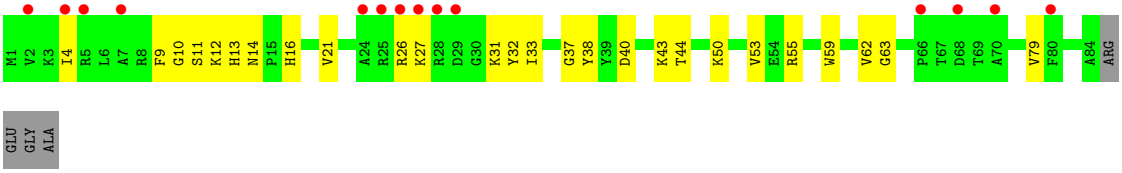


• Molecule 15: 30S ribosomal protein S15

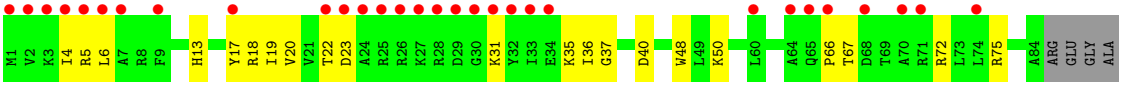




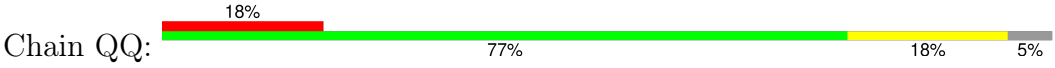
• Molecule 16: 30S ribosomal protein S16

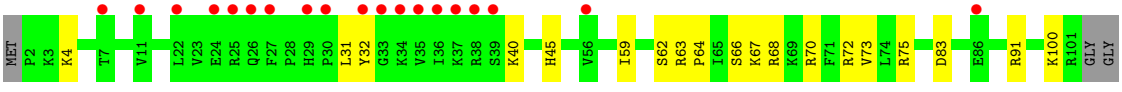


• Molecule 16: 30S ribosomal protein S16



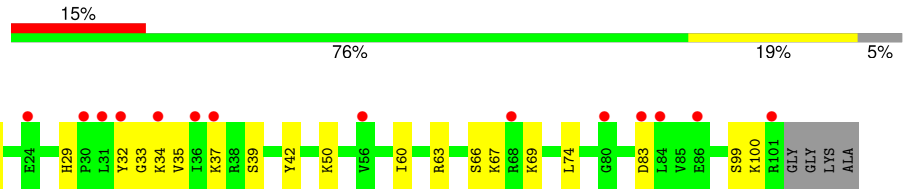
• Molecule 17: 30S ribosomal protein S17





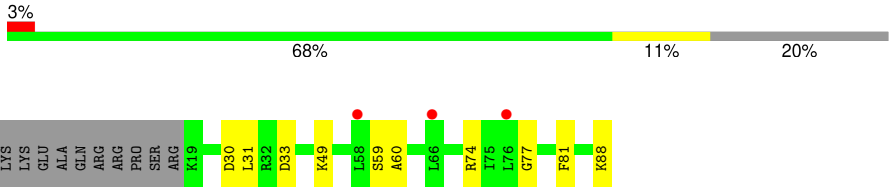
• Molecule 17: 30S ribosomal protein S17

Chain XQ:



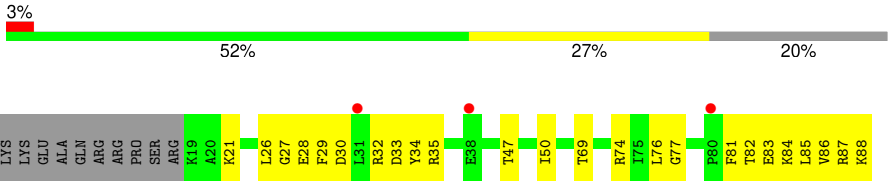
• Molecule 18: 30S ribosomal protein S18

Chain QR:



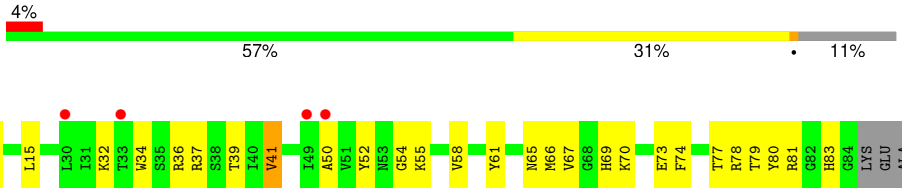
• Molecule 18: 30S ribosomal protein S18

Chain XR:



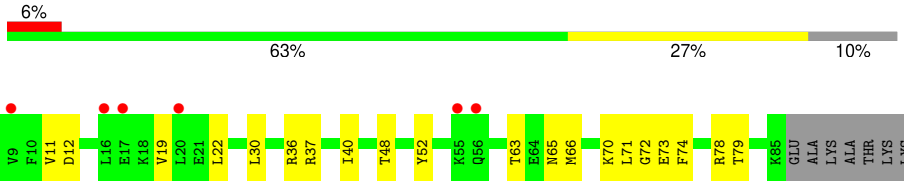
• Molecule 19: 30S ribosomal protein S19

Chain QS:



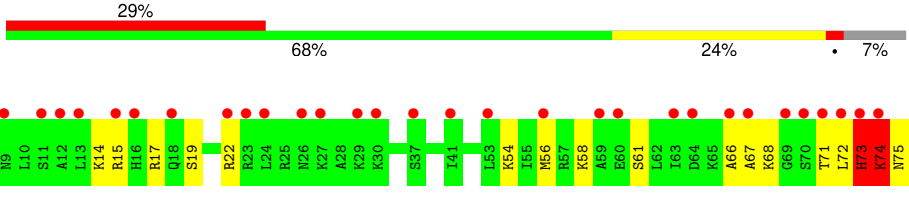
• Molecule 19: 30S ribosomal protein S19

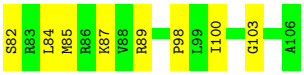
Chain XS:



• Molecule 20: 30S ribosomal protein S20

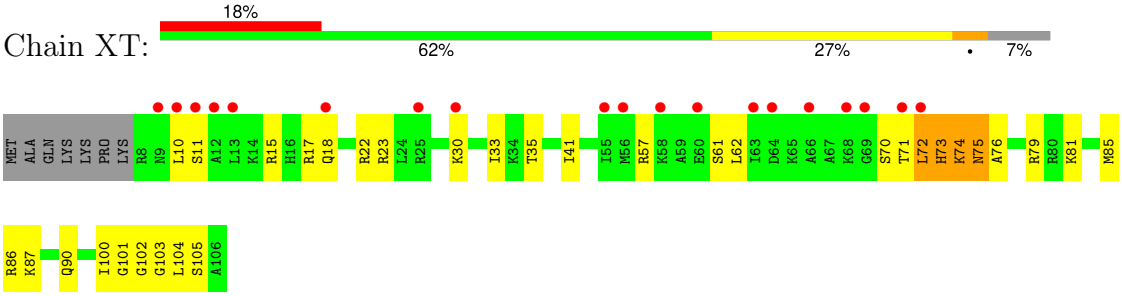
Chain QT:





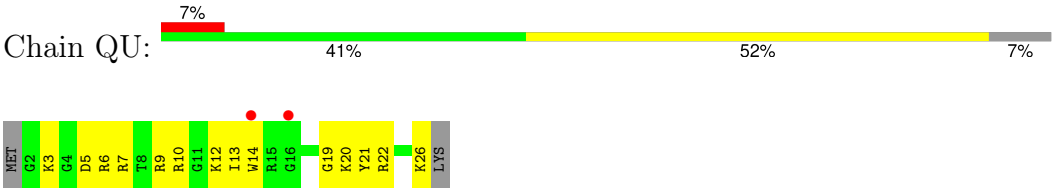
• Molecule 20: 30S ribosomal protein S20

Chain XT:



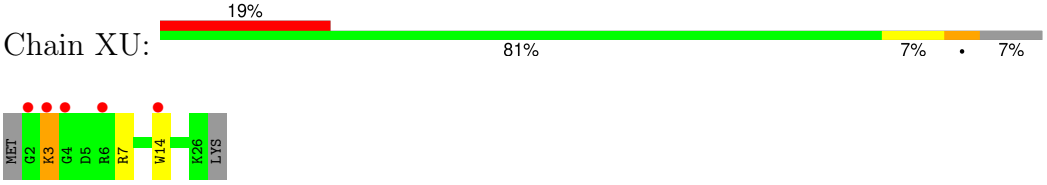
• Molecule 21: 30S ribosomal protein Thx

Chain QU:



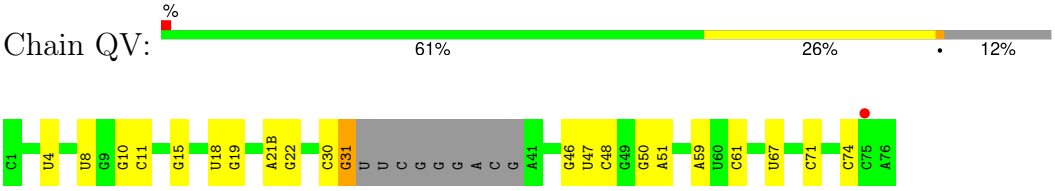
• Molecule 21: 30S ribosomal protein Thx

Chain XU:



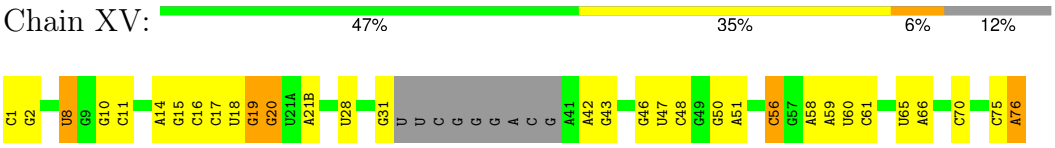
• Molecule 22: tRNA(Pro)

Chain QV:



• Molecule 22: tRNA(Pro)

Chain XV:



• Molecule 23: mRNA

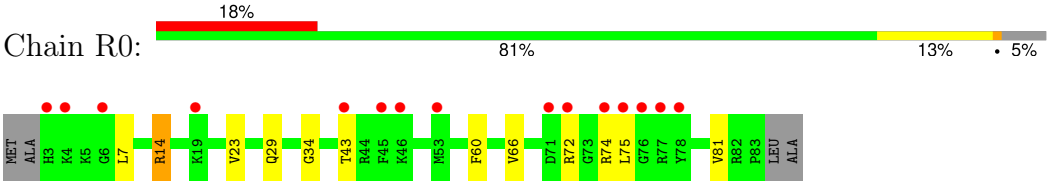
Chain QX:

• Molecule 23: mRNA

Chain XX:

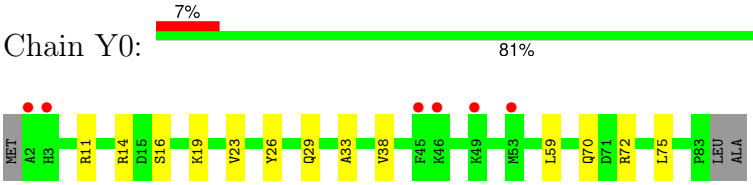
• Molecule 24: 50S ribosomal protein L27

Chain R0:



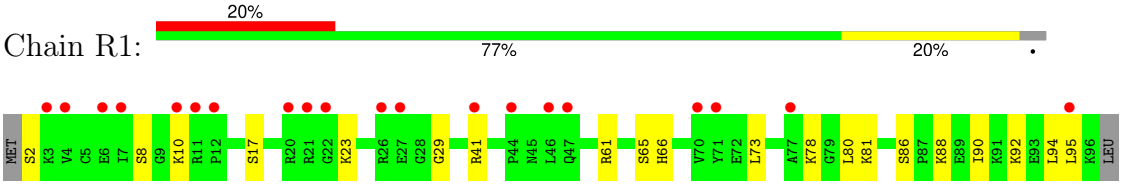
• Molecule 24: 50S ribosomal protein L27

Chain Y0:



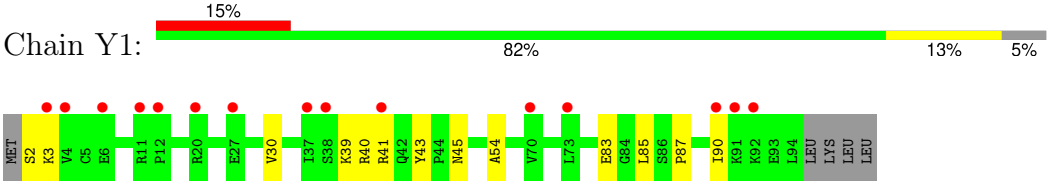
• Molecule 25: 50S ribosomal protein L28

Chain R1:



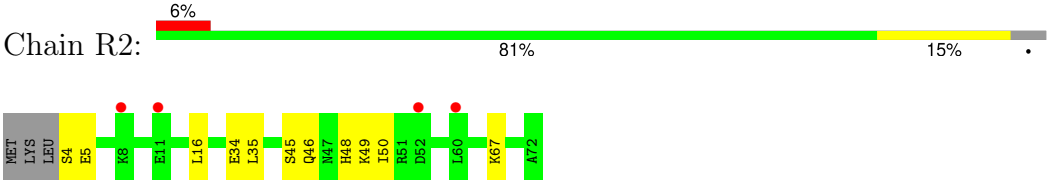
• Molecule 25: 50S ribosomal protein L28

Chain Y1:



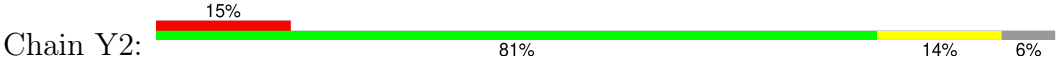
• Molecule 26: 50S ribosomal protein L29

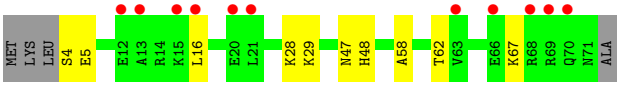
Chain R2:



• Molecule 26: 50S ribosomal protein L29

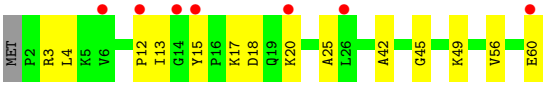
Chain Y2:





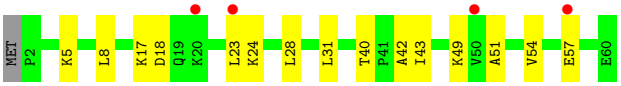
• Molecule 27: 50S ribosomal protein L30

Chain R3:



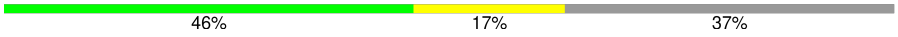
• Molecule 27: 50S ribosomal protein L30

Chain Y3:



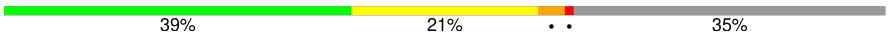
• Molecule 28: 50S ribosomal protein L31

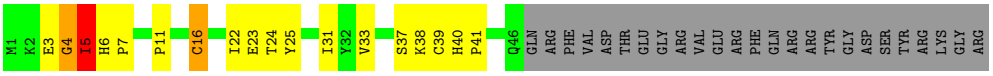
Chain R4:



• Molecule 28: 50S ribosomal protein L31

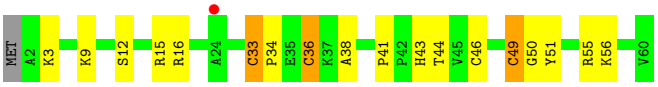
Chain Y4:





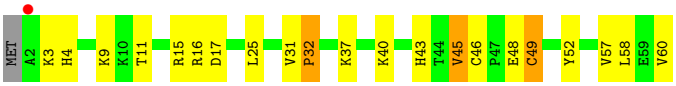
• Molecule 29: 50S ribosomal protein L32

Chain R5:



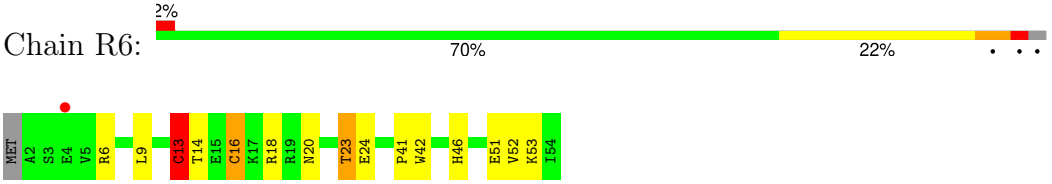
• Molecule 29: 50S ribosomal protein L32

Chain Y5:



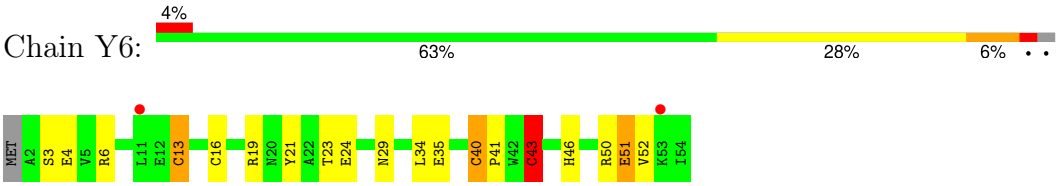
• Molecule 30: 50S ribosomal protein L33

Chain R6:



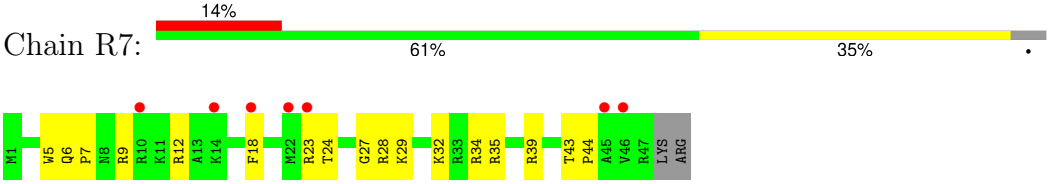
• Molecule 30: 50S ribosomal protein L33

Chain Y6:



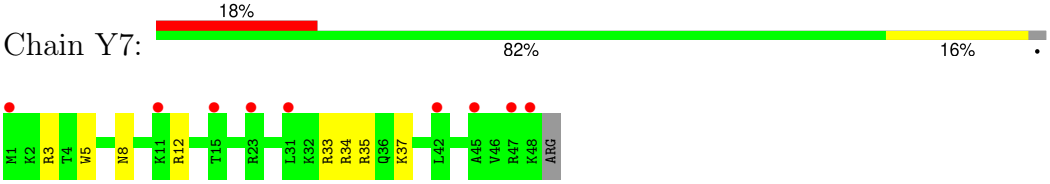
• Molecule 31: 50S ribosomal protein L34

Chain R7:



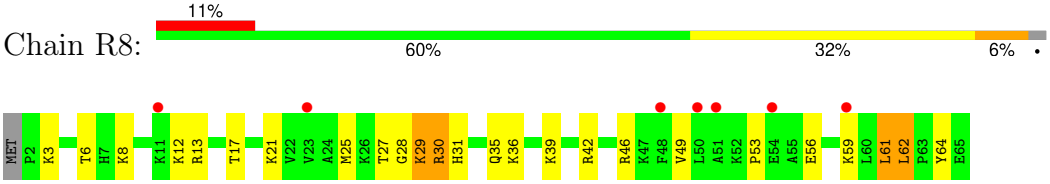
• Molecule 31: 50S ribosomal protein L34

Chain Y7:



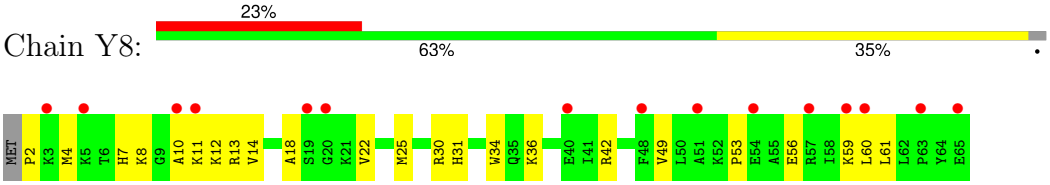
• Molecule 32: 50S ribosomal protein L35

Chain R8:



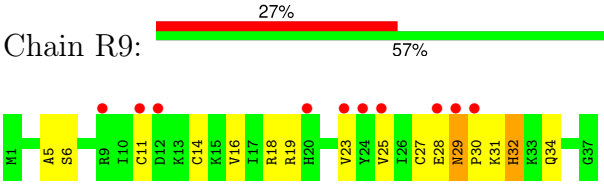
• Molecule 32: 50S ribosomal protein L35

Chain Y8:



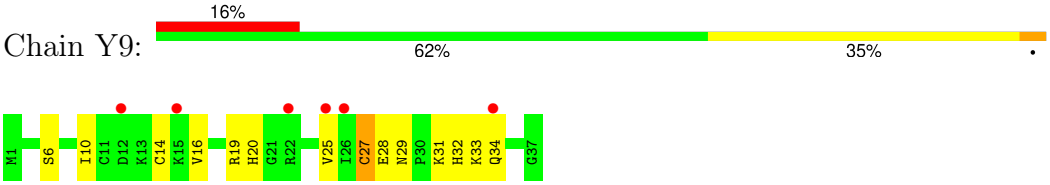
• Molecule 33: 50S ribosomal protein L36

Chain R9:



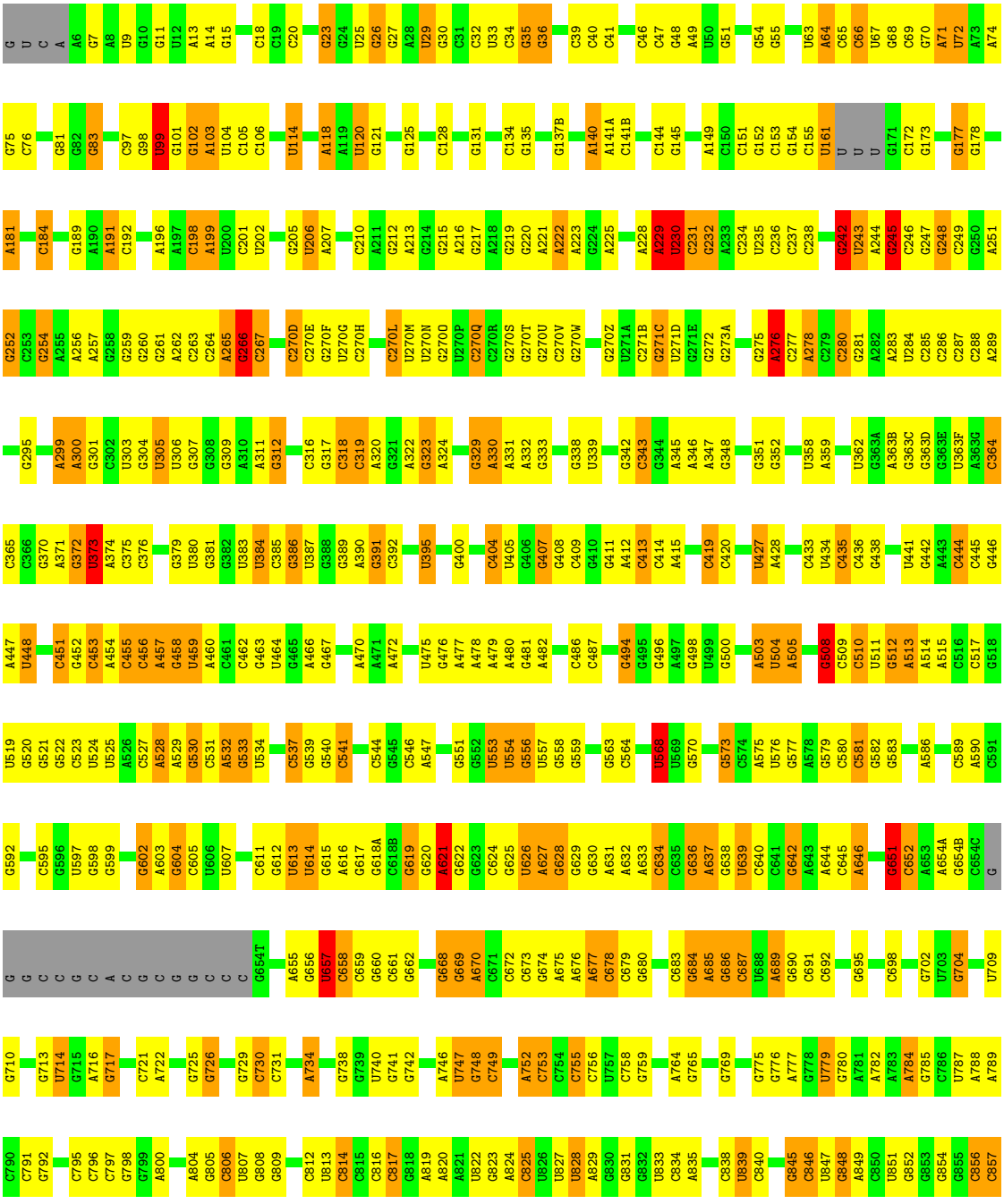
• Molecule 33: 50S ribosomal protein L36

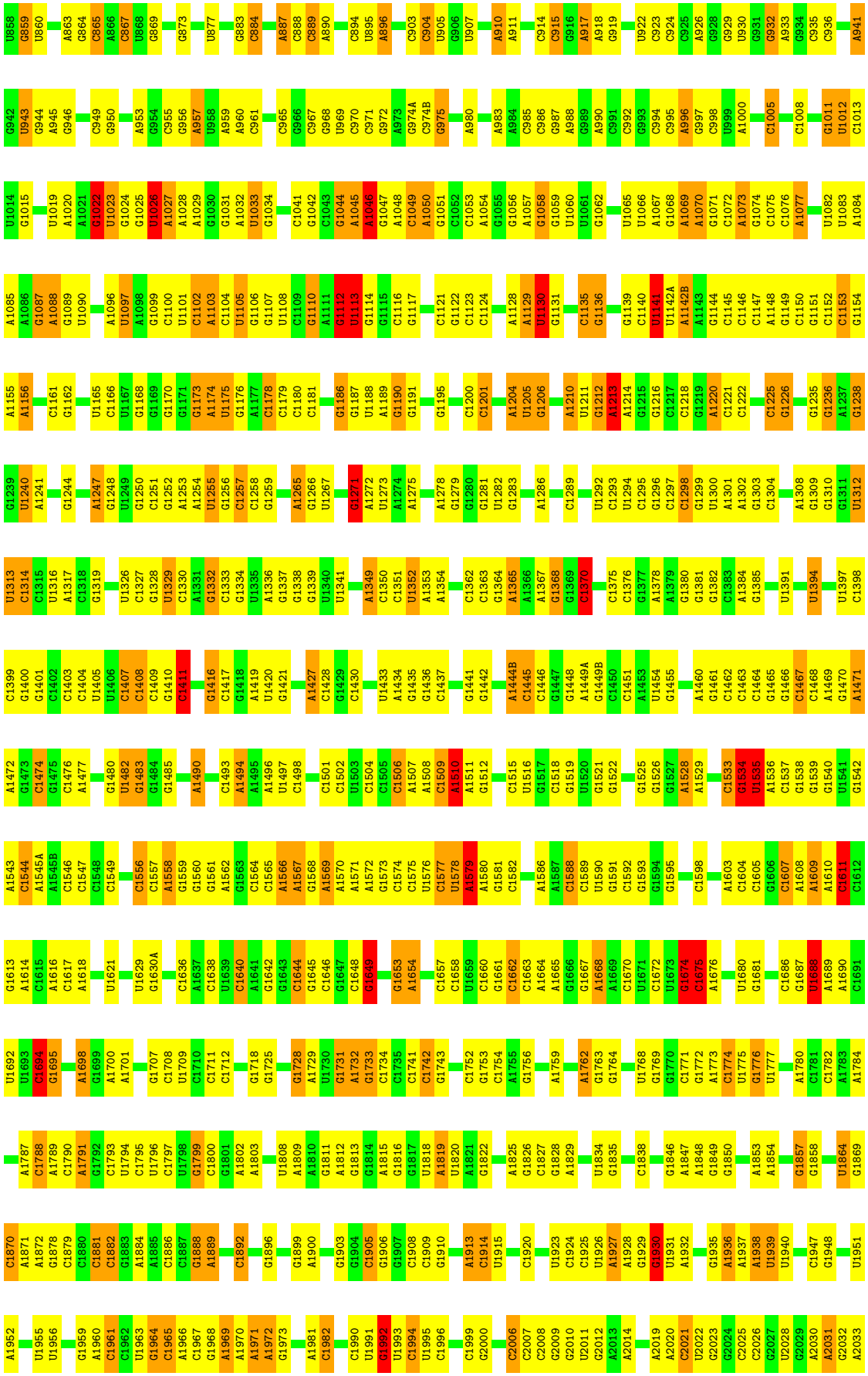
Chain Y9:

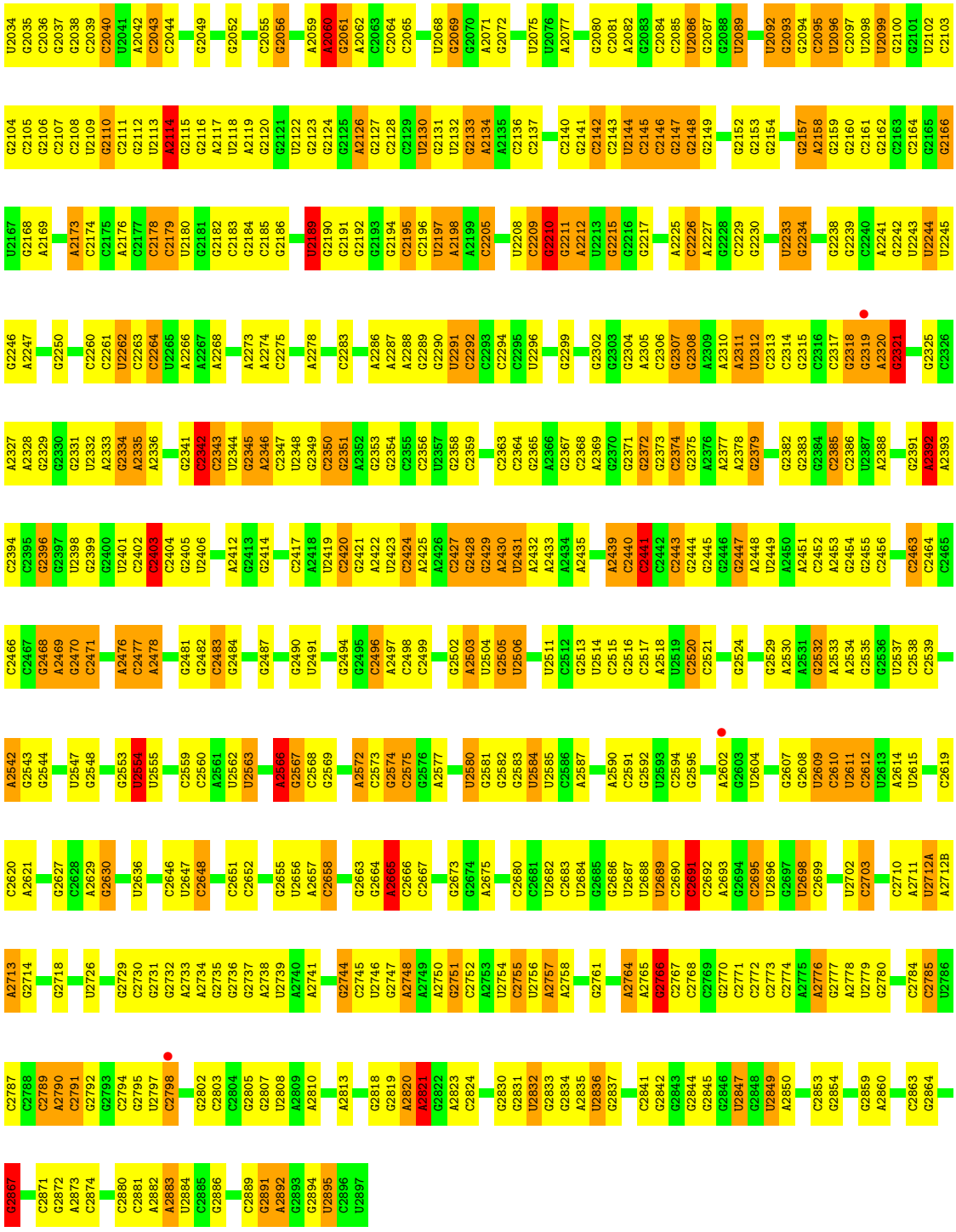


• Molecule 34: 23S rRNA

Chain RA:

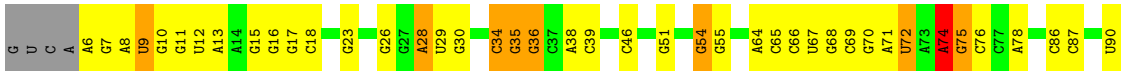


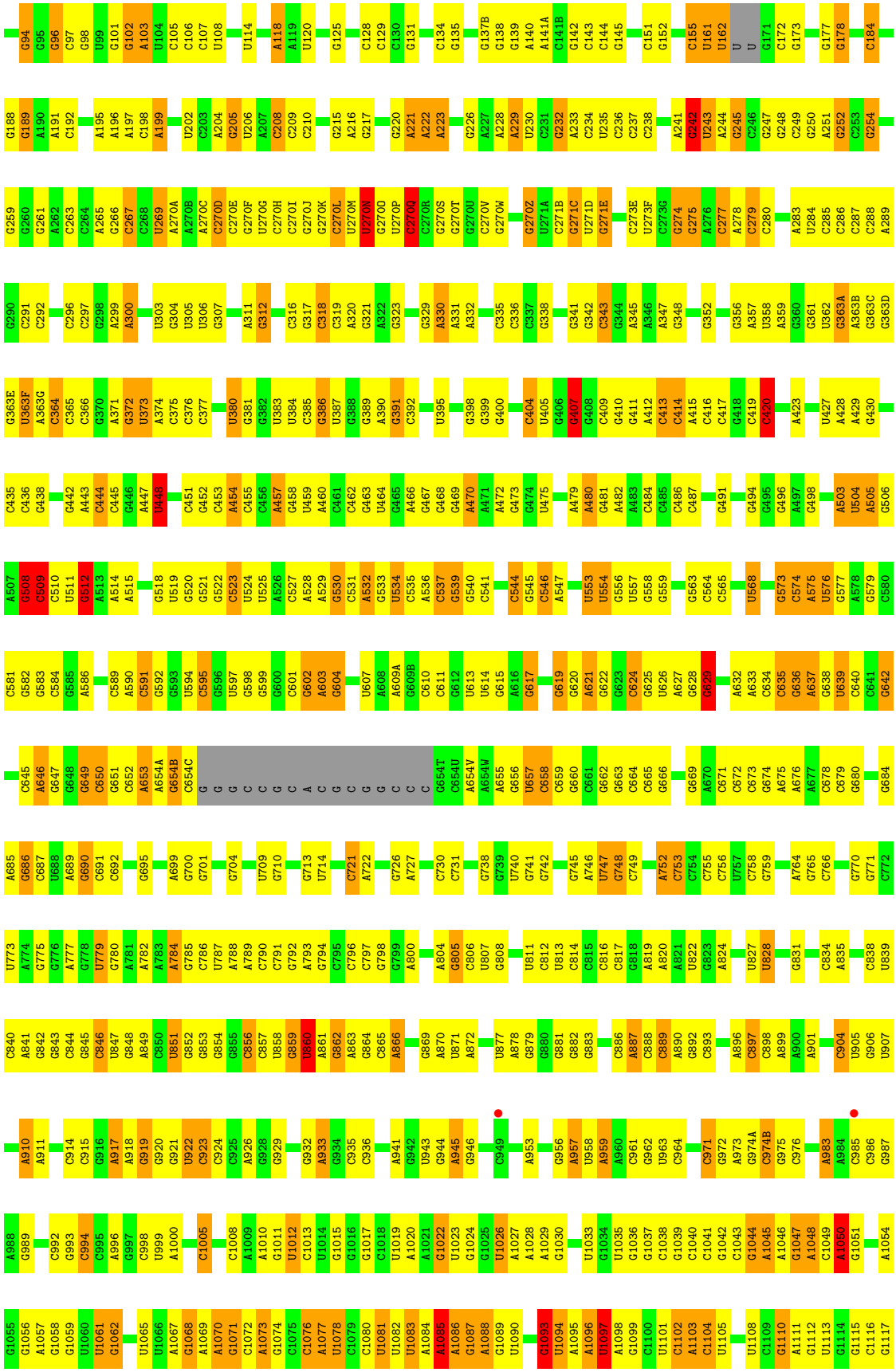


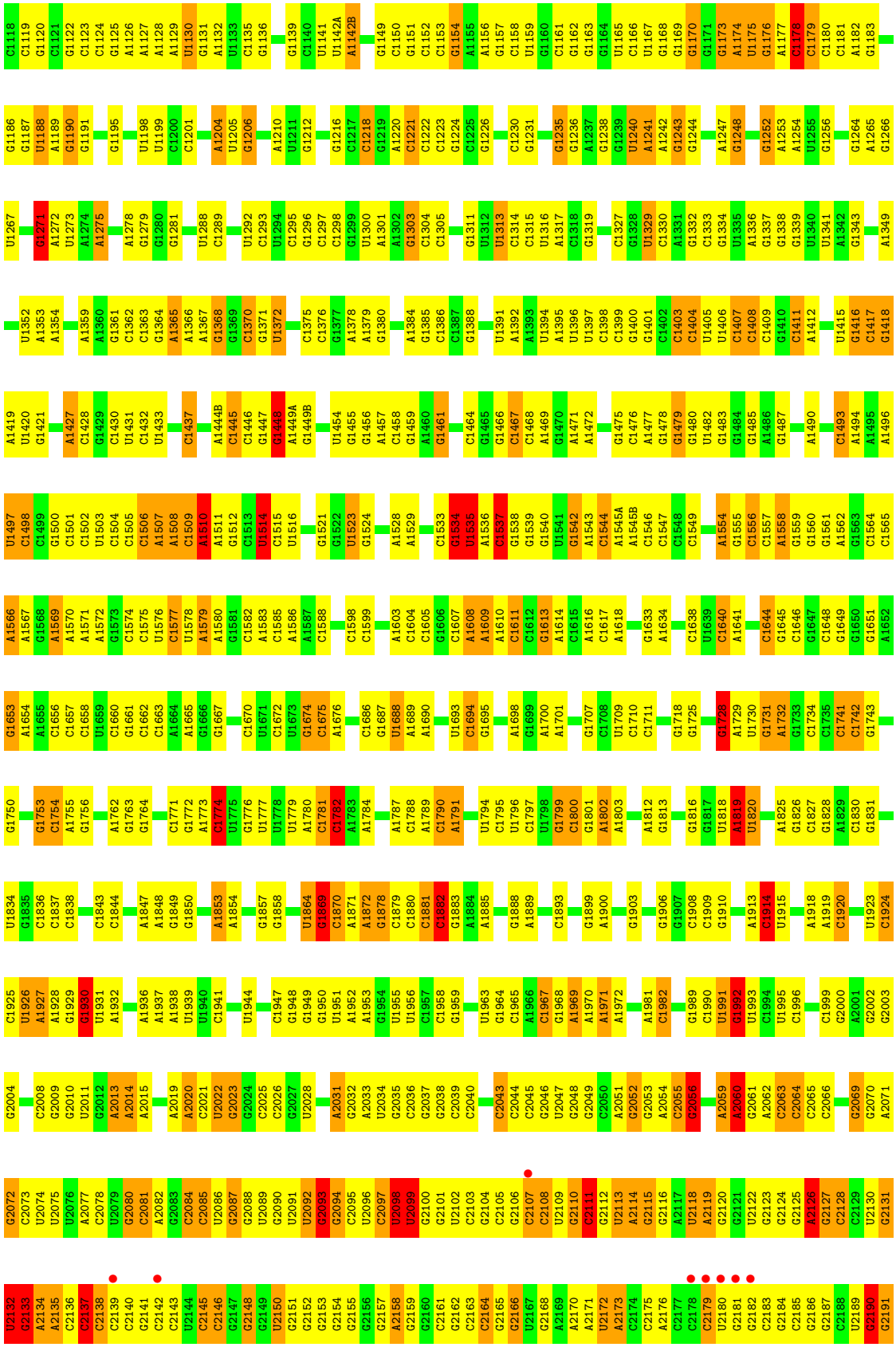


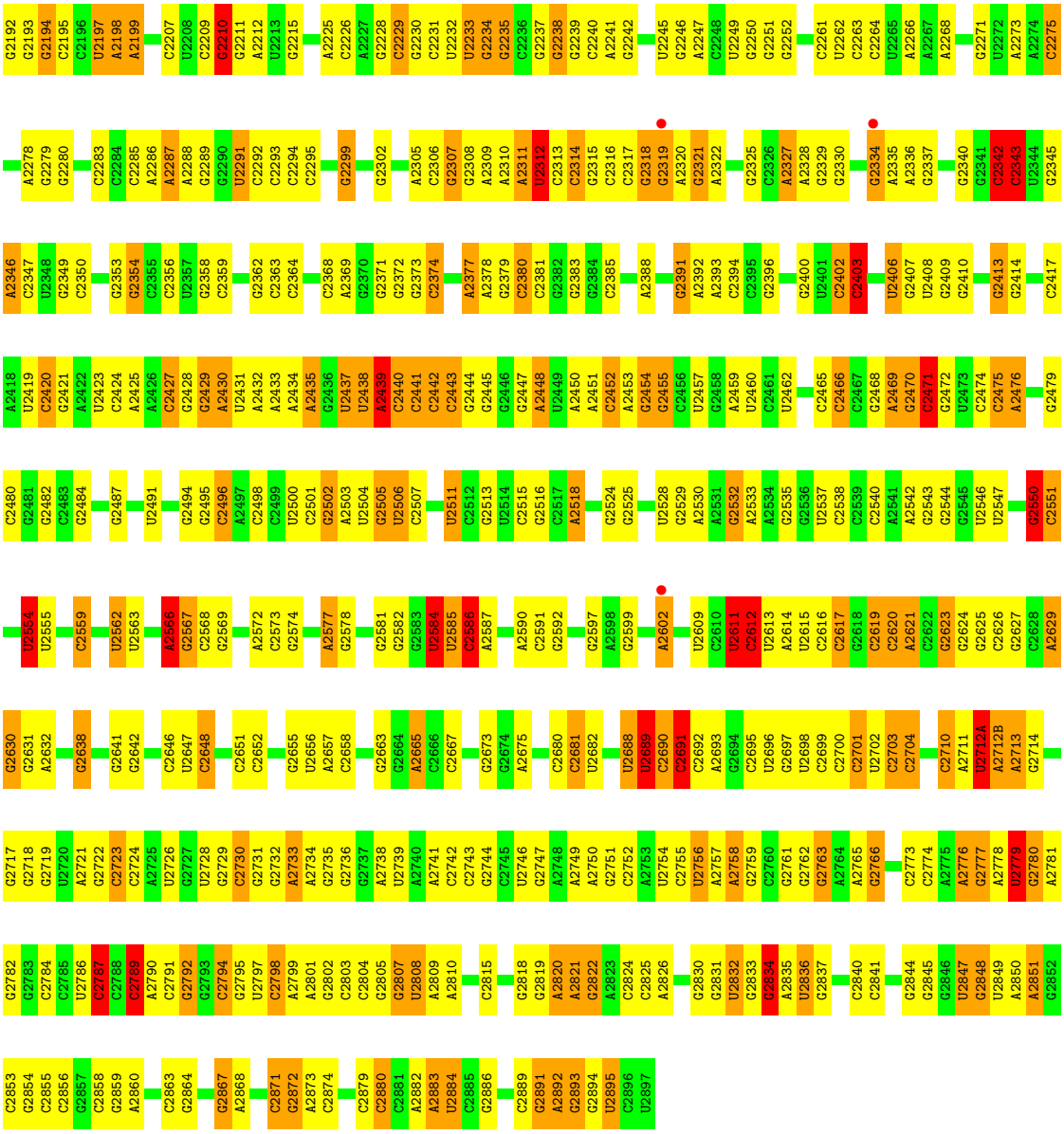
• Molecule 34: 23S rRNA

Chain YA:



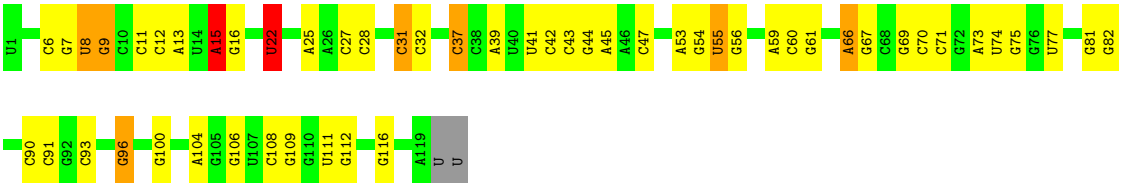






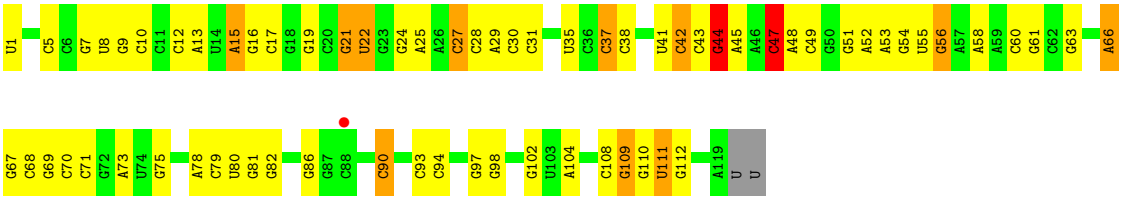
• Molecule 35: 5S rRNA

Chain RB:

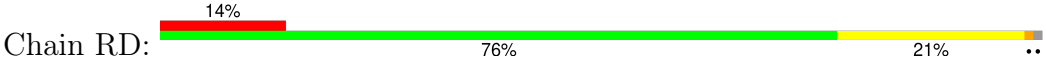


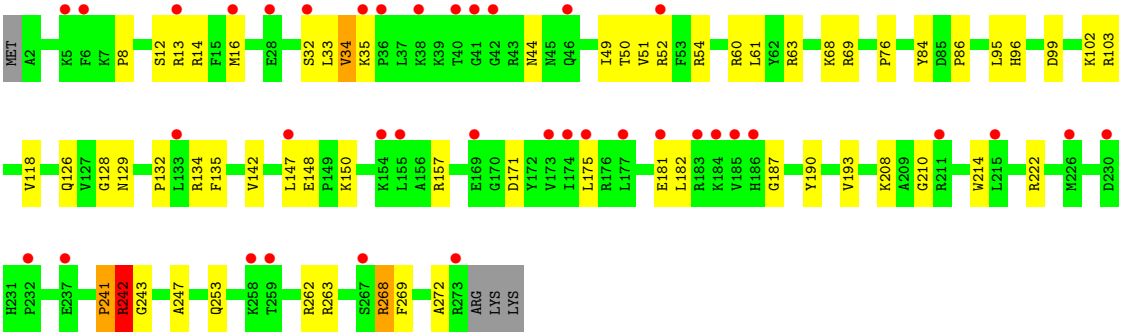
• Molecule 35: 5S rRNA

Chain YB:

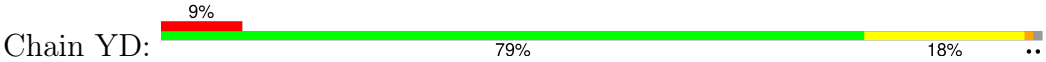


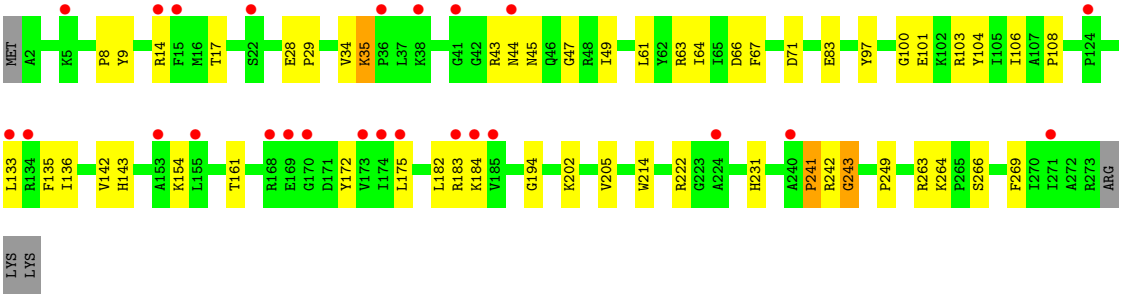
• Molecule 36: 50S ribosomal protein L2



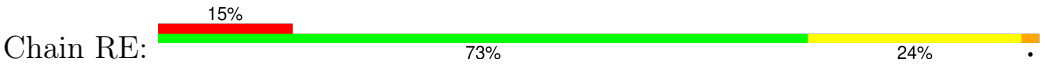


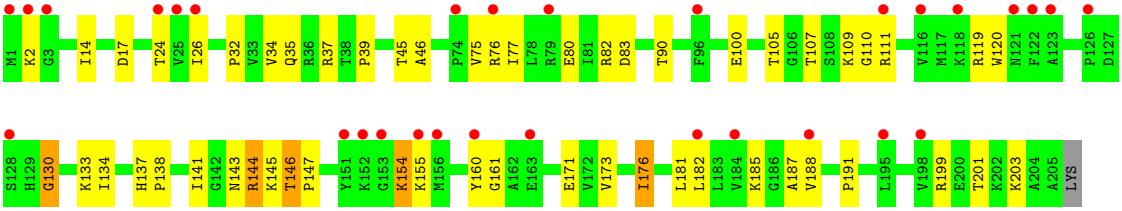
• Molecule 36: 50S ribosomal protein L2



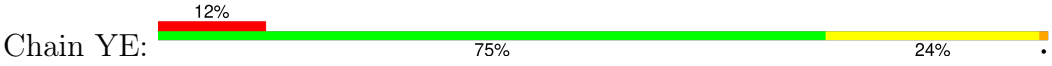


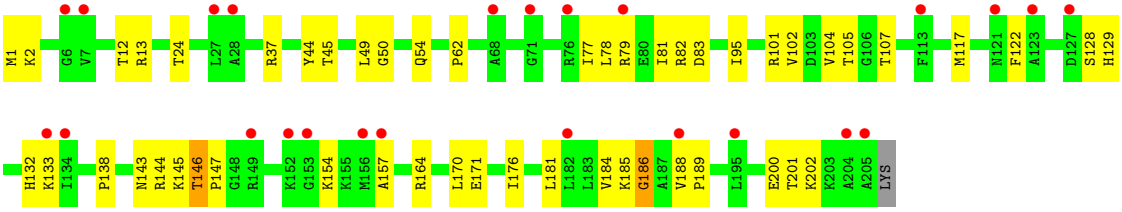
• Molecule 37: 50S ribosomal protein L3



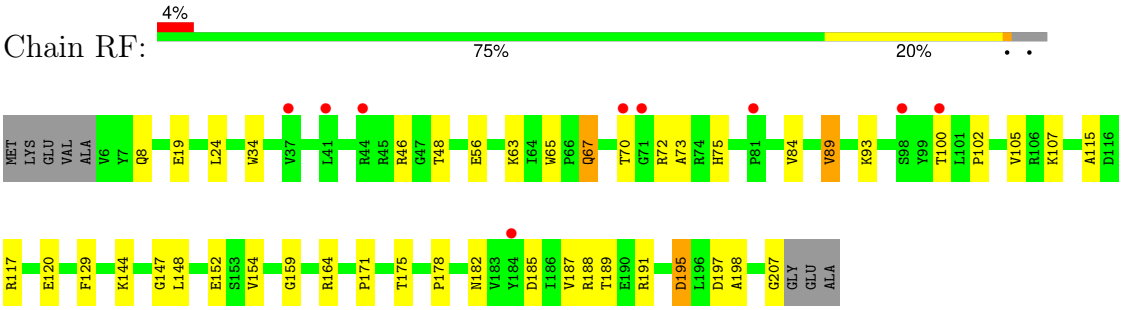


• Molecule 37: 50S ribosomal protein L3

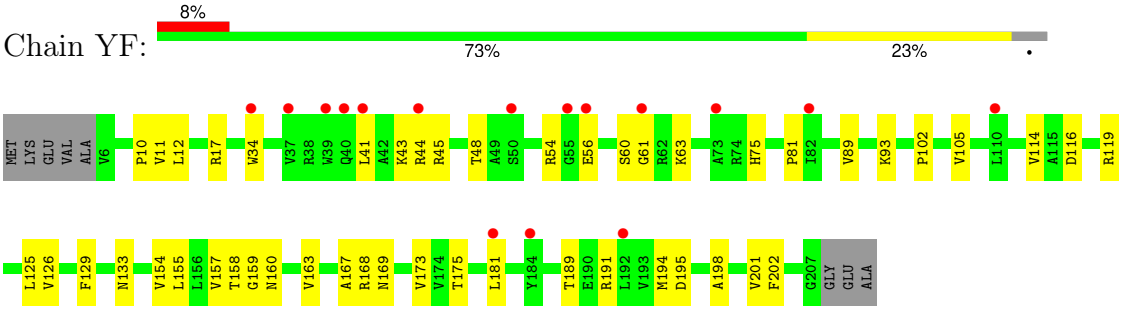




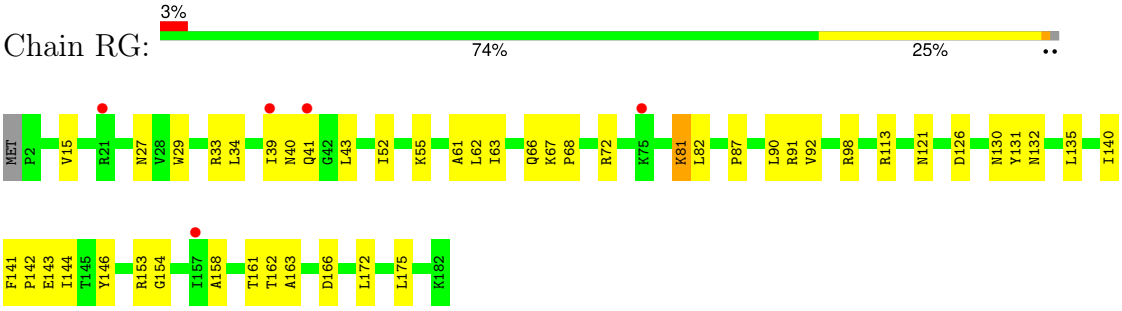
• Molecule 38: 50S ribosomal protein L4



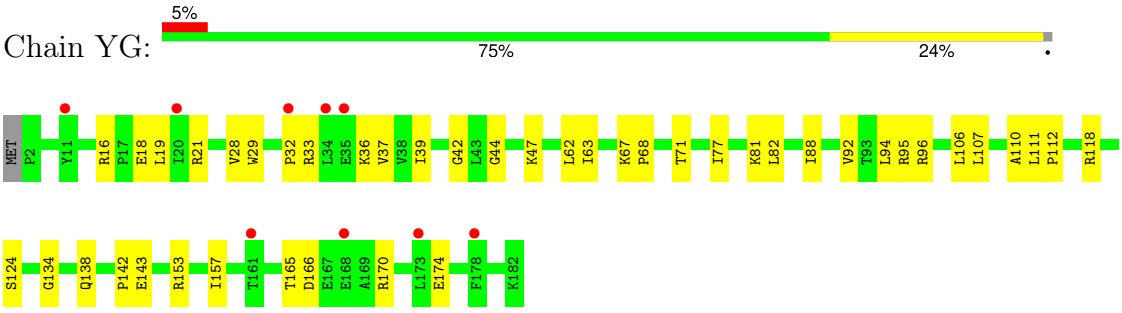
• Molecule 38: 50S ribosomal protein L4



• Molecule 39: 50S ribosomal protein L5

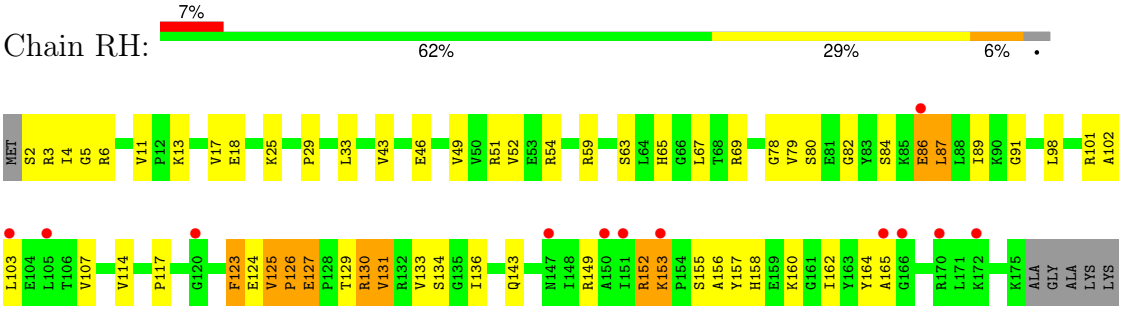


• Molecule 39: 50S ribosomal protein L5



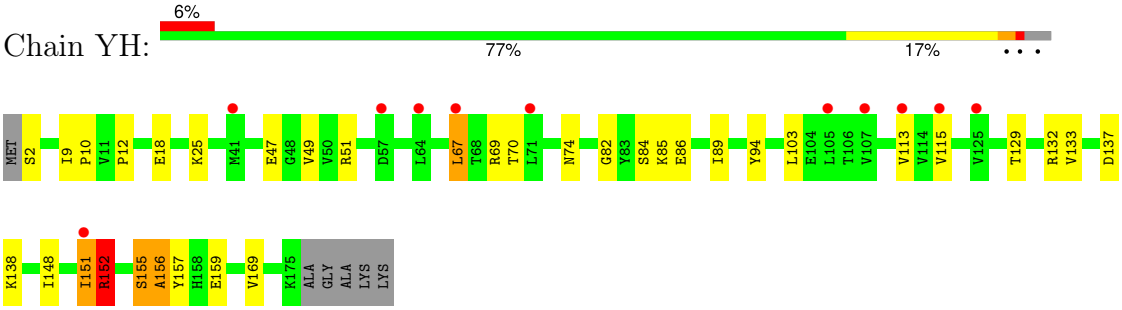
• Molecule 40: 50S ribosomal protein L6

Chain RH:



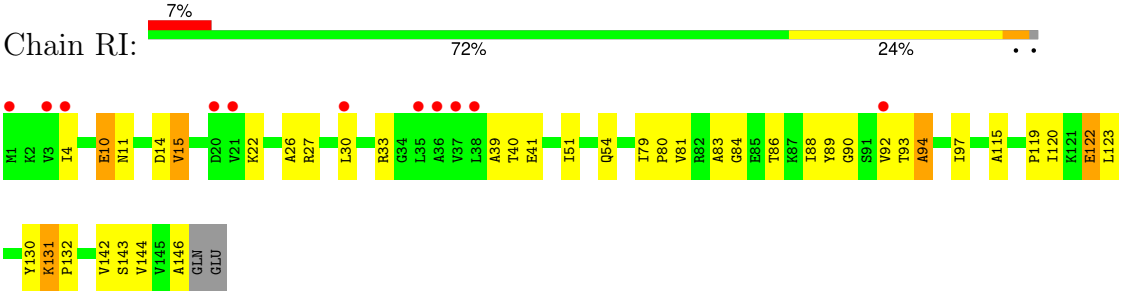
• Molecule 40: 50S ribosomal protein L6

Chain YH:



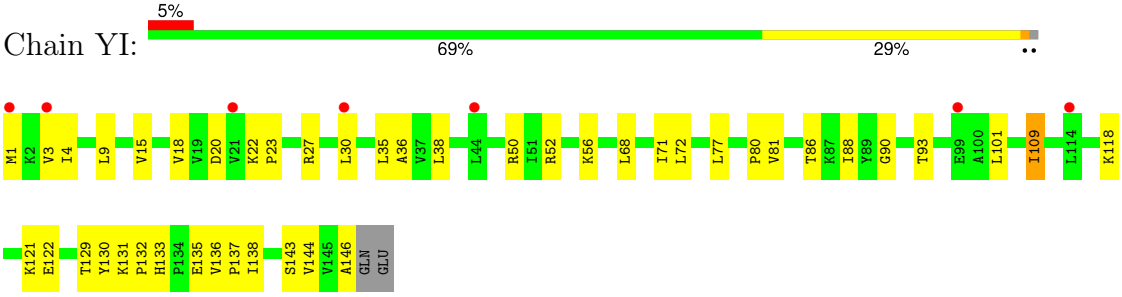
• Molecule 41: 50S ribosomal protein L9

Chain RI:



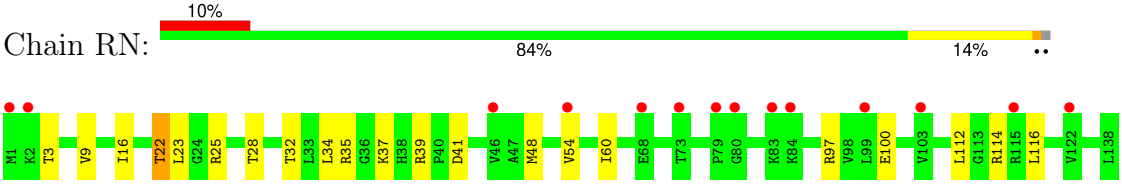
• Molecule 41: 50S ribosomal protein L9

Chain YI:



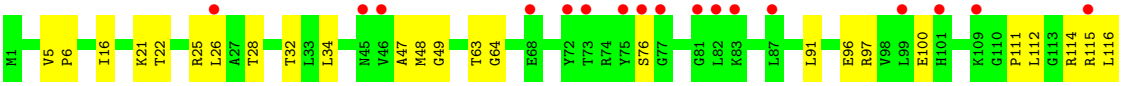
• Molecule 42: 50S ribosomal protein L13

Chain RN:



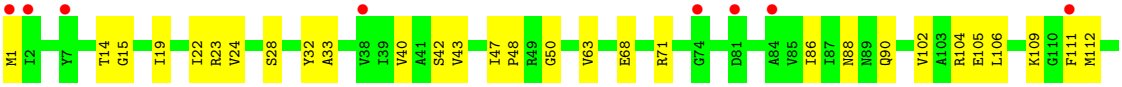
• Molecule 42: 50S ribosomal protein L13

Chain YN:



• Molecule 43: 50S ribosomal protein L14

Chain RO:

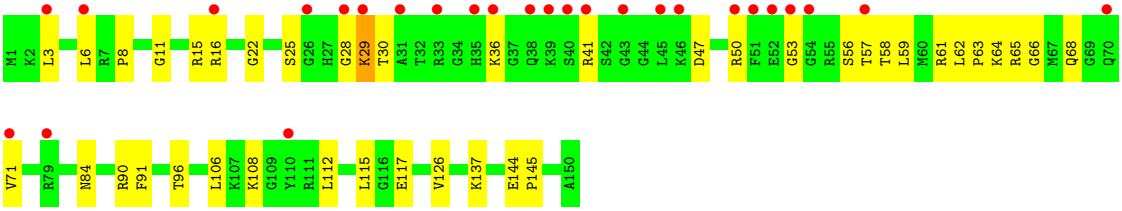


• Molecule 43: 50S ribosomal protein L14

Chain YO:

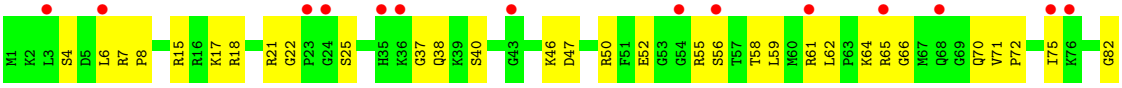
• Molecule 44: 50S ribosomal protein L15

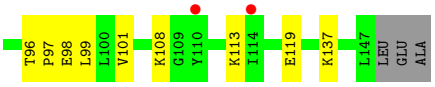
Chain RP:



• Molecule 44: 50S ribosomal protein L15

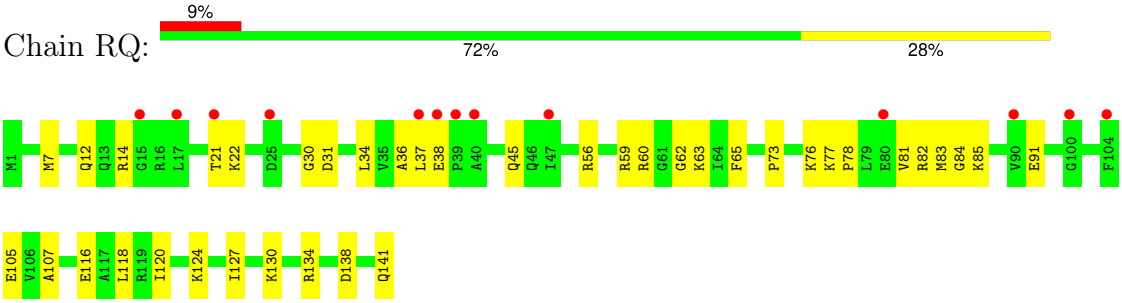
Chain YP:





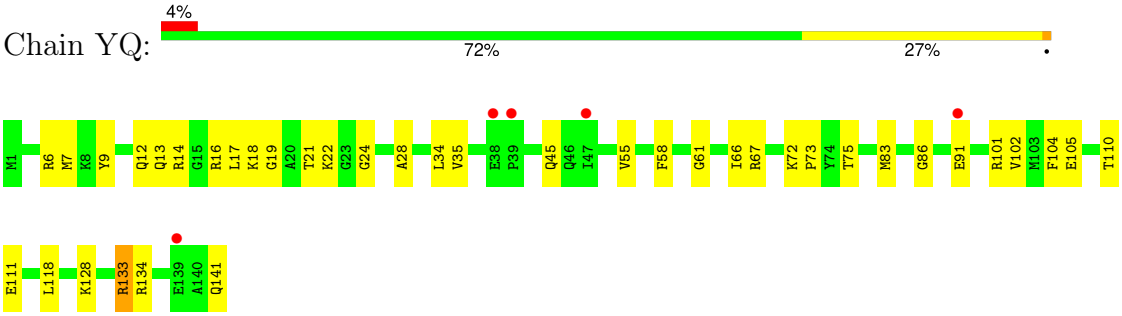
• Molecule 45: 50S ribosomal protein L16

Chain RQ:



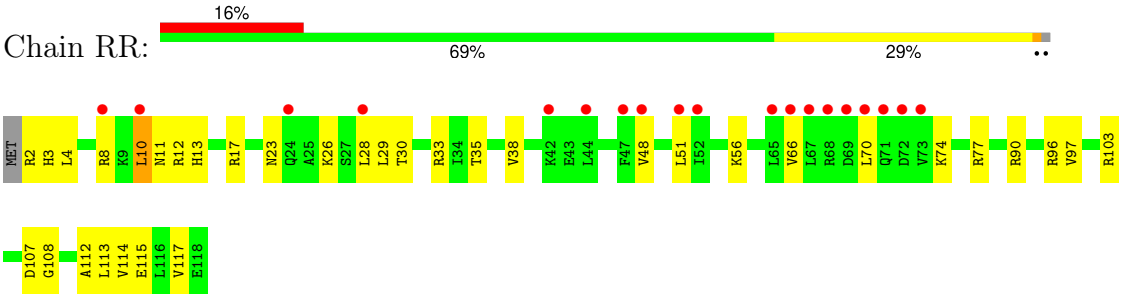
• Molecule 45: 50S ribosomal protein L16

Chain YQ:



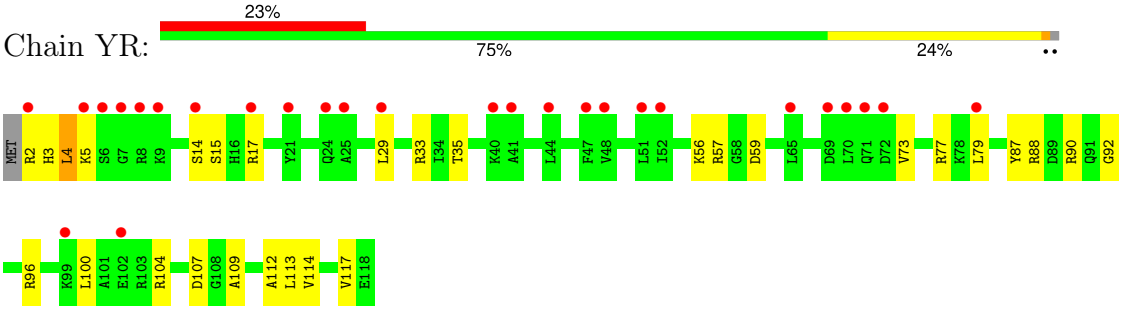
• Molecule 46: 50S ribosomal protein L17

Chain RR:



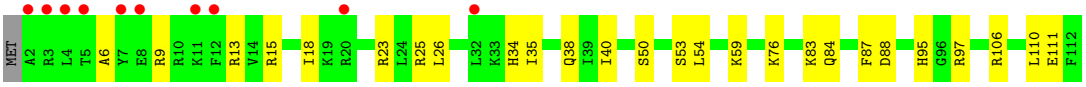
• Molecule 46: 50S ribosomal protein L17

Chain YR:

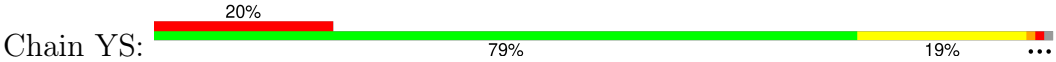


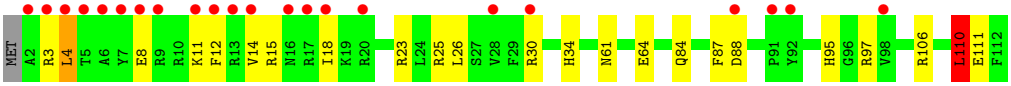
• Molecule 47: 50S ribosomal protein L18

Chain RS:

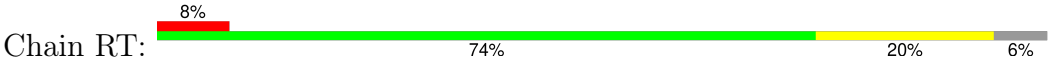


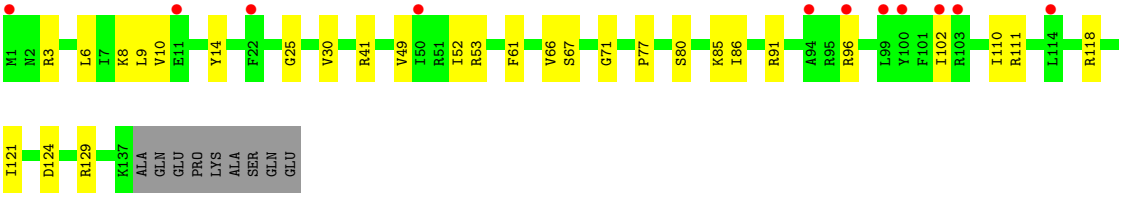
• Molecule 47: 50S ribosomal protein L18



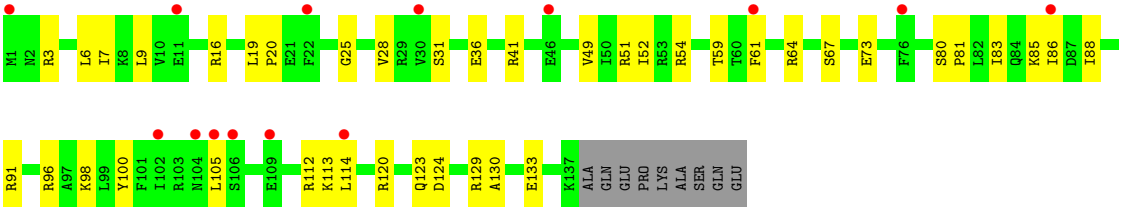


• Molecule 48: 50S ribosomal protein L19

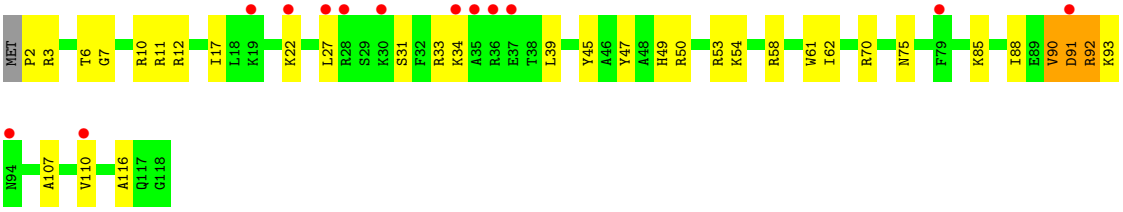




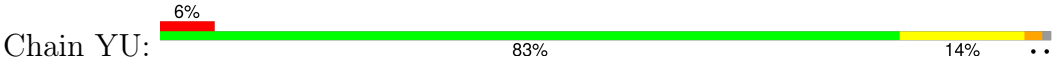
• Molecule 48: 50S ribosomal protein L19

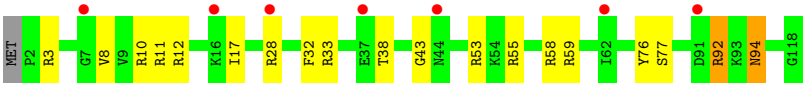


• Molecule 49: 50S ribosomal protein L20



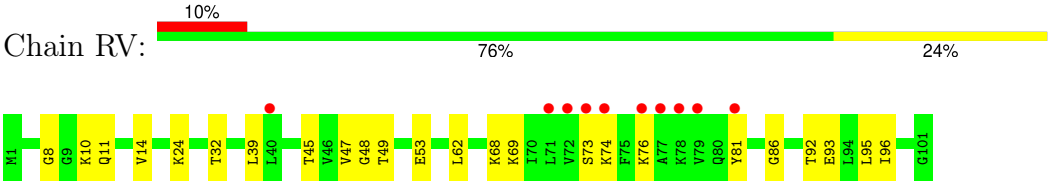
• Molecule 49: 50S ribosomal protein L20





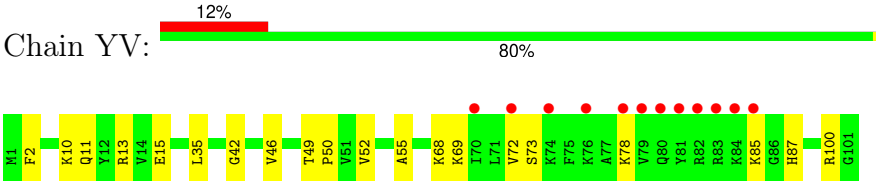
• Molecule 50: 50S ribosomal protein L21

Chain RV:



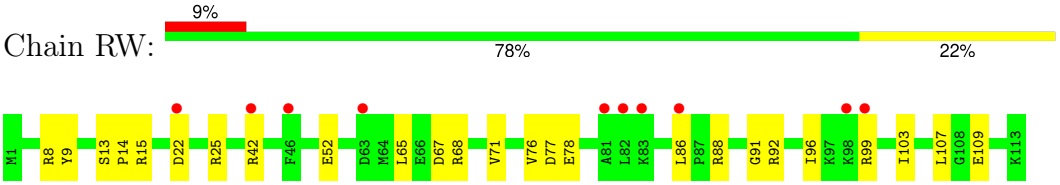
• Molecule 50: 50S ribosomal protein L21

Chain YV:



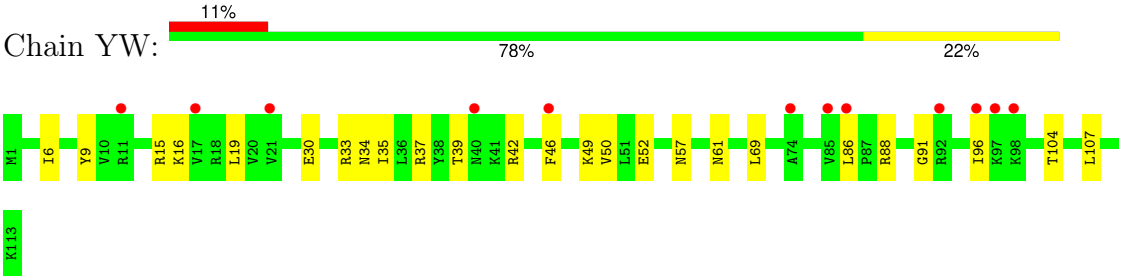
• Molecule 51: 50S ribosomal protein L22

Chain RW:



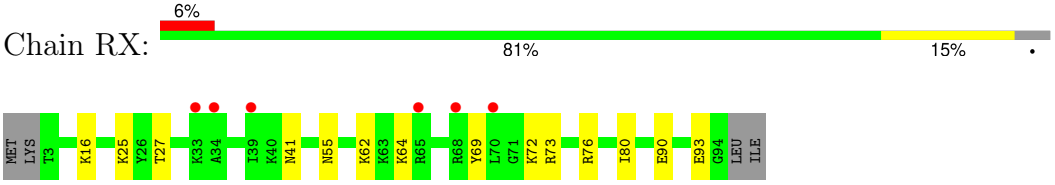
• Molecule 51: 50S ribosomal protein L22

Chain YW:



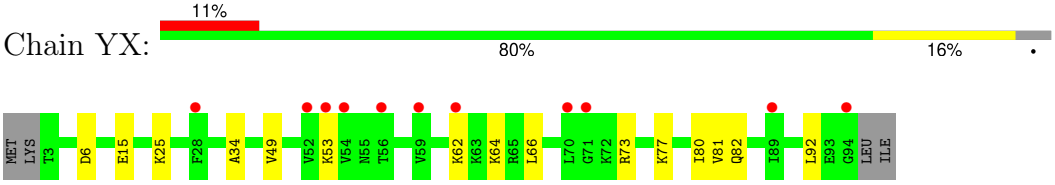
• Molecule 52: 50S ribosomal protein L23

Chain RX:



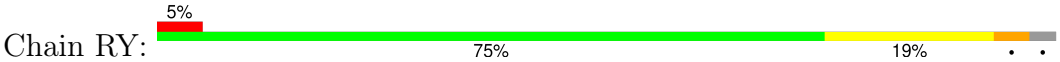
• Molecule 52: 50S ribosomal protein L23

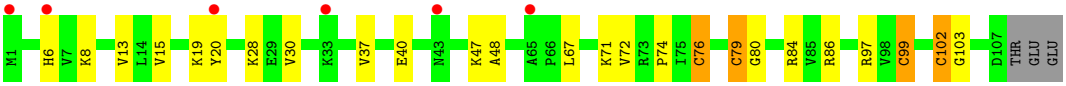
Chain YX:



• Molecule 53: 50S ribosomal protein L24

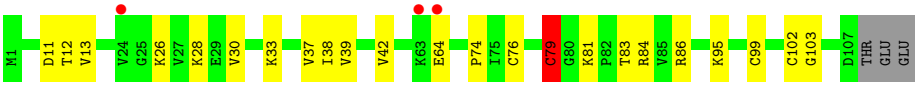
Chain RY:





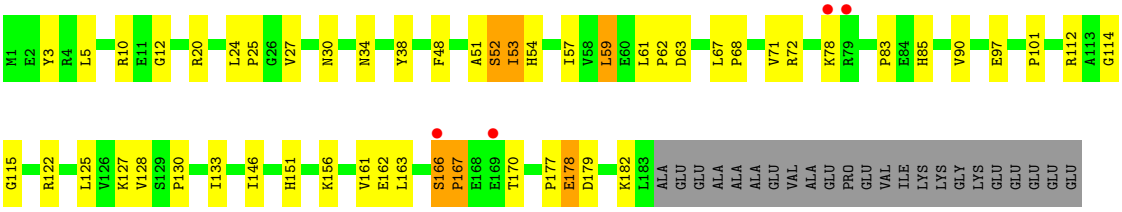
• Molecule 53: 50S ribosomal protein L24

Chain YY:



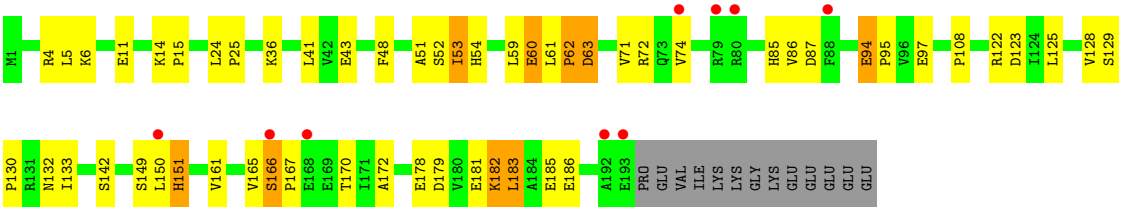
• Molecule 54: 50S ribosomal protein L25

Chain RZ:



• Molecule 54: 50S ribosomal protein L25

Chain YZ:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.09Å 450.32Å 622.89Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.85 – 4.14 49.85 – 4.14	Depositor EDS
% Data completeness (in resolution range)	98.5 (49.85-4.14) 98.4 (49.85-4.14)	Depositor EDS
R_{merge}	0.24	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.35 (at 4.14Å)	Xtriage
Refinement program	PHENIX 1.15.2_3472	Depositor
R, R_{free}	0.248 , 0.294 0.246 , 0.292	Depositor DCC
R_{free} test set	427005 reflections (4.34%)	wwPDB-VP
Wilson B-factor (Å^2)	171.1	Xtriage
Anisotropy	0.389	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.19 , 97.5	EDS
L-test for twinning[2]	$< \|L\| > = 0.39$, $< L^2 > = 0.22$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	291185	wwPDB-VP
Average B, all atoms (Å^2)	247.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.91% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: SF4, MG, ZN

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	QA	0.31	0/36343	1.10	485/56720 (0.9%)
1	XA	0.44	28/36435 (0.1%)	1.31	648/56865 (1.1%)
2	QB	0.36	0/1942	0.67	0/2619
2	XB	0.37	0/1950	0.64	1/2630 (0.0%)
3	QC	0.36	0/1629	0.66	0/2195
3	XC	0.37	0/1629	0.61	0/2195
4	QD	0.45	1/1733 (0.1%)	0.65	0/2318
4	XD	0.52	2/1733 (0.1%)	0.70	2/2318 (0.1%)
5	QE	0.37	0/1171	0.67	0/1576
5	XE	0.43	0/1171	0.62	0/1576
6	QF	0.39	0/856	0.68	0/1154
6	XF	0.41	0/856	0.62	0/1154
7	QG	0.35	0/1276	0.63	1/1709 (0.1%)
7	XG	0.36	0/1276	0.61	0/1709
8	QH	0.40	0/1128	0.62	0/1517
8	XH	0.42	0/1128	0.66	0/1517
9	QI	0.42	0/831	0.74	0/1120
9	XI	0.36	0/849	0.72	0/1144
10	QJ	0.35	0/814	0.67	0/1095
10	XJ	0.68	1/790 (0.1%)	0.80	1/1063 (0.1%)
11	QK	0.36	0/900	0.57	0/1213
11	XK	0.39	0/879	0.59	0/1187
12	QL	0.41	0/991	0.70	1/1327 (0.1%)
12	XL	0.45	0/972	0.76	2/1301 (0.2%)
13	QM	0.35	0/931	0.75	0/1248
13	XM	0.37	0/924	0.66	0/1238
14	QN	0.67	1/501 (0.2%)	0.84	3/664 (0.5%)
14	XN	0.69	1/501 (0.2%)	0.89	2/664 (0.3%)
15	QO	0.38	0/745	0.57	0/992
15	XO	0.40	0/740	0.56	0/987
16	QP	0.40	0/721	0.64	0/970
16	XP	0.38	0/721	0.66	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	QQ	0.38	0/847	0.62	0/1131
17	XQ	0.47	0/847	0.64	0/1131
18	QR	0.38	0/579	0.56	0/768
18	XR	0.39	0/579	0.58	0/768
19	QS	0.35	0/680	0.72	1/915 (0.1%)
19	XS	0.36	0/689	0.70	0/926
20	QT	0.77	2/765 (0.3%)	1.14	8/1007 (0.8%)
20	XT	0.37	0/765	0.75	2/1007 (0.2%)
21	QU	0.34	0/221	0.58	0/288
21	XU	0.52	0/221	0.61	0/288
22	QV	0.28	0/1621	0.84	5/2523 (0.2%)
22	XV	0.44	0/1621	1.24	15/2523 (0.6%)
23	QX	0.41	0/459	1.04	0/715
23	XX	0.60	0/459	1.31	2/715 (0.3%)
24	R0	0.40	0/652	0.63	0/867
24	Y0	0.59	0/657	0.60	0/874
25	R1	0.54	0/753	0.68	0/1000
25	Y1	0.59	0/736	0.74	0/978
26	R2	0.37	0/583	0.62	0/771
26	Y2	0.47	0/577	0.62	0/764
27	R3	0.39	0/474	0.59	0/635
27	Y3	0.62	0/474	0.59	0/635
28	R4	0.33	0/357	0.60	0/483
28	Y4	1.56	2/366 (0.5%)	1.47	9/495 (1.8%)
29	R5	0.87	3/473 (0.6%)	0.79	2/639 (0.3%)
29	Y5	0.94	2/473 (0.4%)	0.77	1/639 (0.2%)
30	R6	0.95	3/460 (0.7%)	0.81	2/613 (0.3%)
30	Y6	1.33	6/460 (1.3%)	1.01	3/613 (0.5%)
31	R7	0.53	0/417	0.62	0/550
31	Y7	0.63	0/426	0.66	0/561
32	R8	0.43	0/525	0.88	4/691 (0.6%)
32	Y8	0.59	0/525	0.84	0/691
33	R9	0.62	1/310 (0.3%)	0.72	1/407 (0.2%)
33	Y9	0.64	0/310	0.73	0/407
34	RA	0.26	0/69520	1.00	605/108527 (0.6%)
34	YA	0.29	2/69543 (0.0%)	1.02	662/108563 (0.6%)
35	RB	0.57	0/2878	1.40	38/4490 (0.8%)
35	YB	0.72	0/2878	1.67	85/4490 (1.9%)
36	RD	0.52	0/2165	0.71	3/2919 (0.1%)
36	YD	0.64	0/2165	0.74	4/2919 (0.1%)
37	RE	0.50	0/1601	0.83	3/2160 (0.1%)
37	YE	0.66	0/1601	0.85	3/2160 (0.1%)
38	RF	0.49	0/1620	0.70	1/2194 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	YF	0.67	0/1620	0.65	1/2194 (0.0%)
39	RG	0.41	0/1499	0.69	0/2016
39	YG	0.43	0/1499	0.68	0/2016
40	RH	0.39	0/1362	0.83	5/1841 (0.3%)
40	YH	0.68	1/1362 (0.1%)	0.86	6/1841 (0.3%)
41	RI	0.45	1/1151 (0.1%)	0.81	3/1558 (0.2%)
41	YI	0.45	1/1151 (0.1%)	0.79	0/1558
42	RN	0.45	0/1131	0.68	1/1525 (0.1%)
42	YN	0.63	0/1131	0.71	2/1525 (0.1%)
43	RO	0.51	0/943	0.65	0/1269
43	YO	0.60	0/943	0.63	0/1269
44	RP	0.44	0/1162	0.76	1/1544 (0.1%)
44	YP	0.54	0/1139	0.83	1/1514 (0.1%)
45	RQ	0.45	0/1143	0.73	0/1527
45	YQ	0.61	0/1143	0.77	2/1527 (0.1%)
46	RR	0.48	0/974	0.68	0/1302
46	YR	0.57	0/974	0.70	0/1302
47	RS	0.40	0/892	0.66	0/1187
47	YS	0.52	0/892	0.67	0/1187
48	RT	0.43	0/1155	0.69	0/1542
48	YT	0.54	0/1155	0.72	1/1542 (0.1%)
49	RU	0.49	0/982	0.62	0/1306
49	YU	0.70	0/982	0.62	0/1306
50	RV	0.48	0/790	0.74	1/1057 (0.1%)
50	YV	0.63	0/790	0.76	1/1057 (0.1%)
51	RW	0.52	0/911	0.63	0/1220
51	YW	0.68	0/911	0.64	0/1220
52	RX	0.52	0/739	0.60	0/993
52	YX	0.66	0/739	0.68	0/993
53	RY	0.72	4/831 (0.5%)	0.67	2/1108 (0.2%)
53	YY	0.73	1/831 (0.1%)	0.72	1/1108 (0.1%)
54	RZ	0.43	0/1493	0.89	6/2026 (0.3%)
54	YZ	0.51	0/1561	0.85	5/2119 (0.2%)
All	All	0.40	63/315379 (0.0%)	1.01	2644/471694 (0.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	XA	1	16

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Mol	Chain	#Chirality outliers	#Planarity outliers
28	Y4	1	1
34	RA	0	1
34	YA	0	6
37	RE	0	1
37	YE	0	1
50	RV	0	2
54	RZ	0	1
54	YZ	0	1
All	All	2	30

All (63) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	Y4	5	ILE	CA-CB	-21.62	1.05	1.54
28	Y4	4	GLY	N-CA	-18.71	1.18	1.46
1	XA	309	G	C3'-C2'	-15.74	1.35	1.52
30	R6	16	CYS	CB-SG	14.21	2.06	1.82
30	Y6	16	CYS	CB-SG	-14.07	1.58	1.82
20	QT	74	LYS	CA-CB	-13.70	1.23	1.53
29	Y5	32	PRO	N-CA	13.21	1.69	1.47
40	YH	12	PRO	N-CD	-13.08	1.29	1.47
30	Y6	13	CYS	CB-SG	-12.97	1.60	1.82
20	QT	73	HIS	N-CA	-12.33	1.21	1.46
1	XA	617	G	C1'-N9	12.04	1.66	1.48
14	QN	43	CYS	CB-SG	11.16	2.01	1.82
14	XN	43	CYS	CB-SG	10.98	2.00	1.82
4	XD	12	CYS	CB-SG	10.97	2.00	1.82
53	RY	102	CYS	CB-SG	-10.92	1.63	1.82
29	R5	34	PRO	N-CD	10.48	1.62	1.47
53	YY	79	CYS	CB-SG	-10.34	1.64	1.82
1	XA	309	G	C4'-O4'	-9.97	1.32	1.45
1	XA	309	G	C4'-C3'	9.41	1.63	1.53
29	R5	33	CYS	C-N	8.94	1.51	1.34
30	Y6	40	CYS	CB-SG	8.90	1.97	1.82
30	Y6	40	CYS	C-N	8.78	1.50	1.34
1	XA	116	A	P-O5'	8.69	1.68	1.59
1	XA	1358	U	P-O5'	8.49	1.68	1.59
1	XA	608	A	C1'-N9	-8.48	1.34	1.46
33	R9	29	ASN	C-N	8.38	1.50	1.34
53	RY	79	CYS	CB-SG	8.21	1.96	1.82
1	XA	1320	C	C2'-C1'	7.96	1.62	1.53
30	R6	13	CYS	CB-SG	-7.91	1.68	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	R6	41	PRO	N-CD	7.44	1.58	1.47
34	YA	745	G	O3'-P	-7.19	1.52	1.61
1	XA	608	A	C2'-C1'	7.09	1.61	1.53
41	RI	94	ALA	C-N	7.05	1.50	1.34
30	Y6	41	PRO	N-CD	7.05	1.57	1.47
1	XA	309	G	O4'-C1'	-6.81	1.32	1.41
4	QD	8	VAL	CB-CG1	6.79	1.67	1.52
1	XA	1347	G	C4'-C3'	6.59	1.60	1.53
1	XA	617	G	O4'-C1'	6.57	1.50	1.41
1	XA	636	U	P-O5'	6.49	1.66	1.59
1	XA	1320	C	C1'-N1	6.33	1.58	1.48
1	XA	1160	G	C1'-N9	6.18	1.58	1.48
53	RY	99	CYS	CB-SG	-6.10	1.71	1.82
1	XA	1158	C	C1'-N1	6.03	1.57	1.48
1	XA	1253	G	O3'-P	6.00	1.68	1.61
29	Y5	31	VAL	C-N	5.97	1.45	1.34
1	XA	1158	C	C2'-C1'	5.95	1.59	1.53
53	RY	76	CYS	CB-SG	-5.84	1.72	1.81
10	XJ	39	PRO	N-CD	-5.78	1.39	1.47
1	XA	1349	A	C1'-N9	5.77	1.57	1.48
1	XA	116	A	P-OP2	-5.67	1.39	1.49
4	XD	31	CYS	CB-SG	5.57	1.91	1.82
1	XA	1359	C	P-O5'	-5.46	1.54	1.59
1	XA	1158	C	C3'-C2'	5.37	1.58	1.52
30	Y6	51	GLU	CG-CD	-5.32	1.44	1.51
34	YA	745	G	C3'-O3'	-5.32	1.34	1.42
41	YI	109	ILE	C-N	5.26	1.46	1.34
1	XA	1440(B)	G	C5'-C4'	5.25	1.57	1.51
1	XA	635	G	O3'-P	5.13	1.67	1.61
1	XA	1225	A	C1'-N9	-5.13	1.39	1.46
29	R5	33	CYS	CB-SG	-5.13	1.73	1.81
1	XA	608	A	C3'-C2'	5.07	1.58	1.52
1	XA	309	G	C5'-C4'	5.06	1.57	1.51
1	XA	308	C	C2'-C1'	-5.01	1.47	1.53

All (2644) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	617	G	C4-N9-C1'	38.95	177.13	126.50
1	XA	617	G	C8-N9-C1'	-38.89	76.44	127.00
1	XA	1505	G	C8-N9-C1'	-27.87	90.77	127.00
1	XA	625	G	C8-N9-C1'	-27.83	90.82	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	1505	G	C4-N9-C1'	27.65	162.44	126.50
1	XA	877	C	C2-N1-C1'	25.01	146.31	118.80
1	XA	877	C	C6-N1-C1'	-23.72	92.33	120.80
1	XA	309	G	C4-N9-C1'	-23.02	96.57	126.50
1	XA	309	G	C8-N9-C1'	22.84	156.70	127.00
1	XA	1234	C	C2-N1-C1'	22.21	143.24	118.80
20	QT	74	LYS	N-CA-CB	21.24	148.84	110.60
1	XA	1440(B)	G	C8-N9-C1'	-21.03	99.66	127.00
1	XA	1440(B)	G	C4-N9-C1'	20.48	153.12	126.50
1	XA	1234	C	C6-N1-C1'	-20.33	96.41	120.80
34	YA	2111	C	C2-N1-C1'	20.05	140.86	118.80
34	YA	2111	C	C6-N1-C1'	-19.88	96.95	120.80
1	XA	618	C	C6-N1-C1'	-19.79	97.06	120.80
1	XA	1112	C	C6-N1-C1'	-19.56	97.33	120.80
1	XA	1348	U	C6-N1-C1'	-19.54	93.84	121.20
1	XA	186(B)	C	C2-N1-C1'	18.68	139.35	118.80
34	YA	2014	A	O5'-P-OP2	-18.66	88.31	110.70
1	XA	1112	C	C2-N1-C1'	18.30	138.93	118.80
1	XA	618	C	C2-N1-C1'	18.11	138.72	118.80
1	XA	972	C	C6-N1-C1'	-18.08	99.10	120.80
1	XA	972	C	C2-N1-C1'	18.07	138.68	118.80
1	XA	310	G	O5'-P-OP1	-17.82	89.31	110.70
1	XA	186(B)	C	C6-N1-C1'	-17.76	99.49	120.80
1	XA	625	G	C4-N9-C1'	17.56	149.32	126.50
1	XA	1358	U	O5'-P-OP1	17.50	131.70	110.70
28	Y4	5	ILE	CB-CA-C	17.14	145.87	111.60
1	XA	608	A	C8-N9-C1'	-16.92	97.25	127.70
1	XA	957	U	C2-N1-C1'	16.57	137.59	117.70
1	XA	877	C	O4'-C1'-N1	16.55	121.44	108.20
1	XA	878	G	C8-N9-C1'	-16.48	105.57	127.00
1	XA	309	G	O4'-C1'-N9	-16.30	95.16	108.20
1	XA	860	A	C8-N9-C1'	-15.99	98.92	127.70
1	XA	1320	C	N1-C1'-C2'	15.78	134.51	114.00
1	XA	1369	C	O5'-P-OP1	-15.53	91.73	105.70
1	XA	980	C	C2-N1-C1'	15.51	135.86	118.80
1	XA	635	G	P-O3'-C3'	15.38	138.15	119.70
37	RE	146	THR	C-N-CD	-15.28	86.99	120.60
1	XA	957	U	C6-N1-C1'	-15.26	99.83	121.20
1	XA	860	A	C4-N9-C1'	15.23	153.71	126.30
1	QA	194	C	C2-N1-C1'	14.87	135.16	118.80
1	XA	1348	U	C2-N1-C1'	14.68	135.32	117.70
1	XA	1320	C	C6-N1-C1'	-14.48	103.42	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	887	A	O5'-P-OP2	-14.38	92.76	105.70
1	XA	309	G	O5'-P-OP1	14.31	127.87	110.70
1	XA	980	C	C6-N1-C1'	-14.23	103.73	120.80
54	RZ	166	SER	C-N-CD	-14.13	89.51	120.60
37	YE	146	THR	C-N-CD	-14.12	89.53	120.60
1	XA	674	G	C8-N9-C1'	-14.03	108.77	127.00
1	XA	1358	U	OP1-P-OP2	-13.99	98.61	119.60
1	XA	878	G	C4-N9-C1'	13.99	144.68	126.50
1	XA	674	G	C4-N9-C1'	13.92	144.60	126.50
1	QA	194	C	C6-N1-C1'	-13.60	104.48	120.80
35	YB	30	C	C6-N1-C2	-13.53	114.89	120.30
1	XA	625	G	O4'-C1'-N9	13.51	119.00	108.20
1	XA	1349	A	O4'-C1'-N9	13.16	118.73	108.20
34	YA	2442	C	C2-N1-C1'	13.03	133.13	118.80
40	RH	86	GLU	CB-CA-C	-12.83	84.74	110.40
1	XA	1302	U	C2-N1-C1'	12.81	133.07	117.70
1	XA	608	A	N9-C1'-C2'	12.73	130.55	114.00
34	YA	1076	C	C2-N1-C1'	12.72	132.79	118.80
54	YZ	166	SER	C-N-CD	-12.57	92.94	120.60
34	YA	270(L)	C	C2-N1-C1'	12.42	132.47	118.80
1	XA	1244	C	O5'-P-OP2	-12.26	94.67	105.70
1	XA	1320	C	C2-N1-C1'	12.11	132.12	118.80
34	YA	2442	C	C6-N1-C1'	-12.10	106.28	120.80
1	XA	1301	U	C2-N1-C1'	12.03	132.13	117.70
1	XA	686	U	C2-N1-C1'	12.01	132.11	117.70
1	XA	723	U	C2-N1-C1'	11.76	131.82	117.70
34	YA	1076	C	C6-N1-C1'	-11.63	106.84	120.80
1	XA	132	C	OP1-P-O3'	11.60	130.72	105.20
34	RA	2789	C	C2-N1-C1'	11.56	131.52	118.80
1	XA	116	A	OP1-P-OP2	-11.50	102.34	119.60
1	QA	856	C	C2-N1-C1'	11.47	131.42	118.80
34	YA	270(L)	C	C6-N1-C1'	-11.38	107.15	120.80
1	XA	1232	U	O5'-P-OP1	11.36	124.33	110.70
1	XA	618	C	O4'-C1'-N1	11.31	117.25	108.20
1	XA	1507	A	C4-N9-C1'	-11.26	106.03	126.30
34	RA	2836	U	C2-N1-C1'	11.24	131.19	117.70
1	XA	1527	C	C2-N1-C1'	11.13	131.04	118.80
1	XA	607	A	C4-N9-C1'	11.10	146.29	126.30
1	XA	607	A	C8-N9-C1'	-11.08	107.76	127.70
1	XA	1302	U	C6-N1-C1'	-11.00	105.80	121.20
1	XA	1347	G	C4-N9-C1'	-10.94	112.28	126.50
1	XA	1359	C	O5'-P-OP1	-10.93	95.86	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	1307	U	O5'-P-OP1	-10.88	95.91	105.70
34	YA	2394	C	C2-N1-C1'	10.86	130.75	118.80
1	XA	1344	C	C2-N1-C1'	10.85	130.74	118.80
1	XA	68(T)	C	C2-N1-C1'	10.83	130.72	118.80
34	YA	2064	C	C2-N1-C1'	10.83	130.71	118.80
34	YA	1535	U	C2-N1-C1'	10.82	130.68	117.70
1	XA	948	C	C2-N1-C1'	-10.81	106.91	118.80
1	XA	1347	G	C8-N9-C1'	10.77	141.00	127.00
34	YA	2394	C	OP1-P-OP2	-10.76	103.46	119.60
34	RA	2789	C	C6-N1-C1'	-10.67	108.00	120.80
1	XA	1507	A	O4'-C1'-N9	10.58	116.67	108.20
1	XA	1507	A	C8-N9-C1'	10.58	146.74	127.70
34	RA	2431	U	C2-N1-C1'	10.57	130.38	117.70
1	XA	259	G	O5'-P-OP2	-10.53	96.22	105.70
1	XA	1375	A	C4-N9-C1'	10.53	145.25	126.30
1	XA	1375	A	C8-N9-C1'	-10.52	108.77	127.70
1	XA	677	U	C2-N1-C1'	10.51	130.31	117.70
1	XA	686	U	C6-N1-C1'	-10.50	106.50	121.20
1	QA	856	C	C6-N1-C1'	-10.49	108.22	120.80
1	XA	1343	G	C4-N9-C1'	10.48	140.13	126.50
34	RA	1534	G	C4-N9-C1'	10.47	140.12	126.50
34	YA	2443	C	C2-N1-C1'	10.47	130.32	118.80
1	XA	1440(C)	G	C8-N9-C1'	-10.44	113.43	127.00
1	XA	1259	C	C2-N1-C1'	10.44	130.28	118.80
1	XA	1328	C	O5'-P-OP1	-10.43	96.31	105.70
1	QA	677	U	C2-N1-C1'	10.42	130.21	117.70
1	QA	1234	C	C2-N1-C1'	10.42	130.26	118.80
1	XA	636	U	C2-N1-C1'	10.41	130.19	117.70
1	XA	1343	G	C8-N9-C1'	-10.39	113.49	127.00
34	YA	2098	U	C2-N1-C1'	10.39	130.16	117.70
34	RA	1534	G	C8-N9-C1'	-10.38	113.50	127.00
1	XA	956	U	C2-N1-C1'	10.37	130.15	117.70
1	XA	1438	G	O5'-P-OP1	10.33	123.10	110.70
1	QA	980	C	C2-N1-C1'	10.32	130.15	118.80
1	XA	1301	U	C6-N1-C1'	-10.29	106.79	121.20
1	XA	1112	C	O4'-C1'-N1	10.28	116.42	108.20
1	XA	617	G	O5'-P-OP2	-10.27	96.45	105.70
1	XA	608	A	O4'-C1'-N9	10.26	116.40	108.20
1	XA	981	U	O5'-P-OP2	-10.25	96.48	105.70
1	XA	1527	C	C6-N1-C1'	-10.24	108.51	120.80
1	XA	1111	A	C4-N9-C1'	10.23	144.71	126.30
1	XA	1111	A	C8-N9-C1'	-10.16	109.41	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	1260	C	C2-N1-C1'	10.13	129.94	118.80
1	XA	1328	C	O5'-P-OP2	10.12	122.84	110.70
34	YA	1094	U	C2-N1-C1'	10.11	129.83	117.70
34	YA	2064	C	C6-N1-C1'	-10.10	108.68	120.80
34	YA	2822	G	O5'-P-OP2	-10.10	96.61	105.70
34	RA	419	C	C2-N1-C1'	10.08	129.89	118.80
1	QA	88	C	C2-N1-C1'	10.04	129.85	118.80
1	QA	1037	C	C2-N1-C1'	10.04	129.84	118.80
1	XA	1440(C)	G	C4-N9-C1'	10.03	139.54	126.50
34	RA	270(L)	C	C2-N1-C1'	10.02	129.82	118.80
1	XA	723	U	C6-N1-C1'	-10.01	107.19	121.20
1	XA	948	C	C6-N1-C1'	9.96	132.75	120.80
34	YA	2394	C	C6-N1-C1'	-9.96	108.85	120.80
1	XA	1344	C	C6-N1-C1'	-9.93	108.89	120.80
1	XA	186(A)	C	C2-N1-C1'	9.92	129.71	118.80
34	YA	2789	C	C2-N1-C1'	9.91	129.70	118.80
1	XA	385	C	C2-N1-C1'	9.90	129.70	118.80
1	XA	1355	G	C4-N9-C1'	9.90	139.37	126.50
1	XA	1355	G	C8-N9-C1'	-9.90	114.13	127.00
34	YA	2474	C	C2-N1-C1'	9.87	129.66	118.80
34	RA	2189	U	C2-N1-C1'	9.87	129.54	117.70
1	XA	68(T)	C	C6-N1-C1'	-9.87	108.95	120.80
30	Y6	43	CYS	N-CA-CB	-9.83	92.90	110.60
1	XA	1328	C	OP1-P-OP2	-9.83	104.86	119.60
34	YA	1078	U	C2-N1-C1'	9.83	129.49	117.70
34	RA	1742	C	C2-N1-C1'	9.79	129.57	118.80
1	XA	1297	C	C2-N1-C1'	9.74	129.51	118.80
34	RA	1644	C	C2-N1-C1'	9.70	129.47	118.80
1	XA	1356	G	C4-N9-C1'	9.65	139.04	126.50
34	YA	2443	C	C6-N1-C1'	-9.64	109.23	120.80
1	XA	308	C	P-O3'-C3'	-9.64	108.14	119.70
1	XA	623	C	C2-N1-C1'	9.59	129.34	118.80
34	YA	1644	C	C2-N1-C1'	9.59	129.34	118.80
34	RA	2836	U	C6-N1-C1'	-9.57	107.80	121.20
1	XA	1356	G	C8-N9-C1'	-9.57	114.55	127.00
1	XA	1259	C	C6-N1-C1'	-9.55	109.34	120.80
1	QA	536	C	C2-N1-C1'	9.54	129.29	118.80
1	QA	1234	C	C6-N1-C1'	-9.53	109.37	120.80
37	YE	146	THR	C-N-CA	9.52	161.97	122.00
34	YA	2620	C	C2-N1-C1'	9.51	129.26	118.80
1	XA	635	G	N9-C1'-C2'	-9.49	101.56	112.00
34	YA	2098	U	C6-N1-C1'	-9.48	107.93	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	2871	C	C2-N1-C1'	9.48	129.23	118.80
1	XA	1342	C	C2-N1-C1'	9.45	129.20	118.80
34	RA	373	U	C2-N1-C1'	9.43	129.01	117.70
1	XA	1297	C	C6-N1-C1'	-9.38	109.54	120.80
1	XA	692	U	C2-N1-C1'	9.38	128.96	117.70
1	QA	980	C	C6-N1-C1'	-9.34	109.59	120.80
1	XA	1505	G	N9-C1'-C2'	9.31	126.11	114.00
1	XA	1343	G	N9-C1'-C2'	-9.27	101.81	112.00
1	QA	1260	C	C6-N1-C1'	-9.26	109.68	120.80
1	XA	310	G	OP1-P-OP2	-9.25	105.72	119.60
1	QA	995	C	C2-N1-C1'	9.22	128.95	118.80
1	XA	309	G	C5'-C4'-O4'	-9.20	98.06	109.10
1	QA	88	C	C6-N1-C1'	-9.20	109.76	120.80
1	XA	617	G	O4'-C1'-N9	9.19	115.55	108.20
34	RA	270(L)	C	C6-N1-C1'	-9.18	109.78	120.80
1	XA	986	A	C4-N9-C1'	9.18	142.82	126.30
1	XA	68(S)	C	C2-N1-C1'	9.18	128.90	118.80
1	QA	1037	C	C6-N1-C1'	-9.16	109.81	120.80
1	XA	669	U	C2-N1-C1'	9.15	128.68	117.70
34	RA	419	C	C6-N1-C1'	-9.15	109.82	120.80
54	RZ	166	SER	C-N-CA	9.14	160.40	122.00
1	XA	677	U	C6-N1-C1'	-9.14	108.40	121.20
34	YA	888	C	O5'-P-OP2	-9.13	97.48	105.70
34	YA	2342	C	C2-N1-C1'	9.12	128.84	118.80
1	XA	986	A	C8-N9-C1'	-9.12	111.29	127.70
34	YA	1535	U	C6-N1-C1'	-9.10	108.47	121.20
30	R6	16	CYS	CA-CB-SG	9.09	130.37	114.00
1	XA	186(A)	C	C6-N1-C1'	-9.09	109.89	120.80
20	QT	73	HIS	N-CA-C	9.09	135.53	111.00
20	QT	74	LYS	N-CA-C	-9.08	86.47	111.00
34	YA	2787	C	C2-N1-C1'	9.08	128.78	118.80
34	YA	1941	C	C2-N1-C1'	9.07	128.78	118.80
34	YA	373	U	C2-N1-C1'	9.06	128.58	117.70
1	XA	1342	C	C6-N1-C1'	-9.06	109.93	120.80
34	YA	2794	C	C2-N1-C1'	9.05	128.75	118.80
1	XA	385	C	C6-N1-C1'	-9.04	109.95	120.80
1	XA	739	C	O5'-P-OP1	9.03	121.54	110.70
1	XA	115	G	C4-N9-C1'	9.02	138.22	126.50
1	XA	860	A	O5'-P-OP2	-9.02	97.58	105.70
1	XA	498	U	C2-N1-C1'	9.01	128.52	117.70
1	XA	1157	A	O4'-C1'-N9	9.01	115.41	108.20
34	RA	1742	C	C6-N1-C1'	-9.00	110.00	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	2789	C	C6-N1-C1'	-9.00	110.00	120.80
1	QA	714	G	C4-N9-C1'	8.99	138.18	126.50
34	YA	2474	C	C6-N1-C1'	-8.99	110.02	120.80
34	RA	2431	U	C6-N1-C1'	-8.98	108.62	121.20
1	XA	1129	C	C2-N1-C1'	8.98	128.68	118.80
1	QA	1114	C	C2-N1-C1'	8.96	128.65	118.80
34	RA	2691	C	C2-N1-C1'	8.96	128.65	118.80
1	XA	115	G	C8-N9-C1'	-8.94	115.37	127.00
1	QA	1028(C)	C	C2-N1-C1'	8.93	128.62	118.80
1	QA	1131	G	C4-N9-C1'	8.92	138.10	126.50
1	XA	115	G	P-O3'-C3'	8.92	130.41	119.70
1	QA	714	G	C8-N9-C1'	-8.92	115.41	127.00
34	YA	2164	C	C2-N1-C1'	8.91	128.60	118.80
1	QA	677	U	C6-N1-C1'	-8.91	108.73	121.20
1	XA	956	U	C6-N1-C1'	-8.90	108.74	121.20
1	XA	636	U	C6-N1-C1'	-8.89	108.75	121.20
28	Y4	39	CYS	C-N-CA	8.88	143.91	121.70
1	QA	1325	C	C2-N1-C1'	8.88	128.56	118.80
1	XA	1329	A	OP1-P-OP2	-8.87	106.29	119.60
35	RB	22	U	C5-C6-N1	8.86	127.13	122.70
1	QA	1131	G	C8-N9-C1'	-8.85	115.49	127.00
1	XA	856	C	C2-N1-C1'	8.85	128.53	118.80
34	YA	2111	C	O4'-C1'-N1	8.85	115.28	108.20
34	RA	2114	A	C4-N9-C1'	8.83	142.20	126.30
34	YA	2871	C	C6-N1-C1'	-8.83	110.20	120.80
1	XA	981	U	OP1-P-OP2	8.82	132.84	119.60
1	XA	1347	G	C5'-C4'-C3'	8.82	130.12	116.00
1	QA	1440(K)	C	C2-N1-C1'	8.82	128.50	118.80
34	RA	1644	C	C6-N1-C1'	-8.81	110.22	120.80
34	RA	2874	C	C2-N1-C1'	8.80	128.48	118.80
1	QA	1235	U	C2-N1-C1'	8.78	128.23	117.70
1	QA	400	C	C2-N1-C1'	8.77	128.45	118.80
1	QA	1277	C	C2-N1-C1'	8.77	128.44	118.80
1	XA	623	C	C6-N1-C1'	-8.75	110.30	120.80
34	YA	1644	C	C6-N1-C1'	-8.75	110.30	120.80
1	XA	136	C	C2-N1-C1'	8.73	128.41	118.80
34	YA	2502	G	C8-N9-C1'	-8.73	115.65	127.00
34	RA	2114	A	C8-N9-C1'	-8.72	112.00	127.70
34	YA	1534	G	C8-N9-C1'	-8.72	115.66	127.00
34	YA	12	U	C2-N1-C1'	8.70	128.15	117.70
34	RA	1882	C	C2-N1-C1'	8.70	128.37	118.80
34	YA	2620	C	C6-N1-C1'	-8.70	110.37	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	536	C	C6-N1-C1'	-8.69	110.37	120.80
1	XA	309	G	OP2-P-O3'	8.69	124.31	105.20
1	QA	379	C	C2-N1-C1'	8.65	128.32	118.80
34	YA	413	C	C2-N1-C1'	8.65	128.32	118.80
34	YA	1790	C	C2-N1-C1'	8.64	128.31	118.80
34	RA	1391	U	C2-N1-C1'	8.60	128.01	117.70
1	XA	826	C	C2-N1-C1'	8.59	128.25	118.80
34	YA	1094	U	C6-N1-C1'	-8.59	109.17	121.20
1	QA	43	C	C2-N1-C1'	8.59	128.25	118.80
35	YB	60	C	C6-N1-C2	-8.59	116.87	120.30
34	RA	338	G	C8-N9-C1'	-8.58	115.85	127.00
1	QA	723	U	C2-N1-C1'	8.57	127.99	117.70
1	XA	1198	G	C8-N9-C1'	-8.57	115.85	127.00
1	XA	267	C	O5'-P-OP1	-8.57	97.98	105.70
1	QA	1301	U	C2-N1-C1'	8.57	127.98	117.70
34	RA	338	G	C4-N9-C1'	8.57	137.64	126.50
34	YA	2619	C	C2-N1-C1'	8.57	128.22	118.80
1	XA	1277	C	C2-N1-C1'	8.56	128.22	118.80
1	XA	1150	U	C2-N1-C1'	8.55	127.97	117.70
34	YA	1611	C	C2-N1-C1'	8.53	128.19	118.80
34	RA	2098	U	C2-N1-C1'	8.53	127.94	117.70
1	XA	1198	G	C4-N9-C1'	8.53	137.59	126.50
35	YB	54	G	N1-C6-O6	8.53	125.02	119.90
1	QA	498	U	C2-N1-C1'	8.52	127.92	117.70
1	XA	1327	C	C2-N1-C1'	8.51	128.17	118.80
34	YA	1403	C	C2-N1-C1'	8.49	128.14	118.80
34	YA	2312	U	C2-N1-C1'	8.49	127.89	117.70
2	XB	89	GLY	C-N-CA	8.48	142.91	121.70
54	YZ	166	SER	C-N-CA	8.48	157.62	122.00
34	YA	1534	G	C4-N9-C1'	8.48	137.52	126.50
1	QA	385	C	C2-N1-C1'	8.47	128.12	118.80
1	XA	201(C)	U	C2-N1-C1'	8.47	127.87	117.70
30	Y6	43	CYS	CB-CA-C	8.47	127.34	110.40
34	RA	904	C	C2-N1-C1'	8.47	128.11	118.80
1	QA	995	C	C6-N1-C1'	-8.46	110.64	120.80
34	RA	2559	C	C2-N1-C1'	8.46	128.11	118.80
1	QA	193	C	C2-N1-C1'	8.46	128.10	118.80
37	RE	146	THR	C-N-CA	8.44	157.45	122.00
1	XA	68(Q)	C	C2-N1-C1'	8.44	128.09	118.80
34	RA	2506	U	C2-N1-C1'	8.44	127.83	117.70
34	RA	508	G	C4-N9-C1'	8.43	137.46	126.50
1	XA	68(S)	C	C6-N1-C1'	-8.42	110.69	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	384	U	C2-N1-C1'	8.41	127.80	117.70
1	XA	1158	C	C2-N1-C1'	-8.41	109.55	118.80
34	RA	2189	U	C6-N1-C1'	-8.40	109.44	121.20
34	RA	2006	C	C2-N1-C1'	8.40	128.04	118.80
34	RA	1506	C	C2-N1-C1'	8.39	128.03	118.80
34	YA	1078	U	C6-N1-C1'	-8.38	109.47	121.20
34	RA	280	C	C2-N1-C1'	8.38	128.01	118.80
34	RA	35	G	C8-N9-C1'	-8.37	116.12	127.00
1	XA	68(V)	U	C2-N1-C1'	8.36	127.73	117.70
40	YH	12	PRO	CA-N-CD	8.35	123.40	111.70
1	QA	1313	U	C2-N1-C1'	8.35	127.72	117.70
34	RA	508	G	C8-N9-C1'	-8.34	116.15	127.00
34	YA	2342	C	C6-N1-C1'	-8.34	110.79	120.80
34	RA	714	U	C2-N1-C1'	8.33	127.70	117.70
34	YA	1882	C	C2-N1-C1'	8.33	127.96	118.80
34	YA	2787	C	C6-N1-C1'	-8.32	110.81	120.80
34	RA	1437	C	C2-N1-C1'	8.31	127.94	118.80
34	RA	35	G	C4-N9-C1'	8.31	137.31	126.50
1	XA	1129	C	C6-N1-C1'	-8.31	110.83	120.80
34	YA	2502	G	C4-N9-C1'	8.30	137.30	126.50
1	XA	1345	U	C2-N1-C1'	8.30	127.66	117.70
34	RA	2803	C	C2-N1-C1'	8.30	127.93	118.80
4	XD	18	LYS	CD-CE-NZ	8.30	130.79	111.70
34	YA	2794	C	C6-N1-C1'	-8.29	110.85	120.80
34	YA	1941	C	C6-N1-C1'	-8.29	110.85	120.80
34	YA	2501	C	C2-N1-C1'	8.28	127.91	118.80
34	YA	2889	C	C2-N1-C1'	8.28	127.91	118.80
1	XA	754	C	N1-C1'-C2'	8.27	124.75	114.00
1	QA	1145	C	C2-N1-C1'	8.27	127.89	118.80
1	XA	1226	C	C2-N1-C1'	-8.26	109.71	118.80
1	XA	323	U	C2-N1-C1'	8.25	127.61	117.70
1	QA	1440(K)	C	C6-N1-C1'	-8.24	110.91	120.80
34	RA	2787	C	C2-N1-C1'	8.24	127.86	118.80
1	XA	1260	C	C2-N1-C1'	8.24	127.86	118.80
1	QA	624	C	C2-N1-C1'	8.22	127.84	118.80
1	XA	116	A	O5'-P-OP2	8.20	120.54	110.70
34	YA	509	C	C2-N1-C1'	8.20	127.82	118.80
34	RA	2691	C	C6-N1-C1'	-8.18	110.98	120.80
1	QA	1114	C	C6-N1-C1'	-8.18	110.98	120.80
36	YD	34	VAL	N-CA-C	-8.16	88.97	111.00
1	XA	1145	C	C2-N1-C1'	8.16	127.77	118.80
34	YA	2815	C	C2-N1-C1'	8.15	127.77	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	2164	C	C6-N1-C1'	-8.13	111.05	120.80
1	QA	1325	C	C6-N1-C1'	-8.12	111.06	120.80
28	Y4	5	ILE	N-CA-C	-8.11	89.11	111.00
34	RA	2554	U	C2-N1-C1'	8.11	127.43	117.70
1	QA	163	C	C2-N1-C1'	8.10	127.71	118.80
34	YA	856	C	C2-N1-C1'	8.09	127.70	118.80
1	QA	1028(C)	C	C6-N1-C1'	-8.08	111.10	120.80
1	QA	1219	U	C2-N1-C1'	8.08	127.40	117.70
34	RA	1870	C	C2-N1-C1'	8.08	127.69	118.80
1	QA	443	C	C2-N1-C1'	8.07	127.68	118.80
34	YA	1742	C	C2-N1-C1'	8.06	127.67	118.80
35	YB	30	C	C5-C6-N1	8.06	125.03	121.00
34	RA	1905	C	C2-N1-C1'	8.06	127.66	118.80
34	YA	2619	C	C6-N1-C1'	-8.05	111.13	120.80
1	XA	692	U	C6-N1-C1'	-8.05	109.93	121.20
1	QA	400	C	C6-N1-C1'	-8.04	111.15	120.80
34	RA	1881	C	C2-N1-C1'	8.04	127.64	118.80
34	RA	2168	G	C8-N9-C1'	-8.04	116.55	127.00
1	XA	1253	G	P-O3'-C3'	-8.04	110.05	119.70
34	YA	1880	C	C2-N1-C1'	8.04	127.64	118.80
34	RA	2874	C	C6-N1-C1'	-8.03	111.17	120.80
1	XA	856	C	C6-N1-C1'	-8.03	111.17	120.80
29	Y5	32	PRO	CA-N-CD	-8.02	100.27	111.50
1	XA	1197	G	C4-N9-C1'	8.02	136.93	126.50
1	XA	1277	C	C6-N1-C1'	-8.02	111.18	120.80
40	RH	152	ARG	C-N-CA	8.01	141.73	121.70
1	XA	669	U	C6-N1-C1'	-8.01	109.99	121.20
1	QA	1277	C	C6-N1-C1'	-8.01	111.19	120.80
1	XA	133	U	OP1-P-OP2	-8.00	107.60	119.60
34	RA	1649	G	C8-N9-C1'	-7.99	116.61	127.00
34	RA	373	U	C6-N1-C1'	-7.99	110.02	121.20
34	YA	270(Q)	C	C2-N1-C1'	7.99	127.59	118.80
40	YH	151	ILE	N-CA-C	-7.99	89.43	111.00
34	RA	1882	C	C6-N1-C1'	-7.99	111.22	120.80
34	RA	2168	G	C4-N9-C1'	7.97	136.86	126.50
34	RA	2456	C	C2-N1-C1'	7.97	127.56	118.80
1	XA	1202	G	C4-N9-C1'	7.97	136.86	126.50
1	XA	943	U	C2-N1-C1'	7.97	127.26	117.70
34	YA	2127	G	C4-N9-C1'	7.97	136.86	126.50
34	YA	420	C	C2-N1-C1'	7.96	127.56	118.80
1	QA	1367	C	O4'-C1'-N1	7.96	114.57	108.20
1	XA	1270	C	C2-N1-C1'	7.96	127.55	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	1879	C	C2-N1-C1'	7.95	127.55	118.80
1	XA	1197	G	C8-N9-C1'	-7.95	116.67	127.00
1	XA	136	C	C6-N1-C1'	-7.94	111.27	120.80
1	QA	623	C	C2-N1-C1'	7.93	127.53	118.80
34	YA	721	C	C2-N1-C1'	7.93	127.53	118.80
34	YA	860	U	O4'-C1'-N1	7.93	114.54	108.20
34	RA	2291	U	C2-N1-C1'	7.92	127.21	117.70
1	XA	1347	G	P-O3'-C3'	7.92	129.20	119.70
34	YA	541	C	C2-N1-C1'	7.92	127.51	118.80
34	YA	1790	C	C6-N1-C1'	-7.92	111.30	120.80
1	QA	110	C	C2-N1-C1'	7.92	127.51	118.80
1	XA	1401	G	C4-N9-C1'	7.91	136.78	126.50
1	QA	1369	C	C2-N1-C1'	7.91	127.50	118.80
1	QA	43	C	C6-N1-C1'	-7.90	111.32	120.80
1	XA	1202	G	C8-N9-C1'	-7.90	116.73	127.00
35	YB	70	C	C6-N1-C2	-7.89	117.14	120.30
34	YA	2127	G	C8-N9-C1'	-7.88	116.75	127.00
34	YA	413	C	C6-N1-C1'	-7.88	111.34	120.80
34	YA	1533	C	C2-N1-C1'	7.88	127.46	118.80
1	QA	379	C	C6-N1-C1'	-7.87	111.36	120.80
1	XA	36	C	C2-N1-C1'	7.87	127.46	118.80
1	QA	984	C	C2-N1-C1'	7.86	127.44	118.80
34	RA	2343	C	C2-N1-C1'	7.85	127.43	118.80
1	QA	201(A)	C	C2-N1-C1'	7.84	127.43	118.80
34	YA	1951	U	C2-N1-C1'	7.84	127.11	117.70
34	YA	2087	G	C8-N9-C1'	-7.83	116.81	127.00
34	RA	2658	C	C2-N1-C1'	7.83	127.41	118.80
1	XA	1401	G	C8-N9-C1'	-7.82	116.83	127.00
1	XA	381	C	C2-N1-C1'	7.82	127.40	118.80
34	YA	2656	U	C2-N1-C1'	7.82	127.08	117.70
34	RA	141(B)	C	C2-N1-C1'	7.82	127.40	118.80
34	RA	2178	C	C2-N1-C1'	7.81	127.39	118.80
1	XA	836	G	C8-N9-C1'	-7.81	116.84	127.00
1	QA	186(H)	C	C2-N1-C1'	7.81	127.39	118.80
1	QA	1235	U	C6-N1-C1'	-7.81	110.27	121.20
34	YA	2087	G	C4-N9-C1'	7.81	136.65	126.50
34	YA	1611	C	C6-N1-C1'	-7.80	111.44	120.80
1	XA	826	C	C6-N1-C1'	-7.80	111.44	120.80
1	XA	1505	G	O5'-P-OP2	7.79	120.05	110.70
34	RA	2695	C	C2-N1-C1'	7.79	127.37	118.80
35	RB	11	C	C6-N1-C2	-7.79	117.18	120.30
1	QA	838(B)	U	C2-N1-C1'	7.79	127.05	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	2251	G	C4-N9-C1'	7.78	136.62	126.50
35	YB	37	C	N3-C2-O2	-7.78	116.45	121.90
1	XA	836	G	C4-N9-C1'	7.78	136.61	126.50
1	XA	1426	C	C2-N1-C1'	7.77	127.35	118.80
34	RA	1087	G	O4'-C1'-N9	-7.77	101.98	108.20
34	RA	2559	C	C6-N1-C1'	-7.76	111.49	120.80
1	XA	1158	C	C6-N1-C1'	7.76	130.11	120.80
34	YA	1403	C	C6-N1-C1'	-7.76	111.49	120.80
34	YA	114	U	C2-N1-C1'	7.75	127.00	117.70
1	QA	193	C	C6-N1-C1'	-7.75	111.50	120.80
34	YA	2836	U	C2-N1-C1'	7.75	126.99	117.70
35	YB	111	U	C5-C4-O4	7.74	130.54	125.90
1	QA	320	C	C2-N1-C1'	7.74	127.31	118.80
1	QA	385	C	C6-N1-C1'	-7.74	111.52	120.80
1	XA	1327	C	C6-N1-C1'	-7.73	111.52	120.80
28	Y4	3	GLU	C-N-CA	-7.73	106.06	122.30
34	RA	2130	U	C2-N1-C1'	7.73	126.97	117.70
1	XA	1058	G	O5'-P-OP1	7.72	119.97	110.70
22	XV	15	G	C4-N9-C1'	7.72	136.54	126.50
1	XA	68(Q)	C	C6-N1-C1'	-7.72	111.54	120.80
34	RA	904	C	C6-N1-C1'	-7.72	111.54	120.80
1	XA	1325	C	C2-N1-C1'	7.72	127.29	118.80
1	XA	1058	G	C4-N9-C1'	7.71	136.53	126.50
34	YA	2251	G	C8-N9-C1'	-7.71	116.97	127.00
1	XA	1049	U	C2-N1-C1'	7.71	126.95	117.70
1	XA	322	C	C2-N1-C1'	7.70	127.27	118.80
34	YA	373	U	C6-N1-C1'	-7.69	110.43	121.20
34	RA	1533	C	C2-N1-C1'	7.69	127.26	118.80
34	YA	2235	G	C4-N9-C1'	7.69	136.49	126.50
1	XA	1140	C	C2-N1-C1'	7.67	127.24	118.80
1	XA	310	G	O5'-P-OP2	7.67	119.90	110.70
34	RA	2006	C	C6-N1-C1'	-7.67	111.60	120.80
34	RA	2656	U	C2-N1-C1'	7.66	126.89	117.70
1	QA	705	U	C2-N1-C1'	7.66	126.89	117.70
34	RA	280	C	C6-N1-C1'	-7.66	111.61	120.80
1	XA	1381	U	C2'-C3'-O3'	7.66	126.35	109.50
34	RA	544	C	C2-N1-C1'	7.65	127.21	118.80
34	YA	414	C	C2-N1-C1'	7.64	127.21	118.80
1	QA	186(B)	C	C2-N1-C1'	7.64	127.20	118.80
1	XA	498	U	C6-N1-C1'	-7.64	110.51	121.20
14	QN	24	CYS	CA-CB-SG	7.64	127.75	114.00
1	XA	1260	C	C6-N1-C1'	-7.64	111.64	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	XV	15	G	N3-C4-C5	-7.63	124.78	128.60
34	RA	63	U	N1-C1'-C2'	7.63	123.92	114.00
35	YB	10	C	C6-N1-C2	-7.63	117.25	120.30
34	YA	2501	C	C6-N1-C1'	-7.62	111.65	120.80
34	RA	1437	C	C6-N1-C1'	-7.62	111.65	120.80
34	RA	1225	C	C2-N1-C1'	7.62	127.19	118.80
34	YA	2235	G	C8-N9-C1'	-7.62	117.10	127.00
34	RA	114	U	C2-N1-C1'	7.61	126.83	117.70
34	RA	1506	C	C6-N1-C1'	-7.60	111.67	120.80
1	XA	1058	G	C8-N9-C1'	-7.60	117.11	127.00
1	QA	957	U	C2-N1-C1'	7.60	126.82	117.70
34	RA	613	U	C2-N1-C1'	7.60	126.82	117.70
1	XA	1233	G	C4-N9-C1'	7.60	136.38	126.50
34	YA	2889	C	C6-N1-C1'	-7.60	111.68	120.80
1	XA	1358	U	O5'-C5'-C4'	7.59	126.13	111.70
1	QA	524	G	C4-N9-C1'	7.59	136.37	126.50
34	RA	1790	C	C2-N1-C1'	7.59	127.14	118.80
34	YA	1990	C	C2-N1-C1'	7.59	127.14	118.80
34	YA	2431	U	C2-N1-C1'	7.59	126.80	117.70
34	RA	2803	C	C6-N1-C1'	-7.58	111.70	120.80
1	QA	624	C	C6-N1-C1'	-7.58	111.70	120.80
34	RA	2787	C	C6-N1-C1'	-7.58	111.70	120.80
1	QA	989	C	C2-N1-C1'	7.58	127.14	118.80
1	XA	323	U	OP1-P-OP2	-7.58	108.23	119.60
1	XA	68(R)	U	C2-N1-C1'	7.57	126.78	117.70
34	RA	2832	U	P-O3'-C3'	7.56	128.78	119.70
34	YA	1882	C	C6-N1-C1'	-7.56	111.72	120.80
34	RA	2666	C	C2-N1-C1'	7.55	127.11	118.80
34	RA	413	C	C2-N1-C1'	7.55	127.10	118.80
1	QA	524	G	C8-N9-C1'	-7.54	117.19	127.00
1	QA	692	U	C2-N1-C1'	7.54	126.75	117.70
34	RA	721	C	C2-N1-C1'	7.54	127.09	118.80
34	YA	2132	U	C2-N1-C1'	7.54	126.74	117.70
34	YA	509	C	C6-N1-C1'	-7.53	111.76	120.80
34	RA	2262	U	C2-N1-C1'	7.53	126.74	117.70
1	QA	1145	C	C6-N1-C1'	-7.52	111.77	120.80
34	YA	2130	U	C2-N1-C1'	7.52	126.72	117.70
20	QT	73	HIS	N-CA-CB	7.52	124.13	110.60
1	XA	309	G	OP1-P-OP2	-7.52	108.33	119.60
34	RA	1535	U	C2-N1-C1'	7.51	126.71	117.70
35	YB	31	C	N3-C2-O2	-7.51	116.64	121.90
1	QA	1440(B)	G	C8-N9-C1'	-7.51	117.24	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	1128	C	C2-N1-C1'	7.50	127.06	118.80
1	XA	1233	G	C8-N9-C1'	-7.50	117.25	127.00
1	XA	309	G	C3'-C2'-C1'	-7.50	95.50	101.50
34	YA	1404	C	C2-N1-C1'	7.49	127.04	118.80
1	QA	20	U	C2-N1-C1'	7.49	126.68	117.70
1	QA	1028(D)	G	C4-N9-C1'	7.48	136.22	126.50
1	QA	848	C	C2-N1-C1'	7.48	127.03	118.80
1	QA	1326	C	C2-N1-C1'	7.48	127.03	118.80
1	XA	1062	U	C2-N1-C1'	7.48	126.67	117.70
34	YA	2190	G	C8-N9-C1'	-7.47	117.28	127.00
1	QA	1361	G	C4-N9-C1'	7.47	136.21	126.50
1	XA	1495	U	N1-C1'-C2'	-7.47	103.78	112.00
1	XA	690	G	C4-N9-C1'	7.47	136.21	126.50
1	QA	757	U	C2-N1-C1'	7.46	126.66	117.70
1	QA	1440(B)	G	C4-N9-C1'	7.46	136.20	126.50
1	XA	309	G	P-O5'-C5'	7.46	132.84	120.90
1	QA	24	U	C2-N1-C1'	7.46	126.65	117.70
34	YA	269	U	C2-N1-C1'	7.46	126.65	117.70
1	XA	618	C	O5'-P-OP1	7.45	119.64	110.70
1	XA	1107	C	O5'-P-OP1	7.45	119.64	110.70
1	XA	1145	C	C6-N1-C1'	-7.45	111.87	120.80
35	YB	82	G	C8-N9-C4	-7.45	103.42	106.40
1	QA	581	G	C4-N9-C1'	7.44	136.18	126.50
34	YA	12	U	C6-N1-C1'	-7.44	110.79	121.20
1	XA	1373	G	O5'-P-OP1	7.43	119.62	110.70
34	RA	1672	C	C2-N1-C1'	7.43	126.98	118.80
34	YA	856	C	C6-N1-C1'	-7.43	111.88	120.80
35	YB	10	C	C5-C6-N1	7.43	124.71	121.00
1	QA	1361	G	C8-N9-C1'	-7.43	117.35	127.00
1	XA	1329	A	OP2-P-O3'	7.42	121.53	105.20
1	XA	1226	C	C6-N1-C1'	7.42	129.71	120.80
34	RA	1558	A	P-O3'-C3'	7.41	128.59	119.70
34	YA	2815	C	C6-N1-C1'	-7.41	111.91	120.80
34	RA	1549	C	C2-N1-C1'	7.41	126.94	118.80
34	RA	1870	C	C6-N1-C1'	-7.40	111.92	120.80
1	QA	1028(D)	G	C8-N9-C1'	-7.40	117.38	127.00
1	XA	1314	C	C2-N1-C1'	7.40	126.94	118.80
34	RA	1075	C	C2-N1-C1'	7.40	126.94	118.80
1	XA	68(M)	U	OP1-P-OP2	-7.39	108.51	119.60
1	XA	690	G	C8-N9-C1'	-7.39	117.39	127.00
36	RD	34	VAL	N-CA-C	-7.39	91.04	111.00
1	QA	163	C	C6-N1-C1'	-7.39	111.93	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	1742	C	C6-N1-C1'	-7.38	111.94	120.80
34	RA	602	G	C8-N9-C1'	-7.38	117.41	127.00
34	RA	1577	C	C2-N1-C1'	7.38	126.91	118.80
34	YA	2034	U	C2-N1-C1'	7.38	126.55	117.70
34	RA	1881	C	C6-N1-C1'	-7.37	111.95	120.80
34	YA	1880	C	C6-N1-C1'	-7.37	111.95	120.80
1	QA	1315	U	C2-N1-C1'	7.37	126.54	117.70
34	RA	1905	C	C6-N1-C1'	-7.37	111.96	120.80
1	QA	1056	U	C2-N1-C1'	7.37	126.54	117.70
34	YA	2190	G	C4-N9-C1'	7.37	136.08	126.50
34	RA	1734	C	C2-N1-C1'	7.37	126.90	118.80
35	YB	1	U	N1-C2-O2	7.37	127.95	122.80
35	RB	11	C	N1-C2-O2	7.36	123.32	118.90
1	XA	838(B)	U	C2-N1-C1'	7.36	126.53	117.70
1	XA	726	C	C2-N1-C1'	7.35	126.89	118.80
34	YA	2161	C	C2-N1-C1'	7.35	126.89	118.80
1	QA	581	G	C8-N9-C1'	-7.35	117.45	127.00
34	YA	1005	C	C2-N1-C1'	7.35	126.89	118.80
35	YB	70	C	C5-C6-N1	7.35	124.67	121.00
1	QA	1150	U	C2-N1-C1'	7.34	126.51	117.70
35	YB	37	C	C6-N1-C2	-7.34	117.36	120.30
1	QA	154	C	C2-N1-C1'	7.34	126.87	118.80
1	QA	54	C	C2-N1-C1'	7.34	126.87	118.80
1	QA	443	C	C6-N1-C1'	-7.33	112.01	120.80
1	QA	862	C	C2-N1-C1'	7.33	126.86	118.80
34	RA	1433	U	C2-N1-C1'	7.32	126.48	117.70
34	RA	2374	C	C2-N1-C1'	7.32	126.85	118.80
34	RA	602	G	C4-N9-C1'	7.31	136.01	126.50
1	XA	1367	C	O4'-C1'-N1	7.31	114.05	108.20
34	RA	9	U	C2-N1-C1'	7.31	126.47	117.70
1	XA	115	G	OP2-P-O3'	7.31	121.28	105.20
34	YA	1558	A	P-O3'-C3'	7.31	128.47	119.70
1	QA	322	C	C2-N1-C1'	7.31	126.84	118.80
1	XA	1270	C	C6-N1-C1'	-7.31	112.03	120.80
1	QA	137	C	C2-N1-C1'	7.30	126.83	118.80
1	QA	1113	C	C2-N1-C1'	7.30	126.83	118.80
34	RA	231	C	C2-N1-C1'	7.30	126.83	118.80
1	QA	723	U	C6-N1-C1'	-7.30	110.98	121.20
1	QA	1376	U	C2-N1-C1'	7.30	126.46	117.70
34	RA	1788	C	C2-N1-C1'	7.30	126.83	118.80
1	QA	1230	C	C2-N1-C1'	7.29	126.83	118.80
34	RA	2766	G	C4-N9-C1'	7.29	135.98	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	1301	U	C6-N1-C1'	-7.29	110.99	121.20
34	RA	1391	U	C6-N1-C1'	-7.29	110.99	121.20
1	XA	1113	C	C2-N1-C1'	7.29	126.82	118.80
1	QA	201(A)	C	C6-N1-C1'	-7.29	112.05	120.80
35	YB	94	C	C6-N1-C2	-7.29	117.38	120.30
34	YA	270(Q)	C	C6-N1-C1'	-7.29	112.06	120.80
34	YA	1407	C	C2-N1-C1'	7.29	126.81	118.80
35	YB	102	G	N1-C6-O6	-7.28	115.53	119.90
1	XA	1327	C	OP1-P-O3'	7.28	121.21	105.20
1	XA	368	U	C2-N1-C1'	7.28	126.43	117.70
34	RA	2456	C	C6-N1-C1'	-7.27	112.08	120.80
1	QA	198	G	C4-N9-C1'	7.27	135.94	126.50
34	RA	657	U	C2-N1-C1'	7.26	126.42	117.70
34	RA	1879	C	C6-N1-C1'	-7.26	112.08	120.80
1	XA	443	C	C2-N1-C1'	7.26	126.79	118.80
34	YA	420	C	C6-N1-C1'	-7.26	112.08	120.80
1	QA	198	G	C8-N9-C1'	-7.26	117.56	127.00
34	RA	2821	A	O5'-P-OP1	-7.26	99.16	105.70
1	XA	590	C	C2-N1-C1'	7.26	126.78	118.80
34	YA	2312	U	C6-N1-C1'	-7.25	111.04	121.20
34	RA	384	U	C6-N1-C1'	-7.25	111.05	121.20
35	YB	47	C	N1-C2-O2	7.25	123.25	118.90
34	RA	161	U	C2-N1-C1'	7.25	126.40	117.70
35	RB	22	U	C6-N1-C2	-7.25	116.65	121.00
1	QA	623	C	C6-N1-C1'	-7.24	112.11	120.80
34	RA	2098	U	C6-N1-C1'	-7.24	111.06	121.20
1	QA	1369	C	C6-N1-C1'	-7.24	112.12	120.80
34	YA	721	C	C6-N1-C1'	-7.23	112.12	120.80
34	RA	779	U	C2-N1-C1'	7.23	126.38	117.70
1	XA	201(C)	U	C6-N1-C1'	-7.23	111.08	121.20
34	YA	1533	C	C6-N1-C1'	-7.23	112.12	120.80
1	QA	110	C	C6-N1-C1'	-7.23	112.12	120.80
34	RA	2343	C	C6-N1-C1'	-7.23	112.12	120.80
34	RA	2766	G	C8-N9-C1'	-7.23	117.60	127.00
34	YA	2063	C	C2-N1-C1'	7.23	126.75	118.80
34	YA	541	C	C6-N1-C1'	-7.21	112.15	120.80
1	QA	1097	C	C2-N1-C1'	7.21	126.73	118.80
1	QA	437	U	C2-N1-C1'	7.20	126.34	117.70
1	QA	498	U	C6-N1-C1'	-7.20	111.12	121.20
34	RA	1213	A	C8-N9-C1'	-7.20	114.74	127.70
1	QA	320	C	C6-N1-C1'	-7.19	112.17	120.80
34	RA	1213	A	C4-N9-C1'	7.19	139.24	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	1131	G	C4-N9-C1'	7.19	135.85	126.50
1	XA	1343	G	C3'-C2'-C1'	7.19	107.25	101.50
1	XA	1225	A	C5'-C4'-O4'	7.19	117.72	109.10
1	XA	1131	G	C8-N9-C1'	-7.19	117.66	127.00
1	XA	1277	C	P-O3'-C3'	7.18	128.32	119.70
34	YA	2559	C	C2-N1-C1'	7.18	126.70	118.80
34	YA	2858	C	C2-N1-C1'	7.18	126.70	118.80
1	XA	1346	A	C8-N9-C1'	-7.18	114.77	127.70
34	RA	2658	C	C6-N1-C1'	-7.18	112.18	120.80
34	RA	714	U	C6-N1-C1'	-7.18	111.15	121.20
34	RA	1533	C	C6-N1-C1'	-7.18	112.19	120.80
1	QA	79	G	C4-N9-C1'	7.17	135.83	126.50
1	QA	984	C	C6-N1-C1'	-7.17	112.20	120.80
34	RA	453	C	C2-N1-C1'	7.17	126.69	118.80
34	YA	1271	G	C4-N9-C1'	7.17	135.82	126.50
1	XA	1140	C	C6-N1-C1'	-7.17	112.20	120.80
1	QA	1328	C	OP1-P-OP2	-7.16	108.86	119.60
1	XA	946	A	O5'-P-OP1	7.16	119.29	110.70
34	YA	105	C	C2-N1-C1'	7.16	126.68	118.80
1	XA	381	C	C6-N1-C1'	-7.16	112.21	120.80
1	XA	36	C	C6-N1-C1'	-7.16	112.21	120.80
36	YD	35	LYS	CA-CB-CG	7.16	129.14	113.40
1	XA	1361	G	C4-N9-C1'	7.15	135.80	126.50
34	RA	1649	G	C4-N9-C1'	7.15	135.80	126.50
1	QA	283	C	C2-N1-C1'	7.15	126.67	118.80
1	XA	68(V)	U	C6-N1-C1'	-7.15	111.19	121.20
1	XA	955	U	C2-N1-C1'	7.15	126.28	117.70
34	RA	2178	C	C6-N1-C1'	-7.14	112.23	120.80
1	QA	643	C	C2-N1-C1'	7.14	126.66	118.80
1	QA	719	C	C2-N1-C1'	7.14	126.66	118.80
1	QA	223	U	C2-N1-C1'	7.13	126.26	117.70
34	RA	2506	U	C6-N1-C1'	-7.13	111.22	121.20
1	QA	789	U	C2-N1-C1'	7.13	126.25	117.70
1	QA	186(H)	C	C6-N1-C1'	-7.12	112.26	120.80
1	QA	1313	U	C6-N1-C1'	-7.12	111.24	121.20
1	XA	1361	G	C8-N9-C1'	-7.12	117.75	127.00
1	XA	1150	U	C6-N1-C1'	-7.11	111.24	121.20
1	QA	79	G	C8-N9-C1'	-7.11	117.76	127.00
1	XA	946	A	O5'-P-OP2	-7.11	99.30	105.70
34	YA	1271	G	C8-N9-C1'	-7.11	117.76	127.00
34	YA	1022	G	P-O3'-C3'	7.11	128.23	119.70
1	QA	1406	U	C2-N1-C1'	7.10	126.22	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	323	U	C6-N1-C1'	-7.10	111.25	121.20
34	RA	2584	U	O4'-C1'-N1	7.10	113.88	108.20
1	XA	658	G	C4-N9-C1'	7.09	135.72	126.50
34	YA	629	G	C4-N9-C1'	7.09	135.72	126.50
1	QA	826	C	C2-N1-C1'	7.09	126.60	118.80
1	XA	531	U	C2-N1-C1'	7.09	126.21	117.70
34	RA	141(B)	C	C6-N1-C1'	-7.09	112.29	120.80
35	YB	1	U	N3-C2-O2	-7.09	117.24	122.20
34	YA	652	C	C2-N1-C1'	7.08	126.59	118.80
35	YB	80	U	N3-C2-O2	-7.08	117.24	122.20
1	XA	1348	U	O4'-C1'-N1	7.08	113.86	108.20
34	YA	2784	C	C2-N1-C1'	7.08	126.59	118.80
34	RA	2889	C	C2-N1-C1'	7.08	126.58	118.80
34	RA	2695	C	C6-N1-C1'	-7.07	112.31	120.80
34	RA	1178	C	C2-N1-C1'	7.07	126.58	118.80
34	RA	1370	C	C2-N1-C1'	7.07	126.58	118.80
1	QA	748	C	P-O3'-C3'	7.07	128.18	119.70
34	RA	537	C	C2-N1-C1'	7.06	126.57	118.80
34	YA	1314	C	C2-N1-C1'	7.06	126.57	118.80
34	YA	1045	A	P-O3'-C3'	7.06	128.17	119.70
35	YB	27	C	C6-N1-C2	-7.06	117.48	120.30
34	RA	846	C	P-O3'-C3'	7.05	128.16	119.70
1	QA	186(B)	C	C6-N1-C1'	-7.05	112.34	120.80
34	YA	2550	G	N9-C1'-C2'	7.05	123.17	114.00
1	XA	678	U	C2-N1-C1'	7.05	126.16	117.70
1	XA	1426	C	C6-N1-C1'	-7.05	112.34	120.80
34	YA	846	C	P-O3'-C3'	7.05	128.16	119.70
1	XA	658	G	C8-N9-C1'	-7.04	117.85	127.00
1	XA	1325	C	C6-N1-C1'	-7.04	112.35	120.80
34	YA	629	G	C8-N9-C1'	-7.03	117.86	127.00
35	YB	30	C	N3-C2-O2	-7.03	116.98	121.90
1	QA	312	C	C2-N1-C1'	7.03	126.53	118.80
1	XA	309	G	C5'-C4'-C3'	7.03	127.25	116.00
34	YA	1070	A	C4-N9-C1'	7.03	138.95	126.30
1	QA	634	C	C2-N1-C1'	7.03	126.53	118.80
1	XA	1345	U	C6-N1-C1'	-7.03	111.36	121.20
35	YB	68	C	C6-N1-C2	-7.03	117.49	120.30
34	YA	2380	C	C2-N1-C1'	7.02	126.52	118.80
1	XA	811	C	C2-N1-C1'	7.02	126.52	118.80
1	QA	618	C	C2-N1-C1'	7.02	126.52	118.80
34	YA	2584	U	O4'-C1'-N1	7.02	113.81	108.20
35	RB	27	C	C6-N1-C2	-7.01	117.49	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	1384	C	C2-N1-C1'	7.01	126.52	118.80
34	RA	544	C	C6-N1-C1'	-7.01	112.39	120.80
1	QA	1086	U	C2-N1-C1'	7.01	126.11	117.70
34	RA	2698	U	C2-N1-C1'	7.01	126.11	117.70
1	XA	1358	U	OP1-P-O3'	7.01	120.62	105.20
34	RA	1141	U	C2-N1-C1'	7.01	126.11	117.70
35	RB	11	C	N3-C2-O2	-7.01	117.00	121.90
34	YA	1741	C	C2-N1-C1'	7.00	126.50	118.80
35	YB	54	G	C4-C5-N7	7.00	113.60	110.80
1	XA	1232	U	OP1-P-OP2	-7.00	109.10	119.60
1	XA	322	C	C6-N1-C1'	-7.00	112.40	120.80
34	RA	1790	C	C6-N1-C1'	-6.99	112.41	120.80
34	RA	184	C	C2-N1-C1'	6.99	126.49	118.80
34	RA	2321	G	C4-N9-C1'	6.99	135.59	126.50
34	YA	2723	C	C2-N1-C1'	6.99	126.49	118.80
35	YB	31	C	N1-C2-O2	6.98	123.09	118.90
34	YA	613	U	C2-N1-C1'	6.98	126.07	117.70
34	YA	1728	G	O4'-C1'-N9	6.98	113.78	108.20
1	QA	1128	C	C6-N1-C1'	-6.97	112.43	120.80
34	YA	1433	U	C2-N1-C1'	6.97	126.07	117.70
34	YA	271(C)	G	P-O3'-C3'	6.97	128.06	119.70
1	QA	195	A	C4-N9-C1'	6.96	138.84	126.30
1	QA	1219	U	C6-N1-C1'	-6.96	111.45	121.20
1	XA	1037	C	C2-N1-C1'	6.96	126.46	118.80
1	XA	131	C	C2-N1-C1'	6.96	126.45	118.80
34	YA	1070	A	C8-N9-C1'	-6.95	115.19	127.70
1	XA	1346	A	C4-N9-C1'	6.95	138.81	126.30
1	XA	1366	C	C2-N1-C1'	6.95	126.44	118.80
34	RA	1022	G	P-O3'-C3'	6.95	128.03	119.70
34	RA	2554	U	C6-N1-C1'	-6.95	111.48	121.20
34	YA	503	A	P-O3'-C3'	6.94	128.03	119.70
34	RA	721	C	C6-N1-C1'	-6.94	112.47	120.80
20	QT	73	HIS	CB-CA-C	-6.94	96.52	110.40
34	YA	1956	U	C2-N1-C1'	6.94	126.02	117.70
34	RA	1330	C	C2-N1-C1'	6.93	126.42	118.80
1	XA	115	G	O4'-C1'-N9	6.93	113.75	108.20
34	RA	2483	C	C2-N1-C1'	6.93	126.42	118.80
1	XA	323	U	O5'-P-OP1	-6.93	99.47	105.70
1	XA	619	U	C2-N1-C1'	-6.93	109.39	117.70
1	XA	879	C	C2-N1-C1'	6.93	126.42	118.80
1	XA	310	G	C8-N9-C1'	6.92	136.00	127.00
34	YA	1097	U	C2-N1-C1'	6.92	126.01	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	1990	C	C6-N1-C1'	-6.92	112.49	120.80
1	QA	989	C	C6-N1-C1'	-6.92	112.49	120.80
34	RA	2321	G	C8-N9-C1'	-6.92	118.01	127.00
1	QA	590	C	C2-N1-C1'	6.92	126.41	118.80
34	YA	414	C	C6-N1-C1'	-6.90	112.52	120.80
34	RA	2666	C	C6-N1-C1'	-6.90	112.52	120.80
35	YB	54	G	C5-N7-C8	-6.90	100.85	104.30
1	QA	1371	G	C4-N9-C1'	6.89	135.46	126.50
34	RA	1225	C	C6-N1-C1'	-6.89	112.53	120.80
1	XA	1242	C	C2-N1-C1'	6.89	126.38	118.80
34	RA	413	C	C6-N1-C1'	-6.89	112.53	120.80
34	RA	2471	C	C2-N1-C1'	6.89	126.38	118.80
41	RI	131	LYS	N-CA-C	6.89	129.60	111.00
34	RA	1577	C	C6-N1-C1'	-6.89	112.53	120.80
34	YA	2465	C	C2-N1-C1'	6.89	126.38	118.80
1	XA	931	C	C2-N1-C1'	6.89	126.38	118.80
34	YA	1788	C	C2-N1-C1'	6.88	126.37	118.80
1	QA	195	A	C8-N9-C1'	-6.87	115.33	127.70
1	QA	848	C	C6-N1-C1'	-6.87	112.55	120.80
34	RA	2075	U	C2-N1-C1'	6.87	125.95	117.70
35	YB	1	U	C5-C6-N1	6.87	126.14	122.70
34	RA	2703	C	C2-N1-C1'	6.87	126.36	118.80
34	RA	1675	C	C2-N1-C1'	6.87	126.35	118.80
34	YA	904	C	C2-N1-C1'	6.87	126.35	118.80
34	RA	2871	C	C2-N1-C1'	6.86	126.34	118.80
1	XA	948	C	C5'-C4'-O4'	-6.86	100.87	109.10
1	QA	952	U	C2-N1-C1'	6.85	125.92	117.70
1	QA	328	C	P-O3'-C3'	6.85	127.92	119.70
1	XA	186(O)	U	C2-N1-C1'	6.85	125.92	117.70
1	QA	1259	C	C2-N1-C1'	6.84	126.33	118.80
34	YA	1506	C	C2-N1-C1'	6.84	126.33	118.80
34	RA	2403	C	C2-N1-C1'	6.84	126.32	118.80
1	XA	525	C	C2-N1-C1'	6.84	126.32	118.80
34	YA	404	C	P-O3'-C3'	6.84	127.91	119.70
34	YA	859	G	P-O3'-C3'	6.84	127.91	119.70
1	QA	1326	C	C6-N1-C1'	-6.84	112.59	120.80
1	XA	310	G	C4-N9-C1'	-6.84	117.61	126.50
34	YA	270(Z)	G	C4-N9-C1'	6.84	135.39	126.50
34	YA	2343	C	C2-N1-C1'	6.83	126.32	118.80
34	YA	1653	G	P-O3'-C3'	6.83	127.90	119.70
34	YA	2321	G	C4-N9-C1'	6.83	135.38	126.50
1	QA	1371	G	C8-N9-C1'	-6.83	118.12	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	1307	U	OP1-P-OP2	6.83	129.84	119.60
1	QA	1263	C	C2-N1-C1'	6.83	126.31	118.80
34	YA	537	C	C2-N1-C1'	6.83	126.31	118.80
34	RA	1066	U	C2-N1-C1'	6.82	125.88	117.70
34	RA	1404	C	C2-N1-C1'	6.82	126.30	118.80
35	RB	71	C	N1-C2-O2	6.82	122.99	118.90
34	YA	591	C	C2-N1-C1'	6.82	126.30	118.80
1	QA	620	C	C2-N1-C1'	6.82	126.30	118.80
34	RA	642	G	C8-N9-C1'	-6.81	118.14	127.00
34	YA	1372	U	C2-N1-C1'	6.81	125.87	117.70
34	YA	384	U	C2-N1-C1'	6.80	125.86	117.70
34	YA	1404	C	C6-N1-C1'	-6.80	112.64	120.80
34	RA	404	C	P-O3'-C3'	6.80	127.86	119.70
34	RA	1130	U	P-O3'-C3'	6.80	127.86	119.70
34	RA	1686	C	C2-N1-C1'	6.80	126.28	118.80
34	RA	1777	U	C2-N1-C1'	6.80	125.86	117.70
34	RA	1516	U	C2-N1-C1'	6.80	125.86	117.70
1	QA	595	G	C4-N9-C1'	6.80	135.33	126.50
1	QA	1242	C	C2-N1-C1'	6.80	126.28	118.80
34	RA	343	C	C2-N1-C1'	6.79	126.28	118.80
34	RA	642	G	C4-N9-C1'	6.79	135.33	126.50
1	XA	1128	C	C2-N1-C1'	6.79	126.27	118.80
1	XA	943	U	C6-N1-C1'	-6.79	111.70	121.20
34	YA	1870	C	C2-N1-C1'	6.79	126.27	118.80
34	YA	2895	U	C2-N1-C1'	6.79	125.84	117.70
34	RA	1105	U	C2-N1-C1'	6.78	125.84	117.70
34	RA	1672	C	C6-N1-C1'	-6.78	112.66	120.80
34	YA	270(Z)	G	C8-N9-C1'	-6.78	118.18	127.00
34	YA	2554	U	C2-N1-C1'	6.78	125.83	117.70
34	YA	1687	G	C4-N9-C1'	6.77	135.31	126.50
22	XV	56	C	N1-C2-O2	6.77	122.96	118.90
1	QA	344	A	O4'-C1'-N9	-6.77	102.79	108.20
34	YA	1914	C	O4'-C1'-N1	6.77	113.61	108.20
34	RA	1734	C	C6-N1-C1'	-6.76	112.68	120.80
1	XA	948	C	O5'-P-OP1	-6.76	99.61	105.70
1	QA	137	C	C6-N1-C1'	-6.76	112.69	120.80
1	XA	1314	C	C6-N1-C1'	-6.76	112.69	120.80
1	XA	757	U	C2-N1-C1'	6.75	125.81	117.70
42	YN	114	ARG	N-CA-C	-6.75	92.77	111.00
1	QA	1482	G	C4-N9-C1'	6.75	135.28	126.50
1	QA	19	C	C2-N1-C1'	6.74	126.22	118.80
1	XA	1358	U	P-O5'-C5'	6.73	131.67	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	1075	C	C6-N1-C1'	-6.73	112.72	120.80
1	QA	595	G	C8-N9-C1'	-6.73	118.25	127.00
34	RA	1549	C	C6-N1-C1'	-6.73	112.72	120.80
1	QA	862	C	C6-N1-C1'	-6.73	112.73	120.80
34	YA	2321	G	C8-N9-C1'	-6.73	118.26	127.00
1	QA	1140	C	C2-N1-C1'	6.72	126.20	118.80
1	QA	1366	C	C2-N1-C1'	6.72	126.19	118.80
34	RA	568	U	C2-N1-C1'	6.72	125.76	117.70
34	RA	2291	U	C6-N1-C1'	-6.71	111.80	121.20
1	QA	580	U	C2-N1-C1'	6.71	125.76	117.70
1	XA	1241	G	C4-N9-C1'	6.71	135.23	126.50
34	YA	1005	C	C6-N1-C1'	-6.71	112.75	120.80
1	XA	1313	U	C2-N1-C1'	6.71	125.75	117.70
34	RA	2752	C	C2-N1-C1'	6.71	126.18	118.80
34	YA	1951	U	C6-N1-C1'	-6.71	111.81	121.20
1	XA	1225	A	C8-N9-C1'	-6.71	115.63	127.70
34	RA	1188	U	C2-N1-C1'	6.70	125.74	117.70
1	XA	714	G	C4-N9-C1'	6.70	135.22	126.50
35	RB	22	U	C2-N1-C1'	6.70	125.74	117.70
34	RA	420	C	C2-N1-C1'	6.70	126.17	118.80
1	XA	714	G	C8-N9-C1'	-6.70	118.30	127.00
34	YA	2374	C	C2-N1-C1'	6.70	126.16	118.80
34	YA	1391	U	C2-N1-C1'	6.69	125.73	117.70
1	XA	1537	U	P-O3'-C3'	6.69	127.73	119.70
1	QA	578	C	C2-N1-C1'	6.69	126.16	118.80
34	RA	1653	G	P-O3'-C3'	6.69	127.72	119.70
20	QT	74	LYS	CA-C-O	6.68	134.14	120.10
34	YA	464	U	C2-N1-C1'	6.68	125.72	117.70
1	XA	944	G	C4-N9-C1'	6.68	135.19	126.50
34	YA	1687	G	C8-N9-C1'	-6.68	118.31	127.00
1	XA	590	C	C6-N1-C1'	-6.68	112.79	120.80
34	YA	2173	A	O5'-P-OP1	6.68	118.71	110.70
40	YH	152	ARG	C-N-CA	6.68	138.39	121.70
1	QA	1157	A	O4'-C1'-N9	6.67	113.54	108.20
34	RA	2667	C	C2-N1-C1'	6.67	126.14	118.80
34	RA	1788	C	C6-N1-C1'	-6.67	112.79	120.80
34	YA	2681	C	P-O3'-C3'	6.67	127.71	119.70
1	XA	726	C	C6-N1-C1'	-6.67	112.80	120.80
1	QA	154	C	C6-N1-C1'	-6.66	112.80	120.80
1	QA	992	U	P-O3'-C3'	6.66	127.70	119.70
1	QA	1482	G	C8-N9-C1'	-6.66	118.34	127.00
34	RA	2374	C	C6-N1-C1'	-6.66	112.80	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	343	U	C2-N1-C1'	6.66	125.70	117.70
34	RA	1407	C	C2-N1-C1'	6.66	126.13	118.80
34	RA	231	C	C6-N1-C1'	-6.66	112.81	120.80
34	RA	1240	U	C2-N1-C1'	6.66	125.69	117.70
34	YA	1754	C	C2-N1-C1'	6.65	126.11	118.80
34	YA	2161	C	C6-N1-C1'	-6.65	112.82	120.80
1	QA	1351	U	C2-N1-C1'	6.65	125.68	117.70
1	XA	62	U	C2-N1-C1'	6.65	125.68	117.70
1	QA	54	C	C6-N1-C1'	-6.65	112.82	120.80
1	QA	322	C	C6-N1-C1'	-6.65	112.82	120.80
34	YA	1407	C	C6-N1-C1'	-6.64	112.83	120.80
1	QA	122	G	C4-N9-C1'	6.64	135.13	126.50
1	XA	307	C	C2-N1-C1'	6.63	126.10	118.80
1	XA	1113	C	C6-N1-C1'	-6.63	112.84	120.80
1	XA	1241	G	C8-N9-C1'	-6.63	118.38	127.00
35	RB	27	C	N1-C2-O2	6.63	122.88	118.90
1	QA	36	C	C2-N1-C1'	6.63	126.09	118.80
1	QA	355	C	C2-N1-C1'	6.63	126.09	118.80
1	QA	1113	C	C6-N1-C1'	-6.63	112.85	120.80
1	QA	1230	C	C6-N1-C1'	-6.62	112.85	120.80
1	XA	718	G	C8-N9-C1'	-6.62	118.39	127.00
34	YA	2656	U	C6-N1-C1'	-6.62	111.93	121.20
34	RA	1046	A	C4-N9-C1'	6.62	138.21	126.30
1	QA	1129	C	C2-N1-C1'	6.62	126.08	118.80
34	RA	229	A	P-O3'-C3'	6.62	127.64	119.70
34	RA	1611	C	C2-N1-C1'	6.61	126.08	118.80
34	YA	897	C	C2-N1-C1'	6.61	126.07	118.80
1	XA	443	C	C6-N1-C1'	-6.61	112.86	120.80
19	QS	41	VAL	N-CA-C	6.61	128.85	111.00
1	QA	1206	G	C4-N9-C1'	6.60	135.09	126.50
34	RA	503	A	P-O3'-C3'	6.60	127.62	119.70
34	RA	636	G	C8-N9-C1'	-6.60	118.42	127.00
1	XA	944	G	C8-N9-C1'	-6.60	118.42	127.00
34	RA	2871	C	C6-N1-C1'	-6.60	112.88	120.80
34	YA	1774	C	C2-N1-C1'	6.60	126.06	118.80
1	QA	838(B)	U	C6-N1-C1'	-6.59	111.97	121.20
34	YA	1857	G	C4-N9-C1'	6.59	135.07	126.50
34	YA	2559	C	C6-N1-C1'	-6.59	112.89	120.80
34	YA	2612	C	O5'-P-OP2	-6.59	99.77	105.70
34	YA	2836	U	C6-N1-C1'	-6.59	111.98	121.20
1	QA	343	U	C2-N1-C1'	6.58	125.60	117.70
1	XA	277	C	C2-N1-C1'	6.58	126.04	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	617	G	O4'-C1'-C2'	-6.58	99.22	105.80
1	QA	1097	C	C6-N1-C1'	-6.58	112.91	120.80
34	RA	1920	C	C2-N1-C1'	6.58	126.03	118.80
34	YA	2063	C	C6-N1-C1'	-6.58	112.91	120.80
34	RA	271(C)	G	P-O3'-C3'	6.57	127.59	119.70
34	RA	1045	A	P-O3'-C3'	6.57	127.59	119.70
34	RA	2040	C	C2-N1-C1'	6.57	126.03	118.80
1	QA	122	G	C8-N9-C1'	-6.57	118.46	127.00
35	YB	54	G	C2-N3-C4	-6.57	108.62	111.90
34	YA	1049	C	C2-N1-C1'	6.57	126.02	118.80
1	QA	1206	G	C8-N9-C1'	-6.56	118.48	127.00
34	RA	2636	U	C2-N1-C1'	6.56	125.57	117.70
14	XN	28	GLY	N-CA-C	6.55	129.49	113.10
35	YB	71	C	C6-N1-C2	-6.55	117.68	120.30
34	RA	2130	U	C6-N1-C1'	-6.55	112.03	121.20
34	YA	637	A	P-O3'-C3'	6.55	127.56	119.70
34	YA	1857	G	C8-N9-C1'	-6.55	118.48	127.00
1	QA	56	U	C2-N1-C1'	6.55	125.56	117.70
1	QA	957	U	C6-N1-C1'	-6.55	112.03	121.20
1	XA	578	C	C2-N1-C1'	6.55	126.00	118.80
22	XV	76	A	C8-N9-C4	-6.55	103.18	105.80
34	YA	114	U	C6-N1-C1'	-6.55	112.03	121.20
35	YB	27	C	N3-C2-O2	-6.55	117.32	121.90
1	XA	718	G	C4-N9-C1'	6.54	135.01	126.50
34	YA	1881	C	C2-N1-C1'	6.54	126.00	118.80
20	QT	74	LYS	CA-C-N	-6.54	102.81	117.20
1	XA	12	U	C2-N1-C1'	6.54	125.55	117.70
34	YA	2710	C	C2-N1-C1'	6.54	125.99	118.80
1	QA	390	C	C2-N1-C1'	6.54	125.99	118.80
35	YB	63	G	N1-C6-O6	-6.54	115.98	119.90
34	RA	1662	C	C2-N1-C1'	6.53	125.99	118.80
34	YA	2858	C	C6-N1-C1'	-6.53	112.96	120.80
34	RA	541	C	C2-N1-C1'	6.53	125.98	118.80
1	XA	1049	U	C6-N1-C1'	-6.53	112.06	121.20
1	QA	283	C	C6-N1-C1'	-6.53	112.97	120.80
1	QA	1148	U	C2-N1-C1'	6.53	125.53	117.70
34	YA	2617	C	C2-N1-C1'	6.53	125.98	118.80
1	XA	964	A	C8-N9-C1'	-6.52	115.96	127.70
34	YA	512	G	O4'-C1'-N9	6.52	113.42	108.20
34	YA	1982	C	C2-N1-C1'	6.52	125.97	118.80
1	QA	643	C	C6-N1-C1'	-6.52	112.97	120.80
34	RA	453	C	C6-N1-C1'	-6.52	112.97	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	856	C	C2-N1-C1'	6.52	125.97	118.80
34	RA	2824	C	C2-N1-C1'	6.52	125.97	118.80
1	QA	521	G	C4-N9-C1'	6.52	134.97	126.50
1	XA	266	G	O4'-C1'-N9	-6.51	102.99	108.20
34	RA	1046	A	C8-N9-C1'	-6.51	115.98	127.70
1	QA	719	C	C6-N1-C1'	-6.50	112.99	120.80
1	XA	636	U	O5'-P-OP1	-6.50	99.84	105.70
1	XA	1074	G	C4-N9-C1'	6.50	134.95	126.50
1	QA	822	C	C2-N1-C1'	6.50	125.95	118.80
34	RA	2342	C	C2-N1-C1'	6.50	125.95	118.80
34	YA	2784	C	C6-N1-C1'	-6.50	113.00	120.80
34	RA	363(F)	U	C2-N1-C1'	6.50	125.50	117.70
34	RA	2656	U	C6-N1-C1'	-6.50	112.11	121.20
1	XA	241	C	C2-N1-C1'	6.50	125.95	118.80
1	QA	136	C	C2-N1-C1'	6.49	125.94	118.80
34	YA	105	C	C6-N1-C1'	-6.49	113.01	120.80
34	RA	636	G	C4-N9-C1'	6.49	134.93	126.50
34	YA	1026	U	P-O3'-C3'	6.49	127.48	119.70
34	YA	1686	C	C2-N1-C1'	6.49	125.93	118.80
34	RA	637	A	P-O3'-C3'	6.48	127.48	119.70
34	RA	2096	U	C2-N1-C1'	6.48	125.48	117.70
1	XA	748	C	P-O3'-C3'	6.48	127.48	119.70
35	YB	60	C	C5-C6-N1	6.48	124.24	121.00
1	XA	131	C	C6-N1-C1'	-6.48	113.02	120.80
1	QA	826	C	C6-N1-C1'	-6.48	113.03	120.80
1	XA	201(A)	C	C2-N1-C1'	6.48	125.93	118.80
34	RA	537	C	C6-N1-C1'	-6.47	113.03	120.80
34	RA	2043	C	C2-N1-C1'	6.47	125.92	118.80
1	QA	705	U	C6-N1-C1'	-6.47	112.14	121.20
34	YA	652	C	C6-N1-C1'	-6.47	113.04	120.80
34	RA	2889	C	C6-N1-C1'	-6.47	113.04	120.80
34	YA	2431	U	C6-N1-C1'	-6.47	112.15	121.20
1	QA	312	C	C6-N1-C1'	-6.46	113.04	120.80
1	QA	1017	G	C8-N9-C1'	-6.46	118.60	127.00
34	RA	270(Q)	C	C2-N1-C1'	6.46	125.90	118.80
1	QA	1127	G	C4-N9-C1'	6.45	134.89	126.50
34	RA	114	U	C6-N1-C1'	-6.45	112.16	121.20
1	QA	1327	C	O4'-C1'-N1	6.45	113.36	108.20
1	XA	20	U	C2-N1-C1'	6.45	125.44	117.70
1	QA	6	G	C4-N9-C1'	6.45	134.88	126.50
1	QA	775	G	C4-N9-C1'	6.45	134.88	126.50
34	RA	2095	C	C2-N1-C1'	6.45	125.89	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	2262	U	C6-N1-C1'	-6.45	112.17	121.20
34	YA	745	G	P-O3'-C3'	-6.45	111.97	119.70
34	YA	753	C	C2-N1-C1'	6.44	125.89	118.80
54	RZ	62	PRO	C-N-CA	6.44	137.81	121.70
1	QA	775	G	C8-N9-C1'	-6.44	118.63	127.00
34	YA	1415	U	C2-N1-C1'	6.44	125.43	117.70
34	RA	1178	C	C6-N1-C1'	-6.44	113.07	120.80
35	YB	27	C	N1-C2-O2	6.44	122.76	118.90
34	RA	753	C	C2-N1-C1'	6.44	125.88	118.80
34	RA	1728	G	O4'-C1'-N9	6.44	113.35	108.20
34	YA	2132	U	C6-N1-C1'	-6.44	112.19	121.20
1	XA	834	C	C2-N1-C1'	6.44	125.88	118.80
1	XA	1384	C	C6-N1-C1'	-6.43	113.08	120.80
34	RA	1370	C	C6-N1-C1'	-6.43	113.08	120.80
1	QA	521	G	C8-N9-C1'	-6.43	118.64	127.00
1	XA	1074	G	C8-N9-C1'	-6.43	118.65	127.00
34	YA	565	C	C2-N1-C1'	6.42	125.87	118.80
34	YA	2494	G	O5'-P-OP1	-6.42	99.92	105.70
34	RA	669	G	C4-N9-C1'	6.42	134.85	126.50
1	QA	692	U	C6-N1-C1'	-6.42	112.21	121.20
22	QV	30	C	C2-N1-C1'	6.42	125.86	118.80
1	XA	796	C	C2-N1-C1'	6.42	125.86	118.80
34	YA	974(B)	C	C2-N1-C1'	6.42	125.86	118.80
34	RA	639	U	C2-N1-C1'	6.42	125.40	117.70
34	RA	1892	C	C2-N1-C1'	6.42	125.86	118.80
42	RN	114	ARG	N-CA-C	-6.42	93.68	111.00
30	R6	13	CYS	CA-CB-SG	-6.41	102.46	114.00
34	RA	613	U	C6-N1-C1'	-6.41	112.23	121.20
34	RA	1528	A	O4'-C1'-N9	6.41	113.33	108.20
34	YA	2097	C	C2-N1-C1'	6.41	125.85	118.80
34	YA	2393	A	OP1-P-O3'	6.41	119.30	105.20
1	QA	6	G	C8-N9-C1'	-6.41	118.67	127.00
1	QA	1017	G	C4-N9-C1'	6.41	134.83	126.50
34	RA	184	C	C6-N1-C1'	-6.41	113.11	120.80
1	QA	687	A	P-O3'-C3'	6.41	127.39	119.70
1	XA	972	C	N1-C1'-C2'	6.41	122.33	114.00
1	XA	1349	A	C8-N9-C1'	6.40	139.22	127.70
34	YA	1314	C	C6-N1-C1'	-6.40	113.12	120.80
34	YA	1640	C	C2-N1-C1'	6.40	125.84	118.80
34	YA	2089	U	C2-N1-C1'	6.39	125.37	117.70
1	XA	68(R)	U	C6-N1-C1'	-6.39	112.26	121.20
1	XA	232	G	C4-N9-C1'	6.39	134.80	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	2040	C	C2-N1-C1'	6.39	125.82	118.80
34	RA	1774	C	C2-N1-C1'	6.38	125.82	118.80
1	QA	1045	C	C2-N1-C1'	6.38	125.82	118.80
53	RY	99	CYS	CA-CB-SG	6.38	125.48	114.00
1	QA	1440(H)	C	C2-N1-C1'	6.38	125.82	118.80
1	QA	1538	C	P-O3'-C3'	6.38	127.35	119.70
1	XA	598	U	C2-N1-C1'	6.38	125.35	117.70
34	YA	650	C	C2-N1-C1'	6.38	125.81	118.80
34	YA	2130	U	C6-N1-C1'	-6.38	112.28	121.20
1	QA	672	U	C2-N1-C1'	6.37	125.34	117.70
34	RA	1509	C	C2-N1-C1'	6.37	125.81	118.80
1	XA	811	C	C6-N1-C1'	-6.37	113.15	120.80
34	RA	266	G	C4-N9-C1'	6.37	134.78	126.50
1	QA	1075	C	C2-N1-C1'	6.37	125.81	118.80
1	QA	1127	G	C8-N9-C1'	-6.37	118.72	127.00
34	YA	2380	C	C6-N1-C1'	-6.37	113.16	120.80
1	QA	618	C	C6-N1-C1'	-6.37	113.16	120.80
22	XV	15	G	C8-N9-C4	-6.37	103.85	106.40
34	YA	35	G	C4-N9-C1'	6.36	134.77	126.50
35	YB	38	C	C6-N1-C2	-6.36	117.76	120.30
1	XA	1366	C	C6-N1-C1'	-6.36	113.17	120.80
1	QA	1384	C	C2-N1-C1'	6.36	125.79	118.80
34	RA	669	G	C8-N9-C1'	-6.36	118.74	127.00
34	RA	2028	U	C2-N1-C1'	6.35	125.33	117.70
1	XA	1465	C	C2-N1-C1'	6.35	125.79	118.80
1	QA	634	C	C6-N1-C1'	-6.35	113.18	120.80
34	YA	1741	C	C6-N1-C1'	-6.35	113.18	120.80
1	QA	24	U	C6-N1-C1'	-6.35	112.31	121.20
34	YA	1598	C	C2-N1-C1'	6.35	125.79	118.80
34	RA	266	G	C8-N9-C1'	-6.35	118.75	127.00
34	YA	2723	C	C6-N1-C1'	-6.35	113.18	120.80
1	XA	972	C	O4'-C1'-N1	6.35	113.28	108.20
1	XA	989	C	C2-N1-C1'	6.35	125.78	118.80
35	YB	86	G	C8-N9-C4	6.35	108.94	106.40
1	XA	1062	U	C6-N1-C1'	-6.35	112.32	121.20
1	XA	322	C	P-O3'-C3'	6.34	127.31	119.70
1	XA	805	C	C2-N1-C1'	6.34	125.78	118.80
1	XA	1377	A	P-O3'-C3'	6.34	127.31	119.70
34	YA	2195	C	C2-N1-C1'	6.34	125.78	118.80
34	YA	2658	C	C2-N1-C1'	6.34	125.78	118.80
1	XA	283	C	C2-N1-C1'	6.34	125.78	118.80
34	YA	2146	C	C2-N1-C1'	6.34	125.78	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	2466	C	C2-N1-C1'	6.34	125.78	118.80
34	RA	2179	C	C2-N1-C1'	6.34	125.77	118.80
34	RA	2483	C	C6-N1-C1'	-6.34	113.20	120.80
1	QA	20	U	C6-N1-C1'	-6.33	112.33	121.20
1	XA	618	C	O5'-P-OP2	-6.33	100.00	105.70
1	XA	1219	U	C2-N1-C1'	-6.33	110.10	117.70
34	YA	242	G	P-O3'-C3'	6.33	127.30	119.70
35	YB	28	C	C6-N1-C2	-6.33	117.77	120.30
34	RA	2582	G	C4-N9-C1'	6.33	134.73	126.50
34	RA	1330	C	C6-N1-C1'	-6.33	113.20	120.80
1	XA	1349	A	C4-N9-C1'	-6.33	114.91	126.30
34	YA	2343	C	C6-N1-C1'	-6.33	113.20	120.80
34	RA	339	U	C2-N1-C1'	6.33	125.29	117.70
34	RA	18	C	C2-N1-C1'	6.33	125.76	118.80
1	QA	757	U	C6-N1-C1'	-6.32	112.35	121.20
34	RA	2403	C	C6-N1-C1'	-6.32	113.21	120.80
34	RA	242	G	P-O3'-C3'	6.32	127.29	119.70
34	YA	269	U	C6-N1-C1'	-6.32	112.35	121.20
34	YA	1914	C	C2-N1-C1'	6.32	125.75	118.80
1	QA	955	U	C2-N1-C1'	6.32	125.28	117.70
34	RA	1535	U	C6-N1-C1'	-6.32	112.35	121.20
1	QA	1403	C	C2-N1-C1'	6.32	125.75	118.80
34	RA	1857	G	C4-N9-C1'	6.32	134.71	126.50
34	RA	2712(A)	U	P-O3'-C3'	6.32	127.28	119.70
34	RA	1154	G	C4-N9-C1'	6.32	134.71	126.50
1	XA	232	G	C8-N9-C1'	-6.32	118.79	127.00
34	YA	76	C	C2-N1-C1'	6.31	125.74	118.80
34	RA	1951	U	C2-N1-C1'	6.31	125.27	117.70
1	XA	879	C	C6-N1-C1'	-6.31	113.23	120.80
1	XA	595	G	C4-N9-C1'	6.31	134.70	126.50
34	RA	1990	C	C2-N1-C1'	6.31	125.74	118.80
34	RA	683	C	C2-N1-C1'	6.30	125.73	118.80
40	YH	82	GLY	N-CA-C	6.30	128.86	113.10
42	YN	48	MET	CG-SD-CE	-6.30	90.11	100.20
1	QA	1382	C	C2-N1-C1'	6.30	125.73	118.80
34	YA	229	A	P-O3'-C3'	6.30	127.26	119.70
1	QA	1150	U	C6-N1-C1'	-6.30	112.38	121.20
12	QL	104	VAL	C-N-CA	6.30	137.45	121.70
1	XA	1505	G	O5'-P-OP1	-6.30	100.03	105.70
1	QA	117	G	C4-N9-C1'	6.30	134.69	126.50
34	RA	1510	A	C4-N9-C1'	6.30	137.63	126.30
1	XA	656	C	C2-N1-C1'	6.30	125.73	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	1201	A	O4'-C1'-N9	-6.29	103.17	108.20
34	YA	2126	A	P-O3'-C3'	6.29	127.25	119.70
1	QA	1315	U	C6-N1-C1'	-6.29	112.39	121.20
34	YA	2145	C	C2-N1-C1'	6.29	125.72	118.80
1	XA	501	C	C2-N1-C1'	6.29	125.72	118.80
1	XA	931	C	C6-N1-C1'	-6.29	113.25	120.80
34	RA	2471	C	C6-N1-C1'	-6.29	113.25	120.80
34	YA	35	G	C8-N9-C1'	-6.29	118.83	127.00
35	YB	30	C	C2-N1-C1'	6.29	125.72	118.80
1	XA	950	U	C2-N1-C1'	6.29	125.24	117.70
1	QA	590	C	C6-N1-C1'	-6.28	113.26	120.80
1	XA	1504	G	P-O3'-C3'	6.28	127.24	119.70
34	YA	904	C	C6-N1-C1'	-6.28	113.26	120.80
1	QA	570	G	C4-N9-C1'	6.28	134.67	126.50
34	RA	687	C	C2-N1-C1'	6.28	125.71	118.80
34	RA	1049	C	C2-N1-C1'	6.28	125.71	118.80
34	YA	2034	U	C6-N1-C1'	-6.28	112.41	121.20
1	XA	1440(I)	U	C2-N1-C1'	6.28	125.23	117.70
1	XA	1297	C	N1-C1'-C2'	6.28	122.16	114.00
1	XA	1499	A	C4-N9-C1'	6.27	137.59	126.30
1	QA	1242	C	C6-N1-C1'	-6.27	113.28	120.80
34	YA	1799	G	P-O3'-C3'	6.27	127.22	119.70
1	QA	381	C	C2-N1-C1'	6.27	125.70	118.80
1	QA	1056	U	C6-N1-C1'	-6.27	112.43	121.20
34	RA	2582	G	C8-N9-C1'	-6.27	118.85	127.00
34	YA	2465	C	C6-N1-C1'	-6.27	113.28	120.80
1	QA	981	U	C2-N1-C1'	6.26	125.22	117.70
34	RA	1327	C	C2-N1-C1'	6.26	125.69	118.80
34	RA	9	U	C6-N1-C1'	-6.26	112.43	121.20
34	YA	343	C	C2-N1-C1'	6.26	125.69	118.80
34	RA	2703	C	C6-N1-C1'	-6.26	113.29	120.80
1	XA	920	U	C2-N1-C1'	6.26	125.21	117.70
34	YA	1788	C	C6-N1-C1'	-6.26	113.29	120.80
34	RA	2379	G	C8-N9-C1'	-6.26	118.86	127.00
1	QA	249	U	C2-N1-C1'	6.26	125.21	117.70
34	RA	427	U	C2-N1-C1'	6.26	125.21	117.70
10	XJ	39	PRO	CA-N-CD	6.26	120.46	111.70
34	RA	1857	G	C8-N9-C1'	-6.25	118.87	127.00
1	XA	525	C	C6-N1-C1'	-6.25	113.30	120.80
1	XA	838(B)	U	C6-N1-C1'	-6.25	112.45	121.20
1	QA	1129	C	C6-N1-C1'	-6.25	113.30	120.80
1	QA	963	G	C4-N9-C1'	6.25	134.62	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	RB	11	C	C2-N1-C1'	6.25	125.67	118.80
34	YA	2891	G	C4-N9-C1'	6.25	134.62	126.50
34	RA	2379	G	C4-N9-C1'	6.25	134.62	126.50
1	XA	608	A	C5'-C4'-C3'	6.25	125.99	116.00
34	RA	222	A	P-O3'-C3'	6.24	127.19	119.70
34	RA	2174	C	C2-N1-C1'	6.24	125.67	118.80
1	QA	620	C	C6-N1-C1'	-6.24	113.31	120.80
1	XA	1037	C	C6-N1-C1'	-6.24	113.31	120.80
1	XA	595	G	C8-N9-C1'	-6.24	118.89	127.00
34	YA	537	C	C6-N1-C1'	-6.24	113.32	120.80
1	XA	252	U	C2-N1-C1'	6.23	125.18	117.70
1	QA	19	C	C6-N1-C1'	-6.23	113.32	120.80
34	RA	2126	A	P-O3'-C3'	6.23	127.18	119.70
1	QA	1259	C	C6-N1-C1'	-6.23	113.32	120.80
1	XA	1242	C	C6-N1-C1'	-6.23	113.32	120.80
1	QA	117	G	C8-N9-C1'	-6.23	118.90	127.00
34	RA	1154	G	C8-N9-C1'	-6.23	118.90	127.00
1	QA	1263	C	C6-N1-C1'	-6.23	113.33	120.80
34	RA	343	C	C6-N1-C1'	-6.22	113.33	120.80
1	XA	186(H)	C	C2-N1-C1'	6.22	125.65	118.80
34	YA	591	C	C6-N1-C1'	-6.22	113.33	120.80
1	XA	974	A	C8-N9-C1'	6.22	138.90	127.70
34	YA	1201	C	C2-N1-C1'	6.22	125.64	118.80
34	YA	1506	C	C6-N1-C1'	-6.22	113.33	120.80
34	RA	749	C	C2-N1-C1'	6.22	125.64	118.80
34	RA	1404	C	C6-N1-C1'	-6.22	113.34	120.80
34	RA	1675	C	C6-N1-C1'	-6.22	113.34	120.80
34	RA	229	A	OP2-P-O3'	6.22	118.88	105.20
34	YA	619	G	C4-N9-C1'	6.22	134.58	126.50
1	XA	1128	C	C6-N1-C1'	-6.21	113.34	120.80
1	XA	1326	C	C2-N1-C1'	6.21	125.64	118.80
1	QA	261	U	C2-N1-C1'	6.21	125.15	117.70
34	RA	2891	G	C4-N9-C1'	6.21	134.57	126.50
38	RF	197	ASP	N-CA-C	-6.21	94.24	111.00
1	XA	1321	C	C2-N1-C1'	6.21	125.63	118.80
1	QA	1336	C	C2-N1-C1'	6.21	125.63	118.80
34	RA	1433	U	C6-N1-C1'	-6.20	112.52	121.20
34	YA	1870	C	C6-N1-C1'	-6.20	113.36	120.80
1	QA	1003	G	C4-N9-C1'	6.20	134.56	126.50
34	RA	1686	C	C6-N1-C1'	-6.20	113.36	120.80
34	YA	2471	C	C2-N1-C1'	6.20	125.62	118.80
34	RA	1510	A	C8-N9-C1'	-6.20	116.55	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	1499	A	C8-N9-C1'	-6.20	116.55	127.70
34	RA	2891	G	C8-N9-C1'	-6.20	118.94	127.00
1	XA	222	U	C2-N1-C1'	6.20	125.13	117.70
34	YA	2648	C	C2-N1-C1'	6.20	125.61	118.80
1	QA	570	G	C8-N9-C1'	-6.19	118.95	127.00
1	XA	868	C	C2-N1-C1'	6.19	125.61	118.80
1	XA	962	C	C2-N1-C1'	6.19	125.61	118.80
1	XA	974	A	C4-N9-C1'	-6.19	115.16	126.30
1	QA	963	G	C8-N9-C1'	-6.19	118.95	127.00
1	QA	358	U	C2-N1-C1'	6.18	125.12	117.70
34	RA	161	U	C6-N1-C1'	-6.18	112.54	121.20
34	YA	1542	G	C4-N9-C1'	6.18	134.54	126.50
34	RA	657	U	C6-N1-C1'	-6.18	112.55	121.20
1	QA	1140	C	C6-N1-C1'	-6.18	113.38	120.80
1	XA	68(I)	G	C4-N9-C1'	6.18	134.53	126.50
34	YA	619	G	C8-N9-C1'	-6.18	118.97	127.00
34	YA	2891	G	C8-N9-C1'	-6.17	118.97	127.00
34	RA	1741	C	C2-N1-C1'	6.17	125.59	118.80
34	RA	779	U	C6-N1-C1'	-6.17	112.56	121.20
1	QA	1429	C	C2-N1-C1'	6.17	125.58	118.80
1	QA	67	C	C2-N1-C1'	6.17	125.58	118.80
35	RB	70	C	C5-C6-N1	6.17	124.08	121.00
1	QA	578	C	C6-N1-C1'	-6.16	113.41	120.80
7	QG	73	MET	N-CA-CB	-6.16	99.50	110.60
1	QA	1414	U	C2-N1-C1'	6.16	125.09	117.70
34	YA	1327	C	C2-N1-C1'	6.16	125.58	118.80
34	RA	2439	A	P-O3'-C3'	6.16	127.09	119.70
22	XV	15	G	N3-C4-N9	6.16	129.69	126.00
34	RA	420	C	C6-N1-C1'	-6.16	113.41	120.80
34	YA	2374	C	C6-N1-C1'	-6.16	113.41	120.80
34	YA	669	G	C4-N9-C1'	6.15	134.50	126.50
1	XA	368	U	C6-N1-C1'	-6.15	112.59	121.20
34	YA	2437	U	C2-N1-C1'	6.15	125.08	117.70
34	YA	2231	C	C2-N1-C1'	6.15	125.57	118.80
34	RA	1819	A	P-O3'-C3'	6.15	127.08	119.70
34	RA	1218	C	C2-N1-C1'	6.15	125.56	118.80
1	XA	1109	C	C2-N1-C1'	6.15	125.56	118.80
1	QA	1003	G	C8-N9-C1'	-6.14	119.01	127.00
34	YA	2420	C	C2-N1-C1'	6.14	125.56	118.80
34	RA	2532	G	C4-N9-C1'	6.14	134.48	126.50
1	QA	1376	U	C6-N1-C1'	-6.14	112.61	121.20
34	YA	202	U	C2-N1-C1'	6.14	125.07	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	9	G	O5'-P-OP1	-6.14	100.18	105.70
34	RA	1411	C	C2-N1-C1'	6.14	125.55	118.80
22	XV	15	G	C2-N3-C4	6.14	114.97	111.90
34	RA	1930	G	C4-N9-C1'	6.13	134.47	126.50
34	YA	2207	C	C2-N1-C1'	6.13	125.55	118.80
1	XA	328	C	O4'-C1'-N1	6.13	113.11	108.20
34	RA	2752	C	C6-N1-C1'	-6.13	113.45	120.80
34	YA	1514	U	C2-N1-C1'	6.13	125.05	117.70
1	QA	651	C	C2-N1-C1'	6.12	125.54	118.80
1	XA	938	A	C4-N9-C1'	6.12	137.31	126.30
35	YB	86	G	N7-C8-N9	-6.12	110.04	113.10
34	RA	2689	U	P-O3'-C3'	6.12	127.04	119.70
1	XA	1253	G	C5'-C4'-O4'	-6.12	101.76	109.10
34	YA	2803	C	C2-N1-C1'	6.12	125.53	118.80
1	XA	1225	A	O4'-C1'-N9	6.12	113.09	108.20
34	RA	1328	G	C4-N9-C1'	6.12	134.45	126.50
34	RA	1312	U	P-O3'-C3'	6.11	127.04	119.70
1	XA	1437	C	C2-N1-C1'	-6.11	112.07	118.80
35	YB	29	A	C4-C5-N7	6.11	113.75	110.70
34	RA	1992	G	P-O3'-C3'	6.11	127.03	119.70
1	XA	68(I)	G	C8-N9-C1'	-6.11	119.06	127.00
34	YA	97	C	C2-N1-C1'	6.10	125.51	118.80
34	YA	1542	G	C8-N9-C1'	-6.10	119.07	127.00
1	XA	688	G	C4-N9-C1'	6.10	134.43	126.50
1	XA	797	C	C2-N1-C1'	6.10	125.51	118.80
34	RA	1694	C	P-O3'-C3'	6.10	127.02	119.70
34	RA	2234	G	C8-N9-C1'	-6.10	119.07	127.00
35	RB	54	G	C8-N9-C4	-6.10	103.96	106.40
41	RI	10	GLU	C-N-CA	6.10	136.94	121.70
34	RA	1542	G	C4-N9-C1'	6.09	134.42	126.50
36	RD	33	LEU	CA-CB-CG	6.09	129.32	115.30
1	XA	323	U	O5'-P-OP2	6.09	118.02	110.70
34	RA	2532	G	C8-N9-C1'	-6.09	119.08	127.00
34	YA	642	G	C4-N9-C1'	6.09	134.42	126.50
34	YA	1694	C	P-O3'-C3'	6.09	127.01	119.70
34	RA	2356	C	C2-N1-C1'	6.09	125.50	118.80
34	RA	2667	C	C6-N1-C1'	-6.09	113.49	120.80
34	YA	1315	C	C2-N1-C1'	6.09	125.50	118.80
1	QA	1366	C	C6-N1-C1'	-6.09	113.50	120.80
34	YA	395	U	C2-N1-C1'	6.09	125.00	117.70
1	QA	223	U	C6-N1-C1'	-6.08	112.68	121.20
1	XA	1203	C	C2-N1-C1'	6.08	125.49	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	1270	C	C2-N1-C1'	6.08	125.49	118.80
34	YA	221	A	P-O3'-C3'	6.08	127.00	119.70
1	XA	688	G	C8-N9-C1'	-6.08	119.10	127.00
1	XA	955	U	C6-N1-C1'	-6.08	112.69	121.20
35	YB	29	A	C5-N7-C8	-6.08	100.86	103.90
34	YA	1964	G	O4'-C1'-N9	-6.07	103.34	108.20
34	RA	1930	G	C8-N9-C1'	-6.07	119.12	127.00
1	XA	1507	A	N9-C1'-C2'	6.07	121.89	114.00
34	YA	669	G	C8-N9-C1'	-6.06	119.12	127.00
34	YA	1754	C	C6-N1-C1'	-6.06	113.52	120.80
1	QA	789	U	C6-N1-C1'	-6.06	112.72	121.20
34	YA	484	C	C2-N1-C1'	6.06	125.47	118.80
1	XA	1263	C	C2-N1-C1'	6.05	125.46	118.80
1	QA	97	U	C2-N1-C1'	6.05	124.96	117.70
1	QA	437	U	C6-N1-C1'	-6.05	112.73	121.20
1	QA	36	C	C6-N1-C1'	-6.05	113.54	120.80
1	XA	578	C	C6-N1-C1'	-6.05	113.54	120.80
1	XA	617	G	C3'-C2'-O2'	6.05	130.85	113.30
34	YA	184	C	C2-N1-C1'	6.05	125.45	118.80
34	YA	2884	U	C2-N1-C1'	6.05	124.96	117.70
34	RA	1542	G	C8-N9-C1'	-6.05	119.14	127.00
1	QA	1137	C	C2-N1-C1'	6.04	125.45	118.80
34	RA	1427	A	P-O3'-C3'	6.04	126.95	119.70
1	QA	355	C	C6-N1-C1'	-6.04	113.55	120.80
1	XA	307	C	C6-N1-C1'	-6.04	113.55	120.80
1	QA	1406	U	C6-N1-C1'	-6.04	112.75	121.20
34	RA	1920	C	C6-N1-C1'	-6.04	113.56	120.80
34	YA	595	C	C2-N1-C1'	6.04	125.44	118.80
34	YA	657	U	C2-N1-C1'	6.04	124.95	117.70
34	RA	1328	G	C8-N9-C1'	-6.04	119.15	127.00
28	Y4	5	ILE	N-CA-CB	6.04	124.68	110.80
34	YA	897	C	C6-N1-C1'	-6.04	113.56	120.80
34	RA	2359	C	C2-N1-C1'	6.03	125.44	118.80
1	QA	75	C	C2-N1-C1'	6.03	125.43	118.80
40	RH	87	LEU	N-CA-CB	-6.03	98.34	110.40
1	XA	1330	U	OP1-P-OP2	-6.03	110.56	119.60
34	RA	1314	C	C2-N1-C1'	6.03	125.43	118.80
34	YA	1108	U	C2-N1-C1'	6.03	124.93	117.70
34	YA	1240	U	C2-N1-C1'	6.03	124.93	117.70
1	XA	531	U	C6-N1-C1'	-6.02	112.77	121.20
34	YA	155	C	C2-N1-C1'	6.02	125.42	118.80
34	YA	544	C	C2-N1-C1'	6.02	125.42	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	252	U	C2-N1-C1'	6.02	124.92	117.70
34	RA	1407	C	C6-N1-C1'	-6.02	113.58	120.80
35	RB	37	C	C6-N1-C2	-6.02	117.89	120.30
1	XA	938	A	C8-N9-C1'	-6.02	116.87	127.70
34	RA	2574	G	C4-N9-C1'	6.02	134.32	126.50
1	XA	1285	A	P-O3'-C3'	6.02	126.92	119.70
34	RA	1611	C	C6-N1-C1'	-6.01	113.58	120.80
1	XA	864	A	C4-N9-C1'	6.01	137.13	126.30
34	YA	1879	C	C2-N1-C1'	6.01	125.42	118.80
34	YA	1047	G	C4-N9-C1'	6.01	134.31	126.50
34	YA	1774	C	C6-N1-C1'	-6.01	113.59	120.80
1	XA	277	C	C6-N1-C1'	-6.01	113.59	120.80
34	YA	2712(A)	U	P-O3'-C3'	6.01	126.91	119.70
34	RA	1101	U	C2-N1-C1'	6.00	124.91	117.70
1	XA	436	C	C2-N1-C1'	6.00	125.40	118.80
1	XA	1478	C	C2-N1-C1'	6.00	125.40	118.80
34	YA	642	G	C8-N9-C1'	-6.00	119.20	127.00
1	QA	1362(A)	C	C2-N1-C1'	6.00	125.40	118.80
34	YA	2439	A	P-O3'-C3'	6.00	126.90	119.70
34	RA	2040	C	C6-N1-C1'	-6.00	113.61	120.80
1	XA	587	G	C4-N9-C1'	6.00	134.29	126.50
1	XA	678	U	C6-N1-C1'	-6.00	112.81	121.20
34	RA	1662	C	C6-N1-C1'	-5.99	113.61	120.80
34	YA	1930	G	C4-N9-C1'	5.99	134.29	126.50
41	RI	130	TYR	C-N-CA	5.99	136.67	121.70
34	RA	541	C	C6-N1-C1'	-5.99	113.61	120.80
34	YA	267	C	C2-N1-C1'	5.99	125.39	118.80
34	YA	1049	C	C6-N1-C1'	-5.99	113.61	120.80
34	YA	1549	C	C2-N1-C1'	5.99	125.39	118.80
35	YB	31	C	C2-N1-C1'	5.99	125.39	118.80
35	YB	54	G	C6-C5-N7	-5.99	126.81	130.40
1	QA	390	C	C6-N1-C1'	-5.98	113.62	120.80
34	RA	1994	C	C2-N1-C1'	5.98	125.38	118.80
1	QA	536	C	O5'-P-OP2	-5.98	100.32	105.70
1	XA	587	G	C8-N9-C1'	-5.98	119.23	127.00
34	YA	613	U	C6-N1-C1'	-5.97	112.84	121.20
34	YA	2060	A	O4'-C1'-N9	-5.97	103.42	108.20
34	YA	635	C	C2-N1-C1'	5.97	125.37	118.80
1	XA	201(A)	C	C6-N1-C1'	-5.97	113.64	120.80
1	XA	241	C	C6-N1-C1'	-5.97	113.64	120.80
1	XA	1100	C	C2-N1-C1'	5.96	125.36	118.80
34	YA	1427	A	P-O3'-C3'	5.96	126.86	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	1992	G	P-O3'-C3'	5.96	126.86	119.70
40	YH	12	PRO	N-CA-CB	-5.96	96.04	102.60
1	QA	456	C	C2-N1-C1'	5.96	125.36	118.80
1	QA	678	U	C2-N1-C1'	5.96	124.85	117.70
1	QA	1285	A	P-O3'-C3'	5.96	126.85	119.70
34	RA	2698	U	C6-N1-C1'	-5.96	112.85	121.20
34	RA	2824	C	C6-N1-C1'	-5.96	113.65	120.80
35	RB	70	C	C6-N1-C2	-5.96	117.92	120.30
34	YA	1675	C	C2-N1-C1'	5.96	125.36	118.80
34	YA	1047	G	C8-N9-C1'	-5.96	119.25	127.00
34	YA	1433	U	C6-N1-C1'	-5.96	112.86	121.20
34	YA	1235	G	C4-N9-C1'	5.95	134.24	126.50
34	YA	2582	G	C4-N9-C1'	5.95	134.24	126.50
34	YA	2710	C	C6-N1-C1'	-5.95	113.66	120.80
35	YB	22	U	C5-C6-N1	5.95	125.67	122.70
34	RA	2234	G	C4-N9-C1'	5.95	134.23	126.50
1	XA	169	C	C2-N1-C1'	5.95	125.34	118.80
1	XA	635	G	C4'-C3'-C2'	-5.95	96.65	102.60
1	XA	795	C	C2-N1-C1'	5.95	125.34	118.80
34	YA	2175	C	C2-N1-C1'	5.95	125.34	118.80
34	YA	2617	C	C6-N1-C1'	-5.95	113.66	120.80
1	QA	1343	G	C4-N9-C1'	5.95	134.23	126.50
1	QA	1359	C	C2-N1-C1'	5.95	125.34	118.80
34	RA	2574	G	C8-N9-C1'	-5.95	119.27	127.00
1	QA	905	U	C2-N1-C1'	5.94	124.83	117.70
1	QA	920	U	C2-N1-C1'	5.94	124.83	117.70
34	YA	419	C	C2-N1-C1'	5.94	125.34	118.80
34	RA	2095	C	C6-N1-C1'	-5.94	113.67	120.80
1	QA	177	C	C2-N1-C1'	5.94	125.33	118.80
34	RA	2739	U	C2-N1-C1'	5.94	124.83	117.70
34	YA	391	G	C4-N9-C1'	5.94	134.22	126.50
34	YA	2780	G	C8-N9-C1'	5.93	134.72	127.00
34	RA	2463	C	C2-N1-C1'	5.93	125.33	118.80
1	XA	1440(H)	C	C2-N1-C1'	5.93	125.33	118.80
34	YA	1672	C	C2-N1-C1'	5.93	125.33	118.80
34	YA	1881	C	C6-N1-C1'	-5.93	113.68	120.80
1	QA	822	C	C6-N1-C1'	-5.93	113.69	120.80
1	XA	619	U	C6-N1-C1'	5.93	129.50	121.20
1	XA	862	C	C2-N1-C1'	5.93	125.32	118.80
1	XA	1143	G	C8-N9-C1'	-5.93	119.29	127.00
34	YA	1516	U	C2-N1-C1'	5.93	124.82	117.70
34	YA	2394	C	O5'-P-OP2	5.93	117.82	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	RB	27	C	C5-C6-N1	5.93	123.96	121.00
1	XA	1493	A	C4-N9-C1'	5.93	136.97	126.30
34	YA	1930	G	C8-N9-C1'	-5.93	119.29	127.00
1	QA	930	C	C2-N1-C1'	5.93	125.32	118.80
1	QA	1327	C	OP1-P-O3'	5.93	118.24	105.20
34	YA	1982	C	C6-N1-C1'	-5.93	113.69	120.80
1	QA	1086	U	C6-N1-C1'	-5.92	112.91	121.20
1	XA	56	U	C2-N1-C1'	5.92	124.81	117.70
34	YA	838	C	C2-N1-C1'	5.92	125.31	118.80
1	QA	559	A	OP2-P-O3'	5.92	118.22	105.20
34	YA	1093	G	C4-N9-C1'	5.92	134.19	126.50
35	YB	75	G	C8-N9-C4	5.92	108.77	106.40
34	YA	568	U	C2-N1-C1'	5.92	124.80	117.70
34	YA	1093	G	C8-N9-C1'	-5.92	119.31	127.00
1	QA	1151	A	C4-N9-C1'	5.92	136.95	126.30
34	YA	1154	G	C4-N9-C1'	5.92	134.19	126.50
34	RA	856	C	C6-N1-C1'	-5.91	113.70	120.80
34	YA	1686	C	C6-N1-C1'	-5.91	113.70	120.80
1	QA	192	U	C2-N1-C1'	5.91	124.79	117.70
34	RA	581	C	C2-N1-C1'	5.91	125.30	118.80
1	QA	1211	U	C2-N1-C1'	5.91	124.79	117.70
34	RA	2144	U	C2-N1-C1'	5.91	124.79	117.70
35	RB	54	G	N7-C8-N9	5.91	116.05	113.10
34	YA	974(B)	C	C6-N1-C1'	-5.91	113.71	120.80
1	XA	864	A	C8-N9-C1'	-5.90	117.07	127.70
34	RA	1226	G	O5'-P-OP1	-5.90	100.39	105.70
34	RA	1930	G	P-O3'-C3'	5.90	126.78	119.70
34	RA	2342	C	C6-N1-C1'	-5.90	113.72	120.80
1	XA	121	C	C2-N1-C1'	5.90	125.29	118.80
34	YA	1097	U	C6-N1-C1'	-5.90	112.94	121.20
34	YA	2780	G	C4-N9-C1'	-5.89	118.84	126.50
34	RA	2034	U	C2-N1-C1'	5.89	124.77	117.70
34	YA	26	G	C4-N9-C1'	5.89	134.16	126.50
34	RA	254	G	C4-N9-C1'	5.89	134.16	126.50
1	XA	34	C	C2-N1-C1'	5.89	125.28	118.80
1	XA	335	C	C2-N1-C1'	5.89	125.28	118.80
1	QA	1282	C	C2-N1-C1'	5.88	125.27	118.80
1	QA	1343	G	C8-N9-C1'	-5.88	119.35	127.00
34	YA	1920	C	C2-N1-C1'	5.88	125.27	118.80
34	YA	2582	G	C8-N9-C1'	-5.88	119.35	127.00
34	RA	553	U	C2-N1-C1'	5.88	124.76	117.70
34	RA	1141	U	C6-N1-C1'	-5.88	112.96	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	753	C	C6-N1-C1'	-5.88	113.74	120.80
1	QA	545	C	C2-N1-C1'	5.88	125.27	118.80
34	RA	2043	C	C6-N1-C1'	-5.88	113.74	120.80
1	QA	447	G	C4-N9-C1'	5.88	134.14	126.50
1	XA	656	C	C6-N1-C1'	-5.88	113.75	120.80
1	XA	1143	G	C4-N9-C1'	5.88	134.14	126.50
34	RA	245	G	C8-N9-C1'	-5.88	119.36	127.00
34	RA	1964	G	O4'-C1'-N9	-5.87	103.50	108.20
1	XA	796	C	C6-N1-C1'	-5.87	113.75	120.80
1	QA	136	C	C6-N1-C1'	-5.87	113.76	120.80
34	RA	1105	U	C6-N1-C1'	-5.87	112.98	121.20
1	XA	685	G	C4-N9-C1'	5.87	134.13	126.50
28	Y4	5	ILE	CA-CB-CG1	5.87	122.15	111.00
34	YA	1956	U	C6-N1-C1'	-5.87	112.98	121.20
34	YA	2776	A	P-O3'-C3'	5.87	126.74	119.70
1	XA	1056	U	C2-N1-C1'	5.87	124.74	117.70
1	QA	1517	G	C4-N9-C1'	5.87	134.13	126.50
1	XA	132	C	C2-N1-C1'	5.87	125.25	118.80
34	YA	364	C	C2-N1-C1'	5.86	125.25	118.80
34	YA	391	G	C8-N9-C1'	-5.86	119.38	127.00
34	YA	2691	C	C2-N1-C1'	5.86	125.25	118.80
1	QA	952	U	C6-N1-C1'	-5.86	112.99	121.20
34	YA	565	C	C6-N1-C1'	-5.86	113.77	120.80
1	XA	163	C	C2-N1-C1'	5.86	125.24	118.80
28	Y4	5	ILE	CA-CB-CG2	-5.86	99.19	110.90
34	YA	1537	C	C2-N1-C1'	5.86	125.24	118.80
34	RA	1649	G	N9-C1'-C2'	-5.86	105.56	112.00
34	RA	1864	U	C2-N1-C1'	5.86	124.73	117.70
4	XD	8	VAL	CG1-CB-CG2	5.86	120.27	110.90
34	YA	796	C	C2-N1-C1'	5.86	125.24	118.80
35	YB	55	U	N3-C4-O4	5.85	123.50	119.40
54	RZ	59	LEU	CA-CB-CG	5.85	128.76	115.30
34	YA	1235	G	C8-N9-C1'	-5.85	119.39	127.00
34	YA	1437	C	C2-N1-C1'	5.85	125.24	118.80
34	RA	245	G	C4-N9-C1'	5.85	134.11	126.50
1	XA	857	C	C2-N1-C1'	5.85	125.24	118.80
34	RA	1688	U	C2-N1-C1'	5.84	124.72	117.70
34	RA	365	C	C2-N1-C1'	5.84	125.23	118.80
34	RA	1892	C	C6-N1-C1'	-5.84	113.79	120.80
34	RA	254	G	C8-N9-C1'	-5.84	119.41	127.00
1	XA	718	G	O4'-C1'-N9	-5.84	103.53	108.20
1	XA	1493	A	C8-N9-C1'	-5.84	117.19	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	650	C	C6-N1-C1'	-5.84	113.79	120.80
34	RA	270(Q)	C	C6-N1-C1'	-5.84	113.80	120.80
34	YA	1927	A	C4-N9-C1'	5.84	136.81	126.30
1	XA	980	C	OP1-P-O3'	5.84	118.04	105.20
1	XA	1075	C	C2-N1-C1'	5.84	125.22	118.80
34	YA	2097	C	C6-N1-C1'	-5.84	113.80	120.80
34	YA	2895	U	C6-N1-C1'	-5.84	113.03	121.20
1	QA	825	G	C4-N9-C1'	5.83	134.08	126.50
34	RA	1990	C	C6-N1-C1'	-5.83	113.80	120.80
1	XA	626	U	O5'-P-OP1	-5.83	100.45	105.70
1	QA	1151	A	C8-N9-C1'	-5.83	117.20	127.70
1	QA	1045	C	C6-N1-C1'	-5.83	113.80	120.80
1	QA	1440(H)	C	C6-N1-C1'	-5.83	113.81	120.80
34	RA	2776	A	P-O3'-C3'	5.83	126.69	119.70
1	XA	834	C	C6-N1-C1'	-5.83	113.81	120.80
34	RA	1474	C	C2-N1-C1'	5.83	125.21	118.80
35	YB	93	C	N1-C2-O2	5.83	122.39	118.90
34	YA	2150	U	C2-N1-C1'	5.82	124.69	117.70
34	RA	276	A	O5'-P-OP1	5.82	117.69	110.70
34	RA	943	U	C2-N1-C1'	5.82	124.69	117.70
34	RA	2093	G	C4-N9-C1'	5.82	134.07	126.50
34	YA	1085	A	P-O3'-C3'	5.82	126.68	119.70
34	YA	1154	G	C8-N9-C1'	-5.82	119.44	127.00
34	YA	2040	C	C6-N1-C1'	-5.82	113.82	120.80
1	QA	500	G	C4-N9-C1'	5.82	134.06	126.50
35	RB	15	A	C8-N9-C4	5.82	108.13	105.80
1	QA	500	G	C8-N9-C1'	-5.82	119.44	127.00
1	QA	1075	C	C6-N1-C1'	-5.82	113.82	120.80
34	RA	753	C	C6-N1-C1'	-5.82	113.82	120.80
35	RB	6	C	C6-N1-C2	-5.82	117.97	120.30
34	YA	2146	C	C6-N1-C1'	-5.81	113.83	120.80
1	QA	1517	G	C8-N9-C1'	-5.81	119.44	127.00
34	YA	26	G	C8-N9-C1'	-5.81	119.45	127.00
34	YA	779	U	C2-N1-C1'	5.81	124.67	117.70
1	QA	564	C	C2-N1-C1'	5.81	125.19	118.80
32	R8	62	LEU	CA-CB-CG	5.81	128.66	115.30
34	RA	1670	C	C2-N1-C1'	5.81	125.19	118.80
1	XA	283	C	C6-N1-C1'	-5.81	113.83	120.80
34	YA	2195	C	C6-N1-C1'	-5.81	113.83	120.80
34	YA	678	C	C2-N1-C1'	5.81	125.19	118.80
1	XA	685	G	C8-N9-C1'	-5.80	119.45	127.00
1	XA	805	C	C6-N1-C1'	-5.80	113.83	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	1799	G	P-O3'-C3'	5.80	126.66	119.70
1	XA	186(O)	U	C6-N1-C1'	-5.80	113.08	121.20
1	QA	447	G	C8-N9-C1'	-5.80	119.46	127.00
34	RA	284	U	C2-N1-C1'	5.80	124.66	117.70
34	YA	2688	U	O4'-C1'-N1	5.80	112.84	108.20
1	QA	1384	C	C6-N1-C1'	-5.80	113.84	120.80
34	RA	1707	G	C4-N9-C1'	5.80	134.04	126.50
1	XA	1494	G	C4-N9-C1'	5.80	134.04	126.50
34	YA	1598	C	C6-N1-C1'	-5.80	113.84	120.80
34	YA	1640	C	C6-N1-C1'	-5.80	113.84	120.80
34	YA	2482	G	C4-N9-C1'	5.80	134.04	126.50
1	QA	1074	G	C4-N9-C1'	5.80	134.04	126.50
34	YA	1510	A	O5'-P-OP2	-5.80	100.48	105.70
34	RA	1186	G	C4-N9-C1'	5.79	134.03	126.50
12	XL	47	LYS	N-CA-C	5.79	126.64	111.00
34	YA	1019	U	O5'-P-OP1	-5.79	100.49	105.70
34	RA	2075	U	C6-N1-C1'	-5.79	113.09	121.20
1	QA	1237	C	C2-N1-C1'	5.79	125.17	118.80
34	RA	825	C	C2-N1-C1'	5.79	125.17	118.80
34	RA	2401	U	C2-N1-C1'	5.79	124.64	117.70
34	YA	2554	U	C6-N1-C1'	-5.79	113.10	121.20
34	RA	725	G	C4-N9-C1'	5.79	134.02	126.50
1	XA	1465	C	C6-N1-C1'	-5.79	113.86	120.80
1	QA	825	G	C8-N9-C1'	-5.78	119.48	127.00
34	RA	856	C	P-O3'-C3'	5.78	126.64	119.70
34	RA	1186	G	C8-N9-C1'	-5.78	119.48	127.00
1	XA	309	G	O5'-P-OP2	-5.78	100.50	105.70
34	RA	2179	C	C6-N1-C1'	-5.78	113.86	120.80
34	YA	2586	C	C2-N1-C1'	5.78	125.16	118.80
34	RA	1777	U	C6-N1-C1'	-5.78	113.11	121.20
1	XA	266	G	OP2-P-O3'	5.78	117.91	105.20
34	YA	2460	U	C2-N1-C1'	5.78	124.64	117.70
34	YA	2689	U	P-O3'-C3'	5.78	126.64	119.70
34	YA	284	U	C2-N1-C1'	5.78	124.63	117.70
1	QA	133	U	C2-N1-C1'	5.78	124.63	117.70
34	RA	1774	C	C6-N1-C1'	-5.78	113.87	120.80
1	XA	1354	C	C2-N1-C1'	5.78	125.15	118.80
34	YA	2466	C	C6-N1-C1'	-5.78	113.87	120.80
34	RA	1516	U	C6-N1-C1'	-5.77	113.12	121.20
34	YA	1405	U	C2-N1-C1'	5.77	124.63	117.70
34	YA	2658	C	C6-N1-C1'	-5.77	113.87	120.80
34	YA	1372	U	C6-N1-C1'	-5.77	113.12	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	1649	G	C4-N9-C1'	5.77	134.00	126.50
1	QA	516	U	C2-N1-C1'	5.77	124.62	117.70
1	QA	1213	A	C4-N9-C1'	5.77	136.68	126.30
1	XA	1364	U	C2-N1-C1'	5.77	124.62	117.70
34	RA	18	C	C6-N1-C1'	-5.77	113.88	120.80
34	RA	140	A	O4'-C1'-N9	5.76	112.81	108.20
1	XA	458(B)	G	C4-N9-C1'	5.76	134.00	126.50
34	YA	318	C	C2-N1-C1'	5.76	125.14	118.80
1	QA	1215	G	C4-N9-C1'	5.76	133.99	126.50
1	XA	989	C	C6-N1-C1'	-5.76	113.88	120.80
1	QA	67	C	C6-N1-C1'	-5.76	113.89	120.80
1	QA	1377	A	O4'-C1'-N9	5.76	112.81	108.20
34	YA	76	C	C6-N1-C1'	-5.76	113.89	120.80
34	RA	687	C	C6-N1-C1'	-5.76	113.89	120.80
34	YA	1927	A	C8-N9-C1'	-5.76	117.33	127.70
34	RA	1509	C	C6-N1-C1'	-5.76	113.89	120.80
1	XA	1090	U	C2-N1-C1'	5.76	124.61	117.70
34	YA	1577	C	C2-N1-C1'	5.76	125.13	118.80
1	QA	824	C	C2-N1-C1'	5.75	125.13	118.80
34	RA	1180	C	C2-N1-C1'	5.75	125.13	118.80
1	XA	501	C	C6-N1-C1'	-5.75	113.89	120.80
34	RA	725	G	C8-N9-C1'	-5.75	119.52	127.00
1	QA	353	A	C4-N9-C1'	5.75	136.65	126.30
34	RA	512	G	P-O3'-C3'	5.75	126.60	119.70
34	YA	1649	G	C8-N9-C1'	-5.75	119.52	127.00
34	YA	1819	A	P-O3'-C3'	5.75	126.60	119.70
1	QA	176	C	C2-N1-C1'	5.75	125.12	118.80
34	RA	1066	U	C6-N1-C1'	-5.75	113.15	121.20
35	YB	97	G	N1-C2-N3	5.75	127.35	123.90
34	RA	26	G	C4-N9-C1'	5.75	133.97	126.50
1	XA	236	G	C4-N9-C1'	5.75	133.97	126.50
34	RA	2093	G	C8-N9-C1'	-5.75	119.53	127.00
34	YA	2233	U	C2-N1-C1'	5.74	124.59	117.70
35	YB	66	A	P-O3'-C3'	5.74	126.59	119.70
34	RA	2064	C	C2-N1-C1'	5.74	125.11	118.80
1	XA	1317	C	C2-N1-C1'	5.74	125.11	118.80
22	XV	15	G	C8-N9-C1'	-5.74	119.54	127.00
34	YA	343	C	C6-N1-C1'	-5.74	113.91	120.80
34	YA	384	U	C6-N1-C1'	-5.74	113.17	121.20
1	XA	1437	C	P-O3'-C3'	-5.74	112.82	119.70
1	QA	943	U	C2-N1-C1'	5.74	124.58	117.70
1	QA	1401	G	C4-N9-C1'	5.74	133.96	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	678	C	C2-N1-C1'	5.74	125.11	118.80
34	RA	1982	C	C2-N1-C1'	5.74	125.11	118.80
1	XA	117	G	C4-N9-C1'	5.74	133.96	126.50
1	XA	1326	C	C6-N1-C1'	-5.73	113.92	120.80
34	YA	1289	C	C2-N1-C1'	5.73	125.11	118.80
1	QA	1403	C	C6-N1-C1'	-5.73	113.92	120.80
35	RB	66	A	P-O3'-C3'	5.73	126.58	119.70
1	QA	370	C	C2-N1-C1'	5.73	125.10	118.80
1	QA	1247	U	C2-N1-C1'	5.73	124.58	117.70
34	RA	25	U	C2-N1-C1'	5.73	124.58	117.70
34	YA	271(C)	G	OP2-P-O3'	5.73	117.81	105.20
35	YB	42	C	C6-N1-C2	-5.73	118.01	120.30
23	XX	19	U	C2-N1-C1'	5.73	124.57	117.70
34	YA	871	U	C2-N1-C1'	5.73	124.57	117.70
34	YA	2145	C	C6-N1-C1'	-5.73	113.93	120.80
34	YA	2452	C	C2-N1-C1'	5.73	125.10	118.80
1	QA	1382	C	C6-N1-C1'	-5.72	113.93	120.80
34	RA	1707	G	C8-N9-C1'	-5.72	119.56	127.00
1	QA	1074	G	C8-N9-C1'	-5.72	119.56	127.00
22	QV	31	G	C4-N9-C1'	5.72	133.94	126.50
34	YA	1101	U	C2-N1-C1'	5.72	124.57	117.70
34	YA	2291	U	C2-N1-C1'	5.72	124.57	117.70
1	QA	556	C	C2-N1-C1'	5.72	125.09	118.80
34	RA	1049	C	C6-N1-C1'	-5.72	113.94	120.80
34	YA	1914	C	C6-N1-C1'	-5.72	113.94	120.80
34	RA	1121	C	C2-N1-C1'	5.72	125.09	118.80
1	XA	757	U	C6-N1-C1'	-5.72	113.20	121.20
1	XA	1537	U	OP1-P-O3'	5.71	117.77	105.20
22	XV	76	A	N7-C8-N9	5.71	116.66	113.80
34	RA	556	G	C4-N9-C1'	5.71	133.93	126.50
34	RA	839	U	C2-N1-C1'	5.71	124.56	117.70
1	XA	1313	U	C6-N1-C1'	-5.71	113.20	121.20
34	YA	1411	C	C2-N1-C1'	5.71	125.08	118.80
1	XA	513	C	C2-N1-C1'	5.71	125.08	118.80
1	XA	1494	G	C8-N9-C1'	-5.71	119.58	127.00
34	YA	2482	G	C8-N9-C1'	-5.71	119.58	127.00
35	YB	79	C	N3-C2-O2	-5.71	117.90	121.90
35	YB	82	G	N7-C8-N9	5.71	115.95	113.10
34	RA	683	C	C6-N1-C1'	-5.71	113.95	120.80
34	RA	568	U	C6-N1-C1'	-5.70	113.22	121.20
1	QA	381	C	C6-N1-C1'	-5.70	113.96	120.80
1	QA	580	U	C6-N1-C1'	-5.70	113.22	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	1327	C	C6-N1-C1'	-5.70	113.96	120.80
34	YA	1556	C	C2-N1-C1'	5.70	125.07	118.80
34	YA	1734	C	C2-N1-C1'	5.70	125.07	118.80
35	YB	43	C	C6-N1-C2	-5.70	118.02	120.30
1	XA	607	A	O4'-C1'-N9	5.70	112.76	108.20
34	RA	66	C	C2-N1-C1'	5.69	125.06	118.80
34	RA	2312	U	C2-N1-C1'	5.69	124.53	117.70
1	XA	117	G	C8-N9-C1'	-5.69	119.60	127.00
1	QA	1215	G	C8-N9-C1'	-5.69	119.60	127.00
34	RA	395	U	C2-N1-C1'	5.69	124.53	117.70
34	RA	2174	C	C6-N1-C1'	-5.69	113.97	120.80
35	YB	80	U	C5-C4-O4	5.69	129.31	125.90
1	XA	832	C	C2-N1-C1'	5.69	125.06	118.80
34	RA	634	C	C2-N1-C1'	5.69	125.06	118.80
34	RA	1188	U	C6-N1-C1'	-5.69	113.24	121.20
34	RA	2636	U	C6-N1-C1'	-5.69	113.24	121.20
1	XA	236	G	C8-N9-C1'	-5.69	119.61	127.00
1	XA	458(B)	G	C8-N9-C1'	-5.69	119.61	127.00
34	YA	2663	G	C4-N9-C1'	5.68	133.89	126.50
1	XA	352	C	C2-N1-C1'	5.68	125.05	118.80
34	YA	208	C	C2-N1-C1'	5.68	125.05	118.80
14	QN	43	CYS	CB-CA-C	5.68	121.76	110.40
1	XA	34	C	C6-N1-C1'	-5.68	113.98	120.80
1	XA	1240	U	C2-N1-C1'	-5.68	110.88	117.70
35	RB	91	C	C6-N1-C2	-5.68	118.03	120.30
34	YA	1391	U	C6-N1-C1'	-5.68	113.25	121.20
45	YQ	19	GLY	N-CA-C	-5.68	98.91	113.10
1	XA	134	A	C4-N9-C1'	5.67	136.51	126.30
34	YA	1448	G	C4-N9-C1'	5.67	133.88	126.50
1	QA	1322	C	C2-N1-C1'	5.67	125.04	118.80
34	RA	1218	C	C6-N1-C1'	-5.67	113.99	120.80
34	YA	1588	C	C2-N1-C1'	5.67	125.04	118.80
34	RA	2210	G	C4-N9-C1'	5.67	133.87	126.50
34	RA	2664	G	C4-N9-C1'	5.66	133.86	126.50
34	YA	1201	C	C6-N1-C1'	-5.66	114.01	120.80
34	YA	2084	C	C2-N1-C1'	5.66	125.03	118.80
1	QA	1401	G	C8-N9-C1'	-5.66	119.64	127.00
1	XA	343	U	C6-N1-C1'	-5.66	113.28	121.20
34	YA	923	C	C2-N1-C1'	5.66	125.02	118.80
34	RA	26	G	C8-N9-C1'	-5.66	119.65	127.00
1	XA	186(H)	C	C6-N1-C1'	-5.66	114.01	120.80
1	XA	1440(A)	C	C2-N1-C1'	5.66	125.02	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	18	C	C2-N1-C1'	5.66	125.02	118.80
1	QA	1213	A	C8-N9-C1'	-5.66	117.52	127.70
34	RA	556	G	C8-N9-C1'	-5.66	119.65	127.00
34	YA	271(B)	C	C2-N1-C1'	5.65	125.02	118.80
35	YB	1	U	C6-N1-C2	-5.65	117.61	121.00
1	QA	295	C	C2-N1-C1'	5.65	125.02	118.80
34	YA	464	U	C6-N1-C1'	-5.65	113.28	121.20
34	YA	2763	G	C4-N9-C1'	5.65	133.85	126.50
1	QA	1351	U	C6-N1-C1'	-5.65	113.29	121.20
1	XA	1357	A	C4-N9-C1'	5.65	136.47	126.30
34	RA	1240	U	C6-N1-C1'	-5.65	113.29	121.20
1	QA	353	A	C8-N9-C1'	-5.65	117.53	127.70
34	RA	749	C	C6-N1-C1'	-5.65	114.02	120.80
34	YA	1417	C	C2-N1-C1'	5.65	125.01	118.80
34	YA	2471	C	C6-N1-C1'	-5.65	114.02	120.80
34	RA	568	U	O5'-P-OP1	-5.65	100.62	105.70
1	QA	1336	C	C6-N1-C1'	-5.64	114.03	120.80
34	RA	2496	C	O5'-P-OP1	-5.64	100.62	105.70
35	YB	58	A	N1-C6-N6	-5.64	115.21	118.60
1	XA	62	U	C6-N1-C1'	-5.64	113.30	121.20
34	YA	229	A	OP2-P-O3'	5.64	117.61	105.20
34	YA	2663	G	C8-N9-C1'	-5.64	119.67	127.00
37	YE	186	GLY	N-CA-C	5.64	127.19	113.10
1	XA	537	G	C8-N9-C1'	5.64	134.33	127.00
34	YA	2179	C	C2-N1-C1'	5.64	125.00	118.80
1	XA	1321	C	C6-N1-C1'	-5.63	114.04	120.80
34	YA	2756	U	OP1-P-O3'	5.63	117.59	105.20
1	XA	309	G	P-O3'-C3'	5.63	126.46	119.70
34	RA	2318	G	O4'-C1'-N9	5.63	112.70	108.20
1	QA	1359	C	C6-N1-C1'	-5.63	114.05	120.80
1	XA	68(J)	G	C4-N9-C1'	5.63	133.81	126.50
34	RA	2210	G	C8-N9-C1'	-5.62	119.69	127.00
34	RA	848	G	C4-N9-C1'	5.62	133.81	126.50
1	XA	1243	C	O4'-C1'-N1	5.62	112.70	108.20
36	YD	241	PRO	C-N-CA	5.62	135.76	121.70
1	XA	868	C	C6-N1-C1'	-5.62	114.06	120.80
1	QA	343	U	C6-N1-C1'	-5.62	113.33	121.20
34	RA	1005	C	C2-N1-C1'	5.62	124.98	118.80
1	XA	1328	C	OP2-P-O3'	5.62	117.56	105.20
1	QA	1538	C	OP1-P-O3'	5.62	117.56	105.20
34	YA	2752	C	C2-N1-C1'	5.62	124.98	118.80
34	RA	1992	G	OP2-P-O3'	5.62	117.55	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	2867	G	C4-N9-C1'	5.62	133.80	126.50
34	YA	270(D)	C	C2-N1-C1'	5.62	124.98	118.80
1	XA	797	C	C6-N1-C1'	-5.61	114.07	120.80
1	XA	980	C	C3'-C2'-C1'	-5.61	97.01	101.50
1	QA	1429	C	C6-N1-C1'	-5.61	114.07	120.80
34	RA	2785	C	C2-N1-C1'	5.61	124.97	118.80
1	XA	312	C	C2-N1-C1'	5.61	124.97	118.80
1	XA	905	U	C2-N1-C1'	5.61	124.43	117.70
1	XA	1231	G	OP1-P-O3'	-5.61	92.87	105.20
20	QT	73	HIS	CA-CB-CG	5.60	123.13	113.60
34	RA	102	G	P-O3'-C3'	5.60	126.42	119.70
34	RA	1741	C	C6-N1-C1'	-5.60	114.08	120.80
34	RA	2466	C	C2-N1-C1'	5.60	124.96	118.80
34	YA	1327	C	C6-N1-C1'	-5.60	114.08	120.80
34	RA	752	A	P-O3'-C3'	5.60	126.42	119.70
1	XA	636	U	P-O5'-C5'	5.60	129.86	120.90
34	RA	1411	C	C6-N1-C1'	-5.60	114.08	120.80
34	YA	155	C	C6-N1-C1'	-5.60	114.08	120.80
34	YA	2207	C	C6-N1-C1'	-5.60	114.08	120.80
34	YA	2566	A	P-O3'-C3'	5.60	126.42	119.70
34	YA	2763	G	C8-N9-C1'	-5.60	119.72	127.00
1	XA	848	C	C2-N1-C1'	5.59	124.95	118.80
34	YA	887	A	OP1-P-OP2	5.59	127.99	119.60
34	YA	2648	C	C6-N1-C1'	-5.59	114.09	120.80
1	QA	56	U	C6-N1-C1'	-5.59	113.37	121.20
35	RB	60	C	C5-C6-N1	5.59	123.80	121.00
34	YA	1448	G	C8-N9-C1'	-5.59	119.73	127.00
1	QA	1229	A	C4-N9-C1'	5.59	136.37	126.30
34	RA	2044	C	C2-N1-C1'	5.59	124.95	118.80
35	RB	108	C	C6-N1-C2	5.59	122.53	120.30
1	XA	134	A	C8-N9-C1'	-5.59	117.64	127.70
35	YB	54	G	N3-C4-C5	5.59	131.39	128.60
34	RA	848	G	C8-N9-C1'	-5.59	119.73	127.00
34	YA	2231	C	C6-N1-C1'	-5.59	114.09	120.80
1	XA	749	C	C2-N1-C1'	5.59	124.94	118.80
1	XA	962	C	C6-N1-C1'	-5.59	114.09	120.80
34	YA	862	G	C4-N9-C1'	5.59	133.76	126.50
34	YA	1777	U	C2-N1-C1'	5.59	124.40	117.70
1	QA	428	G	C4-N9-C1'	5.58	133.76	126.50
1	QA	1417	G	C4-N9-C1'	5.58	133.76	126.50
34	RA	1298	C	C2-N1-C1'	5.58	124.94	118.80
34	RA	1776	G	C8-N9-C1'	-5.58	119.74	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	1358	U	C2-N1-C1'	-5.58	111.00	117.70
1	QA	651	C	C6-N1-C1'	-5.58	114.11	120.80
34	YA	97	C	C6-N1-C1'	-5.58	114.11	120.80
44	RP	59	LEU	CA-CB-CG	5.58	128.12	115.30
1	XA	1158	C	N1-C1'-C2'	5.58	121.25	114.00
34	YA	2420	C	C6-N1-C1'	-5.58	114.11	120.80
1	QA	962	C	C2-N1-C1'	5.57	124.93	118.80
1	QA	1303	C	C2-N1-C1'	5.57	124.93	118.80
1	XA	537	G	C4-N9-C1'	-5.57	119.26	126.50
1	QA	647	C	C2-N1-C1'	5.57	124.93	118.80
34	RA	1776	G	C4-N9-C1'	5.57	133.74	126.50
1	XA	400	C	C2-N1-C1'	5.57	124.93	118.80
34	YA	484	C	C6-N1-C1'	-5.57	114.12	120.80
34	YA	636	G	C8-N9-C1'	-5.57	119.76	127.00
1	QA	1270	C	C6-N1-C1'	-5.57	114.12	120.80
29	R5	34	PRO	CA-N-CD	-5.57	103.71	111.50
1	XA	1109	C	C6-N1-C1'	-5.57	114.12	120.80
34	YA	602	G	C4-N9-C1'	5.57	133.74	126.50
1	XA	12	U	C6-N1-C1'	-5.56	113.41	121.20
34	YA	636	G	C4-N9-C1'	5.56	133.73	126.50
34	YA	2210	G	N9-C1'-C2'	5.56	121.23	114.00
34	YA	2704	C	C2-N1-C1'	5.56	124.92	118.80
34	RA	2664	G	C8-N9-C1'	-5.56	119.77	127.00
1	QA	1197	G	C8-N9-C1'	-5.56	119.77	127.00
1	QA	849	C	C2-N1-C1'	5.56	124.91	118.80
1	XA	68(J)	G	C8-N9-C1'	-5.56	119.77	127.00
1	QA	1148	U	C6-N1-C1'	-5.56	113.42	121.20
34	RA	2663	G	C4-N9-C1'	5.55	133.72	126.50
34	YA	595	C	C6-N1-C1'	-5.55	114.13	120.80
34	YA	2134	A	C8-N9-C1'	-5.55	117.70	127.70
34	YA	2730	C	C2-N1-C1'	5.55	124.91	118.80
1	QA	1137	C	C6-N1-C1'	-5.55	114.14	120.80
1	XA	980	C	OP2-P-O3'	-5.55	92.99	105.20
1	XA	1357	A	C8-N9-C1'	-5.55	117.71	127.70
34	RA	1304	C	C2-N1-C1'	5.55	124.91	118.80
34	YA	448	U	C2-N1-C1'	5.55	124.36	117.70
1	QA	1197	G	C4-N9-C1'	5.55	133.71	126.50
1	XA	1098	C	C2-N1-C1'	5.55	124.90	118.80
34	RA	1914	C	O4'-C1'-N1	5.54	112.64	108.20
1	QA	1417	G	C8-N9-C1'	-5.54	119.79	127.00
34	RA	2356	C	C6-N1-C1'	-5.54	114.15	120.80
34	RA	2420	C	C2-N1-C1'	5.54	124.90	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	1437	C	C6-N1-C1'	5.54	127.45	120.80
34	RA	2663	G	C8-N9-C1'	-5.54	119.80	127.00
1	XA	479	C	C2-N1-C1'	5.54	124.89	118.80
28	Y4	39	CYS	N-CA-C	-5.54	96.04	111.00
32	R8	61	LEU	C-N-CA	5.54	135.55	121.70
34	YA	1315	C	C6-N1-C1'	-5.54	114.15	120.80
34	RA	1312	U	C2-N1-C1'	5.54	124.35	117.70
34	RA	1313	U	C2-N1-C1'	5.54	124.35	117.70
54	YZ	62	PRO	C-N-CA	5.54	135.54	121.70
34	YA	544	C	C6-N1-C1'	-5.54	114.16	120.80
34	YA	2803	C	C6-N1-C1'	-5.54	114.16	120.80
34	RA	2566	A	P-O3'-C3'	5.53	126.34	119.70
34	RA	2580	U	C2-N1-C1'	5.53	124.34	117.70
34	YA	184	C	C6-N1-C1'	-5.53	114.16	120.80
34	YA	576	U	C2-N1-C1'	5.53	124.34	117.70
1	QA	794	A	C4-N9-C1'	5.53	136.25	126.30
34	RA	202	U	C2-N1-C1'	5.53	124.33	117.70
34	RA	1483	G	C4-N9-C1'	5.53	133.69	126.50
40	RH	153	LYS	N-CA-C	5.53	125.92	111.00
34	RA	2359	C	C6-N1-C1'	-5.53	114.17	120.80
34	YA	1507	A	O4'-C1'-N9	5.53	112.62	108.20
1	QA	1388	C	C2-N1-C1'	5.52	124.88	118.80
1	XA	1203	C	C6-N1-C1'	-5.52	114.17	120.80
1	XA	1353	G	C8-N9-C1'	-5.52	119.82	127.00
34	YA	1515	C	C2-N1-C1'	5.52	124.88	118.80
34	RA	2575	C	C2-N1-C1'	5.52	124.87	118.80
1	XA	420	U	C2-N1-C1'	5.52	124.33	117.70
1	QA	1229	A	C8-N9-C1'	-5.52	117.76	127.70
35	YB	61	G	C8-N9-C4	-5.52	104.19	106.40
34	RA	509	C	C2-N1-C1'	5.52	124.87	118.80
1	XA	1105	A	N9-C1'-C2'	-5.52	105.93	112.00
34	RA	2867	G	C8-N9-C1'	-5.51	119.83	127.00
34	YA	2133	G	C4-N9-C1'	5.51	133.67	126.50
34	YA	9	U	C2-N1-C1'	5.51	124.31	117.70
34	YA	270(N)	U	C2-N1-C1'	5.51	124.31	117.70
1	QA	956	U	C2-N1-C1'	5.51	124.31	117.70
1	XA	25	C	C2-N1-C1'	5.51	124.86	118.80
1	XA	526	C	C2-N1-C1'	5.51	124.86	118.80
34	YA	602	G	C8-N9-C1'	-5.51	119.84	127.00
1	QA	1352	C	C2-N1-C1'	5.51	124.86	118.80
34	YA	2334	G	O4'-C1'-N9	-5.51	103.79	108.20
34	YA	2475	C	C2-N1-C1'	5.51	124.86	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	619	G	C4-N9-C1'	5.51	133.66	126.50
34	YA	2808	U	C2-N1-C1'	5.51	124.31	117.70
1	XA	1353	G	C4-N9-C1'	5.50	133.65	126.50
34	YA	848	G	C4-N9-C1'	5.50	133.66	126.50
34	YA	2532	G	C4-N9-C1'	5.50	133.66	126.50
34	RA	817	C	C2-N1-C1'	5.50	124.85	118.80
1	XA	37	U	C2-N1-C1'	5.50	124.30	117.70
34	YA	365	C	C2-N1-C1'	5.50	124.85	118.80
34	YA	1879	C	C6-N1-C1'	-5.50	114.20	120.80
44	YP	59	LEU	CA-CB-CG	5.50	127.95	115.30
34	RA	2205	C	C2-N1-C1'	5.50	124.85	118.80
1	XA	858	G	C4-N9-C1'	5.50	133.64	126.50
35	YB	37	C	N1-C2-O2	5.50	122.20	118.90
1	QA	75	C	C6-N1-C1'	-5.49	114.21	120.80
1	QA	428	G	C8-N9-C1'	-5.49	119.86	127.00
34	YA	862	G	C8-N9-C1'	-5.49	119.86	127.00
1	QA	1362(A)	C	C6-N1-C1'	-5.49	114.21	120.80
34	YA	206	U	C2-N1-C1'	5.49	124.29	117.70
34	YA	546	C	C2-N1-C1'	5.49	124.84	118.80
34	YA	2511	U	C2-N1-C1'	5.49	124.29	117.70
1	XA	1440(A)	C	C6-N1-C1'	-5.49	114.22	120.80
34	YA	1498	C	C2-N1-C1'	5.49	124.84	118.80
34	RA	201	C	C2-N1-C1'	5.49	124.83	118.80
34	RA	2404	C	C2-N1-C1'	5.49	124.83	118.80
34	YA	1599	C	C2-N1-C1'	5.49	124.83	118.80
34	RA	806	C	C2-N1-C1'	5.48	124.83	118.80
35	RB	31	C	C6-N1-C2	-5.48	118.11	120.30
1	XA	1263	C	C6-N1-C1'	-5.48	114.22	120.80
1	QA	707	C	C2-N1-C1'	5.48	124.83	118.80
34	RA	1994	C	C6-N1-C1'	-5.48	114.22	120.80
34	RA	2233	U	C2-N1-C1'	5.48	124.28	117.70
34	YA	838	C	C6-N1-C1'	-5.48	114.22	120.80
34	YA	2824	C	C2-N1-C1'	5.48	124.83	118.80
1	XA	266	G	P-O3'-C3'	5.48	126.27	119.70
34	YA	898	C	C2-N1-C1'	5.48	124.83	118.80
1	XA	1219	U	C6-N1-C1'	5.48	128.87	121.20
34	YA	2496	C	O5'-P-OP1	-5.48	100.77	105.70
1	QA	1409	C	C2-N1-C1'	5.47	124.82	118.80
34	RA	435	C	C2-N1-C1'	5.47	124.82	118.80
34	RA	2096	U	C6-N1-C1'	-5.47	113.54	121.20
1	XA	1302	U	P-O3'-C3'	5.47	126.27	119.70
35	YB	90	C	N1-C2-O2	5.47	122.19	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	1415	U	C6-N1-C1'	-5.47	113.54	121.20
1	QA	241	C	C2-N1-C1'	5.47	124.81	118.80
1	QA	788	U	C2-N1-C1'	5.47	124.26	117.70
1	XA	1478	C	C6-N1-C1'	-5.47	114.24	120.80
34	YA	752	A	P-O3'-C3'	5.47	126.26	119.70
34	RA	1483	G	C8-N9-C1'	-5.46	119.90	127.00
34	RA	1687	G	C4-N9-C1'	5.46	133.60	126.50
34	RA	2563	U	C2-N1-C1'	5.46	124.25	117.70
35	YB	94	C	N3-C4-C5	-5.46	119.72	121.90
34	RA	363(F)	U	C6-N1-C1'	-5.46	113.56	121.20
1	XA	651	C	C2-N1-C1'	5.46	124.80	118.80
1	XA	992	U	P-O3'-C3'	5.46	126.25	119.70
34	RA	619	G	C8-N9-C1'	-5.46	119.91	127.00
1	XA	947	G	C4-N9-C1'	5.46	133.59	126.50
34	RA	1314	C	C6-N1-C1'	-5.46	114.25	120.80
34	RA	1498	C	C2-N1-C1'	5.45	124.80	118.80
34	YA	435	C	C2-N1-C1'	5.45	124.80	118.80
1	QA	1440(L)	G	C4-N9-C1'	5.45	133.59	126.50
34	YA	2028	U	C2-N1-C1'	5.45	124.24	117.70
1	XA	795	C	C6-N1-C1'	-5.45	114.26	120.80
34	YA	267	C	C6-N1-C1'	-5.45	114.26	120.80
34	YA	848	G	C8-N9-C1'	-5.45	119.91	127.00
34	YA	2792	G	C4-N9-C1'	5.45	133.59	126.50
1	XA	436	C	C6-N1-C1'	-5.45	114.26	120.80
1	XA	916	G	C4-N9-C1'	5.45	133.58	126.50
1	XA	1373	G	OP1-P-OP2	-5.45	111.43	119.60
34	YA	1218	C	C2-N1-C1'	5.45	124.79	118.80
1	QA	456	C	C6-N1-C1'	-5.45	114.26	120.80
1	QA	1435	G	C4-N9-C1'	5.45	133.58	126.50
34	RA	219	G	C4-N9-C1'	5.45	133.58	126.50
34	RA	930	U	C2-N1-C1'	5.45	124.24	117.70
1	XA	153	C	C2-N1-C1'	5.45	124.79	118.80
22	QV	31	G	C8-N9-C1'	-5.44	119.92	127.00
34	YA	419	C	C6-N1-C1'	-5.44	114.27	120.80
34	YA	964	C	C2-N1-C1'	5.44	124.79	118.80
1	QA	1327	C	C2-N1-C1'	5.44	124.79	118.80
34	YA	919	G	C4-N9-C1'	5.44	133.58	126.50
1	QA	794	A	C8-N9-C1'	-5.44	117.91	127.70
50	RV	48	GLY	C-N-CA	5.44	135.30	121.70
1	XA	5	U	C2-N1-C1'	5.44	124.23	117.70
1	XA	1440(H)	C	C6-N1-C1'	-5.44	114.27	120.80
1	QA	656	C	C2-N1-C1'	5.44	124.78	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	254	G	C4-N9-C1'	5.44	133.57	126.50
34	YA	1343	G	C4-N9-C1'	5.44	133.57	126.50
34	YA	2133	G	C8-N9-C1'	-5.44	119.93	127.00
34	RA	639	U	C6-N1-C1'	-5.43	113.59	121.20
34	RA	825	C	C6-N1-C1'	-5.43	114.28	120.80
34	YA	1930	G	P-O3'-C3'	5.43	126.22	119.70
34	RA	41	C	C2-N1-C1'	5.43	124.78	118.80
35	RB	43	C	C6-N1-C2	-5.43	118.13	120.30
1	XA	1100	C	C6-N1-C1'	-5.43	114.28	120.80
34	RA	1504	C	C2-N1-C1'	5.43	124.78	118.80
34	YA	1102	C	C2-N1-C1'	5.43	124.77	118.80
34	YA	2134	A	C4-N9-C1'	5.43	136.08	126.30
1	XA	20	U	C6-N1-C1'	-5.43	113.60	121.20
1	XA	137	C	C2-N1-C1'	5.43	124.77	118.80
34	YA	635	C	C6-N1-C1'	-5.43	114.28	120.80
35	YB	68	C	C5-C6-N1	5.43	123.71	121.00
34	YA	922	U	C2-N1-C1'	5.43	124.21	117.70
34	YA	2273	A	C4-N9-C1'	5.43	136.07	126.30
1	QA	709	G	C4-N9-C1'	5.42	133.55	126.50
12	XL	46	LYS	C-N-CA	-5.42	108.14	121.70
1	QA	906	G	C4-N9-C1'	5.42	133.55	126.50
34	YA	234	C	C2-N1-C1'	5.42	124.77	118.80
34	RA	2173	A	O5'-P-OP1	5.42	117.21	110.70
1	XA	1515	C	C2-N1-C1'	5.42	124.76	118.80
1	XA	68(E)	C	C2-N1-C1'	5.42	124.76	118.80
1	QA	372	C	C2-N1-C1'	5.42	124.76	118.80
34	RA	838	C	C2-N1-C1'	5.42	124.76	118.80
34	RA	1687	G	C8-N9-C1'	-5.42	119.95	127.00
1	XA	328	C	P-O3'-C3'	5.42	126.20	119.70
34	RA	191	A	C4-N9-C1'	5.42	136.05	126.30
35	YB	98	G	C8-N9-C4	-5.42	104.23	106.40
34	YA	2089	U	C6-N1-C1'	-5.42	113.62	121.20
34	RA	2648	C	C2-N1-C1'	5.41	124.75	118.80
1	XA	916	G	C8-N9-C1'	-5.41	119.96	127.00
1	QA	177	C	C6-N1-C1'	-5.41	114.31	120.80
34	RA	621	A	O4'-C1'-N9	5.41	112.53	108.20
34	RA	2299	G	C8-N9-C1'	-5.41	119.97	127.00
34	YA	75	G	C4-N9-C1'	5.41	133.54	126.50
34	YA	1549	C	C6-N1-C1'	-5.41	114.31	120.80
34	RA	76	C	C2-N1-C1'	5.41	124.75	118.80
1	XA	945	G	P-O3'-C3'	-5.41	113.21	119.70
34	YA	2175	C	C6-N1-C1'	-5.41	114.31	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	972	C	C2-N1-C1'	5.41	124.75	118.80
1	XA	524	G	C4-N9-C1'	5.41	133.53	126.50
34	YA	1418	G	C4-N9-C1'	5.41	133.53	126.50
34	YA	2532	G	C8-N9-C1'	-5.41	119.97	127.00
34	YA	1672	C	C6-N1-C1'	-5.41	114.31	120.80
34	RA	391	G	C4-N9-C1'	5.41	133.53	126.50
34	RA	628	G	C4-N9-C1'	5.41	133.53	126.50
34	RA	2299	G	C4-N9-C1'	5.41	133.53	126.50
1	XA	549	C	C2-N1-C1'	5.41	124.75	118.80
34	YA	407	G	C4-N9-C1'	5.41	133.53	126.50
34	YA	523	C	C2-N1-C1'	5.41	124.75	118.80
1	XA	858	G	C8-N9-C1'	-5.40	119.97	127.00
1	QA	1435	G	C8-N9-C1'	-5.40	119.98	127.00
1	XA	598	U	C6-N1-C1'	-5.40	113.64	121.20
1	XA	947	G	C8-N9-C1'	-5.40	119.98	127.00
34	RA	1951	U	C6-N1-C1'	-5.40	113.64	121.20
1	XA	1243	C	OP1-P-O3'	5.40	117.07	105.20
34	YA	2834	G	C4-N9-C1'	5.40	133.51	126.50
34	RA	1178	C	P-O3'-C3'	5.39	126.17	119.70
34	YA	994	C	C2-N1-C1'	5.39	124.73	118.80
34	YA	2072	G	C4-N9-C1'	5.39	133.51	126.50
1	XA	234	C	C2-N1-C1'	5.39	124.73	118.80
1	XA	1440(I)	U	C6-N1-C1'	-5.39	113.65	121.20
34	YA	1178	C	P-O3'-C3'	5.39	126.17	119.70
34	YA	1819	A	OP2-P-O3'	5.39	117.06	105.20
1	XA	169	C	C6-N1-C1'	-5.39	114.33	120.80
34	YA	1920	C	C6-N1-C1'	-5.39	114.33	120.80
48	YT	114	LEU	CA-CB-CG	5.39	127.70	115.30
1	QA	401	C	C2-N1-C1'	5.38	124.72	118.80
1	QA	834	C	C2-N1-C1'	5.38	124.72	118.80
34	YA	1992	G	OP2-P-O3'	5.38	117.05	105.20
34	RA	581	C	C6-N1-C1'	-5.38	114.34	120.80
34	YA	2667	C	C2-N1-C1'	5.38	124.72	118.80
34	RA	281	G	C4-N9-C1'	5.38	133.50	126.50
34	RA	2028	U	C6-N1-C1'	-5.38	113.67	121.20
34	RA	2745	C	C2-N1-C1'	5.38	124.72	118.80
34	YA	254	G	C8-N9-C1'	-5.38	120.00	127.00
1	QA	591	U	C2-N1-C1'	5.38	124.16	117.70
34	RA	1961	C	C2-N1-C1'	5.38	124.72	118.80
1	XA	862	C	C6-N1-C1'	-5.38	114.34	120.80
40	YH	155	SER	N-CA-C	5.38	125.53	111.00
1	XA	132	C	C6-N1-C1'	-5.38	114.35	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	524	G	C8-N9-C1'	-5.38	120.01	127.00
34	YA	887	A	O4'-C1'-N9	5.38	112.50	108.20
34	RA	628	G	C8-N9-C1'	-5.38	120.01	127.00
1	XA	739	C	C2-N1-C1'	5.38	124.71	118.80
34	YA	1188	U	C2-N1-C1'	5.38	124.15	117.70
1	QA	672	U	C6-N1-C1'	-5.38	113.67	121.20
1	QA	764	C	C2-N1-C1'	5.38	124.71	118.80
34	RA	219	G	C8-N9-C1'	-5.38	120.01	127.00
1	QA	805	C	C2-N1-C1'	5.37	124.71	118.80
1	XA	1075	C	C6-N1-C1'	-5.37	114.35	120.80
34	YA	102	G	P-O3'-C3'	5.37	126.15	119.70
34	YA	919	G	C8-N9-C1'	-5.37	120.02	127.00
1	QA	1225	A	O4'-C1'-N9	5.37	112.50	108.20
34	RA	1405	U	C2-N1-C1'	5.37	124.14	117.70
34	RA	2463	C	C6-N1-C1'	-5.37	114.36	120.80
34	YA	971	C	C2-N1-C1'	5.37	124.71	118.80
34	YA	1370	C	C2-N1-C1'	5.37	124.71	118.80
34	YA	1437	C	C6-N1-C1'	-5.37	114.36	120.80
34	YA	1675	C	C6-N1-C1'	-5.37	114.36	120.80
1	QA	930	C	C6-N1-C1'	-5.37	114.36	120.80
34	YA	1508	A	P-O3'-C3'	5.37	126.14	119.70
34	YA	2056	G	C4-N9-C1'	5.37	133.48	126.50
35	YB	75	G	C5-C6-O6	5.37	131.82	128.60
34	YA	1396	U	C2-N1-C1'	5.37	124.14	117.70
14	QN	43	CYS	CA-CB-SG	-5.37	104.34	114.00
34	RA	365	C	C6-N1-C1'	-5.37	114.36	120.80
34	RA	370	G	O4'-C1'-N9	-5.37	103.91	108.20
1	XA	335	C	C6-N1-C1'	-5.37	114.36	120.80
34	YA	858	U	C2-N1-C1'	5.36	124.14	117.70
34	YA	2792	G	C8-N9-C1'	-5.36	120.03	127.00
1	QA	709	G	C8-N9-C1'	-5.36	120.03	127.00
1	QA	906	G	C8-N9-C1'	-5.36	120.03	127.00
1	QA	1282	C	C6-N1-C1'	-5.36	114.36	120.80
14	XN	58	LYS	N-CA-C	-5.36	96.52	111.00
34	RA	833	U	C2-N1-C1'	5.36	124.13	117.70
34	YA	1343	G	C8-N9-C1'	-5.36	120.03	127.00
1	QA	955	U	C6-N1-C1'	-5.36	113.70	121.20
1	XA	1188	A	C4-N9-C1'	5.36	135.94	126.30
33	R9	32	HIS	CB-CA-C	5.36	121.11	110.40
34	RA	339	U	C6-N1-C1'	-5.36	113.70	121.20
1	XA	980	C	O3'-P-O5'	5.36	114.17	104.00
1	XA	1296	C	O4'-C1'-N1	5.36	112.48	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	1440(L)	G	C8-N9-C1'	-5.35	120.04	127.00
34	RA	2089	U	C2-N1-C1'	5.35	124.12	117.70
34	RA	191	A	C8-N9-C1'	-5.35	118.07	127.70
1	QA	945	G	C4-N9-C1'	5.35	133.45	126.50
22	QV	30	C	C6-N1-C1'	-5.35	114.38	120.80
34	RA	1636	C	C2-N1-C1'	5.35	124.68	118.80
1	XA	121	C	C6-N1-C1'	-5.35	114.38	120.80
1	XA	920	U	C6-N1-C1'	-5.35	113.71	121.20
1	XA	1160	G	C5'-C4'-O4'	5.35	115.52	109.10
1	QA	981	U	C6-N1-C1'	-5.35	113.71	121.20
34	RA	2441	C	C2-N1-C1'	5.35	124.68	118.80
34	YA	1537	C	C6-N1-C1'	-5.35	114.38	120.80
1	QA	1187	G	C4-N9-C1'	5.35	133.45	126.50
34	RA	427	U	C6-N1-C1'	-5.35	113.72	121.20
1	QA	8	A	OP1-P-O3'	5.34	116.96	105.20
1	QA	545	C	C6-N1-C1'	-5.34	114.39	120.80
1	QA	1515	C	C2-N1-C1'	5.34	124.68	118.80
1	XA	290	C	C2-N1-C1'	5.34	124.68	118.80
20	XT	10	LEU	CA-CB-CG	5.34	127.59	115.30
1	QA	479	C	C2-N1-C1'	5.34	124.68	118.80
1	QA	1028(G)	A	C4-N9-C1'	5.34	135.91	126.30
1	XA	564	C	C6-N1-C1'	-5.34	114.39	120.80
34	YA	1104	C	C2-N1-C1'	5.34	124.67	118.80
34	YA	2273	A	C8-N9-C1'	-5.34	118.09	127.70
34	YA	75	G	C8-N9-C1'	-5.34	120.06	127.00
34	RA	2166	G	C4-N9-C1'	5.33	133.44	126.50
34	RA	2392	A	O4'-C1'-N9	5.33	112.47	108.20
1	QA	593	G	C4-N9-C1'	5.33	133.43	126.50
34	RA	595	C	C2-N1-C1'	5.33	124.67	118.80
34	RA	658	C	C2-N1-C1'	5.33	124.67	118.80
35	RB	27	C	C2-N1-C1'	5.33	124.67	118.80
1	XA	1423	G	C4-N9-C1'	5.33	133.43	126.50
1	XA	1536	C	C2-N1-C1'	5.33	124.67	118.80
1	QA	251	G	OP1-P-O3'	5.33	116.93	105.20
1	QA	201(C)	U	C2-N1-C1'	5.33	124.09	117.70
34	RA	629	G	C4-N9-C1'	5.33	133.43	126.50
34	RA	2157	G	C4-N9-C1'	5.33	133.43	126.50
1	XA	950	U	C6-N1-C1'	-5.33	113.74	121.20
35	YB	110	G	N1-C6-O6	5.33	123.10	119.90
1	QA	519	C	C2-N1-C1'	5.33	124.66	118.80
34	RA	1271	G	C4-N9-C1'	5.33	133.42	126.50
1	XA	163	C	C6-N1-C1'	-5.33	114.41	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	789	U	C2-N1-C1'	5.33	124.09	117.70
34	YA	108	U	C2-N1-C1'	5.33	124.09	117.70
1	QA	1210	C	C2-N1-C1'	5.32	124.66	118.80
34	RA	2060	A	P-O3'-C3'	5.32	126.09	119.70
22	XV	56	C	C2-N1-C1'	5.32	124.66	118.80
22	XV	56	C	C6-N1-C2	-5.32	118.17	120.30
34	YA	2691	C	C6-N1-C1'	-5.32	114.41	120.80
1	QA	93	U	C2-N1-C1'	5.32	124.09	117.70
34	RA	1581	G	C4-N9-C1'	5.32	133.42	126.50
1	QA	21	G	C4-N9-C1'	5.32	133.42	126.50
1	QA	89	U	C2-N1-C1'	5.32	124.08	117.70
34	RA	1068	G	C4-N9-C1'	5.32	133.41	126.50
34	YA	796	C	C6-N1-C1'	-5.32	114.42	120.80
34	YA	1264	G	OP1-P-O3'	5.32	116.90	105.20
34	YA	1688	U	C2-N1-C1'	5.32	124.08	117.70
1	QA	17	U	C2-N1-C1'	5.32	124.08	117.70
34	YA	1418	G	C8-N9-C1'	-5.32	120.09	127.00
45	YQ	17	LEU	CB-CA-C	-5.32	100.10	110.20
1	XA	1354	C	C6-N1-C1'	-5.31	114.42	120.80
34	RA	1474	C	C6-N1-C1'	-5.31	114.42	120.80
1	XA	964	A	C4-N9-C1'	5.31	135.86	126.30
34	YA	2798	C	C2-N1-C1'	5.31	124.64	118.80
34	YA	534	U	C2-N1-C1'	5.31	124.07	117.70
34	RA	684	G	C4-N9-C1'	5.31	133.40	126.50
1	XA	1404	C	C2-N1-C1'	5.31	124.64	118.80
34	YA	407	G	C8-N9-C1'	-5.31	120.10	127.00
35	YB	49	C	N3-C4-C5	-5.31	119.78	121.90
1	QA	564	C	C6-N1-C1'	-5.31	114.43	120.80
1	QA	744	C	C2-N1-C1'	5.31	124.64	118.80
1	QA	174	C	C2-N1-C1'	5.30	124.64	118.80
34	RA	1670	C	C6-N1-C1'	-5.30	114.43	120.80
1	XA	631	G	C4-N9-C1'	5.30	133.40	126.50
1	XA	1105	A	O4'-C1'-N9	5.30	112.44	108.20
1	QA	786	G	C4-N9-C1'	5.30	133.39	126.50
1	XA	857	C	C6-N1-C1'	-5.30	114.44	120.80
34	YA	364	C	C6-N1-C1'	-5.30	114.44	120.80
34	YA	398	G	OP1-P-O3'	5.30	116.86	105.20
34	YA	553	U	C2-N1-C1'	5.30	124.06	117.70
34	YA	2081	C	C2-N1-C1'	5.30	124.63	118.80
34	YA	2403	C	C2-N1-C1'	5.30	124.63	118.80
34	YA	2099	U	C2-N1-C1'	5.30	124.06	117.70
34	RA	391	G	C8-N9-C1'	-5.30	120.11	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	651	G	C8-N9-C1'	-5.30	120.11	127.00
1	QA	674	G	C4-N9-C1'	5.30	133.39	126.50
34	RA	1100	C	C2-N1-C1'	5.30	124.62	118.80
34	RA	1430	C	C2-N1-C1'	5.30	124.63	118.80
35	RB	47	C	N1-C2-O2	5.30	122.08	118.90
1	XA	878	G	O4'-C1'-N9	5.30	112.44	108.20
34	YA	2834	G	C8-N9-C1'	-5.30	120.11	127.00
1	QA	249	U	C6-N1-C1'	-5.29	113.79	121.20
1	QA	1187	G	C8-N9-C1'	-5.29	120.12	127.00
1	XA	1188	A	C8-N9-C1'	-5.29	118.17	127.70
1	XA	1423	G	C8-N9-C1'	-5.29	120.12	127.00
34	RA	155	C	C2-N1-C1'	5.29	124.62	118.80
34	RA	281	G	C8-N9-C1'	-5.29	120.12	127.00
34	RA	1121	C	C6-N1-C1'	-5.29	114.45	120.80
1	XA	1327	C	O4'-C1'-N1	5.29	112.43	108.20
34	YA	2072	G	C8-N9-C1'	-5.29	120.12	127.00
34	YA	2110	G	O4'-C1'-N9	-5.29	103.97	108.20
34	YA	2354	G	C4-N9-C1'	5.29	133.38	126.50
28	Y4	4	GLY	N-CA-C	5.29	126.33	113.10
1	QA	112	G	C4-N9-C1'	5.29	133.38	126.50
1	QA	1012	U	C2-N1-C1'	5.29	124.05	117.70
34	RA	1588	C	C2-N1-C1'	5.29	124.62	118.80
1	XA	252	U	C6-N1-C1'	-5.29	113.80	121.20
34	YA	1508	A	OP2-P-O3'	5.29	116.83	105.20
1	XA	831	U	C2-N1-C1'	5.28	124.04	117.70
34	YA	2056	G	C8-N9-C1'	-5.28	120.13	127.00
34	YA	2599	G	C4-N9-C1'	5.28	133.37	126.50
1	QA	593	G	C8-N9-C1'	-5.28	120.13	127.00
1	QA	754	C	N1-C1'-C2'	5.28	120.86	114.00
1	QA	1203	C	C2-N1-C1'	5.28	124.61	118.80
34	RA	1068	G	C8-N9-C1'	-5.28	120.14	127.00
35	RB	96	G	C8-N9-C4	-5.28	104.29	106.40
34	RA	2166	G	C8-N9-C1'	-5.28	120.14	127.00
34	YA	604	G	C4-N9-C1'	5.28	133.36	126.50
35	YB	29	A	N7-C8-N9	5.28	116.44	113.80
1	QA	217	C	C2-N1-C1'	5.28	124.60	118.80
34	RA	1113	U	C2-N1-C1'	5.28	124.03	117.70
34	RA	2157	G	C8-N9-C1'	-5.28	120.14	127.00
1	XA	1281	U	C2-N1-C1'	5.28	124.03	117.70
34	YA	2162	G	C4-N9-C1'	5.27	133.36	126.50
34	YA	2586	C	C6-N1-C1'	-5.27	114.47	120.80
35	YB	78	A	C8-N9-C4	-5.27	103.69	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	1404	C	C2-N1-C1'	5.27	124.60	118.80
34	RA	1201	C	C2-N1-C1'	5.27	124.60	118.80
1	XA	1347	G	N9-C1'-C2'	-5.27	106.20	112.00
34	YA	1105	U	C2-N1-C1'	5.27	124.03	117.70
1	QA	221	C	C2-N1-C1'	5.27	124.60	118.80
1	QA	455	C	C2-N1-C1'	5.27	124.60	118.80
34	RA	267	C	C2-N1-C1'	5.27	124.60	118.80
1	QA	824	C	C6-N1-C1'	-5.27	114.48	120.80
1	QA	1237	C	C6-N1-C1'	-5.27	114.48	120.80
34	RA	1581	G	C8-N9-C1'	-5.27	120.15	127.00
22	QV	4	U	C2-N1-C1'	5.26	124.02	117.70
34	YA	678	C	C6-N1-C1'	-5.26	114.48	120.80
1	QA	786	G	C8-N9-C1'	-5.26	120.16	127.00
1	QA	945	G	C8-N9-C1'	-5.26	120.16	127.00
1	XA	1108	G	C8-N9-C1'	-5.26	120.16	127.00
35	YB	38	C	N3-C2-O2	-5.26	118.22	121.90
54	YZ	151	HIS	N-CA-C	5.26	125.21	111.00
34	YA	271(E)	G	C4-N9-C1'	5.26	133.34	126.50
1	XA	222	U	C6-N1-C1'	-5.26	113.84	121.20
34	YA	604	G	C8-N9-C1'	-5.26	120.17	127.00
34	YA	2359	C	C2-N1-C1'	5.26	124.58	118.80
1	XA	1440(K)	C	C2-N1-C1'	5.26	124.58	118.80
34	YA	2779	U	C2-N1-C1'	5.26	124.01	117.70
1	QA	556	C	C6-N1-C1'	-5.25	114.49	120.80
35	RB	60	C	C6-N1-C2	-5.25	118.20	120.30
34	YA	2354	G	C8-N9-C1'	-5.25	120.17	127.00
34	RA	684	G	C8-N9-C1'	-5.25	120.17	127.00
34	RA	2061	G	O5'-P-OP2	-5.25	100.97	105.70
1	XA	849	C	C2-N1-C1'	5.25	124.58	118.80
34	YA	1577	C	C6-N1-C1'	-5.25	114.50	120.80
34	YA	2128	C	C2-N1-C1'	5.25	124.58	118.80
1	QA	1402	C	C2-N1-C1'	5.25	124.58	118.80
1	QA	1514	C	C2-N1-C1'	5.25	124.58	118.80
34	RA	104	U	C2-N1-C1'	5.25	124.00	117.70
34	RA	1180	C	C6-N1-C1'	-5.25	114.50	120.80
34	RA	2610	C	P-O3'-C3'	5.25	126.00	119.70
34	RA	2832	U	C2-N1-C1'	5.25	123.99	117.70
1	XA	186(F)	C	C2-N1-C1'	5.24	124.57	118.80
34	YA	318	C	C6-N1-C1'	-5.24	114.51	120.80
1	QA	370	C	C6-N1-C1'	-5.24	114.51	120.80
1	XA	744	C	C2-N1-C1'	5.24	124.57	118.80
1	XA	1364	U	C6-N1-C1'	-5.24	113.86	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	RB	28	C	C5-C6-N1	5.24	123.62	121.00
34	YA	2438	U	C2-N1-C1'	5.24	123.99	117.70
34	RA	613	U	O4'-C1'-N1	5.24	112.39	108.20
34	RA	1271	G	C8-N9-C1'	-5.24	120.19	127.00
1	XA	617	G	P-O3'-C3'	5.24	125.98	119.70
1	XA	631	G	C8-N9-C1'	-5.24	120.19	127.00
1	XA	1186	G	O4'-C1'-N9	-5.24	104.01	108.20
34	RA	198	C	C2-N1-C1'	5.23	124.56	118.80
34	RA	2665	A	O4'-C1'-N9	5.23	112.39	108.20
1	XA	342	C	C2-N1-C1'	5.23	124.56	118.80
34	YA	794	G	C4-N9-C1'	5.23	133.30	126.50
34	YA	2437	U	C6-N1-C1'	-5.23	113.88	121.20
1	XA	1108	G	C4-N9-C1'	5.23	133.30	126.50
22	XV	15	G	N7-C8-N9	5.23	115.72	113.10
34	YA	1556	C	C6-N1-C1'	-5.23	114.53	120.80
1	QA	501	C	C2-N1-C1'	5.23	124.55	118.80
1	XA	1317	C	C6-N1-C1'	-5.23	114.53	120.80
34	YA	1782	C	O5'-P-OP2	5.23	116.97	110.70
35	RB	82	G	N1-C6-O6	5.22	123.03	119.90
34	YA	2455	G	C4-N9-C1'	5.22	133.29	126.50
1	QA	261	U	C6-N1-C1'	-5.22	113.89	121.20
34	RA	270(D)	C	C2-N1-C1'	5.22	124.55	118.80
34	RA	2064	C	C6-N1-C1'	-5.22	114.53	120.80
1	XA	1300	G	O4'-C1'-N9	5.22	112.38	108.20
1	XA	1533	C	C2-N1-C1'	5.22	124.55	118.80
34	YA	1544	C	C2-N1-C1'	5.22	124.55	118.80
1	QA	112	G	C8-N9-C1'	-5.22	120.21	127.00
34	RA	2264	C	C2-N1-C1'	5.22	124.54	118.80
1	QA	358	U	C6-N1-C1'	-5.22	113.89	121.20
34	RA	1153	C	C2-N1-C1'	5.22	124.54	118.80
1	QA	21	G	C8-N9-C1'	-5.22	120.22	127.00
1	QA	1028(G)	A	C8-N9-C1'	-5.22	118.31	127.70
1	QA	1381	U	C2-N1-C1'	5.21	123.96	117.70
34	RA	629	G	C8-N9-C1'	-5.21	120.22	127.00
34	RA	2477	C	O5'-P-OP1	-5.21	101.01	105.70
34	YA	684	G	C4-N9-C1'	5.21	133.28	126.50
34	YA	976	C	C2-N1-C1'	5.21	124.54	118.80
34	YA	235	U	C2-N1-C1'	5.21	123.96	117.70
34	YA	2189	U	C2-N1-C1'	5.21	123.96	117.70
34	YA	1588	C	C6-N1-C1'	-5.21	114.55	120.80
35	YB	108	C	C6-N1-C2	5.21	122.38	120.30
34	RA	678	C	C6-N1-C1'	-5.21	114.55	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	RZ	178	GLU	C-N-CA	5.21	134.72	121.70
1	QA	1028(I)	G	C4-N9-C1'	5.21	133.27	126.50
34	RA	1556	C	C2-N1-C1'	5.21	124.53	118.80
1	XA	513	C	C6-N1-C1'	-5.21	114.55	120.80
1	XA	1508	G	C8-N9-C1'	-5.21	120.23	127.00
34	YA	653	A	P-O3'-C3'	5.21	125.95	119.70
34	RA	1982	C	C6-N1-C1'	-5.21	114.55	120.80
1	XA	1322	C	C2-N1-C1'	5.21	124.53	118.80
22	XV	31	G	C4-N9-C1'	5.21	133.27	126.50
1	QA	1414	U	C6-N1-C1'	-5.21	113.91	121.20
34	RA	884	C	C2-N1-C1'	5.21	124.53	118.80
1	XA	1078	U	C2-N1-C1'	5.20	123.94	117.70
34	YA	1026	U	OP1-P-O3'	5.20	116.65	105.20
34	YA	1411	C	C6-N1-C1'	-5.20	114.56	120.80
34	RA	1349	A	O4'-C1'-N9	5.20	112.36	108.20
34	YA	312	G	C4-N9-C1'	5.20	133.26	126.50
34	YA	1514	U	C6-N1-C1'	-5.20	113.92	121.20
34	YA	2452	C	C6-N1-C1'	-5.20	114.56	120.80
35	YB	17	C	N1-C2-O2	5.20	122.02	118.90
35	YB	49	C	C6-N1-C2	-5.20	118.22	120.30
1	QA	546	G	P-O3'-C3'	5.20	125.94	119.70
34	RA	965	C	C2-N1-C1'	5.20	124.52	118.80
53	YY	79	CYS	N-CA-CB	5.20	119.95	110.60
34	RA	66	C	C6-N1-C1'	-5.20	114.56	120.80
1	XA	1406	U	C2-N1-C1'	5.20	123.93	117.70
34	YA	2599	G	C8-N9-C1'	-5.20	120.25	127.00
34	YA	2611	U	C2-N1-C1'	5.20	123.94	117.70
34	YA	2495	G	OP1-P-O3'	5.19	116.62	105.20
34	YA	2874	C	C2-N1-C1'	5.19	124.51	118.80
35	YB	54	G	N7-C8-N9	5.19	115.70	113.10
1	XA	1132	C	C2-N1-C1'	5.19	124.51	118.80
34	YA	639	U	C2-N1-C1'	5.19	123.93	117.70
34	RA	230	U	C2-N1-C1'	5.19	123.92	117.70
34	YA	2137	C	C2-N1-C1'	5.19	124.51	118.80
1	QA	674	G	C8-N9-C1'	-5.19	120.26	127.00
1	XA	352	C	C6-N1-C1'	-5.18	114.58	120.80
1	XA	1142	G	C4-N9-C1'	5.18	133.24	126.50
34	YA	271(E)	G	C8-N9-C1'	-5.18	120.26	127.00
34	YA	1707	G	C4-N9-C1'	5.18	133.24	126.50
34	YA	2085	C	C2-N1-C1'	5.18	124.50	118.80
1	XA	981	U	O5'-P-OP1	-5.18	101.04	105.70
1	QA	8	A	P-O3'-C3'	5.18	125.92	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	176	C	C6-N1-C1'	-5.18	114.58	120.80
34	RA	2452	C	C2-N1-C1'	5.18	124.50	118.80
34	RA	2805	G	C4-N9-C1'	5.18	133.23	126.50
1	XA	1232	U	C2-N1-C1'	5.18	123.92	117.70
1	QA	1261	A	C4-N9-C1'	5.18	135.62	126.30
1	XA	724	G	C4-N9-C1'	5.17	133.23	126.50
34	RA	1110	G	C4-N9-C1'	5.17	133.22	126.50
1	XA	1508	G	C4-N9-C1'	5.17	133.22	126.50
34	YA	1289	C	C6-N1-C1'	-5.17	114.59	120.80
34	YA	2162	G	C8-N9-C1'	-5.17	120.28	127.00
34	RA	1544	C	C2-N1-C1'	5.17	124.49	118.80
34	YA	624	C	C2-N1-C1'	5.17	124.49	118.80
1	XA	1206	G	C4-N9-C1'	5.17	133.22	126.50
34	YA	1406	U	C2-N1-C1'	5.17	123.90	117.70
34	YA	1734	C	C6-N1-C1'	-5.17	114.60	120.80
34	RA	1956	U	C2-N1-C1'	5.17	123.90	117.70
34	RA	2195	C	C2-N1-C1'	5.17	124.48	118.80
34	YA	480	A	C4-N9-C1'	5.17	135.60	126.30
35	RB	59	A	N1-C2-N3	-5.16	126.72	129.30
1	QA	851	G	C4-N9-C1'	5.16	133.21	126.50
1	QA	1157	A	OP2-P-O3'	5.16	116.56	105.20
1	XA	1157	A	C3'-C2'-C1'	5.16	105.63	101.50
1	XA	1348	U	O5'-C5'-C4'	5.16	121.51	111.70
34	YA	1313	U	C2-N1-C1'	5.16	123.89	117.70
34	RA	2099	U	C2-N1-C1'	5.16	123.89	117.70
1	XA	545	C	C2-N1-C1'	5.16	124.48	118.80
1	XA	617	G	C1'-C2'-O2'	5.16	126.08	110.60
34	YA	2179	C	C6-N1-C1'	-5.16	114.61	120.80
36	YD	243	GLY	N-CA-C	5.16	126.00	113.10
34	RA	364	C	C2-N1-C1'	5.16	124.47	118.80
34	RA	651	G	C4-N9-C1'	5.16	133.21	126.50
34	RA	1298	C	C6-N1-C1'	-5.16	114.61	120.80
1	XA	851	G	C4-N9-C1'	5.16	133.21	126.50
1	XA	1219	U	OP1-P-O3'	-5.16	93.85	105.20
1	QA	1027	C	C2-N1-C1'	5.16	124.47	118.80
34	YA	657	U	C6-N1-C1'	-5.16	113.98	121.20
1	XA	1359	C	O4'-C1'-N1	5.16	112.32	108.20
34	YA	202	U	C6-N1-C1'	-5.16	113.98	121.20
34	YA	684	G	C8-N9-C1'	-5.16	120.30	127.00
1	XA	1157	A	OP2-P-O3'	5.15	116.53	105.20
34	YA	208	C	C6-N1-C1'	-5.15	114.62	120.80
34	YA	395	U	C6-N1-C1'	-5.15	113.99	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	YA	508	G	C4-N9-C1'	5.15	133.20	126.50
34	YA	2455	G	C8-N9-C1'	-5.15	120.30	127.00
53	RY	99	CYS	CB-CA-C	-5.15	100.10	110.40
34	YA	312	G	C8-N9-C1'	-5.15	120.31	127.00
1	QA	178	C	C2-N1-C1'	5.15	124.46	118.80
1	QA	1440(I)	U	C2-N1-C1'	5.15	123.88	117.70
34	RA	634	C	C6-N1-C1'	-5.15	114.62	120.80
34	YA	94	G	C4-N9-C1'	5.15	133.19	126.50
34	YA	1303	G	C4-N9-C1'	5.15	133.19	126.50
35	YB	69	G	C8-N9-C4	-5.15	104.34	106.40
1	QA	252	U	C6-N1-C1'	-5.15	114.00	121.20
1	QA	262	A	C4-N9-C1'	5.15	135.56	126.30
34	RA	2466	C	C6-N1-C1'	-5.14	114.63	120.80
36	RD	241	PRO	C-N-CA	5.14	134.55	121.70
34	YA	2752	C	C6-N1-C1'	-5.14	114.63	120.80
35	YB	86	G	C5-N7-C8	5.14	106.87	104.30
1	QA	851	G	C8-N9-C1'	-5.14	120.32	127.00
34	RA	319	C	C2-N1-C1'	5.14	124.45	118.80
34	RA	1510	A	P-O5'-C5'	5.14	129.12	120.90
34	RA	1674	G	C4-N9-C1'	5.14	133.18	126.50
1	XA	1142	G	C8-N9-C1'	-5.14	120.32	127.00
1	XA	1320	C	O4'-C4'-C3'	-5.14	98.86	104.00
34	YA	923	C	C6-N1-C1'	-5.14	114.63	120.80
1	QA	295	C	C6-N1-C1'	-5.14	114.64	120.80
34	RA	755	C	C2-N1-C1'	5.14	124.45	118.80
1	XA	1349	A	O5'-P-OP1	-5.14	101.08	105.70
30	Y6	13	CYS	CA-CB-SG	-5.14	104.75	114.00
34	YA	2084	C	C6-N1-C1'	-5.14	114.64	120.80
50	YV	35	LEU	CA-CB-CG	5.14	127.11	115.30
1	QA	1322	C	C6-N1-C1'	-5.13	114.64	120.80
34	RA	929	G	C4-N9-C1'	5.13	133.17	126.50
1	XA	564	C	C2-N1-C1'	5.13	124.45	118.80
1	XA	832	C	C6-N1-C1'	-5.13	114.64	120.80
34	YA	271(B)	C	C6-N1-C1'	-5.13	114.64	120.80
34	YA	1417	C	C6-N1-C1'	-5.13	114.64	120.80
34	YA	1707	G	C8-N9-C1'	-5.13	120.33	127.00
32	R8	28	GLY	N-CA-C	5.13	125.92	113.10
1	XA	1347	G	O5'-C5'-C4'	5.13	121.44	111.70
34	YA	658	C	C2-N1-C1'	5.13	124.44	118.80
34	YA	794	G	C8-N9-C1'	-5.13	120.33	127.00
34	YA	866	A	C4-N9-C1'	5.13	135.53	126.30
34	YA	2013	A	OP1-P-O3'	5.13	116.48	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	YB	27	C	C2-N1-C1'	5.13	124.44	118.80
34	RA	1005	C	C6-N1-C1'	-5.13	114.65	120.80
34	RA	1674	G	C8-N9-C1'	-5.13	120.34	127.00
35	RB	90	C	C5-C6-N1	5.13	123.56	121.00
1	XA	1306	A	P-O3'-C3'	-5.13	113.55	119.70
34	RA	1135	C	C2-N1-C1'	5.12	124.44	118.80
1	XA	724	G	C8-N9-C1'	-5.12	120.34	127.00
1	QA	97	U	C6-N1-C1'	-5.12	114.03	121.20
35	RB	15	A	N9-C4-C5	-5.12	103.75	105.80
1	XA	288	A	C8-N9-C1'	-5.12	118.48	127.70
34	YA	18	C	C6-N1-C1'	-5.12	114.65	120.80
1	QA	234	C	C2-N1-C1'	5.12	124.43	118.80
1	QA	1028(I)	G	C8-N9-C1'	-5.12	120.34	127.00
34	RA	2805	G	C8-N9-C1'	-5.12	120.34	127.00
35	RB	55	U	C5-C6-N1	5.12	125.26	122.70
1	XA	988	G	C4-N9-C1'	5.12	133.16	126.50
20	XT	72	LEU	CA-CB-CG	5.12	127.08	115.30
35	YB	44	G	C5-C6-N1	5.12	114.06	111.50
1	QA	28	G	C4-N9-C1'	5.12	133.16	126.50
34	YA	94	G	C8-N9-C1'	-5.12	120.34	127.00
1	XA	1306	A	N9-C1'-C2'	5.12	120.66	114.00
34	YA	2540	C	C2-N1-C1'	5.12	124.43	118.80
1	QA	1261	A	C8-N9-C1'	-5.12	118.49	127.70
34	RA	1112	G	C4-N9-C1'	5.12	133.15	126.50
1	XA	288	A	C4-N9-C1'	5.12	135.51	126.30
34	RA	814	C	C2-N1-C1'	5.12	124.43	118.80
34	YA	270(D)	C	C6-N1-C1'	-5.12	114.66	120.80
35	YB	1	U	C2-N1-C1'	5.12	123.84	117.70
34	RA	2443	C	C2-N1-C1'	5.11	124.42	118.80
35	RB	106	G	C8-N9-C4	-5.11	104.36	106.40
1	XA	312	C	C6-N1-C1'	-5.11	114.66	120.80
34	YA	1479	G	C4-N9-C1'	5.11	133.15	126.50
1	QA	797	C	C2-N1-C1'	5.11	124.42	118.80
1	XA	1028(C)	C	C2-N1-C1'	5.11	124.42	118.80
1	QA	262	A	C8-N9-C1'	-5.11	118.50	127.70
1	XA	1532	U	C2-N1-C1'	5.11	123.83	117.70
34	RA	1579	A	C4-N9-C1'	5.11	135.50	126.30
1	XA	1098	C	C6-N1-C1'	-5.11	114.67	120.80
35	YB	30	C	N3-C4-C5	-5.11	119.86	121.90
29	R5	34	PRO	N-CA-CB	5.10	109.42	103.30
34	RA	1101	U	C6-N1-C1'	-5.10	114.06	121.20
34	YA	1579	A	C4-N9-C1'	5.10	135.49	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	305	U	C2-N1-C1'	5.10	123.82	117.70
34	RA	351	G	C8-N9-C1'	-5.10	120.37	127.00
34	RA	1026	U	OP1-P-O3'	5.10	116.42	105.20
34	RA	2895	U	C2-N1-C1'	5.10	123.82	117.70
35	RB	27	C	N3-C2-O2	-5.10	118.33	121.90
1	XA	749	C	C6-N1-C1'	-5.10	114.68	120.80
35	YB	102	G	C5-C6-N1	5.10	114.05	111.50
1	QA	186(C)	C	C2-N1-C1'	5.10	124.41	118.80
34	YA	851	U	C2-N1-C1'	5.10	123.82	117.70
1	QA	856	C	O4'-C1'-N1	5.10	112.28	108.20
1	QA	962	C	C6-N1-C1'	-5.10	114.68	120.80
34	RA	2785	C	C6-N1-C1'	-5.10	114.68	120.80
34	YA	1072	C	C2-N1-C1'	-5.10	113.19	118.80
35	YB	61	G	N7-C8-N9	5.10	115.65	113.10
1	XA	1206	G	C8-N9-C1'	-5.10	120.37	127.00
34	YA	1240	U	C6-N1-C1'	-5.10	114.06	121.20
38	YF	133	ASN	N-CA-C	-5.10	97.24	111.00
34	YA	2229	C	C2-N1-C1'	5.09	124.40	118.80
1	QA	186(G)	C	C2-N1-C1'	5.09	124.40	118.80
1	QA	1256	A	O4'-C1'-N9	5.09	112.27	108.20
34	RA	29	U	C2-N1-C1'	5.09	123.81	117.70
35	RB	28	C	C6-N1-C2	-5.09	118.26	120.30
34	RA	915	C	C2-N1-C1'	5.09	124.40	118.80
34	RA	1265	A	OP1-P-OP2	-5.09	111.97	119.60
34	YA	1303	G	C8-N9-C1'	-5.09	120.38	127.00
34	YA	1869	G	C4-N9-C1'	5.09	133.12	126.50
35	YB	44	G	C4-N9-C1'	-5.09	119.88	126.50
34	YA	2462	U	C2-N1-C1'	5.09	123.80	117.70
35	YB	51	G	N1-C2-N3	5.09	126.95	123.90
1	QA	311	C	C2-N1-C1'	5.08	124.39	118.80
1	XA	1305	G	C1'-C2'-O2'	-5.08	95.34	110.60
34	YA	189	G	C4-N9-C1'	5.08	133.11	126.50
1	QA	1244	C	C2-N1-C1'	5.08	124.39	118.80
34	RA	2217	G	C4-N9-C1'	5.08	133.11	126.50
34	RA	2351	G	C8-N9-C1'	-5.08	120.39	127.00
34	YA	2884	U	C6-N1-C1'	-5.08	114.08	121.20
34	RA	509	C	C6-N1-C1'	-5.08	114.70	120.80
1	XA	848	C	C6-N1-C1'	-5.08	114.70	120.80
34	YA	1050	A	O4'-C1'-N9	5.08	112.27	108.20
34	YA	1108	U	C6-N1-C1'	-5.08	114.09	121.20
1	QA	1316	G	C8-N9-C1'	-5.08	120.40	127.00
34	RA	318	C	C2-N1-C1'	5.08	124.39	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	RA	2351	G	C4-N9-C1'	5.08	133.10	126.50
35	YB	31	C	C6-N1-C1'	-5.08	114.70	120.80
34	RA	99	U	P-O3'-C3'	5.08	125.80	119.70
34	RA	1110	G	C8-N9-C1'	-5.08	120.40	127.00
34	RA	1174	A	C4-N9-C1'	5.08	135.44	126.30
34	YA	1516	U	C6-N1-C1'	-5.08	114.09	121.20
34	RA	120	U	C2-N1-C1'	5.08	123.79	117.70
54	RZ	12	GLY	N-CA-C	-5.08	100.41	113.10
34	YA	508	G	C8-N9-C1'	-5.08	120.40	127.00
34	YA	2093	G	C4-N9-C1'	5.07	133.09	126.50
1	QA	1115	C	C2-N1-C1'	5.07	124.38	118.80
1	QA	1352	C	C6-N1-C1'	-5.07	114.72	120.80
1	XA	851	G	C8-N9-C1'	-5.07	120.41	127.00
34	YA	690	G	C4-N9-C1'	5.07	133.09	126.50
1	XA	456	C	C2-N1-C1'	5.07	124.38	118.80
22	XV	56	C	N3-C2-O2	-5.07	118.35	121.90
35	YB	21	G	C8-N9-C4	-5.07	104.37	106.40
1	QA	192	U	C6-N1-C1'	-5.07	114.11	121.20
34	YA	1178	C	C2-N1-C1'	5.07	124.37	118.80
1	XA	1220	G	O5'-P-OP1	-5.07	101.14	105.70
34	RA	929	G	C8-N9-C1'	-5.06	120.42	127.00
34	RA	2044	C	C6-N1-C1'	-5.06	114.73	120.80
34	RA	2420	C	C6-N1-C1'	-5.06	114.72	120.80
1	XA	526	C	C6-N1-C1'	-5.06	114.72	120.80
1	QA	1158	C	O4'-C1'-N1	5.06	112.25	108.20
37	RE	146	THR	N-CA-C	5.06	124.66	111.00
1	XA	400	C	C6-N1-C1'	-5.06	114.73	120.80
1	XA	1247	U	C2-N1-C1'	5.06	123.77	117.70
34	YA	1252	G	O4'-C1'-N9	-5.06	104.15	108.20
34	YA	2730	C	C6-N1-C1'	-5.06	114.73	120.80
1	QA	14	U	C2-N1-C1'	5.06	123.77	117.70
1	QA	905	U	C6-N1-C1'	-5.06	114.12	121.20
34	RA	1257	C	C2-N1-C1'	5.06	124.36	118.80
34	RA	1289	C	C2-N1-C1'	5.06	124.36	118.80
34	YA	480	A	C8-N9-C1'	-5.06	118.59	127.70
1	QA	281	G	C4-N9-C1'	5.06	133.07	126.50
34	RA	1927	A	C4-N9-C1'	5.06	135.40	126.30
34	RA	2441	C	C6-N1-C1'	-5.06	114.73	120.80
34	YA	1432	C	C2-N1-C1'	5.06	124.36	118.80
34	YA	1967	C	C2-N1-C1'	5.06	124.36	118.80
1	QA	849	C	C6-N1-C1'	-5.06	114.73	120.80
34	YA	813	U	C2-N1-C1'	5.06	123.77	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	QA	920	U	C6-N1-C1'	-5.05	114.12	121.20
34	RA	1578	U	C2-N1-C1'	5.05	123.77	117.70
34	RA	1680	U	C2-N1-C1'	5.05	123.77	117.70
40	RH	155	SER	N-CA-C	5.05	124.65	111.00
1	QA	28	G	C8-N9-C1'	-5.05	120.43	127.00
1	XA	581	G	C4-N9-C1'	5.05	133.07	126.50
1	QA	12	U	C2-N1-C1'	5.05	123.76	117.70
34	RA	704	G	C4-N9-C1'	5.05	133.07	126.50
22	XV	28	U	C5-C6-N1	5.05	125.23	122.70
34	YA	1633	G	C4-N9-C1'	5.05	133.06	126.50
34	YA	2562	U	C2-N1-C1'	5.05	123.76	117.70
34	YA	1869	G	C8-N9-C1'	-5.05	120.44	127.00
34	RA	2739	U	C6-N1-C1'	-5.04	114.14	121.20
1	XA	988	G	C8-N9-C1'	-5.04	120.44	127.00
34	YA	2101	G	C4-N9-C1'	5.04	133.06	126.50
35	YB	22	U	C6-N1-C2	-5.04	117.97	121.00
1	QA	1303	C	C6-N1-C1'	-5.04	114.75	120.80
34	RA	1112	G	C8-N9-C1'	-5.04	120.45	127.00
34	YA	74	A	O4'-C1'-N9	-5.04	104.17	108.20
34	YA	1515	C	C6-N1-C1'	-5.04	114.75	120.80
1	QA	647	C	C6-N1-C1'	-5.04	114.75	120.80
1	QA	678	U	C6-N1-C1'	-5.04	114.15	121.20
34	RA	2144	U	C6-N1-C1'	-5.04	114.15	121.20
1	XA	25	C	C6-N1-C1'	-5.04	114.76	120.80
1	QA	1388	C	C6-N1-C1'	-5.03	114.76	120.80
34	RA	2226	C	C2-N1-C1'	5.03	124.33	118.80
34	YA	866	A	C8-N9-C1'	-5.03	118.64	127.70
1	XA	479	C	C6-N1-C1'	-5.03	114.77	120.80
1	XA	1349	A	N9-C1'-C2'	5.03	120.54	114.00
34	YA	2093	G	C8-N9-C1'	-5.03	120.46	127.00
1	QA	855	G	C4-N9-C1'	5.03	133.04	126.50
34	RA	435	C	C6-N1-C1'	-5.03	114.77	120.80
34	RA	1579	A	C8-N9-C1'	-5.03	118.65	127.70
1	QA	1316	G	C4-N9-C1'	5.03	133.03	126.50
1	XA	1440(K)	C	C6-N1-C1'	-5.03	114.77	120.80
34	YA	568	U	C6-N1-C1'	-5.03	114.16	121.20
34	YA	690	G	C8-N9-C1'	-5.03	120.47	127.00
34	YA	1479	G	C8-N9-C1'	-5.03	120.47	127.00
34	YA	1579	A	C8-N9-C1'	-5.03	118.65	127.70
34	RA	652	C	C2-N1-C1'	5.02	124.33	118.80
34	YA	649	G	C4-N9-C1'	5.02	133.03	126.50
34	RA	2217	G	C8-N9-C1'	-5.02	120.47	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	XA	1243	C	C2-N1-C1'	5.02	124.32	118.80
54	YZ	63	ASP	CB-CG-OD1	5.02	122.82	118.30
34	RA	351	G	C4-N9-C1'	5.02	133.02	126.50
1	XA	1170	A	C4-N9-C1'	5.02	135.34	126.30
34	YA	189	G	C8-N9-C1'	-5.02	120.47	127.00
1	QA	998(A)	G	C4-N9-C1'	5.02	133.02	126.50
1	XA	1402	C	C2-N1-C1'	5.02	124.32	118.80
34	YA	539	G	C4-N9-C1'	5.02	133.02	126.50
34	YA	1924	C	C2-N1-C1'	5.02	124.32	118.80
34	RA	838	C	C6-N1-C1'	-5.02	114.78	120.80
34	YA	1218	C	C6-N1-C1'	-5.02	114.78	120.80
34	RA	201	C	C6-N1-C1'	-5.01	114.78	120.80
34	RA	2292	C	C2-N1-C1'	5.01	124.32	118.80
1	XA	860	A	O4'-C1'-N9	5.01	112.21	108.20
1	QA	883	C	C2-N1-C1'	5.01	124.31	118.80
1	XA	1371	G	C4-N9-C1'	5.01	133.01	126.50
1	QA	372	C	C6-N1-C1'	-5.01	114.79	120.80
34	RA	1136	G	C4-N9-C1'	5.01	133.01	126.50
1	XA	1056	U	C6-N1-C1'	-5.01	114.19	121.20
34	YA	1633	G	C8-N9-C1'	-5.01	120.49	127.00
34	YA	2101	G	C8-N9-C1'	-5.01	120.49	127.00
32	R8	62	LEU	N-CA-C	5.01	124.52	111.00
34	RA	1304	C	C6-N1-C1'	-5.01	114.79	120.80
35	YB	78	A	N9-C4-C5	5.01	107.80	105.80
34	RA	856	C	C2'-C3'-O3'	5.00	121.71	113.70
34	RA	1174	A	C8-N9-C1'	-5.00	118.69	127.70
34	RA	2086	U	C2-N1-C1'	5.00	123.70	117.70
1	XA	1347	G	C2'-C3'-O3'	-5.00	98.49	109.50
34	YA	365	C	C6-N1-C1'	-5.00	114.80	120.80
1	QA	352	C	C2-N1-C1'	5.00	124.30	118.80
34	RA	806	C	C6-N1-C1'	-5.00	114.80	120.80
35	RB	91	C	N3-C4-C5	-5.00	119.90	121.90
1	XA	930	C	C2-N1-C1'	5.00	124.30	118.80
23	XX	15	A	N9-C4-C5	-5.00	103.80	105.80
34	YA	1926	U	C2-N1-C1'	5.00	123.70	117.70
34	YA	2271	G	C4-N9-C1'	5.00	133.00	126.50

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	XA	617	G	C2'
28	Y4	5	ILE	CA

All (30) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
34	RA	1649	G	Sidechain
37	RE	146	THR	Peptide
50	RV	49	THR	Mainchain,Peptide
54	RZ	166	SER	Peptide
1	XA	1112	C	Sidechain
1	XA	1225	A	Sidechain
1	XA	1320	C	Sidechain
1	XA	1348	U	Sidechain
1	XA	1507	A	Sidechain
1	XA	308	C	Sidechain
1	XA	564	C	Sidechain
1	XA	608	A	Sidechain
1	XA	618	C	Sidechain
1	XA	625	G	Sidechain
1	XA	635	G	Sidechain
1	XA	860	A	Sidechain
1	XA	878	G	Sidechain
1	XA	957	U	Sidechain
1	XA	964	A	Sidechain
1	XA	972	C	Sidechain
28	Y4	5	ILE	Mainchain
34	YA	2060	A	Sidechain
34	YA	2098	U	Sidechain
34	YA	2111	C	Sidechain
34	YA	2454	G	Sidechain
34	YA	2459	A	Sidechain
34	YA	2550	G	Sidechain
37	YE	146	THR	Peptide
54	YZ	166	SER	Peptide

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	QA	32469	0	16385	1571	0
1	XA	32551	0	16418	1288	0
2	QB	1907	0	1958	99	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	XB	1915	0	1965	40	0
3	QC	1605	0	1667	135	0
3	XC	1605	0	1668	92	18
4	QD	1703	0	1762	108	0
4	XD	1703	0	1763	57	7
5	QE	1155	0	1213	76	0
5	XE	1155	0	1213	33	0
6	QF	843	0	857	10	5
6	XF	843	0	855	89	0
7	QG	1257	0	1296	53	18
7	XG	1257	0	1295	62	0
8	QH	1108	0	1165	52	0
8	XH	1108	0	1165	26	0
9	QI	816	0	822	51	6
9	XI	834	0	847	22	0
10	QJ	801	0	843	199	0
10	XJ	777	0	816	114	6
11	QK	885	0	904	35	0
11	XK	864	0	880	70	0
12	QL	975	0	1062	46	0
12	XL	956	0	1046	30	0
13	QM	921	0	974	137	0
13	XM	914	0	966	128	0
14	QN	492	0	528	288	0
14	XN	492	0	521	172	0
15	QO	734	0	770	57	0
15	XO	729	0	767	44	0
16	QP	705	0	725	71	0
16	XP	705	0	725	16	0
17	QQ	834	0	904	43	0
17	XQ	834	0	902	23	0
18	QR	574	0	644	8	0
18	XR	574	0	643	102	0
19	QS	665	0	678	223	0
19	XS	674	0	695	110	0
20	QT	763	0	861	26	0
20	XT	763	0	861	40	0
21	QU	217	0	223	44	0
21	XU	217	0	234	10	0
22	QV	1452	0	736	3	0
22	XV	1452	0	736	16	0
23	QX	409	0	209	5	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	XX	409	0	209	23	0
24	R0	643	0	667	12	0
24	Y0	648	0	672	11	0
25	R1	746	0	826	26	0
25	Y1	729	0	802	11	0
26	R2	581	0	629	6	1
26	Y2	575	0	624	6	0
27	R3	469	0	518	13	2
27	Y3	469	0	518	12	0
28	R4	348	0	354	25	0
28	Y4	357	0	362	9	0
29	R5	459	0	477	20	0
29	Y5	459	0	476	25	1
30	R6	453	0	474	11	0
30	Y6	453	0	473	13	0
31	R7	409	0	454	12	0
31	Y7	418	0	467	18	0
32	R8	517	0	582	31	0
32	Y8	517	0	582	27	0
33	R9	307	0	335	24	0
33	Y9	307	0	336	19	0
34	RA	62070	0	31282	990	0
34	YA	62091	0	31289	1253	1
35	RB	2573	0	1306	21	0
35	YB	2573	0	1306	13	0
36	RD	2115	0	2195	53	2
36	YD	2115	0	2195	64	0
37	RE	1568	0	1634	34	0
37	YE	1568	0	1633	33	0
38	RF	1585	0	1632	33	0
38	YF	1585	0	1632	31	0
39	RG	1474	0	1535	49	0
39	YG	1474	0	1535	27	0
40	RH	1336	0	1418	80	0
40	YH	1336	0	1418	25	0
41	RI	1136	0	1223	41	0
41	YI	1136	0	1223	30	0
42	RN	1104	0	1180	13	0
42	YN	1104	0	1180	17	0
43	RO	933	0	996	23	0
43	YO	933	0	996	19	0
44	RP	1145	0	1228	37	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	YP	1122	0	1206	44	2
45	RQ	1122	0	1179	41	0
45	YQ	1122	0	1179	33	0
46	RR	960	0	1021	22	0
46	YR	960	0	1021	24	0
47	RS	882	0	943	19	0
47	YS	882	0	943	16	0
48	RT	1141	0	1202	19	0
48	YT	1141	0	1202	29	0
49	RU	964	0	1022	38	0
49	YU	964	0	1022	22	0
50	RV	779	0	852	17	0
50	YV	779	0	852	11	1
51	RW	900	0	964	20	0
51	YW	900	0	964	19	0
52	RX	725	0	778	11	0
52	YX	725	0	778	9	0
53	RY	818	0	911	25	0
53	YY	818	0	910	19	0
54	RZ	1461	0	1493	36	0
54	YZ	1529	0	1551	33	0
55	QA	70	0	0	0	0
55	QE	1	0	0	0	0
55	QF	1	0	0	0	0
55	QH	2	0	0	0	0
55	QL	2	0	0	0	0
55	R0	2	0	0	0	0
55	R3	1	0	0	0	0
55	R8	2	0	0	0	0
55	RA	432	0	0	0	0
55	RD	1	0	0	0	0
55	RE	4	0	0	0	0
55	RF	2	0	0	0	0
55	RN	1	0	0	0	0
55	RO	1	0	0	0	0
55	XA	88	0	0	2	0
55	XE	1	0	0	0	0
55	XO	1	0	0	0	0
55	Y1	1	0	0	0	0
55	Y2	1	0	0	0	0
55	Y5	1	0	0	0	0
55	Y7	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	Y8	2	0	0	0	0
55	YA	394	0	0	3	0
55	YB	1	0	0	0	0
55	YD	2	0	0	0	0
55	YE	4	0	0	0	0
55	YF	1	0	0	0	0
55	YP	1	0	0	0	0
55	YQ	1	0	0	0	0
55	YR	2	0	0	0	0
55	YU	1	0	0	0	0
55	YX	1	0	0	0	0
56	QD	8	0	0	2	0
56	XD	8	0	0	0	0
57	QN	1	0	0	0	0
57	R5	1	0	0	0	0
57	R6	1	0	0	0	0
57	R9	1	0	0	0	0
57	RY	1	0	0	0	0
57	XN	1	0	0	0	0
57	Y5	1	0	0	0	0
57	Y6	1	0	0	0	0
57	Y9	1	0	0	0	0
57	YY	1	0	0	1	0
All	All	291185	0	197033	6993	35

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 15.

All (6993) 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)
10:QJ:47:PHE:CZ	14:QN:36:PHE:HB3	1.21	1.72
14:QN:24:CYS:SG	14:QN:40:CYS:HB2	1.24	1.68
1:QA:980:C:C1'	14:QN:19:ARG:HG2	1.23	1.68
1:QA:1049:U:C5	14:QN:3:ARG:HB3	1.26	1.66
1:XA:1190:G:H5'	3:XC:176:HIS:CE1	1.30	1.64
34:YA:1127:A:C2	34:YA:2518:A:C5	1.83	1.64
1:QA:1360:A:C1'	14:QN:17:LYS:HE3	1.23	1.62
1:XA:1318:A:C5	14:XN:16:PHE:CE1	1.79	1.60
7:QG:16:LEU:CD2	9:QI:42:ARG:HG2	1.27	1.59
1:QA:1106:G:C4'	3:QC:172:ARG:HG3	1.25	1.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1106:G:C1'	3:QC:172:ARG:HE	1.06	1.58
1:QA:1106:G:H4'	3:QC:172:ARG:CG	1.21	1.57
34:YA:919:G:C6	34:YA:2268:A:N1	1.69	1.57
10:QJ:47:PHE:HZ	14:QN:36:PHE:CB	1.17	1.56
7:QG:16:LEU:HD21	9:QI:42:ARG:CG	1.21	1.55
1:XA:1240:U:C1'	7:XG:38:LEU:HD11	1.16	1.55
1:XA:1190:G:C5'	3:XC:176:HIS:HE1	1.13	1.54
1:XA:1318:A:C2'	19:XS:11:VAL:HG21	1.37	1.53
1:QA:1221:G:C4'	19:QS:36:ARG:NH2	1.68	1.53
1:XA:1318:A:N6	14:XN:16:PHE:CG	1.76	1.52
34:YA:2070:G:N2	34:YA:2442:C:C2	1.77	1.51
6:XF:100:ASN:HD22	18:XR:27:GLY:CA	1.17	1.51
1:XA:1190:G:C5'	3:XC:176:HIS:CE1	1.88	1.49
1:QA:980:C:H1'	14:QN:19:ARG:CG	1.05	1.49
1:QA:1302:U:C1'	13:QM:27:LYS:HE3	1.02	1.49
1:QA:1236:A:C4'	21:QU:10:ARG:NH1	1.70	1.48
1:XA:1228:C:C5	13:XM:104:ARG:HA	1.45	1.48
1:XA:1240:U:H1'	7:XG:38:LEU:CD1	1.40	1.48
1:QA:1360:A:H1'	14:QN:17:LYS:CE	1.44	1.47
11:XK:91:ARG:NE	18:XR:88:LYS:NZ	1.61	1.46
1:XA:1320:C:N4	19:XS:37:ARG:HB3	1.27	1.46
1:QA:1123:A:H4'	10:QJ:37:PRO:CD	1.44	1.45
40:RH:98:LEU:CD2	40:RH:125:VAL:HG11	1.44	1.45
34:YA:2090:G:N1	34:YA:2230:G:C6	1.84	1.44
34:RA:2751:G:C4	40:RH:3:ARG:HB3	1.52	1.44
29:Y5:32:PRO:N	29:Y5:32:PRO:CA	1.69	1.44
30:R6:16:CYS:SG	30:R6:16:CYS:CB	2.06	1.43
1:QA:1158:C:H4'	2:QB:133:LYS:NZ	1.30	1.43
4:QD:57:ARG:NH2	5:QE:107:ARG:HD3	1.17	1.43
1:QA:1100:C:N4	2:QB:96:ARG:HH22	1.14	1.42
1:QA:1221:G:O2'	19:QS:77:THR:CG2	1.65	1.42
1:QA:974:A:C8	14:QN:31:ARG:NH1	1.81	1.42
1:XA:1318:A:O2'	19:XS:11:VAL:CG2	1.65	1.42
3:QC:23:TYR:CD2	10:QJ:95:GLU:HB2	1.55	1.41
34:YA:1127:A:N3	34:YA:2518:A:N7	1.67	1.41
1:XA:1318:A:C6	14:XN:16:PHE:CD1	2.08	1.41
1:QA:1179:A:C5'	9:QI:83:ARG:HH22	1.32	1.41
1:QA:1188:A:H4'	14:QN:58:LYS:NZ	1.30	1.41
1:QA:657:G:O2'	15:QO:28:GLN:CG	1.68	1.40
1:QA:981:U:C4'	14:QN:21:TYR:OH	1.66	1.40
1:QA:1236:A:H4'	21:QU:10:ARG:NH1	1.10	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1187:G:C1'	14:XN:61:TRP:O	1.68	1.40
1:XA:1318:A:C3'	19:XS:11:VAL:HG21	1.50	1.40
34:YA:919:G:C6	34:YA:2268:A:C6	2.09	1.40
6:XF:100:ASN:ND2	18:XR:27:GLY:HA2	1.15	1.39
1:QA:1309:G:H5"	13:QM:77:ASN:ND2	1.38	1.38
34:YA:2082:A:H62	34:YA:2237:G:N2	1.20	1.38
1:QA:980:C:C2	14:QN:19:ARG:O	1.76	1.37
10:QJ:50:ILE:CG1	14:QN:41:ARG:CD	2.01	1.37
1:QA:1106:G:C1'	3:QC:172:ARG:NE	1.84	1.37
4:QD:197:PRO:CD	6:XF:16:GLN:CB	1.94	1.36
1:XA:675:A:C2	11:XK:118:GLY:HA2	1.60	1.36
1:XA:1542:U:O3'	2:XB:169:LYS:NZ	1.58	1.36
13:QM:84:ILE:O	19:QS:74:PHE:CE2	1.76	1.35
1:QA:1360:A:C1'	14:QN:17:LYS:CE	2.01	1.35
14:QN:24:CYS:SG	14:QN:40:CYS:CB	2.14	1.35
1:QA:948:C:H5"	13:QM:101:GLN:CG	1.55	1.35
1:QA:1313:U:H3'	19:QS:6:LYS:NZ	1.04	1.34
7:QG:16:LEU:CD2	9:QI:42:ARG:CG	1.87	1.34
1:QA:980:C:C1'	14:QN:19:ARG:CG	1.85	1.34
1:XA:1316:G:H4'	14:XN:17:LYS:CG	1.49	1.34
1:QA:957:U:C4'	19:QS:79:THR:O	1.74	1.34
1:QA:1253:G:P	10:QJ:44:VAL:HB	1.67	1.34
1:XA:1318:A:C5	14:XN:16:PHE:CD1	2.15	1.33
10:QJ:50:ILE:CG1	14:QN:41:ARG:HD3	1.58	1.33
34:YA:919:G:N1	34:YA:2268:A:C6	1.96	1.33
1:QA:1372:U:OP1	9:QI:68:GLY:CA	1.74	1.32
1:QA:1378:C:OP2	7:QG:7:ALA:CB	1.75	1.32
1:XA:675:A:C2	11:XK:118:GLY:CA	2.10	1.32
1:QA:1187:G:N3	14:QN:60:SER:OG	1.61	1.32
1:XA:1360:A:C8	14:XN:17:LYS:O	1.82	1.32
1:QA:1179:A:H5"	9:QI:83:ARG:NH2	1.41	1.31
4:QD:197:PRO:HD3	6:XF:16:GLN:CB	1.05	1.31
10:QJ:50:ILE:HG12	14:QN:41:ARG:CD	1.59	1.31
1:QA:1320:C:N4	19:QS:37:ARG:HG2	1.42	1.31
1:XA:1305:G:C5	1:XA:1331:G:C6	2.18	1.31
1:QA:1330:U:O4	21:QU:7:ARG:NH1	1.60	1.31
1:QA:1376:U:O4	7:QG:10:ARG:NH2	1.61	1.30
1:XA:1187:G:C2'	14:XN:61:TRP:O	1.71	1.30
1:QA:1313:U:C3'	19:QS:6:LYS:NZ	1.95	1.30
34:RA:2751:G:N3	40:RH:3:ARG:HG2	1.44	1.30
6:XF:100:ASN:HD22	18:XR:27:GLY:C	1.35	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:972:C:P	10:QJ:57:LYS:HD2	1.70	1.29
1:QA:310:G:P	16:QP:27:LYS:HD3	1.72	1.29
1:XA:1320:C:C1'	19:XS:70:LYS:CD	2.04	1.29
1:QA:979:C:N3	14:QN:19:ARG:HD2	1.47	1.29
4:QD:205:GLU:OE2	5:QE:100:VAL:HG12	1.24	1.29
1:QA:979:C:N4	14:QN:19:ARG:HB2	1.46	1.29
1:QA:1378:C:OP2	7:QG:7:ALA:HB1	1.16	1.29
1:XA:1318:A:H4'	19:XS:11:VAL:CG2	1.63	1.29
1:XA:675:A:H2	11:XK:118:GLY:CA	1.44	1.29
1:XA:1320:C:C1'	19:XS:70:LYS:HD2	1.59	1.29
21:XU:3:LYS:HD3	21:XU:14:TRP:CE3	1.67	1.29
1:QA:986:A:H1'	19:QS:54:GLY:O	1.33	1.28
1:XA:1318:A:C4'	19:XS:11:VAL:CG2	2.12	1.28
34:YA:1127:A:C2	34:YA:2518:A:N7	1.95	1.28
1:XA:1228:C:N4	13:XM:104:ARG:HG2	1.49	1.28
1:QA:1223:C:P	19:QS:78:ARG:NH2	2.07	1.28
1:XA:1226:C:H2'	13:XM:103:THR:OG1	1.12	1.28
1:QA:974:A:P	14:QN:29:ARG:NE	2.06	1.28
34:YA:1566:A:C2	36:YD:214:TRP:CD2	2.21	1.28
34:YA:2052:G:N2	34:YA:2617:C:O2	1.61	1.28
6:XF:94:GLN:OE1	18:XR:32:ARG:CD	1.81	1.27
1:XA:1316:G:C4'	14:XN:17:LYS:HG2	1.60	1.27
1:QA:1106:G:H1'	3:QC:172:ARG:NE	1.45	1.27
1:XA:1229:A:N6	13:XM:104:ARG:HE	1.32	1.27
34:YA:2046:G:C2	34:YA:2623:G:C2	2.22	1.27
1:QA:1307:U:P	13:QM:99:ARG:HG3	1.75	1.26
1:QA:974:A:C5	14:QN:31:ARG:NH1	2.02	1.26
34:RA:2751:G:C5	40:RH:3:ARG:HB3	1.67	1.26
1:XA:1318:A:C6	14:XN:16:PHE:CG	2.18	1.26
1:QA:1221:G:H4'	19:QS:36:ARG:NH2	0.93	1.26
1:QA:1317:C:OP1	14:QN:16:PHE:HD2	1.13	1.26
1:XA:1228:C:C4	13:XM:104:ARG:HG2	1.69	1.26
1:QA:986:A:O2'	19:QS:55:LYS:O	1.52	1.26
1:QA:1320:C:H42	19:QS:37:ARG:CG	1.46	1.26
1:QA:957:U:H4'	19:QS:79:THR:C	1.56	1.25
6:XF:50:TYR:CE1	18:XR:77:GLY:O	1.90	1.25
34:YA:2070:G:C2	34:YA:2442:C:C2	2.23	1.25
1:QA:1100:C:H41	2:QB:96:ARG:NH2	1.32	1.25
1:QA:1106:G:O2'	3:QC:172:ARG:CD	1.85	1.25
1:XA:1230:C:H41	13:XM:105:THR:CB	1.47	1.25
6:XF:94:GLN:OE1	18:XR:32:ARG:HD3	1.08	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:978:A:N6	14:QN:18:VAL:HG21	1.52	1.25
1:QA:1309:G:C5'	13:QM:77:ASN:ND2	1.98	1.25
34:YA:2090:G:C2	34:YA:2230:G:C6	2.23	1.25
1:QA:980:C:O2	14:QN:19:ARG:O	1.52	1.24
1:XA:1320:C:C5	19:XS:37:ARG:HA	1.71	1.24
13:QM:86:CYS:SG	19:QS:73:GLU:OE2	1.95	1.24
34:YA:2049:G:N2	34:YA:2620:C:C2	2.05	1.24
1:QA:607:A:C2	16:QP:31:LYS:HA	1.73	1.24
1:QA:972:C:OP1	10:QJ:57:LYS:CD	1.85	1.24
1:QA:1317:C:OP1	14:QN:16:PHE:CD2	1.91	1.24
40:RH:98:LEU:HD21	40:RH:125:VAL:CG1	1.66	1.24
12:QL:104:VAL:O	12:QL:105:TYR:CD2	1.90	1.23
3:QC:23:TYR:HB2	10:QJ:93:GLY:O	1.39	1.23
1:XA:1318:A:C4	14:XN:16:PHE:CE1	2.27	1.23
40:RH:103:LEU:HD11	40:RH:123:PHE:CZ	1.72	1.23
1:XA:1312:G:C3'	19:XS:6:LYS:NZ	1.98	1.23
6:XF:99:ALA:O	18:XR:28:GLU:HA	1.10	1.23
34:YA:919:G:O6	34:YA:2268:A:N1	1.59	1.22
3:QC:23:TYR:HB2	10:QJ:93:GLY:C	1.59	1.22
1:QA:669:U:H1'	15:QO:46:HIS:CE1	1.73	1.22
1:QA:1240:U:C6	7:QG:38:LEU:HD13	1.71	1.22
1:QA:1347:G:O6	9:QI:11:LYS:HD3	1.35	1.21
1:XA:1240:U:C1'	7:XG:38:LEU:CD1	2.06	1.21
12:QL:7:ILE:CD1	17:QQ:32:TYR:CD1	2.22	1.21
1:XA:1318:A:C4'	19:XS:11:VAL:HG21	1.68	1.21
1:XA:1377:A:N6	7:XG:10:ARG:CG	2.03	1.21
3:QC:23:TYR:CE2	10:QJ:95:GLU:HB2	1.74	1.21
1:XA:1305:G:O2'	1:XA:1332:A:N6	1.72	1.21
4:QD:57:ARG:CZ	5:QE:107:ARG:HD3	1.70	1.21
34:RA:2751:G:N7	40:RH:2:SER:O	1.73	1.21
1:XA:1190:G:H5'	3:XC:176:HIS:ND1	1.56	1.21
1:QA:959:A:N6	19:QS:79:THR:N	1.89	1.20
1:QA:973:G:O3'	14:QN:29:ARG:NH2	1.75	1.20
1:QA:1049:U:C5	14:QN:3:ARG:CB	2.23	1.20
1:XA:376:G:OP1	16:XP:67:THR:HG21	1.39	1.20
31:Y7:37:LYS:NZ	34:YA:469:G:O6	1.72	1.20
34:YA:1566:A:C2	36:YD:214:TRP:CE2	2.30	1.20
34:YA:270(P):U:O4	41:YI:52:ARG:NE	1.74	1.20
1:XA:1377:A:N6	7:XG:10:ARG:HG2	1.56	1.20
1:XA:1230:C:H41	13:XM:105:THR:CG2	1.53	1.20
1:QA:974:A:N7	14:QN:31:ARG:NH1	1.87	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1108:G:OP1	3:QC:175:LEU:N	1.74	1.19
1:XA:1320:C:C4	19:XS:37:ARG:CA	2.24	1.19
34:YA:2090:G:N1	34:YA:2230:G:O6	1.70	1.19
4:QD:197:PRO:CD	6:XF:16:GLN:HB2	1.63	1.19
34:YA:2081:C:O2	34:YA:2239:G:N2	1.75	1.19
1:XA:421:U:O4'	3:XC:192:THR:HG21	1.38	1.19
1:XA:1059:C:OP2	3:XC:2:GLY:CA	1.91	1.19
1:XA:1320:C:C4	19:XS:37:ARG:HA	1.77	1.18
34:YA:2045:C:C2	34:YA:2624:G:N2	2.11	1.18
1:QA:959:A:H61	19:QS:78:ARG:HA	1.03	1.18
1:QA:1106:G:O2'	3:QC:172:ARG:HD2	1.05	1.18
1:QA:1179:A:C5'	9:QI:83:ARG:NH2	1.97	1.18
1:XA:1318:A:C6	14:XN:16:PHE:CE1	2.27	1.18
1:XA:1312:G:H3'	19:XS:6:LYS:NZ	1.19	1.17
1:XA:1305:G:C6	1:XA:1331:G:C6	2.31	1.17
1:QA:1123:A:C4'	10:QJ:37:PRO:CD	2.23	1.17
34:YA:2082:A:N6	34:YA:2237:G:N3	1.93	1.17
10:QJ:50:ILE:HG12	14:QN:41:ARG:NE	1.60	1.16
1:XA:1226:C:C2'	13:XM:103:THR:OG1	1.91	1.16
4:QD:88:VAL:HG22	5:QE:96:PRO:O	1.45	1.16
34:YA:1127:A:H2	34:YA:2518:A:C5	1.37	1.16
1:QA:979:C:C4	14:QN:19:ARG:HD2	1.81	1.16
1:QA:1152:A:OP1	10:QJ:13:HIS:NE2	1.76	1.16
1:XA:1305:G:C6	1:XA:1331:G:O6	1.99	1.16
34:YA:919:G:N1	34:YA:2268:A:N1	1.87	1.16
1:XA:1230:C:H41	13:XM:105:THR:HB	1.07	1.15
1:XA:1230:C:N4	13:XM:105:THR:CG2	2.07	1.15
1:XA:1312:G:C3'	19:XS:6:LYS:HZ2	1.55	1.15
1:XA:1320:C:N3	19:XS:36:ARG:HG3	1.59	1.15
1:QA:956:U:O3'	19:QS:80:TYR:O	1.65	1.15
1:QA:1320:C:N3	19:QS:37:ARG:HA	1.59	1.15
4:QD:205:GLU:OE2	5:QE:100:VAL:CG1	1.95	1.15
1:QA:669:U:C1'	15:QO:46:HIS:HE1	1.58	1.14
1:QA:1186:G:N2	14:QN:61:TRP:O	1.79	1.14
1:XA:107:G:O6	20:XT:15:ARG:NE	1.80	1.14
1:XA:1229:A:OP2	13:XM:105:THR:HA	1.47	1.14
1:QA:959:A:N6	19:QS:79:THR:H	1.42	1.14
1:QA:1541:U:P	2:QB:23:ARG:HH21	1.70	1.14
1:XA:1228:C:C6	13:XM:104:ARG:HA	1.81	1.14
34:YA:1050:A:C8	34:YA:2751:G:C4	2.34	1.14
1:QA:974:A:C4	14:QN:31:ARG:NH1	2.13	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:QD:57:ARG:NH2	5:QE:107:ARG:CD	2.10	1.14
34:YA:1456:G:H1	34:YA:2703:C:N4	1.46	1.14
34:YA:2048:G:C2	34:YA:2621:A:C2	2.37	1.14
1:QA:1229:A:H61	13:QM:104:ARG:CZ	1.60	1.13
1:QA:1188:A:C4'	14:QN:58:LYS:NZ	2.10	1.13
1:QA:959:A:H61	19:QS:78:ARG:CA	1.59	1.13
1:XA:1318:A:N1	14:XN:16:PHE:CE2	2.16	1.13
1:XA:1359:C:P	14:XN:22:THR:OG1	2.06	1.13
1:XA:1229:A:N6	13:XM:104:ARG:NE	1.94	1.12
1:XA:1230:C:H42	13:XM:102:ARG:NH1	1.43	1.13
34:YA:2090:G:N2	34:YA:2230:G:C5	2.15	1.13
1:QA:624:C:O3'	16:QP:10:GLY:HA2	1.44	1.12
1:QA:1367:C:C4'	10:QJ:48:THR:HG21	1.79	1.12
11:QK:71:LYS:NZ	34:RA:2146:C:H41	1.46	1.12
1:XA:1377:A:N6	7:XG:10:ARG:CD	1.97	1.12
4:QD:89:THR:OG1	5:QE:97:GLY:O	1.67	1.12
1:XA:1359:C:OP1	14:XN:22:THR:OG1	1.66	1.12
1:XA:1440(N):G:OP1	20:XT:35:THR:HG21	1.50	1.12
1:QA:974:A:C5'	14:QN:31:ARG:HB3	1.79	1.12
1:QA:1240:U:H2'	7:QG:38:LEU:HD11	1.28	1.12
1:XA:1318:A:N6	14:XN:16:PHE:CD1	2.12	1.12
34:YA:1127:A:C2	34:YA:2518:A:C6	2.36	1.12
1:QA:972:C:OP1	10:QJ:57:LYS:HD2	0.94	1.12
6:XF:100:ASN:ND2	18:XR:27:GLY:CA	1.83	1.12
1:QA:954:G:C2	19:QS:83:HIS:HE1	1.67	1.11
1:QA:1229:A:OP1	13:QM:108:ARG:NH2	1.80	1.11
1:QA:1360:A:N7	14:QN:18:VAL:HA	1.49	1.11
3:QC:79:ARG:NE	11:XK:104:GLN:HG3	1.65	1.11
1:XA:974:A:P	14:XN:31:ARG:HB2	1.90	1.11
3:QC:79:ARG:NH2	11:XK:104:GLN:HA	1.64	1.11
34:RA:2751:G:C4	40:RH:3:ARG:CB	2.32	1.11
1:XA:1187:G:H1'	14:XN:61:TRP:O	1.33	1.11
1:XA:1318:A:O2'	19:XS:11:VAL:HG21	1.33	1.11
1:QA:1123:A:C4'	10:QJ:37:PRO:HD3	1.81	1.11
34:YA:2082:A:N6	34:YA:2237:G:H21	1.48	1.11
1:QA:957:U:H4'	19:QS:79:THR:O	1.41	1.10
1:QA:1320:C:C4	19:QS:37:ARG:HA	1.85	1.10
1:XA:1320:C:N4	19:XS:37:ARG:CB	2.14	1.10
1:QA:538:G:H3'	12:QL:115:LYS:HZ2	1.12	1.10
1:QA:1253:G:OP1	10:QJ:44:VAL:CB	1.98	1.10
1:QA:980:C:C6	14:QN:19:ARG:HG3	1.85	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R1:90:ILE:HG22	25:R1:94:LEU:HD11	1.19	1.10
7:QG:16:LEU:CD2	9:QI:42:ARG:HG3	1.80	1.10
1:XA:1188:A:H1'	14:XN:60:SER:HA	1.26	1.10
1:QA:981:U:C5'	14:QN:21:TYR:OH	1.98	1.09
45:RQ:59:ARG:HA	54:RZ:179:ASP:OD2	1.51	1.09
1:XA:1228:C:C5	13:XM:104:ARG:CA	2.35	1.09
1:XA:1318:A:C4	14:XN:16:PHE:CZ	2.39	1.09
34:YA:2080:G:C2	34:YA:2241:A:C2	2.39	1.09
3:QC:23:TYR:N	10:QJ:93:GLY:HA2	1.65	1.09
34:YA:2046:G:C4	34:YA:2623:G:N2	2.20	1.09
1:XA:1320:C:C1'	19:XS:70:LYS:HD3	1.83	1.09
1:QA:949:A:OP1	13:QM:101:GLN:HA	1.52	1.09
12:QL:7:ILE:HD11	17:QQ:32:TYR:HB3	1.28	1.09
14:XN:56:VAL:HG13	14:XN:57:ARG:H	1.01	1.09
34:YA:919:G:C5	34:YA:2268:A:N6	2.20	1.09
1:QA:974:A:N9	14:QN:31:ARG:NH1	2.01	1.08
1:QA:983:A:H5'	14:QN:2:ALA:HB2	1.15	1.08
1:QA:1150:U:H1'	10:QJ:39:PRO:HG2	1.10	1.08
34:RA:2751:G:N3	40:RH:3:ARG:CG	2.16	1.08
1:XA:1112:C:O4'	3:XC:179:ARG:NH2	1.86	1.08
1:XA:1377:A:P	7:XG:94:ARG:NH2	2.25	1.08
34:YA:2043:C:N4	34:YA:2777:G:N1	2.01	1.08
34:YA:2090:G:C6	34:YA:2230:G:O6	2.05	1.08
1:QA:948:C:H5"	13:QM:101:GLN:HG3	1.14	1.08
3:QC:23:TYR:H	10:QJ:93:GLY:HA2	1.03	1.08
12:QL:7:ILE:HD11	17:QQ:32:TYR:CB	1.83	1.08
1:QA:1219:U:O2'	19:QS:34:TRP:CE3	2.04	1.08
11:XK:91:ARG:HH21	18:XR:88:LYS:HD2	1.13	1.08
3:QC:23:TYR:CE2	10:QJ:95:GLU:CB	2.35	1.08
10:QJ:50:ILE:HD11	14:QN:41:ARG:HD2	1.31	1.08
1:XA:1318:A:N6	14:XN:16:PHE:CB	2.17	1.08
1:XA:1318:A:C2	14:XN:16:PHE:CZ	2.42	1.08
1:XA:1320:C:H1'	19:XS:70:LYS:HD2	1.26	1.08
10:QJ:49:VAL:CG2	14:QN:41:ARG:HB2	1.84	1.08
1:XA:186(B):C:O2	20:XT:105:SER:HB2	1.49	1.08
10:XJ:40:LEU:HB3	10:XJ:41:PRO:CD	1.84	1.08
10:QJ:50:ILE:HD11	14:QN:41:ARG:NH1	1.67	1.07
1:QA:1320:C:O2	19:QS:36:ARG:O	1.71	1.07
1:QA:1358:U:O3'	14:QN:22:THR:HG21	1.53	1.07
6:XF:99:ALA:O	18:XR:28:GLU:CA	2.02	1.07
34:YA:918:A:N7	34:YA:2268:A:N6	2.01	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2048:G:N1	34:YA:2621:A:C2	2.20	1.07
1:QA:1100:C:C5	2:QB:96:ARG:NH2	2.21	1.07
1:QA:974:A:O5'	14:QN:31:ARG:HB2	1.53	1.07
1:QA:978:A:H62	14:QN:18:VAL:CG2	1.66	1.07
1:XA:702:A:N6	34:YA:1848:A:C2	2.22	1.07
1:QA:1240:U:N3	7:QG:38:LEU:HB3	1.40	1.07
1:XA:1318:A:C6	14:XN:16:PHE:CD2	2.43	1.07
13:XM:84:ILE:HD11	19:XS:65:ASN:CG	1.73	1.07
34:YA:945:A:N6	34:YA:2448:A:N6	1.61	1.07
34:YA:1127:A:H2	34:YA:2518:A:C4	1.72	1.07
1:QA:972:C:P	10:QJ:57:LYS:CD	2.42	1.06
1:XA:741:G:P	15:XO:35:ARG:NH2	2.26	1.06
1:XA:1377:A:C6	7:XG:10:ARG:CG	2.38	1.06
4:XD:18:LYS:NZ	4:XD:31:CYS:SG	2.26	1.06
1:QA:1280:A:H5"	10:QJ:40:LEU:HD23	1.30	1.06
14:XN:27:CYS:SG	14:XN:28:GLY:N	2.28	1.06
1:QA:1253:G:P	10:QJ:44:VAL:CB	2.43	1.06
1:QA:1253:G:OP1	10:QJ:44:VAL:HB	1.54	1.06
1:QA:1318:A:N3	19:QS:37:ARG:CZ	2.17	1.06
4:QD:197:PRO:HD3	6:XF:16:GLN:HB3	1.06	1.06
34:YA:2046:G:C6	34:YA:2623:G:N1	2.24	1.06
1:QA:657:G:O2'	15:QO:28:GLN:HG2	0.88	1.06
1:QA:1160:G:O4'	2:QB:132:LYS:HE3	1.54	1.06
1:QA:1229:A:N6	13:QM:104:ARG:HG3	1.69	1.06
1:QA:1367:C:H4'	10:QJ:48:THR:HG21	1.06	1.06
1:XA:1318:A:C4'	19:XS:11:VAL:HG23	1.82	1.06
1:QA:1152:A:OP1	10:QJ:13:HIS:CE1	2.09	1.06
34:YA:2044:C:C4	34:YA:2625:G:N2	2.23	1.06
1:QA:538:G:H3'	12:QL:115:LYS:NZ	1.71	1.05
10:QJ:45:ARG:HG2	14:QN:36:PHE:CZ	1.69	1.05
1:XA:1317:C:C5	14:XN:16:PHE:CD1	2.27	1.05
10:XJ:10:GLY:HA3	10:XJ:16:LEU:HD21	1.36	1.05
10:QJ:50:ILE:HG13	14:QN:41:ARG:HD3	1.34	1.05
1:XA:737:A:OP1	6:XF:92:LYS:NZ	1.87	1.05
1:QA:1253:G:O5'	10:QJ:44:VAL:HB	1.57	1.05
12:QL:7:ILE:HD11	17:QQ:32:TYR:CG	1.90	1.05
1:XA:1319:A:OP2	19:XS:3:ARG:NE	1.88	1.05
1:QA:974:A:H5'	14:QN:31:ARG:HB3	1.33	1.05
1:QA:1179:A:H5'	9:QI:83:ARG:HH22	1.17	1.05
40:RH:87:LEU:O	40:RH:131:VAL:HG23	1.54	1.05
1:XA:1304:G:H5"	1:XA:1304:G:H8	1.16	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2070:G:N2	34:YA:2442:C:N1	2.04	1.05
1:QA:1320:C:C2	19:QS:36:ARG:O	2.10	1.05
2:QB:196:LEU:HA	8:QH:74:PRO:HG3	1.37	1.05
1:XA:1309:G:C4'	13:XM:77:ASN:ND2	2.20	1.05
10:XJ:16:LEU:HB3	10:XJ:70:ARG:NH1	1.71	1.05
34:YA:1392:A:N6	52:YX:15:GLU:OE2	1.89	1.05
1:QA:669:U:H1'	15:QO:46:HIS:HE1	0.89	1.04
1:QA:876:G:H1'	8:QH:11:THR:HG21	1.40	1.04
1:QA:1221:G:C5'	19:QS:36:ARG:NH2	2.19	1.04
1:QA:607:A:N1	16:QP:31:LYS:HA	1.72	1.04
1:QA:1320:C:N4	19:QS:37:ARG:CG	2.12	1.04
1:QA:1357:A:C5'	10:QJ:45:ARG:HH22	1.70	1.04
34:YA:1566:A:N1	36:YD:214:TRP:CE2	2.26	1.04
34:YA:2099:U:O2	34:YA:2190:G:N2	1.91	1.04
1:XA:280:C:N3	17:XQ:39:SER:N	2.03	1.04
1:XA:1320:C:H1'	19:XS:70:LYS:CD	1.77	1.04
1:QA:973:G:O3'	14:QN:29:ARG:CZ	2.05	1.04
1:XA:974:A:O5'	14:XN:31:ARG:HB3	1.55	1.04
34:YA:2108:C:H42	34:YA:2182:G:N2	1.55	1.04
1:QA:948:C:H5"	13:QM:101:GLN:HG2	1.40	1.03
1:QA:972:C:OP2	10:QJ:57:LYS:HG3	1.58	1.03
1:QA:1357:A:H5'	10:QJ:45:ARG:NH2	1.73	1.03
1:XA:191:G:O2'	20:XT:101:GLY:O	1.74	1.03
1:XA:1190:G:H5"	3:XC:176:HIS:HE1	0.88	1.03
1:XA:1318:A:H4'	19:XS:11:VAL:HG23	1.08	1.03
1:XA:1225:A:H1'	19:XS:78:ARG:HE	1.18	1.03
6:XF:91:VAL:HG21	18:XR:34:TYR:CE1	1.92	1.03
1:QA:981:U:H4'	14:QN:21:TYR:OH	1.22	1.03
1:XA:1227:A:OP1	13:XM:96:LEU:HD21	1.59	1.03
1:XA:1318:A:C2	14:XN:16:PHE:CE2	2.46	1.03
11:XK:91:ARG:HE	18:XR:88:LYS:NZ	1.31	1.03
34:YA:2082:A:N6	34:YA:2237:G:N2	2.03	1.03
1:QA:1313:U:C5	19:QS:6:LYS:HE2	1.92	1.03
1:XA:186(B):C:O2	20:XT:105:SER:CB	2.07	1.03
3:XC:23:TYR:CE2	10:XJ:95:GLU:HB2	1.94	1.03
13:XM:84:ILE:HG13	19:XS:65:ASN:O	1.58	1.03
34:YA:1127:A:N3	34:YA:2518:A:C8	2.27	1.03
1:QA:979:C:C2	14:QN:19:ARG:HD2	1.93	1.02
1:QA:1106:G:O4'	3:QC:172:ARG:NE	1.92	1.02
1:QA:1226:C:OP1	13:QM:87:TYR:OH	1.75	1.02
3:QC:23:TYR:CD2	10:QJ:95:GLU:CB	2.42	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1372:U:OP1	9:XI:68:GLY:HA2	1.58	1.02
1:QA:1100:C:N4	2:QB:96:ARG:NH2	1.97	1.02
1:XA:1318:A:N7	14:XN:16:PHE:CE1	2.27	1.02
1:XA:1374:A:O2'	7:XG:31:MET:HE2	1.60	1.02
1:QA:1240:U:C6	7:QG:38:LEU:CD1	2.42	1.02
1:QA:1280:A:H5"	10:QJ:40:LEU:CD2	1.90	1.02
1:XA:1309:G:C5'	13:XM:77:ASN:ND2	2.23	1.02
1:XA:1318:A:C5	14:XN:16:PHE:CZ	2.46	1.02
1:XA:1318:A:O2'	19:XS:11:VAL:HG22	1.58	1.02
13:XM:84:ILE:HG22	19:XS:74:PHE:CZ	1.94	1.02
1:QA:309:G:H5"	16:QP:27:LYS:HE2	1.41	1.02
7:QG:16:LEU:HD22	9:QI:42:ARG:CG	1.90	1.02
1:QA:657:G:C2'	15:QO:28:GLN:HG2	1.86	1.01
1:QA:668:G:H4'	15:QO:48:LYS:O	1.58	1.01
1:XA:1305:G:H2'	1:XA:1331:G:N2	1.74	1.01
34:YA:197:A:C4	34:YA:2430:A:C2	2.47	1.01
1:QA:953:G:C5	13:QM:104:ARG:NH2	2.27	1.01
34:YA:2051:A:C2	34:YA:2614:A:C2	2.47	1.01
1:XA:1377:A:OP1	7:XG:94:ARG:NH2	1.93	1.01
6:XF:99:ALA:HB3	18:XR:29:PHE:CD1	1.96	1.01
34:YA:2056:G:C6	34:YA:2577:A:C4	2.48	1.01
34:YA:2082:A:N6	34:YA:2237:G:C2	2.26	1.01
1:XA:412:A:C2	4:XD:35:ARG:HD3	1.96	1.01
1:XA:974:A:C5'	14:XN:31:ARG:HB3	1.89	1.01
34:YA:2070:G:N1	34:YA:2442:C:N3	2.09	1.01
1:QA:974:A:P	14:QN:29:ARG:CZ	2.48	1.01
1:QA:1360:A:O4'	14:QN:17:LYS:CE	2.06	1.01
13:QM:84:ILE:HG21	19:QS:69:HIS:CE1	1.95	1.01
26:R2:48:HIS:HE2	26:R2:49:LYS:HE2	1.21	1.01
1:XA:974:A:C8	14:XN:31:ARG:CD	2.44	1.01
34:YA:1050:A:C8	34:YA:2751:G:C5	2.49	1.00
34:YA:2046:G:N3	34:YA:2623:G:C2	2.29	1.00
34:YA:2311:A:H1'	39:YG:88:ILE:HD12	1.41	1.00
1:QA:980:C:H1'	14:QN:19:ARG:CD	1.90	1.00
1:QA:1123:A:C4'	10:QJ:37:PRO:HD2	1.91	1.00
10:QJ:47:PHE:CZ	14:QN:36:PHE:CB	2.06	1.00
1:XA:719:C:O2	18:XR:50:ILE:HD12	1.60	1.00
1:QA:986:A:C1'	19:QS:55:LYS:HA	1.91	1.00
3:QC:23:TYR:CE1	10:QJ:9:ARG:O	2.14	1.00
26:R2:48:HIS:NE2	26:R2:49:LYS:HE2	1.74	1.00
1:QA:1367:C:H4'	10:QJ:48:THR:CG2	1.92	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1301:U:O2'	13:XM:17:VAL:HG21	1.60	1.00
1:XA:1318:A:C3'	19:XS:11:VAL:CG2	2.36	1.00
22:XV:8:U:H3	22:XV:14:A:H62	1.01	1.00
34:YA:2046:G:N3	34:YA:2623:G:N2	2.10	1.00
1:QA:740:U:H4'	15:QO:39:LEU:HG	1.44	1.00
1:QA:1186:G:H21	14:QN:61:TRP:C	1.65	1.00
1:QA:1229:A:N6	13:QM:104:ARG:CG	2.25	1.00
13:QM:84:ILE:O	19:QS:74:PHE:CZ	2.15	0.99
1:XA:1160:G:O4'	2:XB:132:LYS:HE3	1.62	0.99
1:QA:980:C:C1'	14:QN:19:ARG:HG3	1.89	0.99
1:QA:1360:A:N7	14:QN:18:VAL:CA	2.12	0.99
34:YA:2090:G:C2	34:YA:2230:G:C5	2.51	0.99
1:XA:1059:C:OP2	3:XC:2:GLY:HA2	1.60	0.99
6:XF:50:TYR:CE1	18:XR:77:GLY:C	2.22	0.99
1:QA:959:A:H62	19:QS:79:THR:N	1.53	0.99
1:QA:1221:G:OP1	19:QS:36:ARG:CZ	2.10	0.99
1:XA:728:A:N7	15:XO:54:ARG:CZ	2.26	0.99
6:XF:91:VAL:HG21	18:XR:34:TYR:CZ	1.97	0.99
1:QA:974:A:OP2	14:QN:29:ARG:NE	1.96	0.99
1:XA:185:A:O2'	20:XT:81:LYS:NZ	1.96	0.99
34:YA:2051:A:H2	34:YA:2614:A:C2	1.78	0.99
1:XA:1305:G:C5	1:XA:1331:G:O6	2.13	0.99
34:YA:919:G:C6	34:YA:2268:A:N6	2.29	0.99
34:YA:1782:C:N4	34:YA:2587:A:C2	2.31	0.99
34:YA:2059:A:N1	34:YA:2503:A:C6	2.31	0.99
1:QA:1158:C:C4'	2:QB:133:LYS:NZ	2.25	0.99
10:QJ:50:ILE:CD1	14:QN:41:ARG:CD	2.41	0.99
10:QJ:50:ILE:CD1	14:QN:41:ARG:HD2	1.92	0.99
1:QA:1313:U:H3'	19:QS:6:LYS:HZ3	1.20	0.98
1:XA:1228:C:O5'	13:XM:108:ARG:NH2	1.95	0.98
1:XA:1230:C:N4	13:XM:102:ARG:HH12	1.60	0.98
1:QA:1302:U:H1'	13:QM:27:LYS:HE3	1.38	0.98
1:XA:1320:C:C4	19:XS:37:ARG:CB	2.44	0.98
1:QA:667:G:H4'	15:QO:51:HIS:CE1	1.96	0.98
1:QA:1188:A:C4'	14:QN:58:LYS:HZ1	1.73	0.98
34:YA:2051:A:N1	34:YA:2614:A:C4	2.31	0.98
28:R4:7:PRO:HG3	39:RG:61:ALA:HB1	1.45	0.98
1:XA:1533:C:N4	23:XX:12:A:C2	2.32	0.98
34:YA:199:A:N6	34:YA:2434:A:C6	2.31	0.98
34:YA:1566:A:N1	36:YD:214:TRP:CZ2	2.31	0.98
1:QA:1221:G:OP1	19:QS:36:ARG:NH1	1.96	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1229:A:N6	13:QM:104:ARG:NE	2.10	0.98
1:QA:1318:A:N3	19:QS:37:ARG:NH1	2.10	0.98
3:QC:23:TYR:H	10:QJ:93:GLY:CA	1.75	0.98
34:YA:197:A:C5	34:YA:2430:A:C2	2.52	0.98
34:YA:2108:C:H42	34:YA:2182:G:H22	1.09	0.98
1:XA:1318:A:N3	19:XS:37:ARG:NH1	2.11	0.98
1:QA:1372:U:OP1	9:QI:68:GLY:HA2	0.80	0.98
10:QJ:50:ILE:HG12	14:QN:41:ARG:HD3	1.23	0.98
34:YA:197:A:C4	34:YA:2430:A:H2	1.82	0.98
1:QA:1240:U:C5	7:QG:38:LEU:HD13	1.99	0.97
3:QC:23:TYR:CB	10:QJ:93:GLY:O	2.11	0.97
1:XA:1309:G:C4'	13:XM:77:ASN:HD21	1.77	0.97
1:QA:1226:C:C5'	13:QM:91:ARG:HH12	1.76	0.97
4:QD:204:ILE:CG2	5:QE:98:THR:O	2.12	0.97
34:YA:2048:G:C2	34:YA:2621:A:N3	2.32	0.97
1:XA:1304:G:H5"	1:XA:1304:G:C8	1.99	0.97
1:QA:956:U:C2'	19:QS:80:TYR:O	2.11	0.97
25:R1:95:LEU:O	25:R1:95:LEU:HD23	1.64	0.97
29:R5:3:LYS:NZ	34:RA:2611:U:O4	1.96	0.97
34:YA:2059:A:C2	34:YA:2503:A:N6	2.33	0.97
1:QA:974:A:OP2	14:QN:29:ARG:CG	2.12	0.97
1:QA:1150:U:C1'	10:QJ:39:PRO:HG2	1.95	0.97
1:QA:1158:C:C4'	2:QB:133:LYS:HZ2	1.78	0.97
1:QA:1226:C:H5'	13:QM:91:ARG:HH12	1.26	0.96
1:XA:1228:C:H5	13:XM:104:ARG:HA	1.23	0.96
1:XA:1112:C:H1'	3:XC:179:ARG:NE	1.80	0.96
11:XK:110:ASP:HB3	18:XR:85:LEU:O	1.65	0.96
1:QA:1152:A:P	10:QJ:13:HIS:CE1	2.51	0.96
33:R9:19:ARG:NE	34:RA:2756:U:OP2	1.97	0.96
1:XA:1124:G:H4'	10:XJ:36:GLY:H	1.30	0.96
11:XK:116:HIS:NE2	18:XR:82:THR:HB	1.80	0.96
34:YA:1174:A:N6	55:YA:3192:MG:MG	1.21	0.96
1:QA:957:U:O2'	19:QS:79:THR:O	1.83	0.96
30:R6:13:CYS:SG	30:R6:14:THR:N	2.39	0.96
1:XA:1305:G:O2'	1:XA:1332:A:C6	2.18	0.96
1:XA:1318:A:O2'	19:XS:11:VAL:CG1	2.14	0.96
29:Y5:43:HIS:CD2	34:YA:2884:U:H5	1.83	0.96
34:YA:747:U:O4	34:YA:2613:U:N3	1.98	0.96
34:YA:2054:A:H62	34:YA:2577:A:H61	1.06	0.96
1:QA:761:G:H5'	17:QQ:100:LYS:NZ	1.81	0.96
1:QA:1099:G:OP2	2:QB:96:ARG:CD	2.13	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:974:A:O5’	14:XN:31:ARG:CB	2.13	0.96
1:XA:974:A:C1’	14:XN:31:ARG:HH11	1.77	0.96
1:XA:1360:A:C8	14:XN:17:LYS:C	2.35	0.96
11:XK:108:ILE:O	18:XR:87:ARG:HD2	1.66	0.96
1:QA:742:G:H5”	15:QO:58:MET:SD	2.06	0.96
1:QA:1049:U:C4	14:QN:3:ARG:HB3	2.00	0.95
1:XA:675:A:C2	11:XK:118:GLY:HA3	1.98	0.95
6:XF:87:ARG:NH1	18:XR:76:LEU:O	1.99	0.95
34:YA:1252:G:N3	49:YU:33:ARG:NH1	2.13	0.95
1:QA:675:A:H2	11:QK:118:GLY:HA2	1.29	0.95
1:QA:880:C:H5”	12:QL:12:ARG:NH2	1.80	0.95
13:QM:86:CYS:HB2	19:QS:69:HIS:CE1	1.99	0.95
1:XA:1318:A:C6	14:XN:16:PHE:CZ	2.52	0.95
34:YA:2044:C:N3	34:YA:2625:G:C2	2.33	0.95
1:QA:657:G:HO2’	15:QO:28:GLN:HG2	1.14	0.95
1:QA:1221:G:O2’	19:QS:77:THR:HG21	0.78	0.95
1:QA:982:U:O5’	14:QN:6:LEU:HD21	1.67	0.95
1:XA:974:A:C4	14:XN:31:ARG:NH1	2.35	0.95
1:QA:957:U:C2’	19:QS:79:THR:O	2.15	0.95
1:QA:982:U:H5”	14:QN:6:LEU:CG	1.96	0.95
1:QA:1347:G:O6	9:QI:11:LYS:CD	2.15	0.95
1:QA:1099:G:P	2:QB:96:ARG:HD2	2.05	0.95
1:XA:1226:C:H2’	13:XM:103:THR:HG1	1.30	0.95
1:XA:1318:A:N6	14:XN:16:PHE:HB3	1.80	0.95
10:XJ:37:PRO:HB3	10:XJ:72:VAL:HG22	1.46	0.95
34:YA:1050:A:H8	34:YA:2751:G:C4	1.84	0.95
1:QA:1360:A:O4’	14:QN:17:LYS:NZ	2.00	0.94
1:XA:1230:C:H42	13:XM:102:ARG:HH12	1.00	0.94
1:QA:974:A:C5’	14:QN:31:ARG:CB	2.44	0.94
1:QA:986:A:C1’	19:QS:54:GLY:O	2.15	0.94
34:YA:2046:G:C6	34:YA:2623:G:C6	2.55	0.94
1:XA:1320:C:C5	19:XS:37:ARG:CA	2.44	0.94
1:XA:1320:C:C4	19:XS:37:ARG:HB3	2.00	0.94
1:QA:986:A:H1’	19:QS:55:LYS:HA	1.46	0.94
1:QA:1160:G:H5’	2:QB:132:LYS:HE2	1.48	0.94
1:QA:1223:C:OP1	19:QS:78:ARG:NH2	1.98	0.94
1:XA:1112:C:C1’	3:XC:179:ARG:HH21	1.80	0.94
1:QA:1160:G:O4’	2:QB:132:LYS:CE	2.15	0.94
34:YA:1566:A:C2	36:YD:214:TRP:CG	2.54	0.94
34:YA:2071:A:H2	34:YA:2441:C:N3	1.65	0.94
1:QA:186(K):G:N7	17:QQ:63:ARG:NH2	2.14	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1188:A:C1'	14:XN:60:SER:HA	1.98	0.94
1:XA:1230:C:N4	13:XM:105:THR:HB	1.82	0.94
1:XA:1318:A:N1	14:XN:16:PHE:CD2	2.36	0.94
1:XA:1377:A:C6	7:XG:10:ARG:HG2	2.02	0.94
34:YA:2046:G:N1	34:YA:2623:G:C6	2.35	0.94
1:XA:1228:C:N4	13:XM:104:ARG:CG	2.29	0.94
10:XJ:40:LEU:HB3	10:XJ:41:PRO:HD2	1.49	0.94
1:QA:626:U:H4'	16:QP:38:TYR:CD2	2.02	0.94
1:QA:1099:G:OP2	2:QB:96:ARG:HD2	1.68	0.94
1:QA:1150:U:O2	10:QJ:39:PRO:HG3	1.68	0.94
10:QJ:50:ILE:CD1	14:QN:41:ARG:CZ	2.45	0.94
7:XG:16:LEU:CD2	9:XI:44:VAL:HG23	1.98	0.94
1:QA:1229:A:C6	13:QM:104:ARG:NE	2.35	0.94
1:QA:1229:A:H62	13:QM:104:ARG:HG3	1.28	0.94
28:R4:26:SER:OG	39:RG:143:GLU:OE2	1.84	0.94
22:XV:8:U:H3	22:XV:14:A:N6	1.65	0.94
1:QA:1236:A:C5'	21:QU:10:ARG:NH1	2.30	0.94
4:QD:197:PRO:CD	6:XF:16:GLN:HB3	1.78	0.94
34:RA:2680:C:OP2	37:RE:111:ARG:NH2	2.01	0.94
1:QA:1313:U:O4	19:QS:4:SER:HB2	1.68	0.93
34:YA:2087:G:O6	34:YA:2233:U:C4	2.21	0.93
3:XC:60:ALA:HB1	10:XJ:91:PRO:HD2	1.50	0.93
6:XF:100:ASN:HB2	18:XR:27:GLY:C	1.89	0.93
1:QA:1229:A:N6	13:QM:104:ARG:CZ	2.31	0.93
1:XA:1360:A:H1'	14:XN:17:LYS:HD2	1.50	0.93
1:QA:1229:A:P	13:QM:108:ARG:NH2	2.40	0.93
1:XA:1309:G:H5'	13:XM:77:ASN:HD22	1.33	0.93
1:QA:1313:U:C3'	19:QS:6:LYS:HZ2	1.69	0.93
1:XA:974:A:O4'	14:XN:31:ARG:HD3	1.69	0.93
1:QA:1158:C:H4'	2:QB:133:LYS:HZ1	1.22	0.93
34:RA:2751:G:C2	40:RH:3:ARG:HG2	2.04	0.93
1:XA:974:A:C4	14:XN:31:ARG:CZ	2.52	0.93
1:QA:956:U:O2'	19:QS:80:TYR:O	1.87	0.93
10:QJ:50:ILE:HD11	14:QN:41:ARG:HH11	1.23	0.93
34:YA:919:G:N1	34:YA:2268:A:C2	2.35	0.93
34:YA:1493:C:N4	34:YA:2210:G:C8	2.37	0.93
1:QA:958:A:N6	19:QS:77:THR:O	2.01	0.93
1:QA:1014:A:O4'	19:QS:34:TRP:CD1	2.22	0.93
1:QA:1360:A:O4'	14:QN:17:LYS:HE3	1.66	0.93
33:R9:31:LYS:HE2	34:RA:2478:A:H5'	1.47	0.93
4:QD:205:GLU:HG2	5:QE:100:VAL:O	1.68	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1217:C:OP1	14:XN:5:ALA:HB1	1.68	0.92
34:YA:2070:G:C2	34:YA:2442:C:O2	2.20	0.92
1:QA:957:U:O4'	19:QS:79:THR:O	1.85	0.92
1:XA:253:U:OP1	17:XQ:67:LYS:HD3	1.69	0.92
1:QA:1378:C:P	7:QG:7:ALA:HB1	2.07	0.92
1:QA:948:C:C5'	13:QM:101:GLN:CG	2.47	0.92
1:QA:959:A:N6	19:QS:78:ARG:HA	1.83	0.92
10:QJ:50:ILE:CD1	14:QN:41:ARG:NH1	2.31	0.92
34:YA:2054:A:H62	34:YA:2577:A:N6	1.67	0.92
6:XF:100:ASN:ND2	18:XR:27:GLY:C	2.14	0.92
1:QA:1309:G:C5'	13:QM:77:ASN:HD21	1.74	0.92
1:XA:1123:A:O2'	10:XJ:38:ILE:HG23	1.69	0.92
1:QA:946:A:OP1	13:QM:114:ARG:NH2	2.02	0.92
11:XK:91:ARG:CD	18:XR:88:LYS:NZ	2.33	0.92
1:QA:979:C:H2'	14:QN:19:ARG:CZ	1.99	0.92
1:QA:980:C:O4'	14:QN:19:ARG:NE	2.01	0.92
1:QA:1221:G:H4'	19:QS:36:ARG:HH21	1.29	0.92
1:QA:1541:U:P	2:QB:23:ARG:NH2	2.43	0.91
1:XA:974:A:C8	14:XN:31:ARG:HD3	2.05	0.91
1:QA:137:C:H1'	16:QP:63:GLY:HA3	1.50	0.91
11:QK:71:LYS:HZ2	34:RA:2146:C:H41	1.16	0.91
1:QA:1188:A:H4'	14:QN:58:LYS:HZ3	1.14	0.91
1:QA:1357:A:H5'	10:QJ:45:ARG:CZ	1.99	0.91
3:QC:23:TYR:N	10:QJ:93:GLY:CA	2.32	0.91
34:YA:2069:G:N2	34:YA:2443:C:C2	2.38	0.91
1:QA:954:G:C2	19:QS:83:HIS:CE1	2.58	0.91
1:QA:954:G:N2	19:QS:83:HIS:CE1	2.38	0.91
34:YA:491:G:O6	51:YW:49:LYS:NZ	2.02	0.91
1:QA:983:A:C5'	14:QN:2:ALA:HB2	1.99	0.91
1:QA:975:A:N6	10:QJ:48:THR:OG1	2.02	0.91
10:QJ:50:ILE:HD11	14:QN:41:ARG:CD	2.01	0.91
1:XA:1309:G:H4'	13:XM:77:ASN:HD21	1.35	0.91
34:YA:2045:C:C2	34:YA:2624:G:C2	2.58	0.91
1:QA:1313:U:C6	19:QS:6:LYS:HE2	2.05	0.91
4:QD:196:LEU:O	6:XF:16:GLN:NE2	1.81	0.91
14:XN:56:VAL:HG13	14:XN:57:ARG:N	1.85	0.91
1:XA:675:A:N3	11:XK:118:GLY:CA	2.33	0.91
1:XA:1309:G:H5'	13:XM:77:ASN:ND2	1.86	0.91
11:XK:109:VAL:HG22	18:XR:86:VAL:HG23	1.52	0.91
1:QA:1150:U:O2'	10:QJ:39:PRO:HB2	1.70	0.91
1:XA:51:A:C4	1:XA:353:A:C6	2.59	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2056:G:C5	34:YA:2577:A:C5	2.58	0.91
1:QA:538:G:H5"	12:QL:115:LYS:HG2	1.53	0.90
1:QA:609:A:H5'	16:QP:9:PHE:CE1	2.06	0.90
1:QA:1100:C:C4	2:QB:96:ARG:NH2	2.39	0.90
1:XA:974:A:P	14:XN:31:ARG:CB	2.59	0.90
34:YA:2059:A:C2	34:YA:2503:A:C6	2.59	0.90
34:YA:2081:C:N3	34:YA:2239:G:N1	2.19	0.90
1:QA:1014:A:P	19:QS:32:LYS:HE2	2.11	0.90
34:YA:1456:G:H1	34:YA:2703:C:H42	0.98	0.90
34:YA:2093:G:H21	34:YA:2198:A:N6	1.68	0.90
1:QA:972:C:P	10:QJ:57:LYS:CG	2.58	0.90
1:QA:1235:U:O3'	21:QU:10:ARG:HD2	1.70	0.90
1:XA:528:C:N4	12:XL:49:ASN:OD1	2.05	0.90
4:QD:57:ARG:HH22	5:QE:107:ARG:CD	1.79	0.90
33:R9:23:VAL:HG11	34:RA:1032:A:H4'	1.51	0.90
1:XA:978:A:N7	14:XN:18:VAL:HG21	1.85	0.90
1:QA:1372:U:P	9:QI:68:GLY:HA2	2.11	0.90
25:R1:90:ILE:HA	25:R1:94:LEU:CD1	2.00	0.90
1:XA:1230:C:N4	13:XM:105:THR:HG22	1.87	0.90
34:YA:2046:G:N1	34:YA:2623:G:N1	2.20	0.90
34:YA:2043:C:N4	34:YA:2777:G:C2	2.25	0.90
1:QA:583:A:H4'	17:QQ:91:ARG:CG	2.01	0.90
1:XA:1305:G:N1	1:XA:1331:G:N7	2.19	0.90
1:XA:1318:A:N7	14:XN:16:PHE:CD1	2.40	0.90
34:YA:919:G:C2	34:YA:2268:A:C6	2.59	0.90
1:QA:1111:A:N1	3:QC:177:THR:HA	1.87	0.90
1:QA:1160:G:H5'	2:QB:132:LYS:CE	2.01	0.90
1:QA:1253:G:P	10:QJ:44:VAL:CG2	2.60	0.90
34:YA:2045:C:N3	34:YA:2624:G:C2	2.39	0.90
10:QJ:49:VAL:HG22	14:QN:41:ARG:HB2	1.52	0.89
1:XA:675:A:N3	11:XK:118:GLY:HA3	1.87	0.89
1:XA:1059:C:OP2	3:XC:2:GLY:C	2.10	0.89
1:XA:1318:A:C6	14:XN:16:PHE:CE2	2.60	0.89
1:QA:1320:C:N3	19:QS:36:ARG:O	2.05	0.89
33:R9:23:VAL:HG21	34:RA:1032:A:H1'	1.51	0.89
1:XA:708:C:OP1	11:XK:85:ARG:NH1	2.03	0.89
1:XA:1123:A:O3'	10:XJ:36:GLY:HA3	1.71	0.89
1:XA:1320:C:C5	19:XS:37:ARG:CB	2.55	0.89
1:XA:403:C:N4	55:XA:1688:MG:MG	1.30	0.89
6:XF:50:TYR:HE1	18:XR:77:GLY:C	1.73	0.89
1:QA:1188:A:H4'	14:QN:58:LYS:HZ1	1.27	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1357:A:H5'	10:QJ:45:ARG:HH22	1.31	0.89
7:QG:16:LEU:HD22	9:QI:42:ARG:HG3	1.45	0.89
1:QA:676:A:H4'	11:QK:115:PRO:HB3	1.53	0.89
1:QA:960:U:O4	19:QS:78:ARG:HB3	1.71	0.89
1:QA:1123:A:H4'	10:QJ:37:PRO:HD3	0.90	0.89
1:QA:1358:U:H5"	14:QN:35:ARG:N	1.86	0.89
1:QA:253:U:OP1	17:QQ:67:LYS:NZ	2.06	0.89
1:QA:979:C:N3	14:QN:19:ARG:CD	2.33	0.89
1:XA:1225:A:H1'	19:XS:78:ARG:NE	1.87	0.89
28:R4:34:GLU:OE1	39:RG:113:ARG:CZ	2.21	0.89
41:RI:83:ALA:O	41:RI:89:TYR:CZ	2.26	0.89
1:XA:1188:A:H1'	14:XN:60:SER:CA	2.01	0.89
25:R1:90:ILE:CG2	25:R1:94:LEU:HD11	2.03	0.89
27:R3:42:ALA:O	34:RA:851:U:O2'	1.90	0.89
1:QA:1100:C:H5	2:QB:96:ARG:NH2	1.67	0.89
1:XA:1112:C:C1'	3:XC:179:ARG:NH2	2.35	0.89
1:XA:1190:G:H5"	3:XC:176:HIS:CE1	1.76	0.89
43:YO:34:THR:HG22	43:YO:35:VAL:H	1.33	0.89
1:QA:982:U:H5"	14:QN:6:LEU:HG	1.55	0.88
1:XA:728:A:H62	15:XO:54:ARG:HD3	1.34	0.88
1:QA:668:G:C4'	15:QO:48:LYS:O	2.20	0.88
1:QA:1253:G:OP1	10:QJ:44:VAL:CG2	2.20	0.88
1:QA:1280:A:C4	10:QJ:41:PRO:HD3	2.08	0.88
1:QA:1359:C:OP1	14:QN:22:THR:HG22	1.73	0.88
1:QA:1360:A:C1'	14:QN:17:LYS:NZ	2.37	0.88
1:QA:1357:A:H5'	10:QJ:45:ARG:NH1	1.89	0.88
2:QB:197:VAL:O	8:QH:68:ARG:NH2	2.06	0.88
3:XC:21:ARG:HG3	10:XJ:92:THR:O	1.74	0.88
1:XA:1254:C:OP1	10:XJ:45:ARG:HD3	1.73	0.88
1:XA:1318:A:C1'	19:XS:11:VAL:HG21	2.04	0.88
10:XJ:47:PHE:HZ	14:XN:36:PHE:CD2	1.90	0.88
1:XA:1228:C:OP1	13:XM:108:ARG:CZ	2.22	0.88
1:QA:1309:G:H5"	13:QM:77:ASN:HD21	1.20	0.88
4:QD:88:VAL:HG13	5:QE:97:GLY:CA	2.03	0.88
1:XA:728:A:N7	15:XO:54:ARG:NH1	2.22	0.88
6:XF:94:GLN:CD	18:XR:32:ARG:HD3	1.95	0.88
34:YA:2085:C:C2	34:YA:2235:G:N2	2.42	0.88
1:QA:625:G:H4'	16:QP:16:HIS:HB2	1.55	0.87
10:QJ:50:ILE:CG1	14:QN:41:ARG:NE	2.31	0.87
11:XK:116:HIS:CE1	18:XR:82:THR:HB	2.08	0.87
1:QA:741:G:P	15:QO:39:LEU:HD12	2.13	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:956:U:C3'	19:QS:80:TYR:O	2.21	0.87
1:QA:980:C:H4'	14:QN:19:ARG:HH21	1.38	0.87
1:QA:986:A:H4'	19:QS:55:LYS:HG3	1.56	0.87
34:YA:2099:U:O4	34:YA:2190:G:O6	1.92	0.87
1:QA:975:A:C3'	14:QN:32:SER:HA	2.03	0.87
34:YA:2090:G:C6	34:YA:2230:G:C6	2.57	0.87
1:QA:948:C:C5'	13:QM:101:GLN:HG2	2.04	0.87
1:QA:1131:G:H1	1:QA:1143:G:H21	1.22	0.87
1:XA:1318:A:C2'	19:XS:11:VAL:CG2	2.28	0.87
1:QA:310:G:OP1	16:QP:27:LYS:HD3	1.74	0.87
1:QA:957:U:C1'	19:QS:79:THR:O	2.22	0.87
1:QA:980:C:N1	14:QN:19:ARG:CG	2.36	0.87
34:YA:2053:G:N2	34:YA:2617:C:C2	2.43	0.87
34:YA:2126:A:H61	34:YA:2163:C:H1'	1.37	0.87
1:QA:1307:U:P	13:QM:99:ARG:CG	2.63	0.87
1:QA:1309:G:H5'	13:QM:77:ASN:ND2	1.87	0.87
1:XA:539:A:OP1	12:XL:114:LYS:HD2	1.75	0.87
11:XK:91:ARG:NH2	18:XR:88:LYS:HD2	1.88	0.87
1:QA:958:A:OP1	19:QS:79:THR:CG2	2.18	0.87
1:QA:1374:A:O2'	7:QG:31:MET:SD	2.31	0.87
1:XA:1228:C:H3'	13:XM:104:ARG:O	1.74	0.87
34:YA:389:G:N1	44:YP:71:VAL:HG12	1.90	0.87
1:QA:1358:U:C5'	14:QN:35:ARG:N	2.37	0.86
3:QC:79:ARG:CZ	11:XK:104:GLN:HA	2.04	0.86
1:XA:881:G:OP2	12:XL:9:GLN:NE2	2.08	0.86
21:XU:3:LYS:CD	21:XU:14:TRP:CE3	2.57	0.86
1:QA:880:C:H5"	12:QL:12:ARG:HH21	1.35	0.86
7:XG:16:LEU:HD23	9:XI:44:VAL:CG2	2.05	0.86
1:QA:676:A:H1'	11:QK:118:GLY:HA3	1.55	0.86
10:QJ:49:VAL:HG23	14:QN:41:ARG:HB2	1.55	0.86
34:RA:1411:C:H42	34:RA:1591:G:H1	1.20	0.86
41:RI:83:ALA:C	41:RI:89:TYR:CE2	2.49	0.86
1:XA:1131:G:H1	1:XA:1143:G:H21	1.22	0.86
34:YA:2043:C:N4	34:YA:2777:G:C6	2.43	0.86
1:QA:1106:G:O3'	3:QC:172:ARG:HB3	1.75	0.86
3:QC:79:ARG:HE	11:XK:104:GLN:HG3	1.39	0.86
1:QA:44:G:P	16:QP:12:LYS:HD3	2.15	0.86
1:QA:974:A:O5'	14:QN:31:ARG:CB	2.24	0.86
15:QO:89:GLY:OXT	34:RA:716:A:OP1	1.92	0.86
34:YA:918:A:N6	34:YA:2268:A:H62	1.71	0.86
14:XN:56:VAL:CG1	14:XN:57:ARG:H	1.85	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:1493:C:C4	34:YA:2210:G:C8	2.64	0.86
1:QA:1150:U:O2	10:QJ:39:PRO:CG	2.23	0.86
1:QA:1220:G:H21	19:QS:54:GLY:CA	1.87	0.86
1:QA:1313:U:C3'	19:QS:6:LYS:HZ3	1.74	0.86
1:XA:1187:G:H2'	14:XN:61:TRP:O	1.75	0.86
12:QL:7:ILE:HD11	17:QQ:32:TYR:CD1	1.98	0.86
1:XA:1309:G:H4'	13:XM:77:ASN:ND2	1.87	0.86
1:XA:1312:G:C3'	19:XS:6:LYS:HZ3	1.72	0.86
1:XA:1360:A:C4	14:XN:17:LYS:HG3	2.11	0.85
28:R4:5:ILE:HB	39:RG:67:LYS:HD2	1.59	0.85
40:RH:103:LEU:HD11	40:RH:123:PHE:CE1	2.09	0.85
1:XA:1230:C:N4	13:XM:102:ARG:NH1	2.21	0.85
1:QA:1160:G:C5'	2:QB:132:LYS:CE	2.53	0.85
1:QA:1229:A:N1	13:QM:104:ARG:NH2	2.23	0.85
1:QA:1313:U:H3'	19:QS:6:LYS:HZ1	1.35	0.85
1:QA:1541:U:OP2	2:QB:23:ARG:NE	2.10	0.85
35:RB:75:G:HO2'	54:RZ:85:HIS:HE2	1.22	0.85
1:QA:954:G:N2	19:QS:83:HIS:HE1	1.72	0.85
1:QA:959:A:H61	19:QS:78:ARG:C	1.80	0.85
1:QA:1307:U:OP2	13:QM:99:ARG:HG3	1.76	0.85
10:QJ:45:ARG:CG	14:QN:36:PHE:CZ	2.55	0.85
1:QA:1230:C:N4	13:QM:104:ARG:HD3	1.90	0.85
1:XA:1374:A:O2'	7:XG:31:MET:CE	2.23	0.85
1:QA:625:G:H4'	16:QP:16:HIS:CB	2.06	0.85
4:QD:20:TYR:OH	6:XF:14:LEU:CA	2.25	0.85
4:QD:61:LYS:HE2	4:QD:206:PHE:CE2	2.11	0.85
34:YA:443:A:N7	38:YF:45:ARG:HD3	1.90	0.85
1:QA:617:G:O2'	16:QP:44:THR:HG21	1.77	0.85
1:QA:975:A:C2	14:QN:34:TYR:CD1	2.64	0.85
1:XA:309:G:O2'	1:XA:607:A:N1	2.10	0.85
34:YA:389:G:N2	44:YP:71:VAL:HG12	1.90	0.85
1:QA:1081:G:H5"	5:QE:18:ARG:HD2	1.59	0.85
1:QA:1179:A:H5'	9:QI:83:ARG:NH2	1.79	0.85
1:QA:1360:A:H1'	14:QN:17:LYS:HE3	0.85	0.85
1:XA:393:A:OP1	16:XP:13:HIS:NE2	2.08	0.85
1:XA:1228:C:C5	13:XM:104:ARG:HG2	2.12	0.84
34:YA:199:A:N6	34:YA:2434:A:C5	2.45	0.84
16:QP:37:GLY:HA3	16:QP:50:LYS:O	1.77	0.84
1:XA:1317:C:H5	14:XN:16:PHE:CD1	1.91	0.84
1:QA:656:C:H4'	15:QO:62:GLN:NE2	1.90	0.84
1:QA:979:C:H42	14:QN:19:ARG:HB2	1.42	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1235:U:O2'	21:QU:3:LYS:HG3	1.77	0.84
1:QA:1307:U:O5'	13:QM:99:ARG:HG3	1.77	0.84
4:XD:205:GLU:OE1	5:XE:107:ARG:NH1	2.09	0.84
32:Y8:12:LYS:NZ	34:YA:247:G:O6	2.10	0.84
1:QA:972:C:P	10:QJ:57:LYS:HG3	2.17	0.84
11:XK:91:ARG:HE	18:XR:88:LYS:CE	1.89	0.84
34:YA:2048:G:N2	34:YA:2621:A:N3	2.26	0.84
1:QA:1106:G:C2'	3:QC:172:ARG:HE	1.89	0.84
34:RA:2751:G:C2	40:RH:3:ARG:CB	2.59	0.84
1:XA:1377:A:OP2	7:XG:94:ARG:NH2	2.09	0.84
1:XA:1305:G:C6	1:XA:1331:G:C5	2.65	0.84
11:QK:13:GLN:HG3	34:RA:2141:G:H5"	1.60	0.84
1:XA:974:A:C1'	14:XN:31:ARG:NH1	2.41	0.84
1:XA:1230:C:N4	13:XM:105:THR:HG21	1.93	0.84
1:QA:1150:U:H1'	10:QJ:39:PRO:CG	2.02	0.84
5:QE:77:PRO:O	8:QH:105:ARG:HD3	1.77	0.84
40:RH:103:LEU:CD1	40:RH:123:PHE:CZ	2.61	0.84
1:XA:675:A:H2	11:XK:118:GLY:C	1.80	0.84
34:YA:2690:C:OP1	46:YR:17:ARG:NH2	2.09	0.84
4:QD:197:PRO:HD3	6:XF:16:GLN:HB2	0.84	0.84
34:RA:534:U:HO2'	49:RU:49:HIS:HD1	1.25	0.84
34:YA:2046:G:C2	34:YA:2623:G:N3	2.46	0.84
40:YH:9:ILE:HG21	40:YH:49:VAL:HB	1.56	0.84
1:QA:958:A:OP1	19:QS:79:THR:HG21	1.76	0.84
1:QA:1307:U:C5'	13:QM:99:ARG:HG3	2.08	0.84
3:QC:22:TRP:HA	10:QJ:93:GLY:CA	2.07	0.84
28:R4:31:ILE:HG21	39:RG:142:PRO:HB2	1.58	0.84
1:XA:186(A):C:O2'	20:XT:85:MET:SD	2.35	0.84
1:XA:1217:C:P	14:XN:5:ALA:HB1	2.18	0.84
34:YA:2082:A:H62	34:YA:2237:G:H21	0.86	0.84
1:QA:718:G:O5'	11:QK:117:ASN:OD1	1.96	0.83
34:YA:389:G:H1	44:YP:71:VAL:HG12	1.42	0.83
1:QA:974:A:OP2	14:QN:29:ARG:CD	2.25	0.83
1:XA:1376:U:C4	7:XG:10:ARG:NE	2.46	0.83
34:YA:1127:A:C2	34:YA:2518:A:C8	2.65	0.83
3:QC:23:TYR:CB	10:QJ:93:GLY:C	2.46	0.83
10:XJ:39:PRO:HA	10:XJ:70:ARG:HG2	1.57	0.83
34:YA:747:U:C5	34:YA:2613:U:C4	2.65	0.83
34:YA:1127:A:N1	34:YA:2518:A:C6	2.45	0.83
34:YA:1456:G:N2	34:YA:2703:C:N3	2.24	0.83
1:QA:1358:U:H5'	14:QN:35:ARG:H	1.41	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1318:A:N3	14:XN:16:PHE:CZ	2.46	0.83
21:XU:3:LYS:HD3	21:XU:14:TRP:CZ3	2.14	0.83
34:YA:2049:G:C2	34:YA:2620:C:C2	2.66	0.83
1:QA:675:A:C2	11:QK:118:GLY:HA2	2.12	0.83
1:XA:1377:A:N7	7:XG:10:ARG:HD2	1.92	0.83
1:QA:626:U:H4'	16:QP:38:TYR:CE2	2.12	0.83
1:QA:1123:A:O4'	10:QJ:37:PRO:HD2	1.78	0.83
1:XA:107:G:N7	20:XT:15:ARG:NH2	2.27	0.83
1:XA:618:C:H5'	1:XA:619:U:H5"	1.58	0.83
10:XJ:53:PRO:HB3	14:XN:42:ILE:HG12	1.58	0.83
34:YA:747:U:C5	34:YA:2613:U:O4	2.32	0.83
34:YA:2044:C:C4	34:YA:2625:G:C2	2.66	0.83
34:YA:2048:G:C6	34:YA:2621:A:N1	2.46	0.83
1:QA:948:C:P	13:QM:106:ASN:O	2.36	0.83
1:QA:1106:G:H1'	3:QC:172:ARG:HE	0.68	0.83
1:QA:1108:G:P	3:QC:174:PRO:HA	2.19	0.83
1:QA:1253:G:OP1	10:QJ:44:VAL:HG21	1.79	0.83
1:QA:520:A:O2'	12:QL:73:GLU:OE2	1.97	0.83
1:QA:669:U:C1'	15:QO:46:HIS:CE1	2.45	0.83
1:QA:1248:A:H62	21:QU:26:LYS:HD2	1.44	0.83
4:QD:205:GLU:CD	5:QE:100:VAL:HG13	1.99	0.83
11:QK:71:LYS:HZ3	34:RA:2146:C:H41	1.23	0.83
34:RA:1971:A:C8	36:RD:241:PRO:HB3	2.14	0.83
1:XA:1254:C:P	10:XJ:45:ARG:HD3	2.18	0.83
34:RA:956:G:OP2	45:RQ:14:ARG:NH2	2.11	0.82
34:RA:2312:U:O2	39:RG:40:ASN:ND2	2.12	0.82
34:YA:2094:G:P	41:YI:22:LYS:HD2	2.18	0.82
1:QA:309:G:H5"	16:QP:27:LYS:CE	2.09	0.82
1:QA:980:C:H4'	14:QN:19:ARG:NH2	1.94	0.82
1:QA:1243:C:H5"	21:QU:9:ARG:HG3	1.59	0.82
34:YA:2045:C:N3	34:YA:2624:G:N2	2.26	0.82
34:YA:2078:C:N4	34:YA:2238:G:O6	2.11	0.82
1:QA:1187:G:C2	14:QN:60:SER:OG	2.32	0.82
4:QD:204:ILE:HG21	5:QE:98:THR:C	2.00	0.82
12:QL:7:ILE:HD12	17:QQ:32:TYR:CD1	2.11	0.82
1:XA:974:A:N9	14:XN:31:ARG:HD3	1.92	0.82
1:XA:1377:A:P	7:XG:94:ARG:HH22	1.97	0.82
1:QA:44:G:OP2	16:QP:12:LYS:NZ	2.13	0.82
1:QA:986:A:H4'	19:QS:55:LYS:CG	2.10	0.82
34:RA:2094:G:OP1	41:RI:22:LYS:HE3	1.78	0.82
1:XA:1305:G:N1	1:XA:1331:G:C5	2.47	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:980:C:N1	14:QN:19:ARG:HG2	1.94	0.82
1:QA:1114:C:H1'	14:QN:60:SER:O	1.78	0.82
1:QA:1307:U:C5'	13:QM:99:ARG:CG	2.57	0.82
34:YA:2046:G:C4	34:YA:2623:G:C2	2.65	0.82
34:YA:2070:G:C2	34:YA:2442:C:N3	2.46	0.82
34:YA:2097:C:N3	34:YA:2192:G:O6	2.11	0.82
1:QA:980:C:C4'	14:QN:19:ARG:HE	1.93	0.82
1:XA:619:U:H5'	4:XD:131:ARG:HH21	1.44	0.82
4:QD:57:ARG:HH22	5:QE:107:ARG:HD3	1.01	0.82
1:QA:1049:U:H5	14:QN:3:ARG:CB	1.71	0.82
1:QA:1223:C:OP2	19:QS:78:ARG:NH2	2.12	0.82
1:QA:1313:U:C4	19:QS:4:SER:HB2	2.15	0.82
10:QJ:47:PHE:CE2	14:QN:37:PHE:HD2	1.98	0.82
1:QA:310:G:OP2	16:QP:27:LYS:HD3	1.78	0.82
1:QA:1221:G:C4'	19:QS:36:ARG:HH21	1.87	0.82
1:XA:986:A:H1'	19:XS:52:TYR:OH	1.80	0.81
1:QA:49:U:H3	1:QA:362:G:H1'	1.44	0.81
4:QD:204:ILE:HG21	5:QE:98:THR:O	1.80	0.81
11:QK:71:LYS:NZ	34:RA:2146:C:N4	2.28	0.81
34:RA:2751:G:C8	40:RH:2:SER:O	2.33	0.81
1:XA:1305:G:C2	1:XA:1331:G:C5	2.68	0.81
3:XC:23:TYR:HE2	10:XJ:95:GLU:HB2	1.45	0.81
34:YA:918:A:C5	34:YA:2268:A:N6	2.47	0.81
1:QA:9:G:H5"	5:QE:122:GLU:OE2	1.81	0.81
29:R5:9:LYS:NZ	34:RA:2019:A:N7	2.29	0.81
34:YA:2090:G:N2	34:YA:2230:G:C4	2.48	0.81
1:XA:1320:C:C6	19:XS:37:ARG:HA	2.16	0.81
1:QA:1243:C:C5'	21:QU:9:ARG:HG3	2.09	0.81
34:YA:389:G:C2	44:YP:71:VAL:HG12	2.15	0.81
3:QC:23:TYR:CE2	10:QJ:95:GLU:HB3	2.15	0.81
34:RA:1294:U:O2'	46:RR:23:ASN:OD1	1.98	0.81
34:YA:199:A:C6	34:YA:2434:A:N1	2.49	0.81
34:YA:919:G:C2	34:YA:2268:A:C5	2.69	0.81
1:XA:6:G:N2	5:XE:119:LEU:HD11	1.96	0.81
40:YH:9:ILE:CG2	40:YH:49:VAL:HB	2.11	0.81
1:QA:1188:A:C3'	14:QN:58:LYS:NZ	2.44	0.81
25:R1:90:ILE:HG22	25:R1:94:LEU:CD1	2.06	0.81
1:XA:1112:C:H1'	3:XC:179:ARG:HE	1.45	0.81
29:Y5:45:VAL:HG21	29:Y5:58:LEU:HD21	1.63	0.81
34:YA:1493:C:C5	34:YA:2210:G:C5	2.69	0.81
1:QA:676:A:C4'	11:QK:115:PRO:HB3	2.11	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1358:U:O3'	14:QN:22:THR:CG2	2.27	0.80
4:QD:204:ILE:HG22	5:QE:98:THR:O	1.81	0.80
1:QA:957:U:H5'	19:QS:81:ARG:HG3	1.60	0.80
1:QA:1188:A:O3'	14:QN:58:LYS:NZ	2.13	0.80
1:QA:1248:A:H62	21:QU:26:LYS:CD	1.94	0.80
4:QD:61:LYS:HE2	4:QD:206:PHE:HE2	1.45	0.80
40:RH:98:LEU:HD21	40:RH:125:VAL:HG11	0.81	0.80
15:XO:88:ARG:NH1	34:YA:713:G:OP2	2.13	0.80
34:YA:389:G:H22	44:YP:71:VAL:HG12	1.44	0.80
1:QA:277:C:OP1	17:QQ:68:ARG:NH2	2.15	0.80
1:QA:1106:G:C5'	3:QC:172:ARG:HG3	2.11	0.80
34:YA:814:C:H41	44:YP:25:SER:HA	1.46	0.80
1:QA:1160:G:C5'	2:QB:132:LYS:HE2	2.10	0.80
1:XA:1318:A:O2'	19:XS:11:VAL:CB	2.30	0.80
34:YA:2090:G:C2	34:YA:2230:G:N1	2.48	0.80
1:XA:1315:U:O3'	14:XN:17:LYS:CE	2.28	0.80
13:XM:84:ILE:HG22	19:XS:74:PHE:CE1	2.14	0.80
1:QA:1357:A:H5"	10:QJ:45:ARG:HH22	1.45	0.80
1:QA:1360:A:C8	14:QN:18:VAL:HA	2.16	0.80
34:YA:2044:C:N3	34:YA:2625:G:N2	2.30	0.80
34:YA:2048:G:C6	34:YA:2621:A:C2	2.69	0.80
40:RH:89:ILE:CD1	40:RH:131:VAL:HG22	2.12	0.80
41:RI:84:GLY:HA3	41:RI:89:TYR:OH	1.82	0.80
34:YA:2051:A:C2	34:YA:2614:A:N1	2.50	0.80
1:QA:1307:U:H5"	13:QM:99:ARG:CG	2.11	0.80
34:YA:1614:A:N6	51:YW:91:GLY:HA2	1.97	0.80
34:YA:2051:A:C2	34:YA:2614:A:C6	2.70	0.80
1:QA:656:C:H4'	15:QO:62:GLN:HE22	1.45	0.80
1:QA:981:U:C5'	14:QN:6:LEU:CD2	2.60	0.80
1:QA:1179:A:H5"	9:QI:83:ARG:HH22	1.06	0.80
4:QD:205:GLU:CD	5:QE:100:VAL:CG1	2.50	0.80
10:QJ:50:ILE:CD1	14:QN:41:ARG:NE	2.44	0.80
34:YA:2087:G:C6	34:YA:2233:U:C2	2.70	0.80
1:QA:1320:C:C4'	19:QS:70:LYS:HG3	2.13	0.79
13:QM:84:ILE:CG2	19:QS:69:HIS:CE1	2.65	0.79
6:XF:100:ASN:CG	18:XR:27:GLY:HA2	2.01	0.79
34:RA:2751:G:C5	40:RH:3:ARG:CB	2.56	0.79
1:XA:609:A:OP1	16:XP:18:ARG:NH2	2.16	0.79
1:XA:1320:C:H41	19:XS:37:ARG:HB3	0.94	0.79
1:QA:617:G:H4'	16:QP:44:THR:HB	1.64	0.79
1:QA:958:A:N9	19:QS:55:LYS:HD2	1.97	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1106:G:H4'	3:QC:172:ARG:CD	2.13	0.79
1:QA:1204:A:OP1	14:QN:3:ARG:NH2	2.13	0.79
1:QA:1321:C:N3	19:QS:36:ARG:NH1	2.30	0.79
1:XA:1188:A:O2'	14:XN:58:LYS:HE3	1.82	0.79
1:XA:1240:U:C2'	7:XG:38:LEU:HD11	2.12	0.79
6:XF:100:ASN:ND2	18:XR:27:GLY:O	2.15	0.79
34:YA:1782:C:N4	34:YA:2587:A:H2	1.80	0.79
1:QA:974:A:P	14:QN:29:ARG:CD	2.70	0.79
3:QC:23:TYR:HD2	10:QJ:95:GLU:HB2	1.43	0.79
13:XM:84:ILE:HD11	19:XS:65:ASN:OD1	1.83	0.79
1:QA:1280:A:C4	10:QJ:41:PRO:CD	2.65	0.79
4:QD:208:SER:HB2	5:QE:101:ILE:HD12	1.65	0.79
34:RA:1754:C:H5	48:RT:96:ARG:HH22	1.28	0.79
1:XA:339:C:OP2	43:YO:97:ARG:NH1	2.15	0.79
1:QA:986:A:N3	19:QS:52:TYR:OH	2.15	0.79
29:R5:9:LYS:NZ	34:RA:2019:A:C8	2.49	0.79
11:XK:91:ARG:CZ	18:XR:88:LYS:NZ	2.46	0.79
34:YA:2071:A:C2	34:YA:2441:C:N3	2.51	0.79
1:QA:981:U:H5'	14:QN:21:TYR:OH	1.80	0.79
1:QA:1221:G:C2'	19:QS:77:THR:HG21	2.10	0.79
1:QA:1223:C:P	19:QS:78:ARG:HH21	1.91	0.79
3:QC:22:TRP:HA	10:QJ:93:GLY:HA2	1.65	0.79
34:RA:508:G:O6	51:RW:9:TYR:CE1	2.35	0.79
1:XA:1318:A:O3'	19:XS:11:VAL:CB	2.31	0.79
1:QA:742:G:C5'	15:QO:58:MET:SD	2.71	0.79
1:QA:1355:G:H1	1:QA:1367:C:H5	1.29	0.79
2:QB:178:ARG:NE	8:QH:71:GLY:O	2.16	0.79
4:QD:18:LYS:NZ	56:QD:301:SF4:S4	2.55	0.79
34:RA:2751:G:N3	40:RH:3:ARG:CB	2.42	0.79
1:XA:1124:G:H4'	10:XJ:36:GLY:N	1.97	0.79
34:YA:2088:G:N1	34:YA:2232:U:O2	2.15	0.79
1:QA:875:C:O2'	8:QH:14:ARG:NH1	2.15	0.79
1:XA:1254:C:H5"	10:XJ:45:ARG:CZ	2.13	0.79
6:XF:100:ASN:HB2	18:XR:28:GLU:N	1.97	0.79
22:XV:19:G:N7	34:YA:2112:G:N7	2.31	0.79
29:Y5:9:LYS:NZ	34:YA:2019:A:OP2	2.15	0.79
1:QA:957:U:C3'	19:QS:79:THR:O	2.31	0.78
4:QD:57:ARG:CZ	5:QE:107:ARG:CD	2.55	0.78
10:QJ:49:VAL:HG23	14:QN:41:ARG:CB	2.14	0.78
1:XA:1313:U:C4	19:XS:4:SER:OG	2.36	0.78
1:XA:1320:C:N1	19:XS:70:LYS:HD3	1.99	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:XK:108:ILE:O	18:XR:87:ARG:N	2.15	0.78
34:YA:1818:U:O4	36:YD:154:LYS:NZ	2.14	0.78
1:QA:668:G:H4'	15:QO:48:LYS:HB3	1.63	0.78
1:QA:972:C:OP2	10:QJ:57:LYS:CG	2.30	0.78
1:QA:978:A:N6	14:QN:18:VAL:CG2	2.37	0.78
1:QA:1309:G:H5'	13:QM:77:ASN:CG	2.02	0.78
34:YA:199:A:C6	34:YA:2434:A:C6	2.71	0.78
13:QM:84:ILE:HG13	19:QS:74:PHE:HZ	1.49	0.78
1:XA:1377:A:P	7:XG:94:ARG:HH21	2.03	0.78
1:QA:624:C:C3'	16:QP:10:GLY:HA2	2.13	0.78
19:QS:61:TYR:CE1	34:RA:888:C:OP2	2.36	0.78
34:RA:2250:G:C4	45:RQ:82:ARG:HG3	2.17	0.78
1:XA:1237:C:O2'	1:XA:1300:G:N2	2.16	0.78
1:XA:1318:A:N1	14:XN:16:PHE:CZ	2.50	0.78
1:XA:1377:A:C6	7:XG:10:ARG:CD	2.65	0.78
13:XM:84:ILE:CG2	19:XS:74:PHE:CZ	2.66	0.78
34:YA:747:U:C4	34:YA:2613:U:N3	2.52	0.78
1:QA:1109:C:P	3:QC:176:HIS:CD2	2.77	0.78
34:RA:602:G:HO2'	34:RA:604:G:HO2'	1.28	0.78
34:RA:675:A:O2'	38:RF:67:GLN:NE2	2.16	0.78
40:RH:98:LEU:CG	40:RH:125:VAL:HG11	2.13	0.78
1:XA:520:A:O2'	12:XL:73:GLU:OE1	2.02	0.78
34:YA:1566:A:C6	36:YD:214:TRP:CH2	2.72	0.78
34:YA:2108:C:N4	34:YA:2182:G:N2	2.29	0.78
1:QA:1124:G:O5'	10:QJ:36:GLY:N	2.16	0.78
28:R4:5:ILE:O	39:RG:67:LYS:HG3	1.83	0.78
1:XA:728:A:N6	15:XO:54:ARG:CD	2.47	0.78
34:YA:1050:A:N7	34:YA:2751:G:C2	2.52	0.78
1:QA:1109:C:P	3:QC:176:HIS:HD2	2.07	0.78
1:XA:675:A:N3	11:XK:118:GLY:HA2	1.98	0.78
1:XA:1321:C:H5'	1:XA:1322:C:H5"	1.66	0.78
1:QA:957:U:H5'	19:QS:81:ARG:CG	2.14	0.78
40:RH:98:LEU:CD2	40:RH:125:VAL:CG1	2.41	0.78
1:XA:1229:A:H62	13:XM:104:ARG:HE	1.32	0.78
1:QA:1179:A:H5'	9:QI:83:ARG:HH12	1.49	0.78
1:QA:1236:A:H4'	21:QU:10:ARG:CZ	2.09	0.78
1:QA:1360:A:C4'	14:QN:17:LYS:HZ2	1.97	0.78
19:QS:61:TYR:CZ	34:RA:888:C:OP2	2.37	0.78
29:R5:3:LYS:HG2	34:RA:2611:U:C4	2.19	0.78
1:XA:728:A:C8	15:XO:54:ARG:CZ	2.67	0.78
1:XA:1112:C:H1'	3:XC:179:ARG:CZ	2.13	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:608:A:H1'	16:QP:32:TYR:HE1	1.48	0.78
10:QJ:50:ILE:HD13	14:QN:41:ARG:CZ	2.13	0.78
1:XA:8:A:C6	4:XD:209:ARG:HA	2.19	0.78
1:XA:740:U:OP2	15:XO:2:PRO:HB3	1.83	0.78
1:QA:979:C:H2'	14:QN:19:ARG:NH2	1.98	0.77
1:QA:1226:C:H5'	13:QM:91:ARG:NH1	1.98	0.77
19:QS:65:ASN:O	19:QS:66:MET:HE2	1.84	0.77
27:R3:25:ALA:HB2	34:RA:849:A:C2	2.19	0.77
28:R4:34:GLU:OE1	39:RG:113:ARG:NH1	2.17	0.77
1:XA:1253:G:C2	1:XA:1254:C:C5	2.72	0.77
3:XC:23:TYR:CD2	10:XJ:95:GLU:HB2	2.19	0.77
1:QA:9:G:OP2	5:QE:122:GLU:HG2	1.84	0.77
3:XC:60:ALA:HB1	10:XJ:91:PRO:CD	2.13	0.77
1:QA:958:A:C1'	19:QS:55:LYS:CD	2.61	0.77
11:XK:91:ARG:HG2	18:XR:88:LYS:HZ1	1.47	0.77
34:YA:1493:C:C5	34:YA:2210:G:N7	2.52	0.77
40:RH:87:LEU:O	40:RH:131:VAL:CG2	2.32	0.77
1:QA:44:G:OP1	16:QP:12:LYS:HD3	1.84	0.77
1:QA:752:G:H4'	15:QO:69:TYR:OH	1.84	0.77
1:QA:958:A:C8	19:QS:55:LYS:HD2	2.20	0.77
1:QA:1240:U:C2'	7:QG:38:LEU:HD11	2.14	0.77
3:QC:23:TYR:HB2	10:QJ:94:VAL:N	1.98	0.77
34:RA:99:U:O4	53:RY:8:LYS:NZ	2.16	0.77
1:XA:1152:A:H5"	10:XJ:13:HIS:CD2	2.19	0.77
34:YA:1566:A:H2	36:YD:214:TRP:CD1	2.02	0.77
1:QA:979:C:C4	14:QN:19:ARG:CD	2.67	0.77
1:QA:1236:A:O5'	21:QU:10:ARG:NH1	2.11	0.77
1:QA:1253:G:H5'	10:QJ:44:VAL:H	1.50	0.77
1:QA:1302:U:OP2	13:QM:27:LYS:HE2	1.85	0.77
28:R4:31:ILE:HG23	39:RG:142:PRO:O	1.85	0.77
34:RA:1534:G:H2'	34:RA:1535:U:H4'	1.66	0.77
1:QA:740:U:C4'	15:QO:39:LEU:HG	2.15	0.77
1:QA:1331:G:N1	21:QU:5:ASP:OD1	2.18	0.77
1:XA:957:U:H4'	19:XS:79:THR:OG1	1.85	0.77
34:YA:270(P):U:C4	41:YI:52:ARG:NH2	2.52	0.77
34:YA:919:G:N1	34:YA:2268:A:C5	2.53	0.77
12:QL:7:ILE:CD1	17:QQ:32:TYR:CG	2.59	0.77
13:QM:84:ILE:HG13	19:QS:74:PHE:CZ	2.19	0.77
1:XA:367:U:H5'	1:XA:394:G:H21	1.50	0.77
1:XA:1152:A:H5"	10:XJ:13:HIS:NE2	2.00	0.77
1:QA:1125:U:N3	10:QJ:73:ASP:OD1	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1305:G:H4'	1:QA:1332:A:H62	1.50	0.77
1:QA:1313:U:C6	19:QS:6:LYS:CE	2.68	0.77
34:RA:586:A:H5'	38:RF:89:VAL:HG21	1.67	0.77
34:RA:2294:C:OP2	47:RS:13:ARG:NH2	2.17	0.77
1:XA:1357:A:OP1	14:XN:35:ARG:NH1	2.08	0.77
1:XA:1377:A:C5	7:XG:10:ARG:HD2	2.20	0.77
29:Y5:43:HIS:CD2	34:YA:2884:U:C5	2.72	0.77
1:QA:978:A:H62	14:QN:18:VAL:HG21	0.72	0.77
1:QA:1378:C:OP2	7:QG:7:ALA:HB2	1.80	0.77
1:XA:1058:G:O5'	3:XC:2:GLY:N	2.18	0.77
1:QA:974:A:OP1	14:QN:29:ARG:CZ	2.34	0.76
1:QA:980:C:C1'	14:QN:19:ARG:NE	2.46	0.76
1:QA:1330:U:C4	21:QU:7:ARG:NH1	2.53	0.76
3:QC:79:ARG:NH2	11:XK:105:VAL:H	1.82	0.76
10:QJ:50:ILE:CG1	14:QN:41:ARG:HD2	2.04	0.76
34:RA:1789:A:OP1	36:RD:222:ARG:HG3	1.84	0.76
1:XA:1318:A:O3'	19:XS:11:VAL:HB	1.84	0.76
43:YO:34:THR:HG22	43:YO:35:VAL:N	1.99	0.76
34:RA:2483:C:O2	45:RQ:124:LYS:NZ	2.14	0.76
1:XA:1305:G:C4	1:XA:1331:G:C6	2.72	0.76
1:QA:1240:U:H3	7:QG:38:LEU:HB3	1.49	0.76
1:QA:1360:A:N6	14:QN:18:VAL:CG2	2.29	0.76
50:RV:45:THR:O	50:RV:45:THR:HG22	1.83	0.76
34:YA:442:G:H1'	38:YF:48:THR:HG21	1.67	0.76
34:YA:2095:C:O2	34:YA:2194:G:N2	2.15	0.76
1:QA:1236:A:O4'	21:QU:10:ARG:NH1	2.17	0.76
41:RI:92:VAL:O	41:RI:120:ILE:HB	1.85	0.76
1:XA:634:C:H2'	1:XA:635:G:H8	1.50	0.76
34:YA:2069:G:C2	34:YA:2443:C:C2	2.73	0.76
54:YZ:183:LEU:HD23	54:YZ:183:LEU:O	1.85	0.76
25:R1:90:ILE:HA	25:R1:94:LEU:HD12	1.67	0.76
1:QA:761:G:H5'	17:QQ:100:LYS:HZ3	1.49	0.76
1:QA:1240:U:N3	7:QG:38:LEU:CB	2.30	0.76
1:QA:1358:U:H4'	14:QN:33:VAL:O	1.86	0.76
1:XA:1503:A:O2'	23:XX:15:A:N6	2.19	0.76
11:XK:91:ARG:CG	18:XR:88:LYS:NZ	2.48	0.76
1:QA:1152:A:OP1	10:QJ:13:HIS:CD2	2.38	0.76
34:RA:2108:C:HO2'	34:RA:2142:C:HO2'	1.34	0.76
34:RA:2751:G:C2	40:RH:3:ARG:CG	2.66	0.76
1:XA:1240:U:C2'	7:XG:38:LEU:CD1	2.63	0.76
34:YA:2070:G:N2	34:YA:2442:C:O2	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:974:A:C4	14:QN:31:ARG:CZ	2.68	0.76
1:QA:1179:A:H5'	9:QI:83:ARG:NH1	2.01	0.76
1:QA:1320:C:O4'	19:QS:70:LYS:HG3	1.84	0.76
2:QB:178:ARG:O	8:QH:72:PRO:HD3	1.86	0.76
1:QA:624:C:O3'	16:QP:10:GLY:CA	2.30	0.76
29:R5:15:ARG:NH2	34:RA:2022:U:OP2	2.17	0.76
7:XG:16:LEU:HD23	9:XI:44:VAL:HG22	1.68	0.76
1:XA:1160:G:C1'	2:XB:132:LYS:HE3	2.15	0.75
1:XA:1230:C:N4	13:XM:105:THR:CB	2.33	0.75
13:XM:84:ILE:CG1	19:XS:65:ASN:O	2.32	0.75
4:QD:208:SER:CB	5:QE:101:ILE:HD12	2.16	0.75
1:XA:421:U:C4'	3:XC:192:THR:HG21	2.15	0.75
34:YA:2054:A:C2	34:YA:2616:C:N3	2.54	0.75
34:YA:2088:G:C2	34:YA:2232:U:O2	2.39	0.75
34:RA:1049:C:N3	40:RH:2:SER:HB3	2.01	0.75
1:QA:1203:C:H5'	14:QN:3:ARG:NH1	2.01	0.75
10:QJ:79:ARG:NH1	10:QJ:79:ARG:O	2.20	0.75
34:RA:2751:G:C4	40:RH:3:ARG:CG	2.68	0.75
1:XA:1318:A:N6	14:XN:16:PHE:CD2	2.48	0.75
1:XA:1320:C:C4	19:XS:37:ARG:N	2.55	0.75
1:QA:739:C:O2'	15:QO:42:HIS:CG	2.40	0.75
10:QJ:50:ILE:HD11	14:QN:41:ARG:CZ	2.12	0.75
41:RI:92:VAL:HB	41:RI:120:ILE:CG2	2.16	0.75
1:XA:728:A:N6	15:XO:54:ARG:HD3	2.00	0.75
3:XC:23:TYR:CD2	10:XJ:95:GLU:HG3	2.22	0.75
34:YA:2053:G:O6	34:YA:2614:A:C2	2.40	0.75
34:YA:2131:G:H4'	34:YA:2132:U:H4'	1.69	0.75
34:RA:2471:C:N4	34:RA:2476:A:O2'	2.20	0.75
1:XA:1360:A:H1'	14:XN:17:LYS:CD	2.16	0.75
33:Y9:27:CYS:SG	33:Y9:29:ASN:N	2.58	0.75
33:Y9:29:ASN:ND2	33:Y9:32:HIS:NE2	2.35	0.75
32:R8:35:GLN:NE2	32:R8:36:LYS:HE2	2.02	0.75
1:XA:1312:G:C2'	19:XS:6:LYS:HZ2	1.98	0.75
34:YA:919:G:C6	34:YA:2268:A:C2	2.69	0.75
34:YA:2087:G:O6	34:YA:2233:U:N3	2.20	0.75
1:QA:959:A:N6	19:QS:78:ARG:C	2.38	0.75
4:QD:205:GLU:OE1	5:QE:107:ARG:NH1	2.20	0.75
1:XA:501:C:H1'	1:XA:549:C:H1'	1.69	0.75
1:XA:974:A:OP2	14:XN:29:ARG:NE	2.20	0.75
1:QA:986:A:O2'	19:QS:55:LYS:C	2.25	0.74
1:QA:1188:A:H4'	14:QN:58:LYS:HZ2	1.52	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:831:G:O2'	44:YP:38:GLN:OE1	2.04	0.74
34:YA:918:A:N6	34:YA:2268:A:N6	2.33	0.74
1:QA:9:G:P	5:QE:122:GLU:HG2	2.26	0.74
34:YA:727:A:H2	36:YD:9:TYR:CD2	2.05	0.74
1:QA:981:U:H5'	14:QN:6:LEU:CD2	2.16	0.74
1:QA:1222:G:H5'	19:QS:77:THR:OG1	1.86	0.74
1:QA:1229:A:N1	13:QM:104:ARG:NE	2.34	0.74
1:QA:1357:A:H5'	10:QJ:45:ARG:HH12	1.51	0.74
1:QA:1360:A:N9	14:QN:17:LYS:HE3	2.01	0.74
31:Y7:37:LYS:NZ	34:YA:469:G:C6	2.55	0.74
34:YA:2584:U:H2'	34:YA:2585:U:H2'	1.70	0.74
1:QA:564:C:H5'	17:QQ:32:TYR:HE1	1.50	0.74
1:QA:608:A:H1'	16:QP:32:TYR:CE1	2.22	0.74
1:XA:1226:C:C3'	13:XM:103:THR:OG1	2.36	0.74
1:QA:1179:A:C5'	9:QI:83:ARG:CZ	2.64	0.74
34:RA:1566:A:C2	36:RD:214:TRP:CD2	2.75	0.74
1:XA:538:G:OP1	12:XL:115:LYS:HB2	1.86	0.74
1:XA:754:C:H6	15:XO:69:TYR:CE2	2.05	0.74
1:QA:1158:C:H4'	2:QB:133:LYS:HZ2	0.92	0.74
1:QA:954:G:N3	19:QS:83:HIS:HE1	1.84	0.74
1:QA:1229:A:H62	13:QM:104:ARG:CG	1.96	0.74
1:QA:1357:A:C5'	10:QJ:45:ARG:NH2	2.39	0.74
4:QD:88:VAL:HG13	5:QE:97:GLY:HA3	1.70	0.74
1:XA:8:A:C5	4:XD:209:ARG:HA	2.23	0.74
1:XA:1240:U:H1'	7:XG:38:LEU:HD11	0.74	0.74
1:XA:1377:A:N6	7:XG:10:ARG:HD2	2.03	0.74
34:YA:1338:G:N7	52:YX:62:LYS:NZ	2.35	0.74
1:QA:642:A:C8	8:QH:115:SER:HA	2.21	0.74
1:QA:922:G:H4'	5:QE:20:GLN:HA	1.70	0.74
10:QJ:45:ARG:HG2	14:QN:36:PHE:CE2	2.21	0.74
1:XA:1252:A:H2	1:XA:1355:G:H1'	1.53	0.74
1:XA:1318:A:C5	14:XN:16:PHE:HE1	1.95	0.74
34:YA:2056:G:C5	34:YA:2577:A:C6	2.76	0.74
1:QA:609:A:H5"	16:QP:9:PHE:CD1	2.23	0.74
11:XK:91:ARG:HG2	18:XR:88:LYS:NZ	2.03	0.74
1:XA:8:A:H62	4:XD:209:ARG:N	1.86	0.74
11:XK:110:ASP:N	18:XR:85:LEU:O	2.20	0.74
1:QA:959:A:N6	19:QS:78:ARG:CA	2.45	0.73
1:QA:980:C:N1	14:QN:19:ARG:HG3	1.99	0.73
1:QA:982:U:O5'	14:QN:6:LEU:CD2	2.30	0.73
1:QA:981:U:O3'	14:QN:23:ARG:NH2	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1376:U:C4	7:QG:10:ARG:NH2	2.34	0.73
11:XK:109:VAL:HG22	18:XR:86:VAL:CG2	2.18	0.73
1:QA:862:C:H1'	1:QA:874:G:H5"	1.68	0.73
4:QD:20:TYR:OH	6:XF:14:LEU:HA	1.87	0.73
1:XA:595:G:H1'	1:XA:596:C:H5	1.52	0.73
10:XJ:47:PHE:CZ	14:XN:36:PHE:CD2	2.75	0.73
34:YA:2046:G:C5	34:YA:2623:G:N1	2.55	0.73
1:QA:979:C:C4	14:QN:19:ARG:HB2	2.22	0.73
1:QA:1179:A:H5'	9:QI:83:ARG:CZ	2.18	0.73
28:R4:27:THR:HG21	39:RG:62:LEU:O	1.88	0.73
1:XA:1440(N):G:OP1	20:XT:35:THR:CG2	2.35	0.73
1:QA:982:U:C5'	14:QN:6:LEU:CG	2.62	0.73
1:QA:1219:U:O2'	19:QS:34:TRP:HE3	1.62	0.73
1:XA:1537:U:H3	23:XX:9:G:H1	1.37	0.73
7:XG:16:LEU:HD21	9:XI:44:VAL:HG23	1.69	0.73
34:YA:34:C:H41	34:YA:447:A:H61	1.37	0.73
34:YA:1061:U:H6	34:YA:1062:G:H5"	1.54	0.73
1:QA:609:A:C5'	16:QP:9:PHE:CE1	2.72	0.73
1:QA:642:A:H1'	8:QH:114:THR:O	1.88	0.73
1:QA:979:C:C2	14:QN:19:ARG:CD	2.70	0.73
11:XK:110:ASP:CB	18:XR:85:LEU:O	2.34	0.73
34:YA:919:G:O6	34:YA:2268:A:C2	2.41	0.73
34:YA:1456:G:N2	34:YA:2704:C:C2	2.55	0.73
1:QA:1106:G:C2'	3:QC:172:ARG:NE	2.48	0.73
3:XC:14:ILE:HD11	14:XN:57:ARG:NH2	2.02	0.73
13:XM:86:CYS:HB2	19:XS:73:GLU:OE1	1.89	0.73
1:QA:959:A:H62	19:QS:79:THR:H	1.17	0.73
1:QA:986:A:C4'	19:QS:55:LYS:HG3	2.18	0.73
1:QA:1106:G:H1'	3:QC:172:ARG:CZ	2.18	0.73
34:RA:1510:A:O2'	34:RA:1511:A:N7	2.22	0.73
34:RA:2751:G:C2	40:RH:3:ARG:HB2	2.24	0.73
32:Y8:8:LYS:NZ	34:YA:243:U:OP1	2.22	0.73
1:QA:959:A:H62	19:QS:79:THR:HG23	1.53	0.73
1:QA:1360:A:H1'	14:QN:17:LYS:HE2	1.65	0.73
34:RA:1049:C:N3	40:RH:2:SER:CB	2.52	0.73
1:XA:1217:C:H5"	14:XN:12:ARG:HH12	1.53	0.73
1:XA:1315:U:O3'	14:XN:17:LYS:NZ	2.21	0.73
34:YA:2053:G:O6	34:YA:2614:A:H2	1.71	0.73
1:QA:975:A:C2'	14:QN:32:SER:HA	2.19	0.72
1:QA:1106:G:C2'	3:QC:172:ARG:CD	2.67	0.72
34:YA:2046:G:C2	34:YA:2623:G:N1	2.57	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:XL:11:VAL:HG23	17:XQ:29:HIS:CD2	2.24	0.72
1:QA:948:C:C5'	13:QM:101:GLN:HG3	2.07	0.72
1:QA:958:A:C1'	19:QS:55:LYS:HD2	2.19	0.72
2:QB:172:ILE:O	2:QB:176:GLU:HB2	1.88	0.72
1:XA:1238:A:H2'	1:XA:1239:A:H8	1.55	0.72
1:XA:1305:G:O6	1:XA:1331:G:O6	2.05	0.72
10:XJ:40:LEU:HB3	10:XJ:41:PRO:HD3	1.71	0.72
27:R3:25:ALA:HB2	34:RA:849:A:H2	1.55	0.72
34:RA:2483:C:C2	45:RQ:124:LYS:NZ	2.57	0.72
1:XA:948:C:OP2	13:XM:106:ASN:CG	2.28	0.72
1:XA:1318:A:O2'	19:XS:11:VAL:HG11	1.90	0.72
1:QA:1049:U:H5	14:QN:3:ARG:HB3	0.92	0.72
1:QA:1307:U:O5'	13:QM:99:ARG:NH1	2.21	0.72
3:QC:79:ARG:NH2	11:XK:104:GLN:CA	2.48	0.72
13:XM:84:ILE:CD1	19:XS:65:ASN:OD1	2.37	0.72
1:QA:657:G:O2'	15:QO:28:GLN:HG3	1.86	0.72
1:QA:667:G:C4'	15:QO:51:HIS:CE1	2.72	0.72
10:QJ:49:VAL:CG2	14:QN:41:ARG:CB	2.66	0.72
12:QL:7:ILE:CD1	17:QQ:32:TYR:HD1	1.93	0.72
1:XA:1107:C:OP1	3:XC:172:ARG:NE	2.22	0.72
1:XA:1226:C:O2'	1:XA:1227:A:N7	2.23	0.72
34:YA:2048:G:N1	34:YA:2621:A:N1	2.38	0.72
4:QD:197:PRO:CG	6:XF:16:GLN:HB2	2.18	0.72
30:R6:23:THR:HG21	34:RA:2286:A:H61	1.55	0.72
1:XA:1187:G:N2	14:XN:60:SER:CB	2.52	0.72
1:XA:1375:A:H4'	7:XG:28:ASN:CG	2.09	0.72
34:YA:919:G:C4	34:YA:2268:A:N6	2.58	0.72
1:QA:959:A:C6	19:QS:77:THR:O	2.42	0.72
1:QA:1235:U:O3'	21:QU:10:ARG:CD	2.38	0.72
34:RA:11:G:H22	34:RA:2627:G:H5"	1.53	0.72
1:XA:1228:C:H41	13:XM:104:ARG:CG	2.02	0.72
1:XA:1320:C:H41	19:XS:37:ARG:CB	1.87	0.72
31:Y7:37:LYS:HE2	34:YA:458:G:C8	2.25	0.72
31:Y7:37:LYS:HE2	34:YA:458:G:N9	2.05	0.72
34:YA:2056:G:O6	34:YA:2577:A:N9	2.22	0.72
1:QA:761:G:C5'	17:QQ:100:LYS:NZ	2.52	0.72
1:QA:955:U:O2'	19:QS:83:HIS:CB	2.38	0.72
35:YB:48:A:OP2	47:YS:30:ARG:NH2	2.23	0.72
1:QA:974:A:OP2	14:QN:29:ARG:HG2	1.90	0.71
3:QC:23:TYR:HE2	10:QJ:95:GLU:OE1	1.73	0.71
1:XA:981:U:H5"	1:XA:982:U:H2'	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1329:A:N7	21:QU:7:ARG:NH2	2.39	0.71
34:RA:2751:G:C5	40:RH:2:SER:O	2.42	0.71
1:XA:1360:A:H8	14:XN:17:LYS:O	1.63	0.71
1:QA:405:U:H5"	1:QA:495:A:H2	1.56	0.71
1:QA:1240:U:C4	7:QG:38:LEU:HB3	2.24	0.71
36:RD:96:HIS:CE1	36:RD:102:LYS:HE2	2.24	0.71
1:XA:322:C:H4'	20:XT:23:ARG:HG2	1.72	0.71
1:XA:1228:C:C4	13:XM:104:ARG:CG	2.63	0.71
3:XC:14:ILE:HD11	14:XN:57:ARG:HH22	1.52	0.71
1:QA:1128:C:O2'	1:QA:1146:A:N6	2.23	0.71
1:XA:1228:C:C5	13:XM:104:ARG:CG	2.73	0.71
1:QA:617:G:H4'	16:QP:44:THR:CB	2.20	0.71
1:QA:983:A:H5'	14:QN:2:ALA:CB	2.10	0.71
1:QA:1188:A:C3'	14:QN:58:LYS:HZ1	2.02	0.71
28:R4:6:HIS:CE1	39:RG:66:GLN:OE1	2.43	0.71
1:XA:1229:A:H61	13:XM:104:ARG:NE	1.87	0.71
4:XD:89:THR:OG1	5:XE:97:GLY:O	2.03	0.71
1:QA:642:A:N9	8:QH:115:SER:HA	2.05	0.71
1:QA:1329:A:H62	21:QU:7:ARG:NH2	1.88	0.71
13:QM:86:CYS:CB	19:QS:69:HIS:CE1	2.72	0.71
1:XA:1228:C:H41	13:XM:104:ARG:HG2	1.51	0.71
34:YA:2080:G:N2	34:YA:2241:A:N3	2.39	0.71
34:YA:2717:G:O2'	48:YT:96:ARG:NH2	2.23	0.71
1:QA:583:A:H4'	17:QQ:91:ARG:HG2	1.72	0.71
1:QA:624:C:H4'	16:QP:10:GLY:C	2.11	0.71
1:QA:980:C:C1'	14:QN:19:ARG:CD	2.61	0.71
1:XA:1375:A:H4'	7:XG:28:ASN:OD1	1.90	0.71
34:YA:911:A:C2	45:YQ:9:TYR:CG	2.79	0.71
34:YA:2054:A:H2	34:YA:2616:C:C2	2.07	0.71
34:YA:2056:G:C6	34:YA:2577:A:C5	2.79	0.71
1:QA:642:A:H1'	8:QH:114:THR:C	2.11	0.71
1:QA:948:C:OP1	13:QM:101:GLN:HB3	1.88	0.71
1:QA:975:A:O2'	14:QN:32:SER:HA	1.91	0.71
1:QA:1280:A:N3	10:QJ:41:PRO:HD3	2.06	0.71
45:RQ:65:PHE:HB2	45:RQ:105:GLU:HB2	1.72	0.71
1:XA:974:A:C1'	14:XN:31:ARG:HD3	2.19	0.71
1:XA:1229:A:H62	13:XM:104:ARG:NE	1.88	0.71
6:XF:97:PHE:O	18:XR:30:ASP:HA	1.91	0.71
34:YA:2620:C:O2'	37:YE:157:ALA:O	2.08	0.71
1:QA:978:A:H61	1:QA:1316:G:H1'	1.54	0.71
1:QA:1313:U:C5	19:QS:4:SER:HB2	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:QI:16:ARG:HB3	9:QI:64:THR:HG23	1.73	0.71
1:XA:1111:A:H2'	3:XC:179:ARG:NH2	2.06	0.71
3:XC:22:TRP:HA	10:XJ:93:GLY:HA2	1.71	0.71
1:QA:186(K):G:N1	1:QA:264:U:H5"	2.05	0.70
1:QA:980:C:C1'	14:QN:19:ARG:HE	2.04	0.70
34:RA:614:U:O4	38:RF:175:THR:OG1	2.08	0.70
1:XA:1535:C:H41	23:XX:10:G:N2	1.88	0.70
34:YA:2043:C:C4	34:YA:2777:G:N3	2.39	0.70
1:QA:761:G:H5'	17:QQ:100:LYS:HZ1	1.55	0.70
1:QA:974:A:P	14:QN:29:ARG:HE	2.07	0.70
1:QA:1307:U:OP2	13:QM:99:ARG:CG	2.38	0.70
1:QA:1320:C:N4	19:QS:37:ARG:HA	2.04	0.70
1:XA:974:A:H1'	14:XN:31:ARG:NH1	2.04	0.70
1:XA:974:A:N3	14:XN:31:ARG:NH1	2.39	0.70
1:XA:1377:A:C6	7:XG:10:ARG:HG3	2.25	0.70
3:XC:23:TYR:HD2	10:XJ:95:GLU:HG3	1.56	0.70
1:QA:583:A:H4'	17:QQ:91:ARG:HD3	1.73	0.70
1:QA:666:G:H21	15:QO:51:HIS:HB2	1.56	0.70
34:RA:839:U:H1'	34:RA:1191:G:H1'	1.73	0.70
1:XA:403:C:H42	55:XA:1688:MG:MG	0.96	0.70
1:XA:974:A:N9	14:XN:31:ARG:NH1	2.39	0.70
1:XA:1059:C:OP2	3:XC:2:GLY:N	2.24	0.70
34:YA:2087:G:C6	34:YA:2233:U:N3	2.59	0.70
1:QA:956:U:C4'	19:QS:83:HIS:HA	2.20	0.70
1:QA:974:A:C4'	14:QN:31:ARG:HB3	2.22	0.70
10:QJ:47:PHE:HE2	14:QN:34:TYR:HB3	1.55	0.70
12:QL:7:ILE:HD13	17:QQ:32:TYR:CD1	2.22	0.70
34:YA:508:G:O6	51:YW:9:TYR:CD1	2.45	0.70
1:QA:186(K):G:N7	17:QQ:63:ARG:CZ	2.54	0.70
41:RI:83:ALA:O	41:RI:89:TYR:CE1	2.45	0.70
2:XB:120:ALA:O	2:XB:124:SER:HB2	1.92	0.70
10:XJ:37:PRO:HB3	10:XJ:72:VAL:CG2	2.21	0.70
1:QA:1253:G:H4'	10:QJ:44:VAL:O	1.89	0.70
1:QA:1290:G:O6	21:QU:26:LYS:HE3	1.91	0.70
34:RA:998:C:OP2	49:RU:58:ARG:NH1	2.25	0.70
4:XD:57:ARG:HB3	4:XD:206:PHE:HB2	1.72	0.70
31:Y7:33:ARG:NH1	34:YA:467:G:OP1	2.24	0.70
1:QA:813:U:H2'	1:QA:814:A:H8	1.57	0.70
1:QA:1080:A:OP1	5:QE:14:ARG:NH2	2.24	0.70
1:QA:1106:G:C4'	3:QC:172:ARG:CD	2.68	0.70
1:QA:1106:G:C1'	3:QC:172:ARG:CZ	2.67	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2056:G:C8	34:YA:2577:A:N6	2.60	0.70
34:YA:2440:C:H5"	34:YA:2587:A:H4'	1.73	0.70
34:YA:2623:G:HO2'	34:YA:2825:C:HO2'	1.39	0.70
3:QC:22:TRP:CA	10:QJ:93:GLY:HA2	2.22	0.70
1:XA:910:C:OP2	12:XL:21:LYS:NZ	2.20	0.70
1:XA:1111:A:H2'	3:XC:179:ARG:HH22	1.56	0.70
10:XJ:24:VAL:HG21	10:XJ:37:PRO:HG3	1.74	0.70
30:Y6:6:ARG:NH1	34:YA:2285:C:OP2	2.24	0.70
1:QA:186(K):G:H1	1:QA:264:U:H5"	1.56	0.70
1:QA:949:A:OP1	13:QM:101:GLN:CA	2.37	0.70
1:QA:975:A:H2	14:QN:34:TYR:CD1	2.08	0.70
1:QA:1186:G:N2	14:QN:61:TRP:C	2.35	0.70
1:QA:1309:G:H5"	13:QM:77:ASN:HD22	1.51	0.70
1:XA:1330:U:H5"	13:XM:24:GLY:C	2.11	0.70
2:QB:178:ARG:HB3	8:QH:71:GLY:C	2.13	0.70
34:RA:1140:C:O3'	42:RN:25:ARG:NH2	2.24	0.70
6:XF:91:VAL:CG2	18:XR:34:TYR:OH	2.40	0.70
34:YA:685:A:H5"	34:YA:788:A:H62	1.56	0.70
34:YA:2045:C:N3	34:YA:2624:G:N1	2.39	0.70
1:QA:1106:G:O4'	3:QC:172:ARG:CZ	2.40	0.69
1:QA:1307:U:H5"	13:QM:99:ARG:HG2	1.74	0.69
1:QA:1360:A:N6	14:QN:18:VAL:HG21	2.07	0.69
34:RA:685:A:H5"	34:RA:788:A:H62	1.56	0.69
1:XA:1059:C:O2'	10:XJ:53:PRO:HD3	1.91	0.69
3:XC:23:TYR:CD2	10:XJ:95:GLU:CB	2.75	0.69
3:XC:23:TYR:N	10:XJ:93:GLY:HA2	2.06	0.69
34:YA:2046:G:N2	34:YA:2623:G:C4	2.60	0.69
1:QA:583:A:H4'	17:QQ:91:ARG:CD	2.22	0.69
1:QA:1320:C:N3	19:QS:37:ARG:CA	2.48	0.69
35:RB:37:C:O2	47:RS:95:HIS:NE2	2.25	0.69
1:QA:1320:C:H42	19:QS:37:ARG:HG2	0.62	0.69
1:QA:1376:U:C5	7:QG:10:ARG:NH1	2.61	0.69
2:QB:54:THR:HG22	2:QB:199:TYR:HB3	1.74	0.69
4:QD:57:ARG:NH2	5:QE:107:ARG:HH11	1.91	0.69
4:QD:195:ALA:O	6:XF:17:SER:HA	1.93	0.69
1:XA:991:U:H3'	1:XA:1212:U:H3	1.58	0.69
1:XA:1059:C:C5	3:XC:2:GLY:CA	2.75	0.69
1:XA:1318:A:C8	14:XN:16:PHE:CE1	2.79	0.69
34:YA:2080:G:N2	34:YA:2241:A:C4	2.61	0.69
1:QA:107:G:H3'	1:QA:108:G:H21	1.57	0.69
1:QA:186(B):C:O2'	20:QT:89:ARG:HG3	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1318:A:H61	14:XN:16:PHE:HB3	1.57	0.69
1:QA:664:G:H22	1:QA:741:G:H1	1.38	0.69
1:QA:1152:A:H1'	10:QJ:17:ASP:OD2	1.92	0.69
27:R3:42:ALA:HB1	34:RA:851:U:O2	1.92	0.69
1:XA:8:A:N1	4:XD:209:ARG:NH1	2.40	0.69
3:XC:22:TRP:CA	10:XJ:93:GLY:HA2	2.23	0.69
4:XD:12:CYS:SG	4:XD:19:LEU:HB2	2.33	0.69
1:QA:936:C:O2'	1:QA:1382:C:N4	2.25	0.69
1:QA:1106:G:O2'	3:QC:172:ARG:NE	2.26	0.69
32:R8:8:LYS:NZ	34:RA:243:U:OP1	2.26	0.69
40:RH:103:LEU:CD1	40:RH:123:PHE:CE1	2.75	0.69
34:YA:1566:A:C2	36:YD:214:TRP:CD1	2.78	0.69
1:QA:413:G:H21	1:QA:428:G:H1'	1.57	0.69
1:QA:1014:A:OP1	19:QS:32:LYS:HE2	1.92	0.69
1:QA:1229:A:N1	13:QM:104:ARG:CZ	2.55	0.69
12:QL:104:VAL:O	12:QL:105:TYR:HD2	1.68	0.69
24:R0:74:ARG:NH2	34:RA:2334:G:O6	2.26	0.69
1:QA:838(B):U:H4'	1:QA:838(C):C:C5	2.28	0.69
1:QA:956:U:O2'	19:QS:80:TYR:CD1	2.46	0.69
1:QA:1160:G:C4'	2:QB:132:LYS:HE2	2.22	0.69
1:QA:1313:U:C6	19:QS:6:LYS:NZ	2.60	0.69
1:QA:1329:A:N6	21:QU:7:ARG:NH2	2.41	0.69
4:QD:61:LYS:CE	4:QD:206:PHE:CE2	2.75	0.69
10:QJ:50:ILE:HG13	14:QN:41:ARG:CD	1.97	0.69
13:QM:86:CYS:HB2	19:QS:69:HIS:ND1	2.07	0.69
1:XA:51:A:C6	1:XA:353:A:C2	2.81	0.69
1:XA:1152:A:C5'	10:XJ:13:HIS:CD2	2.76	0.69
34:YA:747:U:O4	34:YA:2613:U:C2	2.46	0.69
1:QA:186(K):G:N7	17:QQ:63:ARG:NH1	2.41	0.69
1:QA:972:C:O5'	10:QJ:57:LYS:HB2	1.92	0.69
1:QA:1229:A:P	13:QM:108:ARG:HH22	2.10	0.69
34:RA:2453:A:H2'	34:RA:2454:G:H8	1.57	0.69
34:YA:2098:U:H1'	34:YA:2192:G:N2	2.08	0.69
36:YD:35:LYS:HB2	36:YD:63:ARG:HA	1.76	0.69
1:QA:1236:A:C5'	21:QU:10:ARG:HH11	2.03	0.68
4:QD:196:LEU:HA	6:XF:16:GLN:HB3	1.73	0.68
10:QJ:47:PHE:CE2	14:QN:37:PHE:CD2	2.82	0.68
36:RD:8:PRO:HB3	36:RD:14:ARG:HB3	1.75	0.68
1:XA:1228:C:C6	13:XM:104:ARG:CA	2.71	0.68
34:RA:859:G:H21	34:RA:2268:A:H2	1.41	0.68
3:XC:43:LEU:O	3:XC:47:LEU:HB2	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:XF:99:ALA:O	18:XR:28:GLU:HG2	1.93	0.68
34:YA:1456:G:N2	34:YA:2704:C:N3	2.41	0.68
3:QC:23:TYR:CE1	10:QJ:10:GLY:HA2	2.28	0.68
1:XA:815:A:H1'	1:XA:1527:C:H1'	1.74	0.68
1:XA:1302:U:H4'	13:XM:27:LYS:HB2	1.75	0.68
34:YA:506:G:H5"	34:YA:509:C:H1'	1.76	0.68
53:RY:99:CYS:HB2	53:RY:103:GLY:H	1.58	0.68
1:XA:664:G:H22	1:XA:741:G:H1	1.38	0.68
1:XA:1318:A:H61	14:XN:16:PHE:CB	2.00	0.68
34:YA:2046:G:N2	34:YA:2623:G:N3	2.41	0.68
42:RN:16:ILE:HB	42:RN:54:VAL:HG12	1.75	0.68
1:QA:186(B):C:N1	20:QT:85:MET:HE2	2.09	0.68
1:QA:754:C:OP1	15:QO:72:ARG:NH2	2.23	0.68
1:QA:959:A:N6	19:QS:79:THR:HG23	2.07	0.68
10:QJ:47:PHE:CE1	14:QN:37:PHE:HE2	2.12	0.68
1:XA:421:U:C4'	3:XC:192:THR:CG2	2.72	0.68
13:XM:84:ILE:O	19:XS:74:PHE:HE1	1.77	0.68
34:YA:1252:G:H21	49:YU:33:ARG:HH11	1.40	0.68
1:QA:950:U:H3	1:QA:1231:G:H1	1.40	0.68
1:QA:956:U:O4'	19:QS:83:HIS:HA	1.92	0.68
4:QD:57:ARG:HH21	5:QE:107:ARG:HH11	1.40	0.68
6:XF:94:GLN:OE1	18:XR:32:ARG:HD2	1.90	0.68
1:QA:1359:C:C5	14:QN:35:ARG:NE	2.61	0.68
45:RQ:38:GLU:HG2	45:RQ:127:ILE:HG23	1.74	0.68
1:QA:975:A:H3'	14:QN:32:SER:HA	1.76	0.68
1:QA:976:G:P	14:QN:32:SER:H	2.17	0.68
1:QA:1359:C:P	14:QN:22:THR:CG2	2.82	0.68
10:QJ:47:PHE:CZ	14:QN:36:PHE:HB2	2.24	0.68
34:YA:1204:A:H2	34:YA:1241:A:H61	1.42	0.68
1:QA:958:A:H1'	19:QS:55:LYS:CD	2.10	0.68
7:QG:16:LEU:HD23	9:QI:42:ARG:HG2	1.66	0.68
34:YA:2097:C:O2	34:YA:2192:G:N1	2.24	0.68
34:YA:2229:C:H2'	34:YA:2230:G:H8	1.58	0.68
1:QA:947:G:OP1	13:QM:108:ARG:HB2	1.94	0.67
1:QA:1359:C:C5	14:QN:35:ARG:CZ	2.77	0.67
38:RF:154:VAL:HG12	38:RF:191:ARG:HB2	1.77	0.67
1:XA:62:U:H1'	1:XA:379:C:H1'	1.76	0.67
1:XA:254:G:H5'	17:XQ:66:SER:OG	1.94	0.67
1:XA:539:A:P	12:XL:114:LYS:HD2	2.34	0.67
1:XA:1316:G:O4'	14:XN:17:LYS:NZ	2.20	0.67
1:XA:1358:U:O3'	14:XN:22:THR:OG1	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:860:U:H2'	34:YA:861:A:H8	1.58	0.67
1:XA:1128:C:O2'	1:XA:1146:A:N6	2.27	0.67
1:QA:1373:G:P	9:QI:11:LYS:HZ1	2.18	0.67
32:R8:31:HIS:CE1	34:RA:2421:G:N7	2.63	0.67
1:XA:754:C:H6	15:XO:69:TYR:CZ	2.12	0.67
1:XA:979:C:N4	14:XN:18:VAL:HG23	2.08	0.67
34:YA:270(P):U:O4	41:YI:52:ARG:CZ	2.42	0.67
34:YA:1566:A:N3	36:YD:214:TRP:CD2	2.60	0.67
1:QA:675:A:O2'	11:QK:116:HIS:N	2.27	0.67
1:QA:1253:G:OP2	10:QJ:44:VAL:HG23	1.94	0.67
10:QJ:47:PHE:CE2	14:QN:34:TYR:HB3	2.29	0.67
12:QL:7:ILE:HD13	17:QQ:32:TYR:HD1	1.59	0.67
1:XA:107:G:H3'	1:XA:108:G:H21	1.59	0.67
1:XA:1318:A:C8	14:XN:16:PHE:HE1	2.11	0.67
31:Y7:37:LYS:HE2	34:YA:458:G:C4	2.28	0.67
1:QA:1203:C:OP2	14:QN:3:ARG:CD	2.42	0.67
1:QA:1253:G:OP1	10:QJ:44:VAL:CG1	2.42	0.67
4:QD:3:ARG:HH22	4:QD:100:ARG:HH22	1.42	0.67
34:RA:1614:A:N6	51:RW:91:GLY:HA2	2.09	0.67
34:RA:1700:A:H3'	34:RA:1701:A:H8	1.60	0.67
6:XF:89:MET:CE	18:XR:76:LEU:HD13	2.25	0.67
10:XJ:50:ILE:HD11	14:XN:41:ARG:CZ	2.24	0.67
21:XU:3:LYS:HG2	21:XU:14:TRP:HB2	1.76	0.67
42:YN:131:GLN:OE1	42:YN:134:ARG:NH2	2.27	0.67
34:RA:1649:G:O2'	46:RR:107:ASP:OD1	2.04	0.67
34:RA:2429:G:N7	44:RP:56:SER:OG	2.27	0.67
1:XA:974:A:H5'	14:XN:31:ARG:HB3	1.73	0.67
1:XA:1059:C:C5	3:XC:2:GLY:HA3	2.30	0.67
1:XA:1255:G:H1	1:XA:1282:C:H42	1.43	0.67
1:QA:186(K):G:C8	17:QQ:63:ARG:NH2	2.57	0.67
1:QA:1314:C:H5	19:QS:6:LYS:HE3	1.58	0.67
2:QB:178:ARG:O	8:QH:71:GLY:HA2	1.95	0.67
3:QC:23:TYR:CA	10:QJ:93:GLY:O	2.43	0.67
5:QE:139:LEU:HA	5:QE:142:LEU:HD12	1.77	0.67
10:QJ:47:PHE:CZ	14:QN:37:PHE:CD2	2.82	0.67
41:RI:92:VAL:HB	41:RI:120:ILE:HG21	1.74	0.67
54:RZ:52:SER:O	54:RZ:54:HIS:N	2.28	0.67
1:XA:373:A:O2'	1:XA:451:A:N6	2.26	0.67
1:XA:936:C:H2'	1:XA:937:A:H8	1.59	0.67
1:XA:1319:A:OP2	19:XS:3:ARG:CZ	2.42	0.67
6:XF:99:ALA:H	18:XR:29:PHE:H	1.41	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:YQ:16:ARG:HH21	45:YQ:18:LYS:HD3	1.59	0.67
1:QA:1014:A:C8	19:QS:34:TRP:NE1	2.62	0.67
1:QA:1376:U:H2'	1:QA:1377:A:H8	1.59	0.67
34:YA:1493:C:C4	34:YA:2210:G:N9	2.63	0.67
34:YA:2107:C:O5'	34:YA:2107:C:H6	1.78	0.67
34:YA:2315:G:OP1	39:YG:36:LYS:NZ	2.25	0.67
1:QA:974:A:OP1	14:QN:29:ARG:HD2	1.95	0.67
1:QA:1230:C:H42	13:QM:104:ARG:HD3	1.55	0.67
1:QA:1541:U:OP2	2:QB:23:ARG:NH2	2.28	0.67
40:RH:101:ARG:HH12	40:RH:123:PHE:H	1.43	0.67
1:XA:1360:A:H1'	14:XN:17:LYS:CG	2.25	0.67
34:YA:1248:G:C2	49:YU:3:ARG:HD2	2.30	0.67
1:XA:421:U:O4'	3:XC:192:THR:CG2	2.30	0.67
1:XA:974:A:OP1	14:XN:31:ARG:HD2	1.95	0.67
1:XA:1160:G:O4'	2:XB:132:LYS:CE	2.41	0.67
7:XG:16:LEU:HD22	9:XI:45:ALA:HB2	1.75	0.67
1:QA:1106:G:C4'	3:QC:172:ARG:NE	2.57	0.66
1:QA:1158:C:C4'	2:QB:133:LYS:HZ1	1.98	0.66
1:QA:1373:G:P	9:QI:11:LYS:NZ	2.68	0.66
4:QD:31:CYS:SG	4:QD:33:MET:HB2	2.35	0.66
14:QN:24:CYS:SG	14:QN:40:CYS:CA	2.81	0.66
1:XA:1320:C:H1'	19:XS:70:LYS:HD3	1.60	0.66
6:XF:94:GLN:CD	18:XR:32:ARG:HH11	1.99	0.66
28:Y4:7:PRO:HG3	39:YG:62:LEU:HA	1.77	0.66
34:YA:94:G:O6	55:YA:3185:MG:MG	1.37	0.66
53:YY:79:CYS:SG	57:YY:201:ZN:ZN	1.84	0.66
1:QA:1160:G:C4'	2:QB:132:LYS:CE	2.72	0.66
1:QA:1484:C:HO2'	34:RA:1960:A:HO2'	1.42	0.66
25:R1:78:LYS:HZ3	34:RA:270(T):G:H1'	1.60	0.66
32:R8:39:LYS:NZ	34:RA:2365:G:O6	2.20	0.66
10:XJ:50:ILE:HD11	14:XN:41:ARG:NH1	2.10	0.66
34:YA:410:G:N2	34:YA:2407:G:C5	2.63	0.66
1:QA:625:G:O2'	16:QP:16:HIS:ND1	2.27	0.66
1:QA:981:U:H5"	14:QN:6:LEU:HD21	1.77	0.66
1:QA:1373:G:O5'	9:QI:11:LYS:NZ	2.28	0.66
34:RA:955:C:OP2	45:RQ:14:ARG:NH1	2.27	0.66
54:RZ:112:ARG:HG3	54:RZ:114:GLY:H	1.59	0.66
1:XA:728:A:N6	15:XO:54:ARG:HD2	2.10	0.66
1:QA:59:A:H5"	1:QA:387:U:H5"	1.78	0.66
1:QA:959:A:N1	19:QS:77:THR:O	2.29	0.66
34:RA:515:A:H1'	34:RA:581:C:H1'	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:186(B):C:C2	20:XT:105:SER:HB2	2.30	0.66
1:XA:664:G:N2	1:XA:726:C:O2'	2.25	0.66
24:Y0:33:ALA:O	34:YA:2353:G:O2'	2.12	0.66
1:QA:1360:A:C4'	14:QN:17:LYS:NZ	2.56	0.66
34:RA:379:G:H1	34:RA:395:U:H3	1.44	0.66
34:RA:2440:C:H5"	34:RA:2587:A:H4'	1.77	0.66
35:RB:116:G:H4'	47:RS:54:LEU:HD22	1.76	0.66
1:XA:1059:C:H5	3:XC:2:GLY:CA	2.08	0.66
10:XJ:37:PRO:HG2	10:XJ:37:PRO:O	1.96	0.66
34:YA:1044:G:O2'	34:YA:1047:G:O2'	2.13	0.66
1:XA:1253:G:C6	1:XA:1254:C:N4	2.64	0.66
3:XC:60:ALA:HB1	10:XJ:91:PRO:HG2	1.78	0.66
1:QA:310:G:P	16:QP:27:LYS:CD	2.67	0.66
1:QA:972:C:OP2	10:QJ:57:LYS:CD	2.44	0.66
1:QA:980:C:C6	14:QN:19:ARG:CG	2.68	0.66
1:XA:702:A:C6	34:YA:1848:A:C2	2.83	0.66
1:XA:749:C:H2'	1:XA:750:G:H8	1.59	0.66
1:XA:1301:U:O3'	13:XM:17:VAL:HG23	1.96	0.66
2:XB:185:ILE:HG22	2:XB:199:TYR:HB2	1.78	0.66
9:XI:18:PHE:HB3	9:XI:20:ARG:HH12	1.60	0.66
10:XJ:16:LEU:HB3	10:XJ:70:ARG:HH12	1.60	0.66
32:Y8:42:ARG:NH1	34:YA:2349:G:OP2	2.28	0.66
34:YA:886:C:O2'	34:YA:889:C:N4	2.26	0.66
1:QA:1010:G:H2'	1:QA:1011:G:H8	1.59	0.66
1:XA:1059:C:C5	3:XC:2:GLY:HA2	2.31	0.66
3:XC:23:TYR:CE2	10:XJ:95:GLU:CB	2.77	0.66
34:YA:2056:G:O6	34:YA:2577:A:C8	2.49	0.66
34:YA:2343:C:O2'	34:YA:2373:G:O2'	2.14	0.66
1:QA:1240:U:O2	7:QG:38:LEU:HA	1.95	0.66
34:RA:248:G:C4	34:RA:2431:U:H4'	2.31	0.66
6:XF:99:ALA:C	18:XR:28:GLU:HA	2.10	0.66
13:QM:14:ARG:HG2	13:QM:44:ARG:HD3	1.78	0.66
40:RH:18:GLU:HB2	40:RH:25:LYS:HB2	1.78	0.66
1:XA:51:A:N3	1:XA:353:A:C6	2.64	0.66
1:XA:974:A:C8	14:XN:31:ARG:HD2	2.30	0.66
6:XF:100:ASN:CB	18:XR:27:GLY:C	2.64	0.66
34:YA:199:A:C6	34:YA:2434:A:C2	2.83	0.66
34:YA:2051:A:C2	34:YA:2614:A:C4	2.84	0.66
40:YH:84:SER:HB2	40:YH:132:ARG:HD2	1.78	0.66
1:QA:1060:C:H4'	10:QJ:52:GLY:HA2	1.77	0.65
1:QA:1099:G:OP2	2:QB:96:ARG:HD3	1.93	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1317:C:OP1	14:QN:16:PHE:CE2	2.47	0.65
1:QA:1541:U:OP2	2:QB:23:ARG:CZ	2.44	0.65
2:QB:167:PRO:O	2:QB:171:ALA:HB2	1.96	0.65
2:QB:181:PHE:CD2	8:QH:70:GLN:HG2	2.31	0.65
34:RA:1333:C:H2'	34:RA:1334:G:H8	1.61	0.65
51:RW:88:ARG:HB2	51:RW:92:ARG:HB3	1.77	0.65
1:XA:6:G:H4'	1:XA:298:A:H4'	1.78	0.65
1:XA:186(B):C:O2	20:XT:105:SER:N	2.29	0.65
1:XA:1227:A:OP1	13:XM:96:LEU:CD2	2.40	0.65
3:XC:60:ALA:CB	10:XJ:91:PRO:HD2	2.26	0.65
1:QA:1307:U:C5'	13:QM:99:ARG:HG2	2.26	0.65
41:RI:83:ALA:O	41:RI:89:TYR:CE2	2.48	0.65
1:XA:658:G:H1'	15:XO:22:THR:CG2	2.26	0.65
34:YA:184:C:H1'	34:YA:217:G:H1'	1.78	0.65
1:QA:192:U:H2'	1:QA:193:C:H6	1.62	0.65
1:QA:740:U:O3'	15:QO:39:LEU:HD12	1.96	0.65
1:QA:1377:A:O2'	1:QA:1379:G:O6	2.12	0.65
4:QD:57:ARG:NH1	5:QE:107:ARG:HD3	2.11	0.65
7:QG:16:LEU:CD2	9:QI:42:ARG:HA	2.26	0.65
13:XM:84:ILE:HG21	19:XS:66:MET:HB3	1.77	0.65
14:XN:3:ARG:HB3	14:XN:3:ARG:CZ	2.26	0.65
34:YA:1216:G:OP1	49:YU:11:ARG:NH2	2.26	0.65
34:YA:2150:U:H2'	34:YA:2151:G:C8	2.31	0.65
3:XC:23:TYR:HB2	10:XJ:93:GLY:O	1.97	0.65
35:YB:90:C:OP2	45:YQ:16:ARG:NH1	2.30	0.65
1:QA:607:A:N1	16:QP:31:LYS:CA	2.54	0.65
29:R5:3:LYS:O	34:RA:2056:G:N2	2.19	0.65
38:RF:147:GLY:O	38:RF:191:ARG:NH1	2.29	0.65
1:XA:1305:G:H21	1:XA:1331:G:H3'	1.59	0.65
1:XA:1329:A:N7	21:XU:7:ARG:NH2	2.45	0.65
1:XA:1375:A:H3'	1:XA:1376:U:H6	1.60	0.65
1:XA:1422:G:H5'	43:YO:48:PRO:HG3	1.78	0.65
10:XJ:62:HIS:CD2	14:XN:59:ALA:HB1	2.31	0.65
34:YA:1088:A:H4'	34:YA:1089:G:H8	1.61	0.65
34:RA:445:C:OP1	49:RU:2:PRO:HA	1.96	0.65
34:RA:1044:G:O2'	34:RA:1047:G:O2'	2.15	0.65
34:RA:2483:C:N3	45:RQ:124:LYS:NZ	2.44	0.65
40:RH:89:ILE:HD11	40:RH:131:VAL:HG22	1.76	0.65
1:XA:1202:G:O2'	14:XN:28:GLY:O	2.14	0.65
1:XA:1278:U:H4'	1:XA:1279:A:C5	2.32	0.65
8:XH:14:ARG:HB3	8:XH:83:ILE:HD11	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:XT:86:ARG:O	20:XT:90:GLN:NE2	2.30	0.65
34:YA:1457:A:C2	34:YA:2703:C:C4	2.85	0.65
1:QA:634:C:H2'	1:QA:635:G:C8	2.32	0.65
1:QA:1314:C:OP2	19:QS:6:LYS:NZ	2.24	0.65
1:QA:1318:A:N6	14:QN:16:PHE:HB3	2.11	0.65
34:RA:1152:C:H2'	34:RA:1153:C:H6	1.61	0.65
50:RV:62:LEU:HD11	50:RV:95:LEU:HB2	1.77	0.65
1:XA:636:U:H3'	1:XA:637:G:H8	1.62	0.65
1:XA:1238:A:H2'	1:XA:1239:A:C8	2.32	0.65
1:XA:1463:C:H4'	48:YT:112:ARG:HH21	1.62	0.65
29:Y5:52:TYR:OH	34:YA:2883:A:OP1	2.06	0.65
34:YA:2080:G:C2	34:YA:2241:A:N3	2.64	0.65
1:QA:1014:A:C8	19:QS:34:TRP:CE2	2.76	0.65
1:QA:1220:G:H21	19:QS:54:GLY:HA3	1.61	0.65
1:XA:376:G:H4'	16:XP:5:ARG:HH11	1.61	0.65
1:XA:1150:U:H2'	1:XA:1151:A:C8	2.32	0.65
1:XA:1377:A:C6	7:XG:10:ARG:HD2	2.32	0.65
34:YA:2238:G:OP1	34:YA:2238:G:N2	2.30	0.65
47:YS:106:ARG:HB2	47:YS:110:LEU:HD23	1.78	0.65
1:QA:1307:U:H3'	13:QM:99:ARG:NH2	2.11	0.65
3:QC:79:ARG:HH21	11:XK:105:VAL:H	1.44	0.65
54:RZ:10:ARG:HD2	54:RZ:38:TYR:HB3	1.79	0.65
1:XA:1253:G:C2	1:XA:1254:C:C4	2.85	0.65
1:XA:1253:G:N1	1:XA:1254:C:C4	2.65	0.65
6:XF:99:ALA:CB	18:XR:29:PHE:CD1	2.75	0.65
10:XJ:62:HIS:HD2	14:XN:59:ALA:HB1	1.62	0.65
11:XK:91:ARG:CG	18:XR:88:LYS:HZ1	2.09	0.65
34:YA:2049:G:N2	34:YA:2620:C:N3	2.44	0.65
1:QA:876:G:C1'	8:QH:11:THR:HG21	2.24	0.65
1:QA:1221:G:H5'	19:QS:36:ARG:NH2	2.08	0.65
1:QA:1299:A:H2'	1:QA:1301:U:H1'	1.79	0.65
1:QA:1541:U:OP1	2:QB:23:ARG:NH2	2.29	0.65
4:QD:121:VAL:HG22	4:QD:126:ILE:HG13	1.79	0.65
37:RE:75:VAL:HG23	37:RE:76:ARG:HG2	1.79	0.65
1:XA:1123:A:H4'	10:XJ:37:PRO:HD2	1.79	0.65
34:YA:1566:A:C2	36:YD:214:TRP:NE1	2.65	0.65
1:QA:981:U:H5"	1:QA:982:U:H2'	1.77	0.64
1:QA:1203:C:OP2	14:QN:3:ARG:HD2	1.96	0.64
2:QB:177:ALA:HB1	2:QB:182:ILE:HB	1.78	0.64
7:QG:16:LEU:HD22	9:QI:42:ARG:HA	1.78	0.64
1:XA:412:A:N3	4:XD:35:ARG:HD3	2.11	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1124:G:C4'	10:XJ:36:GLY:H	2.05	0.64
4:XD:20:TYR:HA	4:XD:26:CYS:SG	2.37	0.64
11:XK:108:ILE:H	18:XR:87:ARG:CD	2.10	0.64
34:YA:805:G:H22	34:YA:828:U:H5"	1.61	0.64
1:QA:980:C:OP1	14:QN:19:ARG:NH2	2.30	0.64
31:R7:5:TRP:CZ3	34:RA:686:G:N7	2.65	0.64
29:Y5:16:ARG:NH1	29:Y5:17:ASP:OD1	2.30	0.64
25:Y1:87:PRO:HA	25:Y1:90:ILE:HG22	1.80	0.64
34:YA:1789:A:OP2	36:YD:222:ARG:NH1	2.30	0.64
1:QA:973:G:O3'	14:QN:29:ARG:NE	2.23	0.64
1:XA:107:G:O6	20:XT:15:ARG:CZ	2.43	0.64
1:XA:1359:C:H5	14:XN:35:ARG:HD3	1.62	0.64
1:XA:1541:U:C2	23:XX:5:A:C2	2.85	0.64
34:YA:2048:G:N2	34:YA:2621:A:C4	2.65	0.64
1:QA:495:A:H1'	1:QA:497:A:H2'	1.78	0.64
2:QB:132:LYS:HA	2:QB:135:GLN:HB2	1.78	0.64
34:RA:414:C:H1'	34:RA:1864:U:H1'	1.78	0.64
35:RB:55:U:O2'	39:RG:27:ASN:ND2	2.31	0.64
1:XA:585:G:OP1	17:XQ:37:LYS:HE2	1.98	0.64
1:XA:1286:A:N6	1:XA:1355:G:OP1	2.30	0.64
1:XA:1319:A:OP2	19:XS:3:ARG:CD	2.46	0.64
34:YA:788:A:OP1	34:YA:791:C:N4	2.28	0.64
34:YA:2402:C:H1'	34:YA:2403:C:H5	1.63	0.64
1:QA:237:C:H2'	1:QA:238:G:H8	1.62	0.64
1:QA:979:C:O2	14:QN:19:ARG:NH1	2.30	0.64
1:QA:1378:C:P	7:QG:7:ALA:CB	2.75	0.64
2:QB:178:ARG:O	8:QH:71:GLY:CA	2.45	0.64
7:QG:16:LEU:CD2	9:QI:42:ARG:CB	2.75	0.64
41:RI:92:VAL:HB	41:RI:120:ILE:HB	1.80	0.64
1:XA:406:G:H2'	1:XA:407:G:H8	1.63	0.64
1:XA:1059:C:OP2	3:XC:3:ASN:N	2.29	0.64
1:XA:1239:A:N1	1:XA:1297:C:H1'	2.12	0.64
1:XA:1359:C:C5	14:XN:35:ARG:HD3	2.33	0.64
9:XI:17:VAL:HG12	9:XI:63:ILE:HD12	1.80	0.64
34:YA:1448:G:O2'	34:YA:1528:A:N6	2.31	0.64
1:QA:1249:C:N4	1:QA:1288:A:OP2	2.30	0.64
1:QA:1368:G:O3'	10:QJ:46:ARG:NH2	2.30	0.64
6:XF:91:VAL:HG21	18:XR:34:TYR:OH	1.97	0.64
10:XJ:50:ILE:HA	10:XJ:60:ARG:HB2	1.78	0.64
29:Y5:3:LYS:HB2	34:YA:2577:A:O4'	1.97	0.64
1:QA:1203:C:P	14:QN:3:ARG:HD2	2.37	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:657:G:H21	15:XO:22:THR:HG23	1.63	0.64
7:XG:16:LEU:CD2	9:XI:44:VAL:CG2	2.65	0.64
34:YA:2291:U:H1'	34:YA:2374:C:H1'	1.80	0.64
1:QA:1048:G:OP1	14:QN:4:LYS:HE3	1.98	0.64
1:QA:1221:G:O2'	19:QS:77:THR:CB	2.44	0.64
1:QA:1229:A:N6	13:QM:104:ARG:CD	2.61	0.64
4:QD:20:TYR:CG	6:XF:15:ASP:HB3	2.33	0.64
10:XJ:62:HIS:CE1	14:XN:61:TRP:HE3	2.16	0.64
22:XV:8:U:O4	22:XV:14:A:N7	2.31	0.64
22:XV:65:U:H2'	22:XV:66:A:H8	1.62	0.64
1:QA:666:G:H5'	1:QA:726:C:H1'	1.80	0.64
1:QA:1236:A:P	21:QU:10:ARG:HH11	2.20	0.64
1:QA:1320:C:N4	19:QS:37:ARG:CB	2.61	0.64
1:QA:1320:C:C5'	19:QS:70:LYS:HG3	2.27	0.64
1:XA:824:C:H2'	1:XA:825:G:C8	2.33	0.64
34:YA:1226:G:OP1	50:YV:69:LYS:NZ	2.26	0.64
34:YA:2377:A:O2'	47:YS:111:GLU:O	2.14	0.64
1:QA:1125:U:C4	10:QJ:73:ASP:OD1	2.51	0.63
4:QD:18:LYS:HG3	4:QD:33:MET:HG3	1.78	0.63
13:QM:86:CYS:HB2	19:QS:69:HIS:HE1	1.61	0.63
34:RA:2789:C:H1'	34:RA:2892:A:C2	2.33	0.63
36:RD:60:ARG:HD3	36:RD:86:PRO:HB2	1.80	0.63
40:RH:6:ARG:HH22	40:RH:54:ARG:HD3	1.62	0.63
1:XA:1320:C:C5	19:XS:37:ARG:HB2	2.32	0.63
6:XF:50:TYR:CD1	18:XR:77:GLY:O	2.48	0.63
28:Y4:22:ILE:HG22	28:Y4:23:GLU:HG3	1.80	0.63
34:YA:1493:C:C5	34:YA:2210:G:C8	2.85	0.63
1:QA:675:A:H1'	11:QK:116:HIS:HB2	1.80	0.63
1:QA:986:A:H1'	19:QS:54:GLY:C	2.17	0.63
1:QA:1141:C:H2'	1:QA:1142:G:H8	1.63	0.63
1:QA:1229:A:C6	13:QM:104:ARG:CZ	2.79	0.63
1:QA:1251:A:O2'	1:QA:1369:C:O3'	2.16	0.63
1:QA:1342:C:H2'	1:QA:1343:G:H8	1.63	0.63
33:R9:23:VAL:HG21	34:RA:1032:A:C1'	2.24	0.63
34:RA:2250:G:C6	45:RQ:82:ARG:HD2	2.32	0.63
40:RH:78:GLY:HA2	40:RH:82:GLY:HA3	1.79	0.63
41:RI:84:GLY:HA3	41:RI:89:TYR:CZ	2.33	0.63
45:RQ:81:VAL:HG12	45:RQ:82:ARG:HG2	1.80	0.63
1:XA:718:G:O4'	11:XK:117:ASN:HB2	1.98	0.63
2:XB:54:THR:HG22	2:XB:199:TYR:HB3	1.81	0.63
3:XC:60:ALA:HB1	10:XJ:91:PRO:CG	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:XK:109:VAL:CG2	18:XR:86:VAL:HG23	2.27	0.63
32:Y8:12:LYS:NZ	34:YA:249:C:O2	2.31	0.63
34:YA:1447:G:H1'	34:YA:1545(B):A:H1'	1.81	0.63
1:QA:186(B):C:C1'	20:QT:85:MET:HE2	2.29	0.63
1:QA:564:C:H5'	17:QQ:32:TYR:CE1	2.33	0.63
1:QA:975:A:H3'	14:QN:32:SER:CA	2.28	0.63
32:R8:35:GLN:HE22	32:R8:36:LYS:HE2	1.62	0.63
54:RZ:52:SER:O	54:RZ:54:HIS:ND1	2.32	0.63
1:XA:1228:C:P	13:XM:108:ARG:NH2	2.72	0.63
1:XA:1532:U:H2'	1:XA:1534:A:H2	1.64	0.63
6:XF:91:VAL:HG11	18:XR:34:TYR:HE1	1.63	0.63
34:YA:2250:G:O2'	34:YA:2496:C:OP1	2.16	0.63
1:QA:1005:A:H4'	1:QA:1037:C:H1'	1.79	0.63
5:QE:140:ARG:O	5:QE:143:ARG:NH1	2.32	0.63
34:RA:23:G:N2	51:RW:77:ASP:OD1	2.30	0.63
34:RA:1566:A:C2	36:RD:214:TRP:CE2	2.86	0.63
1:XA:8:A:N1	4:XD:209:ARG:CZ	2.61	0.63
1:XA:662:G:H2'	1:XA:663:A:C8	2.33	0.63
1:XA:728:A:C6	15:XO:54:ARG:HD2	2.34	0.63
1:XA:1004:A:N1	1:XA:1025:U:H4'	2.12	0.63
1:XA:1318:A:H62	14:XN:16:PHE:HB3	1.62	0.63
32:Y8:22:VAL:HB	32:Y8:53:PRO:HB3	1.80	0.63
34:YA:784:A:N6	34:YA:2072:G:O2'	2.32	0.63
34:YA:1853:A:N3	34:YA:2233:U:O2'	2.29	0.63
1:QA:109:A:H62	1:QA:324:G:H21	1.45	0.63
1:QA:741:G:O5'	15:QO:39:LEU:CD1	2.46	0.63
1:QA:766:A:H61	1:QA:1511:G:H1'	1.62	0.63
1:QA:948:C:OP1	13:QM:106:ASN:O	2.15	0.63
1:QA:974:A:OP1	14:QN:29:ARG:NE	2.30	0.63
21:QU:12:LYS:HB3	21:QU:22:ARG:HD2	1.81	0.63
1:XA:1005:A:H4'	1:XA:1037:C:H1'	1.81	0.63
17:XQ:29:HIS:HB3	17:XQ:33:GLY:H	1.64	0.63
44:YP:4:SER:O	44:YP:7:ARG:NH2	2.32	0.63
34:RA:508:G:O6	51:RW:9:TYR:CD1	2.52	0.63
34:RA:581:C:H2'	34:RA:582:G:C8	2.34	0.63
1:XA:865:A:N3	1:XA:918:A:O2'	2.30	0.63
1:XA:1071:C:OP1	5:XE:27:ARG:NH2	2.31	0.63
1:XA:1106:G:H4'	3:XC:172:ARG:HG2	1.80	0.63
1:XA:1240:U:H1'	7:XG:38:LEU:CG	2.22	0.63
1:QA:54:C:H42	1:QA:357:G:H1	1.46	0.63
1:QA:948:C:OP2	13:QM:106:ASN:HB2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1313:U:H3'	19:QS:6:LYS:HZ2	0.80	0.63
3:QC:79:ARG:NH2	11:XK:105:VAL:N	2.46	0.63
28:R4:26:SER:HG	39:RG:143:GLU:CD	1.97	0.63
33:R9:18:ARG:CZ	34:RA:1034:G:O4'	2.47	0.63
41:RI:83:ALA:HB1	41:RI:88:ILE:HA	1.81	0.63
1:XA:1329:A:H4'	13:XM:29:ARG:NH2	2.13	0.63
34:YA:392:C:H5"	34:YA:409:C:H5"	1.80	0.63
1:QA:1186:G:N2	14:QN:61:TRP:HA	2.13	0.63
1:QA:1318:A:C6	14:QN:16:PHE:CD1	2.87	0.63
3:QC:23:TYR:HB2	10:QJ:94:VAL:CA	2.28	0.63
37:RE:109:LYS:HE3	37:RE:191:PRO:HA	1.79	0.63
11:XK:110:ASP:CA	18:XR:85:LEU:O	2.46	0.63
34:YA:197:A:N9	34:YA:2430:A:H2	1.96	0.63
1:QA:194:C:H4'	20:QT:68:LYS:HE2	1.79	0.63
1:QA:953:G:O6	13:QM:104:ARG:NH1	2.32	0.63
1:QA:1126:U:O2	10:QJ:38:ILE:HD12	1.98	0.63
15:QO:89:GLY:C	34:RA:716:A:OP1	2.36	0.63
34:RA:2250:G:N3	45:RQ:82:ARG:HG3	2.14	0.63
1:XA:373:A:O2'	1:XA:451:A:N7	2.32	0.63
1:XA:1226:C:OP1	13:XM:91:ARG:NH1	2.31	0.63
34:YA:2099:U:N3	34:YA:2190:G:N1	1.97	0.63
34:YA:2118:U:H3	34:YA:2148:G:H4'	1.64	0.63
1:QA:186(B):C:H5'	20:QT:82:SER:HA	1.81	0.62
1:QA:667:G:N3	15:QO:49:ASP:OD1	2.32	0.62
1:QA:677:U:H3	1:QA:713:G:H1	1.47	0.62
1:QA:953:G:C6	13:QM:104:ARG:NH1	2.67	0.62
2:QB:195:ASP:O	8:QH:68:ARG:NH2	2.32	0.62
34:RA:137(B):G:N3	52:RX:41:ASN:ND2	2.47	0.62
1:XA:1198:G:H2'	1:XA:1199:U:C6	2.34	0.62
1:XA:1305:G:C2	1:XA:1331:G:N7	2.67	0.62
4:XD:8:VAL:HA	4:XD:11:LEU:HD13	1.81	0.62
34:YA:2054:A:N6	34:YA:2577:A:H61	1.87	0.62
1:QA:9:G:C5'	5:QE:122:GLU:OE2	2.47	0.62
1:QA:62:U:H1'	1:QA:379:C:H1'	1.80	0.62
1:QA:1229:A:P	13:QM:108:ARG:HH21	2.21	0.62
1:QA:1320:C:H5'	19:QS:70:LYS:HG3	1.80	0.62
10:QJ:53:PRO:HA	14:QN:42:ILE:HD11	1.81	0.62
1:XA:51:A:N3	1:XA:353:A:N6	2.48	0.62
34:YA:67:U:H3	34:YA:74:A:H2	1.46	0.62
1:QA:740:U:O3'	15:QO:39:LEU:CD1	2.46	0.62
34:RA:229:A:H4'	34:RA:230:U:H5'	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:RE:119:ARG:HG3	37:RE:160:TYR:CD1	2.34	0.62
45:RQ:37:LEU:HD11	45:RQ:130:LYS:HG2	1.81	0.62
1:XA:346:G:OP1	48:YT:41:ARG:NH2	2.31	0.62
1:XA:1229:A:N6	13:XM:104:ARG:CD	2.62	0.62
6:XF:99:ALA:N	18:XR:29:PHE:O	2.32	0.62
1:QA:1246:C:N4	21:QU:26:LYS:HB2	2.12	0.62
1:QA:1313:U:C5	19:QS:4:SER:CB	2.81	0.62
1:XA:740:U:OP1	15:XO:2:PRO:HA	2.00	0.62
11:XK:116:HIS:CD2	18:XR:81:PHE:HB3	2.34	0.62
24:Y0:72:ARG:HE	24:Y0:75:LEU:HD12	1.64	0.62
54:YZ:52:SER:O	54:YZ:54:HIS:N	2.32	0.62
1:QA:1188:A:C3'	14:QN:58:LYS:HZ2	2.12	0.62
3:QC:79:ARG:HH21	11:XK:105:VAL:N	1.98	0.62
11:QK:71:LYS:HZ2	34:RA:2146:C:N4	1.94	0.62
29:R5:51:TYR:CE1	29:R5:56:LYS:HB3	2.35	0.62
1:XA:1240:U:H1'	7:XG:38:LEU:HD12	1.67	0.62
25:Y1:45:ASN:HA	34:YA:2230:G:H1'	1.80	0.62
1:QA:359:U:H2'	1:QA:360:A:H8	1.64	0.62
53:RY:99:CYS:CB	53:RY:103:GLY:H	2.12	0.62
1:XA:619:U:C5'	4:XD:131:ARG:HH21	2.12	0.62
1:XA:979:C:N3	14:XN:19:ARG:NE	2.26	0.62
1:XA:1124:G:O5'	10:XJ:36:GLY:N	2.33	0.62
34:YA:2072:G:C2	34:YA:2438:U:O2	2.53	0.62
34:YA:2787:C:H1'	37:YE:62:PRO:HG3	1.80	0.62
34:YA:2848:G:O2'	34:YA:2867:G:N2	2.32	0.62
41:YI:80:PRO:HB2	41:YI:146:ALA:HB2	1.81	0.62
25:R1:95:LEU:O	25:R1:95:LEU:CD2	2.45	0.62
34:RA:475:U:H4'	34:RA:510:C:H5'	1.80	0.62
1:XA:1372:U:OP1	9:XI:68:GLY:CA	2.43	0.62
10:XJ:62:HIS:CE1	14:XN:61:TRP:CE3	2.87	0.62
34:YA:629:G:N3	34:YA:639:U:O2'	2.30	0.62
34:YA:2051:A:C2	34:YA:2614:A:C5	2.88	0.62
1:QA:658:G:H2'	1:QA:659:U:C6	2.35	0.62
1:QA:989:C:H2'	1:QA:990:C:C6	2.35	0.62
1:QA:1114:C:O2	14:QN:60:SER:O	2.18	0.62
1:QA:1364:U:O4'	21:QU:14:TRP:HZ2	1.83	0.62
34:RA:71:A:H5"	34:RA:72:U:H3'	1.81	0.62
1:XA:1228:C:OP1	13:XM:108:ARG:NH1	2.32	0.62
32:Y8:11:LYS:HB3	32:Y8:60:LEU:HD11	1.81	0.62
32:R8:42:ARG:HD2	34:RA:2350:C:O5'	2.00	0.62
34:RA:820:A:H1'	34:RA:943:U:H1'	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:855:G:N2	1:XA:1539:C:OP1	2.33	0.62
10:XJ:39:PRO:CA	10:XJ:70:ARG:HG2	2.28	0.62
1:QA:838(B):U:H4'	1:QA:838(C):C:C6	2.34	0.62
34:RA:2630:G:H21	34:RA:2892:A:H1'	1.65	0.62
34:RA:2751:G:N1	40:RH:3:ARG:HB2	2.15	0.62
32:Y8:25:MET:HG2	44:YP:65:ARG:HH12	1.64	0.62
34:YA:2054:A:H2	34:YA:2616:C:O2	1.82	0.62
36:YD:264:LYS:HG2	36:YD:266:SER:H	1.64	0.62
34:RA:749:C:H5'	34:RA:1271:G:H1'	1.81	0.61
47:RS:83:LYS:HG3	47:RS:84:GLN:HG3	1.81	0.61
54:RZ:72:ARG:NH2	54:RZ:97:GLU:O	2.33	0.61
6:XF:99:ALA:CB	18:XR:29:PHE:CE1	2.83	0.61
1:QA:625:G:O2'	16:QP:16:HIS:CG	2.53	0.61
28:R4:16:CYS:SG	28:R4:17:GLY:N	2.73	0.61
33:R9:16:VAL:HG11	34:RA:1033:U:OP1	2.00	0.61
34:RA:1828:G:O6	36:RD:222:ARG:HD3	1.99	0.61
8:XH:17:THR:O	8:XH:78:GLN:NE2	2.32	0.61
34:YA:2053:G:C2	34:YA:2617:C:C2	2.88	0.61
47:YS:23:ARG:NH2	47:YS:84:GLN:OE1	2.33	0.61
1:QA:973:G:H4'	14:QN:29:ARG:HH21	1.65	0.61
1:QA:1221:G:H5'	19:QS:36:ARG:NH1	2.14	0.61
16:QP:53:VAL:HG12	16:QP:79:VAL:HG12	1.82	0.61
27:R3:12:PRO:HB2	27:R3:20:LYS:HD3	1.82	0.61
37:RE:141:ILE:O	37:RE:154:LYS:NZ	2.33	0.61
11:XK:110:ASP:O	18:XR:84:LYS:HB2	2.01	0.61
34:YA:300:A:OP1	53:YY:86:ARG:NH2	2.33	0.61
34:YA:2056:G:N7	34:YA:2577:A:C5	2.67	0.61
38:YF:160:ASN:HB3	38:YF:163:VAL:HG12	1.81	0.61
1:QA:69:G:H1'	1:QA:152:A:H2	1.66	0.61
1:QA:976:G:H21	1:QA:1362(B):C:H2'	1.66	0.61
34:RA:1041:C:H2'	34:RA:1042:G:H8	1.64	0.61
44:RP:47:ASP:OD2	44:RP:50:ARG:NH2	2.33	0.61
1:XA:1187:G:N2	14:XN:60:SER:OG	2.33	0.61
21:XU:3:LYS:HG2	21:XU:14:TRP:CG	2.36	0.61
34:YA:17:G:H21	34:YA:554:U:H5'	1.64	0.61
34:YA:2822:G:O2'	34:YA:2825:C:N4	2.34	0.61
50:YV:72:VAL:HB	50:YV:85:LYS:HB3	1.82	0.61
1:QA:538:G:C5'	12:QL:115:LYS:HG2	2.27	0.61
1:QA:856:C:H2'	1:QA:857:C:H6	1.64	0.61
7:QG:118:VAL:O	7:QG:122:HIS:ND1	2.32	0.61
10:QJ:47:PHE:CE1	14:QN:37:PHE:CE2	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:2751:G:C6	40:RH:3:ARG:CB	2.83	0.61
1:XA:675:A:O2'	11:XK:115:PRO:HA	2.00	0.61
1:XA:745:C:H2'	1:XA:746:A:H8	1.63	0.61
34:YA:2059:A:H2	34:YA:2503:A:N6	1.95	0.61
1:QA:264:U:O2'	17:QQ:64:PRO:HD2	2.01	0.61
1:QA:1198:G:H1'	10:QJ:54:PHE:CZ	2.35	0.61
34:RA:2490:G:N2	34:RA:2490:G:OP2	2.32	0.61
1:XA:355:C:O5'	1:XA:355:C:H6	1.84	0.61
10:XJ:7:LYS:HE2	10:XJ:9:ARG:HG3	1.83	0.61
16:XP:6:LEU:HB2	16:XP:17:TYR:HB3	1.82	0.61
34:YA:2820:A:H1'	46:YR:3:HIS:ND1	2.15	0.61
1:QA:311:C:OP1	16:QP:26:ARG:NH1	2.33	0.61
1:QA:609:A:H5'	16:QP:9:PHE:HE1	1.64	0.61
10:QJ:49:VAL:HA	14:QN:34:TYR:OH	2.01	0.61
34:RA:2313:C:H5"	39:RG:91:ARG:HH21	1.65	0.61
36:RD:96:HIS:HE1	36:RD:102:LYS:HE2	1.64	0.61
11:QK:71:LYS:HZ3	34:RA:2146:C:N4	1.92	0.61
34:RA:81:G:HO2'	34:RA:295:G:HO2'	1.48	0.61
1:XA:666:G:H5'	1:XA:726:C:H1'	1.82	0.61
1:XA:1302:U:C2	13:XM:27:LYS:HE2	2.36	0.61
25:Y1:43:TYR:HD2	34:YA:2230:G:H5"	1.66	0.61
34:YA:199:A:N1	34:YA:2434:A:C2	2.68	0.61
34:YA:335:C:OP2	53:YY:84:ARG:NH2	2.33	0.61
34:YA:383:U:H2'	34:YA:385:C:H5	1.65	0.61
34:YA:1333:C:H2'	34:YA:1334:G:H8	1.65	0.61
42:YN:112:LEU:O	42:YN:116:LEU:HB2	1.99	0.61
1:QA:953:G:C4	13:QM:104:ARG:NH2	2.69	0.61
1:XA:413:G:H1'	1:XA:428:G:H21	1.66	0.61
1:XA:702:A:H3'	1:XA:703:G:H8	1.66	0.61
1:XA:1124:G:C5'	10:XJ:36:GLY:H	2.14	0.61
1:XA:1330:U:H5"	13:XM:24:GLY:HA2	1.81	0.61
1:XA:1358:U:H5	14:XN:35:ARG:HE	1.48	0.61
34:YA:554:U:H2'	34:YA:556:G:C8	2.36	0.61
34:YA:2046:G:C2	34:YA:2623:G:C4	2.89	0.61
34:YA:2471:C:N4	34:YA:2476:A:O2'	2.34	0.61
41:YI:30:LEU:HB3	41:YI:36:ALA:HB3	1.80	0.61
54:YZ:181:GLU:O	54:YZ:182:LYS:O	2.19	0.61
1:QA:1358:U:C3'	14:QN:22:THR:HG21	2.30	0.61
1:QA:1491:G:H5"	12:QL:46:LYS:HG2	1.82	0.61
13:QM:57:ARG:O	13:QM:61:GLU:HB2	2.01	0.61
34:RA:1490:A:O2'	36:RD:99:ASP:OD1	2.19	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:RY:76:CYS:SG	53:RY:80:GLY:N	2.74	0.61
54:RZ:3:TYR:HB2	54:RZ:57:ILE:HG22	1.81	0.61
1:XA:263:A:P	20:XT:79:ARG:HE	2.24	0.61
10:XJ:10:GLY:HA3	10:XJ:16:LEU:CD2	2.22	0.61
1:QA:948:C:OP2	13:QM:106:ASN:CB	2.49	0.60
1:QA:1107:C:H5"	3:QC:173:VAL:H	1.65	0.60
1:QA:1150:U:O2	10:QJ:39:PRO:HG2	2.00	0.60
1:QA:1321:C:C4	19:QS:36:ARG:NH1	2.69	0.60
34:RA:626:U:H5'	34:RA:627:A:H5"	1.81	0.60
34:RA:1019:U:H2'	34:RA:1020:A:H8	1.66	0.60
35:RB:22:U:H3	35:RB:61:G:H1	1.49	0.60
1:XA:728:A:N7	15:XO:54:ARG:NE	2.49	0.60
34:YA:2046:G:N1	34:YA:2623:G:C2	2.62	0.60
1:QA:667:G:N2	15:QO:49:ASP:OD1	2.34	0.60
1:QA:1318:A:C6	14:QN:16:PHE:CG	2.89	0.60
34:RA:2296:U:OP2	47:RS:9:ARG:NH1	2.34	0.60
39:RG:72:ARG:HA	39:RG:87:PRO:HA	1.82	0.60
46:RR:74:LYS:HD3	46:RR:77:ARG:HH21	1.66	0.60
48:RT:77:PRO:HG2	48:RT:80:SER:HB3	1.82	0.60
1:XA:528:C:H41	12:XL:49:ASN:CG	2.04	0.60
1:XA:538:G:P	12:XL:115:LYS:HB2	2.41	0.60
1:XA:901:A:O5'	1:XA:901:A:H8	1.84	0.60
1:XA:1320:C:C6	19:XS:70:LYS:HD3	2.35	0.60
11:XK:109:VAL:HA	18:XR:86:VAL:HG23	1.83	0.60
12:XL:10:LEU:HB3	17:XQ:32:TYR:CE2	2.36	0.60
1:QA:595:G:H1'	1:QA:596:C:H5	1.65	0.60
1:QA:1320:C:H5'	19:QS:70:LYS:HE3	1.83	0.60
1:QA:1359:C:H5	14:QN:35:ARG:CZ	2.14	0.60
1:QA:1376:U:C4	7:QG:10:ARG:NH1	2.68	0.60
5:QE:80:ILE:CD1	8:QH:104:ARG:HH12	2.14	0.60
33:R9:18:ARG:HD2	34:RA:1034:G:H5'	1.83	0.60
34:RA:1700:A:H3'	34:RA:1701:A:C8	2.36	0.60
34:RA:2144:U:H4'	34:RA:2145:C:H5	1.66	0.60
1:XA:975:A:C2	14:XN:34:TYR:HE1	2.19	0.60
1:XA:1059:C:H5	3:XC:2:GLY:HA3	1.64	0.60
34:YA:508:G:O6	51:YW:9:TYR:CE1	2.55	0.60
34:YA:2069:G:C2	34:YA:2443:C:N3	2.69	0.60
39:YG:16:ARG:NH2	39:YG:28:VAL:O	2.35	0.60
1:QA:740:U:C3'	15:QO:39:LEU:HG	2.32	0.60
1:QA:1221:G:H5'	19:QS:36:ARG:HH12	1.65	0.60
11:QK:108:ILE:HG21	18:QR:88:LYS:OXT	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:642:G:H4'	34:RA:2349:G:H4'	1.83	0.60
34:RA:1604:C:H2'	34:RA:1605:C:H6	1.66	0.60
3:XC:23:TYR:CD2	10:XJ:95:GLU:CG	2.84	0.60
11:XK:17:GLY:HA2	11:XK:35:PRO:HD3	1.83	0.60
34:YA:1252:G:N2	49:YU:33:ARG:HH11	1.99	0.60
1:QA:667:G:H4'	15:QO:51:HIS:HE1	1.62	0.60
1:QA:982:U:C5'	14:QN:6:LEU:HD21	2.31	0.60
1:QA:1110:A:N1	3:QC:177:THR:HG22	2.16	0.60
34:RA:331:A:N6	34:RA:1210:A:OP2	2.34	0.60
34:RA:758:C:H2'	34:RA:759:G:H8	1.65	0.60
41:RI:92:VAL:HB	41:RI:120:ILE:CB	2.30	0.60
4:XD:25:ARG:NE	4:XD:30:LYS:O	2.33	0.60
37:YE:1:MET:HG3	37:YE:200:GLU:HG2	1.82	0.60
44:YP:58:THR:O	44:YP:61:ARG:NH2	2.34	0.60
1:QA:662:G:H2'	1:QA:663:A:C8	2.37	0.60
1:QA:810:C:H1'	1:QA:899:C:H41	1.66	0.60
1:QA:980:C:C2	14:QN:19:ARG:C	2.70	0.60
1:XA:595:G:H1	1:XA:641:U:HO2'	1.49	0.60
34:YA:458:G:N2	34:YA:470:A:OP2	2.34	0.60
34:YA:2051:A:N1	34:YA:2614:A:C5	2.69	0.60
51:YW:6:ILE:HG12	51:YW:104:THR:HG23	1.83	0.60
1:QA:1106:G:HO2'	3:QC:172:ARG:HD2	1.56	0.60
7:QG:138:LYS:HE2	7:QG:142:GLU:HG3	1.83	0.60
34:RA:299:A:N1	34:RA:322:A:O2'	2.29	0.60
34:RA:1295:C:H2'	34:RA:1296:G:H8	1.67	0.60
34:RA:1999:C:H2'	34:RA:2000:G:H8	1.67	0.60
1:XA:1360:A:N9	14:XN:17:LYS:HG3	2.17	0.60
3:XC:9:GLY:HA2	3:XC:12:LEU:HD13	1.83	0.60
34:YA:690:G:O2'	36:YD:43:ARG:NH1	2.30	0.60
34:YA:1094:U:H1'	34:YA:1097:U:H5	1.67	0.60
34:YA:2140:C:H2'	34:YA:2141:G:H8	1.66	0.60
51:YW:30:GLU:O	51:YW:34:ASN:ND2	2.35	0.60
1:QA:7:G:O2'	5:QE:121:LYS:HB2	2.01	0.60
1:QA:980:C:C4'	14:QN:19:ARG:NE	2.62	0.60
1:QA:1312:G:OP1	19:QS:5:LEU:O	2.20	0.60
1:QA:1329:A:N6	21:QU:7:ARG:HH22	1.99	0.60
2:XB:126:GLU:OE2	2:XB:130:ARG:NH1	2.34	0.60
4:XD:13:ARG:HG3	4:XD:40:PRO:HD3	1.84	0.60
34:YA:2080:G:N3	34:YA:2241:A:C2	2.69	0.60
34:YA:2515:C:H2'	34:YA:2516:G:H8	1.66	0.60
1:QA:609:A:C5'	16:QP:9:PHE:CD1	2.85	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1359:C:P	14:QN:22:THR:HG22	2.42	0.60
1:QA:1359:C:H5	14:QN:35:ARG:NE	1.98	0.60
2:QB:197:VAL:C	8:QH:68:ARG:HH22	2.03	0.60
41:RI:83:ALA:CB	41:RI:88:ILE:HA	2.31	0.60
46:RR:97:VAL:HG22	46:RR:114:VAL:HG12	1.84	0.60
1:XA:68(Q):C:H2'	1:XA:68(R):U:C6	2.37	0.60
1:XA:983:A:H5'	14:XN:2:ALA:HB3	1.84	0.60
2:XB:67:THR:HG21	2:XB:155:LEU:HG	1.84	0.60
2:XB:163:PHE:HA	2:XB:185:ILE:O	2.01	0.60
34:YA:662:G:OP1	44:YP:15:ARG:NH1	2.34	0.60
47:YS:4:LEU:HD11	47:YS:12:PHE:HE2	1.67	0.60
4:QD:88:VAL:CG2	5:QE:96:PRO:O	2.35	0.60
10:QJ:6:ILE:HG22	10:QJ:98:ILE:HG22	1.84	0.60
28:R4:5:ILE:O	39:RG:67:LYS:CG	2.50	0.60
34:RA:2094:G:H1'	34:RA:2198:A:H61	1.67	0.60
45:RQ:21:THR:HB	54:RZ:78:LYS:HE3	1.83	0.60
1:XA:757:U:H1'	1:XA:879:C:H1'	1.83	0.60
1:XA:900:A:O5'	1:XA:900:A:H8	1.85	0.60
34:YA:2090:G:O6	34:YA:2230:G:O6	2.20	0.60
38:YF:11:VAL:HG22	38:YF:125:LEU:HB2	1.84	0.60
40:YH:89:ILE:O	40:YH:129:THR:OG1	2.19	0.60
1:QA:676:A:N3	11:QK:119:CYS:SG	2.72	0.59
1:QA:947:G:OP2	13:QM:106:ASN:OD1	2.19	0.59
1:QA:980:C:H5"	1:QA:981:U:H5	1.67	0.59
1:QA:1307:U:OP2	13:QM:99:ARG:CB	2.50	0.59
7:QG:133:GLY:HA2	7:QG:136:LYS:HE2	1.83	0.59
32:R8:31:HIS:HD2	34:RA:2422:A:N6	2.00	0.59
41:RI:88:ILE:HG22	41:RI:90:GLY:H	1.66	0.59
10:XJ:16:LEU:HB3	10:XJ:70:ARG:HH11	1.64	0.59
10:XJ:47:PHE:HZ	14:XN:36:PHE:CG	2.20	0.59
30:Y6:6:ARG:HH21	30:Y6:24:GLU:HG3	1.65	0.59
34:YA:1566:A:C6	36:YD:214:TRP:CZ2	2.90	0.59
51:YW:33:ARG:NH2	51:YW:52:GLU:OE1	2.34	0.59
1:QA:1103:C:O2'	2:QB:111:ARG:NE	2.30	0.59
1:QA:1123:A:O2'	10:QJ:36:GLY:C	2.41	0.59
1:QA:1372:U:H5"	9:QI:69:GLY:HA3	1.84	0.59
34:RA:698:C:O2'	34:RA:734:A:N6	2.33	0.59
34:RA:1370:C:HO2'	34:RA:1811:G:HO2'	1.47	0.59
34:RA:2751:G:C6	40:RH:3:ARG:HB3	2.31	0.59
34:YA:1151:G:O2'	49:YU:77:SER:O	2.21	0.59
34:YA:2069:G:N1	34:YA:2443:C:N3	2.51	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:126:G:H4'	1:QA:634:C:H1'	1.84	0.59
1:QA:677:U:C2	11:QK:119:CYS:SG	2.95	0.59
34:RA:206:U:H2'	34:RA:207:A:H8	1.68	0.59
34:RA:1076:C:OP1	45:RQ:60:ARG:NH2	2.35	0.59
1:XA:972:C:O2'	10:XJ:55:LYS:HB2	2.02	0.59
1:XA:979:C:H42	14:XN:18:VAL:HG23	1.66	0.59
1:XA:983:A:H5'	14:XN:2:ALA:CB	2.31	0.59
34:YA:1152:C:H2'	34:YA:1153:C:H6	1.67	0.59
53:YY:79:CYS:HB2	53:YY:81:LYS:HG2	1.82	0.59
1:QA:564:C:C6	17:QQ:31:LEU:HD21	2.37	0.59
1:QA:1106:G:C3'	3:QC:172:ARG:HG3	2.24	0.59
1:QA:1220:G:H21	19:QS:54:GLY:HA2	1.66	0.59
3:QC:91:LEU:HD12	3:QC:101:LEU:HD11	1.85	0.59
32:R8:56:GLU:HA	32:R8:59:LYS:HE2	1.83	0.59
34:RA:788:A:OP1	34:RA:791:C:N4	2.34	0.59
34:RA:955:C:OP1	45:RQ:85:LYS:NZ	2.32	0.59
34:RA:1141:U:P	42:RN:25:ARG:HH21	2.25	0.59
37:RE:201:THR:HG22	37:RE:203:LYS:H	1.66	0.59
41:RI:83:ALA:HA	41:RI:89:TYR:H	1.67	0.59
1:XA:974:A:OP1	14:XN:31:ARG:HB2	2.02	0.59
1:XA:1068:G:H22	1:XA:1108:G:H1'	1.68	0.59
1:XA:1117:G:N2	1:XA:1180:A:N3	2.50	0.59
5:XE:79:GLU:HG3	5:XE:93:PRO:HD2	1.84	0.59
34:YA:1546:C:H5'	34:YA:1547:C:H5'	1.85	0.59
34:YA:2063:C:O2	34:YA:2450:A:N1	2.35	0.59
1:QA:1118:C:C5'	9:QI:9:ARG:NH1	2.66	0.59
1:QA:1187:G:O2'	14:QN:60:SER:HA	2.03	0.59
40:RH:89:ILE:HD11	40:RH:131:VAL:CG2	2.32	0.59
1:XA:51:A:C2	1:XA:353:A:N1	2.70	0.59
1:XA:398:C:H2'	1:XA:399:G:H8	1.67	0.59
1:XA:662:G:H2'	1:XA:663:A:H8	1.66	0.59
1:XA:1049:U:HO2'	14:XN:2:ALA:N	2.00	0.59
13:XM:3:ARG:O	13:XM:57:ARG:NH2	2.35	0.59
34:YA:2712(A):U:H2'	34:YA:2712(B):A:H2'	1.83	0.59
37:YE:143:ASN:OD1	37:YE:143:ASN:N	2.35	0.59
1:QA:1170:A:H5'	2:QB:140:HIS:CE1	2.37	0.59
1:QA:1186:G:N2	14:QN:61:TRP:CA	2.66	0.59
3:QC:23:TYR:N	10:QJ:93:GLY:C	2.55	0.59
29:R5:33:CYS:CB	29:R5:46:CYS:SG	2.90	0.59
34:RA:2086:U:OP2	36:RD:263:ARG:NH1	2.36	0.59
40:RH:107:VAL:O	40:RH:152:ARG:NH2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1305:G:C5	1:XA:1331:G:N1	2.69	0.59
1:XA:1319:A:P	19:XS:3:ARG:CZ	2.91	0.59
8:XH:100:ILE:HD11	8:XH:125:ARG:HB3	1.84	0.59
34:YA:2080:G:N1	34:YA:2241:A:N1	2.50	0.59
1:QA:68:G:H22	1:QA:101:A:H2	1.49	0.59
1:QA:643:C:H2'	1:QA:644:G:C8	2.38	0.59
10:QJ:45:ARG:HB3	10:QJ:65:LEU:HB3	1.85	0.59
10:QJ:47:PHE:CZ	14:QN:36:PHE:CG	2.90	0.59
34:RA:184:C:H1'	34:RA:217:G:H1'	1.84	0.59
34:RA:2744:G:N2	40:RH:143:GLN:OE1	2.36	0.59
1:XA:165:C:H2'	1:XA:166:G:C8	2.38	0.59
1:XA:838(B):U:H4'	1:XA:838(C):C:C6	2.37	0.59
1:XA:1305:G:H2'	1:XA:1331:G:C2	2.36	0.59
1:XA:1318:A:C2	19:XS:37:ARG:NH1	2.71	0.59
32:Y8:31:HIS:CD2	34:YA:2421:G:O6	2.56	0.59
34:YA:956:G:H2'	34:YA:957:A:H2'	1.82	0.59
34:YA:2647:U:H2'	34:YA:2648:C:H6	1.67	0.59
36:YD:61:LEU:O	36:YD:63:ARG:NH1	2.36	0.59
41:YI:9:LEU:HD21	41:YI:35:LEU:HD12	1.84	0.59
1:QA:974:A:OP1	14:QN:29:ARG:CD	2.51	0.59
1:QA:1248:A:N6	21:QU:26:LYS:HD2	2.17	0.59
1:QA:1251:A:H2'	1:QA:1252:A:C8	2.37	0.59
1:QA:1304:G:H1'	1:QA:1334:G:H1	1.67	0.59
1:QA:1318:A:N6	14:QN:16:PHE:CB	2.65	0.59
4:QD:98:GLU:OE1	4:QD:103:ASN:ND2	2.36	0.59
34:RA:674:G:O2'	38:RF:67:GLN:OE1	2.18	0.59
34:RA:1996:C:H5	43:RO:32:TYR:HH	1.50	0.59
41:RI:93:THR:O	41:RI:97:ILE:HG13	2.03	0.59
46:RR:51:LEU:HG	46:RR:66:VAL:HG23	1.85	0.59
32:Y8:2:PRO:HA	34:YA:591:C:H1'	1.84	0.59
34:YA:2867:G:HO2'	34:YA:2868:A:H8	1.51	0.59
54:YZ:151:HIS:HB3	54:YZ:170:THR:HA	1.85	0.59
1:QA:986:A:H1'	19:QS:55:LYS:CA	2.27	0.59
1:QA:1097:C:H5'	2:QB:140:HIS:NE2	2.18	0.59
1:QA:1228:C:C5'	13:QM:111:LYS:NZ	2.42	0.59
1:QA:1320:C:H41	19:QS:37:ARG:HD2	1.68	0.59
28:R4:27:THR:CG2	39:RG:62:LEU:O	2.51	0.59
34:RA:746:A:O2'	34:RA:2611:U:O2'	2.18	0.59
34:RA:2250:G:C5	45:RQ:82:ARG:HD2	2.37	0.59
43:RO:88:ASN:ND2	43:RO:90:GLN:OE1	2.36	0.59
33:Y9:14:CYS:HA	33:Y9:27:CYS:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:727:A:C2	36:YD:9:TYR:CD2	2.89	0.59
1:QA:740:U:O3'	15:QO:39:LEU:HG	2.03	0.59
1:QA:1376:U:H2'	1:QA:1377:A:C8	2.38	0.59
4:QD:88:VAL:HG13	5:QE:97:GLY:HA2	1.85	0.59
1:XA:960:U:H5	19:XS:78:ARG:HG2	1.67	0.59
1:XA:979:C:OP1	1:XA:1223:C:N4	2.35	0.59
38:YF:168:ARG:HG2	38:YF:175:THR:HG21	1.84	0.59
1:QA:642:A:C1'	8:QH:115:SER:HA	2.33	0.58
1:QA:730:G:C5	1:QA:731:G:H1'	2.38	0.58
25:R1:78:LYS:HZ2	34:RA:270(S):G:H21	1.50	0.58
1:XA:571:U:H5"	1:XA:819:A:C4	2.38	0.58
1:XA:702:A:N1	34:YA:1848:A:C6	2.71	0.58
1:XA:1004:A:N6	1:XA:1025:U:O3'	2.36	0.58
1:XA:1318:A:H62	14:XN:16:PHE:CB	2.09	0.58
1:XA:1440(K):C:O2'	1:XA:1440(L):G:N2	2.33	0.58
1:XA:1541:U:N3	23:XX:5:A:C2	2.71	0.58
25:Y1:2:SER:N	34:YA:1364:G:N7	2.50	0.58
31:Y7:34:ARG:NH1	34:YA:466:A:OP1	2.36	0.58
34:YA:1582:C:H2'	34:YA:1583:A:H8	1.68	0.58
34:YA:2275:C:O2	45:YQ:83:MET:HG2	2.02	0.58
1:QA:123:C:H2'	1:QA:124:G:H8	1.67	0.58
1:QA:280:C:O2	17:QQ:40:LYS:NZ	2.30	0.58
1:QA:1306:A:OP2	21:QU:5:ASP:HA	2.03	0.58
10:QJ:47:PHE:CE1	14:QN:36:PHE:CB	2.81	0.58
34:RA:1996:C:H5	43:RO:32:TYR:OH	1.86	0.58
40:RH:152:ARG:HG2	40:RH:153:LYS:HG2	1.84	0.58
1:XA:1345:U:C4	1:XA:1377:A:H1'	2.38	0.58
1:QA:107:G:OP1	1:QA:325:A:N6	2.36	0.58
1:QA:936:C:H2'	1:QA:937:A:C8	2.39	0.58
2:QB:181:PHE:CE2	8:QH:70:GLN:HG2	2.38	0.58
4:QD:20:TYR:CZ	6:XF:14:LEU:HA	2.38	0.58
1:XA:59:A:H3'	1:XA:331:G:H22	1.67	0.58
1:XA:974:A:C8	14:XN:31:ARG:NE	2.71	0.58
1:XA:1105:A:H2'	1:XA:1106:G:C8	2.37	0.58
1:QA:44:G:OP2	16:QP:12:LYS:CE	2.52	0.58
1:QA:954:G:N3	19:QS:83:HIS:CE1	2.67	0.58
3:QC:108:ASN:ND2	3:QC:144:SER:OG	2.36	0.58
7:QG:16:LEU:HD22	9:QI:42:ARG:CA	2.33	0.58
10:QJ:53:PRO:CA	14:QN:42:ILE:HD11	2.33	0.58
13:QM:86:CYS:CB	19:QS:69:HIS:HE1	2.14	0.58
27:R3:17:LYS:HG3	34:RA:969:U:OP1	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:379:C:H2'	1:XA:380:G:H8	1.69	0.58
1:XA:974:A:H1'	14:XN:31:ARG:HH11	1.59	0.58
1:XA:1193:G:O2'	5:XE:21:ALA:O	2.21	0.58
34:YA:747:U:C4	34:YA:2613:U:C4	2.92	0.58
34:YA:1418:G:H2'	34:YA:1579:A:H61	1.66	0.58
37:YE:128:SER:OG	37:YE:129:HIS:N	2.35	0.58
1:QA:739:C:O2'	15:QO:42:HIS:ND1	2.30	0.58
1:QA:974:A:H5'	14:QN:31:ARG:CB	2.15	0.58
1:QA:1253:G:O5'	10:QJ:44:VAL:CB	2.42	0.58
1:QA:1353:G:OP1	21:QU:13:ILE:HG21	2.03	0.58
2:QB:78:GLN:O	2:QB:94:ASN:ND2	2.37	0.58
7:QG:16:LEU:HD21	9:QI:42:ARG:CD	2.23	0.58
34:RA:191:A:H1'	34:RA:679:C:H1'	1.86	0.58
34:RA:987:G:O2'	34:RA:1000:A:N3	2.33	0.58
34:RA:1024:G:O2'	34:RA:1144:G:O2'	2.22	0.58
34:RA:1076:C:H2'	34:RA:1077:A:H4'	1.86	0.58
34:RA:1226:G:OP1	50:RV:69:LYS:NZ	2.24	0.58
38:RF:148:LEU:HD13	38:RF:191:ARG:HH11	1.68	0.58
1:XA:1318:A:C1'	19:XS:11:VAL:CG2	2.71	0.58
1:XA:1535:C:N4	23:XX:10:G:C2	2.69	0.58
5:XE:18:ARG:NH1	5:XE:25:ARG:O	2.36	0.58
34:YA:1061:U:C6	34:YA:1062:G:H5"	2.35	0.58
36:YD:35:LYS:H	36:YD:64:ILE:HG12	1.68	0.58
1:QA:980:C:C2'	14:QN:19:ARG:HG2	2.23	0.58
4:QD:34:GLU:OE1	6:XF:57:GLN:NE2	2.36	0.58
4:QD:59:ARG:HH12	4:QD:66:ARG:HH22	1.51	0.58
5:QE:75:THR:OG1	5:QE:76:ILE:N	2.35	0.58
34:RA:1297:C:H2'	34:RA:1298:C:H6	1.68	0.58
34:RA:1566:A:C2	36:RD:214:TRP:CG	2.92	0.58
1:XA:1000:A:H2'	1:XA:1001:G:C8	2.38	0.58
3:XC:36:ASP:OD1	3:XC:59:ARG:NH2	2.34	0.58
34:YA:1457:A:C2	34:YA:2703:C:N4	2.71	0.58
1:QA:1097:C:O2'	1:QA:1169:A:N3	2.34	0.58
1:QA:1278:U:H5"	1:QA:1279:A:C8	2.38	0.58
34:RA:2684:U:O2'	43:RO:68:GLU:OE2	2.17	0.58
50:RV:24:LYS:HA	50:RV:92:THR:HG23	1.85	0.58
52:RX:25:LYS:HD3	52:RX:80:ILE:HD11	1.86	0.58
1:XA:501:C:H2'	1:XA:502:G:H8	1.68	0.58
1:XA:781:A:H3'	1:XA:782:A:H8	1.68	0.58
1:XA:1330:U:H5"	13:XM:24:GLY:CA	2.33	0.58
34:YA:530:G:C5	34:YA:2022:U:H5"	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:581:C:H2'	34:YA:582:G:C8	2.38	0.58
34:YA:863:A:H2'	34:YA:864:G:C8	2.39	0.58
37:YE:50:GLY:HA2	37:YE:77:ILE:HA	1.85	0.58
1:QA:974:A:N9	14:QN:31:ARG:CZ	2.67	0.58
1:QA:1186:G:H22	14:QN:61:TRP:HA	1.69	0.58
1:QA:1238:A:H2'	1:QA:1239:A:C8	2.38	0.58
1:QA:1484:C:O2'	34:RA:1960:A:O2'	2.20	0.58
34:RA:605:C:H1'	34:RA:657:U:H1'	1.85	0.58
34:RA:1011:G:HO2'	34:RA:1012:U:HO2'	1.51	0.58
34:RA:1930:G:H2'	34:RA:1968:G:H1	1.68	0.58
1:XA:15:G:H1	1:XA:920:U:H3	1.50	0.58
1:XA:412:A:C2	4:XD:35:ARG:CD	2.81	0.58
1:XA:1286:A:H2'	1:XA:1287:A:H4'	1.85	0.58
1:XA:1296:C:C5'	13:XM:14:ARG:NH2	2.63	0.58
11:XK:15:ALA:HA	11:XK:77:MET:HA	1.86	0.58
1:QA:6:G:C2	5:QE:119:LEU:HD11	2.39	0.58
1:QA:974:A:C8	14:QN:31:ARG:HD2	2.35	0.58
1:QA:1313:U:H5	19:QS:4:SER:CB	2.17	0.58
3:QC:22:TRP:C	10:QJ:93:GLY:HA2	2.23	0.58
1:XA:1270:C:H2'	1:XA:1271:G:C8	2.39	0.58
1:XA:1318:A:O3'	19:XS:11:VAL:HG21	2.00	0.58
1:XA:1343:G:H2'	1:XA:1344:C:C6	2.39	0.58
1:XA:1376:U:O4	7:XG:10:ARG:NE	2.37	0.58
17:XQ:99:SER:OG	17:XQ:100:LYS:N	2.37	0.58
19:XS:63:THR:OG1	19:XS:65:ASN:OD1	2.21	0.58
34:YA:577:G:O2'	34:YA:1254:A:OP1	2.21	0.58
34:YA:727:A:C2	36:YD:9:TYR:CE2	2.92	0.58
1:QA:19:C:OP1	5:QE:130:ASN:ND2	2.36	0.58
1:QA:25:C:H5'	1:QA:524:G:H1'	1.86	0.58
1:QA:689:C:OP2	11:QK:55:LYS:NZ	2.35	0.58
1:QA:741:G:P	15:QO:39:LEU:CD1	2.90	0.58
1:QA:1028(B):C:H2'	1:QA:1028(C):C:H5	1.69	0.58
1:QA:1371:G:OP1	9:QI:12:GLU:HG2	2.04	0.58
10:QJ:40:LEU:HD11	10:QJ:71:LEU:HB2	1.86	0.58
30:R6:16:CYS:SG	30:R6:42:TRP:HB2	2.44	0.58
34:RA:259:G:H21	34:RA:621:A:H8	1.52	0.58
41:RI:83:ALA:CA	41:RI:89:TYR:CD2	2.86	0.58
43:RO:1:MET:HB2	43:RO:32:TYR:HB3	1.84	0.58
53:RY:99:CYS:HB2	53:RY:103:GLY:N	2.18	0.58
1:XA:1306:A:H1'	1:XA:1332:A:C6	2.39	0.58
1:XA:1375:A:H3'	1:XA:1376:U:C6	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:XT:71:THR:OG1	20:XT:72:LEU:N	2.36	0.58
39:YG:29:TRP:O	39:YG:33:ARG:NH1	2.37	0.58
1:QA:1080:A:H4'	5:QE:16:THR:HG21	1.86	0.57
1:QA:1110:A:N6	3:QC:176:HIS:HB2	2.19	0.57
6:QF:23:LYS:NZ	6:QF:42:GLU:OE1	2.36	0.57
7:QG:50:ILE:HG12	7:QG:61:VAL:HG11	1.86	0.57
34:RA:992:C:OP1	49:RU:47:TYR:OH	2.18	0.57
39:RG:15:VAL:HG22	39:RG:175:LEU:HD22	1.86	0.57
41:RI:115:ALA:HB2	41:RI:131:LYS:HE3	1.85	0.57
54:RZ:30:ASN:HB3	54:RZ:90:VAL:HG22	1.86	0.57
1:XA:719:C:O2	18:XR:50:ILE:CD1	2.45	0.57
40:YH:9:ILE:HD12	40:YH:51:ARG:HG2	1.85	0.57
41:YI:3:VAL:HG12	41:YI:38:LEU:HA	1.85	0.57
34:RA:1689:A:OP2	34:RA:1698:A:N6	2.37	0.57
37:RE:26:ILE:HG23	37:RE:182:LEU:HB3	1.86	0.57
1:XA:766:A:H61	1:XA:1511:G:H1'	1.67	0.57
8:XH:11:THR:O	8:XH:15:ASN:ND2	2.38	0.57
20:XT:30:LYS:HA	20:XT:33:ILE:HD12	1.86	0.57
27:Y3:42:ALA:O	34:YA:851:U:O2'	2.20	0.57
34:YA:656:G:H2'	34:YA:657:U:C6	2.40	0.57
34:YA:2710:C:H2'	34:YA:2711:A:C8	2.38	0.57
46:YR:56:LYS:O	46:YR:88:ARG:NH2	2.36	0.57
48:YT:36:GLU:OE1	48:YT:41:ARG:NH1	2.37	0.57
1:QA:608:A:H3'	1:QA:609:A:H8	1.69	0.57
1:QA:937:A:H2'	1:QA:1379:G:H21	1.68	0.57
1:QA:1108:G:O3'	3:QC:176:HIS:HD2	1.87	0.57
1:QA:1114:C:C1'	14:QN:60:SER:O	2.51	0.57
1:QA:1364:U:O4'	21:QU:14:TRP:CZ2	2.57	0.57
12:QL:113:ARG:HH21	12:QL:116:SER:HB2	1.68	0.57
19:QS:61:TYR:OH	34:RA:888:C:OP2	2.21	0.57
33:R9:6:SER:HA	34:RA:1031:G:H4'	1.86	0.57
34:RA:1247:A:OP2	44:RP:15:ARG:NH2	2.38	0.57
49:RU:6:THR:OG1	49:RU:7:GLY:N	2.37	0.57
1:XA:1112:C:C1'	3:XC:179:ARG:CZ	2.79	0.57
1:XA:1313:U:O4	19:XS:4:SER:OG	2.22	0.57
1:XA:1539:C:H2'	1:XA:1540:U:C6	2.39	0.57
34:YA:307:G:H21	34:YA:330:A:H62	1.51	0.57
34:YA:664:C:OP1	44:YP:18:ARG:NH1	2.37	0.57
34:YA:1728:G:H8	34:YA:1732:A:H62	1.50	0.57
1:QA:968:A:N7	1:QA:1062:U:O2'	2.31	0.57
1:QA:1158:C:C5'	2:QB:133:LYS:HZ1	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1176:A:OP1	9:QI:97:LYS:HE2	2.04	0.57
1:QA:1320:C:N4	19:QS:37:ARG:CA	2.68	0.57
3:QC:23:TYR:CG	10:QJ:95:GLU:N	2.72	0.57
33:R9:19:ARG:NH2	34:RA:2754:U:O3'	2.36	0.57
34:RA:511:U:H4'	34:RA:1235:G:H4'	1.86	0.57
34:RA:1216:G:OP1	49:RU:11:ARG:NH2	2.31	0.57
34:RA:2394:C:OP1	44:RP:63:PRO:HD2	2.03	0.57
40:RH:149:ARG:HA	40:RH:162:ILE:HD11	1.85	0.57
1:XA:111:G:H8	1:XA:111:G:O5'	1.87	0.57
5:XE:11:ILE:HG21	5:XE:105:VAL:HG22	1.86	0.57
13:XM:3:ARG:HH12	13:XM:11:ARG:HH21	1.51	0.57
13:XM:84:ILE:HG23	19:XS:66:MET:HE1	1.85	0.57
29:Y5:43:HIS:N	34:YA:2884:U:O4	2.32	0.57
34:YA:911:A:C2	45:YQ:9:TYR:CD2	2.92	0.57
34:YA:996:A:O3'	49:YU:92:ARG:NH2	2.37	0.57
36:YD:28:GLU:HG2	36:YD:29:PRO:HD3	1.86	0.57
1:QA:1219:U:C2'	19:QS:34:TRP:CE3	2.87	0.57
1:QA:1242:C:H4'	1:QA:1303:C:H4'	1.86	0.57
10:QJ:47:PHE:CZ	14:QN:37:PHE:HD2	2.21	0.57
32:R8:46:ARG:NH1	34:RA:630:G:OP1	2.37	0.57
34:RA:2006:C:O2'	34:RA:2823:A:N3	2.35	0.57
34:RA:2419:U:H2'	34:RA:2420:C:H6	1.69	0.57
1:XA:6:G:N3	1:XA:6:G:H2'	2.20	0.57
1:XA:375:U:H5"	1:XA:375:U:H6	1.68	0.57
1:XA:669:U:C1'	15:XO:46:HIS:HE1	2.18	0.57
1:XA:730:G:C5	1:XA:731:G:H1'	2.40	0.57
3:XC:17:ASP:OD1	3:XC:21:ARG:NH2	2.37	0.57
6:XF:62:TRP:CD1	18:XR:35:ARG:NH1	2.72	0.57
34:YA:2044:C:N4	34:YA:2625:G:N1	2.51	0.57
1:QA:1073:U:O2'	2:QB:104:ASN:OD1	2.16	0.57
1:QA:1300:G:H1'	1:QA:1303:C:H42	1.70	0.57
1:QA:1320:C:N4	19:QS:37:ARG:CD	2.66	0.57
3:QC:23:TYR:HE1	10:QJ:10:GLY:HA2	1.66	0.57
13:QM:91:ARG:HD2	13:QM:96:LEU:HD22	1.87	0.57
34:RA:662:G:OP1	44:RP:15:ARG:NH1	2.37	0.57
34:RA:1204:A:H1'	34:RA:1206:G:C8	2.39	0.57
45:RQ:12:GLN:HB2	45:RQ:73:PRO:HD2	1.87	0.57
1:XA:401:C:H2'	1:XA:402:G:C8	2.40	0.57
1:XA:1320:C:N3	19:XS:36:ARG:C	2.58	0.57
1:XA:1320:C:C2	19:XS:36:ARG:O	2.57	0.57
1:XA:1320:C:C2'	19:XS:70:LYS:HD2	2.33	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:XH:8:ASP:OD2	8:XH:12:ARG:NH2	2.37	0.57
9:XI:10:ARG:HG3	9:XI:11:LYS:HG2	1.86	0.57
34:YA:184:C:O2'	34:YA:217:G:N3	2.35	0.57
34:YA:828:U:H4'	34:YA:831:G:N1	2.20	0.57
34:YA:1566:A:C2	36:YD:214:TRP:CE3	2.88	0.57
34:YA:2051:A:N1	34:YA:2614:A:N3	2.52	0.57
34:YA:2070:G:N2	34:YA:2442:C:N3	2.40	0.57
34:YA:2085:C:C2	34:YA:2235:G:C2	2.91	0.57
1:QA:1160:G:C4'	2:QB:132:LYS:HE3	2.35	0.57
3:QC:5:ILE:HG21	14:QN:45:ARG:NH2	2.19	0.57
4:QD:167:GLY:O	4:QD:169:LYS:NZ	2.36	0.57
4:QD:193:ASP:HA	6:XF:24:GLU:OE1	2.05	0.57
26:R2:4:SER:OG	26:R2:5:GLU:N	2.37	0.57
34:RA:1216:G:OP2	49:RU:12:ARG:NH2	2.36	0.57
34:RA:1854:A:H62	34:RA:1888:G:H8	1.51	0.57
1:XA:292:G:C5	1:XA:293:G:H1'	2.40	0.57
1:XA:590:C:OP1	8:XH:29:SER:HA	2.03	0.57
1:XA:728:A:H62	15:XO:54:ARG:CD	2.05	0.57
1:XA:741:G:OP1	15:XO:35:ARG:NE	2.38	0.57
1:XA:1251:A:O2'	1:XA:1369:C:O3'	2.21	0.57
1:XA:1296:C:H5'	13:XM:14:ARG:NH2	2.20	0.57
1:XA:1318:A:O3'	19:XS:11:VAL:CG2	2.50	0.57
2:XB:115:LEU:HD12	2:XB:145:LEU:HB3	1.86	0.57
3:XC:22:TRP:C	10:XJ:93:GLY:HA2	2.25	0.57
34:YA:86:C:OP1	53:YY:33:LYS:NZ	2.37	0.57
34:YA:270(P):U:C4	41:YI:52:ARG:NE	2.69	0.57
34:YA:617:G:OP2	38:YF:43:LYS:NZ	2.31	0.57
34:YA:639:U:H2'	34:YA:640:C:C6	2.40	0.57
34:YA:2049:G:N2	34:YA:2620:C:O2	2.36	0.57
1:QA:1306:A:OP2	21:QU:5:ASP:CA	2.53	0.57
2:QB:74:LYS:HG3	2:QB:77:ALA:HB3	1.87	0.57
2:QB:219:VAL:HA	2:QB:222:ILE:HD12	1.84	0.57
4:QD:9:CYS:SG	4:QD:22:LYS:NZ	2.71	0.57
34:RA:1889:A:N1	34:RA:2234:G:H1'	2.19	0.57
34:RA:2094:G:P	41:RI:22:LYS:HE3	2.44	0.57
39:RG:144:ILE:HG22	39:RG:146:TYR:H	1.69	0.57
1:XA:486:U:H2'	1:XA:487:A:H8	1.69	0.57
1:XA:922:G:H1'	5:XE:19:MET:HB2	1.85	0.57
1:XA:1318:A:O4'	19:XS:11:VAL:CG2	2.53	0.57
30:Y6:19:ARG:HH21	30:Y6:52:VAL:HG21	1.68	0.57
39:YG:37:VAL:HG13	39:YG:94:LEU:HB2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:YR:57:ARG:NH1	46:YR:59:ASP:OD2	2.38	0.57
53:YY:30:VAL:HG22	53:YY:37:VAL:HG12	1.87	0.57
1:QA:248:C:H2'	1:QA:249:U:C6	2.40	0.57
1:QA:1226:C:C5'	13:QM:91:ARG:NH1	2.59	0.57
1:QA:1253:G:OP1	10:QJ:44:VAL:HG11	2.05	0.57
34:RA:2130:U:O2'	34:RA:2133:G:O2'	2.22	0.57
34:RA:2291:U:H2'	34:RA:2292:C:C6	2.40	0.57
1:XA:269:C:H2'	1:XA:270:A:C8	2.40	0.57
1:XA:401:C:H2'	1:XA:402:G:H8	1.69	0.57
1:XA:1495:U:HO2'	34:YA:1919:A:H2	1.53	0.57
12:XL:11:VAL:HG23	17:XQ:29:HIS:NE2	2.19	0.57
13:XM:11:ARG:O	13:XM:13:LYS:NZ	2.35	0.57
34:YA:1566:A:N3	36:YD:214:TRP:CG	2.73	0.57
36:YD:184:LYS:HB3	36:YD:269:PHE:HB3	1.86	0.57
1:QA:1119:C:H2'	1:QA:1120:G:H8	1.69	0.57
1:QA:1253:G:O2'	1:QA:1356:G:O2'	2.20	0.57
4:QD:166:LYS:O	36:YD:135:PHE:CE1	2.58	0.57
34:RA:2039:C:H2'	34:RA:2040:C:H6	1.70	0.57
1:XA:1300:G:C2	1:XA:1334:G:C6	2.93	0.57
10:XJ:53:PRO:C	14:XN:41:ARG:HH21	2.08	0.57
17:XQ:3:LYS:HB2	17:XQ:60:ILE:HD11	1.86	0.57
34:YA:2049:G:C2	34:YA:2620:C:O2	2.57	0.57
34:YA:2054:A:C2	34:YA:2616:C:C2	2.90	0.57
40:YH:155:SER:OG	40:YH:156:ALA:N	2.36	0.57
1:QA:69:G:H1'	1:QA:152:A:C2	2.40	0.56
1:QA:1414:U:H2'	1:QA:1415:G:C8	2.40	0.56
2:QB:87:ARG:NH1	2:QB:220:ASP:OD2	2.38	0.56
4:QD:166:LYS:O	36:YD:135:PHE:HE1	1.87	0.56
10:QJ:47:PHE:CD1	14:QN:37:PHE:HE2	2.22	0.56
31:R7:9:ARG:NE	34:RA:1310:G:OP2	2.38	0.56
34:RA:2751:G:N7	40:RH:2:SER:OG	2.37	0.56
40:RH:29:PRO:HD2	40:RH:79:VAL:HB	1.86	0.56
44:RP:58:THR:O	44:RP:61:ARG:NH2	2.38	0.56
54:RZ:127:LYS:HB3	54:RZ:162:GLU:HB2	1.86	0.56
1:XA:978:A:C5	14:XN:18:VAL:HG21	2.40	0.56
1:XA:1123:A:H1'	10:XJ:38:ILE:CG2	2.35	0.56
1:XA:1278:U:H5"	1:XA:1279:A:C8	2.39	0.56
1:XA:1537:U:O2	23:XX:9:G:N2	2.38	0.56
30:Y6:3:SER:OG	30:Y6:4:GLU:N	2.37	0.56
34:YA:1088:A:H4'	34:YA:1089:G:C8	2.40	0.56
34:YA:2056:G:C8	34:YA:2577:A:C6	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:689:C:H4'	1:QA:705:U:H1'	1.86	0.56
1:QA:1047:G:O2'	1:QA:1215:G:O2'	2.22	0.56
1:QA:1243:C:H5'	21:QU:9:ARG:HG3	1.87	0.56
9:QI:67:GLY:O	9:QI:73:GLN:NE2	2.38	0.56
33:R9:19:ARG:NH2	34:RA:2754:U:O2'	2.33	0.56
34:RA:1338:G:O6	52:RX:62:LYS:NZ	2.36	0.56
1:XA:51:A:O4'	1:XA:353:A:N7	2.38	0.56
1:XA:1228:C:H5	13:XM:103:THR:O	1.87	0.56
34:YA:917:A:H3'	34:YA:918:A:H8	1.70	0.56
1:QA:975:A:C2	14:QN:34:TYR:CE1	2.93	0.56
1:QA:1014:A:O4'	19:QS:34:TRP:CG	2.58	0.56
1:QA:1041:A:H2'	1:QA:1042:G:C8	2.40	0.56
1:QA:1280:A:N3	10:QJ:41:PRO:CD	2.68	0.56
1:QA:1331:G:O6	21:QU:7:ARG:HB2	2.05	0.56
1:QA:1342:C:H2'	1:QA:1343:G:C8	2.39	0.56
9:QI:64:THR:OG1	9:QI:66:ARG:NH1	2.37	0.56
34:RA:644:A:H2	34:RA:2369:A:H1'	1.71	0.56
34:RA:824:A:H1'	34:RA:2358:G:N7	2.20	0.56
34:RA:1248:G:C2	49:RU:3:ARG:HD2	2.40	0.56
53:RY:30:VAL:HG12	53:RY:37:VAL:HG23	1.87	0.56
1:XA:899:C:O2	1:XA:899:C:H2'	2.05	0.56
1:XA:1028(H):G:H2'	1:XA:1028(I):G:C8	2.39	0.56
1:XA:1105:A:H2'	1:XA:1106:G:H8	1.71	0.56
1:XA:1126:U:H3'	1:XA:1127:G:H8	1.69	0.56
1:XA:1184:G:H2'	1:XA:1185:G:H8	1.70	0.56
8:XH:73:ASP:OD1	8:XH:75:ARG:NH1	2.38	0.56
29:Y5:57:VAL:O	46:YR:33:ARG:NH2	2.30	0.56
32:Y8:31:HIS:HD2	34:YA:2421:G:O6	1.88	0.56
34:YA:270(C):A:H61	34:YA:270(Z):G:H1'	1.69	0.56
34:YA:1566:A:C6	36:YD:214:TRP:CZ3	2.92	0.56
34:YA:2096:U:H3	34:YA:2193:G:H22	1.53	0.56
34:YA:2511:U:O2'	37:YE:138:PRO:O	2.22	0.56
34:YA:2647:U:H2'	34:YA:2648:C:C6	2.39	0.56
37:YE:49:LEU:HD22	37:YE:81:ILE:HD11	1.85	0.56
45:YQ:24:GLY:H	45:YQ:101:ARG:HD2	1.70	0.56
46:YR:14:SER:OG	46:YR:15:SER:N	2.38	0.56
53:YY:76:CYS:HB3	53:YY:79:CYS:SG	2.45	0.56
33:R9:23:VAL:HG11	34:RA:1032:A:C4'	2.31	0.56
34:RA:383:U:H2'	34:RA:385:C:H5	1.71	0.56
34:RA:887:A:H1'	34:RA:889:C:C5	2.40	0.56
45:RQ:138:ASP:O	45:RQ:141:GLN:NE2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:962:C:H2'	1:XA:963:G:H8	1.71	0.56
1:XA:1028(H):G:H2'	1:XA:1028(I):G:H8	1.70	0.56
1:XA:1077:G:N2	1:XA:1080:A:OP2	2.37	0.56
11:XK:91:ARG:HH21	18:XR:88:LYS:CD	2.03	0.56
34:YA:515:A:H1'	34:YA:581:C:H1'	1.88	0.56
1:QA:1189:C:O2'	3:QC:176:HIS:ND1	2.39	0.56
30:R6:52:VAL:HG22	30:R6:53:LYS:H	1.70	0.56
34:RA:2114:A:H3'	34:RA:2114:A:N3	2.20	0.56
34:RA:2140:C:H2'	34:RA:2141:G:H8	1.70	0.56
37:RE:39:PRO:HD3	37:RE:45:THR:HG22	1.87	0.56
1:XA:674:G:H2'	1:XA:675:A:C8	2.40	0.56
8:XH:32:LYS:HA	8:XH:35:ILE:HD12	1.86	0.56
34:YA:1802:A:H2'	34:YA:1803:A:C8	2.41	0.56
34:YA:2049:G:C2	34:YA:2620:C:N3	2.72	0.56
34:YA:2250:G:H21	34:YA:2250:G:P	2.27	0.56
1:QA:788:U:H3	1:QA:792:A:H2'	1.68	0.56
1:QA:865:A:N3	1:QA:918:A:O2'	2.35	0.56
1:QA:1358:U:H5'	14:QN:35:ARG:N	2.06	0.56
10:QJ:47:PHE:CE1	14:QN:36:PHE:HB3	2.19	0.56
31:R7:29:LYS:HA	31:R7:32:LYS:HG3	1.88	0.56
34:RA:83:G:N2	34:RA:103:A:OP2	2.39	0.56
37:RE:34:VAL:HG21	37:RE:77:ILE:HD11	1.88	0.56
1:XA:323:U:H3'	1:XA:324:G:C8	2.40	0.56
1:XA:1141:C:H2'	1:XA:1142:G:H8	1.71	0.56
1:XA:1305:G:C5	1:XA:1331:G:C5	2.92	0.56
34:YA:554:U:H2'	34:YA:556:G:H8	1.71	0.56
34:YA:958:U:OP2	45:YQ:14:ARG:NH1	2.39	0.56
33:R9:23:VAL:CG2	34:RA:1032:A:O2'	2.54	0.56
34:RA:1565:C:H1'	34:RA:1566:A:H8	1.70	0.56
38:RF:117:ARG:NH1	38:RF:120:GLU:OE2	2.38	0.56
38:RF:195:ASP:N	38:RF:195:ASP:OD1	2.37	0.56
1:XA:114:U:H1'	1:XA:353:A:H1'	1.86	0.56
1:XA:1270:C:O2'	1:XA:1314:C:OP1	2.24	0.56
34:YA:1204:A:H1'	34:YA:1206:G:C8	2.40	0.56
1:QA:1440(B):G:H4'	1:QA:1440(C):G:C4	2.40	0.56
3:QC:23:TYR:H	10:QJ:93:GLY:C	2.09	0.56
10:QJ:47:PHE:HE2	14:QN:34:TYR:CB	2.17	0.56
34:RA:1576:U:H2'	34:RA:1577:C:H6	1.71	0.56
41:RI:26:ALA:HA	41:RI:30:LEU:HB2	1.88	0.56
49:RU:50:ARG:O	49:RU:54:LYS:NZ	2.39	0.56
1:XA:728:A:C6	15:XO:54:ARG:CD	2.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1123:A:O3'	10:XJ:36:GLY:CA	2.49	0.56
34:YA:1493:C:C6	34:YA:2210:G:C5	2.94	0.56
34:YA:2097:C:C2	34:YA:2193:G:N2	2.73	0.56
34:YA:2134:A:H3'	34:YA:2135:A:H8	1.71	0.56
42:YN:63:THR:OG1	42:YN:64:GLY:N	2.39	0.56
54:YZ:52:SER:O	54:YZ:54:HIS:ND1	2.38	0.56
1:QA:377:G:H2'	1:QA:378:G:C8	2.41	0.56
1:QA:1313:U:C1'	19:QS:6:LYS:HZ3	2.18	0.56
32:R8:25:MET:HG3	44:RP:64:LYS:HB3	1.87	0.56
1:XA:501:C:H2'	1:XA:502:G:C8	2.41	0.56
1:XA:943:U:O2'	1:XA:1232:U:OP2	2.23	0.56
1:XA:989:C:H2'	1:XA:990:C:C6	2.40	0.56
1:XA:1312:G:H3'	19:XS:6:LYS:HZ3	0.75	0.56
1:XA:1377:A:C2	7:XG:8:GLU:O	2.59	0.56
1:XA:1503:A:N6	1:XA:1532:U:H1'	2.21	0.56
31:Y7:8:ASN:ND2	34:YA:770:G:OP1	2.38	0.56
34:YA:2051:A:C2	34:YA:2614:A:N3	2.73	0.56
43:YO:34:THR:CG2	43:YO:35:VAL:H	2.12	0.56
7:QG:16:LEU:HD11	9:QI:42:ARG:HH11	1.69	0.56
8:QH:12:ARG:HD2	8:QH:26:VAL:HG12	1.88	0.56
10:QJ:24:VAL:HG21	10:QJ:37:PRO:HG3	1.87	0.56
12:QL:71:PRO:O	12:QL:102:ARG:NH1	2.39	0.56
13:QM:85:GLY:O	19:QS:74:PHE:HD2	1.89	0.56
25:R1:90:ILE:CA	25:R1:94:LEU:HD12	2.34	0.56
34:RA:659:C:H2'	34:RA:660:G:C8	2.41	0.56
34:RA:1834:U:H1'	34:RA:1969:A:H2'	1.87	0.56
1:XA:12:U:H4'	1:XA:526:C:H4'	1.87	0.56
1:XA:458(B):G:H1'	1:XA:458(F):A:H61	1.71	0.56
24:Y0:19:LYS:NZ	34:YA:2261:C:OP1	2.31	0.56
28:Y4:6:HIS:CE1	39:YG:67:LYS:H	2.24	0.56
1:QA:129(B):G:H4'	1:QA:130:A:H5"	1.88	0.55
1:QA:1086:U:H2'	1:QA:1087:G:H8	1.71	0.55
1:QA:1369:C:H2'	1:QA:1370:G:C8	2.42	0.55
3:QC:5:ILE:HD12	14:QN:49:HIS:NE2	2.21	0.55
3:QC:22:TRP:HA	10:QJ:93:GLY:HA3	1.84	0.55
23:QX:8:A:H2'	23:QX:9:G:H8	1.71	0.55
34:RA:319:C:H2'	34:RA:320:A:C8	2.42	0.55
34:RA:2328:A:H2'	34:RA:2329:G:C8	2.41	0.55
42:RN:22:THR:OG1	42:RN:23:LEU:N	2.39	0.55
1:XA:686:U:O4	1:XA:703:G:O2'	2.20	0.55
29:Y5:48:GLU:OE2	51:YW:37:ARG:NH1	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:597:U:H2'	34:YA:598:G:C8	2.41	0.55
34:YA:2059:A:N1	34:YA:2503:A:C5	2.74	0.55
1:QA:265:G:H5'	17:QQ:64:PRO:O	2.06	0.55
1:QA:741:G:O5'	15:QO:39:LEU:HD11	2.06	0.55
34:RA:372:G:HO2'	34:RA:400:G:H1	1.55	0.55
34:RA:1380:G:O2'	34:RA:1569:A:N6	2.39	0.55
34:RA:2747:G:O6	34:RA:2755:C:H5"	2.06	0.55
43:RO:14:THR:HG21	43:RO:86:ILE:HD12	1.87	0.55
43:RO:106:LEU:HB3	43:RO:111:PHE:HB2	1.87	0.55
44:RP:90:ARG:HG3	44:RP:91:PHE:HD1	1.71	0.55
53:RY:47:LYS:NZ	53:RY:48:ALA:O	2.37	0.55
1:XA:107:G:H4'	1:XA:378:G:H5"	1.88	0.55
1:XA:192:U:H4'	20:XT:57:ARG:HD3	1.87	0.55
1:XA:686:U:O2'	1:XA:703:G:N2	2.40	0.55
1:XA:1228:C:C5	13:XM:103:THR:O	2.59	0.55
1:XA:1228:C:H5	13:XM:104:ARG:CA	1.98	0.55
1:XA:1318:A:H1'	19:XS:37:ARG:NH2	2.21	0.55
34:YA:2108:C:N4	34:YA:2182:G:H22	1.91	0.55
34:YA:2882:A:OP1	46:YR:96:ARG:NH1	2.39	0.55
1:QA:66:G:P	1:QA:66:G:H8	2.29	0.55
1:QA:310:G:OP2	16:QP:27:LYS:CD	2.52	0.55
4:QD:11:LEU:HD13	4:QD:66:ARG:HD2	1.88	0.55
34:RA:1380:G:H1'	34:RA:1569:A:H61	1.71	0.55
1:XA:8:A:N6	4:XD:209:ARG:HA	2.21	0.55
1:XA:261:U:C5	20:XT:79:ARG:CZ	2.88	0.55
1:XA:1358:U:O5'	1:XA:1358:U:H6	1.89	0.55
31:Y7:5:TRP:CZ3	34:YA:686:G:N7	2.74	0.55
34:YA:1030:G:OP2	45:YQ:128:LYS:NZ	2.27	0.55
39:YG:77:ILE:HG22	39:YG:82:LEU:HB2	1.88	0.55
41:YI:131:LYS:HG2	41:YI:135:GLU:HG3	1.87	0.55
48:YT:51:ARG:HD2	48:YT:100:TYR:HE1	1.72	0.55
1:QA:1160:G:C5'	2:QB:132:LYS:HE3	2.33	0.55
1:QA:1280:A:C4	10:QJ:41:PRO:HD2	2.40	0.55
33:R9:5:ALA:O	34:RA:1031:G:H1'	2.06	0.55
34:RA:784:A:N6	34:RA:2072:G:O2'	2.35	0.55
34:RA:2105:C:H2'	34:RA:2106:G:C8	2.42	0.55
35:RB:74:U:H1'	54:RZ:34:ASN:HD21	1.71	0.55
40:RH:33:LEU:HD11	40:RH:136:ILE:HG13	1.87	0.55
41:RI:86:THR:O	41:RI:122:GLU:HG2	2.05	0.55
1:XA:974:A:N9	14:XN:31:ARG:CZ	2.70	0.55
1:XA:1048:G:H2'	1:XA:1050:G:C8	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1305:G:C2	1:XA:1331:G:C8	2.95	0.55
24:Y0:16:SER:HB3	34:YA:2262:U:H5	1.70	0.55
34:YA:192:C:H1'	34:YA:800:A:H62	1.71	0.55
34:YA:468:G:H5"	38:YF:60:SER:HB2	1.88	0.55
1:QA:546:G:H4'	1:QA:548:G:H4'	1.89	0.55
1:QA:791:G:N1	1:QA:1498:U:OP1	2.38	0.55
1:QA:925:G:H1'	1:QA:1502:A:C4	2.42	0.55
1:QA:1124:G:C5'	10:QJ:36:GLY:H	2.20	0.55
4:QD:57:ARG:NH1	5:QE:107:ARG:CD	2.70	0.55
13:QM:11:ARG:HG3	13:QM:12:ASN:H	1.71	0.55
33:R9:14:CYS:HA	33:R9:27:CYS:HB2	1.88	0.55
34:RA:1571:A:H2'	34:RA:1572:A:C8	2.42	0.55
39:RG:126:ASP:OD2	39:RG:130:ASN:ND2	2.36	0.55
47:RS:25:ARG:HH21	47:RS:40:ILE:HG13	1.70	0.55
1:XA:1301:U:H4'	13:XM:17:VAL:CG2	2.36	0.55
1:XA:1316:G:C4'	14:XN:17:LYS:CG	2.31	0.55
1:XA:1473:A:H2'	1:XA:1474:G:C8	2.42	0.55
1:XA:1485:U:H2'	1:XA:1486:G:C8	2.41	0.55
3:XC:23:TYR:HD2	10:XJ:95:GLU:CB	2.19	0.55
34:YA:270(P):U:C4	41:YI:52:ARG:CZ	2.90	0.55
34:YA:746:A:H3'	34:YA:2612:C:H5	1.71	0.55
34:YA:828:U:O2'	34:YA:831:G:O6	2.17	0.55
34:YA:1791:A:N6	34:YA:1828:G:O2'	2.36	0.55
42:YN:129:PRO:O	42:YN:134:ARG:NH1	2.33	0.55
43:YO:87:ILE:HD12	43:YO:91:LEU:HA	1.89	0.55
48:YT:3:ARG:HG3	48:YT:6:LEU:HB2	1.89	0.55
1:QA:1000:A:H2'	1:QA:1001:G:C8	2.41	0.55
1:QA:1204:A:P	14:QN:3:ARG:NH2	2.79	0.55
1:QA:1239:A:H2	1:QA:1296:C:H5	1.53	0.55
13:QM:67:GLU:OE1	13:QM:71:ARG:NH1	2.40	0.55
26:R2:35:LEU:HD23	26:R2:50:ILE:HG12	1.88	0.55
31:R7:23:ARG:O	31:R7:28:ARG:NH1	2.40	0.55
43:RO:112:MET:HA	43:RO:115:VAL:HG22	1.87	0.55
47:RS:106:ARG:HA	47:RS:110:LEU:HD21	1.87	0.55
1:XA:1123:A:H2'	1:XA:1124:G:C4	2.41	0.55
10:XJ:47:PHE:CE2	14:XN:37:PHE:CZ	2.94	0.55
10:XJ:68:HIS:CD2	10:XJ:68:HIS:N	2.75	0.55
34:YA:34:C:N4	34:YA:454:A:O2'	2.38	0.55
34:YA:1566:A:H2	36:YD:214:TRP:NE1	2.03	0.55
34:YA:2377:A:H2'	34:YA:2378:A:C8	2.42	0.55
41:YI:130:TYR:HB3	41:YI:136:VAL:HG13	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1014:A:C1'	19:QS:34:TRP:CD2	2.90	0.55
1:QA:1218:C:H2'	1:QA:1219:U:H6	1.72	0.55
34:RA:318:C:H2'	34:RA:319:C:H6	1.71	0.55
38:RF:117:ARG:NH2	38:RF:189:THR:O	2.40	0.55
1:XA:68(Q):C:H2'	1:XA:68(R):U:H6	1.72	0.55
1:XA:186(L):G:H2'	1:XA:186(M):G:C8	2.42	0.55
1:XA:288:A:H2'	1:XA:289:G:H4'	1.87	0.55
1:XA:1162:C:H2'	1:XA:1163:C:C6	2.41	0.55
1:XA:1228:C:C5	13:XM:104:ARG:CB	2.89	0.55
34:YA:2229:C:H2'	34:YA:2230:G:C8	2.41	0.55
1:QA:1320:C:H42	19:QS:37:ARG:CB	2.18	0.55
1:QA:1376:U:C4	7:QG:10:ARG:CZ	2.90	0.55
4:QD:20:TYR:CZ	6:XF:14:LEU:CA	2.90	0.55
34:RA:644:A:C2	34:RA:2369:A:H1'	2.42	0.55
34:RA:1462:C:H4'	34:RA:2703:C:H5'	1.89	0.55
40:RH:86:GLU:HG3	40:RH:165:ALA:HB3	1.89	0.55
43:RO:19:ILE:HG22	43:RO:43:VAL:HG12	1.88	0.55
1:XA:405:U:H5"	1:XA:495:A:H2	1.71	0.55
1:XA:481:G:O2'	1:XA:483:C:N4	2.40	0.55
1:XA:1300:G:H1'	1:XA:1301:U:C6	2.42	0.55
1:XA:1359:C:N4	14:XN:35:ARG:NE	2.54	0.55
7:XG:29:LYS:HE2	7:XG:102:ARG:HB3	1.89	0.55
34:YA:236:C:H2'	34:YA:237:C:C6	2.42	0.55
34:YA:1872:A:C5	34:YA:1878:G:H1'	2.41	0.55
34:YA:2056:G:C6	34:YA:2577:A:N9	2.75	0.55
34:YA:2692:C:H2'	34:YA:2693:A:H8	1.72	0.55
1:QA:856:C:H2'	1:QA:857:C:C6	2.42	0.55
1:QA:1049:U:C4	14:QN:3:ARG:CB	2.77	0.55
1:QA:1221:G:H5'	19:QS:36:ARG:CZ	2.37	0.55
1:QA:1314:C:C5	19:QS:6:LYS:HE3	2.39	0.55
34:RA:1528:A:H2'	34:RA:1529:A:C8	2.42	0.55
1:XA:1229:A:H62	13:XM:104:ARG:CD	2.20	0.55
21:XU:3:LYS:HG2	21:XU:14:TRP:CB	2.36	0.55
43:YO:104:ARG:NH2	48:YT:36:GLU:OE2	2.36	0.55
1:QA:625:G:H5'	16:QP:10:GLY:N	2.21	0.55
14:QN:24:CYS:SG	14:QN:40:CYS:N	2.80	0.55
34:RA:831:G:N2	44:RP:53:GLY:O	2.40	0.55
34:RA:1299:G:H22	34:RA:1640:C:H5'	1.71	0.55
34:RA:1826:G:H4'	36:RD:242:ARG:HH21	1.72	0.55
34:RA:2476:A:H2'	34:RA:2477:C:C6	2.42	0.55
53:RY:6:HIS:O	53:RY:97:ARG:NH2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1440(K):C:HO2'	1:XA:1440(L):G:H21	1.54	0.55
3:XC:23:TYR:HB2	10:XJ:93:GLY:C	2.27	0.55
10:XJ:69:ASN:N	10:XJ:69:ASN:OD1	2.39	0.55
11:XK:91:ARG:CD	18:XR:88:LYS:HZ1	2.15	0.55
34:YA:2080:G:N1	34:YA:2241:A:C2	2.74	0.55
34:YA:2134:A:H1'	34:YA:2158:A:N3	2.22	0.55
34:YA:2506:U:H2'	34:YA:2507:C:H6	1.72	0.55
38:YF:56:GLU:OE2	38:YF:93:LYS:NZ	2.36	0.55
53:YY:83:THR:HG21	53:YY:99:CYS:SG	2.48	0.55
1:QA:29:G:HO2'	1:QA:295:C:HO2'	1.47	0.54
1:QA:677:U:H2'	1:QA:678:U:C6	2.43	0.54
1:QA:947:G:H5'	13:QM:109:THR:HG23	1.90	0.54
1:QA:1253:G:P	10:QJ:44:VAL:HG23	2.46	0.54
2:QB:130:ARG:O	2:QB:135:GLN:NE2	2.37	0.54
34:RA:459:U:H2'	34:RA:460:A:H8	1.72	0.54
34:RA:1999:C:H1'	34:RA:2687:U:H1'	1.89	0.54
43:RO:104:ARG:NH2	43:RO:121:VAL:O	2.40	0.54
45:RQ:45:GLN:NE2	45:RQ:91:GLU:O	2.40	0.54
45:RQ:62:GLY:O	54:RZ:178:GLU:OE1	2.25	0.54
1:XA:745:C:H5"	1:XA:851:G:H1'	1.87	0.54
1:XA:941:G:O2'	1:XA:1350:A:OP1	2.24	0.54
1:XA:1541:U:O2	23:XX:5:A:C2	2.60	0.54
30:Y6:40:CYS:HB3	30:Y6:43:CYS:HB3	1.88	0.54
34:YA:482:A:H1'	34:YA:498:G:N2	2.22	0.54
34:YA:1456:G:N1	34:YA:2703:C:N4	2.18	0.54
34:YA:1493:C:C4	34:YA:2210:G:C4	2.95	0.54
34:YA:2056:G:C4	34:YA:2577:A:C6	2.95	0.54
41:YI:129:THR:HA	41:YI:137:PRO:HA	1.89	0.54
45:YQ:134:ARG:NH2	54:YZ:122:ARG:HD2	2.21	0.54
1:QA:954:G:H21	19:QS:83:HIS:CE1	2.23	0.54
1:QA:1221:G:P	19:QS:36:ARG:CZ	2.95	0.54
3:QC:5:ILE:HD12	14:QN:49:HIS:CD2	2.42	0.54
8:QH:64:LYS:HG2	8:QH:79:VAL:HG11	1.90	0.54
34:RA:504:U:H5"	34:RA:505:A:H5'	1.88	0.54
34:RA:747:U:H3'	34:RA:2612:C:H41	1.71	0.54
47:RS:34:HIS:ND1	47:RS:53:SER:OG	2.40	0.54
1:XA:1505:G:H5'	1:XA:1506:U:C6	2.43	0.54
2:XB:187:LEU:HA	2:XB:201:ILE:HB	1.90	0.54
14:XN:23:ARG:NH1	14:XN:24:CYS:O	2.40	0.54
34:YA:390:A:N1	44:YP:71:VAL:HG21	2.22	0.54
1:QA:309:G:C5'	16:QP:27:LYS:HE2	2.27	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:974:A:OP2	14:QN:29:ARG:HG3	2.03	0.54
3:QC:21:ARG:NH2	10:QJ:15:THR:HG21	2.22	0.54
34:RA:2312:U:O2'	39:RG:40:ASN:OD1	2.20	0.54
34:RA:2789:C:H1'	34:RA:2892:A:H2	1.72	0.54
43:RO:22:ILE:HB	43:RO:40:VAL:HG13	1.89	0.54
45:RQ:138:ASP:HB2	54:RZ:122:ARG:NH2	2.23	0.54
1:XA:1221:G:OP1	19:XS:36:ARG:HD3	2.07	0.54
33:Y9:16:VAL:HG12	33:Y9:25:VAL:HG12	1.88	0.54
34:YA:1275:A:O2'	34:YA:1645:G:N3	2.41	0.54
34:YA:1826:G:H4'	36:YD:242:ARG:NH2	2.22	0.54
34:YA:2275:C:O2	45:YQ:83:MET:CG	2.55	0.54
40:YH:2:SER:O	40:YH:2:SER:OG	2.24	0.54
1:QA:625:G:C5'	16:QP:9:PHE:HB3	2.36	0.54
1:QA:957:U:H5'	19:QS:81:ARG:CB	2.37	0.54
1:QA:1004:A:H2	1:QA:1024:G:H2'	1.71	0.54
1:QA:1060:C:C5	3:QC:2:GLY:HA3	2.42	0.54
5:QE:80:ILE:HD13	8:QH:104:ARG:HH12	1.73	0.54
12:QL:53:ARG:HB3	12:QL:69:TYR:HE1	1.73	0.54
1:XA:335:C:H2'	1:XA:336:C:C6	2.41	0.54
1:XA:379:C:H2'	1:XA:380:G:C8	2.43	0.54
1:XA:1112:C:C1'	3:XC:179:ARG:HE	2.18	0.54
1:XA:1396:A:H2	5:XE:19:MET:HG3	1.72	0.54
3:XC:23:TYR:HD2	10:XJ:95:GLU:CG	2.19	0.54
22:XV:19:G:C5	34:YA:2112:G:N7	2.75	0.54
34:YA:2836:U:H2'	34:YA:2837:G:C8	2.43	0.54
54:YZ:97:GLU:HB3	54:YZ:125:LEU:HD11	1.90	0.54
1:QA:111:G:O2'	1:QA:389:A:O2'	2.23	0.54
1:QA:624:C:H4'	16:QP:10:GLY:O	2.07	0.54
1:QA:981:U:H5"	14:QN:6:LEU:CD2	2.35	0.54
1:QA:1229:A:H61	13:QM:104:ARG:NH1	2.02	0.54
1:QA:1279:A:OP2	10:QJ:9:ARG:NH1	2.37	0.54
6:QF:97:PHE:CD2	18:QR:31:LEU:HD13	2.43	0.54
10:QJ:40:LEU:HD13	10:QJ:69:ASN:HB3	1.90	0.54
34:RA:1225:C:O2'	50:RV:86:GLY:N	2.34	0.54
34:RA:1445:C:H2'	34:RA:1446:C:H6	1.72	0.54
34:RA:2185:C:H2'	34:RA:2186:G:C8	2.42	0.54
34:RA:2312:U:H2'	34:RA:2313:C:H6	1.72	0.54
34:RA:2520:C:H2'	34:RA:2521:C:H6	1.72	0.54
37:RE:2:LYS:NZ	37:RE:100:GLU:OE2	2.40	0.54
51:RW:67:ASP:N	51:RW:67:ASP:OD1	2.39	0.54
54:RZ:128:VAL:HG23	54:RZ:161:VAL:HG12	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:123:C:H2'	1:XA:124:G:C8	2.43	0.54
1:XA:981:U:H3'	1:XA:982:U:C6	2.43	0.54
1:XA:1226:C:H3'	13:XM:103:THR:OG1	2.07	0.54
4:XD:57:ARG:HH12	5:XE:107:ARG:NH1	2.06	0.54
8:XH:86:ILE:HD11	8:XH:136:GLU:HG2	1.89	0.54
34:YA:319:C:H2'	34:YA:320:A:C8	2.43	0.54
39:YG:19:LEU:HD23	39:YG:32:PRO:HD2	1.89	0.54
54:YZ:149:SER:OG	54:YZ:150:LEU:N	2.40	0.54
1:QA:980:C:C4'	14:QN:19:ARG:HH21	2.16	0.54
1:QA:1014:A:OP1	19:QS:32:LYS:CE	2.56	0.54
1:QA:1414:U:H2'	1:QA:1415:G:H8	1.71	0.54
9:QI:46:ALA:HA	9:QI:78:LYS:HB3	1.88	0.54
28:R4:34:GLU:OE1	39:RG:113:ARG:NE	2.40	0.54
34:RA:1638:C:H1'	34:RA:2698:U:H1'	1.90	0.54
34:RA:2212:A:H1'	34:RA:2215:G:C4	2.43	0.54
50:RV:62:LEU:HB2	50:RV:93:GLU:HG3	1.88	0.54
1:XA:421:U:H4'	3:XC:192:THR:HG22	1.88	0.54
1:XA:1315:U:O3'	14:XN:17:LYS:HE2	1.68	0.54
3:XC:14:ILE:HG22	3:XC:15:THR:HG23	1.88	0.54
3:XC:22:TRP:HA	10:XJ:93:GLY:CA	2.38	0.54
34:YA:2108:C:C4	34:YA:2182:G:N2	2.76	0.54
51:YW:69:LEU:HD13	51:YW:107:LEU:HD23	1.89	0.54
1:QA:1198:G:H2'	1:QA:1199:U:C6	2.42	0.54
1:QA:1434:A:H61	1:QA:1467:G:H1'	1.72	0.54
34:RA:1221:C:H2'	34:RA:1222:C:C6	2.43	0.54
34:RA:2030:A:H4'	34:RA:2031:A:H8	1.71	0.54
38:RF:63:LYS:NZ	38:RF:75:HIS:O	2.33	0.54
49:RU:90:VAL:O	49:RU:92:ARG:N	2.35	0.54
1:XA:1041:A:H2'	1:XA:1042:G:C8	2.43	0.54
30:Y6:46:HIS:ND1	34:YA:2371:G:O2'	2.37	0.54
34:YA:1050:A:H8	34:YA:2751:G:N9	2.06	0.54
34:YA:2045:C:O2	34:YA:2624:G:C2	2.59	0.54
46:YR:104:ARG:NH1	46:YR:107:ASP:OD1	2.40	0.54
54:YZ:53:ILE:HG22	54:YZ:71:VAL:HG13	1.90	0.54
1:QA:243:A:H2	1:QA:282:A:H62	1.56	0.54
1:QA:413:G:H1'	1:QA:428:G:H21	1.72	0.54
1:QA:769:G:H4'	1:QA:1513:A:H4'	1.89	0.54
1:QA:979:C:OP1	1:QA:1223:C:N4	2.41	0.54
30:R6:46:HIS:ND1	34:RA:2371:G:O2'	2.28	0.54
33:R9:25:VAL:HB	33:R9:34:GLN:HB2	1.90	0.54
46:RR:33:ARG:NH2	46:RR:115:GLU:OE1	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:151:A:H3'	1:XA:152:A:H8	1.73	0.54
1:XA:571:U:H4'	1:XA:819:A:C6	2.42	0.54
1:XA:736:C:H2'	1:XA:737:A:C8	2.43	0.54
1:XA:994:A:H1'	1:XA:1216:G:H4'	1.88	0.54
2:XB:192:SER:OG	2:XB:193:ASP:N	2.40	0.54
11:XK:107:SER:HA	18:XR:87:ARG:NH1	2.23	0.54
27:Y3:8:LEU:HD13	27:Y3:23:LEU:HD11	1.90	0.54
34:YA:2646:C:OP2	34:YA:2732:G:O2'	2.24	0.54
54:YZ:11:GLU:O	54:YZ:36:LYS:NZ	2.36	0.54
1:QA:1004:A:C6	1:QA:1025:U:H4'	2.43	0.54
3:QC:108:ASN:HD22	3:QC:111:LEU:HD23	1.72	0.54
27:R3:13:ILE:HG21	34:RA:988:A:N6	2.23	0.54
34:RA:30:G:O2'	34:RA:1214:A:N3	2.38	0.54
34:RA:1397:U:OP2	34:RA:1398:C:N4	2.37	0.54
34:RA:2210:G:OP1	36:RD:68:LYS:NZ	2.41	0.54
1:XA:1181:G:C2	1:XA:1182:G:H1'	2.43	0.54
6:XF:89:MET:HE3	18:XR:76:LEU:HD13	1.90	0.54
22:XV:75:C:OP1	25:Y1:30:VAL:HG22	2.08	0.54
34:YA:358:U:H2'	34:YA:359:A:H8	1.72	0.54
34:YA:451:C:N4	34:YA:454:A:OP2	2.35	0.54
34:YA:2240:C:H2'	34:YA:2241:A:C8	2.43	0.54
45:YQ:45:GLN:NE2	45:YQ:91:GLU:O	2.40	0.54
1:QA:1360:A:C1'	14:QN:17:LYS:HZ1	2.19	0.54
3:QC:11:ARG:NH2	3:QC:177:THR:O	2.40	0.54
34:RA:247:G:H4'	34:RA:386:G:C4	2.43	0.54
34:RA:1275:A:O2'	34:RA:1645:G:N3	2.41	0.54
34:RA:1936:A:OP2	34:RA:1961:C:N4	2.41	0.54
1:XA:702:A:C6	34:YA:1848:A:C4	2.96	0.54
1:XA:1253:G:N3	1:XA:1254:C:C5	2.76	0.54
34:YA:197:A:C5	34:YA:2430:A:H2	2.09	0.54
34:YA:1086:A:O2'	34:YA:1103:A:N6	2.36	0.54
34:YA:1363:C:H2'	34:YA:1364:G:H8	1.73	0.54
54:YZ:108:PRO:HA	54:YZ:142:SER:HA	1.88	0.54
1:QA:1010:G:H2'	1:QA:1011:G:C8	2.42	0.53
1:QA:1280:A:N9	10:QJ:41:PRO:HD2	2.22	0.53
1:QA:1286:A:N6	1:QA:1355:G:OP1	2.41	0.53
1:QA:1305:G:O2'	1:QA:1332:A:N7	2.36	0.53
3:QC:23:TYR:CE1	10:QJ:9:ARG:C	2.82	0.53
9:QI:71:SER:HA	9:QI:74:ILE:HG12	1.90	0.53
34:RA:685:A:C2	34:RA:787:U:H1'	2.43	0.53
34:RA:2750:A:P	40:RH:59:ARG:HH12	2.31	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:RI:83:ALA:HA	41:RI:89:TYR:CD2	2.43	0.53
53:RY:19:LYS:HZ1	53:RY:20:TYR:HE2	1.47	0.53
1:XA:51:A:C4	1:XA:353:A:C5	2.96	0.53
1:XA:1230:C:N3	13:XM:102:ARG:NH1	2.55	0.53
1:XA:1304:G:H8	1:XA:1304:G:C5'	2.06	0.53
1:XA:1320:C:N3	19:XS:37:ARG:N	2.56	0.53
34:YA:911:A:C2	45:YQ:9:TYR:CD1	2.96	0.53
1:QA:137:C:H1'	16:QP:63:GLY:CA	2.29	0.53
1:QA:445:G:H2'	1:QA:446:G:H8	1.74	0.53
1:QA:699:C:H2'	1:QA:700:G:C8	2.43	0.53
1:QA:1080:A:P	5:QE:14:ARG:HH22	2.31	0.53
1:QA:1126:U:H5	1:QA:1148:U:H3	1.56	0.53
1:QA:1522:U:H2'	1:QA:1523:G:H8	1.72	0.53
3:QC:23:TYR:CZ	10:QJ:9:ARG:O	2.61	0.53
4:QD:98:GLU:HA	4:QD:103:ASN:HD22	1.73	0.53
27:R3:49:LYS:NZ	34:RA:851:U:OP1	2.38	0.53
34:RA:863:A:O3'	35:RB:100:G:N2	2.39	0.53
1:XA:68(B):G:H1	1:XA:68(Z):C:H42	1.56	0.53
1:XA:130:A:H4'	1:XA:186(K):G:C4	2.42	0.53
1:XA:592:G:H2'	1:XA:593:G:H8	1.73	0.53
1:XA:1502:A:H5'	1:XA:1504:G:N7	2.24	0.53
23:XX:6:G:H2'	23:XX:7:G:C8	2.44	0.53
34:YA:345:A:O2'	34:YA:347:A:N6	2.40	0.53
34:YA:746:A:O2'	34:YA:2611:U:O2'	2.18	0.53
34:YA:998:C:OP2	49:YU:58:ARG:NH1	2.41	0.53
34:YA:2074:U:HO2'	34:YA:2597:G:HO2'	1.55	0.53
34:YA:2319:G:O6	47:YS:3:ARG:O	2.25	0.53
34:YA:2391:G:H1'	34:YA:2429:G:H21	1.72	0.53
1:QA:237:C:H2'	1:QA:238:G:C8	2.43	0.53
1:QA:372:C:N4	1:QA:389:A:N7	2.56	0.53
1:QA:1048:G:OP1	14:QN:4:LYS:HB3	2.07	0.53
1:QA:1293:G:H2'	1:QA:1294:G:C8	2.43	0.53
28:R4:1:MET:N	35:RB:39:A:N1	2.57	0.53
29:R5:36:CYS:SG	29:R5:49:CYS:HB3	2.49	0.53
34:RA:551:G:H5'	34:RA:1220:A:H1'	1.90	0.53
36:RD:44:ASN:N	36:RD:44:ASN:OD1	2.41	0.53
47:RS:18:ILE:HD13	47:RS:88:ASP:HA	1.90	0.53
1:XA:8:A:N6	4:XD:209:ARG:CA	2.72	0.53
1:XA:34:C:H2'	1:XA:35:G:C8	2.43	0.53
1:XA:107:G:O6	20:XT:15:ARG:NH2	2.41	0.53
1:XA:232:G:H1'	1:XA:262:A:N1	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:948:C:P	13:XM:106:ASN:HB3	2.48	0.53
1:XA:1360:A:H1'	14:XN:17:LYS:HG3	1.89	0.53
4:XD:57:ARG:NH2	5:XE:107:ARG:HD3	2.23	0.53
6:XF:99:ALA:O	18:XR:28:GLU:CG	2.56	0.53
30:Y6:35:GLU:OE2	30:Y6:50:ARG:NH1	2.42	0.53
34:YA:820:A:H1'	34:YA:943:U:H1'	1.90	0.53
34:YA:2092:U:O4	34:YA:2228:G:O6	2.26	0.53
54:YZ:129:SER:OG	54:YZ:132:ASN:OD1	2.24	0.53
3:QC:23:TYR:CD1	10:QJ:9:ARG:O	2.60	0.53
3:QC:88:ARG:HG2	3:QC:101:LEU:HD13	1.90	0.53
4:QD:196:LEU:CA	6:XF:16:GLN:HG2	2.27	0.53
4:QD:205:GLU:HG2	5:QE:100:VAL:C	2.27	0.53
27:R3:45:GLY:HA3	34:RA:852:G:H5'	1.89	0.53
32:R8:25:MET:CE	44:RP:64:LYS:HD2	2.38	0.53
34:RA:631:A:H5'	44:RP:65:ARG:HG2	1.90	0.53
34:RA:668:G:H2'	34:RA:670:A:H62	1.74	0.53
1:XA:261:U:C5	20:XT:79:ARG:NH2	2.76	0.53
1:XA:652:U:O4	1:XA:752:G:O2'	2.26	0.53
1:XA:796:C:H2'	1:XA:797:C:H6	1.73	0.53
7:XG:71:PRO:O	7:XG:96:GLN:NE2	2.41	0.53
16:XP:37:GLY:HA3	16:XP:50:LYS:O	2.08	0.53
33:Y9:6:SER:HB3	34:YA:2466:C:H5"	1.89	0.53
33:Y9:29:ASN:ND2	33:Y9:32:HIS:CD2	2.77	0.53
34:YA:2228:G:OP1	36:YD:263:ARG:NH2	2.41	0.53
45:YQ:28:ALA:N	45:YQ:105:GLU:OE2	2.41	0.53
1:QA:691:G:O6	11:QK:52:GLY:HA2	2.08	0.53
1:QA:986:A:O4'	19:QS:55:LYS:HA	2.08	0.53
1:QA:1302:U:C1'	13:QM:27:LYS:CE	1.95	0.53
1:QA:1306:A:OP2	21:QU:5:ASP:HB2	2.08	0.53
4:QD:20:TYR:CE2	6:XF:14:LEU:HA	2.43	0.53
46:RR:56:LYS:NZ	46:RR:90:ARG:O	2.41	0.53
51:RW:14:PRO:HG2	51:RW:78:GLU:HG3	1.90	0.53
1:XA:901:A:C5	1:XA:902:G:H1'	2.44	0.53
1:XA:976:G:H21	1:XA:1362(B):C:H2'	1.73	0.53
1:XA:1305:G:N7	1:XA:1331:G:O6	2.41	0.53
34:YA:222:A:HO2'	34:YA:420:C:HO2'	1.56	0.53
34:YA:685:A:H5"	34:YA:788:A:N6	2.23	0.53
47:YS:26:LEU:HB3	47:YS:87:PHE:HA	1.90	0.53
1:QA:740:U:O3'	15:QO:39:LEU:CG	2.56	0.53
1:QA:1187:G:N2	14:QN:60:SER:OG	2.42	0.53
3:QC:29:TYR:CE1	14:QN:54:PRO:HG2	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:QN:6:LEU:HB3	14:QN:23:ARG:HH12	1.72	0.53
34:RA:1782:C:H1'	34:RA:2609:U:H5"	1.91	0.53
34:RA:2849:U:C2	34:RA:2867:G:H1'	2.44	0.53
38:RF:107:LYS:HE3	38:RF:207:GLY:H	1.73	0.53
38:RF:185:ASP:OD1	38:RF:188:ARG:NH1	2.42	0.53
45:RQ:81:VAL:O	45:RQ:82:ARG:NE	2.34	0.53
34:YA:389:G:H1	44:YP:71:VAL:H	1.57	0.53
34:YA:749:C:H4'	34:YA:1271:G:N3	2.23	0.53
34:YA:1457:A:N1	34:YA:2703:C:N4	2.57	0.53
34:YA:2071:A:H2'	34:YA:2072:G:C8	2.44	0.53
41:YI:68:LEU:HA	41:YI:71:ILE:HG22	1.90	0.53
1:QA:539:A:OP2	12:QL:115:LYS:HD3	2.08	0.53
1:QA:878:G:H5"	8:QH:90:GLY:N	2.23	0.53
1:QA:973:G:C4'	14:QN:29:ARG:NH2	2.53	0.53
1:QA:1048:G:OP1	14:QN:4:LYS:CE	2.56	0.53
4:QD:205:GLU:CG	5:QE:100:VAL:O	2.48	0.53
27:R3:12:PRO:HA	27:R3:15:TYR:HD2	1.73	0.53
30:R6:9:LEU:HD13	30:R6:51:GLU:HB2	1.90	0.53
34:RA:642:G:H21	34:RA:646:A:H2	1.56	0.53
34:RA:1815:A:OP2	36:RD:54:ARG:NH2	2.42	0.53
34:RA:2345:G:H1'	34:RA:2382:G:H5'	1.91	0.53
1:XA:481:G:N3	1:XA:482:A:N6	2.56	0.53
1:XA:539:A:OP1	12:XL:114:LYS:CD	2.52	0.53
1:XA:1106:G:H5'	3:XC:172:ARG:CG	2.38	0.53
31:Y7:37:LYS:HE3	34:YA:458:G:C5	2.44	0.53
34:YA:288:C:H2'	34:YA:289:A:H8	1.73	0.53
34:YA:882:G:H2'	34:YA:883:G:H8	1.74	0.53
34:YA:1061:U:H4'	34:YA:1070:A:H1'	1.90	0.53
40:YH:103:LEU:HB3	40:YH:115:VAL:HG22	1.91	0.53
1:QA:797:C:H2'	1:QA:798:G:H8	1.74	0.53
1:QA:1318:A:H62	14:QN:16:PHE:HB3	1.74	0.53
7:QG:114:ARG:O	7:QG:119:ARG:NH2	2.42	0.53
14:QN:24:CYS:HB2	14:QN:28:GLY:H	1.73	0.53
25:R1:41:ARG:NH2	34:RA:1365:A:O4'	2.40	0.53
34:RA:2107:C:H2'	34:RA:2108:C:C6	2.44	0.53
34:RA:2698:U:H2'	34:RA:2699:C:C6	2.43	0.53
37:RE:171:GLU:HB3	37:RE:185:LYS:HE2	1.90	0.53
1:XA:745:C:H2'	1:XA:746:A:C8	2.43	0.53
2:XB:132:LYS:HA	2:XB:135:GLN:HB2	1.89	0.53
10:XJ:37:PRO:O	10:XJ:37:PRO:CG	2.52	0.53
34:YA:191:A:H2'	34:YA:192:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2680:C:H5'	37:YE:189:PRO:HA	1.90	0.53
49:YU:28:ARG:NH1	49:YU:38:THR:OG1	2.41	0.53
1:QA:229:U:H2'	1:QA:230:G:C8	2.44	0.53
1:QA:980:C:O2	14:QN:21:TYR:CE1	2.62	0.53
2:QB:109:SER:O	2:QB:113:HIS:ND1	2.41	0.53
3:QC:108:ASN:HB3	3:QC:111:LEU:HB2	1.89	0.53
29:R5:49:CYS:SG	29:R5:50:GLY:N	2.82	0.53
34:RA:392:C:H5"	34:RA:409:C:H5"	1.91	0.53
35:RB:7:G:H21	47:RS:38:GLN:HE22	1.57	0.53
1:XA:996:A:N1	1:XA:1046:A:H1'	2.24	0.53
1:XA:1260:C:O2'	1:XA:1283:G:O2'	2.23	0.53
1:XA:1279:A:O2'	1:XA:1282:C:N4	2.42	0.53
34:YA:699:A:O3'	34:YA:1554:A:N6	2.42	0.53
34:YA:793:A:OP2	34:YA:2071:A:O2'	2.27	0.53
34:YA:1050:A:C8	34:YA:2751:G:N3	2.76	0.53
34:YA:1266:G:C8	51:YW:15:ARG:NH2	2.76	0.53
34:YA:1999:C:H2'	34:YA:2000:G:H8	1.74	0.53
34:YA:2317:C:H3'	34:YA:2318:G:H21	1.74	0.53
1:QA:160:A:H1'	1:QA:344:A:C5	2.45	0.53
1:QA:861:G:HO2'	1:QA:874:G:HO2'	1.57	0.53
1:QA:1314:C:C5	19:QS:6:LYS:CE	2.92	0.53
1:QA:1331:G:P	13:QM:24:GLY:H	2.32	0.53
7:QG:16:LEU:CD2	9:QI:42:ARG:CA	2.87	0.53
34:RA:477:A:N6	34:RA:500:G:O2'	2.42	0.53
34:RA:828:U:H4'	34:RA:831:G:N1	2.24	0.53
34:RA:1935:G:H1'	34:RA:1964:G:N2	2.24	0.53
34:RA:2094:G:OP1	41:RI:22:LYS:CE	2.54	0.53
42:RN:39:ARG:NH1	42:RN:48:MET:SD	2.82	0.53
26:Y2:29:LYS:NZ	52:YX:6:ASP:OD2	2.32	0.53
28:Y4:11:PRO:HA	28:Y4:25:TYR:HA	1.90	0.53
34:YA:758:C:H2'	34:YA:759:G:H8	1.73	0.53
34:YA:1958:C:H2'	34:YA:1959:G:H8	1.74	0.53
34:YA:2630:G:N3	34:YA:2892:A:O2'	2.42	0.53
43:YO:120:GLU:OE1	48:YT:67:SER:OG	2.28	0.53
1:QA:643:C:O2'	8:QH:132:GLU:OE1	2.24	0.52
1:QA:675:A:O2'	11:QK:115:PRO:HA	2.09	0.52
1:QA:1223:C:P	19:QS:78:ARG:CZ	2.93	0.52
34:RA:589:C:H2'	34:RA:590:A:C8	2.44	0.52
34:RA:1028:A:H2'	34:RA:1029:A:C8	2.44	0.52
34:RA:1668:A:H2	34:RA:1675:C:H41	1.56	0.52
34:RA:2133:G:N2	34:RA:2157:G:H2'	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:2291:U:H1'	34:RA:2374:C:H1'	1.91	0.52
46:RR:103:ARG:NH1	46:RR:108:GLY:O	2.40	0.52
50:RV:76:LYS:HB2	50:RV:81:TYR:HB3	1.90	0.52
1:XA:1282:C:H2'	1:XA:1283:G:O4'	2.09	0.52
1:XA:1378:C:O2	1:XA:1378:C:H2'	2.09	0.52
1:XA:1505:G:H5'	1:XA:1506:U:H6	1.74	0.52
1:XA:1510:U:H2'	1:XA:1511:G:C8	2.44	0.52
10:XJ:64:GLU:O	14:XN:56:VAL:CG2	2.57	0.52
34:YA:1500:G:O2'	36:YD:100:GLY:O	2.27	0.52
34:YA:2453:A:H2'	34:YA:2454:G:H8	1.73	0.52
34:YA:2626:C:H2'	34:YA:2627:G:C8	2.44	0.52
36:YD:17:THR:HB	36:YD:205:VAL:H	1.74	0.52
1:QA:677:U:H1'	11:QK:119:CYS:SG	2.49	0.52
1:QA:762:C:H2'	1:QA:763:G:H8	1.75	0.52
1:QA:985:C:H2'	1:QA:986:A:C8	2.44	0.52
1:QA:1305:G:H2'	1:QA:1331:G:C2	2.43	0.52
10:QJ:33:GLN:O	10:QJ:76:ASN:ND2	2.43	0.52
19:QS:4:SER:OG	19:QS:5:LEU:N	2.41	0.52
34:RA:390:A:H1'	34:RA:391:G:C8	2.44	0.52
34:RA:2006:C:H2'	34:RA:2007:C:C6	2.44	0.52
34:RA:2377:A:H2'	34:RA:2378:A:C8	2.44	0.52
34:RA:2729:G:H1'	37:RE:187:ALA:HB2	1.91	0.52
1:XA:129(B):G:H1'	1:XA:186(J):U:H2'	1.92	0.52
1:XA:422:C:H1'	1:XA:423:G:N1	2.25	0.52
1:XA:520:A:C2	1:XA:536:C:H1'	2.44	0.52
1:XA:1216:G:C5'	14:XN:5:ALA:HB2	2.40	0.52
1:XA:1440(F):G:N2	1:XA:1440(P):A:H1'	2.24	0.52
31:Y7:37:LYS:CG	34:YA:458:G:C8	2.93	0.52
34:YA:1094:U:H1'	34:YA:1097:U:C5	2.44	0.52
34:YA:1728:G:H2'	34:YA:1731:G:O6	2.09	0.52
34:YA:2479:G:OP1	34:YA:2537:U:O2'	2.25	0.52
1:QA:217:C:H2'	1:QA:218:C:C6	2.45	0.52
1:QA:825:G:H2'	1:QA:826:C:C6	2.45	0.52
1:QA:855:G:H21	1:QA:1539:C:H5"	1.74	0.52
1:QA:1028(H):G:H2'	1:QA:1028(I):G:C8	2.45	0.52
1:QA:1048:G:OP1	14:QN:4:LYS:CB	2.56	0.52
2:QB:209:ARG:NH1	2:QB:240:GLN:OE1	2.43	0.52
29:R5:46:CYS:HB3	29:R5:49:CYS:SG	2.50	0.52
34:RA:1252:G:H21	49:RU:33:ARG:CZ	2.22	0.52
34:RA:1252:G:H21	49:RU:33:ARG:NH2	2.07	0.52
34:RA:2245:U:H5'	34:RA:2246:G:H5'	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:2695:C:H2'	34:RA:2696:U:H6	1.74	0.52
40:RH:125:VAL:HG22	40:RH:125:VAL:O	2.08	0.52
54:RZ:27:VAL:HG22	54:RZ:85:HIS:HE1	1.74	0.52
1:XA:608:A:C3'	1:XA:609:A:H8	2.22	0.52
1:XA:860:A:H3'	1:XA:861:G:H8	1.74	0.52
1:XA:974:A:OP2	14:XN:31:ARG:HB2	2.08	0.52
1:XA:1500:A:H5"	1:XA:1508:G:H5'	1.92	0.52
3:XC:32:LEU:O	3:XC:59:ARG:NH2	2.42	0.52
6:XF:50:TYR:HE1	18:XR:77:GLY:O	1.67	0.52
34:YA:691:C:H4'	36:YD:43:ARG:HD3	1.91	0.52
36:YD:67:PHE:HE1	36:YD:106:ILE:HD11	1.75	0.52
39:YG:170:ARG:NH1	39:YG:174:GLU:OE1	2.43	0.52
1:QA:561:U:H5"	1:QA:563:A:N7	2.25	0.52
1:QA:981:U:C5'	14:QN:6:LEU:HD22	2.37	0.52
13:QM:84:ILE:CG1	19:QS:74:PHE:HZ	2.20	0.52
34:RA:2619:C:H2'	34:RA:2620:C:H6	1.73	0.52
39:RG:166:ASP:OD2	39:RG:166:ASP:N	2.42	0.52
44:RP:29:LYS:HD3	44:RP:30:THR:HG23	1.92	0.52
1:XA:960:U:C5	19:XS:78:ARG:HG2	2.45	0.52
1:XA:1301:U:HO2'	13:XM:17:VAL:HG21	1.67	0.52
11:XK:83:ILE:HD13	11:XK:109:VAL:HB	1.90	0.52
11:XK:91:ARG:NH2	18:XR:88:LYS:CD	2.69	0.52
13:XM:84:ILE:CD1	19:XS:65:ASN:CG	2.61	0.52
18:XR:47:THR:HG22	18:XR:85:LEU:HD13	1.91	0.52
34:YA:2789:C:H1'	34:YA:2892:A:H2	1.75	0.52
37:YE:176:ILE:HG13	37:YE:181:LEU:HB2	1.92	0.52
1:QA:1218:C:H2'	1:QA:1219:U:C6	2.45	0.52
1:QA:1327:C:OP1	21:QU:19:GLY:HA2	2.09	0.52
24:R0:7:LEU:HD12	45:RQ:83:MET:SD	2.50	0.52
34:RA:137(B):G:H21	52:RX:41:ASN:HD21	1.57	0.52
34:RA:787:U:H5"	34:RA:788:A:H5'	1.91	0.52
34:RA:1567:A:C8	36:RD:84:TYR:HE2	2.27	0.52
1:XA:908:A:H2'	1:XA:909:A:C8	2.45	0.52
1:XA:1300:G:N1	1:XA:1334:G:C5	2.78	0.52
34:YA:2757:A:N1	40:YH:67:LEU:HD13	2.24	0.52
1:QA:28:G:N3	1:QA:296:U:H4'	2.24	0.52
1:QA:186(Q):U:H2'	1:QA:191:G:C8	2.45	0.52
1:QA:543:C:OP2	4:QD:10:ARG:NH2	2.41	0.52
1:QA:637:G:H2'	1:QA:638:G:C8	2.44	0.52
1:QA:983:A:O4'	14:QN:2:ALA:HB3	2.10	0.52
29:R5:33:CYS:N	29:R5:38:ALA:O	2.28	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:309:G:N3	34:RA:329:G:O2'	2.42	0.52
34:RA:996:A:H2'	34:RA:997:G:H8	1.75	0.52
39:RG:41:GLN:HB2	39:RG:90:LEU:HB2	1.92	0.52
43:RO:24:VAL:HG13	43:RO:33:ALA:HB2	1.91	0.52
54:RZ:24:LEU:HD11	54:RZ:83:PRO:HB2	1.90	0.52
1:XA:21:G:H2'	1:XA:22:G:C8	2.45	0.52
1:XA:608:A:H3'	1:XA:609:A:H8	1.75	0.52
1:XA:975:A:C2	14:XN:34:TYR:CE1	2.97	0.52
1:XA:1540:U:C2	23:XX:6:G:N2	2.78	0.52
7:XG:18:TYR:OH	7:XG:47:CYS:SG	2.64	0.52
34:YA:2085:C:N3	34:YA:2235:G:C2	2.78	0.52
47:YS:61:ASN:ND2	47:YS:64:GLU:OE1	2.42	0.52
1:QA:123:C:H2'	1:QA:124:G:C8	2.44	0.52
1:QA:718:G:C5'	11:QK:117:ASN:OD1	2.58	0.52
1:QA:973:G:H4'	14:QN:29:ARG:NH2	2.22	0.52
7:QG:111:ARG:HH11	7:QG:119:ARG:HA	1.73	0.52
12:QL:85:ILE:HD11	12:QL:98:TYR:HB3	1.92	0.52
34:RA:144:C:H2'	34:RA:145:G:C8	2.45	0.52
34:RA:225:A:N6	34:RA:419:C:O2'	2.43	0.52
48:RT:30:VAL:HG12	48:RT:86:ILE:HG23	1.92	0.52
1:XA:1253:G:O3'	10:XJ:45:ARG:CD	2.58	0.52
5:XE:76:ILE:HB	5:XE:142:LEU:HD21	1.92	0.52
22:XV:1:C:H2'	22:XV:2:G:H8	1.75	0.52
26:Y2:48:HIS:CG	34:YA:96:G:H4'	2.45	0.52
34:YA:410:G:C2	34:YA:2407:G:N7	2.78	0.52
34:YA:2168:G:N2	34:YA:2170:A:H62	2.07	0.52
34:YA:2311:A:N7	39:YG:44:GLY:HA3	2.25	0.52
1:QA:310:G:OP1	16:QP:27:LYS:CD	2.52	0.52
1:QA:377:G:H2'	1:QA:378:G:H8	1.75	0.52
1:QA:797:C:H2'	1:QA:798:G:C8	2.45	0.52
1:QA:946:A:P	13:QM:114:ARG:HH21	2.30	0.52
1:QA:994:A:C8	1:QA:1216:G:H1'	2.45	0.52
1:QA:1108:G:O3'	3:QC:176:HIS:CD2	2.63	0.52
1:QA:1162:C:H2'	1:QA:1163:C:C6	2.44	0.52
1:QA:1279:A:H2	10:QJ:43:ARG:HH12	1.57	0.52
1:QA:1304:G:H5"	21:QU:10:ARG:NH2	2.24	0.52
10:QJ:47:PHE:HD2	14:QN:34:TYR:CD2	2.28	0.52
34:RA:323:G:C2	34:RA:333:G:H1'	2.45	0.52
34:RA:1752:C:H2'	34:RA:1753:G:C8	2.45	0.52
34:RA:1938:A:C6	34:RA:2590:A:H1'	2.45	0.52
34:RA:2730:C:H2'	34:RA:2731:G:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:RB:55:U:O3'	39:RG:27:ASN:ND2	2.42	0.52
38:RF:65:TRP:NE1	38:RF:73:ALA:O	2.42	0.52
48:RT:6:LEU:HA	48:RT:9:LEU:HB2	1.91	0.52
1:XA:770:C:H2'	1:XA:771:G:H8	1.75	0.52
1:XA:899:C:P	1:XA:899:C:C6	3.03	0.52
1:XA:974:A:P	14:XN:29:ARG:CZ	2.98	0.52
1:XA:1124:G:P	10:XJ:36:GLY:HA3	2.50	0.52
5:XE:110:LEU:HD13	5:XE:118:ILE:HG21	1.90	0.52
7:XG:92:SER:O	7:XG:96:GLN:HB2	2.10	0.52
34:YA:28:A:N6	34:YA:512:G:H1'	2.25	0.52
34:YA:586:A:H5'	38:YF:89:VAL:HG21	1.91	0.52
34:YA:1608:A:O2'	34:YA:1611:C:N4	2.43	0.52
34:YA:2054:A:C2	34:YA:2616:C:O2	2.62	0.52
34:YA:2185:C:H2'	34:YA:2186:G:C8	2.45	0.52
34:YA:2577:A:H2'	34:YA:2614:A:H62	1.75	0.52
1:QA:675:A:H61	1:QA:715:A:H61	1.57	0.52
1:QA:1251:A:N1	1:QA:1354:C:O2'	2.35	0.52
1:QA:1357:A:C5'	10:QJ:45:ARG:HH12	2.22	0.52
4:QD:122:ARG:NH1	4:QD:122:ARG:O	2.43	0.52
28:R4:7:PRO:CG	39:RG:61:ALA:HB1	2.30	0.52
34:RA:1567:A:C8	36:RD:84:TYR:CE2	2.98	0.52
34:RA:2306:C:H2'	34:RA:2307:G:N2	2.25	0.52
35:RB:104:A:OP1	54:RZ:72:ARG:NH1	2.43	0.52
1:XA:8:A:H62	4:XD:208:SER:C	2.13	0.52
1:XA:191:G:O2'	20:XT:103:GLY:N	2.43	0.52
1:XA:1440(K):C:HO2'	1:XA:1440(L):G:N2	2.07	0.52
1:XA:1440(N):G:P	20:XT:35:THR:HG21	2.46	0.52
2:XB:43:ASP:O	2:XB:47:THR:OG1	2.23	0.52
4:XD:187:ARG:NH1	4:XD:188:LEU:O	2.43	0.52
32:Y8:49:VAL:HG23	32:Y8:53:PRO:HD3	1.91	0.52
34:YA:10:G:N2	34:YA:2629:A:C2	2.78	0.52
34:YA:1801:G:OP1	34:YA:1801:G:N2	2.32	0.52
1:QA:520:A:C2'	12:QL:73:GLU:OE2	2.57	0.52
1:QA:959:A:H62	19:QS:79:THR:CG2	2.23	0.52
1:QA:986:A:O2'	19:QS:55:LYS:HA	2.10	0.52
1:QA:1160:G:H5'	2:QB:132:LYS:NZ	2.25	0.52
1:QA:1203:C:H5'	14:QN:3:ARG:HH11	1.74	0.52
2:QB:61:LEU:HD21	2:QB:68:ILE:HD11	1.91	0.52
24:R0:66:VAL:O	24:R0:81:VAL:HA	2.10	0.52
35:RB:116:G:H4'	47:RS:54:LEU:CD2	2.39	0.52
44:RP:84:ASN:ND2	44:RP:117:GLU:OE2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:718:G:C1'	11:XK:117:ASN:HB2	2.40	0.52
1:XA:1033:G:H2'	1:XA:1034:G:C8	2.44	0.52
1:XA:1123:A:H1'	10:XJ:38:ILE:HG22	1.92	0.52
1:XA:1244:C:H2'	1:XA:1245:A:C8	2.45	0.52
34:YA:197:A:C8	34:YA:2430:A:H2	2.27	0.52
34:YA:389:G:H22	44:YP:72:PRO:HD3	1.75	0.52
41:YI:20:ASP:OD2	41:YI:20:ASP:N	2.43	0.52
45:YQ:21:THR:OG1	45:YQ:22:LYS:N	2.42	0.52
1:QA:164:U:H2'	1:QA:165:C:C6	2.45	0.51
1:QA:186(C):C:H1'	20:QT:89:ARG:HH22	1.75	0.51
1:QA:1240:U:H2'	7:QG:38:LEU:CD1	2.16	0.51
1:QA:1304:G:H1'	1:QA:1334:G:N1	2.25	0.51
33:R9:27:CYS:SG	33:R9:28:GLU:N	2.83	0.51
34:RA:990:A:H1'	34:RA:1156:A:N3	2.25	0.51
34:RA:2102:U:H2'	34:RA:2103:C:H6	1.75	0.51
34:RA:2836:U:H2'	34:RA:2837:G:C8	2.44	0.51
42:RN:35:ARG:HG3	42:RN:37:LYS:HG2	1.91	0.51
1:XA:322:C:H5"	20:XT:23:ARG:HE	1.75	0.51
1:XA:974:A:N9	14:XN:31:ARG:CD	2.63	0.51
1:XA:1382:C:O5'	1:XA:1382:C:H6	1.93	0.51
8:XH:121:ASP:OD1	8:XH:121:ASP:N	2.42	0.51
34:YA:199:A:C5	34:YA:2434:A:N1	2.77	0.51
34:YA:564:C:N4	34:YA:573:G:OP1	2.37	0.51
34:YA:1849:G:H2'	34:YA:1850:G:H8	1.75	0.51
34:YA:2070:G:H2'	34:YA:2071:A:C8	2.44	0.51
34:YA:2417:C:OP1	44:YP:64:LYS:NZ	2.43	0.51
1:QA:749:C:H2'	1:QA:750:G:H8	1.74	0.51
1:QA:960:U:O4	19:QS:78:ARG:CB	2.52	0.51
1:QA:974:A:C4'	14:QN:31:ARG:CB	2.87	0.51
1:QA:1315:U:H2'	1:QA:1316:G:H8	1.75	0.51
1:QA:1360:A:H4'	14:QN:17:LYS:HZ2	1.74	0.51
4:QD:15:GLU:OE2	4:QD:66:ARG:NH2	2.42	0.51
34:RA:1768:U:H2'	34:RA:1769:G:C8	2.45	0.51
34:RA:1992:G:N2	34:RA:1996:C:O2'	2.43	0.51
34:RA:2086:U:H2'	34:RA:2087:G:C8	2.45	0.51
43:RO:23:ARG:NH2	43:RO:28:SER:O	2.43	0.51
1:XA:186(B):C:O2'	20:XT:104:LEU:HD11	2.09	0.51
1:XA:619:U:O4'	4:XD:131:ARG:NH2	2.42	0.51
1:XA:1252:A:C2	1:XA:1355:G:H1'	2.41	0.51
1:XA:1294:G:H2'	1:XA:1295:G:H8	1.76	0.51
29:Y5:48:GLU:CD	51:YW:37:ARG:HH12	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:414:C:O3'	34:YA:1878:G:N2	2.44	0.51
34:YA:1418:G:H2'	34:YA:1579:A:N6	2.25	0.51
34:YA:1999:C:H2'	34:YA:2000:G:C8	2.45	0.51
34:YA:2044:C:N4	34:YA:2625:G:C2	2.77	0.51
34:YA:2847:U:OP1	48:YT:98:LYS:NZ	2.41	0.51
36:YD:8:PRO:HB3	36:YD:14:ARG:HG2	1.92	0.51
1:QA:617:G:H21	16:QP:14:ASN:ND2	2.08	0.51
1:QA:741:G:O5'	15:QO:39:LEU:HD12	2.07	0.51
3:QC:79:ARG:CD	11:XK:104:GLN:HG3	2.40	0.51
5:QE:147:ASP:HA	5:QE:150:ARG:HD2	1.92	0.51
7:QG:69:VAL:HG13	7:QG:100:ALA:HB1	1.93	0.51
32:R8:6:THR:HG23	34:RA:242:G:H3'	1.93	0.51
34:RA:1674:G:H1'	34:RA:1676:A:N6	2.26	0.51
37:RE:14:ILE:HB	48:RT:14:TYR:HE2	1.76	0.51
41:RI:83:ALA:C	41:RI:89:TYR:CD2	2.83	0.51
53:RY:76:CYS:HB2	53:RY:99:CYS:SG	2.51	0.51
1:XA:406:G:H2'	1:XA:407:G:C8	2.45	0.51
1:XA:1129:C:H1'	1:XA:1132:C:C5	2.45	0.51
1:XA:1259:C:O2'	1:XA:1283:G:N2	2.42	0.51
10:XJ:64:GLU:O	14:XN:56:VAL:HG22	2.11	0.51
12:XL:10:LEU:HD23	17:XQ:32:TYR:CZ	2.44	0.51
16:XP:4:ILE:HB	16:XP:66:PRO:HB3	1.92	0.51
30:Y6:34:LEU:N	30:Y6:51:GLU:OE1	2.44	0.51
34:YA:1297:C:H2'	34:YA:1298:C:H6	1.74	0.51
34:YA:1971:A:C4	36:YD:241:PRO:HB3	2.45	0.51
34:YA:2049:G:N2	34:YA:2620:C:N1	2.53	0.51
34:YA:2641:G:H5"	42:YN:76:SER:HB3	1.93	0.51
35:YB:104:A:OP1	54:YZ:72:ARG:NH1	2.42	0.51
37:YE:78:LEU:HG	37:YE:79:ARG:HD2	1.91	0.51
45:YQ:67:ARG:O	45:YQ:101:ARG:NH2	2.44	0.51
48:YT:19:LEU:HD22	48:YT:86:ILE:HD12	1.92	0.51
1:QA:45:U:H3	1:QA:396:G:H1	1.58	0.51
1:QA:269:C:H2'	1:QA:270:A:C8	2.45	0.51
1:QA:981:U:H5'	14:QN:6:LEU:HD23	1.92	0.51
1:QA:1137:C:H4'	1:QA:1138:G:C2	2.46	0.51
1:QA:1309:G:H2'	1:QA:1310:G:C8	2.45	0.51
2:QB:84:GLU:OE2	2:QB:87:ARG:NH2	2.43	0.51
18:QR:30:ASP:HB3	18:QR:33:ASP:HB2	1.92	0.51
34:RA:220:G:H22	34:RA:427:U:H2'	1.75	0.51
34:RA:242:G:N2	34:RA:254:G:H2'	2.25	0.51
34:RA:307:G:H21	34:RA:330:A:N6	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:633:A:H1'	34:RA:2403:C:H4'	1.91	0.51
34:RA:679:C:H2'	34:RA:680:G:C8	2.46	0.51
34:RA:1546:C:H5'	34:RA:1547:C:H5'	1.91	0.51
34:RA:1660:C:H2'	34:RA:1661:G:H8	1.75	0.51
41:RI:86:THR:HA	41:RI:123:LEU:CB	2.40	0.51
1:XA:375:U:H6	1:XA:375:U:C5'	2.23	0.51
34:YA:414:C:H2'	34:YA:415:A:C8	2.45	0.51
34:YA:882:G:H2'	34:YA:883:G:C8	2.45	0.51
34:YA:1252:G:H21	49:YU:33:ARG:HD3	1.76	0.51
34:YA:2443:C:H2'	34:YA:2444:G:H8	1.76	0.51
34:YA:2690:C:N4	34:YA:2713:A:N3	2.58	0.51
38:YF:198:ALA:HA	38:YF:201:VAL:HG12	1.91	0.51
1:QA:608:A:O2'	16:QP:9:PHE:CE1	2.62	0.51
1:QA:986:A:H2'	1:QA:987:G:C8	2.46	0.51
25:R1:10:LYS:NZ	25:R1:65:SER:OG	2.41	0.51
28:R4:26:SER:OG	28:R4:27:THR:N	2.43	0.51
34:RA:414:C:H2'	34:RA:415:A:H8	1.75	0.51
34:RA:2575:C:H5'	37:RE:144:ARG:HG3	1.91	0.51
34:RA:2647:U:H2'	34:RA:2648:C:H6	1.76	0.51
40:RH:103:LEU:CG	40:RH:123:PHE:CE1	2.94	0.51
41:RI:86:THR:HA	41:RI:123:LEU:HB2	1.92	0.51
47:RS:26:LEU:O	47:RS:88:ASP:HB3	2.10	0.51
1:XA:123:C:H2'	1:XA:124:G:H8	1.76	0.51
1:XA:784:C:H2'	1:XA:785:G:C8	2.46	0.51
1:XA:1279:A:HO2'	1:XA:1281:U:H5	1.59	0.51
3:XC:58:GLU:HB2	3:XC:65:ALA:HB3	1.92	0.51
34:YA:544:C:H3'	34:YA:545:G:H8	1.75	0.51
34:YA:863:A:H2'	34:YA:864:G:H8	1.75	0.51
34:YA:2105:C:H2'	34:YA:2106:G:C8	2.46	0.51
1:QA:637:G:H2'	1:QA:638:G:H8	1.76	0.51
1:QA:908:A:H2'	1:QA:909:A:C8	2.45	0.51
1:QA:1142:G:C2	1:QA:1143:G:H1'	2.46	0.51
1:QA:1203:C:OP2	14:QN:3:ARG:HD3	2.11	0.51
34:RA:1057:A:H62	34:RA:1087:G:P	2.32	0.51
40:RH:103:LEU:HG	40:RH:123:PHE:CE1	2.46	0.51
41:RI:94:ALA:HA	41:RI:97:ILE:HD12	1.93	0.51
1:XA:1512:U:H2'	1:XA:1513:A:H8	1.76	0.51
5:XE:102:ALA:HB1	5:XE:106:PRO:HG2	1.93	0.51
7:XG:58:PRO:HA	7:XG:61:VAL:HG12	1.92	0.51
34:YA:992:C:H2'	34:YA:993:G:H8	1.76	0.51
34:YA:1576:U:H2'	34:YA:1577:C:H6	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2090:G:C6	34:YA:2230:G:N1	2.78	0.51
38:YF:63:LYS:NZ	38:YF:75:HIS:O	2.33	0.51
53:YY:76:CYS:SG	53:YY:79:CYS:SG	3.08	0.51
1:QA:770:C:H2'	1:QA:771:G:C8	2.46	0.51
1:QA:1112:C:O2	3:QC:178:LEU:HB2	2.10	0.51
1:QA:1292:U:H2'	1:QA:1293:G:C8	2.46	0.51
4:QD:57:ARG:HH22	5:QE:107:ARG:CG	2.23	0.51
5:QE:10:MET:HA	5:QE:32:VAL:HG12	1.93	0.51
30:R6:6:ARG:NH1	30:R6:24:GLU:OE2	2.43	0.51
34:RA:191:A:H2'	34:RA:192:C:C6	2.45	0.51
34:RA:1914:C:H2'	34:RA:1915:U:O4'	2.10	0.51
45:RQ:21:THR:OG1	45:RQ:22:LYS:N	2.43	0.51
53:RY:67:LEU:HD22	53:RY:71:LYS:HD2	1.91	0.51
1:XA:554:C:H2'	1:XA:555:C:C6	2.46	0.51
1:XA:636:U:H3'	1:XA:637:G:C8	2.45	0.51
1:XA:838(B):U:H4'	1:XA:838(C):C:C5	2.45	0.51
1:XA:977:A:O3'	1:XA:980:C:N4	2.41	0.51
1:XA:1305:G:N2	1:XA:1331:G:C8	2.79	0.51
1:XA:1422:G:H4'	43:YO:48:PRO:HB3	1.91	0.51
11:XK:109:VAL:HA	18:XR:86:VAL:HA	1.93	0.51
34:YA:36:G:H4'	34:YA:451:C:C2	2.45	0.51
34:YA:197:A:C5	34:YA:2430:A:N3	2.79	0.51
34:YA:2046:G:O6	34:YA:2623:G:O6	2.29	0.51
36:YD:108:PRO:HB3	36:YD:143:HIS:CE1	2.46	0.51
52:YX:25:LYS:HA	52:YX:81:VAL:O	2.11	0.51
1:QA:186(A):C:H1'	20:QT:81:LYS:HE3	1.92	0.51
1:QA:770:C:H2'	1:QA:771:G:H8	1.76	0.51
1:QA:1391:U:H2'	1:QA:1392:G:C8	2.46	0.51
28:R4:7:PRO:HG3	39:RG:61:ALA:CB	2.27	0.51
34:RA:36:G:H4'	34:RA:451:C:C2	2.45	0.51
34:RA:414:C:H2'	34:RA:415:A:C8	2.46	0.51
34:RA:1019:U:H2'	34:RA:1020:A:C8	2.43	0.51
34:RA:2289:G:H1'	34:RA:2346:A:H2	1.75	0.51
37:RE:110:GLY:HA2	37:RE:161:GLY:HA3	1.93	0.51
47:RS:6:ALA:HA	47:RS:9:ARG:HG2	1.92	0.51
48:RT:3:ARG:HG3	48:RT:6:LEU:HB2	1.92	0.51
50:RV:8:GLY:O	50:RV:10:LYS:NZ	2.42	0.51
1:XA:398:C:H2'	1:XA:399:G:C8	2.45	0.51
1:XA:1303:C:O2	1:XA:1303:C:H2'	2.11	0.51
1:XA:1305:G:N7	1:XA:1331:G:C6	2.75	0.51
1:XA:1313:U:H5	19:XS:6:LYS:HZ1	1.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1347:G:H22	1:XA:1373:G:H2'	1.76	0.51
8:XH:38:ILE:HD12	8:XH:41:ARG:HH21	1.76	0.51
34:YA:1454:U:H5	46:YR:73:VAL:CG1	2.24	0.51
34:YA:2071:A:H2	34:YA:2441:C:C2	2.28	0.51
34:YA:2085:C:N3	34:YA:2235:G:N2	2.58	0.51
34:YA:2099:U:O4	34:YA:2190:G:C6	2.64	0.51
38:YF:34:TRP:CD2	44:YP:8:PRO:HB3	2.46	0.51
42:YN:97:ARG:HA	42:YN:100:GLU:HB2	1.92	0.51
1:QA:65:U:H2'	1:QA:381:C:C5	2.45	0.51
1:QA:126:G:O2'	1:QA:634:C:O2'	2.21	0.51
1:QA:1131:G:H2'	1:QA:1132:C:C6	2.46	0.51
3:QC:34:LEU:O	3:QC:38:ARG:NE	2.43	0.51
8:QH:32:LYS:HA	8:QH:35:ILE:HD12	1.92	0.51
12:QL:10:LEU:HB3	17:QQ:32:TYR:OH	2.10	0.51
12:QL:46:LYS:HD2	12:QL:47:LYS:HB2	1.93	0.51
34:RA:1794:U:H2'	34:RA:1795:C:C6	2.45	0.51
1:XA:186(K):G:O6	1:XA:264:U:H5"	2.11	0.51
1:XA:401:C:H1'	1:XA:622:A:H1'	1.93	0.51
1:XA:435:C:H2'	1:XA:436:C:H6	1.76	0.51
1:XA:757:U:O2'	1:XA:879:C:O2	2.27	0.51
1:XA:1190:G:C4'	3:XC:176:HIS:CE1	2.83	0.51
1:XA:1216:G:H5"	14:XN:5:ALA:HB2	1.92	0.51
1:XA:1230:C:C4	13:XM:102:ARG:NH1	2.77	0.51
6:XF:9:VAL:HB	6:XF:87:ARG:HB2	1.92	0.51
29:Y5:3:LYS:HB2	34:YA:2577:A:C1'	2.40	0.51
34:YA:1416:G:H2'	34:YA:1417:C:C6	2.46	0.51
34:YA:1820:U:C2	36:YD:202:LYS:HB3	2.46	0.51
1:QA:34:C:H2'	1:QA:35:G:C8	2.45	0.51
1:QA:231:G:H2'	1:QA:232:G:H8	1.75	0.51
1:QA:1131:G:H1	1:QA:1143:G:N2	2.01	0.51
1:QA:1203:C:C5'	14:QN:3:ARG:HD2	2.41	0.51
3:QC:150:LYS:HB3	3:QC:201:TYR:HB2	1.93	0.51
32:R8:21:LYS:HE3	34:RA:651:G:OP2	2.11	0.51
42:RN:39:ARG:NH2	42:RN:41:ASP:OD1	2.44	0.51
44:RP:57:THR:OG1	44:RP:58:THR:N	2.44	0.51
1:XA:148:G:H2'	1:XA:149:A:C8	2.45	0.51
1:XA:878:G:H2'	1:XA:879:C:C6	2.46	0.51
10:XJ:26:ALA:O	10:XJ:84:GLN:NE2	2.43	0.51
34:YA:140:A:H1'	34:YA:1409:C:H5'	1.93	0.51
34:YA:291:C:H2'	34:YA:292:C:H6	1.76	0.51
34:YA:389:G:H1	44:YP:71:VAL:CG1	2.16	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:659:C:H2'	34:YA:660:G:H8	1.76	0.51
34:YA:1700:A:H3'	34:YA:1701:A:H8	1.76	0.51
34:YA:2250:G:OP2	34:YA:2250:G:N2	2.35	0.51
38:YF:154:VAL:HG22	38:YF:191:ARG:HB2	1.93	0.51
41:YI:1:MET:HG2	41:YI:23:PRO:HB3	1.92	0.51
1:QA:447:G:H2'	1:QA:485:G:N2	2.26	0.50
1:QA:617:G:H4'	16:QP:44:THR:OG1	2.11	0.50
1:QA:702:A:H3'	1:QA:703:G:H8	1.75	0.50
1:QA:815:A:H1'	1:QA:1527:C:H1'	1.93	0.50
1:QA:920:U:H2'	1:QA:921:U:C6	2.46	0.50
1:QA:1038:C:H2'	1:QA:1039:C:H6	1.76	0.50
1:QA:1318:A:C4	19:QS:37:ARG:CZ	2.93	0.50
2:QB:178:ARG:CD	8:QH:71:GLY:O	2.58	0.50
34:RA:2853:C:H2'	34:RA:2854:G:C8	2.46	0.50
36:RD:147:LEU:HD12	36:RD:148:GLU:HG3	1.93	0.50
36:RD:175:LEU:O	36:RD:182:LEU:HA	2.12	0.50
39:RG:52:ILE:HG22	39:RG:55:LYS:HD2	1.92	0.50
47:RS:35:ILE:HD11	47:RS:97:ARG:HD2	1.92	0.50
1:XA:140:A:H2'	1:XA:141:A:C8	2.45	0.50
1:XA:708:C:P	11:XK:85:ARG:HH12	2.28	0.50
1:XA:1068:G:N2	1:XA:1108:G:H1'	2.25	0.50
1:XA:1505:G:H1'	23:XX:15:A:C2	2.46	0.50
9:XI:22:GLY:N	9:XI:58:HIS:O	2.37	0.50
34:YA:86:C:H2'	34:YA:87:C:C6	2.46	0.50
34:YA:137(B):G:H2'	34:YA:139:G:N7	2.26	0.50
34:YA:824:A:O2'	34:YA:2358:G:O6	2.17	0.50
34:YA:1316:U:H2'	34:YA:1317:A:C8	2.46	0.50
34:YA:1999:C:H5"	34:YA:2723:C:O2'	2.11	0.50
34:YA:2071:A:H2'	34:YA:2072:G:H8	1.76	0.50
34:YA:2312:U:H2'	34:YA:2313:C:H6	1.76	0.50
34:YA:2532:G:O2'	34:YA:2657:A:N1	2.36	0.50
1:QA:112:G:H22	1:QA:315:A:H2	1.59	0.50
1:QA:266:G:O2'	1:QA:268:C:OP2	2.24	0.50
2:QB:208:ILE:O	2:QB:212:GLN:HB2	2.12	0.50
20:QT:71:THR:OG1	20:QT:72:LEU:N	2.43	0.50
32:R8:8:LYS:HB3	32:R8:12:LYS:HE3	1.94	0.50
32:R8:30:ARG:O	32:R8:30:ARG:HG2	2.12	0.50
34:RA:65:C:H2'	34:RA:66:C:H6	1.76	0.50
34:RA:380:U:H2'	34:RA:381:G:C8	2.47	0.50
34:RA:639:U:H2'	34:RA:640:C:C6	2.46	0.50
34:RA:1150:C:H2'	34:RA:1151:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:24:U:H2'	1:XA:25:C:H6	1.76	0.50
1:XA:1533:C:C4	23:XX:13:A:N1	2.79	0.50
2:XB:167:PRO:O	2:XB:171:ALA:HB2	2.11	0.50
4:XD:19:LEU:HB3	4:XD:21:LEU:HD23	1.92	0.50
4:XD:107:ARG:HB3	4:XD:174:LEU:HD11	1.93	0.50
34:YA:659:C:H2'	34:YA:660:G:C8	2.47	0.50
34:YA:1113:U:H5'	40:YH:2:SER:HB3	1.93	0.50
34:YA:1479:G:N7	34:YA:1510:A:N6	2.59	0.50
34:YA:1582:C:H2'	34:YA:1583:A:C8	2.46	0.50
34:YA:2056:G:N7	34:YA:2577:A:C6	2.79	0.50
34:YA:2691:C:H2'	34:YA:2692:C:C6	2.46	0.50
34:YA:2747:G:O6	34:YA:2755:C:H5"	2.12	0.50
1:QA:877:C:H2'	1:QA:878:G:C8	2.47	0.50
1:QA:979:C:N4	14:QN:19:ARG:CB	2.42	0.50
1:QA:1145:C:O2'	1:QA:1146:A:N7	2.43	0.50
7:QG:111:ARG:NH1	7:QG:113:GLU:OE1	2.43	0.50
11:QK:108:ILE:CG2	18:QR:88:LYS:OXT	2.60	0.50
12:QL:39:VAL:HG12	12:QL:57:LYS:HG2	1.93	0.50
20:QT:67:ALA:O	20:QT:73:HIS:ND1	2.39	0.50
34:RA:597:U:H2'	34:RA:598:G:C8	2.45	0.50
34:RA:686:G:N2	34:RA:788:A:H61	2.10	0.50
34:RA:997:G:H3'	49:RU:58:ARG:HH12	1.76	0.50
34:RA:1116:C:H2'	34:RA:1117:G:C8	2.46	0.50
39:RG:121:ASN:O	39:RG:131:TYR:OH	2.26	0.50
1:XA:702:A:N1	34:YA:1848:A:C5	2.79	0.50
1:XA:1539:C:C2	23:XX:7:G:N1	2.79	0.50
7:XG:111:ARG:HD3	7:XG:112:PRO:HD2	1.93	0.50
34:YA:389:G:N2	44:YP:71:VAL:CG1	2.69	0.50
34:YA:589:C:H2'	34:YA:590:A:C8	2.46	0.50
34:YA:1093:G:H21	34:YA:1098:A:H62	1.59	0.50
34:YA:1827:C:H5'	34:YA:1971:A:H4'	1.94	0.50
1:QA:10:A:H2'	1:QA:11:G:C8	2.46	0.50
1:QA:107:G:H3'	1:QA:108:G:N2	2.24	0.50
1:QA:757:U:H1'	1:QA:879:C:H1'	1.93	0.50
1:QA:1302:U:P	13:QM:27:LYS:HE2	2.51	0.50
4:QD:205:GLU:HB3	5:QE:107:ARG:HH12	1.77	0.50
32:R8:64:TYR:HB3	34:RA:625:G:P	2.51	0.50
34:RA:1796:U:H2'	34:RA:1797:C:C6	2.47	0.50
34:RA:2144:U:H2'	34:RA:2146:C:C5	2.47	0.50
38:RF:100:THR:OG1	38:RF:100:THR:O	2.30	0.50
49:RU:90:VAL:HG13	50:RV:39:LEU:HD22	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1145:C:O2'	1:XA:1146:A:N7	2.43	0.50
6:XF:91:VAL:CG2	18:XR:34:TYR:CZ	2.82	0.50
18:XR:32:ARG:HA	18:XR:69:THR:HG21	1.92	0.50
28:Y4:16:CYS:HB3	28:Y4:33:VAL:HB	1.93	0.50
34:YA:390:A:H1'	34:YA:391:G:C8	2.47	0.50
34:YA:1853:A:N1	34:YA:2087:G:H1'	2.27	0.50
34:YA:2807:G:H1	34:YA:2892:A:H62	1.60	0.50
40:YH:85:LYS:HB3	40:YH:133:VAL:HG13	1.92	0.50
1:QA:6:G:N3	5:QE:119:LEU:HD11	2.27	0.50
1:QA:37:U:H2'	1:QA:38:G:H8	1.76	0.50
1:QA:760:G:H3'	1:QA:761:G:H8	1.76	0.50
1:QA:1222:G:O3'	19:QS:78:ARG:CZ	2.60	0.50
2:QB:111:ARG:HH11	2:QB:114:ARG:HH12	1.60	0.50
20:QT:66:ALA:O	20:QT:71:THR:OG1	2.28	0.50
34:RA:301:G:OP2	53:RY:84:ARG:NH1	2.35	0.50
34:RA:373:U:H2'	34:RA:374:A:H8	1.77	0.50
42:RN:112:LEU:O	42:RN:116:LEU:HB2	2.10	0.50
53:RY:19:LYS:NZ	53:RY:20:TYR:CE2	2.71	0.50
1:XA:767:A:H2'	1:XA:768:A:C8	2.46	0.50
1:XA:981:U:O5'	1:XA:981:U:H6	1.94	0.50
1:XA:986:A:C1'	19:XS:52:TYR:OH	2.58	0.50
1:XA:1305:G:N2	1:XA:1331:G:H3'	2.26	0.50
1:XA:1305:G:C1'	1:XA:1332:A:H62	2.24	0.50
1:XA:1306:A:OP2	1:XA:1331:G:N2	2.33	0.50
3:XC:157:ILE:HD12	3:XC:164:ARG:HG3	1.93	0.50
10:XJ:42:THR:HG22	10:XJ:44:VAL:HG22	1.92	0.50
19:XS:12:ASP:HB2	19:XS:37:ARG:HE	1.77	0.50
22:XV:19:G:C5	34:YA:2111:C:H4'	2.46	0.50
29:Y5:9:LYS:HE2	34:YA:2019:A:N7	2.26	0.50
30:Y6:21:TYR:OH	32:Y8:36:LYS:O	2.28	0.50
31:Y7:37:LYS:CE	34:YA:458:G:C5	2.95	0.50
34:YA:1295:C:H2'	34:YA:1296:G:H8	1.76	0.50
34:YA:1570:A:H2'	34:YA:1571:A:C8	2.47	0.50
49:YU:43:GLY:HA3	50:YV:73:SER:HB3	1.93	0.50
53:YY:28:LYS:NZ	53:YY:64:GLU:OE2	2.35	0.50
1:QA:22:G:H4'	1:QA:885:G:C8	2.47	0.50
1:QA:1253:G:C4'	10:QJ:44:VAL:O	2.58	0.50
1:QA:1323:G:N2	1:QA:1361:G:O2'	2.39	0.50
3:QC:57:ILE:HG22	3:QC:66:VAL:HG22	1.93	0.50
10:QJ:47:PHE:CE1	14:QN:36:PHE:CG	2.99	0.50
34:RA:990:A:N6	34:RA:1186:G:H1'	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:1205:U:C4	38:RF:171:PRO:HA	2.46	0.50
34:RA:2148:G:H2'	34:RA:2149:G:C8	2.47	0.50
34:RA:2159:G:H2'	34:RA:2160:G:C8	2.46	0.50
34:RA:2314:C:H2'	34:RA:2315:G:C8	2.46	0.50
34:RA:2317:C:H3'	34:RA:2318:G:H21	1.75	0.50
1:XA:656:C:O2'	15:XO:28:GLN:NE2	2.45	0.50
1:XA:728:A:C5	15:XO:54:ARG:CD	2.95	0.50
1:XA:1347:G:C8	9:XI:108:VAL:C	2.85	0.50
1:XA:1347:G:N2	1:XA:1373:G:H2'	2.26	0.50
20:XT:74:LYS:O	20:XT:76:ALA:N	2.44	0.50
38:YF:10:PRO:HB3	38:YF:17:ARG:HH21	1.76	0.50
40:YH:113:VAL:HG11	40:YH:151:ILE:HD12	1.94	0.50
52:YX:53:LYS:HG2	52:YX:82:GLN:HB3	1.93	0.50
1:QA:17:U:H2'	1:QA:18:C:C6	2.46	0.50
1:QA:1368:G:OP1	10:QJ:62:HIS:CD2	2.64	0.50
1:QA:1510:U:H3	1:QA:1525:G:H1	1.59	0.50
32:R8:39:LYS:NZ	34:RA:2365:G:C6	2.77	0.50
34:RA:276:A:O2'	34:RA:278:A:OP2	2.28	0.50
34:RA:2025:C:H2'	34:RA:2026:C:C6	2.47	0.50
36:RD:69:ARG:NH1	36:RD:128:GLY:O	2.42	0.50
43:RO:71:ARG:NE	43:RO:105:GLU:OE2	2.36	0.50
1:XA:45:U:H3	1:XA:396:G:H1	1.59	0.50
1:XA:754:C:C6	15:XO:69:TYR:CE2	2.95	0.50
3:XC:21:ARG:HH11	10:XJ:15:THR:HG21	1.75	0.50
10:XJ:40:LEU:CB	10:XJ:41:PRO:CD	2.68	0.50
10:XJ:62:HIS:HD2	14:XN:59:ALA:CB	2.24	0.50
13:XM:82:MET:O	13:XM:93:ARG:NH2	2.43	0.50
20:XT:75:ASN:N	20:XT:75:ASN:OD1	2.44	0.50
33:Y9:27:CYS:HB3	33:Y9:32:HIS:HB2	1.94	0.50
34:YA:1041:C:H2'	34:YA:1042:G:H8	1.77	0.50
34:YA:1359:A:N6	34:YA:1372:U:H3	2.10	0.50
34:YA:1604:C:H2'	34:YA:1605:C:H6	1.76	0.50
34:YA:2125:G:N1	34:YA:2172:U:OP1	2.29	0.50
37:YE:101:ARG:NE	37:YE:171:GLU:OE2	2.41	0.50
1:QA:1170:A:H5'	2:QB:140:HIS:HE1	1.73	0.50
1:QA:1253:G:OP2	10:QJ:44:VAL:CG2	2.58	0.50
1:QA:1315:U:H2'	1:QA:1316:G:C8	2.47	0.50
34:RA:288:C:H2'	34:RA:289:A:H8	1.76	0.50
34:RA:2030:A:H4'	34:RA:2031:A:C8	2.46	0.50
34:RA:2153:G:H2'	34:RA:2154:G:C8	2.46	0.50
36:RD:126:GLN:O	36:RD:129:ASN:ND2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:895:G:O2'	17:XQ:100:LYS:HD2	2.11	0.50
1:XA:979:C:H5"	1:XA:1221:G:C8	2.47	0.50
2:XB:118:LEU:HD23	2:XB:142:LEU:HB2	1.94	0.50
4:XD:88:VAL:HG13	5:XE:97:GLY:HA3	1.94	0.50
34:YA:959:A:N3	34:YA:2457:U:O2'	2.44	0.50
34:YA:1150:C:H2'	34:YA:1151:G:C8	2.47	0.50
34:YA:1176:G:H3'	34:YA:1177:A:C8	2.47	0.50
34:YA:1918:A:O2'	34:YA:1920:C:N4	2.44	0.50
34:YA:2563:U:H1'	34:YA:2566:A:N6	2.27	0.50
51:YW:86:LEU:HD22	51:YW:96:ILE:HD11	1.93	0.50
1:QA:982:U:C5'	14:QN:6:LEU:CD2	2.89	0.50
1:QA:1491:G:C5'	12:QL:46:LYS:HG2	2.41	0.50
2:QB:146:GLN:HG3	2:QB:153:ARG:HH22	1.77	0.50
12:QL:104:VAL:O	12:QL:105:TYR:CG	2.57	0.50
34:RA:828:U:O2'	34:RA:831:G:O6	2.26	0.50
34:RA:1057:A:N6	34:RA:1087:G:OP1	2.45	0.50
34:RA:1408:C:H2'	34:RA:1409:C:C6	2.47	0.50
34:RA:1638:C:O2	34:RA:2698:U:O2'	2.30	0.50
34:RA:1771:C:H2'	34:RA:1772:G:C8	2.47	0.50
34:RA:2695:C:H2'	34:RA:2696:U:C6	2.47	0.50
42:RN:9:VAL:HG11	42:RN:39:ARG:HH12	1.77	0.50
1:XA:879:C:H2'	1:XA:880:C:C6	2.46	0.50
1:XA:1040:U:H2'	1:XA:1041:A:C8	2.47	0.50
1:XA:1358:U:H5'	14:XN:35:ARG:N	2.27	0.50
8:XH:21:LYS:O	8:XH:65:TYR:OH	2.28	0.50
30:Y6:23:THR:OG1	30:Y6:24:GLU:N	2.42	0.50
34:YA:69:C:H2'	34:YA:70:G:H8	1.77	0.50
34:YA:2097:C:C2	34:YA:2193:G:C2	3.00	0.50
34:YA:2100:G:C6	34:YA:2190:G:C4	3.00	0.50
34:YA:2124:G:C2	34:YA:2125:G:H1'	2.46	0.50
34:YA:2275:C:O2	45:YQ:83:MET:SD	2.69	0.50
34:YA:2698:U:H2'	34:YA:2699:C:C6	2.47	0.50
43:YO:63:VAL:HG12	43:YO:106:LEU:HD21	1.93	0.50
1:QA:625:G:H4'	16:QP:16:HIS:HB3	1.93	0.49
1:QA:1094:G:H4'	1:QA:1095:U:H5	1.76	0.49
1:QA:1100:C:H5	2:QB:96:ARG:HH21	1.46	0.49
4:QD:57:ARG:NH2	5:QE:107:ARG:NH1	2.59	0.49
24:R0:23:VAL:HG21	34:RA:857:C:H4'	1.93	0.49
24:R0:72:ARG:HE	24:R0:75:LEU:HD12	1.76	0.49
34:RA:659:C:H2'	34:RA:660:G:H8	1.77	0.49
34:RA:1494:A:H2	34:RA:1579:A:H1'	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:1818:U:H5	36:RD:157:ARG:HH21	1.60	0.49
34:RA:2273:A:H2'	34:RA:2274:A:C8	2.46	0.49
1:XA:413:G:H1'	1:XA:428:G:N2	2.27	0.49
1:XA:948:C:OP2	13:XM:106:ASN:CB	2.60	0.49
1:XA:1304:G:H2'	1:XA:1333:A:H61	1.78	0.49
5:XE:81:GLU:HG2	5:XE:90:VAL:HG23	1.94	0.49
34:YA:922:U:H2'	34:YA:923:C:C6	2.47	0.49
34:YA:1127:A:N1	34:YA:2518:A:N6	2.60	0.49
34:YA:1870:C:H2'	34:YA:1871:A:O4'	2.12	0.49
1:QA:62:U:H2'	1:QA:63:C:C6	2.47	0.49
1:QA:248:C:H2'	1:QA:249:U:H6	1.77	0.49
1:QA:584:G:H2'	1:QA:585:G:C8	2.46	0.49
1:QA:980:C:H4'	14:QN:19:ARG:CZ	2.42	0.49
1:QA:1181:G:C2	1:QA:1182:G:H1'	2.47	0.49
1:QA:1221:G:C5'	19:QS:36:ARG:CZ	2.89	0.49
34:RA:345:A:N3	34:RA:346:A:N6	2.61	0.49
34:RA:458:G:H1'	34:RA:459:U:H5	1.77	0.49
1:XA:8:A:N6	4:XD:209:ARG:N	2.57	0.49
1:XA:186(C):C:H2'	1:XA:186(D):G:C8	2.47	0.49
6:XF:89:MET:HE1	18:XR:76:LEU:HB2	1.94	0.49
7:XG:16:LEU:HD21	9:XI:45:ALA:N	2.27	0.49
8:XH:19:VAL:HG23	8:XH:21:LYS:HG3	1.95	0.49
27:Y3:24:LYS:NZ	34:YA:933:A:OP1	2.38	0.49
27:Y3:42:ALA:HB1	34:YA:851:U:O2	2.13	0.49
34:YA:579:G:O2'	34:YA:2019:A:OP1	2.23	0.49
34:YA:2090:G:C2	34:YA:2230:G:C4	2.97	0.49
54:YZ:6:LYS:NZ	54:YZ:43:GLU:OE1	2.39	0.49
1:QA:538:G:C3'	12:QL:115:LYS:NZ	2.60	0.49
1:QA:608:A:C1'	16:QP:32:TYR:HE1	2.22	0.49
1:QA:958:A:C8	19:QS:79:THR:HG21	2.46	0.49
1:QA:1153:C:H2'	1:QA:1154:G:C8	2.47	0.49
5:QE:77:PRO:O	8:QH:105:ARG:CD	2.56	0.49
34:RA:265:A:H2'	34:RA:266:G:H4'	1.93	0.49
34:RA:358:U:H2'	34:RA:359:A:C8	2.48	0.49
34:RA:380:U:H2'	34:RA:381:G:H8	1.76	0.49
34:RA:1476:C:H2'	34:RA:1477:A:C8	2.47	0.49
34:RA:2006:C:H2'	34:RA:2007:C:H6	1.77	0.49
34:RA:2183:C:H2'	34:RA:2184:G:C8	2.48	0.49
34:RA:2735:G:N2	34:RA:2770:G:H1'	2.28	0.49
1:XA:581:G:N2	1:XA:759:A:OP2	2.38	0.49
1:XA:658:G:H1'	15:XO:22:THR:HG21	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1249:C:N4	1:XA:1288:A:OP2	2.45	0.49
1:XA:1382:C:H2'	1:XA:1383:C:C6	2.47	0.49
1:XA:1481:U:H2'	1:XA:1482:G:C8	2.47	0.49
7:XG:115:ARG:HB2	7:XG:118:VAL:HG12	1.94	0.49
7:XG:140:ASP:OD2	7:XG:143:ARG:NH1	2.45	0.49
13:XM:88:ARG:HD2	13:XM:98:VAL:HB	1.95	0.49
33:Y9:27:CYS:SG	33:Y9:28:GLU:N	2.84	0.49
34:YA:270(P):U:N3	41:YI:52:ARG:NH2	2.60	0.49
34:YA:2261:C:H1'	34:YA:2388:A:H1'	1.94	0.49
35:YB:44:G:O2'	35:YB:47:C:N4	2.44	0.49
1:QA:186(E):C:H2'	1:QA:186(F):C:C6	2.46	0.49
1:QA:676:A:H2	1:QA:714:G:H1	1.60	0.49
1:QA:953:G:N7	13:QM:104:ARG:NH2	2.40	0.49
4:QD:61:LYS:HD3	4:QD:206:PHE:CD2	2.46	0.49
4:QD:205:GLU:HB3	5:QE:107:ARG:NH1	2.27	0.49
5:QE:87:SER:OG	5:QE:125:SER:OG	2.27	0.49
19:QS:10:PHE:HZ	19:QS:15:LEU:HD11	1.76	0.49
25:R1:90:ILE:HA	25:R1:94:LEU:CG	2.42	0.49
34:RA:922:U:H2'	34:RA:923:C:C6	2.47	0.49
34:RA:975:G:N2	34:RA:1156:A:O2'	2.45	0.49
40:RH:89:ILE:HD12	40:RH:131:VAL:HG22	1.94	0.49
45:RQ:36:ALA:HB1	45:RQ:127:ILE:HG21	1.94	0.49
1:XA:412:A:C2	4:XD:35:ARG:HB3	2.47	0.49
1:XA:1233:G:H21	1:XA:1364:U:H3	1.60	0.49
3:XC:19:GLU:O	3:XC:40:ARG:NH2	2.44	0.49
34:YA:1062:G:N2	34:YA:1077:A:N1	2.61	0.49
34:YA:2008:C:H2'	34:YA:2009:G:C8	2.48	0.49
1:QA:5:U:O4	4:QD:87:GLY:N	2.42	0.49
1:QA:192:U:H2'	1:QA:193:C:C6	2.46	0.49
1:QA:422:C:H1'	1:QA:423:G:N1	2.28	0.49
1:QA:891:U:H2'	1:QA:892:A:H8	1.78	0.49
1:QA:893:C:H2'	1:QA:894:G:C8	2.48	0.49
1:QA:922:G:N3	1:QA:1398:A:H2	2.10	0.49
31:R7:35:ARG:NH1	34:RA:54:G:O2'	2.39	0.49
34:RA:2103:C:H2'	34:RA:2104:G:C8	2.48	0.49
50:RV:45:THR:O	50:RV:45:THR:CG2	2.55	0.49
1:XA:25:C:H41	1:XA:559:A:H61	1.58	0.49
1:XA:407:G:C1'	4:XD:119:GLN:HE22	2.26	0.49
1:XA:692:U:H5'	1:XA:797:C:H5'	1.94	0.49
1:XA:891:U:H2'	1:XA:892:A:H8	1.76	0.49
1:XA:974:A:O5'	14:XN:31:ARG:CD	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:974:A:C5	14:XN:31:ARG:CZ	2.95	0.49
32:Y8:10:ALA:O	32:Y8:14:VAL:HB	2.13	0.49
34:YA:971:C:O2'	34:YA:983:A:N3	2.38	0.49
34:YA:1566:A:C4	36:YD:214:TRP:CE3	3.00	0.49
34:YA:2090:G:C2	34:YA:2230:G:C2	3.00	0.49
37:YE:1:MET:N	37:YE:83:ASP:O	2.36	0.49
1:QA:137:C:C1'	16:QP:63:GLY:HA3	2.32	0.49
1:QA:959:A:N6	19:QS:77:THR:O	2.45	0.49
1:QA:975:A:N6	10:QJ:48:THR:HG1	2.05	0.49
1:QA:1255:G:H1	1:QA:1282:C:H42	1.61	0.49
3:QC:35:GLU:HA	3:QC:38:ARG:HH21	1.77	0.49
4:QD:20:TYR:CZ	6:XF:14:LEU:C	2.85	0.49
10:QJ:47:PHE:CZ	14:QN:37:PHE:CE2	3.00	0.49
25:R1:61:ARG:NH2	34:RA:1364:G:OP2	2.41	0.49
29:R5:9:LYS:NZ	34:RA:2019:A:OP2	2.31	0.49
34:RA:444:C:H2'	34:RA:445:C:C6	2.48	0.49
34:RA:1161:C:H2'	34:RA:1162:G:C8	2.47	0.49
34:RA:2085:C:H4'	36:RD:262:ARG:HH21	1.76	0.49
34:RA:2692:C:H2'	34:RA:2693:A:H8	1.77	0.49
39:RG:135:LEU:O	39:RG:154:GLY:HA3	2.13	0.49
51:RW:22:ASP:OD1	51:RW:25:ARG:NH1	2.45	0.49
1:XA:51:A:C5	1:XA:353:A:C2	3.01	0.49
1:XA:60:A:H2	1:XA:378:G:H1'	1.77	0.49
1:XA:178:C:H2'	1:XA:179:A:H8	1.76	0.49
1:XA:536:C:H2'	1:XA:537:G:C8	2.48	0.49
6:XF:91:VAL:HB	18:XR:34:TYR:OH	2.12	0.49
29:Y5:9:LYS:NZ	34:YA:2019:A:N7	2.59	0.49
34:YA:1028:A:H2'	34:YA:1029:A:C8	2.48	0.49
34:YA:1923:U:H2'	34:YA:1924:C:C6	2.48	0.49
34:YA:2081:C:C2	34:YA:2239:G:N2	2.58	0.49
34:YA:2186:G:H2'	34:YA:2187:G:C8	2.47	0.49
34:YA:2751:G:N7	40:YH:2:SER:OG	2.45	0.49
36:YD:97:TYR:HB2	36:YD:101:GLU:O	2.13	0.49
1:QA:162:A:C5	1:QA:163:C:H1'	2.48	0.49
1:QA:165:C:H2'	1:QA:166:G:C8	2.47	0.49
1:QA:986:A:C2	19:QS:52:TYR:HE1	2.31	0.49
1:QA:1096:C:H2'	1:QA:1097:C:C6	2.47	0.49
1:QA:1306:A:OP2	21:QU:5:ASP:CB	2.60	0.49
1:QA:1313:U:C2'	19:QS:6:LYS:NZ	2.74	0.49
5:QE:151:LEU:HD12	8:QH:79:VAL:HG12	1.94	0.49
33:R9:11:CYS:SG	33:R9:14:CYS:N	2.85	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:896:A:H5"	54:RZ:146:ILE:HG22	1.94	0.49
34:RA:1283:G:H1'	34:RA:1329:U:O2	2.13	0.49
1:XA:657:G:O4'	15:XO:28:GLN:NE2	2.45	0.49
1:XA:974:A:O4'	14:XN:31:ARG:CD	2.53	0.49
1:XA:1106:G:H5'	3:XC:172:ARG:HD2	1.95	0.49
1:XA:1305:G:C4	1:XA:1331:G:N1	2.81	0.49
1:XA:1536:C:O2	23:XX:10:G:N2	2.44	0.49
6:XF:61:LEU:HD23	6:XF:63:TYR:HE2	1.77	0.49
19:XS:40:ILE:HD13	19:XS:71:LEU:HD21	1.95	0.49
26:Y2:16:LEU:O	26:Y2:67:LYS:NZ	2.45	0.49
34:YA:1771:C:H2'	34:YA:1772:G:C8	2.48	0.49
34:YA:2092:U:OP2	41:YI:27:ARG:NH2	2.43	0.49
34:YA:2153:G:H2'	34:YA:2154:G:C8	2.47	0.49
34:YA:2781:A:H5"	34:YA:2782:G:H5'	1.95	0.49
44:YP:52:GLU:OE1	44:YP:55:ARG:NH1	2.45	0.49
1:QA:739:C:O2	15:QO:42:HIS:CE1	2.66	0.49
1:QA:940:C:H2'	1:QA:941:G:C8	2.48	0.49
1:QA:1238:A:H2'	1:QA:1239:A:H8	1.77	0.49
1:QA:1253:G:O5'	10:QJ:44:VAL:O	2.30	0.49
1:QA:1313:U:O4	19:QS:4:SER:CB	2.52	0.49
1:QA:1481:U:H2'	1:QA:1482:G:C8	2.48	0.49
2:QB:178:ARG:NH2	2:QB:198:ASP:OD1	2.39	0.49
20:QT:56:MET:HG3	20:QT:84:LEU:HD21	1.94	0.49
34:RA:318:C:H2'	34:RA:319:C:C6	2.48	0.49
34:RA:1566:A:N1	36:RD:214:TRP:CE2	2.81	0.49
34:RA:2291:U:O3'	34:RA:2379:G:N2	2.46	0.49
34:RA:2532:G:O2'	34:RA:2657:A:N1	2.44	0.49
34:RA:2581:G:N2	34:RA:2581:G:OP2	2.46	0.49
1:XA:132:C:OP1	20:XT:75:ASN:ND2	2.46	0.49
1:XA:308:C:H2'	1:XA:309:G:H5'	1.94	0.49
1:XA:1187:G:N3	14:XN:61:TRP:O	2.46	0.49
7:XG:118:VAL:HG22	7:XG:122:HIS:CE1	2.48	0.49
13:XM:91:ARG:NE	13:XM:97:PRO:O	2.46	0.49
20:XT:41:ILE:HD13	20:XT:87:LYS:HG2	1.95	0.49
31:Y7:37:LYS:CE	34:YA:458:G:C4	2.95	0.49
34:YA:662:G:H5"	44:YP:17:LYS:HG2	1.93	0.49
34:YA:911:A:N1	45:YQ:9:TYR:CG	2.80	0.49
34:YA:1028:A:N6	34:YA:1125:G:H2'	2.28	0.49
1:QA:1292:U:H2'	1:QA:1293:G:H8	1.78	0.49
6:QF:35:ALA:HB1	6:QF:65:VAL:HG21	1.95	0.49
30:R6:18:ARG:O	30:R6:20:ASN:ND2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:270(Z):G:H4'	34:RA:273(A):G:H4'	1.95	0.49
34:RA:839:U:H2'	34:RA:840:C:H6	1.78	0.49
34:RA:1788:C:OP1	36:RD:222:ARG:NH2	2.45	0.49
43:RO:88:ASN:HD21	43:RO:90:GLN:HB2	1.78	0.49
1:XA:131:C:OP2	1:XA:186(K):G:O2'	2.30	0.49
1:XA:669:U:H1'	15:XO:46:HIS:HE1	1.77	0.49
1:XA:861:G:HO2'	1:XA:874:G:HO2'	1.49	0.49
1:XA:1540:U:O2	23:XX:6:G:N2	2.46	0.49
24:Y0:11:ARG:O	24:Y0:14:ARG:NH2	2.43	0.49
28:Y4:38:LYS:HE2	39:YG:112:PRO:HG3	1.94	0.49
34:YA:1128:A:H1'	34:YA:1129:A:C4	2.47	0.49
34:YA:1657:C:H2'	34:YA:1658:C:C6	2.47	0.49
34:YA:1794:U:H2'	34:YA:1795:C:C6	2.48	0.49
34:YA:2119:A:H61	34:YA:2168:G:H1	1.61	0.49
34:YA:2391:G:C6	34:YA:2427:C:H1'	2.48	0.49
45:YQ:66:ILE:HA	45:YQ:104:PHE:HA	1.95	0.49
48:YT:28:VAL:HG12	48:YT:88:ILE:HA	1.95	0.49
1:QA:1049:U:H5	14:QN:3:ARG:CG	2.23	0.49
1:QA:1160:G:H5'	2:QB:132:LYS:HZ1	1.78	0.49
34:RA:500:G:H1'	34:RA:505:A:H61	1.78	0.49
34:RA:534:U:HO2'	49:RU:49:HIS:CG	2.30	0.49
34:RA:1070:A:O2'	34:RA:1097:U:O3'	2.30	0.49
34:RA:1802:A:N1	34:RA:1822:G:H1'	2.28	0.49
34:RA:2563:U:H1'	34:RA:2566:A:N6	2.28	0.49
1:XA:68(J):G:H1	1:XA:68(R):U:H3	1.60	0.49
1:XA:107:G:H3'	1:XA:108:G:N2	2.26	0.49
1:XA:1047:G:O2'	1:XA:1215:G:O2'	2.16	0.49
1:XA:1226:C:H3'	13:XM:103:THR:CB	2.43	0.49
1:XA:1227:A:H5"	13:XM:111:LYS:HE2	1.95	0.49
1:XA:1414:U:H2'	1:XA:1415:G:H8	1.78	0.49
4:XD:56:VAL:HG13	4:XD:57:ARG:HD2	1.94	0.49
6:XF:100:ASN:ND2	18:XR:26:LEU:O	2.44	0.49
34:YA:448:U:C4	34:YA:583:G:H1'	2.48	0.49
34:YA:1174:A:H2'	34:YA:1175:U:H4'	1.95	0.49
34:YA:1221:C:H2'	34:YA:1222:C:H6	1.78	0.49
34:YA:2002:G:H2'	34:YA:2003:G:H8	1.78	0.49
1:QA:1108:G:P	3:QC:175:LEU:H	2.29	0.48
1:QA:1244:C:H2'	1:QA:1245:A:C8	2.48	0.48
1:QA:1248:A:N6	21:QU:26:LYS:CD	2.56	0.48
1:QA:1372:U:H5"	9:QI:69:GLY:CA	2.43	0.48
3:QC:47:LEU:HD11	3:QC:87:LEU:HD21	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:QT:54:LYS:HE3	20:QT:100:ILE:HG21	1.95	0.48
34:RA:554:U:H2'	34:RA:556:G:C8	2.47	0.48
53:RY:15:VAL:HA	53:RY:72:VAL:HA	1.94	0.48
54:RZ:163:LEU:HD22	54:RZ:167:PRO:HG3	1.95	0.48
1:XA:518:C:H2'	1:XA:530:G:N3	2.27	0.48
1:XA:1118:C:H1'	1:XA:1179:A:C5	2.48	0.48
1:XA:1223:C:OP1	19:XS:78:ARG:NH2	2.46	0.48
1:XA:1251:A:H2'	1:XA:1252:A:C8	2.48	0.48
10:XJ:48:THR:O	14:XN:34:TYR:OH	2.29	0.48
32:Y8:2:PRO:N	34:YA:591:C:O2	2.45	0.48
32:Y8:13:ARG:HD2	44:YP:61:ARG:HE	1.78	0.48
33:Y9:14:CYS:HB3	33:Y9:27:CYS:HB2	1.95	0.48
33:Y9:19:ARG:HG3	34:YA:2756:U:H5"	1.94	0.48
34:YA:1141:U:P	42:YN:25:ARG:HH21	2.36	0.48
34:YA:1667:G:O2'	34:YA:1991:U:O4	2.30	0.48
34:YA:2691:C:O3'	34:YA:2871:C:H4'	2.12	0.48
54:YZ:24:LEU:HD23	54:YZ:41:LEU:HG	1.94	0.48
1:QA:447:G:H2'	1:QA:485:G:H22	1.78	0.48
1:QA:936:C:H2'	1:QA:937:A:H8	1.78	0.48
1:QA:973:G:H5"	1:QA:974:A:H3'	1.95	0.48
1:QA:1179:A:C5'	9:QI:83:ARG:NH1	2.72	0.48
1:QA:1219:U:H1'	19:QS:34:TRP:CZ3	2.48	0.48
17:QQ:66:SER:O	17:QQ:70:ARG:NH1	2.46	0.48
33:R9:23:VAL:HG21	34:RA:1032:A:O2'	2.13	0.48
34:RA:363(B):A:H2'	34:RA:363(C):G:C8	2.49	0.48
34:RA:441:U:O2	38:RF:46:ARG:NH2	2.46	0.48
34:RA:685:A:H5"	34:RA:788:A:N6	2.25	0.48
34:RA:687:C:N3	34:RA:787:U:H4'	2.28	0.48
34:RA:1394:U:H4'	34:RA:1603:A:H4'	1.93	0.48
34:RA:1482:U:H3	34:RA:1512:G:H1	1.61	0.48
34:RA:1759:A:H1'	34:RA:2711:A:C2	2.47	0.48
43:RO:120:GLU:OE1	48:RT:67:SER:OG	2.24	0.48
1:XA:24:U:H2'	1:XA:25:C:C6	2.49	0.48
1:XA:590:C:OP1	8:XH:29:SER:HB2	2.14	0.48
1:XA:1533:C:H5	23:XX:13:A:H61	1.61	0.48
4:XD:72:GLU:OE2	4:XD:207:TYR:OH	2.19	0.48
6:XF:82:ARG:HB3	6:XF:85:VAL:HG12	1.95	0.48
21:XU:3:LYS:CD	21:XU:14:TRP:CZ3	2.93	0.48
34:YA:236:C:H2'	34:YA:237:C:H6	1.78	0.48
34:YA:910:A:N3	34:YA:2264:C:O2'	2.42	0.48
34:YA:1479:G:H1	34:YA:1514:U:H3	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2832:U:H1'	34:YA:2834:G:C4	2.48	0.48
36:YD:108:PRO:HB3	36:YD:143:HIS:HE1	1.77	0.48
41:YI:129:THR:HG22	41:YI:137:PRO:HB3	1.95	0.48
1:QA:875:C:O2'	8:QH:14:ARG:HD2	2.13	0.48
1:QA:1014:A:N3	1:QA:1219:U:H1'	2.27	0.48
1:QA:1141:C:H2'	1:QA:1142:G:C8	2.47	0.48
1:QA:1226:C:O5'	13:QM:91:ARG:NH1	2.44	0.48
1:QA:1280:A:C5'	10:QJ:40:LEU:CD2	2.80	0.48
1:QA:1314:C:P	19:QS:6:LYS:HZ2	2.34	0.48
2:QB:69:LEU:HB3	2:QB:162:ILE:HG22	1.94	0.48
5:QE:152:ARG:HG2	8:QH:42:GLU:O	2.14	0.48
24:R0:43:THR:CG2	34:RA:2336:A:H61	2.26	0.48
34:RA:27:G:N2	34:RA:513:A:OP2	2.44	0.48
34:RA:436:C:H2'	34:RA:438:G:C8	2.48	0.48
34:RA:523:C:O2	34:RA:553:U:O2'	2.30	0.48
34:RA:568:U:OP1	44:RP:36:LYS:HD2	2.13	0.48
34:RA:1173:G:O2'	34:RA:1175:U:O4'	2.30	0.48
34:RA:2594:C:H2'	34:RA:2595:G:C8	2.47	0.48
34:RA:2831:G:H1'	34:RA:2883:A:H2'	1.95	0.48
35:RB:15:A:H5'	35:RB:16:G:C8	2.47	0.48
40:RH:3:ARG:HG3	40:RH:3:ARG:O	2.13	0.48
40:RH:3:ARG:HH12	40:RH:5:GLY:HA2	1.77	0.48
1:XA:201(C):U:H4'	1:XA:216:G:N2	2.28	0.48
1:XA:447:G:H2'	1:XA:485:G:N2	2.28	0.48
1:XA:673:G:H2'	1:XA:674:G:C8	2.48	0.48
4:XD:63:LYS:HD2	4:XD:198:VAL:HG12	1.95	0.48
6:XF:89:MET:HE1	18:XR:76:LEU:HD13	1.92	0.48
6:XF:94:GLN:NE2	18:XR:32:ARG:HH11	2.11	0.48
15:XO:10:LYS:HA	15:XO:13:GLN:HG2	1.95	0.48
34:YA:2037:G:H2'	34:YA:2038:G:C8	2.49	0.48
34:YA:2140:C:H2'	34:YA:2141:G:C8	2.48	0.48
34:YA:2152:G:H2'	34:YA:2153:G:C8	2.48	0.48
34:YA:2590:A:H2'	34:YA:2591:C:C6	2.48	0.48
35:YB:12:C:O4'	35:YB:15:A:N6	2.46	0.48
47:YS:4:LEU:HD22	47:YS:8:GLU:CD	2.34	0.48
48:YT:31:SER:OG	48:YT:85:LYS:NZ	2.44	0.48
1:QA:22:G:H2'	1:QA:23:C:C6	2.48	0.48
1:QA:957:U:H5'	19:QS:81:ARG:HB2	1.93	0.48
1:QA:1187:G:H1'	14:QN:61:TRP:N	2.28	0.48
1:QA:1229:A:OP2	13:QM:108:ARG:NH2	2.40	0.48
1:QA:1286:A:H2'	1:QA:1287:A:H4'	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:QD:79:PHE:HE1	4:QD:204:ILE:HD13	1.77	0.48
13:QM:83:ASP:O	19:QS:66:MET:HE3	2.13	0.48
34:RA:29:U:H2'	34:RA:30:G:C8	2.49	0.48
34:RA:118:A:N3	34:RA:178:G:H1'	2.29	0.48
34:RA:243:U:H2'	34:RA:244:A:H8	1.78	0.48
34:RA:270(S):G:H2'	34:RA:270(T):G:C8	2.49	0.48
34:RA:834:C:H2'	34:RA:835:A:H8	1.78	0.48
34:RA:2142:C:H2'	34:RA:2143:C:C6	2.48	0.48
34:RA:2211:G:N2	34:RA:2212:A:H2	2.11	0.48
43:RO:15:GLY:O	43:RO:47:ILE:N	2.45	0.48
53:RY:76:CYS:SG	53:RY:79:CYS:CA	2.94	0.48
1:XA:222:U:H2'	1:XA:223:U:C6	2.49	0.48
1:XA:522:C:H1'	1:XA:536:C:H5"	1.94	0.48
1:XA:689:C:H4'	1:XA:705:U:H1'	1.94	0.48
1:XA:988:G:N2	1:XA:1016:A:O2'	2.47	0.48
5:XE:60:TYR:OH	5:XE:64:ARG:NH2	2.47	0.48
16:XP:40:ASP:HB3	16:XP:48:TRP:HB2	1.94	0.48
34:YA:65:C:H2'	34:YA:66:C:H6	1.78	0.48
34:YA:1010:A:H1'	34:YA:1153:C:H1'	1.95	0.48
41:YI:77:LEU:HD13	41:YI:101:LEU:HB3	1.96	0.48
54:YZ:130:PRO:HA	54:YZ:133:ILE:HD11	1.96	0.48
1:QA:18:C:H4'	1:QA:1078:U:O2	2.14	0.48
1:QA:620:C:H1'	4:QD:135:LEU:HG	1.96	0.48
1:QA:947:G:OP1	13:QM:108:ARG:CB	2.61	0.48
1:QA:974:A:OP1	14:QN:29:ARG:NH1	2.46	0.48
1:QA:1522:U:H2'	1:QA:1523:G:C8	2.48	0.48
5:QE:102:ALA:O	5:QE:107:ARG:NH2	2.45	0.48
34:RA:141(A):A:H8	34:RA:1595:G:H21	1.61	0.48
34:RA:414:C:O2	34:RA:1864:U:O2'	2.21	0.48
34:RA:589:C:H2'	34:RA:590:A:H8	1.79	0.48
34:RA:1266:G:N7	51:RW:15:ARG:NH1	2.62	0.48
1:XA:156:G:H2'	1:XA:157:G:C8	2.48	0.48
1:XA:859:A:H2'	1:XA:860:A:O4'	2.13	0.48
1:XA:1004:A:C2	1:XA:1024:G:H2'	2.49	0.48
1:XA:1310:G:H1	1:XA:1327:C:H5	1.61	0.48
1:XA:1319:A:N6	1:XA:1361:G:H1'	2.29	0.48
1:XA:1472:U:H2'	1:XA:1473:A:C8	2.49	0.48
3:XC:153:VAL:HB	3:XC:196:LEU:HD21	1.95	0.48
4:XD:20:TYR:HD1	4:XD:26:CYS:HB3	1.78	0.48
6:XF:5:GLU:HA	6:XF:63:TYR:O	2.14	0.48
10:XJ:9:ARG:HG2	10:XJ:9:ARG:HH11	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:XX:6:G:H2'	23:XX:7:G:H8	1.77	0.48
29:Y5:9:LYS:CE	34:YA:2019:A:N7	2.75	0.48
34:YA:956:G:OP2	45:YQ:14:ARG:NH2	2.46	0.48
34:YA:1657:C:H4'	37:YE:133:LYS:HB3	1.95	0.48
34:YA:2084:C:H2'	34:YA:2085:C:C6	2.48	0.48
34:YA:2094:G:OP1	41:YI:22:LYS:HD2	2.12	0.48
48:YT:52:ILE:HG13	48:YT:61:PHE:HB3	1.96	0.48
1:QA:626:U:O3'	16:QP:38:TYR:CD1	2.66	0.48
1:QA:1151:A:O2'	10:QJ:13:HIS:HB2	2.13	0.48
1:QA:1270:C:O2'	1:QA:1313:U:O3'	2.30	0.48
34:RA:1073:A:H3'	34:RA:1074:G:H8	1.79	0.48
34:RA:1518:C:H2'	34:RA:1519:G:C8	2.49	0.48
38:RF:48:THR:O	38:RF:48:THR:OG1	2.32	0.48
38:RF:159:GLY:O	38:RF:164:ARG:NH2	2.41	0.48
44:RP:106:LEU:HD13	44:RP:112:LEU:HD13	1.95	0.48
46:RR:26:LYS:O	46:RR:30:THR:OG1	2.24	0.48
1:XA:186(Q):U:H2'	1:XA:191:G:C8	2.48	0.48
1:XA:1159:U:C6	1:XA:1182:G:H2'	2.49	0.48
1:XA:1316:G:H4'	14:XN:17:LYS:HG2	0.64	0.48
1:XA:1351:U:H2'	1:XA:1352:C:H6	1.78	0.48
17:XQ:66:SER:H	17:XQ:69:LYS:HB3	1.78	0.48
19:XS:36:ARG:HB2	19:XS:72:GLY:HA3	1.94	0.48
34:YA:629:G:H1'	34:YA:639:U:H1'	1.96	0.48
34:YA:2113:U:C5	34:YA:2114:A:H1'	2.48	0.48
1:QA:155:C:H2'	1:QA:156:G:C8	2.48	0.48
1:QA:490:G:H2'	1:QA:491:G:C8	2.48	0.48
1:QA:608:A:O2'	16:QP:9:PHE:HE1	1.95	0.48
1:QA:986:A:O2'	19:QS:55:LYS:CA	2.60	0.48
1:QA:1106:G:O3'	3:QC:172:ARG:CB	2.56	0.48
1:QA:1278:U:H4'	1:QA:1279:A:C4	2.49	0.48
1:QA:1318:A:N3	19:QS:37:ARG:NH2	2.59	0.48
34:RA:813:U:C5	44:RP:25:SER:HB3	2.49	0.48
34:RA:851:U:H2'	34:RA:852:G:C8	2.48	0.48
34:RA:1732:A:H3'	34:RA:1733:G:H8	1.77	0.48
34:RA:2751:G:C6	40:RH:3:ARG:HB2	2.47	0.48
53:RY:13:VAL:HA	53:RY:74:PRO:HA	1.96	0.48
54:RZ:61:LEU:HD23	54:RZ:67:LEU:HD23	1.94	0.48
1:XA:68(H):G:C5	1:XA:68(I):G:H1'	2.49	0.48
1:XA:112:G:H22	1:XA:315:A:H2	1.60	0.48
1:XA:186(B):C:H2'	1:XA:186(C):C:C6	2.48	0.48
1:XA:856:C:H2'	1:XA:857:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1391:U:H2'	1:XA:1392:G:C8	2.49	0.48
4:XD:91:SER:HB2	4:XD:191:ARG:HD2	1.95	0.48
13:XM:3:ARG:HD2	13:XM:7:VAL:HG12	1.96	0.48
31:Y7:37:LYS:HG2	34:YA:458:G:C8	2.49	0.48
34:YA:305:U:H2'	34:YA:306:U:C6	2.49	0.48
34:YA:1753:G:H2'	34:YA:1755:A:N7	2.28	0.48
34:YA:2053:G:C2	34:YA:2617:C:N3	2.82	0.48
34:YA:2314:C:H2'	34:YA:2315:G:C8	2.49	0.48
34:YA:2688:U:H1'	34:YA:2721:A:H61	1.78	0.48
46:YR:3:HIS:O	46:YR:5:LYS:N	2.47	0.48
1:QA:308:C:H2'	1:QA:309:G:C8	2.49	0.48
1:QA:624:C:H4'	16:QP:11:SER:HB3	1.96	0.48
1:QA:667:G:H2'	1:QA:668:G:C8	2.49	0.48
1:QA:695:A:OP2	11:QK:53:SER:HB3	2.14	0.48
1:QA:1318:A:C4	19:QS:37:ARG:NH2	2.78	0.48
1:QA:1530:G:H2'	1:QA:1531:A:H8	1.78	0.48
13:QM:26:GLY:O	13:QM:30:ALA:CB	2.62	0.48
34:RA:985:C:H2'	34:RA:986:C:C6	2.49	0.48
39:RG:126:ASP:OD1	39:RG:130:ASN:N	2.43	0.48
40:RH:43:VAL:HG23	40:RH:52:VAL:HG12	1.95	0.48
40:RH:46:GLU:HB2	40:RH:49:VAL:HG23	1.95	0.48
1:XA:263:A:H2'	1:XA:264:U:C5	2.49	0.48
1:XA:647:C:H2'	1:XA:648:A:C8	2.49	0.48
1:XA:784:C:H2'	1:XA:785:G:H8	1.79	0.48
1:XA:967:C:H5'	1:XA:968:A:H2'	1.96	0.48
1:XA:1312:G:H2'	19:XS:6:LYS:HZ2	1.77	0.48
1:XA:1409:C:H2'	1:XA:1410:G:C8	2.49	0.48
4:XD:57:ARG:HH12	5:XE:107:ARG:CZ	2.27	0.48
13:XM:84:ILE:HD12	19:XS:65:ASN:OD1	2.13	0.48
16:XP:6:LEU:HD13	16:XP:17:TYR:CG	2.49	0.48
17:XQ:83:ASP:N	17:XQ:83:ASP:OD1	2.40	0.48
20:XT:73:HIS:HB3	20:XT:74:LYS:H	1.47	0.48
34:YA:389:G:H22	44:YP:71:VAL:CG1	2.19	0.48
34:YA:860:U:H2'	34:YA:861:A:C8	2.43	0.48
1:QA:43:C:OP1	16:QP:13:HIS:HD2	1.97	0.48
1:QA:643:C:H2'	1:QA:644:G:H8	1.77	0.48
2:QB:47:THR:HG23	2:QB:202:PRO:HG2	1.96	0.48
2:QB:179:LYS:HA	8:QH:72:PRO:HG3	1.96	0.48
2:QB:197:VAL:O	8:QH:68:ARG:CZ	2.60	0.48
10:QJ:4:ILE:HG12	10:QJ:100:THR:HG22	1.95	0.48
34:RA:270(V):C:H2'	34:RA:270(W):G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:558:G:H2'	34:RA:559:G:C8	2.49	0.48
34:RA:1403:C:H5"	34:RA:1471:A:H1'	1.96	0.48
34:RA:1454:U:OP1	46:RR:77:ARG:NH1	2.45	0.48
34:RA:1607:C:H41	34:RA:1621:U:H3'	1.79	0.48
34:RA:1662:C:H2'	34:RA:1663:C:C6	2.49	0.48
34:RA:2210:G:H5'	34:RA:2211:G:C5	2.49	0.48
34:RA:2241:A:H2'	34:RA:2242:G:C8	2.49	0.48
34:RA:2553:G:C2	34:RA:2583:G:H1'	2.49	0.48
34:RA:2657:A:O3'	40:RH:160:LYS:NZ	2.46	0.48
1:XA:106:C:H2'	1:XA:107:G:C8	2.49	0.48
1:XA:669:U:O4'	15:XO:46:HIS:HE1	1.97	0.48
1:XA:1229:A:H62	13:XM:104:ARG:HB3	1.79	0.48
1:XA:1397:C:OP2	5:XE:24:ARG:NH2	2.40	0.48
10:XJ:78:ASN:HB2	10:XJ:81:THR:HG23	1.96	0.48
25:Y1:83:GLU:HG3	25:Y1:85:LEU:H	1.78	0.48
34:YA:29:U:H2'	34:YA:30:G:C8	2.49	0.48
34:YA:356:G:H2'	34:YA:357:A:C8	2.49	0.48
34:YA:410:G:N2	34:YA:2407:G:N7	2.62	0.48
34:YA:828:U:H4'	34:YA:831:G:C6	2.49	0.48
34:YA:920:G:H2'	34:YA:921:G:H8	1.78	0.48
34:YA:1162:G:H2'	34:YA:1163:G:H8	1.79	0.48
34:YA:1223:C:H2'	34:YA:1224:G:C8	2.49	0.48
34:YA:1952:A:P	43:YO:44:LYS:HZ3	2.35	0.48
34:YA:2097:C:H2'	34:YA:2098:U:H6	1.79	0.48
37:YE:37:ARG:O	37:YE:45:THR:HA	2.13	0.48
37:YE:117:MET:HA	37:YE:122:PHE:H	1.79	0.48
39:YG:68:PRO:HB3	39:YG:92:VAL:HB	1.95	0.48
45:YQ:35:VAL:HG12	45:YQ:102:VAL:HG22	1.94	0.48
53:YY:11:ASP:OD1	53:YY:11:ASP:N	2.43	0.48
1:QA:625:G:HO2'	16:QP:16:HIS:CE1	2.30	0.48
1:QA:695:A:H61	1:QA:786:G:H21	1.61	0.48
1:QA:986:A:N9	19:QS:54:GLY:O	2.47	0.48
1:QA:1069:C:H1'	1:QA:1191:A:H2	1.77	0.48
1:QA:1318:A:N6	14:QN:16:PHE:CG	2.82	0.48
1:QA:1407:C:H2'	1:QA:1408:A:H8	1.79	0.48
18:QR:59:SER:OG	18:QR:60:ALA:N	2.46	0.48
34:RA:153:C:H2'	34:RA:154:G:C8	2.49	0.48
34:RA:433:C:H2'	34:RA:434:U:C6	2.49	0.48
34:RA:1213:A:H1'	34:RA:1238:G:N3	2.28	0.48
34:RA:2343:C:H2'	34:RA:2344:U:C6	2.49	0.48
34:RA:2710:C:H2'	34:RA:2711:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:62:U:H2'	1:XA:63:C:C6	2.49	0.48
1:XA:372:C:O2	1:XA:372:C:O2'	2.23	0.48
1:XA:495:A:H1'	1:XA:497:A:H2'	1.96	0.48
1:XA:1256:A:N7	1:XA:1278:U:H5'	2.29	0.48
1:XA:1434:A:H61	1:XA:1467:G:H1'	1.79	0.48
2:XB:30:ARG:NH1	2:XB:31:TYR:OH	2.46	0.48
9:XI:73:GLN:O	9:XI:77:ILE:HG12	2.14	0.48
34:YA:917:A:H3'	34:YA:918:A:C8	2.49	0.48
34:YA:1050:A:N7	34:YA:2751:G:C4	2.80	0.48
34:YA:2097:C:N3	34:YA:2192:G:C6	2.82	0.48
34:YA:2546:U:H4'	34:YA:2566:A:H2	1.79	0.48
34:YA:2695:C:H2'	34:YA:2696:U:C6	2.49	0.48
40:YH:70:THR:O	40:YH:74:ASN:ND2	2.47	0.48
1:QA:1253:G:C5'	10:QJ:44:VAL:H	2.24	0.47
1:QA:1300:G:H1'	1:QA:1303:C:N4	2.29	0.47
1:QA:1309:G:H4'	13:QM:77:ASN:HD21	1.77	0.47
5:QE:74:GLY:O	5:QE:116:THR:OG1	2.31	0.47
5:QE:84:PHE:N	5:QE:87:SER:O	2.45	0.47
11:QK:82:VAL:HG13	11:QK:108:ILE:HA	1.95	0.47
25:R1:17:SER:O	25:R1:17:SER:OG	2.29	0.47
25:R1:78:LYS:NZ	34:RA:270(S):G:H21	2.10	0.47
31:R7:24:THR:HG23	31:R7:27:GLY:H	1.79	0.47
34:RA:65:C:H2'	34:RA:66:C:C6	2.49	0.47
34:RA:137(B):G:N2	52:RX:41:ASN:HD21	2.12	0.47
34:RA:514:A:H2'	34:RA:515:A:C8	2.48	0.47
34:RA:657:U:H2'	34:RA:658:C:C6	2.48	0.47
34:RA:1367:A:C5	34:RA:1368:G:H1'	2.49	0.47
35:RB:8:U:H3	35:RB:112:G:H1	1.61	0.47
41:RI:51:ILE:HA	41:RI:54:GLN:HG2	1.95	0.47
42:RN:60:ILE:HD12	42:RN:60:ILE:HA	1.81	0.47
1:XA:1106:G:C5'	3:XC:172:ARG:HG2	2.44	0.47
1:XA:1376:U:H2'	1:XA:1377:A:C8	2.48	0.47
13:XM:14:ARG:HG2	13:XM:16:ASP:H	1.79	0.47
20:XT:61:SER:OG	20:XT:62:LEU:N	2.47	0.47
34:YA:685:A:O2'	34:YA:773:U:O4	2.25	0.47
34:YA:1930:G:H2'	34:YA:1968:G:H1	1.78	0.47
34:YA:2199:A:N1	34:YA:2226:C:N4	2.57	0.47
34:YA:2641:G:H2'	34:YA:2642:G:H8	1.79	0.47
1:QA:401:C:H2'	1:QA:402:G:C8	2.50	0.47
1:QA:562:C:H1'	12:QL:15:ARG:HD2	1.95	0.47
1:QA:949:A:OP1	13:QM:100:GLY:O	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:953:G:C6	13:QM:104:ARG:CZ	2.97	0.47
1:QA:1129:C:H1'	1:QA:1132:C:C5	2.49	0.47
1:QA:1253:G:C5'	10:QJ:44:VAL:O	2.62	0.47
5:QE:79:GLU:CD	8:QH:102:ARG:HH12	2.18	0.47
29:R5:12:SER:O	29:R5:16:ARG:HB2	2.14	0.47
34:RA:558:G:H2'	34:RA:559:G:H8	1.79	0.47
34:RA:1681:G:HO2'	34:RA:1762:A:HO2'	1.57	0.47
34:RA:2197:U:H1'	34:RA:2198:A:C8	2.49	0.47
34:RA:2233:U:H2'	34:RA:2234:G:C8	2.48	0.47
47:RS:26:LEU:HB3	47:RS:87:PHE:HA	1.96	0.47
48:RT:91:ARG:NH2	48:RT:124:ASP:OD2	2.47	0.47
49:RU:17:ILE:HG13	49:RU:39:LEU:HD12	1.95	0.47
1:XA:822:C:H2'	1:XA:823:G:C8	2.49	0.47
1:XA:1187:G:N9	14:XN:61:TRP:O	2.42	0.47
2:XB:71:VAL:HB	2:XB:164:VAL:HG12	1.96	0.47
13:XM:84:ILE:CG2	19:XS:74:PHE:HZ	2.21	0.47
34:YA:270(A):A:C2	34:YA:366:C:H4'	2.50	0.47
34:YA:2115:G:H4'	34:YA:2166:G:H4'	1.96	0.47
34:YA:2150:U:H2'	34:YA:2151:G:H8	1.76	0.47
37:YE:102:VAL:O	37:YE:170:LEU:N	2.45	0.47
39:YG:107:LEU:HA	39:YG:111:LEU:HD12	1.95	0.47
1:QA:186(B):C:H2'	1:QA:186(C):C:O4'	2.15	0.47
1:QA:258:G:OP1	20:QT:87:LYS:NZ	2.48	0.47
1:QA:345:C:H5'	48:RT:41:ARG:NH1	2.29	0.47
1:QA:658:G:H5"	15:QO:31:LEU:CD1	2.44	0.47
1:QA:1320:C:N3	19:QS:36:ARG:C	2.67	0.47
1:QA:1534:A:N3	23:QX:12:A:N6	2.55	0.47
4:QD:108:LEU:HD22	4:QD:174:LEU:HD13	1.96	0.47
4:QD:169:LYS:HE2	6:XF:82:ARG:HH22	1.79	0.47
9:QI:20:ARG:HG3	9:QI:60:ASP:HB2	1.96	0.47
34:RA:678:C:H2'	34:RA:679:C:H6	1.79	0.47
34:RA:1568:G:OP1	36:RD:63:ARG:NH1	2.34	0.47
34:RA:2081:C:H2'	34:RA:2082:A:H8	1.80	0.47
34:RA:2373:G:H2'	34:RA:2374:C:C6	2.49	0.47
37:RE:105:THR:OG1	37:RE:199:ARG:NH1	2.47	0.47
1:XA:708:C:H2'	1:XA:709:G:C8	2.49	0.47
1:XA:1319:A:H61	1:XA:1361:G:H1'	1.79	0.47
4:XD:175:SER:O	4:XD:183:GLY:HA2	2.15	0.47
7:XG:99:LEU:HD12	7:XG:102:ARG:HD2	1.96	0.47
25:Y1:39:LYS:NZ	34:YA:205:G:O6	2.44	0.47
26:Y2:4:SER:OG	26:Y2:5:GLU:N	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:389:G:N1	44:YP:71:VAL:CG1	2.69	0.47
34:YA:996:A:O4'	50:YV:10:LYS:HG2	2.14	0.47
34:YA:2046:G:N1	34:YA:2623:G:C5	2.80	0.47
34:YA:2110:G:OP1	34:YA:2111:C:N4	2.47	0.47
34:YA:2795:G:O2'	34:YA:2799:A:N6	2.47	0.47
1:QA:233:C:O2'	1:QA:264:U:N3	2.47	0.47
1:QA:1123:A:O2'	10:QJ:37:PRO:N	2.47	0.47
1:QA:1307:U:P	13:QM:99:ARG:CB	3.03	0.47
1:QA:1307:U:H5"	13:QM:99:ARG:NE	2.29	0.47
16:QP:40:ASP:OD1	16:QP:43:LYS:N	2.46	0.47
31:R7:39:ARG:NH1	34:RA:459:U:OP2	2.47	0.47
34:RA:521:G:H2'	34:RA:522:G:C8	2.49	0.47
34:RA:521:G:H2'	34:RA:522:G:H8	1.79	0.47
34:RA:679:C:H2'	34:RA:680:G:H8	1.78	0.47
34:RA:990:A:C6	34:RA:1186:G:H1'	2.50	0.47
34:RA:1022:G:N2	34:RA:1023:U:O4	2.47	0.47
38:RF:102:PRO:HB2	38:RF:105:VAL:HG23	1.95	0.47
1:XA:296:U:H1'	1:XA:556:C:H1'	1.95	0.47
1:XA:372:C:N4	1:XA:389:A:N7	2.61	0.47
1:XA:608:A:C2'	1:XA:609:A:H8	2.27	0.47
1:XA:718:G:H1	18:XR:74:ARG:HH12	1.62	0.47
1:XA:1217:C:H5"	14:XN:12:ARG:NH1	2.26	0.47
1:XA:1253:G:O3'	10:XJ:45:ARG:HD2	2.14	0.47
1:XA:1318:A:O3'	19:XS:11:VAL:CG1	2.62	0.47
3:XC:23:TYR:CD2	10:XJ:95:GLU:N	2.82	0.47
11:XK:109:VAL:CA	18:XR:86:VAL:HG23	2.43	0.47
13:XM:84:ILE:O	19:XS:74:PHE:CE1	2.62	0.47
34:YA:223:A:H1'	34:YA:407:G:H21	1.79	0.47
34:YA:270(Q):C:H1'	41:YI:50:ARG:HH22	1.79	0.47
34:YA:685:A:C2	34:YA:787:U:H1'	2.49	0.47
34:YA:1050:A:H1'	34:YA:2751:G:C8	2.49	0.47
34:YA:1068:G:N2	34:YA:1096:A:O5'	2.42	0.47
34:YA:2054:A:N1	34:YA:2616:C:N3	2.62	0.47
34:YA:2312:U:H4'	39:YG:71:THR:OG1	2.14	0.47
34:YA:2577:A:H2'	34:YA:2614:A:N6	2.30	0.47
50:YV:13:ARG:NH1	50:YV:15:GLU:OE2	2.45	0.47
50:YV:52:VAL:HG21	50:YV:55:ALA:HB3	1.95	0.47
1:QA:297:G:H4'	1:QA:557:G:O2'	2.14	0.47
1:QA:956:U:O2'	19:QS:80:TYR:C	2.52	0.47
1:QA:985:C:H2'	1:QA:986:A:H8	1.78	0.47
1:QA:1106:G:C3'	3:QC:172:ARG:CG	2.87	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1112:C:N3	3:QC:178:LEU:CD1	2.78	0.47
11:QK:17:GLY:HA2	11:QK:35:PRO:HD3	1.97	0.47
13:QM:16:ASP:N	13:QM:16:ASP:OD1	2.44	0.47
32:R8:42:ARG:HD2	34:RA:2350:C:C5'	2.44	0.47
34:RA:1339:G:N2	34:RA:1603:A:N3	2.62	0.47
34:RA:1592:C:H2'	34:RA:1593:G:C8	2.50	0.47
1:XA:186(K):G:C6	1:XA:264:U:H5"	2.49	0.47
1:XA:600:C:H2'	1:XA:601:C:C6	2.49	0.47
1:XA:613:C:H2'	1:XA:614:A:C8	2.50	0.47
1:XA:813:U:H2'	1:XA:814:A:H8	1.80	0.47
1:XA:1132:C:H2'	1:XA:1133:G:C8	2.50	0.47
1:XA:1463:C:H2'	1:XA:1464:G:H8	1.79	0.47
2:XB:204:ASN:OD1	2:XB:205:ASP:N	2.48	0.47
27:Y3:18:ASP:OD1	27:Y3:18:ASP:N	2.46	0.47
34:YA:624:C:H2'	34:YA:625:G:H8	1.79	0.47
34:YA:747:U:H5	34:YA:2613:U:C4	2.30	0.47
34:YA:1035:U:H2'	34:YA:1036:G:C8	2.50	0.47
34:YA:1043:C:H2'	34:YA:1044:G:H8	1.79	0.47
34:YA:1445:C:H2'	34:YA:1446:C:C6	2.49	0.47
34:YA:1476:C:H2'	34:YA:1477:A:C8	2.49	0.47
34:YA:2181:G:H2'	34:YA:2182:G:C8	2.49	0.47
34:YA:2722:G:H5"	34:YA:2820:A:N7	2.30	0.47
34:YA:2893:G:O2'	34:YA:2894:G:N2	2.47	0.47
1:QA:9:G:H2'	1:QA:10:A:C8	2.49	0.47
1:QA:711:G:H2'	1:QA:712:A:C8	2.50	0.47
8:QH:120:THR:OG1	8:QH:121:ASP:N	2.47	0.47
12:QL:5:PRO:HG2	12:QL:10:LEU:HD21	1.96	0.47
23:QX:3:C:H2'	23:QX:4:A:C8	2.49	0.47
34:RA:270(D):C:H2'	34:RA:270(E):C:C6	2.50	0.47
34:RA:436:C:H2'	34:RA:438:G:H8	1.79	0.47
34:RA:602:G:H1'	34:RA:656:G:N2	2.30	0.47
34:RA:619:G:H3'	34:RA:620:G:H21	1.79	0.47
34:RA:863:A:H2'	34:RA:864:G:C8	2.49	0.47
34:RA:863:A:H2'	34:RA:864:G:H8	1.80	0.47
1:XA:376:G:H4'	16:XP:5:ARG:NH1	2.28	0.47
1:XA:708:C:H2'	1:XA:709:G:H8	1.80	0.47
1:XA:908:A:H2'	1:XA:909:A:H8	1.80	0.47
1:XA:1112:C:C1'	3:XC:179:ARG:NE	2.67	0.47
1:XA:1112:C:H6	3:XC:179:ARG:HH21	1.51	0.47
1:XA:1143:G:H2'	1:XA:1144:G:C8	2.49	0.47
13:XM:83:ASP:OD2	13:XM:84:ILE:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:XN:23:ARG:NH1	14:XN:28:GLY:HA2	2.29	0.47
15:XO:39:LEU:HG	15:XO:56:LEU:HD12	1.96	0.47
34:YA:363(B):A:H2'	34:YA:363(C):G:C8	2.50	0.47
34:YA:1400:G:H2'	34:YA:1401:G:C8	2.49	0.47
34:YA:1947:C:H2'	34:YA:1948:G:H8	1.79	0.47
34:YA:2008:C:H2'	34:YA:2009:G:H8	1.78	0.47
34:YA:2245:U:H5'	34:YA:2246:G:H5"	1.97	0.47
34:YA:2443:C:H2'	34:YA:2444:G:C8	2.49	0.47
36:YD:35:LYS:HG3	36:YD:63:ARG:HG3	1.96	0.47
37:YE:105:THR:HG21	37:YE:164:ARG:HH21	1.78	0.47
47:YS:25:ARG:HG3	47:YS:88:ASP:HB2	1.96	0.47
1:QA:35:G:O2'	12:QL:118:SER:O	2.20	0.47
1:QA:66:G:H1'	1:QA:173:U:H2'	1.97	0.47
1:QA:269:C:H2'	1:QA:270:A:H8	1.80	0.47
1:QA:667:G:C2	15:QO:49:ASP:OD1	2.68	0.47
1:QA:833:U:H2'	1:QA:834:C:C6	2.49	0.47
1:QA:926:G:N2	23:QX:18:C:OP2	2.45	0.47
1:QA:932:C:H2'	1:QA:933:G:C8	2.49	0.47
1:QA:960:U:H2'	1:QA:1225:A:N6	2.30	0.47
1:QA:1253:G:H5'	10:QJ:44:VAL:N	2.23	0.47
1:QA:1278:U:H4'	1:QA:1279:A:C5	2.49	0.47
1:QA:1280:A:C2	10:QJ:41:PRO:HD3	2.49	0.47
1:QA:1397:C:H4'	1:QA:1398:A:C8	2.50	0.47
10:QJ:50:ILE:HD13	14:QN:41:ARG:NH1	2.18	0.47
17:QQ:62:SER:OG	17:QQ:72:ARG:NE	2.47	0.47
17:QQ:83:ASP:N	17:QQ:83:ASP:OD1	2.47	0.47
34:RA:508:G:C6	51:RW:9:TYR:CE1	3.03	0.47
34:RA:2008:C:H2'	34:RA:2009:G:C8	2.49	0.47
34:RA:2102:U:H2'	34:RA:2103:C:C6	2.50	0.47
34:RA:2319:G:N1	34:RA:2334:G:OP2	2.45	0.47
34:RA:2392:A:H2	34:RA:2424:C:H42	1.61	0.47
34:RA:2468:G:OP2	34:RA:2468:G:N2	2.41	0.47
34:RA:2503:A:O2'	34:RA:2505:G:OP2	2.29	0.47
34:RA:2658:C:H5"	40:RH:158:HIS:CD2	2.49	0.47
52:RX:64:LYS:HD2	52:RX:73:ARG:HH12	1.77	0.47
54:RZ:182:LYS:HA	54:RZ:182:LYS:HD2	1.75	0.47
1:XA:413:G:H4'	1:XA:414:A:H5"	1.97	0.47
1:XA:539:A:H2'	1:XA:540:G:H8	1.80	0.47
1:XA:595:G:N1	1:XA:641:U:O2'	2.47	0.47
1:XA:608:A:H2'	1:XA:609:A:O4'	2.15	0.47
1:XA:656:C:H2'	1:XA:657:G:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:893:C:H2'	1:XA:894:G:C8	2.50	0.47
1:XA:1084:G:H21	1:XA:1102:A:N6	2.13	0.47
1:XA:1141:C:H2'	1:XA:1142:G:C8	2.50	0.47
1:XA:1269:A:N1	1:XA:1312:G:O2'	2.41	0.47
4:XD:62:GLN:HE22	4:XD:65:ARG:HH21	1.62	0.47
4:XD:175:SER:HB3	4:XD:184:LYS:HB3	1.96	0.47
4:XD:208:SER:OG	5:XE:101:ILE:HD12	2.14	0.47
29:Y5:3:LYS:HD3	34:YA:2577:A:H5'	1.97	0.47
29:Y5:58:LEU:HD23	46:YR:113:LEU:HD11	1.96	0.47
34:YA:151:C:H2'	34:YA:152:G:H8	1.79	0.47
34:YA:320:A:N3	38:YF:169:ASN:ND2	2.62	0.47
34:YA:413:C:H2'	34:YA:414:C:C6	2.49	0.47
34:YA:536:A:OP1	49:YU:53:ARG:NH1	2.47	0.47
34:YA:603:A:H5"	34:YA:655:A:H61	1.80	0.47
34:YA:624:C:H2'	34:YA:625:G:C8	2.50	0.47
34:YA:816:C:H2'	34:YA:817:C:C6	2.50	0.47
34:YA:998:C:H2'	34:YA:999:U:O4'	2.14	0.47
34:YA:1332:G:N2	34:YA:1609:A:O2'	2.48	0.47
34:YA:1529:A:H61	34:YA:1542:G:H1'	1.78	0.47
34:YA:1796:U:H2'	34:YA:1797:C:C6	2.49	0.47
34:YA:2115:G:H22	34:YA:2163:C:H3'	1.78	0.47
34:YA:2316:C:H2'	34:YA:2317:C:H6	1.79	0.47
39:YG:63:ILE:HG22	39:YG:143:GLU:HB2	1.95	0.47
45:YQ:75:THR:HB	45:YQ:86:GLY:HA3	1.96	0.47
1:QA:8:A:C4	4:QD:209:ARG:O	2.68	0.47
1:QA:229:U:H2'	1:QA:230:G:H8	1.78	0.47
1:QA:626:U:O3'	16:QP:38:TYR:CE1	2.68	0.47
1:QA:1099:G:OP2	2:QB:96:ARG:NH1	2.48	0.47
34:RA:251:A:C4	34:RA:252:G:H1'	2.50	0.47
34:RA:730:C:H2'	34:RA:731:C:H6	1.80	0.47
34:RA:1141:U:H1'	34:RA:1142(B):A:C5	2.49	0.47
34:RA:1189:A:C2	34:RA:1190:G:H1'	2.50	0.47
34:RA:1375:C:H2'	34:RA:1376:C:H6	1.78	0.47
34:RA:2084:C:H2'	34:RA:2085:C:H6	1.79	0.47
34:RA:2208:U:O2'	36:RD:150:LYS:O	2.32	0.47
34:RA:2244:U:H2'	34:RA:2245:U:C6	2.50	0.47
34:RA:2262:U:H2'	34:RA:2263:C:C6	2.50	0.47
40:RH:6:ARG:HE	40:RH:65:HIS:HB3	1.80	0.47
1:XA:106:C:H2'	1:XA:107:G:H8	1.80	0.47
1:XA:702:A:C6	34:YA:1848:A:N3	2.83	0.47
1:XA:789:U:H2'	1:XA:791:G:N7	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:826:C:H4'	8:XH:12:ARG:HG3	1.97	0.47
1:XA:961:U:O2	1:XA:1201:A:N6	2.47	0.47
1:XA:1187:G:N2	14:XN:60:SER:HB2	2.26	0.47
1:XA:1512:U:H3	1:XA:1523:G:H1	1.63	0.47
2:XB:84:GLU:HG3	2:XB:215:LEU:HB3	1.96	0.47
2:XB:184:VAL:HG23	2:XB:198:ASP:H	1.79	0.47
7:XG:16:LEU:HD21	9:XI:44:VAL:C	2.34	0.47
27:Y3:51:ALA:HA	27:Y3:54:VAL:HG12	1.95	0.47
33:Y9:14:CYS:CA	33:Y9:27:CYS:HB2	2.44	0.47
34:YA:671:C:H2'	34:YA:672:C:H6	1.79	0.47
34:YA:749:C:H5'	34:YA:1271:G:H1'	1.96	0.47
34:YA:860:U:C5	34:YA:2268:A:N7	2.83	0.47
34:YA:1838:C:N4	34:YA:1899:G:O4'	2.48	0.47
34:YA:1853:A:H2'	34:YA:1854:A:C8	2.49	0.47
34:YA:2197:U:H1'	34:YA:2198:A:C8	2.50	0.47
35:YB:24:G:O6	35:YB:56:G:O2'	2.26	0.47
40:YH:18:GLU:HB3	40:YH:25:LYS:HG2	1.97	0.47
45:YQ:55:VAL:HG22	54:YZ:178:GLU:HG2	1.97	0.47
47:YS:11:LYS:HG3	47:YS:15:ARG:HE	1.80	0.47
1:QA:106:C:C5	20:QT:15:ARG:NH1	2.83	0.47
1:QA:337:C:H2'	1:QA:338:A:C8	2.50	0.47
1:QA:986:A:C5'	19:QS:55:LYS:HG3	2.44	0.47
1:QA:1065:U:C4	1:QA:1190:G:H1'	2.49	0.47
1:QA:1109:C:H3'	1:QA:1110:A:H8	1.79	0.47
1:QA:1222:G:O3'	19:QS:78:ARG:NH2	2.48	0.47
1:QA:1236:A:P	21:QU:10:ARG:HD3	2.55	0.47
1:QA:1427:U:H2'	1:QA:1428:A:C8	2.49	0.47
3:QC:50:ALA:HB2	3:QC:75:VAL:HB	1.96	0.47
13:QM:26:GLY:O	13:QM:30:ALA:HB2	2.15	0.47
15:QO:26:GLU:HA	15:QO:29:VAL:HG12	1.97	0.47
34:RA:305:U:H2'	34:RA:306:U:C6	2.50	0.47
34:RA:442:G:H1'	38:RF:48:THR:HG21	1.96	0.47
34:RA:478:A:N6	34:RA:500:G:O2'	2.47	0.47
34:RA:482:A:H1'	34:RA:498:G:N2	2.30	0.47
34:RA:1011:G:O2'	34:RA:1012:U:O2'	2.28	0.47
34:RA:1416:G:H2'	34:RA:1417:C:C6	2.49	0.47
34:RA:1768:U:H2'	34:RA:1769:G:H8	1.79	0.47
34:RA:2152:G:H2'	34:RA:2153:G:C8	2.49	0.47
34:RA:2346:A:H5"	34:RA:2346:A:N3	2.30	0.47
34:RA:2691:C:H2'	34:RA:2692:C:C6	2.50	0.47
49:RU:6:THR:HG21	49:RU:10:ARG:HH12	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:RW:68:ARG:NH2	51:RW:109:GLU:OE2	2.48	0.47
1:XA:831:U:H2'	1:XA:832:C:C6	2.50	0.47
1:XA:1096:C:H2'	1:XA:1097:C:C6	2.49	0.47
1:XA:1294:G:H2'	1:XA:1295:G:C8	2.49	0.47
1:XA:1305:G:C4	1:XA:1331:G:C5	3.03	0.47
28:Y4:23:GLU:O	28:Y4:25:TYR:N	2.46	0.47
34:YA:619:G:H3'	34:YA:620:G:H21	1.79	0.47
34:YA:1050:A:C8	34:YA:2751:G:C6	3.02	0.47
34:YA:1050:A:N7	34:YA:2751:G:N1	2.63	0.47
34:YA:1417:C:H2'	34:YA:1418:G:O4'	2.15	0.47
34:YA:2047:U:H2'	34:YA:2048:G:C8	2.49	0.47
34:YA:2406:U:C4	44:YP:75:ILE:HD11	2.50	0.47
34:YA:2804:C:H2'	34:YA:2805:G:C8	2.50	0.47
41:YI:88:ILE:HG22	41:YI:90:GLY:H	1.80	0.47
1:QA:115:G:H21	1:QA:117:G:H1	1.62	0.47
1:QA:625:G:H5'	16:QP:9:PHE:HB3	1.97	0.47
1:QA:673:G:H2'	1:QA:674:G:C8	2.49	0.47
1:QA:742:G:H4'	15:QO:58:MET:SD	2.55	0.47
1:QA:830:G:H2'	1:QA:831:U:C6	2.50	0.47
1:QA:1108:G:OP1	3:QC:174:PRO:HA	2.14	0.47
1:QA:1179:A:H2'	1:QA:1180:A:C8	2.50	0.47
1:QA:1352:C:H2'	1:QA:1353:G:C8	2.50	0.47
2:QB:134:GLU:HA	2:QB:137:ARG:HG2	1.96	0.47
4:QD:156:GLU:O	4:QD:160:GLN:N	2.48	0.47
34:RA:181:A:H1'	34:RA:435:C:H5'	1.96	0.47
34:RA:303:U:H2'	34:RA:304:G:C8	2.50	0.47
34:RA:577:G:O2'	34:RA:1254:A:OP1	2.30	0.47
34:RA:611:C:H2'	34:RA:612:G:H8	1.80	0.47
34:RA:1728:G:H8	34:RA:1732:A:H62	1.61	0.47
34:RA:2036:C:H2'	34:RA:2037:G:H8	1.79	0.47
34:RA:2710:C:H2'	34:RA:2711:A:H8	1.79	0.47
34:RA:2751:G:P	34:RA:2751:G:H8	2.37	0.47
1:XA:34:C:H2'	1:XA:35:G:H8	1.80	0.47
1:XA:324:G:P	20:XT:70:SER:HG	2.38	0.47
1:XA:444:C:H2'	1:XA:445:G:C8	2.50	0.47
1:XA:649:G:H2'	1:XA:650:G:C8	2.49	0.47
1:XA:657:G:H21	15:XO:22:THR:CG2	2.27	0.47
1:XA:1253:G:N3	1:XA:1355:G:O2'	2.46	0.47
1:XA:1318:A:O2'	19:XS:11:VAL:HG13	2.09	0.47
11:XK:31:THR:HA	11:XK:42:TRP:HA	1.97	0.47
19:XS:4:SER:HB2	19:XS:7:LYS:HG2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:Y7:12:ARG:NH1	34:YA:686:G:O6	2.47	0.47
33:Y9:31:LYS:HE2	34:YA:2528:U:H5'	1.97	0.47
34:YA:1154:G:OP2	49:YU:58:ARG:NH2	2.48	0.47
34:YA:2059:A:C2	34:YA:2503:A:N1	2.83	0.47
34:YA:2738:A:H2	34:YA:2766:G:H22	1.62	0.47
38:YF:157:VAL:HG13	38:YF:194:MET:HB3	1.97	0.47
1:QA:97:U:H2'	1:QA:99:C:C2	2.50	0.46
1:QA:233:C:H2'	1:QA:234:C:H6	1.80	0.46
1:QA:806:C:H2'	1:QA:807:A:C8	2.50	0.46
1:QA:815:A:N6	1:QA:1509:C:H1'	2.30	0.46
1:QA:1195:C:H6	1:QA:1196:U:H4'	1.79	0.46
1:QA:1309:G:C4'	13:QM:77:ASN:HD21	2.24	0.46
1:QA:1422:G:H5'	43:RO:48:PRO:HG3	1.97	0.46
6:QF:24:GLU:OE1	6:QF:28:ARG:NH1	2.48	0.46
8:QH:108:GLY:HA3	8:QH:138:TRP:HB3	1.97	0.46
9:QI:26:VAL:HG12	9:QI:61:ALA:HB3	1.97	0.46
13:QM:108:ARG:HA	13:QM:111:LYS:HB2	1.97	0.46
25:R1:2:SER:O	25:R1:61:ARG:NH1	2.47	0.46
25:R1:90:ILE:HA	25:R1:94:LEU:HD11	1.92	0.46
34:RA:191:A:H2'	34:RA:192:C:H6	1.78	0.46
34:RA:1266:G:H1'	34:RA:1267:U:H5	1.80	0.46
34:RA:1569:A:H5'	36:RD:61:LEU:HD11	1.97	0.46
34:RA:2100:G:H1	34:RA:2189:U:H3	1.64	0.46
34:RA:2198:A:H5'	41:RI:33:ARG:HH12	1.79	0.46
34:RA:2260:C:HO2'	34:RA:2388:A:HO2'	1.58	0.46
34:RA:2308:G:H22	34:RA:2311:A:H2	1.63	0.46
34:RA:2351:G:H1'	34:RA:2367:G:H22	1.80	0.46
34:RA:2393:A:H4'	44:RP:61:ARG:O	2.15	0.46
34:RA:2841:C:H2'	34:RA:2842:G:C8	2.51	0.46
35:RB:93:C:H5"	54:RZ:20:ARG:HH21	1.80	0.46
37:RE:24:THR:HG21	37:RE:188:VAL:HG22	1.97	0.46
40:RH:11:VAL:HG12	40:RH:13:LYS:HG2	1.97	0.46
1:XA:186(B):C:O2	20:XT:105:SER:CA	2.62	0.46
1:XA:421:U:H4'	3:XC:192:THR:CG2	2.43	0.46
1:XA:978:A:H62	14:XN:18:VAL:CG2	2.28	0.46
1:XA:1057:G:H3'	1:XA:1058:G:H8	1.80	0.46
1:XA:1309:G:H2'	1:XA:1310:G:C8	2.50	0.46
4:XD:18:LYS:HZ3	4:XD:33:MET:HG3	1.80	0.46
8:XH:91:ARG:HG3	17:XQ:33:GLY:O	2.15	0.46
12:XL:12:ARG:HH21	12:XL:13:LYS:HE3	1.79	0.46
34:YA:144:C:H2'	34:YA:145:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:504:U:H5”	34:YA:505:A:H5’	1.98	0.46
34:YA:2011:U:OP2	51:YW:16:LYS:NZ	2.35	0.46
34:YA:2863:C:H2’	34:YA:2864:G:H8	1.80	0.46
38:YF:12:LEU:HB3	38:YF:126:VAL:HG12	1.96	0.46
1:QA:625:G:H5”	16:QP:9:PHE:HB3	1.97	0.46
1:QA:705:U:H3’	1:QA:706:A:C8	2.50	0.46
1:QA:757:U:H5”	1:QA:822:C:O2’	2.15	0.46
1:QA:758:G:H8	1:QA:758:G:O5’	1.99	0.46
1:QA:955:U:H2’	1:QA:956:U:O4’	2.15	0.46
1:QA:1313:U:C2’	19:QS:6:LYS:HZ3	2.25	0.46
9:QI:28:VAL:HA	9:QI:63:ILE:HB	1.97	0.46
10:QJ:12:ASP:O	10:QJ:16:LEU:HB3	2.16	0.46
34:RA:301:G:P	53:RY:84:ARG:HH22	2.38	0.46
34:RA:358:U:H2’	34:RA:359:A:H8	1.80	0.46
34:RA:1853:A:H2’	34:RA:1854:A:C8	2.49	0.46
34:RA:2417:C:OP1	44:RP:64:LYS:NZ	2.49	0.46
35:RB:74:U:H1’	54:RZ:34:ASN:ND2	2.29	0.46
1:XA:60:A:C2	1:XA:378:G:H1’	2.50	0.46
1:XA:191:G:N2	20:XT:103:GLY:O	2.27	0.46
1:XA:376:G:OP1	16:XP:67:THR:CG2	2.34	0.46
1:XA:1142:G:H3’	1:XA:1143:G:H8	1.80	0.46
1:XA:1303:C:H3’	1:XA:1304:G:C8	2.51	0.46
1:XA:1359:C:H41	14:XN:35:ARG:NE	2.13	0.46
1:XA:1495:U:O2’	1:XA:1496:C:H5’	2.16	0.46
34:YA:380:U:H2’	34:YA:381:G:C8	2.50	0.46
34:YA:475:U:H4’	34:YA:510:C:H5’	1.97	0.46
34:YA:671:C:H2’	34:YA:672:C:C6	2.49	0.46
34:YA:1466:G:H3’	34:YA:1547:C:H41	1.80	0.46
34:YA:2045:C:H2’	34:YA:2046:G:H8	1.81	0.46
34:YA:2142:C:H2’	34:YA:2143:C:C6	2.51	0.46
42:YN:16:ILE:HG21	42:YN:26:LEU:HD11	1.97	0.46
44:YP:98:GLU:HA	44:YP:101:VAL:HG12	1.96	0.46
1:QA:417:C:H2’	1:QA:418:C:C6	2.50	0.46
1:QA:866:C:H4’	1:QA:919:A:H5’	1.97	0.46
1:QA:980:C:H6	14:QN:19:ARG:HG3	1.63	0.46
1:QA:1150:U:C2	10:QJ:39:PRO:HG2	2.50	0.46
1:QA:1188:A:C5’	14:QN:58:LYS:HZ1	2.25	0.46
1:QA:1203:C:H5’	14:QN:3:ARG:HD2	1.97	0.46
1:QA:1524:C:H2’	1:QA:1525:G:C8	2.50	0.46
3:QC:66:VAL:HB	3:QC:101:LEU:HG	1.98	0.46
8:QH:121:ASP:OD2	8:QH:125:ARG:NH1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:QP:21:VAL:HG23	16:QP:33:ILE:HB	1.96	0.46
32:R8:46:ARG:NH1	34:RA:631:A:OP2	2.48	0.46
34:RA:456:C:C5	52:RX:69:TYR:CZ	3.03	0.46
34:RA:462:C:H2'	34:RA:463:G:C8	2.51	0.46
34:RA:464:U:N3	34:RA:684:G:O2'	2.46	0.46
34:RA:1827:C:OP2	36:RD:222:ARG:NH1	2.49	0.46
34:RA:2031:A:N3	34:RA:2455:G:O2'	2.43	0.46
34:RA:2447:G:H1	34:RA:2451:A:H62	1.63	0.46
40:RH:123:PHE:HE2	40:RH:133:VAL:HG22	1.80	0.46
40:RH:126:PRO:HG2	40:RH:130:ARG:HG3	1.96	0.46
46:RR:28:LEU:HD23	46:RR:48:VAL:HG21	1.98	0.46
1:XA:891:U:H2'	1:XA:892:A:C8	2.49	0.46
1:XA:926:G:N2	23:XX:18:C:OP2	2.48	0.46
1:XA:1351:U:H2'	1:XA:1352:C:C6	2.50	0.46
1:XA:1392:G:H2'	1:XA:1393:U:C6	2.50	0.46
12:XL:8:ASN:O	12:XL:12:ARG:HB2	2.15	0.46
16:XP:20:VAL:HG12	16:XP:35:LYS:HA	1.97	0.46
22:XV:56:C:N4	34:YA:2112:G:O6	2.48	0.46
34:YA:192:C:H1'	34:YA:800:A:N6	2.31	0.46
34:YA:383:U:H2'	34:YA:385:C:C5	2.50	0.46
34:YA:553:U:H2'	34:YA:554:U:C6	2.51	0.46
34:YA:920:G:H2'	34:YA:921:G:C8	2.51	0.46
34:YA:2102:U:H2'	34:YA:2103:C:C6	2.49	0.46
34:YA:2688:U:H2'	34:YA:2719:G:N2	2.30	0.46
34:YA:2831:G:H1'	34:YA:2883:A:H2'	1.98	0.46
38:YF:60:SER:OG	38:YF:61:GLY:N	2.49	0.46
1:QA:341:C:H2'	1:QA:342:C:C6	2.50	0.46
1:QA:404:U:H5'	4:QD:122:ARG:HG2	1.97	0.46
1:QA:657:G:H21	15:QO:23:GLY:HA3	1.80	0.46
1:QA:668:G:H1'	15:QO:49:ASP:HB2	1.97	0.46
1:QA:1330:U:H5"	13:QM:24:GLY:HA2	1.97	0.46
2:QB:197:VAL:O	8:QH:68:ARG:NH1	2.49	0.46
32:R8:8:LYS:HG3	34:RA:246:C:N4	2.31	0.46
32:R8:13:ARG:HD2	44:RP:61:ARG:HE	1.80	0.46
34:RA:184:C:O2'	34:RA:217:G:N3	2.40	0.46
34:RA:413:C:H2'	34:RA:414:C:C6	2.49	0.46
34:RA:839:U:H2'	34:RA:840:C:C6	2.50	0.46
34:RA:1058:G:H2'	34:RA:1059:G:C8	2.50	0.46
34:RA:1802:A:H2'	34:RA:1803:A:C8	2.50	0.46
34:RA:1940:U:OP1	34:RA:1965:C:N4	2.48	0.46
34:RA:2291:U:H2'	34:RA:2292:C:H6	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:2443:C:H2'	34:RA:2444:G:C8	2.50	0.46
34:RA:2647:U:H2'	34:RA:2648:C:C6	2.50	0.46
34:RA:2819:G:H2'	34:RA:2821:A:N7	2.30	0.46
38:RF:24:LEU:HD12	38:RF:115:ALA:HB2	1.96	0.46
46:RR:35:THR:O	46:RR:35:THR:OG1	2.33	0.46
1:XA:665:A:N3	1:XA:732:C:H2'	2.30	0.46
1:XA:768:A:H1'	1:XA:1512:U:H1'	1.98	0.46
1:XA:951:G:H2'	1:XA:952:U:C6	2.51	0.46
1:XA:1131:G:H2'	1:XA:1132:C:C6	2.49	0.46
1:XA:1330:U:H5"	13:XM:24:GLY:O	2.14	0.46
1:XA:1479:C:H2'	1:XA:1480:G:C8	2.50	0.46
2:XB:188:ALA:HB3	2:XB:200:ILE:HD11	1.97	0.46
34:YA:270(E):C:H2'	34:YA:270(F):G:C8	2.51	0.46
34:YA:514:A:H2'	34:YA:515:A:C8	2.50	0.46
34:YA:839:U:H1'	34:YA:1191:G:H1'	1.96	0.46
34:YA:1454:U:H5	46:YR:73:VAL:HG12	1.80	0.46
41:YI:72:LEU:HD12	41:YI:138:ILE:HD12	1.97	0.46
1:QA:44:G:OP2	16:QP:12:LYS:HD3	2.15	0.46
1:QA:186(B):C:N1	20:QT:85:MET:CE	2.76	0.46
1:QA:309:G:C5'	16:QP:27:LYS:HZ3	2.29	0.46
1:QA:617:G:H21	16:QP:14:ASN:HD22	1.63	0.46
1:QA:877:C:H5"	8:QH:88:LYS:CD	2.46	0.46
1:QA:958:A:C4	19:QS:55:LYS:HB2	2.51	0.46
1:QA:958:A:H61	19:QS:77:THR:HB	1.80	0.46
1:QA:986:A:C4	19:QS:54:GLY:O	2.68	0.46
1:QA:1347:G:O2'	1:QA:1373:G:N1	2.44	0.46
1:QA:1514:C:H2'	1:QA:1515:C:C6	2.51	0.46
3:QC:9:GLY:HA3	14:QN:49:HIS:O	2.16	0.46
5:QE:98:THR:N	5:QE:117:ASP:OD1	2.40	0.46
34:RA:532:A:O2'	34:RA:2021:C:N4	2.47	0.46
34:RA:675:A:C2'	38:RF:67:GLN:HE22	2.28	0.46
34:RA:917:A:H3'	34:RA:918:A:H8	1.79	0.46
34:RA:1662:C:H1'	34:RA:2687:U:H5"	1.97	0.46
34:RA:2037:G:H2'	34:RA:2038:G:C8	2.50	0.46
34:RA:2398:U:H2'	34:RA:2399:G:C8	2.51	0.46
34:RA:2844:G:H3'	34:RA:2845:G:H8	1.81	0.46
38:RF:34:TRP:HB2	44:RP:6:LEU:HB3	1.98	0.46
41:RI:88:ILE:HG22	41:RI:90:GLY:N	2.31	0.46
1:XA:115:G:H1'	1:XA:116:A:OP2	2.15	0.46
1:XA:163:C:H2'	1:XA:164:U:C6	2.51	0.46
1:XA:320:C:H2'	1:XA:321:A:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:324:G:H2'	1:XA:326:G:N7	2.29	0.46
1:XA:417:C:H2'	1:XA:418:C:C6	2.50	0.46
1:XA:754:C:C6	15:XO:69:TYR:CZ	2.98	0.46
1:XA:777:A:H2'	1:XA:778:G:O4'	2.15	0.46
1:XA:1016:A:H1'	1:XA:1218:C:O2	2.16	0.46
1:XA:1301:U:O3'	13:XM:17:VAL:CG2	2.64	0.46
7:XG:75:VAL:HA	7:XG:87:VAL:O	2.16	0.46
31:Y7:3:ARG:NE	34:YA:1613:G:O2'	2.45	0.46
32:Y8:4:MET:HG2	34:YA:592:G:O2'	2.16	0.46
34:YA:247:G:H4'	34:YA:386:G:C4	2.50	0.46
34:YA:2232:U:H2'	34:YA:2233:U:C6	2.50	0.46
34:YA:2855:C:H2'	34:YA:2856:C:H6	1.80	0.46
52:YX:64:LYS:HZ2	52:YX:73:ARG:HE	1.63	0.46
1:QA:757:U:H2'	1:QA:758:G:O4'	2.16	0.46
1:QA:761:G:C5'	17:QQ:100:LYS:HZ3	2.20	0.46
1:QA:975:A:C2	14:QN:34:TYR:HD1	2.29	0.46
1:QA:1241:G:H2'	1:QA:1242:C:C6	2.50	0.46
1:QA:1440(O):C:H2'	1:QA:1440(P):A:C8	2.51	0.46
16:QP:59:TRP:HA	16:QP:62:VAL:HG22	1.97	0.46
33:R9:18:ARG:HD3	34:RA:1034:G:H4'	1.97	0.46
34:RA:910:A:H2'	34:RA:911:A:C8	2.50	0.46
34:RA:1026:U:H1'	34:RA:1027:A:H5"	1.98	0.46
34:RA:1689:A:H62	34:RA:1698:A:H2	1.64	0.46
37:RE:14:ILE:HD11	37:RE:173:VAL:HG11	1.97	0.46
52:RX:72:LYS:NZ	52:RX:73:ARG:O	2.38	0.46
1:XA:59:A:N3	1:XA:59:A:H2'	2.31	0.46
1:XA:113:G:H2'	1:XA:114:U:C6	2.50	0.46
1:XA:713:G:H2'	1:XA:714:G:C8	2.51	0.46
1:XA:1270:C:H4'	1:XA:1314:C:H5'	1.98	0.46
1:XA:1304:G:C8	1:XA:1304:G:C5'	2.85	0.46
1:XA:1327:C:H2'	1:XA:1328:C:C6	2.51	0.46
1:XA:1367:C:H4'	10:XJ:48:THR:HG21	1.98	0.46
1:XA:1375:A:C4'	7:XG:28:ASN:OD1	2.62	0.46
2:XB:118:LEU:HB3	2:XB:142:LEU:HD13	1.98	0.46
34:YA:523:C:O2	34:YA:553:U:O2'	2.34	0.46
34:YA:851:U:H2'	34:YA:852:G:C8	2.50	0.46
34:YA:1454:U:OP1	46:YR:77:ARG:NE	2.35	0.46
34:YA:1566:A:N6	36:YD:214:TRP:CH2	2.83	0.46
34:YA:1772:G:N2	34:YA:1774:C:H5'	2.31	0.46
34:YA:2069:G:C2	34:YA:2443:C:O2	2.68	0.46
34:YA:2439:A:H1'	34:YA:2587:A:H5'	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:YF:41:LEU:HA	38:YF:44:ARG:HG2	1.98	0.46
40:YH:89:ILE:HD11	40:YH:94:TYR:HB3	1.98	0.46
1:QA:955:U:H2'	19:QS:83:HIS:HA	1.97	0.46
1:QA:1004:A:N6	1:QA:1025:U:O3'	2.49	0.46
1:QA:1260:C:O2'	1:QA:1283:G:O2'	2.34	0.46
1:QA:1359:C:OP2	14:QN:35:ARG:NH1	2.49	0.46
10:QJ:50:ILE:HG12	14:QN:41:ARG:HE	1.71	0.46
34:RA:212:G:H2'	34:RA:213:A:C8	2.50	0.46
34:RA:244:A:C2	34:RA:245:G:H1'	2.51	0.46
34:RA:303:U:H2'	34:RA:304:G:H8	1.81	0.46
34:RA:598:G:H5'	44:RP:11:GLY:HA3	1.97	0.46
34:RA:817:C:HO2'	34:RA:932:G:N2	2.13	0.46
34:RA:1791:A:N6	34:RA:1828:G:O2'	2.41	0.46
42:RN:3:THR:HG21	49:RU:61:TRP:HE1	1.79	0.46
52:RX:90:GLU:HA	52:RX:93:GLU:HG2	1.97	0.46
54:RZ:67:LEU:HD13	54:RZ:68:PRO:HD2	1.96	0.46
1:XA:160:A:H2'	1:XA:161:A:O4'	2.15	0.46
1:XA:186(O):U:H2'	1:XA:186(P):G:C8	2.51	0.46
1:XA:620:C:C1'	4:XD:135:LEU:HD13	2.46	0.46
1:XA:674:G:H2'	1:XA:675:A:H8	1.81	0.46
1:XA:702:A:H3'	1:XA:703:G:C8	2.48	0.46
1:XA:896:C:H2'	1:XA:897:C:H6	1.81	0.46
1:XA:1124:G:H2'	1:XA:1145:C:N3	2.30	0.46
1:XA:1228:C:OP1	13:XM:108:ARG:NH2	2.49	0.46
8:XH:86:ILE:HD12	8:XH:135:CYS:HA	1.97	0.46
10:XJ:40:LEU:HD13	10:XJ:70:ARG:HA	1.98	0.46
26:Y2:28:LYS:HD3	26:Y2:28:LYS:HA	1.77	0.46
34:YA:259:G:H21	34:YA:621:A:H1'	1.81	0.46
34:YA:2064:C:H1'	34:YA:2450:A:C2	2.51	0.46
34:YA:2730:C:H2'	34:YA:2731:G:C8	2.50	0.46
34:YA:2820:A:C6	46:YR:4:LEU:HD11	2.50	0.46
42:YN:47:ALA:HB2	42:YN:112:LEU:HD11	1.98	0.46
43:YO:80:ASP:OD2	48:YT:64:ARG:NH2	2.48	0.46
1:QA:140:A:H2'	1:QA:141:A:C8	2.51	0.46
1:QA:260:G:H2'	1:QA:261:U:C6	2.51	0.46
1:QA:414:A:H3'	1:QA:415:A:H8	1.80	0.46
1:QA:687:A:O2'	1:QA:701:C:N4	2.48	0.46
1:QA:775:G:N2	1:QA:804:U:O4	2.47	0.46
1:QA:947:G:H2'	1:QA:948:C:C6	2.51	0.46
1:QA:977:A:O2'	1:QA:981:U:O4	2.30	0.46
1:QA:1382:C:H2'	1:QA:1383:C:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:236:C:H2'	34:RA:237:C:C6	2.51	0.46
34:RA:270(G):U:H2'	34:RA:270(H):C:C6	2.51	0.46
34:RA:1147:C:H2'	34:RA:1148:A:C8	2.51	0.46
34:RA:1332:G:N2	34:RA:1609:A:O2'	2.49	0.46
34:RA:1853:A:H2'	34:RA:1854:A:H8	1.81	0.46
34:RA:1927:A:H2'	34:RA:1928:A:C8	2.51	0.46
34:RA:2574:G:H1'	37:RE:143:ASN:HB3	1.97	0.46
38:RF:56:GLU:OE2	38:RF:93:LYS:NZ	2.49	0.46
40:RH:84:SER:HA	40:RH:134:SER:HA	1.97	0.46
1:XA:68(G):C:H2'	1:XA:68(H):G:C8	2.50	0.46
1:XA:370:C:H2'	1:XA:371:G:C8	2.50	0.46
1:XA:445:G:H2'	1:XA:446:G:C8	2.51	0.46
1:XA:718:G:H3'	1:XA:719:C:C6	2.51	0.46
1:XA:728:A:N7	15:XO:54:ARG:CD	2.78	0.46
1:XA:745:C:H1'	1:XA:836:G:H1'	1.98	0.46
1:XA:948:C:OP1	13:XM:106:ASN:HB3	2.16	0.46
11:XK:108:ILE:O	18:XR:87:ARG:CA	2.64	0.46
33:Y9:20:HIS:CE1	34:YA:2756:U:H3'	2.51	0.46
34:YA:842:G:H2'	34:YA:843:G:H8	1.80	0.46
34:YA:1468:C:H2'	34:YA:1469:A:C8	2.51	0.46
34:YA:2096:U:H3	34:YA:2193:G:N2	2.13	0.46
34:YA:2232:U:H2'	34:YA:2233:U:H6	1.81	0.46
34:YA:2533:A:OP1	34:YA:2665:A:O2'	2.33	0.46
1:QA:106:C:H2'	1:QA:107:G:H8	1.81	0.46
1:QA:346:G:OP1	48:RT:41:ARG:NH2	2.48	0.46
1:QA:500:G:H1'	1:QA:547:A:N1	2.31	0.46
1:QA:568:G:N7	12:QL:5:PRO:HD3	2.31	0.46
1:QA:730:G:N3	1:QA:765:G:H4'	2.31	0.46
1:QA:1106:G:C4'	3:QC:172:ARG:CG	2.15	0.46
1:QA:1109:C:H3'	1:QA:1110:A:C8	2.51	0.46
1:QA:1131:G:H2'	1:QA:1132:C:H6	1.81	0.46
1:QA:1307:U:H5"	13:QM:99:ARG:CZ	2.46	0.46
3:QC:22:TRP:CA	10:QJ:93:GLY:CA	2.84	0.46
4:QD:22:LYS:HG3	56:QD:301:SF4:S1	2.56	0.46
11:QK:27:ASN:OD1	11:QK:28:THR:N	2.47	0.46
33:R9:11:CYS:N	33:R9:14:CYS:SG	2.83	0.46
34:RA:1351:C:H2'	34:RA:1352:U:C6	2.51	0.46
34:RA:1657:C:O3'	37:RE:133:LYS:HG2	2.16	0.46
34:RA:1952:A:OP1	43:RO:42:SER:OG	2.32	0.46
34:RA:2036:C:H2'	34:RA:2037:G:C8	2.51	0.46
34:RA:2260:C:O2'	34:RA:2388:A:O2'	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:2757:A:N1	40:RH:67:LEU:HD13	2.31	0.46
35:RB:31:C:H4'	39:RG:29:TRP:CH2	2.51	0.46
51:RW:86:LEU:HD22	51:RW:96:ILE:HD11	1.98	0.46
1:XA:450:G:H5"	1:XA:451:A:H3'	1.98	0.46
1:XA:996:A:H2'	1:XA:997:U:C6	2.51	0.46
1:XA:1157:A:C2	1:XA:1181:G:H1'	2.51	0.46
1:XA:1312:G:C2'	19:XS:6:LYS:NZ	2.68	0.46
5:XE:151:LEU:O	8:XH:64:LYS:NZ	2.49	0.46
13:XM:45:VAL:HG23	13:XM:48:LEU:HD12	1.98	0.46
20:XT:11:SER:O	20:XT:11:SER:OG	2.28	0.46
31:Y7:35:ARG:NH1	34:YA:54:G:O2'	2.38	0.46
34:YA:98:G:H1'	34:YA:103:A:H1'	1.98	0.46
34:YA:442:G:N2	38:YF:48:THR:OG1	2.48	0.46
34:YA:2688:U:H1'	34:YA:2721:A:N6	2.31	0.46
40:YH:137:ASP:OD2	40:YH:138:LYS:N	2.48	0.46
43:YO:64:ARG:HB2	43:YO:83:ALA:HB3	1.98	0.46
48:YT:91:ARG:NH2	48:YT:124:ASP:OD2	2.48	0.46
1:QA:18:C:H42	1:QA:917:G:H1	1.64	0.46
1:QA:521:G:OP1	12:QL:73:GLU:HA	2.16	0.46
2:QB:101:MET:HA	2:QB:108:ILE:HG13	1.97	0.46
2:QB:178:ARG:HH21	8:QH:70:GLN:HA	1.81	0.46
3:QC:184:TYR:HA	3:QC:200:ALA:O	2.15	0.46
4:QD:57:ARG:HB3	4:QD:206:PHE:HB2	1.97	0.46
4:QD:72:GLU:OE2	4:QD:207:TYR:OH	2.29	0.46
6:QF:33:TYR:OH	6:QF:78:GLU:OE1	2.30	0.46
16:QP:4:ILE:HD13	16:QP:21:VAL:HG12	1.97	0.46
18:QR:74:ARG:HD3	18:QR:81:PHE:HA	1.98	0.46
34:RA:1539:G:H2'	34:RA:1540:G:C8	2.51	0.46
34:RA:1689:A:H2'	34:RA:1690:A:C8	2.51	0.46
34:RA:2318:G:OP2	34:RA:2318:G:N2	2.48	0.46
34:RA:2530:A:O2'	34:RA:2534:A:N6	2.48	0.46
34:RA:2554:U:H2'	34:RA:2555:U:C6	2.51	0.46
38:RF:182:ASN:OD1	38:RF:182:ASN:N	2.46	0.46
49:RU:45:TYR:O	49:RU:49:HIS:ND1	2.49	0.46
1:XA:129(B):G:H4'	1:XA:130:A:H5"	1.98	0.46
1:XA:663:A:H2'	1:XA:664:G:C8	2.51	0.46
1:XA:669:U:H1'	15:XO:46:HIS:CE1	2.50	0.46
1:XA:697:U:H1'	1:XA:786:G:H1'	1.97	0.46
1:XA:739:C:P	15:XO:2:PRO:HD3	2.56	0.46
1:XA:1410:G:H2'	1:XA:1411:C:C6	2.50	0.46
2:XB:27:LYS:HD2	2:XB:193:ASP:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:XI:7:THR:O	9:XI:7:THR:OG1	2.31	0.46
10:XJ:50:ILE:CD1	14:XN:41:ARG:NH1	2.79	0.46
12:XL:53:ARG:HB3	12:XL:69:TYR:HE1	1.79	0.46
22:XV:50:G:H2'	22:XV:51:A:H8	1.81	0.46
32:Y8:34:TRP:HD1	34:YA:2420:C:OP1	1.98	0.46
34:YA:691:C:H2'	34:YA:692:C:C6	2.50	0.46
34:YA:1380:G:O2'	34:YA:1569:A:N6	2.49	0.46
34:YA:1493:C:N4	34:YA:2210:G:N9	2.61	0.46
34:YA:1493:C:C6	34:YA:2210:G:C6	3.04	0.46
34:YA:1645:G:H5"	34:YA:1646:C:H5'	1.98	0.46
34:YA:2043:C:N4	34:YA:2625:G:H1	2.13	0.46
34:YA:2291:U:H2'	34:YA:2292:C:C6	2.51	0.46
34:YA:2801:A:C5	34:YA:2802:G:H1'	2.51	0.46
45:YQ:133:ARG:HG3	45:YQ:134:ARG:H	1.80	0.46
54:YZ:74:VAL:HG22	54:YZ:86:VAL:HG23	1.97	0.46
1:QA:538:G:H2'	1:QA:539:A:C8	2.51	0.45
1:QA:612:C:H2'	1:QA:613:C:C6	2.51	0.45
1:QA:784:C:H2'	1:QA:785:G:C8	2.51	0.45
1:QA:956:U:C5'	19:QS:83:HIS:HA	2.46	0.45
1:QA:957:U:O2'	19:QS:79:THR:C	2.53	0.45
1:QA:1294:G:H2'	1:QA:1295:G:H8	1.81	0.45
1:QA:1359:C:H4'	1:QA:1362(A):C:N4	2.31	0.45
2:QB:73:THR:O	2:QB:75:LYS:NZ	2.50	0.45
3:QC:5:ILE:CG2	14:QN:45:ARG:NH2	2.78	0.45
7:QG:70:LYS:HB2	7:QG:96:GLN:HB3	1.98	0.45
32:R8:13:ARG:HG2	44:RP:63:PRO:HB3	1.98	0.45
32:R8:29:LYS:O	32:R8:31:HIS:N	2.46	0.45
34:RA:689:A:H2'	34:RA:690:G:C8	2.51	0.45
34:RA:748:G:OP1	51:RW:88:ARG:NH2	2.40	0.45
34:RA:956:G:H2'	34:RA:957:A:H2'	1.98	0.45
34:RA:1102:C:H2'	34:RA:1103:A:H8	1.81	0.45
34:RA:2081:C:H2'	34:RA:2082:A:C8	2.51	0.45
37:RE:46:ALA:HB1	37:RE:80:GLU:HG2	1.99	0.45
46:RR:38:VAL:HG12	46:RR:112:ALA:HB2	1.96	0.45
49:RU:27:LEU:HD22	49:RU:31:SER:HB2	1.97	0.45
1:XA:376:G:H1	1:XA:387:U:H3	1.64	0.45
1:XA:445:G:H2'	1:XA:446:G:H8	1.80	0.45
1:XA:858:G:H3'	1:XA:869:G:H1	1.81	0.45
1:XA:974:A:O5'	14:XN:31:ARG:HD3	2.16	0.45
1:XA:983:A:H2	1:XA:984:C:C6	2.33	0.45
1:XA:1242:C:H4'	1:XA:1303:C:H4'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1318:A:O3'	19:XS:11:VAL:HG11	2.15	0.45
1:XA:1439:C:H2'	1:XA:1440(A):C:H6	1.81	0.45
6:XF:94:GLN:NE2	18:XR:32:ARG:NH1	2.65	0.45
34:YA:270(G):U:H2'	34:YA:270(H):C:C6	2.51	0.45
34:YA:443:A:C5	38:YF:45:ARG:HD3	2.51	0.45
34:YA:919:G:C5	34:YA:2268:A:C6	2.74	0.45
34:YA:2408:U:H2'	34:YA:2409:G:C8	2.51	0.45
48:YT:16:ARG:HH21	48:YT:81:PRO:HA	1.80	0.45
1:QA:64:G:H1'	1:QA:67:C:H41	1.81	0.45
1:QA:235:C:O2'	17:QQ:4:LYS:HE3	2.17	0.45
1:QA:659:U:OP1	15:QO:8:LYS:HD3	2.16	0.45
1:QA:1065:U:H5"	1:QA:1190:G:H21	1.82	0.45
1:QA:1375:A:H3'	1:QA:1376:U:C6	2.51	0.45
8:QH:91:ARG:NE	17:QQ:32:TYR:O	2.41	0.45
10:QJ:50:ILE:HD11	14:QN:41:ARG:NE	2.22	0.45
15:QO:39:LEU:HD22	15:QO:56:LEU:HD13	1.97	0.45
34:RA:2320:A:N6	34:RA:2333:A:H2'	2.31	0.45
1:XA:109:A:C8	1:XA:326:G:H2'	2.51	0.45
1:XA:320:C:H2'	1:XA:321:A:H8	1.82	0.45
1:XA:427:U:OP2	4:XD:36:ARG:NH1	2.49	0.45
1:XA:876:G:H1'	8:XH:11:THR:HG21	1.98	0.45
1:XA:1185:G:H2'	1:XA:1186:G:O4'	2.16	0.45
1:XA:1305:G:C2'	1:XA:1331:G:N2	2.64	0.45
6:XF:100:ASN:O	18:XR:28:GLU:HG3	2.15	0.45
9:XI:28:VAL:HG12	9:XI:63:ILE:HB	1.98	0.45
29:Y5:4:HIS:O	34:YA:2056:G:N2	2.50	0.45
34:YA:1461:G:P	34:YA:1461:G:H8	2.39	0.45
34:YA:1925:C:H2'	34:YA:1926:U:C6	2.51	0.45
34:YA:2157:G:O2'	34:YA:2158:A:O4'	2.34	0.45
46:YR:33:ARG:HA	46:YR:114:VAL:O	2.16	0.45
1:QA:345:C:H1'	1:QA:346:G:C2	2.52	0.45
1:QA:1105:A:H2'	1:QA:1106:G:H8	1.82	0.45
1:QA:1157:A:N6	1:QA:1178:G:N3	2.65	0.45
1:QA:1306:A:H1'	1:QA:1332:A:C5	2.52	0.45
13:QM:87:TYR:OH	13:QM:91:ARG:NH2	2.47	0.45
15:QO:89:GLY:OXT	34:RA:716:A:P	2.73	0.45
34:RA:581:C:H2'	34:RA:582:G:H8	1.79	0.45
34:RA:995:C:H5"	49:RU:54:LYS:HG2	1.98	0.45
34:RA:1173:G:H1'	34:RA:1175:U:O2	2.16	0.45
34:RA:1278:A:H2'	34:RA:1279:G:C8	2.51	0.45
34:RA:1336:A:H2'	34:RA:1337:G:C8	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:715:A:H2'	1:XA:716:A:C8	2.51	0.45
1:XA:1307:U:H2'	1:XA:1308:U:C6	2.51	0.45
2:XB:68:ILE:HG22	2:XB:161:ALA:HB3	1.98	0.45
4:XD:21:LEU:N	4:XD:26:CYS:SG	2.89	0.45
5:XE:101:ILE:O	5:XE:120:THR:OG1	2.30	0.45
12:XL:46:LYS:HG3	12:XL:48:PRO:HD2	1.98	0.45
34:YA:191:A:H1'	34:YA:679:C:H1'	1.97	0.45
34:YA:195:A:H2'	34:YA:198:C:H42	1.80	0.45
34:YA:376:C:H2'	34:YA:377:C:C6	2.51	0.45
34:YA:1173:G:H4'	34:YA:1174:A:C8	2.51	0.45
34:YA:1399:C:H2'	34:YA:1400:G:C8	2.52	0.45
34:YA:2010:G:H5"	51:YW:42:ARG:HB2	1.98	0.45
34:YA:2077:A:C5	34:YA:2435:A:C5	3.04	0.45
34:YA:2439:A:N7	34:YA:2586:C:H4'	2.31	0.45
34:YA:2630:G:H2'	34:YA:2631:G:C8	2.52	0.45
34:YA:2773:C:H2'	34:YA:2774:C:H6	1.81	0.45
34:YA:2809:A:H2'	34:YA:2810:A:C8	2.52	0.45
34:YA:2844:G:H3'	34:YA:2845:G:H8	1.81	0.45
44:YP:96:THR:HG22	44:YP:99:LEU:HD22	1.98	0.45
54:YZ:149:SER:OG	54:YZ:172:ALA:O	2.27	0.45
1:QA:730:G:N2	1:QA:765:G:H5"	2.32	0.45
1:QA:967:C:H5'	1:QA:968:A:C4	2.51	0.45
1:QA:1038:C:H2'	1:QA:1039:C:C6	2.52	0.45
1:QA:1071:C:H2'	1:QA:1072:G:C8	2.51	0.45
1:QA:1307:U:OP1	13:QM:99:ARG:HB2	2.16	0.45
1:QA:1359:C:C6	14:QN:35:ARG:CZ	3.00	0.45
2:QB:178:ARG:NH1	2:QB:196:LEU:O	2.49	0.45
4:QD:208:SER:HB2	5:QE:101:ILE:CD1	2.42	0.45
12:QL:7:ILE:CD1	17:QQ:32:TYR:HB3	2.20	0.45
24:R0:34:GLY:HA3	34:RA:2353:G:H1'	1.98	0.45
34:RA:20:C:OP1	49:RU:22:LYS:NZ	2.28	0.45
34:RA:347:A:H2'	34:RA:348:G:C8	2.52	0.45
34:RA:2692:C:O2	34:RA:2847:U:O2'	2.29	0.45
34:RA:2754:U:HO2'	34:RA:2756:U:P	2.39	0.45
36:RD:247:ALA:HA	36:RD:253:GLN:HA	1.98	0.45
39:RG:68:PRO:HB3	39:RG:92:VAL:HB	1.98	0.45
41:RI:123:LEU:HD12	41:RI:142:VAL:HG13	1.98	0.45
51:RW:76:VAL:HG22	51:RW:103:ILE:HG23	1.98	0.45
53:RY:28:LYS:HG3	53:RY:40:GLU:HG2	1.99	0.45
1:XA:68(I):G:N2	1:XA:68(S):C:N3	2.65	0.45
1:XA:309:G:O4'	1:XA:608:A:C2	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1142:G:C2	1:XA:1143:G:H1'	2.51	0.45
1:XA:1411:C:H2'	1:XA:1412:C:C6	2.52	0.45
2:XB:207:ALA:O	2:XB:210:SER:OG	2.28	0.45
7:XG:139:GLU:OE1	7:XG:143:ARG:NH2	2.49	0.45
10:XJ:16:LEU:CB	10:XJ:70:ARG:HH12	2.27	0.45
17:XQ:34:LYS:NZ	17:XQ:35:VAL:O	2.46	0.45
34:YA:106:C:H2'	34:YA:107:C:C6	2.52	0.45
34:YA:1040:C:H2'	34:YA:1041:C:C6	2.51	0.45
34:YA:1153:C:H5'	49:YU:76:TYR:HE2	1.82	0.45
34:YA:1535:U:N3	34:YA:1537:C:H1'	2.32	0.45
34:YA:2025:C:H2'	34:YA:2026:C:C6	2.51	0.45
34:YA:2044:C:N3	34:YA:2625:G:N3	2.62	0.45
34:YA:2368:C:H2'	34:YA:2369:A:C8	2.52	0.45
34:YA:2641:G:H2'	34:YA:2642:G:C8	2.51	0.45
34:YA:2692:C:H2'	34:YA:2693:A:C8	2.51	0.45
41:YI:4:ILE:HG22	41:YI:18:VAL:HB	1.98	0.45
1:QA:186(A):C:O2'	20:QT:85:MET:SD	2.59	0.45
1:QA:235:C:H2'	1:QA:236:G:C8	2.52	0.45
1:QA:403:C:H4'	4:QD:122:ARG:HD3	1.97	0.45
1:QA:958:A:N7	19:QS:79:THR:CG2	2.80	0.45
10:QJ:48:THR:HG22	10:QJ:62:HIS:HB3	1.98	0.45
10:QJ:67:THR:O	10:QJ:67:THR:OG1	2.32	0.45
28:R4:1:MET:HE2	39:RG:98:ARG:NH1	2.32	0.45
34:RA:1930:G:H2'	34:RA:1968:G:N1	2.30	0.45
34:RA:2071:A:H2'	34:RA:2072:G:H8	1.81	0.45
36:RD:13:ARG:NH1	36:RD:16:MET:SD	2.90	0.45
40:RH:98:LEU:CG	40:RH:125:VAL:CG1	2.91	0.45
40:RH:124:GLU:HG3	40:RH:124:GLU:O	2.17	0.45
43:RO:63:VAL:HB	43:RO:102:VAL:HG13	1.98	0.45
1:XA:68(N):U:H2'	1:XA:68(O):U:O4'	2.16	0.45
1:XA:341:C:H2'	1:XA:342:C:C6	2.52	0.45
1:XA:601:C:H2'	1:XA:602:A:C8	2.52	0.45
1:XA:718:G:H3'	1:XA:719:C:H6	1.81	0.45
1:XA:1028(B):C:H2'	1:XA:1028(C):C:H5	1.81	0.45
1:XA:1081:G:OP1	5:XE:18:ARG:HB3	2.17	0.45
1:XA:1124:G:O5'	10:XJ:36:GLY:CA	2.65	0.45
1:XA:1360:A:C1'	14:XN:17:LYS:HG3	2.46	0.45
1:XA:1405:G:H2'	1:XA:1406:U:H6	1.81	0.45
1:XA:1505:G:C1'	23:XX:15:A:H2	2.29	0.45
4:XD:162:LEU:HD12	4:XD:178:VAL:HG13	1.98	0.45
6:XF:36:ARG:NH2	6:XF:38:GLU:OE2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:XL:110:VAL:H	12:XL:122:THR:HG22	1.82	0.45
25:Y1:40:ARG:HG2	25:Y1:41:ARG:H	1.81	0.45
29:Y5:32:PRO:N	29:Y5:32:PRO:C	2.61	0.45
34:YA:286:C:H2'	34:YA:287:C:C6	2.52	0.45
34:YA:834:C:H2'	34:YA:835:A:C8	2.51	0.45
34:YA:1165:U:H2'	34:YA:1166:C:C6	2.52	0.45
34:YA:2031:A:N3	34:YA:2455:G:O2'	2.43	0.45
34:YA:2696:U:H2'	34:YA:2697:G:C8	2.51	0.45
36:YD:133:LEU:HD23	36:YD:136:ILE:HD12	1.98	0.45
39:YG:138:GLN:OE1	39:YG:153:ARG:N	2.43	0.45
40:YH:10:PRO:O	40:YH:49:VAL:HA	2.17	0.45
43:YO:104:ARG:N	43:YO:122:LEU:O	2.49	0.45
49:YU:17:ILE:HG13	49:YU:32:PHE:HE1	1.82	0.45
1:QA:194:C:H4'	20:QT:68:LYS:CE	2.47	0.45
1:QA:451:A:N6	1:QA:480:U:H2'	2.32	0.45
1:QA:677:U:N1	11:QK:119:CYS:SG	2.90	0.45
1:QA:684:A:H1'	11:QK:39:PRO:HD2	1.99	0.45
1:QA:950:U:OP2	13:QM:102:ARG:HD2	2.17	0.45
1:QA:1094:G:H4'	1:QA:1095:U:C5	2.51	0.45
1:QA:1331:G:OP2	13:QM:24:GLY:N	2.34	0.45
2:QB:193:ASP:OD2	2:QB:193:ASP:N	2.50	0.45
16:QP:55:ARG:HD2	16:QP:55:ARG:HA	1.79	0.45
25:R1:90:ILE:CA	25:R1:94:LEU:CD1	2.84	0.45
31:R7:18:PHE:HB2	31:R7:43:THR:HG21	1.99	0.45
34:RA:996:A:H2'	34:RA:997:G:C8	2.51	0.45
34:RA:1048:A:H2	34:RA:1112:G:H21	1.63	0.45
34:RA:2071:A:H2'	34:RA:2072:G:C8	2.52	0.45
36:RD:132:PRO:HA	36:RD:190:TYR:HA	1.99	0.45
48:RT:102:ILE:HD12	48:RT:110:ILE:HD12	1.99	0.45
50:RV:68:LYS:HD2	50:RV:68:LYS:HA	1.69	0.45
1:XA:116:A:C8	1:XA:116:A:O5'	2.70	0.45
1:XA:156:G:H2'	1:XA:157:G:H8	1.81	0.45
1:XA:321:A:H4'	1:XA:1436:U:H5'	1.97	0.45
1:XA:634:C:H2'	1:XA:635:G:C8	2.40	0.45
1:XA:722:A:H4'	1:XA:723:U:C4	2.52	0.45
1:XA:730:G:N2	1:XA:765:G:H5"	2.32	0.45
1:XA:1117:G:H21	1:XA:1180:A:H1'	1.81	0.45
4:XD:30:LYS:HB3	4:XD:35:ARG:HH22	1.81	0.45
7:XG:79:ARG:HH21	7:XG:82:GLY:HA2	1.82	0.45
10:XJ:53:PRO:HB3	14:XN:42:ILE:CG1	2.39	0.45
34:YA:415:A:C2	34:YA:2409:G:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:834:C:H2'	34:YA:835:A:H8	1.82	0.45
34:YA:2019:A:H2	34:YA:2035:G:H22	1.65	0.45
34:YA:2044:C:C5	34:YA:2625:G:N2	2.83	0.45
34:YA:2638:G:OP1	37:YE:82:ARG:NH2	2.49	0.45
34:YA:2700:C:H2'	34:YA:2701:C:C6	2.51	0.45
36:YD:71:ASP:HB2	36:YD:103:ARG:HH12	1.82	0.45
51:YW:46:PHE:O	51:YW:50:VAL:HG23	2.16	0.45
1:QA:158:G:H2'	1:QA:159:G:C8	2.52	0.45
1:QA:646:U:H2'	1:QA:647:C:C6	2.52	0.45
1:QA:950:U:H2'	1:QA:951:G:C8	2.51	0.45
1:QA:1110:A:H62	3:QC:176:HIS:HB2	1.81	0.45
10:QJ:99:LYS:HA	10:QJ:99:LYS:HD3	1.79	0.45
13:QM:91:ARG:HD2	13:QM:96:LEU:HB3	1.98	0.45
20:QT:58:LYS:O	20:QT:61:SER:OG	2.26	0.45
27:R3:18:ASP:OD1	27:R3:18:ASP:N	2.48	0.45
29:R5:41:PRO:O	29:R5:44:THR:OG1	2.27	0.45
32:R8:31:HIS:CD2	34:RA:2422:A:N6	2.83	0.45
34:RA:64:A:H2'	34:RA:65:C:O4'	2.17	0.45
34:RA:270(E):C:H2'	34:RA:270(F):G:C8	2.52	0.45
34:RA:2572:A:OP1	34:RA:2574:G:O2'	2.31	0.45
34:RA:2795:G:H2'	34:RA:2798:C:H5	1.82	0.45
50:RV:14:VAL:HB	50:RV:96:ILE:HG12	1.98	0.45
1:XA:102:G:N3	1:XA:151:A:H2	2.15	0.45
1:XA:364:A:H2'	1:XA:365:U:C2	2.51	0.45
1:XA:824:C:H2'	1:XA:825:G:H8	1.79	0.45
3:XC:21:ARG:NH1	10:XJ:15:THR:HG21	2.31	0.45
7:XG:26:PHE:O	7:XG:30:ILE:HG12	2.17	0.45
29:Y5:9:LYS:NZ	34:YA:2019:A:C8	2.83	0.45
34:YA:321:G:C4	34:YA:341:G:H4'	2.51	0.45
34:YA:839:U:H2'	34:YA:840:C:C6	2.52	0.45
34:YA:1083:U:O2	34:YA:1085:A:H3'	2.16	0.45
34:YA:1221:C:H2'	34:YA:1222:C:C6	2.52	0.45
34:YA:1445:C:H2'	34:YA:1446:C:H6	1.81	0.45
34:YA:2080:G:C6	34:YA:2241:A:N1	2.85	0.45
34:YA:2184:G:H2'	34:YA:2185:C:C6	2.51	0.45
34:YA:2263:C:H2'	34:YA:2264:C:C6	2.52	0.45
34:YA:2345:G:N3	34:YA:2381:C:H2'	2.31	0.45
34:YA:2880:C:H1'	46:YR:92:GLY:O	2.17	0.45
35:YB:90:C:H5'	45:YQ:18:LYS:HA	1.99	0.45
38:YF:155:LEU:HB2	38:YF:189:THR:HG21	1.99	0.45
42:YN:137:LYS:HD3	42:YN:138:LEU:HG	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:YT:54:ARG:HA	48:YT:59:THR:HG23	1.99	0.45
1:QA:435:C:H2'	1:QA:436:C:C6	2.51	0.45
1:QA:565:U:H3'	1:QA:566:G:H2'	1.99	0.45
1:QA:762:C:H2'	1:QA:763:G:C8	2.52	0.45
1:QA:987:G:H2'	1:QA:988:G:H8	1.82	0.45
1:QA:996:A:H2'	1:QA:997:U:C6	2.52	0.45
1:QA:1310:G:H2'	1:QA:1311:G:C8	2.51	0.45
3:QC:23:TYR:OH	10:QJ:9:ARG:HB3	2.17	0.45
4:QD:85:LYS:HA	4:QD:85:LYS:HD2	1.73	0.45
10:QJ:47:PHE:CE2	14:QN:34:TYR:CB	2.97	0.45
31:R7:6:GLN:O	34:RA:686:G:H8	2.00	0.45
34:RA:33:U:O4	34:RA:446:G:O2'	2.31	0.45
34:RA:270(T):G:H2'	34:RA:270(U):G:H8	1.82	0.45
34:RA:863:A:OP1	45:RQ:21:THR:OG1	2.14	0.45
34:RA:994:C:OP1	49:RU:53:ARG:NH2	2.50	0.45
34:RA:1463:C:H2'	34:RA:1464:C:H6	1.81	0.45
34:RA:1947:C:H2'	34:RA:1948:G:C8	2.52	0.45
34:RA:2010:G:H5"	51:RW:42:ARG:HB2	1.98	0.45
34:RA:2419:U:H2'	34:RA:2420:C:C6	2.49	0.45
34:RA:2514:U:H2'	34:RA:2515:C:C6	2.52	0.45
36:RD:208:LYS:HG3	36:RD:210:GLY:H	1.82	0.45
37:RE:111:ARG:HD3	37:RE:160:TYR:CE2	2.52	0.45
39:RG:161:THR:HG22	39:RG:163:ALA:H	1.82	0.45
48:RT:118:ARG:HH11	48:RT:121:ILE:HG21	1.81	0.45
1:XA:167:G:H2'	1:XA:168:G:C8	2.52	0.45
1:XA:694:A:H2'	1:XA:695:A:O4'	2.17	0.45
3:XC:60:ALA:CB	10:XJ:91:PRO:HG2	2.45	0.45
4:XD:43:HIS:HB3	4:XD:46:LYS:HD2	1.98	0.45
10:XJ:47:PHE:CZ	14:XN:36:PHE:HB3	2.51	0.45
33:Y9:25:VAL:HG22	33:Y9:34:GLN:HB3	1.98	0.45
34:YA:574:C:C5	34:YA:2054:A:H4'	2.52	0.45
34:YA:686:G:N2	34:YA:788:A:H61	2.15	0.45
34:YA:987:G:O2'	34:YA:1000:A:N3	2.42	0.45
34:YA:1071:G:H1'	34:YA:1089:G:H3'	1.98	0.45
34:YA:2098:U:O2	34:YA:2191:G:N2	2.49	0.45
34:YA:2581:G:N2	34:YA:2581:G:OP2	2.50	0.45
37:YE:171:GLU:HB2	37:YE:185:LYS:HG3	1.98	0.45
38:YF:54:ARG:HD2	38:YF:81:PRO:HD3	1.98	0.45
1:QA:186(F):C:H2'	1:QA:186(G):C:C6	2.52	0.45
1:QA:647:C:H2'	1:QA:648:A:C8	2.51	0.45
1:QA:953:G:C5	13:QM:104:ARG:CZ	2.96	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1360:A:C2'	14:QN:17:LYS:HZ1	2.30	0.45
11:QK:57:THR:HG23	11:QK:60:ALA:H	1.81	0.45
17:QQ:59:ILE:HG22	17:QQ:73:VAL:HA	1.98	0.45
22:QV:74:C:H5"	25:R1:23:LYS:HG3	1.98	0.45
34:RA:459:U:H2'	34:RA:460:A:C8	2.50	0.45
34:RA:1056:G:H5"	34:RA:1057:A:O4'	2.17	0.45
34:RA:1525:G:H2'	34:RA:1526:G:C8	2.52	0.45
34:RA:1838:C:N4	34:RA:1899:G:O4'	2.50	0.45
34:RA:2591:C:H2'	34:RA:2592:G:C8	2.52	0.45
34:RA:2688:U:OP1	34:RA:2713:A:N6	2.50	0.45
38:RF:187:VAL:HG23	44:RP:3:LEU:HD22	1.97	0.45
42:RN:28:THR:O	42:RN:32:THR:OG1	2.24	0.45
43:RO:106:LEU:HA	43:RO:109:LYS:HB2	1.99	0.45
54:RZ:54:HIS:HB3	54:RZ:101:PRO:HD3	1.99	0.45
1:XA:110:C:O5'	1:XA:110:C:C6	2.70	0.45
1:XA:186(B):C:O2	20:XT:105:SER:OG	2.34	0.45
1:XA:240:C:H2'	1:XA:241:C:H6	1.81	0.45
1:XA:302:G:N3	1:XA:556:C:H4'	2.32	0.45
3:XC:60:ALA:CA	10:XJ:91:PRO:HG2	2.47	0.45
10:XJ:47:PHE:CE1	14:XN:36:PHE:HB3	2.51	0.45
27:Y3:23:LEU:HD12	27:Y3:28:LEU:HB2	1.98	0.45
34:YA:662:G:H2'	34:YA:663:G:C8	2.51	0.45
34:YA:691:C:H2'	34:YA:692:C:H6	1.81	0.45
34:YA:1523:U:H2'	34:YA:1524:G:C8	2.52	0.45
34:YA:1571:A:H2'	34:YA:1572:A:C8	2.52	0.45
34:YA:1812:A:H2'	34:YA:1813:G:H8	1.81	0.45
34:YA:2373:G:H2'	34:YA:2374:C:C6	2.52	0.45
34:YA:2741:A:H61	34:YA:2763:G:H1'	1.82	0.45
34:YA:2849:U:C2	34:YA:2867:G:H1'	2.52	0.45
36:YD:44:ASN:HB3	36:YD:49:ILE:HG22	1.98	0.45
49:YU:8:VAL:HG22	49:YU:12:ARG:HE	1.82	0.45
1:QA:40:C:H2'	1:QA:41:G:C8	2.52	0.45
1:QA:115:G:H1'	1:QA:116:A:N7	2.32	0.45
1:QA:302:G:N3	1:QA:556:C:H4'	2.32	0.45
1:QA:505:G:H2'	1:QA:506:G:C8	2.52	0.45
7:QG:16:LEU:HD21	9:QI:42:ARG:HG2	0.48	0.45
13:QM:83:ASP:O	19:QS:66:MET:CE	2.65	0.45
19:QS:79:THR:O	19:QS:79:THR:OG1	2.35	0.45
34:RA:242:G:N2	34:RA:243:U:O4	2.50	0.45
34:RA:363(C):G:H2'	34:RA:363(D):G:H8	1.82	0.45
34:RA:1012:U:OP1	49:RU:75:ASN:ND2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:1254:A:H5”	34:RA:1255:U:H5”	1.99	0.45
34:RA:1470:G:O2’	34:RA:1522:G:O6	2.34	0.45
34:RA:1849:G:H2’	34:RA:1850:G:H8	1.82	0.45
34:RA:1925:C:H2’	34:RA:1926:U:C6	2.52	0.45
34:RA:1939:U:OP1	34:RA:2604:U:O2’	2.35	0.45
34:RA:2250:G:O2’	34:RA:2496:C:OP1	2.23	0.45
40:RH:86:GLU:O	40:RH:164:TYR:HB2	2.17	0.45
40:RH:126:PRO:HG2	40:RH:130:ARG:CG	2.46	0.45
41:RI:79:ILE:HG23	41:RI:142:VAL:HA	1.99	0.45
41:RI:80:PRO:HB2	41:RI:146:ALA:HB2	1.97	0.45
47:RS:23:ARG:NH2	47:RS:111:GLU:OE1	2.49	0.45
1:XA:539:A:H2’	1:XA:540:G:C8	2.52	0.45
1:XA:796:C:H2’	1:XA:797:C:C6	2.52	0.45
1:XA:876:G:C1’	8:XH:11:THR:HG21	2.47	0.45
1:XA:1305:G:C2	1:XA:1331:G:C4	3.04	0.45
6:XF:91:VAL:CB	18:XR:34:TYR:OH	2.64	0.45
15:XO:64:ARG:HH12	15:XO:68:ARG:HH22	1.63	0.45
31:Y7:37:LYS:CE	34:YA:458:G:C8	2.99	0.45
33:Y9:27:CYS:SG	33:Y9:29:ASN:HB3	2.57	0.45
34:YA:285:C:H2’	34:YA:286:C:C6	2.52	0.45
34:YA:347:A:H2’	34:YA:348:G:H8	1.82	0.45
34:YA:779:U:H2’	34:YA:780:G:H8	1.81	0.45
34:YA:1458:C:H1’	34:YA:1459:G:C6	2.52	0.45
34:YA:1476:C:H2’	34:YA:1477:A:H8	1.82	0.45
34:YA:2036:C:H2’	34:YA:2037:G:H8	1.82	0.45
34:YA:2306:C:H2’	34:YA:2307:G:N2	2.32	0.45
34:YA:2863:C:H2’	34:YA:2864:G:C8	2.52	0.45
43:YO:78:ARG:NE	48:YT:73:GLU:OE1	2.47	0.45
1:QA:738:C:H2’	1:QA:739:C:C6	2.52	0.44
1:QA:973:G:C2’	14:QN:29:ARG:NH1	2.68	0.44
1:QA:1206:G:H2’	1:QA:1207:G:O4’	2.17	0.44
1:QA:1277:C:H4’	1:QA:1281:U:O4	2.17	0.44
6:QF:12:PRO:HD3	6:QF:58:GLY:HA2	1.99	0.44
8:QH:112:LEU:HD11	8:QH:133:LEU:HD12	1.99	0.44
34:RA:13:A:N1	34:RA:525:U:H2’	2.31	0.44
34:RA:823:G:H2’	34:RA:824:A:H8	1.82	0.44
34:RA:1399:C:H2’	34:RA:1400:G:C8	2.53	0.44
34:RA:1708:C:H2’	34:RA:1709:U:H6	1.82	0.44
34:RA:2229:C:H2’	34:RA:2230:G:H8	1.82	0.44
34:RA:2511:U:O2’	37:RE:138:PRO:O	2.30	0.44
34:RA:2567:G:H2’	34:RA:2568:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:RD:61:LEU:HD23	36:RD:61:LEU:HA	1.83	0.44
37:RE:32:PRO:HA	37:RE:90:THR:HA	1.99	0.44
1:XA:165:C:H2'	1:XA:166:G:H8	1.78	0.44
1:XA:457:C:H2'	1:XA:458(A):C:C6	2.52	0.44
1:XA:696:A:H61	1:XA:797:C:HO2'	1.65	0.44
1:XA:897:C:H2'	1:XA:898:G:C8	2.52	0.44
1:XA:899:C:C6	1:XA:899:C:OP1	2.70	0.44
1:XA:1119:C:H2'	1:XA:1120:G:C8	2.52	0.44
1:XA:1126:U:H3'	1:XA:1127:G:C8	2.49	0.44
1:XA:1360:A:N3	14:XN:17:LYS:HG3	2.29	0.44
1:XA:1369:C:H2'	1:XA:1370:G:C8	2.53	0.44
1:XA:1378:C:C5	1:XA:1378:C:OP1	2.70	0.44
8:XH:121:ASP:HB2	8:XH:125:ARG:HH21	1.82	0.44
12:XL:88:GLY:H	12:XL:98:TYR:HA	1.82	0.44
34:YA:318:C:H2'	34:YA:319:C:C6	2.52	0.44
34:YA:459:U:H2'	34:YA:460:A:C8	2.52	0.44
34:YA:1394:U:H4'	34:YA:1603:A:H4'	1.99	0.44
34:YA:1397:U:OP2	34:YA:1398:C:N4	2.40	0.44
34:YA:1408:C:H2'	34:YA:1409:C:C6	2.52	0.44
34:YA:1497:U:H5"	34:YA:1498:C:H5	1.82	0.44
34:YA:2059:A:C6	34:YA:2503:A:C2	3.05	0.44
34:YA:2453:A:H2'	34:YA:2454:G:C8	2.52	0.44
34:YA:2779:U:H5'	34:YA:2779:U:O2	2.16	0.44
1:QA:511:C:C6	1:QA:534:U:H1'	2.52	0.44
1:QA:981:U:C4'	14:QN:6:LEU:HD22	2.48	0.44
1:QA:1190:G:H5'	3:QC:176:HIS:HE1	1.82	0.44
1:QA:1229:A:H2'	1:QA:1230:C:H6	1.82	0.44
1:QA:1320:C:N4	19:QS:37:ARG:HD2	2.27	0.44
28:R4:34:GLU:OE1	39:RG:113:ARG:HD3	2.17	0.44
30:R6:23:THR:HG21	34:RA:2286:A:N6	2.27	0.44
34:RA:676:A:H8	34:RA:2069:G:H21	1.64	0.44
34:RA:709:U:H2'	34:RA:710:G:C8	2.53	0.44
34:RA:845:G:H21	34:RA:933:A:H61	1.65	0.44
36:RD:95:LEU:HB2	36:RD:103:ARG:O	2.17	0.44
48:RT:25:GLY:H	48:RT:49:VAL:HG13	1.82	0.44
54:RZ:97:GLU:HB3	54:RZ:125:LEU:HD11	2.00	0.44
1:XA:62:U:H2'	1:XA:63:C:H6	1.82	0.44
1:XA:388:G:C8	1:XA:388:G:O5'	2.70	0.44
1:XA:765:G:N1	1:XA:812:C:O2'	2.45	0.44
1:XA:899:C:OP1	1:XA:899:C:C5	2.70	0.44
1:XA:932:C:H2'	1:XA:933:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:947:G:H2'	1:XA:948:C:C6	2.52	0.44
1:XA:975:A:O4'	1:XA:1365:G:N2	2.49	0.44
1:XA:1305:G:H4'	1:XA:1332:A:H61	1.83	0.44
1:XA:1382:C:O5'	1:XA:1382:C:C6	2.70	0.44
1:XA:1483:A:H2'	1:XA:1484:C:O4'	2.17	0.44
12:XL:24:VAL:HG13	12:XL:98:TYR:HE1	1.82	0.44
27:Y3:40:THR:HB	27:Y3:43:ILE:HG12	1.98	0.44
32:Y8:2:PRO:O	34:YA:666:G:N2	2.49	0.44
34:YA:575:A:OP2	34:YA:2055:C:N4	2.40	0.44
34:YA:787:U:H5"	34:YA:788:A:H5'	1.99	0.44
34:YA:1362:C:H2'	34:YA:1363:C:C6	2.53	0.44
42:YN:21:LYS:HD2	42:YN:26:LEU:HD13	1.98	0.44
42:YN:91:LEU:HD23	42:YN:91:LEU:HA	1.81	0.44
45:YQ:58:PHE:HD2	45:YQ:61:GLY:HA3	1.82	0.44
48:YT:25:GLY:N	48:YT:49:VAL:O	2.42	0.44
49:YU:92:ARG:HH11	50:YV:11:GLN:HB2	1.82	0.44
1:QA:186(B):C:OP1	20:QT:82:SER:OG	2.23	0.44
1:QA:489:C:H2'	1:QA:490:G:C8	2.52	0.44
1:QA:877:C:O3'	8:QH:88:LYS:HD2	2.17	0.44
1:QA:1085:U:H3'	1:QA:1086:U:C5	2.53	0.44
1:QA:1100:C:H41	2:QB:96:ARG:HH22	0.52	0.44
3:QC:23:TYR:CD2	10:QJ:95:GLU:N	2.85	0.44
13:QM:37:THR:HG1	13:QM:55:ARG:HE	1.62	0.44
13:QM:80:ARG:HD3	19:QS:67:VAL:CG1	2.47	0.44
14:QN:6:LEU:HD23	14:QN:9:LYS:HD3	2.00	0.44
19:QS:50:ALA:HA	19:QS:58:VAL:O	2.17	0.44
34:RA:407:G:H2'	34:RA:408:G:H8	1.82	0.44
34:RA:579:G:O2'	34:RA:2019:A:OP1	2.28	0.44
34:RA:883:G:H2'	34:RA:884:C:H6	1.82	0.44
34:RA:1257:C:O2'	38:RF:84:VAL:HG23	2.17	0.44
34:RA:1728:G:H2'	34:RA:1731:G:O6	2.18	0.44
54:RZ:115:GLY:H	54:RZ:177:PRO:HG3	1.83	0.44
1:XA:728:A:H2'	1:XA:729:A:C8	2.53	0.44
1:XA:729:A:H2'	1:XA:730:G:C8	2.52	0.44
1:XA:899:C:C6	1:XA:899:C:OP2	2.70	0.44
1:XA:940:C:H2'	1:XA:941:G:C8	2.52	0.44
1:XA:1014:A:H1'	1:XA:1219:U:O2'	2.18	0.44
1:XA:1065:U:O2	1:XA:1067:A:N6	2.51	0.44
1:XA:1374:A:O2'	7:XG:31:MET:HE3	2.13	0.44
1:XA:1378:C:OP1	1:XA:1378:C:C6	2.70	0.44
34:YA:244:A:C2	34:YA:245:G:H1'	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:251:A:C4	34:YA:252:G:H1'	2.52	0.44
34:YA:971:C:H2'	34:YA:972:G:O4'	2.17	0.44
34:YA:1149:G:H2'	34:YA:1150:C:C6	2.52	0.44
34:YA:1367:A:C5	34:YA:1368:G:H1'	2.52	0.44
34:YA:2096:U:H3	34:YA:2193:G:H1	1.63	0.44
34:YA:2133:G:H1'	34:YA:2158:A:N6	2.32	0.44
34:YA:2316:C:H2'	34:YA:2317:C:C6	2.52	0.44
34:YA:2546:U:H5"	34:YA:2547:U:H5'	2.00	0.44
45:YQ:12:GLN:HB2	45:YQ:73:PRO:HD2	2.00	0.44
53:YY:13:VAL:HG12	53:YY:74:PRO:HA	1.99	0.44
54:YZ:5:LEU:HB2	54:YZ:59:LEU:HD12	1.98	0.44
1:QA:24:U:O3'	1:QA:524:G:O2'	2.32	0.44
1:QA:335:C:H2'	1:QA:336:C:C6	2.53	0.44
1:QA:767:A:H2'	1:QA:768:A:C8	2.53	0.44
1:QA:1114:C:O2	14:QN:61:TRP:HA	2.18	0.44
1:QA:1318:A:C2	19:QS:37:ARG:NH1	2.84	0.44
1:QA:1331:G:OP1	13:QM:23:TYR:CD2	2.70	0.44
34:RA:312:G:H4'	34:RA:331:A:N3	2.33	0.44
34:RA:632:A:H2'	34:RA:633:A:C8	2.52	0.44
34:RA:685:A:H1'	34:RA:689:A:N6	2.33	0.44
34:RA:1441:G:H2'	34:RA:1442:G:H8	1.83	0.44
34:RA:1570:A:H2'	34:RA:1571:A:C8	2.51	0.44
34:RA:1657:C:H2'	34:RA:1658:C:C6	2.52	0.44
34:RA:1825:A:H2'	34:RA:1826:G:C8	2.52	0.44
34:RA:1972:A:H2'	34:RA:1973:G:H8	1.83	0.44
34:RA:2263:C:H2'	34:RA:2264:C:H6	1.82	0.44
34:RA:2368:C:H2'	34:RA:2369:A:C8	2.53	0.44
34:RA:2730:C:H2'	34:RA:2731:G:H8	1.83	0.44
39:RG:81:LYS:HD2	39:RG:81:LYS:HA	1.74	0.44
39:RG:81:LYS:HB3	39:RG:82:LEU:H	1.59	0.44
41:RI:4:ILE:HG23	41:RI:39:ALA:HB2	2.00	0.44
1:XA:8:A:C2	4:XD:209:ARG:NH1	2.85	0.44
1:XA:592:G:H2'	1:XA:593:G:C8	2.52	0.44
1:XA:1050:G:H2'	1:XA:1051:C:C6	2.52	0.44
1:XA:1092:A:C2	1:XA:1110:A:H5'	2.52	0.44
1:XA:1142:G:H3'	1:XA:1143:G:C8	2.52	0.44
1:XA:1157:A:N3	1:XA:1157:A:H2'	2.32	0.44
1:XA:1309:G:O4'	13:XM:77:ASN:ND2	2.49	0.44
1:XA:1405:G:H2'	1:XA:1406:U:C6	2.52	0.44
1:XA:1541:U:C2	23:XX:5:A:H2	2.34	0.44
4:XD:57:ARG:NH2	4:XD:205:GLU:OE1	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:Y8:30:ARG:HE	44:YP:62:LEU:HD12	1.81	0.44
34:YA:222:A:H61	34:YA:232:G:H1'	1.82	0.44
34:YA:1028:A:H61	34:YA:1125:G:H2'	1.83	0.44
34:YA:1178:C:H2'	34:YA:1179:C:C6	2.53	0.44
34:YA:2327:A:H2'	34:YA:2328:A:C8	2.52	0.44
38:YF:167:ALA:HB1	38:YF:173:VAL:HG11	1.99	0.44
50:YV:2:PHE:H	50:YV:42:GLY:HA3	1.82	0.44
1:QA:24:U:H2'	1:QA:25:C:C6	2.53	0.44
1:QA:607:A:H3'	1:QA:608:A:H8	1.82	0.44
1:QA:737:A:H2'	1:QA:738:C:C6	2.52	0.44
1:QA:856:C:H4'	23:QX:7:G:H21	1.83	0.44
1:QA:1290:G:O6	21:QU:26:LYS:CE	2.63	0.44
1:QA:1515:C:H2'	1:QA:1516:G:H8	1.82	0.44
2:QB:51:LEU:HD23	2:QB:201:ILE:HD12	1.99	0.44
25:R1:29:GLY:O	34:RA:2396:G:O2'	2.36	0.44
32:R8:17:THR:OG1	32:R8:21:LYS:O	2.31	0.44
34:RA:807:U:H2'	34:RA:808:G:H8	1.83	0.44
34:RA:883:G:H2'	34:RA:884:C:C6	2.52	0.44
34:RA:894:C:H2'	34:RA:895:U:C6	2.53	0.44
34:RA:1564:C:H2'	34:RA:1565:C:C6	2.52	0.44
34:RA:1660:C:H2'	34:RA:1661:G:C8	2.51	0.44
34:RA:1947:C:H2'	34:RA:1948:G:H8	1.82	0.44
34:RA:1995:U:H3'	34:RA:1996:C:H2'	1.99	0.44
34:RA:2331:G:H2'	34:RA:2332:U:C6	2.52	0.44
34:RA:2692:C:H2'	34:RA:2693:A:C8	2.52	0.44
36:RD:12:SER:HB2	36:RD:208:LYS:HB3	1.99	0.44
51:RW:65:LEU:HD12	51:RW:68:ARG:HH21	1.83	0.44
1:XA:186(F):C:O2	1:XA:186(M):G:N2	2.50	0.44
1:XA:218:C:H2'	1:XA:219:C:C6	2.53	0.44
1:XA:341:C:H2'	1:XA:342:C:H6	1.82	0.44
1:XA:486:U:H2'	1:XA:487:A:C8	2.52	0.44
1:XA:681:C:H2'	1:XA:682:G:C8	2.53	0.44
1:XA:978:A:H62	14:XN:18:VAL:HG21	1.83	0.44
2:XB:189:ASP:OD1	2:XB:189:ASP:N	2.49	0.44
26:Y2:58:ALA:O	26:Y2:62:THR:OG1	2.30	0.44
34:YA:303:U:H2'	34:YA:304:G:C8	2.51	0.44
34:YA:414:C:O2	34:YA:1864:U:O2'	2.33	0.44
34:YA:887:A:N3	34:YA:889:C:H6	2.14	0.44
34:YA:1048:A:OP2	34:YA:1110:G:N2	2.51	0.44
34:YA:1128:A:H1'	34:YA:1129:A:C5	2.53	0.44
34:YA:2108:C:C6	34:YA:2108:C:O5'	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2153:G:H2'	34:YA:2154:G:H8	1.82	0.44
34:YA:2294:C:H2'	34:YA:2295:C:H6	1.83	0.44
34:YA:2691:C:H5"	34:YA:2872:G:H5"	1.98	0.44
45:YQ:13:GLN:O	45:YQ:72:LYS:NZ	2.38	0.44
46:YR:100:LEU:HD11	46:YR:113:LEU:HG	2.00	0.44
1:QA:68:G:H1'	1:QA:151:A:H61	1.81	0.44
1:QA:437:U:H3	1:QA:495:A:H62	1.66	0.44
1:QA:641:U:H4'	8:QH:115:SER:HB2	2.00	0.44
1:QA:713:G:H2'	1:QA:714:G:C8	2.52	0.44
1:QA:956:U:H5'	19:QS:83:HIS:HA	2.00	0.44
1:QA:999:U:H2'	1:QA:1000:A:C8	2.53	0.44
1:QA:1270:C:H2'	1:QA:1271:G:C8	2.53	0.44
1:QA:1383:C:H2'	1:QA:1384:C:C6	2.52	0.44
6:QF:47:ARG:HD2	6:QF:57:GLN:HB3	2.00	0.44
11:QK:70:LYS:NZ	34:RA:2146:C:H3'	2.33	0.44
22:QV:71:C:H5"	34:RA:1892:C:O2'	2.17	0.44
30:R6:46:HIS:CE1	34:RA:2372:G:H1'	2.53	0.44
34:RA:553:U:H2'	34:RA:554:U:C6	2.53	0.44
34:RA:813:U:H2'	34:RA:814:C:C6	2.53	0.44
34:RA:848:G:H2'	34:RA:849:A:C8	2.53	0.44
34:RA:1152:C:H2'	34:RA:1153:C:C6	2.48	0.44
34:RA:1353:A:H2'	34:RA:1354:A:C8	2.53	0.44
34:RA:1380:G:H2'	34:RA:1381:G:H8	1.82	0.44
34:RA:1565:C:O2'	34:RA:1567:A:N7	2.41	0.44
40:RH:4:ILE:HD12	40:RH:6:ARG:HB2	1.99	0.44
1:XA:563:A:O2'	1:XA:566:G:O3'	2.34	0.44
1:XA:657:G:H2'	1:XA:658:G:H8	1.82	0.44
1:XA:896:C:H2'	1:XA:897:C:C6	2.52	0.44
1:XA:936:C:H3'	1:XA:936:C:H6	1.82	0.44
1:XA:951:G:O3'	1:XA:972:C:N4	2.50	0.44
1:XA:1065:U:C5	1:XA:1190:G:H1'	2.53	0.44
1:XA:1279:A:OP2	10:XJ:9:ARG:NH2	2.49	0.44
1:XA:1317:C:H3'	1:XA:1318:A:H8	1.83	0.44
2:XB:33:TYR:HB2	2:XB:43:ASP:HB2	1.99	0.44
11:XK:109:VAL:CB	18:XR:86:VAL:HG23	2.47	0.44
16:XP:19:ILE:HG13	16:XP:36:ILE:HD11	2.00	0.44
27:Y3:31:LEU:HD12	34:YA:1157:G:O2'	2.16	0.44
34:YA:807:U:H2'	34:YA:808:G:H8	1.82	0.44
34:YA:887:A:H1'	34:YA:889:C:C6	2.53	0.44
34:YA:1494:A:H2	34:YA:1579:A:H1'	1.83	0.44
34:YA:2108:C:O5'	34:YA:2108:C:H6	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2306:C:H3'	34:YA:2307:G:H5"	2.00	0.44
34:YA:2515:C:H2'	34:YA:2516:G:C8	2.51	0.44
34:YA:2587:A:H8	34:YA:2587:A:O5'	2.00	0.44
53:YY:28:LYS:N	53:YY:38:ILE:O	2.45	0.44
1:QA:403:C:H4'	4:QD:122:ARG:NE	2.33	0.44
1:QA:413:G:H4'	1:QA:414:A:H5"	1.99	0.44
1:QA:669:U:O4'	15:QO:46:HIS:CE1	2.69	0.44
1:QA:1265:G:H2'	1:QA:1266:G:C8	2.53	0.44
1:QA:1307:U:C5'	13:QM:99:ARG:CZ	2.96	0.44
1:QA:1411:C:H2'	1:QA:1412:C:C6	2.52	0.44
8:QH:82:HIS:N	8:QH:138:TRP:OXT	2.41	0.44
34:RA:144:C:H2'	34:RA:145:G:H8	1.83	0.44
34:RA:624:C:H2'	34:RA:625:G:C8	2.53	0.44
34:RA:822:U:C5	34:RA:944:G:H1'	2.52	0.44
34:RA:1251:C:OP2	49:RU:10:ARG:NH1	2.50	0.44
34:RA:1445:C:H2'	34:RA:1446:C:C6	2.51	0.44
34:RA:2290:G:N2	34:RA:2343:C:H1'	2.33	0.44
34:RA:2320:A:H1'	34:RA:2321:G:C6	2.52	0.44
34:RA:2327:A:H2'	34:RA:2328:A:C8	2.53	0.44
34:RA:2351:G:H1'	34:RA:2367:G:N2	2.32	0.44
34:RA:2619:C:H2'	34:RA:2620:C:C6	2.51	0.44
39:RG:135:LEU:HD11	39:RG:140:ILE:HD11	2.00	0.44
1:XA:130:A:H1'	1:XA:263:A:O2'	2.17	0.44
1:XA:193:C:H2'	1:XA:194:C:C6	2.52	0.44
1:XA:833:U:H2'	1:XA:834:C:C6	2.53	0.44
1:XA:907:A:H2'	1:XA:908:A:O4'	2.18	0.44
1:XA:1028(D):G:N2	1:XA:1028(H):G:N7	2.65	0.44
1:XA:1094:G:H4'	1:XA:1095:U:H5	1.83	0.44
1:XA:1240:U:H3	7:XG:38:LEU:HD22	1.60	0.44
1:XA:1318:A:H1'	19:XS:37:ARG:HH22	1.83	0.44
1:XA:1329:A:H4'	13:XM:29:ARG:HH21	1.82	0.44
1:XA:1429:C:H2'	1:XA:1430:C:C6	2.53	0.44
29:Y5:17:ASP:HB3	34:YA:16:G:OP1	2.18	0.44
34:YA:210:C:H4'	34:YA:1367:A:H1'	2.00	0.44
34:YA:524:U:H2'	34:YA:525:U:C6	2.53	0.44
34:YA:1162:G:H2'	34:YA:1163:G:C8	2.53	0.44
34:YA:1468:C:H2'	34:YA:1469:A:H8	1.82	0.44
34:YA:1574:C:H2'	34:YA:1575:C:C6	2.53	0.44
34:YA:1991:U:H2'	34:YA:1992:G:H5"	2.00	0.44
34:YA:2099:U:C4	34:YA:2190:G:N1	2.82	0.44
34:YA:2124:G:H3'	34:YA:2125:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2246:G:H2'	34:YA:2247:A:C8	2.53	0.44
34:YA:2286:A:H1'	34:YA:2287:A:C6	2.52	0.44
34:YA:2342:C:H2'	34:YA:2374:C:H5"	2.00	0.44
38:YF:102:PRO:HB2	38:YF:105:VAL:HG23	1.99	0.44
46:YR:29:LEU:HD13	46:YR:79:LEU:HD22	2.00	0.44
1:QA:191:G:O2'	20:QT:103:GLY:N	2.45	0.44
1:QA:245:C:H1'	1:QA:284:G:C2	2.53	0.44
1:QA:986:A:H4'	19:QS:55:LYS:HG2	1.94	0.44
1:QA:1092:A:C2	1:QA:1110:A:H5'	2.52	0.44
1:QA:1108:G:OP2	3:QC:174:PRO:HA	2.18	0.44
1:QA:1114:C:H2'	1:QA:1115:C:H6	1.83	0.44
1:QA:1332:A:H3'	1:QA:1333:A:H8	1.83	0.44
1:QA:1463:C:H2'	1:QA:1464:G:H8	1.83	0.44
1:QA:1479:C:H2'	1:QA:1480:G:H8	1.82	0.44
1:QA:1515:C:H2'	1:QA:1516:G:C8	2.53	0.44
3:QC:23:TYR:N	10:QJ:93:GLY:O	2.51	0.44
6:QF:14:LEU:HD12	6:QF:18:GLN:CD	2.38	0.44
7:QG:116:ALA:HA	7:QG:119:ARG:HE	1.82	0.44
31:R7:34:ARG:NH1	34:RA:466:A:OP1	2.50	0.44
34:RA:1104:C:H2'	34:RA:1105:U:H6	1.82	0.44
34:RA:1923:U:H2'	34:RA:1924:C:C6	2.52	0.44
34:RA:2195:C:H2'	34:RA:2196:C:C6	2.53	0.44
51:RW:71:VAL:HA	51:RW:107:LEU:HD23	2.00	0.44
54:RZ:156:LYS:HE3	54:RZ:156:LYS:HB3	1.74	0.44
1:XA:186(L):G:H2'	1:XA:186(M):G:H8	1.82	0.44
1:XA:407:G:H1'	4:XD:119:GLN:HE22	1.82	0.44
1:XA:643:C:H2'	1:XA:644:G:C8	2.52	0.44
1:XA:687:A:O2'	1:XA:701:C:N4	2.50	0.44
1:XA:962:C:H2'	1:XA:963:G:C8	2.51	0.44
1:XA:974:A:P	14:XN:29:ARG:NE	2.90	0.44
1:XA:986:A:H1'	19:XS:52:TYR:HH	1.80	0.44
1:XA:1240:U:C2'	7:XG:38:LEU:HD12	2.45	0.44
14:XN:40:CYS:SG	14:XN:41:ARG:N	2.91	0.44
16:XP:22:THR:OG1	16:XP:23:ASP:N	2.50	0.44
18:XR:47:THR:O	18:XR:83:GLU:N	2.51	0.44
25:Y1:2:SER:HB3	34:YA:1366:A:OP1	2.18	0.44
34:YA:417:C:O2	34:YA:2407:G:C6	2.71	0.44
34:YA:625:G:H2'	34:YA:626:U:C6	2.53	0.44
34:YA:1242:A:H3'	34:YA:1243:G:H8	1.83	0.44
34:YA:1304:C:H2'	34:YA:1305:C:H6	1.83	0.44
34:YA:1353:A:H2'	34:YA:1354:A:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:1362:C:H2'	34:YA:1363:C:H6	1.83	0.44
34:YA:1834:U:H1'	34:YA:1969:A:H2'	1.99	0.44
34:YA:2307:G:O6	39:YG:42:GLY:O	2.35	0.44
34:YA:2356:C:H1'	34:YA:2362:G:N2	2.33	0.44
34:YA:2447:G:H1	34:YA:2451:A:N6	2.16	0.44
34:YA:2506:U:H2'	34:YA:2507:C:C6	2.51	0.44
34:YA:2619:C:H2'	34:YA:2620:C:C6	2.53	0.44
34:YA:2747:G:H1	34:YA:2754:U:H2'	1.83	0.44
44:YP:21:ARG:HB3	44:YP:22:GLY:H	1.67	0.44
1:QA:181:G:H4'	1:QA:182:U:H5'	1.99	0.44
1:QA:373:A:N1	1:QA:391:G:O2'	2.48	0.44
1:QA:624:C:C4'	16:QP:11:SER:HB3	2.48	0.44
1:QA:697:U:H3'	1:QA:698:G:H8	1.83	0.44
1:QA:863:U:HO2'	1:QA:865:A:H62	1.62	0.44
1:QA:878:G:H5'	8:QH:89:PRO:HG2	1.99	0.44
1:QA:981:U:H5'	14:QN:6:LEU:HD22	1.99	0.44
1:QA:1124:G:H2'	1:QA:1145:C:N3	2.32	0.44
1:QA:1306:A:H1'	1:QA:1332:A:C8	2.53	0.44
1:QA:1358:U:H3'	14:QN:35:ARG:HD2	1.99	0.44
1:QA:1500:A:H5"	1:QA:1508:G:H5"	1.98	0.44
1:QA:1512:U:H2'	1:QA:1513:A:C8	2.53	0.44
34:RA:448:U:C4	34:RA:583:G:H1'	2.52	0.44
34:RA:661:C:H2'	34:RA:662:G:C8	2.53	0.44
34:RA:1316:U:H2'	34:RA:1317:A:C8	2.53	0.44
34:RA:1794:U:H2'	34:RA:1795:C:H6	1.83	0.44
34:RA:2246:G:H2'	34:RA:2247:A:C8	2.53	0.44
36:RD:181:GLU:HA	36:RD:272:ALA:HB3	1.99	0.44
49:RU:91:ASP:O	49:RU:93:LYS:N	2.50	0.44
52:RX:55:ASN:HB2	52:RX:80:ILE:HG23	2.00	0.44
1:XA:150:C:H2'	1:XA:151:A:O4'	2.18	0.44
1:XA:152:A:N6	1:XA:169:C:N3	2.66	0.44
1:XA:385:C:H2'	1:XA:386:C:C6	2.52	0.44
1:XA:817:C:O2'	1:XA:1527:C:O3'	2.35	0.44
1:XA:986:A:H2'	1:XA:987:G:C8	2.53	0.44
1:XA:1106:G:C4'	3:XC:172:ARG:HG2	2.46	0.44
1:XA:1300:G:C6	1:XA:1334:G:N7	2.86	0.44
1:XA:1440(F):G:H22	1:XA:1440(P):A:H1'	1.83	0.44
10:XJ:16:LEU:CB	10:XJ:70:ARG:NH1	2.61	0.44
13:XM:2:ALA:HB3	13:XM:9:ILE:HG21	2.00	0.44
24:Y0:38:VAL:HG22	24:Y0:59:LEU:HB2	1.98	0.44
32:Y8:7:HIS:HD2	44:YP:50:ARG:HH21	1.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:662:G:H2'	34:YA:663:G:H8	1.81	0.44
34:YA:864:G:H1'	34:YA:914:C:H42	1.82	0.44
34:YA:2090:G:C4	34:YA:2230:G:N1	2.86	0.44
34:YA:2550:G:H2'	34:YA:2551:C:H6	1.83	0.44
34:YA:2630:G:H2'	34:YA:2631:G:H8	1.83	0.44
43:YO:44:LYS:HA	43:YO:44:LYS:HD3	1.72	0.44
51:YW:35:ILE:O	51:YW:39:THR:OG1	2.27	0.44
1:QA:231:G:H2'	1:QA:232:G:C8	2.52	0.43
1:QA:292:G:C5	1:QA:293:G:H1'	2.53	0.43
1:QA:324:G:OP1	20:QT:22:ARG:HD2	2.18	0.43
1:QA:765:G:N1	1:QA:812:C:O2'	2.44	0.43
1:QA:975:A:O4'	1:QA:1365:G:N2	2.51	0.43
1:QA:1321:C:H5"	1:QA:1322:C:H5"	1.99	0.43
27:R3:45:GLY:HA3	34:RA:851:U:O3'	2.18	0.43
33:R9:23:VAL:HG22	34:RA:1032:A:O2'	2.17	0.43
34:RA:97:C:H2'	34:RA:98:G:C8	2.53	0.43
34:RA:714:U:H1'	34:RA:717:G:N7	2.33	0.43
34:RA:1400:G:H2'	34:RA:1401:G:C8	2.53	0.43
34:RA:2771:C:H2'	34:RA:2772:C:C6	2.52	0.43
34:RA:2810:A:H62	34:RA:2891:G:H21	1.66	0.43
35:RB:9:G:OP1	47:RS:15:ARG:NH1	2.51	0.43
41:RI:79:ILE:HD12	41:RI:80:PRO:HD2	2.00	0.43
1:XA:51:A:N9	1:XA:353:A:C5	2.86	0.43
1:XA:57:G:H2'	1:XA:58:C:C6	2.53	0.43
1:XA:411:A:H2'	1:XA:413:G:C8	2.53	0.43
1:XA:643:C:H2'	1:XA:644:G:H8	1.82	0.43
1:XA:658:G:H1'	15:XO:22:THR:HG23	1.99	0.43
1:XA:878:G:H5'	8:XH:89:PRO:HG2	2.00	0.43
1:XA:1120:G:H2'	1:XA:1121:U:C6	2.53	0.43
1:XA:1230:C:C4	13:XM:105:THR:HB	2.49	0.43
11:XK:110:ASP:O	18:XR:85:LEU:N	2.51	0.43
20:XT:100:ILE:HG23	20:XT:102:GLY:H	1.81	0.43
30:Y6:3:SER:HB3	30:Y6:6:ARG:HB3	2.00	0.43
30:Y6:29:ASN:ND2	34:YA:2286:A:OP1	2.51	0.43
34:YA:274:G:H2'	34:YA:275:G:H8	1.83	0.43
34:YA:519:U:H2'	34:YA:520:G:C8	2.53	0.43
34:YA:1467:C:C5	34:YA:1546:C:H2'	2.53	0.43
34:YA:1710:C:H2'	34:YA:1711:C:C6	2.53	0.43
34:YA:1908:C:H2'	34:YA:1909:C:H6	1.83	0.43
34:YA:1953:A:C2	34:YA:2550:G:C1'	3.01	0.43
34:YA:2853:C:H2'	34:YA:2854:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:YD:142:VAL:HA	36:YD:194:GLY:H	1.83	0.43
37:YE:102:VAL:N	37:YE:170:LEU:O	2.46	0.43
1:QA:444:C:H2'	1:QA:445:G:C8	2.53	0.43
1:QA:608:A:C1'	16:QP:32:TYR:CE1	2.99	0.43
1:QA:1327:C:H4'	21:QU:20:LYS:NZ	2.33	0.43
3:QC:112:SER:HB3	3:QC:115:LEU:HD12	2.00	0.43
3:QC:131:ARG:HH11	3:QC:134:ILE:HG21	1.83	0.43
4:QD:61:LYS:HD2	4:QD:207:TYR:CZ	2.52	0.43
25:R1:90:ILE:HA	25:R1:94:LEU:HG	1.99	0.43
28:R4:12:ALA:H	28:R4:25:TYR:HA	1.83	0.43
34:RA:452:G:N2	34:RA:457:A:O2'	2.51	0.43
34:RA:655:A:H8	34:RA:656:G:C8	2.36	0.43
34:RA:1046:A:H5"	34:RA:1046:A:N3	2.34	0.43
34:RA:1295:C:H2'	34:RA:1296:G:C8	2.49	0.43
34:RA:1826:G:H4'	36:RD:242:ARG:NH2	2.32	0.43
34:RA:2092:U:OP2	41:RI:27:ARG:NH2	2.50	0.43
34:RA:2182:G:H2'	34:RA:2183:C:C6	2.53	0.43
34:RA:2463:C:H2'	34:RA:2464:C:H6	1.82	0.43
36:RD:50:THR:OG1	36:RD:51:VAL:N	2.50	0.43
45:RQ:34:LEU:HB2	45:RQ:118:LEU:HD12	2.00	0.43
1:XA:9:G:OP1	5:XE:122:GLU:HB2	2.17	0.43
1:XA:158:G:H2'	1:XA:159:G:C8	2.53	0.43
1:XA:936:C:H3'	1:XA:936:C:C6	2.52	0.43
1:XA:1059:C:C6	3:XC:2:GLY:HA2	2.51	0.43
1:XA:1271:G:H2'	1:XA:1272:G:C8	2.53	0.43
7:XG:116:ALA:HA	7:XG:119:ARG:HE	1.83	0.43
10:XJ:7:LYS:HD2	10:XJ:97:GLU:HB2	1.98	0.43
12:XL:33:ARG:NH2	12:XL:61:THR:OG1	2.51	0.43
34:YA:462:C:H2'	34:YA:463:G:C8	2.52	0.43
34:YA:1509:C:H3'	34:YA:1510:A:H5"	2.01	0.43
34:YA:1927:A:H2'	34:YA:1928:A:C8	2.53	0.43
34:YA:1958:C:H2'	34:YA:1959:G:C8	2.53	0.43
34:YA:2002:G:H2'	34:YA:2003:G:C8	2.54	0.43
34:YA:2131:G:H5"	34:YA:2131:G:H8	1.82	0.43
34:YA:2692:C:O2	34:YA:2847:U:O2'	2.26	0.43
34:YA:2751:G:O6	40:YH:2:SER:OG	2.35	0.43
41:YI:101:LEU:HD11	41:YI:109:ILE:HD13	2.00	0.43
1:QA:222:U:H2'	1:QA:223:U:C6	2.53	0.43
1:QA:311:C:H2'	1:QA:312:C:H6	1.83	0.43
1:QA:435:C:H2'	1:QA:436:C:H6	1.83	0.43
1:QA:563:A:HO2'	1:QA:566:G:HO2'	1.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:718:G:H1'	11:QK:116:HIS:HA	2.00	0.43
1:QA:897:C:H2'	1:QA:898:G:C8	2.53	0.43
3:QC:79:ARG:CZ	11:XK:104:GLN:HG3	2.41	0.43
5:QE:43:LEU:HD13	5:QE:109:ILE:HD11	1.99	0.43
5:QE:100:VAL:O	5:QE:107:ARG:NH1	2.48	0.43
29:R5:12:SER:O	29:R5:16:ARG:CB	2.67	0.43
34:RA:619:G:H3'	34:RA:620:G:N2	2.33	0.43
34:RA:865:C:O2	34:RA:867:C:N4	2.51	0.43
34:RA:971:C:H2'	34:RA:972:G:O4'	2.18	0.43
34:RA:1141:U:H1'	34:RA:1142(B):A:C6	2.53	0.43
34:RA:1211:U:H5"	34:RA:1212:G:N7	2.34	0.43
34:RA:1992:G:H5'	34:RA:1994:C:H41	1.83	0.43
34:RA:2250:G:C2	45:RQ:82:ARG:HB3	2.52	0.43
34:RA:2263:C:H2'	34:RA:2264:C:C6	2.54	0.43
49:RU:92:ARG:HD2	50:RV:11:GLN:HG3	1.99	0.43
1:XA:736:C:H2'	1:XA:737:A:H8	1.83	0.43
1:XA:743:U:H2'	1:XA:744:C:C6	2.53	0.43
1:XA:960:U:H1'	1:XA:1222:G:O2'	2.18	0.43
1:XA:1414:U:H2'	1:XA:1415:G:C8	2.53	0.43
14:XN:13:THR:O	14:XN:13:THR:OG1	2.36	0.43
34:YA:143:C:H2'	34:YA:144:C:C6	2.53	0.43
34:YA:242:G:N2	34:YA:254:G:H2'	2.33	0.43
34:YA:1230:C:H2'	34:YA:1231:G:C8	2.53	0.43
34:YA:1311:G:H21	34:YA:1603:A:H62	1.67	0.43
34:YA:1375:C:H2'	34:YA:1376:C:H6	1.83	0.43
34:YA:1504:C:H2'	34:YA:1505:C:C6	2.53	0.43
34:YA:1564:C:H2'	34:YA:1565:C:C6	2.53	0.43
34:YA:1930:G:H2'	34:YA:1968:G:N1	2.34	0.43
34:YA:1992:G:N2	34:YA:1996:C:O2'	2.52	0.43
34:YA:2471:C:H3'	34:YA:2472:G:H8	1.83	0.43
34:YA:2751:G:C5	40:YH:2:SER:O	2.71	0.43
37:YE:37:ARG:NH1	37:YE:44:TYR:OH	2.48	0.43
39:YG:124:SER:O	39:YG:124:SER:OG	2.35	0.43
39:YG:165:THR:OG1	39:YG:166:ASP:N	2.52	0.43
41:YI:81:VAL:HG11	41:YI:88:ILE:HD13	1.99	0.43
1:QA:24:U:H2'	1:QA:25:C:H6	1.83	0.43
1:QA:36:C:H2'	1:QA:37:U:O4'	2.18	0.43
1:QA:645:C:H2'	1:QA:646:U:C6	2.53	0.43
1:QA:1109:C:OP2	3:QC:176:HIS:CD2	2.71	0.43
1:QA:1247:U:H2'	1:QA:1248:A:C8	2.53	0.43
1:QA:1357:A:H2	1:QA:1365:G:H22	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1383:C:H2'	1:QA:1384:C:H6	1.82	0.43
3:QC:6:HIS:HE1	3:QC:8:ILE:HD12	1.82	0.43
34:RA:81:G:O2'	34:RA:295:G:O2'	2.23	0.43
34:RA:300:A:OP1	53:RY:86:ARG:NH2	2.47	0.43
34:RA:532:A:H4'	34:RA:533:G:C8	2.52	0.43
34:RA:779:U:H2'	34:RA:780:G:C8	2.53	0.43
34:RA:816:C:H2'	34:RA:817:C:C6	2.54	0.43
34:RA:1130:U:N3	34:RA:2025:C:H5"	2.33	0.43
34:RA:1145:C:H2'	34:RA:1146:C:C6	2.54	0.43
34:RA:1818:U:OP2	36:RD:157:ARG:NH1	2.51	0.43
34:RA:2122:U:H2'	34:RA:2123:G:C8	2.53	0.43
34:RA:2341:G:H2'	34:RA:2342:C:C6	2.53	0.43
35:RB:111:U:H2'	35:RB:112:G:H8	1.82	0.43
37:RE:171:GLU:H	37:RE:185:LYS:HB2	1.84	0.43
37:RE:176:ILE:HG13	37:RE:181:LEU:HB2	2.00	0.43
39:RG:43:LEU:HD21	39:RG:153:ARG:HB2	1.99	0.43
41:RI:84:GLY:CA	41:RI:89:TYR:OH	2.61	0.43
43:RO:15:GLY:HA3	43:RO:50:GLY:HA3	1.99	0.43
46:RR:29:LEU:HD12	46:RR:70:LEU:HD21	1.99	0.43
1:XA:355:C:H1'	1:XA:388:G:H1'	2.00	0.43
1:XA:520:A:N1	1:XA:533:A:N6	2.55	0.43
1:XA:726:C:H2'	1:XA:727:G:C8	2.53	0.43
1:XA:1308:U:H2'	1:XA:1309:G:C8	2.53	0.43
1:XA:1347:G:H4'	1:XA:1348:U:C5	2.53	0.43
22:XV:20:G:N2	22:XV:60:U:H3	2.17	0.43
33:Y9:33:LYS:NZ	34:YA:2743:C:OP1	2.43	0.43
34:YA:208:C:H2'	34:YA:209:C:C6	2.53	0.43
34:YA:270(I):C:H2'	34:YA:270(J):G:C8	2.53	0.43
34:YA:270(J):G:H2'	34:YA:270(K):G:C8	2.54	0.43
34:YA:1097:U:H3'	34:YA:1098:A:H8	1.83	0.43
34:YA:1116:C:H2'	34:YA:1117:G:C8	2.54	0.43
34:YA:1539:G:H2'	34:YA:1540:G:H8	1.84	0.43
34:YA:1782:C:H41	34:YA:2587:A:H2	1.62	0.43
34:YA:2179:C:H2'	34:YA:2180:U:C6	2.53	0.43
36:YD:143:HIS:ND1	36:YD:194:GLY:O	2.40	0.43
39:YG:106:LEU:HD12	39:YG:110:ALA:HB3	1.99	0.43
48:YT:19:LEU:HD21	48:YT:83:ILE:HD11	2.00	0.43
49:YU:55:ARG:O	49:YU:59:ARG:HG2	2.18	0.43
1:QA:218:C:H2'	1:QA:219:C:C6	2.54	0.43
1:QA:378:G:H2'	1:QA:379:C:C6	2.52	0.43
1:QA:702:A:H3'	1:QA:703:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:831:U:H2'	1:QA:832:C:C6	2.54	0.43
1:QA:1014:A:H1'	19:QS:34:TRP:CD2	2.54	0.43
1:QA:1112:C:N3	3:QC:178:LEU:HD12	2.33	0.43
1:QA:1255:G:O6	1:QA:1279:A:H2'	2.18	0.43
1:QA:1404:C:H2'	1:QA:1405:G:C8	2.54	0.43
10:QJ:28:ARG:HE	10:QJ:34:VAL:HG12	1.83	0.43
34:RA:32:C:N4	34:RA:447:A:OP2	2.51	0.43
34:RA:873:G:H4'	45:RQ:63:LYS:NZ	2.32	0.43
34:RA:1382:G:H4'	34:RA:1573:G:C2	2.54	0.43
34:RA:1476:C:H2'	34:RA:1477:A:H8	1.83	0.43
34:RA:1796:U:H2'	34:RA:1797:C:H6	1.82	0.43
34:RA:2737:G:H2'	34:RA:2738:A:C8	2.53	0.43
34:RA:2747:G:H21	34:RA:2757:A:H62	1.65	0.43
40:RH:80:SER:O	40:RH:80:SER:OG	2.31	0.43
46:RR:35:THR:HG22	46:RR:113:LEU:HD13	2.01	0.43
1:XA:337:C:H2'	1:XA:338:A:C8	2.53	0.43
1:XA:559:A:H4'	1:XA:560:U:H5"	1.99	0.43
1:XA:1301:U:C3'	13:XM:17:VAL:HG23	2.49	0.43
1:XA:1302:U:H1'	13:XM:27:LYS:HG3	1.83	0.43
1:XA:1524:C:H2'	1:XA:1525:G:C8	2.53	0.43
5:XE:99:GLY:N	5:XE:117:ASP:OD1	2.47	0.43
9:XI:70:LYS:O	9:XI:74:ILE:HG13	2.19	0.43
27:Y3:18:ASP:HB2	27:Y3:49:LYS:HE2	1.99	0.43
28:Y4:37:SER:HA	28:Y4:41:PRO:HD2	1.99	0.43
32:Y8:18:ALA:HB2	34:YA:628:G:H5"	2.01	0.43
34:YA:358:U:H2'	34:YA:359:A:C8	2.51	0.43
34:YA:361:G:H2'	34:YA:362:U:C6	2.54	0.43
34:YA:557:U:H2'	34:YA:558:G:C8	2.53	0.43
34:YA:786:C:H2'	34:YA:787:U:H6	1.83	0.43
34:YA:994:C:OP1	49:YU:53:ARG:NH2	2.51	0.43
34:YA:1161:C:H2'	34:YA:1162:G:C8	2.53	0.43
34:YA:1189:A:C2	34:YA:1190:G:H1'	2.54	0.43
34:YA:2046:G:C6	34:YA:2623:G:O6	2.68	0.43
34:YA:2170:A:H2'	34:YA:2171:A:O4'	2.19	0.43
34:YA:2432:A:H2'	34:YA:2433:A:C8	2.53	0.43
34:YA:2758:A:C2	34:YA:2759:G:H1'	2.53	0.43
44:YP:97:PRO:O	44:YP:98:GLU:HG3	2.18	0.43
1:QA:130:A:H4'	1:QA:186(K):G:C4	2.53	0.43
1:QA:1004:A:C2	1:QA:1024:G:H2'	2.51	0.43
1:QA:1440(I):U:H4'	1:QA:1440(J):A:C2	2.53	0.43
1:QA:1497:G:H1'	1:QA:1518:A:C2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:QB:188:ALA:HB1	2:QB:192:SER:HB2	2.01	0.43
3:QC:24:ALA:HB1	3:QC:32:LEU:HD21	1.99	0.43
24:R0:14:ARG:O	34:RA:2278:A:N6	2.52	0.43
29:R5:16:ARG:NH2	34:RA:517:C:OP1	2.51	0.43
34:RA:300:A:OP2	53:RY:84:ARG:NH1	2.52	0.43
34:RA:1310:G:H1'	34:RA:1611:C:H5"	2.00	0.43
34:RA:1732:A:H3'	34:RA:1733:G:C8	2.53	0.43
36:RD:171:ASP:OD1	36:RD:171:ASP:N	2.48	0.43
38:RF:34:TRP:CE3	44:RP:8:PRO:HB3	2.53	0.43
44:RP:96:THR:HA	44:RP:126:VAL:HB	2.01	0.43
48:RT:6:LEU:O	48:RT:10:VAL:HG23	2.19	0.43
1:XA:404:U:H2'	1:XA:405:U:C6	2.53	0.43
1:XA:1440(D):G:H5'	1:XA:1440(E):A:H2	1.83	0.43
1:XA:1463:C:H2'	1:XA:1464:G:C8	2.53	0.43
5:XE:31:LEU:HD13	5:XE:45:PHE:HD1	1.82	0.43
12:XL:86:ARG:HH21	12:XL:99:HIS:CD2	2.37	0.43
22:XV:76:A:C6	34:YA:2421:G:H2'	2.54	0.43
34:YA:273(E):C:H2'	34:YA:273(F):U:C6	2.54	0.43
34:YA:296:C:O3'	53:YY:95:LYS:NZ	2.51	0.43
34:YA:416:C:N3	34:YA:2407:G:O6	2.51	0.43
34:YA:1141:U:H1'	34:YA:1142(B):A:C6	2.54	0.43
34:YA:1339:G:N2	34:YA:1603:A:N3	2.66	0.43
34:YA:1689:A:OP2	34:YA:1698:A:N6	2.52	0.43
34:YA:1796:U:H2'	34:YA:1797:C:H6	1.84	0.43
34:YA:1947:C:H2'	34:YA:1948:G:C8	2.54	0.43
34:YA:2110:G:H3'	34:YA:2111:C:C6	2.53	0.43
44:YP:64:LYS:O	44:YP:66:GLY:N	2.51	0.43
1:QA:25:C:H2'	1:QA:26:A:C8	2.54	0.43
1:QA:60:A:H2	1:QA:378:G:H1'	1.84	0.43
1:QA:296:U:H2'	1:QA:297:G:C8	2.54	0.43
1:QA:662:G:H2'	1:QA:663:A:H8	1.82	0.43
1:QA:689:C:P	11:QK:55:LYS:NZ	2.92	0.43
1:QA:740:U:O2'	15:QO:39:LEU:HD11	2.18	0.43
1:QA:918:A:H2'	1:QA:919:A:C8	2.54	0.43
1:QA:948:C:OP2	13:QM:106:ASN:O	2.36	0.43
1:QA:986:A:C2'	19:QS:55:LYS:HA	2.46	0.43
1:QA:1190:G:H4'	3:QC:176:HIS:CE1	2.54	0.43
2:QB:54:THR:O	2:QB:58:ILE:HG12	2.18	0.43
4:QD:191:ARG:HD2	4:QD:191:ARG:HA	1.72	0.43
7:QG:6:ARG:HA	7:QG:6:ARG:HD3	1.75	0.43
15:QO:5:LYS:HE2	15:QO:5:LYS:HB2	1.90	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:QS:39:THR:HG22	19:QS:41:VAL:HG22	2.01	0.43
32:R8:31:HIS:HE1	34:RA:2421:G:N7	2.14	0.43
34:RA:39:C:H2'	34:RA:40:C:C6	2.54	0.43
34:RA:134:C:H2'	34:RA:135:G:C8	2.54	0.43
34:RA:206:U:H2'	34:RA:207:A:C8	2.50	0.43
34:RA:807:U:O2'	34:RA:2060:A:N1	2.48	0.43
34:RA:864:G:H1'	34:RA:914:C:H42	1.83	0.43
34:RA:967:C:H2'	34:RA:968:G:C8	2.54	0.43
34:RA:1467:C:C5	34:RA:1546:C:H2'	2.54	0.43
34:RA:1952:A:N3	34:RA:2560:C:O2'	2.41	0.43
34:RA:2736:G:H2'	34:RA:2737:G:C8	2.54	0.43
49:RU:88:ILE:HD12	50:RV:47:VAL:HG22	2.01	0.43
53:RY:28:LYS:NZ	53:RY:40:GLU:OE2	2.38	0.43
54:RZ:48:PHE:HA	54:RZ:51:ALA:HB3	2.01	0.43
1:XA:186(F):C:H2'	1:XA:186(G):C:C6	2.53	0.43
1:XA:272:C:H2'	1:XA:273:A:C8	2.53	0.43
1:XA:1028(C):C:N3	1:XA:1028(H):G:N1	2.56	0.43
1:XA:1071:C:H2'	1:XA:1072:G:C8	2.54	0.43
21:XU:3:LYS:HG2	21:XU:14:TRP:CD2	2.53	0.43
27:Y3:5:LYS:HE3	27:Y3:57:GLU:HB3	1.99	0.43
34:YA:263:C:H1'	34:YA:430:G:H1'	2.00	0.43
34:YA:270(N):U:H1'	34:YA:270(O):G:C5	2.53	0.43
34:YA:296:C:H2'	34:YA:297:C:H6	1.83	0.43
34:YA:363(A):G:H2'	34:YA:363(B):A:H8	1.83	0.43
34:YA:1501:C:H2'	34:YA:1502:C:C6	2.54	0.43
34:YA:1539:G:H2'	34:YA:1540:G:C8	2.53	0.43
34:YA:1674:G:H1'	34:YA:1676:A:N6	2.33	0.43
34:YA:1800:C:OP2	36:YD:183:ARG:NH1	2.52	0.43
34:YA:2023:G:P	34:YA:2023:G:H8	2.42	0.43
34:YA:2064:C:H2'	34:YA:2065:C:C6	2.54	0.43
34:YA:2391:G:H1'	34:YA:2429:G:N2	2.33	0.43
40:YH:152:ARG:HA	40:YH:152:ARG:HD3	1.80	0.43
53:YY:76:CYS:CB	53:YY:79:CYS:SG	3.07	0.43
1:QA:285:G:H2'	1:QA:286:G:C8	2.54	0.43
1:QA:831:U:H2'	1:QA:832:C:H6	1.84	0.43
1:QA:975:A:H3'	14:QN:32:SER:HB3	2.01	0.43
1:QA:1107:C:O2'	1:QA:1191:A:O2'	2.29	0.43
1:QA:1123:A:H2'	1:QA:1124:G:C4	2.53	0.43
1:QA:1260:C:HO2'	1:QA:1283:G:HO2'	1.63	0.43
2:QB:150:SER:HA	2:QB:153:ARG:HH21	1.83	0.43
5:QE:80:ILE:HD12	8:QH:104:ARG:HH12	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:QM:34:LEU:HA	13:QM:37:THR:HG22	2.01	0.43
13:QM:84:ILE:HG13	19:QS:74:PHE:CE2	2.54	0.43
13:QM:95:GLY:HA2	13:QM:110:ARG:HH21	1.83	0.43
26:R2:16:LEU:H	26:R2:67:LYS:NZ	2.16	0.43
34:RA:29:U:H5"	49:RU:7:GLY:HA2	2.00	0.43
34:RA:210:C:H4'	34:RA:1367:A:H1'	2.00	0.43
34:RA:231:C:H3'	34:RA:232:G:C8	2.53	0.43
34:RA:259:G:H2'	34:RA:260:G:H8	1.84	0.43
34:RA:285:C:H2'	34:RA:286:C:C6	2.52	0.43
34:RA:624:C:H2'	34:RA:625:G:H8	1.83	0.43
34:RA:1258:C:H2'	34:RA:1259:G:C8	2.54	0.43
34:RA:1518:C:H2'	34:RA:1519:G:H8	1.83	0.43
34:RA:1604:C:H2'	34:RA:1605:C:C6	2.50	0.43
34:RA:1629:U:H2'	34:RA:1630(A):G:H8	1.83	0.43
34:RA:2391:G:C6	34:RA:2427:C:H1'	2.54	0.43
34:RA:2517:C:N3	34:RA:2542:A:N6	2.65	0.43
34:RA:2607:G:H2'	34:RA:2608:G:C8	2.54	0.43
34:RA:2737:G:H2'	34:RA:2738:A:H8	1.84	0.43
38:RF:152:GLU:OE1	38:RF:191:ARG:NE	2.52	0.43
53:RY:79:CYS:N	53:RY:102:CYS:SG	2.92	0.43
1:XA:186(A):C:H2'	1:XA:186(B):C:C6	2.54	0.43
1:XA:256:U:H2'	1:XA:257:G:C8	2.54	0.43
1:XA:555:C:H2'	1:XA:556:C:C6	2.53	0.43
1:XA:921:U:H2'	1:XA:922:G:C8	2.53	0.43
1:XA:936:C:C6	1:XA:936:C:C3'	3.01	0.43
1:XA:950:U:H3	1:XA:1231:G:H1	1.65	0.43
1:XA:1240:U:H5"	1:XA:1241:G:C8	2.54	0.43
1:XA:1256:A:N6	1:XA:1277:C:H5"	2.33	0.43
1:XA:1485:U:H2'	1:XA:1486:G:H8	1.82	0.43
6:XF:62:TRP:CD1	18:XR:35:ARG:NH2	2.87	0.43
11:XK:82:VAL:HB	11:XK:108:ILE:HA	2.01	0.43
12:XL:11:VAL:CG2	17:XQ:29:HIS:CD2	3.00	0.43
34:YA:141(A):A:H1'	34:YA:1408:C:H1'	2.01	0.43
34:YA:161:U:H3'	34:YA:162:U:H5"	2.00	0.43
34:YA:679:C:H2'	34:YA:680:G:C8	2.53	0.43
34:YA:1181:C:H2'	34:YA:1182:A:C8	2.54	0.43
34:YA:1662:C:H2'	34:YA:1663:C:C6	2.53	0.43
34:YA:2044:C:C2	34:YA:2625:G:N2	2.87	0.43
34:YA:2346:A:N3	34:YA:2346:A:H5"	2.34	0.43
34:YA:2735:G:H2'	34:YA:2736:G:C8	2.54	0.43
35:YB:37:C:O2	47:YS:95:HIS:NE2	2.41	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:YF:158:THR:OG1	38:YF:159:GLY:N	2.51	0.43
47:YS:14:VAL:O	47:YS:18:ILE:HG12	2.18	0.43
48:YT:120:ARG:HA	48:YT:123:GLN:HB2	2.01	0.43
1:QA:1099:G:O5'	2:QB:96:ARG:HD2	2.19	0.43
1:QA:1221:G:O4'	19:QS:36:ARG:NH2	2.43	0.43
1:QA:1377:A:H2'	1:QA:1377:A:N3	2.34	0.43
4:QD:100:ARG:HG3	4:QD:137:SER:HA	2.00	0.43
12:QL:76:ASN:HD21	12:QL:108:ALA:HB3	1.84	0.43
34:RA:69:C:H2'	34:RA:70:G:H8	1.83	0.43
34:RA:121:G:H4'	34:RA:149:A:H5'	1.99	0.43
34:RA:453:C:H4'	34:RA:472:A:H62	1.84	0.43
34:RA:453:C:H4'	34:RA:472:A:N6	2.34	0.43
34:RA:1044:G:H1'	34:RA:1048:A:C4	2.54	0.43
34:RA:2068:U:H3	34:RA:2430:A:H2	1.65	0.43
34:RA:2134:A:H1'	34:RA:2158:A:C2	2.54	0.43
34:RA:2250:G:C6	45:RQ:82:ARG:CD	3.00	0.43
34:RA:2260:C:H2'	34:RA:2261:C:H6	1.82	0.43
37:RE:35:GLN:HB2	37:RE:37:ARG:HH21	1.84	0.43
40:RH:46:GLU:OE1	40:RH:51:ARG:NH1	2.52	0.43
43:RO:15:GLY:HA2	43:RO:47:ILE:HG22	2.00	0.43
1:XA:164:U:H2'	1:XA:165:C:C6	2.53	0.43
1:XA:290:C:H2'	1:XA:291:C:H6	1.83	0.43
1:XA:766:A:H2'	1:XA:767:A:O4'	2.18	0.43
1:XA:964:A:O2'	10:XJ:55:LYS:NZ	2.47	0.43
5:XE:105:VAL:HG11	5:XE:132:ALA:HB2	1.99	0.43
14:XN:53:LEU:HD12	14:XN:54:PRO:HD2	2.01	0.43
17:XQ:21:VAL:N	17:XQ:42:TYR:O	2.40	0.43
18:XR:21:LYS:HE2	18:XR:21:LYS:HB3	1.81	0.43
24:Y0:72:ARG:CB	24:Y0:75:LEU:HB2	2.48	0.43
34:YA:363(A):G:H2'	34:YA:363(B):A:C8	2.54	0.43
34:YA:511:U:H4'	34:YA:1235:G:H4'	2.01	0.43
34:YA:1204:A:H1'	34:YA:1206:G:N9	2.34	0.43
34:YA:1825:A:H2'	34:YA:1826:G:C8	2.53	0.43
34:YA:1849:G:H2'	34:YA:1850:G:C8	2.52	0.43
34:YA:2077:A:C6	34:YA:2435:A:C6	3.07	0.43
34:YA:2406:U:C4	44:YP:75:ILE:CD1	3.02	0.43
34:YA:2437:U:H2'	34:YA:2438:U:C6	2.53	0.43
34:YA:2469:A:H5"	34:YA:2470:G:H8	1.84	0.43
34:YA:2550:G:H2'	34:YA:2551:C:C6	2.54	0.43
34:YA:2567:G:H2'	34:YA:2568:C:C6	2.53	0.43
48:YT:16:ARG:NH2	48:YT:83:ILE:O	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:YZ:48:PHE:HA	54:YZ:51:ALA:HB3	2.00	0.43
1:QA:137:C:H2'	1:QA:138:G:C8	2.54	0.43
1:QA:359:U:H2'	1:QA:360:A:C8	2.49	0.43
1:QA:1143:G:H2'	1:QA:1144:G:C8	2.54	0.43
1:QA:1288:A:N1	1:QA:1371:G:H1'	2.33	0.43
1:QA:1379:G:H2'	1:QA:1380:U:C6	2.54	0.43
1:QA:1440(J):A:H2'	1:QA:1440(L):G:O6	2.19	0.43
1:QA:1440(O):C:H2'	1:QA:1440(P):A:H8	1.84	0.43
6:QF:78:GLU:HA	6:QF:81:ILE:HG12	2.01	0.43
11:QK:101:SER:O	11:QK:101:SER:OG	2.30	0.43
13:QM:29:ARG:HH21	13:QM:64:TRP:HE1	1.67	0.43
34:RA:288:C:H2'	34:RA:289:A:C8	2.53	0.43
34:RA:494:G:OP1	51:RW:8:ARG:NH1	2.52	0.43
34:RA:530:G:N3	34:RA:2021:C:H1'	2.34	0.43
34:RA:740:U:H2'	34:RA:741:G:C8	2.54	0.43
34:RA:746:A:H3'	34:RA:2612:C:C5	2.53	0.43
34:RA:1065:U:H3	34:RA:1069:A:H2'	1.82	0.43
34:RA:1112:G:H2'	34:RA:1113:U:O4'	2.19	0.43
34:RA:1297:C:O2'	34:RA:1302:A:N1	2.44	0.43
34:RA:2179:C:H2'	34:RA:2180:U:C6	2.54	0.43
34:RA:2374:C:H2'	34:RA:2375:G:C8	2.54	0.43
45:RQ:77:LYS:NZ	45:RQ:84:GLY:O	2.40	0.43
1:XA:458(B):G:H2'	1:XA:458(C):A:H2'	2.01	0.43
1:XA:556:C:H2'	1:XA:557:G:H8	1.83	0.43
1:XA:577:G:H1'	1:XA:816:A:H2'	2.00	0.43
1:XA:787:A:H2'	1:XA:788:U:C6	2.54	0.43
1:XA:996:A:H2'	1:XA:997:U:H6	1.84	0.43
1:XA:1253:G:C4	1:XA:1254:C:C5	3.07	0.43
1:XA:1505:G:H1'	23:XX:15:A:H2	1.83	0.43
1:XA:1525:G:H2'	1:XA:1526:G:C8	2.54	0.43
3:XC:8:ILE:HD11	3:XC:184:TYR:H	1.84	0.43
13:XM:52:GLU:HA	13:XM:55:ARG:HG2	2.00	0.43
20:XT:17:ARG:HE	20:XT:17:ARG:HB3	1.73	0.43
21:XU:3:LYS:CD	21:XU:14:TRP:CD2	3.00	0.43
24:Y0:26:TYR:N	24:Y0:29:GLN:OE1	2.52	0.43
32:Y8:56:GLU:OE1	32:Y8:59:LYS:NZ	2.36	0.43
34:YA:436:C:H2'	34:YA:438:G:C8	2.53	0.43
34:YA:635:C:H2'	34:YA:636:G:H8	1.84	0.43
34:YA:675:A:N3	34:YA:2443:C:O2'	2.47	0.43
34:YA:1660:C:H2'	34:YA:1661:G:H8	1.83	0.43
34:YA:1772:G:H21	34:YA:1774:C:H5'	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:2131:G:H1'	34:YA:2158:A:H61	1.83	0.43
34:YA:2543:G:H2'	34:YA:2544:G:C8	2.53	0.43
38:YF:48:THR:OG1	38:YF:48:THR:O	2.36	0.43
47:YS:4:LEU:HD11	47:YS:12:PHE:CE2	2.51	0.43
1:QA:186(H):C:H1'	1:QA:186(L):G:N2	2.34	0.42
1:QA:324:G:H2'	1:QA:326:G:N7	2.34	0.42
1:QA:418:C:H2'	1:QA:419:C:C6	2.53	0.42
1:QA:457:C:H2'	1:QA:458(A):C:C6	2.54	0.42
1:QA:518:C:H2'	1:QA:530:G:N3	2.34	0.42
1:QA:563:A:O2'	1:QA:566:G:O2'	2.29	0.42
1:QA:718:G:H21	18:QR:49:LYS:HE3	1.83	0.42
1:QA:979:C:C4	14:QN:19:ARG:CB	3.00	0.42
1:QA:1437:C:H2'	1:QA:1438:G:H8	1.83	0.42
3:QC:12:LEU:HG	3:QC:18:TRP:HE1	1.83	0.42
8:QH:10:LEU:HG	8:QH:83:ILE:HD11	1.99	0.42
13:QM:29:ARG:HD2	13:QM:29:ARG:HA	1.79	0.42
28:R4:34:GLU:OE1	39:RG:113:ARG:CD	2.66	0.42
34:RA:236:C:H2'	34:RA:237:C:H6	1.84	0.42
34:RA:272:G:H2'	34:RA:273(A):G:C8	2.54	0.42
34:RA:286:C:H2'	34:RA:287:C:C6	2.54	0.42
34:RA:1870:C:H2'	34:RA:1871:A:O4'	2.19	0.42
34:RA:1908:C:H2'	34:RA:1909:C:H6	1.84	0.42
34:RA:2161:C:H2'	34:RA:2162:G:C8	2.54	0.42
37:RE:120:TRP:CD2	37:RE:155:LYS:HB3	2.54	0.42
44:RP:65:ARG:O	44:RP:68:GLN:NE2	2.52	0.42
54:RZ:53:ILE:HG22	54:RZ:71:VAL:HG13	1.99	0.42
1:XA:7:G:H5'	1:XA:298:A:H5'	2.00	0.42
1:XA:107:G:C2	1:XA:108:G:H1'	2.54	0.42
1:XA:310:G:H5"	16:XP:31:LYS:HB2	2.00	0.42
1:XA:503:C:OP1	12:XL:119:LYS:HE2	2.19	0.42
1:XA:585:G:N3	1:XA:879:C:H4'	2.34	0.42
1:XA:639:G:H2'	1:XA:640:A:H8	1.84	0.42
1:XA:657:G:H4'	15:XO:28:GLN:HG2	2.01	0.42
1:XA:679:C:H2'	1:XA:680:C:C6	2.53	0.42
1:XA:857:C:H2'	1:XA:858:G:O4'	2.20	0.42
1:XA:1049:U:OP1	14:XN:3:ARG:NH2	2.52	0.42
1:XA:1217:C:P	14:XN:5:ALA:CB	2.98	0.42
1:XA:1361:G:C4	14:XN:18:VAL:HG12	2.54	0.42
11:XK:54:ARG:O	11:XK:57:THR:OG1	2.31	0.42
33:Y9:10:ILE:N	33:Y9:14:CYS:SG	2.84	0.42
34:YA:151:C:H2'	34:YA:152:G:C8	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:270(V):C:H2'	34:YA:270(W):G:C8	2.53	0.42
34:YA:687:C:N3	34:YA:787:U:H4'	2.34	0.42
34:YA:741:G:H2'	34:YA:742:G:C8	2.54	0.42
34:YA:1069:A:H2'	34:YA:1073:A:N7	2.34	0.42
34:YA:1278:A:H2'	34:YA:1279:G:C8	2.54	0.42
34:YA:1535:U:C4	34:YA:1537:C:H1'	2.54	0.42
34:YA:2786:U:O2'	37:YE:62:PRO:HA	2.18	0.42
34:YA:2840:C:H2'	34:YA:2841:C:C6	2.54	0.42
54:YZ:85:HIS:NE2	54:YZ:87:ASP:OD1	2.52	0.42
1:QA:157:G:H2'	1:QA:158:G:C8	2.54	0.42
1:QA:323:U:H4'	20:QT:19:SER:HA	2.01	0.42
1:QA:781:A:H4'	1:QA:1522:U:O2'	2.19	0.42
1:QA:1260:C:H2'	1:QA:1275:A:H61	1.84	0.42
1:QA:1410:G:H2'	1:QA:1411:C:C6	2.55	0.42
13:QM:28:ALA:CB	21:QU:21:TYR:OH	2.68	0.42
34:RA:807:U:H2'	34:RA:808:G:C8	2.54	0.42
34:RA:825:C:H4'	34:RA:2428:G:N7	2.34	0.42
34:RA:1711:C:H2'	34:RA:1712:C:C6	2.54	0.42
34:RA:2547:U:H2'	34:RA:2548:G:C8	2.54	0.42
34:RA:2580:U:H5'	37:RE:130:GLY:O	2.19	0.42
46:RR:11:ASN:O	46:RR:12:ARG:HG3	2.19	0.42
54:RZ:130:PRO:HA	54:RZ:133:ILE:HD11	2.01	0.42
1:XA:68(P):A:C5	1:XA:68(Q):C:H1'	2.54	0.42
1:XA:518:C:H5	1:XA:529:G:H3'	1.83	0.42
1:XA:1305:G:C6	1:XA:1331:G:N7	2.81	0.42
10:XJ:62:HIS:NE2	14:XN:61:TRP:HE3	2.16	0.42
32:Y8:4:MET:HG3	32:Y8:61:LEU:HD11	2.01	0.42
34:YA:67:U:H2'	34:YA:68:G:H8	1.83	0.42
34:YA:189:G:H2'	34:YA:205:G:N2	2.34	0.42
34:YA:335:C:H2'	34:YA:336:C:H6	1.84	0.42
34:YA:779:U:H2'	34:YA:780:G:C8	2.53	0.42
37:YE:144:ARG:HG3	37:YE:145:LYS:H	1.84	0.42
40:YH:9:ILE:HG22	40:YH:49:VAL:HB	1.95	0.42
45:YQ:141:GLN:HG3	54:YZ:123:ASP:OD1	2.19	0.42
1:QA:45:U:H4'	1:QA:306:G:N2	2.34	0.42
1:QA:125:U:H2'	1:QA:126:G:C8	2.55	0.42
1:QA:320:C:H2'	1:QA:321:A:C8	2.53	0.42
1:QA:522:C:H2'	1:QA:523:A:H8	1.84	0.42
1:QA:624:C:O2'	16:QP:10:GLY:CA	2.68	0.42
1:QA:832:C:H2'	1:QA:833:U:C6	2.54	0.42
1:QA:1086:U:H3	1:QA:1099:G:H1	1.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1186:G:C2	14:QN:61:TRP:O	2.66	0.42
1:QA:1530:G:H2'	1:QA:1531:A:C8	2.54	0.42
4:QD:122:ARG:HA	4:QD:122:ARG:HD2	1.90	0.42
13:QM:37:THR:O	13:QM:55:ARG:NH2	2.53	0.42
13:QM:84:ILE:O	19:QS:74:PHE:HE2	1.77	0.42
17:QQ:45:HIS:H	17:QQ:72:ARG:HA	1.84	0.42
34:RA:237:C:H2'	34:RA:238:C:C6	2.54	0.42
34:RA:636:G:C4	44:RP:115:LEU:HD11	2.54	0.42
34:RA:828:U:H4'	34:RA:831:G:C2	2.54	0.42
34:RA:1629:U:H2'	34:RA:1630(A):G:C8	2.55	0.42
34:RA:1857:G:H21	34:RA:1886:C:H42	1.67	0.42
34:RA:1909:C:H2'	34:RA:1910:G:C8	2.53	0.42
34:RA:2208:U:H2'	34:RA:2209:C:C6	2.54	0.42
34:RA:2363:C:H2'	34:RA:2364:C:H6	1.84	0.42
34:RA:2658:C:H5"	40:RH:158:HIS:NE2	2.34	0.42
37:RE:109:LYS:HG2	37:RE:191:PRO:HB3	2.00	0.42
1:XA:181:G:H4'	1:XA:182:U:H5'	2.01	0.42
1:XA:280:C:C4	17:XQ:39:SER:N	2.70	0.42
1:XA:538:G:H2'	1:XA:539:A:C8	2.54	0.42
1:XA:677:U:H2'	1:XA:678:U:C6	2.53	0.42
1:XA:684:A:H2'	1:XA:685:G:C8	2.54	0.42
1:XA:712:A:H2'	1:XA:713:G:C8	2.53	0.42
1:XA:787:A:H2'	1:XA:788:U:H6	1.84	0.42
1:XA:951:G:H1'	1:XA:971:G:H5'	2.00	0.42
1:XA:1376:U:C5	7:XG:10:ARG:HD3	2.53	0.42
1:XA:1439:C:H2'	1:XA:1440(A):C:C6	2.54	0.42
3:XC:66:VAL:HB	3:XC:101:LEU:HD13	2.00	0.42
6:XF:62:TRP:NE1	18:XR:35:ARG:NH2	2.63	0.42
6:XF:89:MET:SD	18:XR:76:LEU:HD22	2.59	0.42
7:XG:16:LEU:CD2	9:XI:45:ALA:HB2	2.47	0.42
12:XL:42:THR:HA	12:XL:53:ARG:O	2.18	0.42
14:XN:23:ARG:NH1	14:XN:24:CYS:HB3	2.34	0.42
34:YA:521:G:H2'	34:YA:522:G:H8	1.84	0.42
34:YA:532:A:N1	34:YA:2020:A:H1'	2.33	0.42
34:YA:935:C:H2'	34:YA:936:C:C6	2.54	0.42
34:YA:945:A:H62	34:YA:2448:A:N6	1.74	0.42
34:YA:1198:U:H2'	34:YA:1199:U:C6	2.54	0.42
34:YA:2014:A:H2'	34:YA:2015:A:C4	2.54	0.42
34:YA:2136:C:H2'	34:YA:2137:C:C6	2.54	0.42
34:YA:2182:G:H2'	34:YA:2183:C:C6	2.54	0.42
40:YH:159:GLU:HG2	40:YH:169:VAL:HG21	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:445:G:H2'	1:QA:446:G:C8	2.52	0.42
1:QA:972:C:OP2	10:QJ:57:LYS:HE3	2.20	0.42
5:QE:102:ALA:H	5:QE:107:ARG:NH2	2.18	0.42
7:QG:58:PRO:HA	7:QG:61:VAL:HG12	2.01	0.42
22:QV:50:G:H2'	22:QV:51:A:H8	1.85	0.42
24:R0:29:GLN:HG3	34:RA:923:C:H4'	2.01	0.42
25:R1:2:SER:N	34:RA:1364:G:OP2	2.52	0.42
34:RA:245:G:N2	34:RA:384:U:O2'	2.37	0.42
34:RA:949:C:H2'	34:RA:950:G:C8	2.54	0.42
34:RA:1162:G:H4'	50:RV:24:LYS:HB3	2.01	0.42
34:RA:1292:U:H2'	34:RA:1293:C:C6	2.54	0.42
34:RA:1999:C:H2'	34:RA:2000:G:C8	2.50	0.42
34:RA:2513:G:N2	37:RE:143:ASN:OD1	2.52	0.42
34:RA:2863:C:H2'	34:RA:2864:G:C8	2.55	0.42
36:RD:13:ARG:HD2	36:RD:13:ARG:HA	1.80	0.42
36:RD:49:ILE:HD11	36:RD:52:ARG:HA	2.00	0.42
46:RR:8:ARG:HD2	46:RR:10:LEU:HD21	2.01	0.42
1:XA:133:U:O5'	1:XA:133:U:H6	2.03	0.42
1:XA:741:G:P	15:XO:35:ARG:HH21	1.54	0.42
1:XA:1055:A:H2'	1:XA:1056:U:O4'	2.18	0.42
33:Y9:6:SER:O	33:Y9:6:SER:OG	2.35	0.42
34:YA:11:G:H22	34:YA:2627:G:H5"	1.83	0.42
34:YA:13:A:N1	34:YA:525:U:H2'	2.34	0.42
34:YA:654(B):G:N2	34:YA:654(V):A:H1'	2.35	0.42
34:YA:665:C:H2'	34:YA:666:G:H8	1.83	0.42
34:YA:741:G:H2'	34:YA:742:G:H8	1.84	0.42
34:YA:1102:C:H2'	34:YA:1103:A:C8	2.55	0.42
34:YA:1399:C:H2'	34:YA:1400:G:H8	1.85	0.42
34:YA:1430:C:H2'	34:YA:1431:U:C6	2.55	0.42
34:YA:1820:U:O2	36:YD:202:LYS:HB3	2.19	0.42
34:YA:2014:A:H8	34:YA:2014:A:OP2	2.03	0.42
34:YA:2452:C:H2'	34:YA:2453:A:C8	2.54	0.42
44:YP:46:LYS:HB3	44:YP:46:LYS:HE3	1.78	0.42
51:YW:57:ASN:O	51:YW:61:ASN:HB2	2.19	0.42
53:YY:79:CYS:SG	53:YY:81:LYS:HE2	2.60	0.42
1:QA:129(B):G:H5'	1:QA:186(L):G:H5'	2.01	0.42
1:QA:410:G:H2'	1:QA:429:U:C4	2.55	0.42
1:QA:630:G:H2'	1:QA:631:G:C8	2.55	0.42
1:QA:953:G:H3'	1:QA:954:G:C8	2.54	0.42
1:QA:976:G:N2	1:QA:1362(A):C:H2'	2.35	0.42
1:QA:979:C:N4	1:QA:1318:A:H61	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1014:A:N9	19:QS:34:TRP:NE1	2.50	0.42
1:QA:1271:G:H2'	1:QA:1272:G:C8	2.54	0.42
1:QA:1472:U:H2'	1:QA:1473:A:C8	2.54	0.42
2:QB:34:ALA:H	2:QB:41:ILE:HB	1.84	0.42
3:QC:43:LEU:HG	3:QC:47:LEU:HD22	2.00	0.42
4:QD:59:ARG:HH12	4:QD:66:ARG:NH2	2.16	0.42
4:QD:172:PRO:HG3	6:XF:28:ARG:HH12	1.84	0.42
5:QE:126:ARG:HA	5:QE:131:ILE:HD11	2.01	0.42
12:QL:79:GLU:OE2	12:QL:80:HIS:NE2	2.53	0.42
13:QM:47:ASP:OD1	13:QM:47:ASP:N	2.48	0.42
34:RA:528:A:C2	34:RA:2042:A:H2'	2.55	0.42
34:RA:941:A:O2'	34:RA:1190:G:O3'	2.30	0.42
34:RA:1123:C:H2'	34:RA:1124:C:H6	1.85	0.42
34:RA:2159:G:H2'	34:RA:2160:G:H8	1.82	0.42
37:RE:134:ILE:HD12	37:RE:134:ILE:HA	1.85	0.42
51:RW:13:SER:HA	51:RW:99:ARG:HB2	2.01	0.42
54:RZ:67:LEU:HD12	54:RZ:90:VAL:HB	2.02	0.42
1:XA:262:A:H2'	1:XA:263:A:C8	2.55	0.42
1:XA:400:C:H2'	1:XA:401:C:C6	2.55	0.42
1:XA:714:G:H1'	1:XA:777:A:C8	2.55	0.42
1:XA:757:U:H2'	1:XA:758:G:O4'	2.18	0.42
1:XA:821:G:H2'	1:XA:822:C:O4'	2.19	0.42
1:XA:948:C:OP2	13:XM:106:ASN:OD1	2.36	0.42
1:XA:1084:G:H21	1:XA:1102:A:H62	1.67	0.42
1:XA:1259:C:HO2'	1:XA:1283:G:H21	1.65	0.42
1:XA:1305:G:H4'	1:XA:1332:A:N6	2.34	0.42
3:XC:187:ALA:HB3	3:XC:198:VAL:HG13	2.00	0.42
6:XF:27:GLN:HA	6:XF:30:LEU:HD12	2.02	0.42
10:XJ:62:HIS:CD2	14:XN:59:ALA:CB	2.99	0.42
32:Y8:13:ARG:NH2	34:YA:250:G:OP2	2.52	0.42
34:YA:576:U:H2'	34:YA:577:G:C8	2.55	0.42
34:YA:962:G:H2'	34:YA:963:U:C6	2.55	0.42
34:YA:1819:A:H5"	36:YD:161:THR:HG21	2.02	0.42
34:YA:2154:G:H2'	34:YA:2155:G:C8	2.54	0.42
35:YB:44:G:H1'	35:YB:47:C:H42	1.83	0.42
46:YR:35:THR:HA	46:YR:112:ALA:O	2.19	0.42
47:YS:34:HIS:O	47:YS:97:ARG:NH2	2.52	0.42
1:QA:21:G:H2'	1:QA:22:G:C8	2.55	0.42
1:QA:287:U:H2'	1:QA:288:A:H8	1.85	0.42
1:QA:358:U:H2'	1:QA:359:U:C6	2.55	0.42
1:QA:408:A:H3'	1:QA:409:G:H8	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:766:A:H2'	1:QA:767:A:O4'	2.19	0.42
1:QA:926:G:H2'	1:QA:1505:G:N3	2.34	0.42
1:QA:987:G:H2'	1:QA:988:G:C8	2.55	0.42
1:QA:1109:C:OP2	3:QC:176:HIS:HD2	2.02	0.42
1:QA:1126:U:H3'	1:QA:1127:G:H8	1.83	0.42
1:QA:1134:G:H3'	1:QA:1135:U:C6	2.54	0.42
1:QA:1390:U:H2'	1:QA:1391:U:C6	2.54	0.42
4:QD:15:GLU:HG2	4:QD:63:LYS:HB3	2.01	0.42
7:QG:75:VAL:HA	7:QG:88:PRO:HA	2.00	0.42
34:RA:13:A:N3	34:RA:14:A:N6	2.66	0.42
34:RA:262:A:H2'	34:RA:263:C:O4'	2.19	0.42
34:RA:375:C:H2'	34:RA:376:C:C6	2.54	0.42
34:RA:672:C:H2'	34:RA:673:C:C6	2.55	0.42
34:RA:704:G:N2	34:RA:726:G:O2'	2.52	0.42
34:RA:1509:C:H3'	34:RA:1510:A:H4'	2.00	0.42
34:RA:2533:A:OP1	34:RA:2665:A:O2'	2.29	0.42
34:RA:2841:C:H2'	34:RA:2842:G:H8	1.84	0.42
36:RD:32:SER:C	36:RD:34:VAL:H	2.23	0.42
36:RD:142:VAL:HG23	36:RD:193:VAL:HA	2.02	0.42
45:RQ:7:MET:SD	45:RQ:7:MET:N	2.90	0.42
1:XA:186(Q):U:O2	20:XT:105:SER:OG	2.37	0.42
1:XA:972:C:C2'	10:XJ:55:LYS:HB2	2.49	0.42
1:XA:1086:U:H3	1:XA:1099:G:H22	1.67	0.42
1:XA:1300:G:O3'	13:XM:21:TYR:HE1	2.03	0.42
1:XA:1492:A:H1'	1:XA:1493:A:C6	2.54	0.42
2:XB:87:ARG:HH21	2:XB:219:VAL:HG13	1.84	0.42
2:XB:195:ASP:O	8:XH:74:PRO:HG2	2.20	0.42
3:XC:64:VAL:HG13	3:XC:97:LYS:HD2	2.01	0.42
7:XG:102:ARG:HA	7:XG:105:VAL:HG22	2.01	0.42
11:XK:108:ILE:O	18:XR:87:ARG:HA	2.19	0.42
18:XR:85:LEU:HD12	18:XR:85:LEU:HA	1.83	0.42
34:YA:65:C:H2'	34:YA:66:C:C6	2.55	0.42
34:YA:128:C:H2'	34:YA:129:C:C6	2.54	0.42
34:YA:373:U:H1'	34:YA:423:A:N3	2.35	0.42
34:YA:654(B):G:H22	34:YA:654(V):A:H1'	1.84	0.42
34:YA:676:A:C8	34:YA:2070:G:H1'	2.55	0.42
34:YA:689:A:H2'	34:YA:690:G:C8	2.54	0.42
34:YA:852:G:H2'	34:YA:853:G:H8	1.85	0.42
34:YA:985:C:H2'	34:YA:986:C:C6	2.55	0.42
34:YA:1012:U:O4	42:YN:25:ARG:HD3	2.19	0.42
34:YA:1303:G:H1'	34:YA:1641:A:C2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:1556:C:H2'	34:YA:1557:C:C6	2.54	0.42
34:YA:2299:G:N2	34:YA:2318:G:H1'	2.34	0.42
34:YA:2305:A:O5'	39:YG:134:GLY:HA3	2.20	0.42
34:YA:2584:U:O3'	34:YA:2602:A:H2	2.02	0.42
34:YA:2689:U:OP2	34:YA:2872:G:N2	2.41	0.42
38:YF:114:VAL:HG11	38:YF:202:PHE:CZ	2.55	0.42
44:YP:82:GLY:HA2	44:YP:113:LYS:O	2.18	0.42
1:QA:21:G:H1'	1:QA:915:A:N1	2.34	0.42
1:QA:34:C:H2'	1:QA:35:G:H8	1.83	0.42
1:QA:320:C:N4	1:QA:329:A:OP2	2.52	0.42
1:QA:740:U:O4'	15:QO:42:HIS:CD2	2.73	0.42
1:QA:821:G:H8	1:QA:821:G:P	2.43	0.42
1:QA:943:U:O2'	1:QA:1232:U:OP2	2.36	0.42
1:QA:953:G:C8	13:QM:104:ARG:NH2	2.79	0.42
1:QA:1099:G:C5'	2:QB:96:ARG:HD2	2.49	0.42
1:QA:1466:C:H2'	1:QA:1467:G:O4'	2.19	0.42
12:QL:57:LYS:HA	12:QL:67:THR:HA	2.00	0.42
34:RA:105:C:H2'	34:RA:106:C:C6	2.54	0.42
34:RA:189:G:H2'	34:RA:205:G:N2	2.34	0.42
34:RA:263:C:H2'	34:RA:264:C:O4'	2.20	0.42
34:RA:270(V):C:H2'	34:RA:270(W):G:H8	1.85	0.42
34:RA:524:U:H2'	34:RA:525:U:C6	2.54	0.42
34:RA:1041:C:H2'	34:RA:1042:G:C8	2.51	0.42
34:RA:1096:A:H2'	34:RA:1097:U:O4'	2.20	0.42
34:RA:1107:G:H2'	34:RA:1108:U:C6	2.54	0.42
34:RA:1165:U:H2'	34:RA:1166:C:C6	2.55	0.42
34:RA:1375:C:H2'	34:RA:1376:C:C6	2.55	0.42
34:RA:2065:C:H1'	34:RA:2449:U:H3	1.84	0.42
38:RF:70:THR:HG23	38:RF:72:ARG:H	1.85	0.42
1:XA:105:G:H2'	1:XA:106:C:C6	2.55	0.42
1:XA:111:G:O5'	1:XA:111:G:C8	2.70	0.42
1:XA:373:A:HO2'	1:XA:374:A:H5'	1.84	0.42
1:XA:474:G:H2'	1:XA:475:G:C8	2.55	0.42
1:XA:920:U:O2'	1:XA:1081:G:O2'	2.36	0.42
1:XA:926:G:H2'	1:XA:1505:G:N2	2.35	0.42
1:XA:1330:U:C5'	13:XM:24:GLY:O	2.68	0.42
2:XB:177:ALA:HB1	2:XB:182:ILE:HB	2.01	0.42
3:XC:119:ARG:HG2	3:XC:140:ARG:HH22	1.85	0.42
33:Y9:32:HIS:CD2	33:Y9:32:HIS:N	2.87	0.42
34:YA:118:A:N3	34:YA:178:G:H1'	2.35	0.42
34:YA:134:C:H2'	34:YA:135:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:270(S):G:H2'	34:YA:270(T):G:H8	1.85	0.42
34:YA:584:C:OP2	49:YU:10:ARG:NH2	2.53	0.42
34:YA:603:A:O4'	34:YA:655:A:N6	2.52	0.42
34:YA:654(B):G:H2'	34:YA:654(C):C:C6	2.55	0.42
34:YA:673:C:H2'	34:YA:674:G:C8	2.55	0.42
34:YA:1869:G:H2'	34:YA:1871:A:N7	2.35	0.42
34:YA:2072:G:N1	34:YA:2438:U:C2	2.88	0.42
34:YA:2109:U:H2'	34:YA:2110:G:C8	2.55	0.42
34:YA:2291:U:H5"	34:YA:2380:C:H1'	2.02	0.42
34:YA:2419:U:H2'	34:YA:2420:C:C6	2.55	0.42
34:YA:2855:C:H2'	34:YA:2856:C:C6	2.54	0.42
39:YG:18:GLU:OE1	39:YG:21:ARG:NH2	2.50	0.42
47:YS:18:ILE:HG21	47:YS:88:ASP:HA	2.02	0.42
52:YX:25:LYS:HB3	52:YX:80:ILE:HD11	2.00	0.42
1:QA:8:A:C8	4:QD:209:ARG:O	2.72	0.42
1:QA:344:A:H3'	1:QA:345:C:C6	2.55	0.42
1:QA:345:C:H5'	48:RT:41:ARG:HD2	2.02	0.42
1:QA:581:G:N1	1:QA:759:A:OP2	2.37	0.42
1:QA:822:C:H2'	1:QA:823:G:C8	2.54	0.42
1:QA:1070:U:H2'	1:QA:1071:C:C6	2.55	0.42
1:QA:1294:G:H2'	1:QA:1295:G:C8	2.55	0.42
1:QA:1437:C:H2'	1:QA:1438:G:C8	2.55	0.42
2:QB:175:ARG:O	2:QB:179:LYS:HG3	2.20	0.42
4:QD:205:GLU:CG	5:QE:107:ARG:HH12	2.33	0.42
9:QI:65:VAL:HG11	9:QI:73:GLN:HG3	2.01	0.42
12:QL:102:ARG:HB3	12:QL:109:GLY:HA2	2.01	0.42
14:QN:41:ARG:HG3	14:QN:42:ILE:HG13	2.01	0.42
32:R8:61:LEU:HD12	32:R8:62:LEU:HG	2.02	0.42
34:RA:191:A:N6	34:RA:206:U:O2	2.53	0.42
34:RA:476:G:H1'	34:RA:480:A:H61	1.84	0.42
34:RA:755:C:H2'	34:RA:756:C:C6	2.55	0.42
34:RA:1572:A:H2'	34:RA:1573:G:C8	2.55	0.42
34:RA:2333:A:H1'	34:RA:2335:A:C5	2.55	0.42
34:RA:2683:C:OP1	48:RT:53:ARG:NH1	2.42	0.42
34:RA:2735:G:H2'	34:RA:2736:G:C8	2.55	0.42
1:XA:373:A:H1'	1:XA:481:G:O4'	2.20	0.42
1:XA:477:G:H2'	1:XA:478:A:C8	2.55	0.42
1:XA:714:G:H2'	1:XA:715:A:C8	2.55	0.42
1:XA:729:A:H2'	1:XA:730:G:H8	1.84	0.42
1:XA:901:A:O5'	1:XA:901:A:C8	2.70	0.42
1:XA:946:A:OP1	13:XM:114:ARG:NH2	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1253:G:N1	1:XA:1254:C:N4	2.67	0.42
1:XA:1311:G:H3'	19:XS:5:LEU:HD11	1.31	0.42
1:XA:1313:U:C5	19:XS:4:SER:OG	2.72	0.42
1:XA:1329:A:H4'	13:XM:29:ARG:CZ	2.50	0.42
1:XA:1512:U:H2'	1:XA:1513:A:C8	2.54	0.42
30:Y6:40:CYS:HB3	30:Y6:43:CYS:CB	2.50	0.42
34:YA:610:C:H2'	34:YA:611:C:C6	2.55	0.42
34:YA:740:U:H2'	34:YA:741:G:C8	2.54	0.42
34:YA:765:G:H2'	34:YA:766:C:C6	2.55	0.42
34:YA:1119:C:H2'	34:YA:1120:G:H8	1.85	0.42
34:YA:1174:A:H2	34:YA:1176:G:H4'	1.85	0.42
34:YA:1292:U:H2'	34:YA:1293:C:C6	2.55	0.42
34:YA:1534:G:H3'	34:YA:1534:G:N3	2.34	0.42
34:YA:1812:A:H2'	34:YA:1813:G:C8	2.55	0.42
34:YA:2053:G:H2'	34:YA:2054:A:C8	2.55	0.42
34:YA:2249:U:C4	34:YA:2252:G:H5"	2.55	0.42
34:YA:2468:G:OP2	34:YA:2468:G:N2	2.51	0.42
34:YA:2554:U:H2'	34:YA:2555:U:C6	2.55	0.42
37:YE:102:VAL:HG23	37:YE:200:GLU:HA	2.02	0.42
45:YQ:110:THR:OG1	45:YQ:111:GLU:N	2.53	0.42
46:YR:87:TYR:OH	46:YR:117:VAL:O	2.31	0.42
48:YT:6:LEU:HA	48:YT:9:LEU:HB2	2.02	0.42
1:QA:129(A):U:H4'	1:QA:130:A:OP1	2.18	0.42
1:QA:163:C:H2'	1:QA:164:U:O4'	2.20	0.42
1:QA:830:G:H21	1:QA:1540:U:H5'	1.84	0.42
1:QA:1313:U:C4'	19:QS:6:LYS:HZ3	2.29	0.42
1:QA:1373:G:P	9:QI:11:LYS:HZ2	2.41	0.42
1:QA:1509:C:H2'	1:QA:1510:U:H6	1.85	0.42
2:QB:197:VAL:C	8:QH:68:ARG:NH2	2.70	0.42
4:QD:18:LYS:HZ2	4:QD:18:LYS:HG2	1.69	0.42
33:R9:29:ASN:HB3	33:R9:32:HIS:CD2	2.55	0.42
34:RA:26:G:H1'	34:RA:515:A:H61	1.85	0.42
34:RA:27:G:H1'	34:RA:513:A:H61	1.84	0.42
34:RA:389:G:H1	44:RP:71:VAL:HG12	1.84	0.42
34:RA:564:C:N4	34:RA:573:G:OP1	2.49	0.42
34:RA:611:C:H2'	34:RA:612:G:C8	2.55	0.42
34:RA:730:C:H2'	34:RA:731:C:C6	2.55	0.42
34:RA:804:A:H2'	34:RA:806:C:C4	2.55	0.42
34:RA:1444(B):A:H1'	34:RA:1460:A:N3	2.35	0.42
34:RA:1629:U:O2	34:RA:2698:U:H4'	2.20	0.42
34:RA:1654:A:OP1	46:RR:2:ARG:HD3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:2651:C:H2'	34:RA:2652:C:H6	1.84	0.42
34:RA:2784:C:H2'	34:RA:2785:C:C6	2.55	0.42
34:RA:2859:G:H2'	34:RA:2860:A:C8	2.54	0.42
38:RF:8:GLN:NE2	38:RF:19:GLU:OE1	2.51	0.42
40:RH:126:PRO:HB2	40:RH:127:GLU:H	1.68	0.42
1:XA:321:A:N6	1:XA:328:C:H1'	2.35	0.42
1:XA:599:C:H2'	1:XA:600:C:C6	2.55	0.42
1:XA:1359:C:H4'	1:XA:1362(A):C:N4	2.35	0.42
19:XS:36:ARG:NH2	19:XS:72:GLY:O	2.52	0.42
22:XV:50:G:H2'	22:XV:51:A:C8	2.54	0.42
34:YA:417:C:O2	34:YA:2407:G:N1	2.52	0.42
34:YA:811:U:O4	44:YP:21:ARG:NH2	2.53	0.42
34:YA:1576:U:H2'	34:YA:1577:C:C6	2.54	0.42
34:YA:2043:C:N4	34:YA:2777:G:C5	2.87	0.42
34:YA:2108:C:H5'	34:YA:2150:U:O2'	2.19	0.42
34:YA:2233:U:H2'	34:YA:2234:G:C8	2.54	0.42
36:YD:45:ASN:O	36:YD:47:GLY:N	2.52	0.42
49:YU:94:ASN:HD22	49:YU:94:ASN:C	2.22	0.42
1:QA:5:U:H4'	1:QA:6:G:C8	2.55	0.42
1:QA:124:G:H2'	1:QA:125:U:O4'	2.20	0.42
1:QA:339:C:H2'	1:QA:340:U:C6	2.55	0.42
1:QA:976:G:OP1	14:QN:31:ARG:HG2	2.19	0.42
1:QA:1014:A:C1'	19:QS:34:TRP:CG	3.03	0.42
1:QA:1085:U:H3'	1:QA:1086:U:C6	2.55	0.42
6:QF:50:TYR:CZ	18:QR:77:GLY:HA2	2.55	0.42
21:QU:3:LYS:HD3	21:QU:14:TRP:CG	2.55	0.42
31:R7:12:ARG:HH21	31:R7:44:PRO:HB3	1.84	0.42
32:R8:49:VAL:HG23	32:R8:53:PRO:HD3	2.02	0.42
34:RA:1148:A:H2'	34:RA:1149:G:C8	2.55	0.42
34:RA:1200:C:H2'	34:RA:1201:C:C6	2.55	0.42
34:RA:1333:C:H2'	34:RA:1334:G:C8	2.47	0.42
34:RA:1688:U:H1'	34:RA:1701:A:C6	2.54	0.42
34:RA:2746:U:O4	34:RA:2755:C:H4'	2.20	0.42
36:RD:76:PRO:HB3	36:RD:118:VAL:HG22	2.02	0.42
1:XA:56:U:H2'	1:XA:57:G:C8	2.55	0.42
1:XA:390:C:O5'	1:XA:390:C:H6	2.03	0.42
1:XA:728:A:C8	15:XO:54:ARG:NH1	2.84	0.42
1:XA:1187:G:C4	14:XN:61:TRP:O	2.73	0.42
1:XA:1253:G:C2	1:XA:1254:C:C6	3.08	0.42
1:XA:1256:A:C8	1:XA:1278:U:H5'	2.54	0.42
1:XA:1414:U:H3	1:XA:1486:G:H1	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1510:U:H3	1:XA:1525:G:H1	1.68	0.42
4:XD:105:VAL:HG21	4:XD:126:ILE:HD13	2.02	0.42
10:XJ:7:LYS:HE2	10:XJ:9:ARG:CG	2.49	0.42
13:XM:84:ILE:HD11	19:XS:65:ASN:CB	2.45	0.42
34:YA:279:C:H2'	34:YA:280:C:H6	1.85	0.42
34:YA:363(C):G:H2'	34:YA:363(D):G:C8	2.54	0.42
34:YA:453:C:H4'	34:YA:472:A:H62	1.84	0.42
34:YA:635:C:H2'	34:YA:636:G:C8	2.55	0.42
34:YA:892:G:H2'	34:YA:893:C:C6	2.54	0.42
34:YA:2086:U:OP2	36:YD:263:ARG:NH1	2.52	0.42
34:YA:2138:C:H2'	34:YA:2139:C:C6	2.55	0.42
37:YE:2:LYS:HD2	37:YE:95:ILE:HG22	2.02	0.42
42:YN:28:THR:O	42:YN:32:THR:OG1	2.32	0.42
44:YP:7:ARG:HA	44:YP:8:PRO:HD2	1.97	0.42
45:YQ:34:LEU:HB2	45:YQ:118:LEU:HD22	2.01	0.42
1:QA:10:A:OP2	5:QE:126:ARG:HD3	2.20	0.41
1:QA:669:U:H2'	1:QA:670:G:C8	2.54	0.41
1:QA:801:U:H2'	1:QA:802:A:H8	1.85	0.41
1:QA:893:C:H2'	1:QA:894:G:H8	1.85	0.41
1:QA:1124:G:C4'	10:QJ:36:GLY:H	2.33	0.41
1:QA:1130:A:H62	1:QA:1144:G:H21	1.67	0.41
1:QA:1176:A:H62	1:QA:1182:G:H21	1.67	0.41
1:QA:1220:G:N2	19:QS:54:GLY:HA2	2.33	0.41
1:QA:1483:A:H1'	34:RA:1948:G:H1'	2.02	0.41
3:QC:22:TRP:HH2	3:QC:32:LEU:HD13	1.85	0.41
4:QD:109:GLY:HA3	4:QD:165:MET:HG2	2.02	0.41
7:QG:75:VAL:HG12	7:QG:88:PRO:HB3	2.01	0.41
19:QS:70:LYS:N	19:QS:73:GLU:OE1	2.52	0.41
20:QT:14:LYS:HA	20:QT:17:ARG:HG2	2.02	0.41
34:RA:557:U:H2'	34:RA:558:G:C8	2.55	0.41
34:RA:1062:G:N7	34:RA:1088:A:O2'	2.44	0.41
34:RA:1501:C:H2'	34:RA:1502:C:C6	2.55	0.41
34:RA:1574:C:H2'	34:RA:1575:C:C6	2.55	0.41
34:RA:2538:C:H2'	34:RA:2539:C:C6	2.55	0.41
38:RF:178:PRO:HB3	38:RF:198:ALA:HB2	2.02	0.41
39:RG:34:LEU:HD21	39:RG:172:LEU:HD21	2.02	0.41
39:RG:39:ILE:HB	39:RG:92:VAL:HG13	2.01	0.41
44:RP:84:ASN:HA	44:RP:115:LEU:O	2.20	0.41
49:RU:85:LYS:HE2	49:RU:116:ALA:HA	2.01	0.41
1:XA:51:A:H61	1:XA:314:C:H1'	1.85	0.41
1:XA:68(Y):U:H2'	1:XA:68(Z):C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:167:G:H2'	1:XA:168:G:H8	1.85	0.41
1:XA:664:G:N3	1:XA:726:C:H4'	2.35	0.41
1:XA:1073:U:OP1	5:XE:57:LYS:HE3	2.19	0.41
1:XA:1184:G:H2'	1:XA:1185:G:C8	2.52	0.41
1:XA:1188:A:H4'	14:XN:59:ALA:O	2.19	0.41
1:XA:1229:A:OP2	13:XM:104:ARG:O	2.37	0.41
1:XA:1256:A:OP2	1:XA:1279:A:N6	2.52	0.41
1:XA:1500:A:H2'	1:XA:1501:C:C6	2.55	0.41
3:XC:8:ILE:HG12	3:XC:184:TYR:HB3	2.02	0.41
9:XI:13:ALA:HB1	9:XI:73:GLN:HG3	2.01	0.41
19:XS:30:LEU:HD13	19:XS:48:THR:HG23	2.01	0.41
32:Y8:60:LEU:HD12	32:Y8:60:LEU:HA	1.82	0.41
34:YA:220:G:N2	34:YA:427:U:H2'	2.35	0.41
34:YA:852:G:H2'	34:YA:853:G:C8	2.55	0.41
34:YA:1510:A:H2'	34:YA:1510:A:N3	2.33	0.41
34:YA:1675:C:O2	37:YE:128:SER:OG	2.37	0.41
34:YA:1709:U:H2'	34:YA:1710:C:C6	2.55	0.41
34:YA:2054:A:H2	34:YA:2616:C:N3	2.01	0.41
34:YA:2651:C:H2'	34:YA:2652:C:H6	1.85	0.41
36:YD:66:ASP:OD1	36:YD:103:ARG:NH1	2.53	0.41
36:YD:83:GLU:OE1	36:YD:104:TYR:OH	2.31	0.41
1:QA:151:A:H3'	1:QA:152:A:H8	1.85	0.41
1:QA:538:G:O5'	12:QL:115:LYS:HG3	2.19	0.41
1:QA:694:A:H2'	1:QA:695:A:O4'	2.20	0.41
1:QA:715:A:OP1	1:QA:805:C:O2'	2.31	0.41
1:QA:1105:A:H2'	1:QA:1106:G:C8	2.54	0.41
1:QA:1160:G:O4'	2:QB:132:LYS:HE2	2.10	0.41
1:QA:1175:G:H2'	1:QA:1176:A:C8	2.55	0.41
1:QA:1310:G:H2'	1:QA:1311:G:H8	1.84	0.41
9:QI:77:ILE:O	9:QI:81:ILE:HG12	2.20	0.41
26:R2:45:SER:OG	26:R2:46:GLN:N	2.53	0.41
34:RA:172:C:H2'	34:RA:173:G:C8	2.55	0.41
34:RA:242:G:H22	34:RA:254:G:H2'	1.84	0.41
34:RA:676:A:C2	34:RA:677:A:C8	3.09	0.41
34:RA:1212:G:H1'	34:RA:1236:G:N2	2.35	0.41
34:RA:1464:C:H2'	34:RA:1465:G:H8	1.85	0.41
34:RA:1511:A:H3'	34:RA:1512:G:H8	1.85	0.41
34:RA:1812:A:H2'	34:RA:1813:G:H8	1.85	0.41
34:RA:2427:C:H5'	34:RA:2429:G:H5'	2.00	0.41
34:RA:2751:G:N1	40:RH:3:ARG:CB	2.77	0.41
34:RA:2773:C:H2'	34:RA:2774:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:RU:107:ALA:HA	49:RU:110:VAL:HG12	2.01	0.41
1:XA:260:G:H2'	1:XA:261:U:C6	2.56	0.41
1:XA:355:C:O5'	1:XA:355:C:C6	2.70	0.41
1:XA:532:A:O5'	1:XA:532:A:H8	2.03	0.41
1:XA:576:G:N2	1:XA:760:G:OP2	2.53	0.41
1:XA:580:U:H2'	1:XA:581:G:O4'	2.19	0.41
1:XA:584:G:H1	1:XA:757:U:H3	1.68	0.41
1:XA:730:G:N3	1:XA:765:G:H4'	2.34	0.41
1:XA:960:U:H4'	1:XA:961:U:H5"	2.02	0.41
1:XA:1376:U:C4	7:XG:10:ARG:CD	3.02	0.41
4:XD:101:LEU:HD22	4:XD:138:TYR:HB3	2.01	0.41
5:XE:75:THR:HG22	5:XE:117:ASP:O	2.20	0.41
5:XE:128:PRO:HA	5:XE:131:ILE:HG12	2.02	0.41
6:XF:39:LYS:HB2	6:XF:64:GLN:HB3	2.01	0.41
6:XF:89:MET:SD	18:XR:34:TYR:CE2	3.13	0.41
6:XF:99:ALA:HB3	18:XR:29:PHE:HD1	1.71	0.41
34:YA:279:C:H2'	34:YA:280:C:C6	2.55	0.41
34:YA:486:C:H2'	34:YA:487:C:C6	2.55	0.41
34:YA:870:A:OP1	45:YQ:6:ARG:NH2	2.25	0.41
34:YA:1995:U:H2'	34:YA:1996:C:C5	2.56	0.41
34:YA:2241:A:H2'	34:YA:2242:G:C8	2.54	0.41
34:YA:2732:G:H3'	34:YA:2733:A:O4'	2.20	0.41
34:YA:2749:A:H3'	34:YA:2750:A:H2'	2.02	0.41
34:YA:2819:G:H2'	34:YA:2821:A:N7	2.35	0.41
37:YE:24:THR:HG22	37:YE:186:GLY:H	1.84	0.41
37:YE:201:THR:OG1	37:YE:202:LYS:N	2.53	0.41
44:YP:15:ARG:HD3	44:YP:15:ARG:HA	1.85	0.41
44:YP:47:ASP:OD2	44:YP:50:ARG:NH1	2.53	0.41
1:QA:99:C:H2'	1:QA:101:A:C8	2.55	0.41
1:QA:120:A:H2'	1:QA:122:G:C8	2.54	0.41
1:QA:138:G:H2'	1:QA:139:G:C8	2.54	0.41
1:QA:418:C:H2'	1:QA:419:C:H6	1.85	0.41
1:QA:736:C:H2'	1:QA:737:A:C8	2.56	0.41
1:QA:1418:A:H1'	34:RA:1959:G:H1'	2.02	0.41
8:QH:81:HIS:ND1	8:QH:138:TRP:O	2.39	0.41
27:R3:4:LEU:HD21	27:R3:56:VAL:HB	2.03	0.41
34:RA:49:A:H61	34:RA:177:G:H2'	1.84	0.41
34:RA:523:C:H5"	34:RA:541:C:O2'	2.19	0.41
34:RA:628:G:O2'	34:RA:651:G:O2'	2.34	0.41
34:RA:1069:A:H4'	34:RA:1070:A:H5"	2.02	0.41
34:RA:2084:C:H2'	34:RA:2085:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:2524:G:H21	34:RA:2741:A:H1'	1.84	0.41
34:RA:2881:C:H2'	34:RA:2882:A:H8	1.85	0.41
45:RQ:116:GLU:O	45:RQ:120:ILE:HG12	2.20	0.41
1:XA:59:A:H1'	1:XA:354:G:N2	2.35	0.41
1:XA:196:A:N3	1:XA:222:U:H1'	2.35	0.41
1:XA:435:C:H2'	1:XA:436:C:C6	2.53	0.41
1:XA:571:U:H5"	1:XA:819:A:C5	2.56	0.41
1:XA:861:G:O2'	1:XA:874:G:O2'	2.24	0.41
1:XA:913:A:OP1	12:XL:91:LYS:HE2	2.21	0.41
1:XA:1230:C:C5	13:XM:105:THR:HB	2.55	0.41
1:XA:1301:U:H4'	13:XM:17:VAL:HG23	2.02	0.41
1:XA:1347:G:HO2'	1:XA:1373:G:H1	1.67	0.41
2:XB:115:LEU:HB2	2:XB:145:LEU:HD23	2.02	0.41
3:XC:35:GLU:HB3	3:XC:59:ARG:HH22	1.85	0.41
13:XM:3:ARG:HA	13:XM:3:ARG:HD3	1.96	0.41
14:XN:24:CYS:SG	14:XN:40:CYS:N	2.93	0.41
29:Y5:25:LEU:HG	51:YW:19:LEU:HD12	2.03	0.41
34:YA:222:A:N6	34:YA:232:G:H1'	2.34	0.41
34:YA:303:U:H2'	34:YA:304:G:H8	1.85	0.41
34:YA:534:U:H2'	34:YA:535:C:C6	2.55	0.41
34:YA:629:G:O2'	34:YA:649:G:N2	2.54	0.41
34:YA:911:A:N1	45:YQ:9:TYR:HB3	2.35	0.41
34:YA:1187:G:N2	34:YA:1188:U:O4	2.51	0.41
34:YA:1566:A:N3	36:YD:214:TRP:CE3	2.88	0.41
41:YI:50:ARG:HA	41:YI:50:ARG:HD3	1.80	0.41
41:YI:121:LYS:HA	41:YI:121:LYS:HD3	1.67	0.41
46:YR:104:ARG:HD2	46:YR:109:ALA:HB3	2.02	0.41
53:YY:102:CYS:SG	53:YY:103:GLY:N	2.93	0.41
54:YZ:185:GLU:O	54:YZ:186:GLU:C	2.58	0.41
1:QA:108:G:N2	1:QA:108:G:OP2	2.49	0.41
1:QA:329:A:H2'	1:QA:332:G:N7	2.35	0.41
1:QA:583:A:H2'	1:QA:584:G:O4'	2.21	0.41
1:QA:777:A:H2'	1:QA:778:G:O4'	2.21	0.41
1:QA:974:A:P	14:QN:31:ARG:HB2	2.56	0.41
1:QA:1065:U:C5	1:QA:1190:G:H1'	2.56	0.41
1:QA:1332:A:H3'	1:QA:1333:A:C8	2.55	0.41
1:QA:1477:C:H2'	1:QA:1478:C:C6	2.56	0.41
1:QA:1517:G:H2'	1:QA:1518:A:O4'	2.21	0.41
3:QC:140:ARG:HA	3:QC:143:GLU:HG2	2.02	0.41
8:QH:3:THR:OG1	8:QH:4:ASP:N	2.54	0.41
29:R5:33:CYS:SG	29:R5:46:CYS:HB2	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:199:A:N1	34:RA:2433:A:H2'	2.36	0.41
34:RA:475:U:H2'	34:RA:476:G:O4'	2.21	0.41
34:RA:1046:A:H5'	34:RA:1047:G:H8	1.85	0.41
34:RA:1053:C:H2'	34:RA:1054:A:C8	2.55	0.41
34:RA:1129:A:H1'	34:RA:2516:G:H1'	2.01	0.41
34:RA:1221:C:H2'	34:RA:1222:C:H6	1.85	0.41
34:RA:2250:G:C2	45:RQ:82:ARG:HG3	2.55	0.41
34:RA:2748:A:O2'	40:RH:63:SER:O	2.20	0.41
36:RD:268:ARG:HG3	36:RD:269:PHE:CD2	2.55	0.41
46:RR:13:HIS:O	46:RR:17:ARG:HB2	2.20	0.41
50:RV:32:THR:O	50:RV:32:THR:OG1	2.37	0.41
1:XA:657:G:O2'	15:XO:23:GLY:HA2	2.20	0.41
1:XA:762:C:H2'	1:XA:763:G:C8	2.55	0.41
1:XA:1209:C:O2'	1:XA:1214:C:N4	2.53	0.41
1:XA:1499:A:H1'	1:XA:1520:G:H4'	2.03	0.41
6:XF:12:PRO:HD3	6:XF:58:GLY:HA2	2.02	0.41
22:XV:70:C:O2'	34:YA:1893:C:O2'	2.30	0.41
34:YA:409:C:H2'	34:YA:410:G:H8	1.85	0.41
34:YA:822:U:C5	34:YA:944:G:H1'	2.55	0.41
34:YA:840:C:H2'	34:YA:841:A:C8	2.55	0.41
34:YA:919:G:N1	34:YA:2268:A:C4	2.88	0.41
34:YA:1688:U:H1'	34:YA:1701:A:C6	2.55	0.41
34:YA:2103:C:H2'	34:YA:2104:G:C8	2.56	0.41
34:YA:2134:A:H3'	34:YA:2135:A:C8	2.53	0.41
34:YA:2286:A:H1'	34:YA:2287:A:C5	2.55	0.41
34:YA:2728:U:H2'	34:YA:2729:G:C8	2.55	0.41
37:YE:132:HIS:CD2	37:YE:132:HIS:O	2.73	0.41
1:QA:343:U:H2'	1:QA:345:C:C4	2.55	0.41
1:QA:782:A:H3'	1:QA:783:C:C6	2.55	0.41
1:QA:801:U:H2'	1:QA:802:A:C8	2.55	0.41
1:QA:1187:G:N2	14:QN:60:SER:HG	2.16	0.41
1:QA:1314:C:C5	19:QS:6:LYS:NZ	2.89	0.41
4:QD:28:SER:HA	4:QD:29:PRO:HD3	1.96	0.41
4:QD:169:LYS:CG	6:XF:82:ARG:HH22	2.33	0.41
13:QM:77:ASN:O	13:QM:81:LEU:HG	2.21	0.41
24:R0:43:THR:HG21	34:RA:2336:A:N6	2.36	0.41
32:R8:39:LYS:NZ	34:RA:2351:G:O6	2.49	0.41
34:RA:270(T):G:H2'	34:RA:270(U):G:C8	2.54	0.41
34:RA:797:C:H2'	34:RA:798:G:C8	2.56	0.41
34:RA:957:A:OP1	45:RQ:76:LYS:HG2	2.21	0.41
34:RA:1362:C:H2'	34:RA:1363:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:1435:G:H2'	34:RA:1436:G:C8	2.56	0.41
34:RA:1589:C:H2'	34:RA:1590:U:C6	2.55	0.41
34:RA:1692:U:H3'	34:RA:1694:C:H41	1.86	0.41
34:RA:2544:G:H1'	34:RA:2646:C:H4'	2.02	0.41
44:RP:137:LYS:HA	44:RP:137:LYS:HD3	1.85	0.41
45:RQ:34:LEU:HD13	45:RQ:118:LEU:HD12	2.03	0.41
53:RY:99:CYS:HB3	53:RY:102:CYS:H	1.85	0.41
1:XA:40:C:H2'	1:XA:41:G:H8	1.86	0.41
1:XA:1466:C:H2'	1:XA:1467:G:O4'	2.21	0.41
5:XE:110:LEU:HB3	5:XE:115:VAL:HB	2.03	0.41
13:XM:87:TYR:OH	13:XM:91:ARG:NH1	2.53	0.41
32:Y8:4:MET:SD	34:YA:592:G:N2	2.89	0.41
34:YA:172:C:H2'	34:YA:173:G:C8	2.55	0.41
34:YA:270(D):C:H2'	34:YA:270(E):C:C6	2.55	0.41
34:YA:372:G:HO2'	34:YA:400:G:H1	1.59	0.41
34:YA:804:A:H2'	34:YA:806:C:C4	2.55	0.41
34:YA:1038:C:H2'	34:YA:1039:G:C8	2.56	0.41
34:YA:1361:G:N2	34:YA:1371:G:H1'	2.35	0.41
34:YA:1561:G:H2'	34:YA:1562:A:C8	2.55	0.41
34:YA:1790:C:H2'	34:YA:1791:A:C5	2.56	0.41
34:YA:2742:C:H2'	34:YA:2743:C:C6	2.56	0.41
39:YG:39:ILE:HG12	39:YG:157:ILE:HD12	2.02	0.41
54:YZ:6:LYS:O	54:YZ:62:PRO:HD3	2.20	0.41
1:QA:80:G:N2	1:QA:89:U:H1'	2.35	0.41
1:QA:186(A):C:C1'	20:QT:81:LYS:HE3	2.50	0.41
1:QA:553:A:O2'	12:QL:29:GLY:O	2.35	0.41
1:QA:870:U:H4'	1:QA:871:U:H3'	2.03	0.41
1:QA:1015:A:H2'	1:QA:1016:A:C8	2.56	0.41
1:QA:1203:C:H5'	14:QN:3:ARG:CZ	2.50	0.41
1:QA:1463:C:H2'	1:QA:1464:G:C8	2.56	0.41
1:QA:1479:C:H2'	1:QA:1480:G:C8	2.55	0.41
1:QA:1494:G:H4'	34:RA:1913:A:N7	2.35	0.41
3:QC:44:GLU:HA	3:QC:52:LEU:HD21	2.03	0.41
3:QC:76:VAL:HG21	3:QC:103:VAL:HG11	2.03	0.41
34:RA:576:U:H2'	34:RA:577:G:C8	2.56	0.41
34:RA:580:C:H2'	34:RA:581:C:C6	2.56	0.41
34:RA:822:U:H2'	34:RA:823:G:C8	2.56	0.41
34:RA:1588:C:H2'	34:RA:1589:C:C6	2.56	0.41
34:RA:1927:A:H2'	34:RA:1928:A:H8	1.86	0.41
34:RA:2014:A:O3'	51:RW:92:ARG:NH2	2.53	0.41
34:RA:2109:U:H2'	34:RA:2110:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:2226:C:H2'	34:RA:2227:A:O4'	2.20	0.41
34:RA:2537:U:H2'	34:RA:2538:C:C6	2.56	0.41
37:RE:134:ILE:HD12	37:RE:137:HIS:HB2	2.02	0.41
39:RG:63:ILE:HD13	39:RG:141:PHE:HB3	2.02	0.41
44:RP:41:ARG:HD3	44:RP:41:ARG:HA	1.82	0.41
45:RQ:31:ASP:OD2	45:RQ:134:ARG:NH2	2.54	0.41
48:RT:66:VAL:HA	48:RT:71:GLY:HA2	2.02	0.41
49:RU:27:LEU:O	49:RU:31:SER:HB3	2.20	0.41
54:RZ:5:LEU:H	54:RZ:59:LEU:HA	1.84	0.41
1:XA:254:G:OP2	17:XQ:67:LYS:HB3	2.20	0.41
1:XA:451:A:C6	1:XA:480:U:H2'	2.55	0.41
1:XA:646:U:H2'	1:XA:647:C:C6	2.55	0.41
1:XA:649:G:H2'	1:XA:650:G:H8	1.84	0.41
1:XA:769:G:N2	1:XA:811:C:H1'	2.35	0.41
1:XA:1073:U:H3	1:XA:1102:A:H61	1.69	0.41
1:XA:1158:C:O3'	2:XB:133:LYS:HD3	2.19	0.41
4:XD:161:ASN:O	4:XD:165:MET:HB2	2.21	0.41
14:XN:47:LEU:HD22	14:XN:52:GLN:HB2	2.02	0.41
32:Y8:34:TRP:CD1	34:YA:2420:C:OP1	2.74	0.41
34:YA:6:A:H2'	34:YA:7:G:O4'	2.20	0.41
34:YA:69:C:H2'	34:YA:70:G:C8	2.55	0.41
34:YA:807:U:H2'	34:YA:808:G:C8	2.56	0.41
34:YA:1329:U:H5"	34:YA:1330:C:H5	1.86	0.41
34:YA:1336:A:H2'	34:YA:1337:G:C8	2.56	0.41
34:YA:1882:C:H3'	34:YA:1883:G:H8	1.86	0.41
35:YB:15:A:H1'	35:YB:109:G:C5	2.56	0.41
35:YB:37:C:N3	35:YB:48:A:O2'	2.50	0.41
42:YN:5:VAL:HA	42:YN:6:PRO:HD3	1.93	0.41
1:QA:250:A:H1'	1:QA:252:U:C6	2.56	0.41
1:QA:581:G:H2'	1:QA:582:U:C6	2.55	0.41
1:QA:739:C:HO2'	15:QO:42:HIS:CE1	2.37	0.41
1:QA:1013:G:N2	1:QA:1017:G:O6	2.54	0.41
1:QA:1052:U:H2'	1:QA:1200:C:N4	2.36	0.41
1:QA:1061:G:H2'	1:QA:1062:U:O4'	2.20	0.41
1:QA:1117:G:N3	1:QA:1180:A:H1'	2.35	0.41
1:QA:1202:G:H2'	1:QA:1202:G:N3	2.36	0.41
1:QA:1409:C:H2'	1:QA:1410:G:C8	2.55	0.41
4:QD:8:VAL:HG13	4:QD:21:LEU:HD12	2.02	0.41
25:R1:8:SER:HB3	25:R1:66:HIS:CD2	2.55	0.41
29:R5:43:HIS:NE2	34:RA:2884:U:OP2	2.50	0.41
29:R5:51:TYR:HD1	29:R5:55:ARG:O	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:98:G:H1'	34:RA:103:A:H1'	2.03	0.41
34:RA:272:G:H2'	34:RA:273(A):G:H8	1.86	0.41
34:RA:390:A:H4'	34:RA:391:G:H5'	2.02	0.41
34:RA:678:C:H2'	34:RA:679:C:C6	2.56	0.41
34:RA:691:C:H2'	34:RA:692:C:C6	2.56	0.41
34:RA:935:C:H2'	34:RA:936:C:C6	2.55	0.41
39:RG:33:ARG:H	39:RG:162:THR:HG22	1.85	0.41
40:RH:91:GLY:HA2	40:RH:160:LYS:HG2	2.03	0.41
42:RN:97:ARG:HA	42:RN:100:GLU:HB2	2.02	0.41
48:RT:8:LYS:HB2	48:RT:8:LYS:HE2	1.86	0.41
49:RU:58:ARG:HH11	49:RU:93:LYS:NZ	2.18	0.41
54:RZ:151:HIS:HB2	54:RZ:170:THR:HA	2.02	0.41
1:XA:130:A:OP2	17:XQ:63:ARG:HD3	2.20	0.41
1:XA:587:G:O2'	8:XH:3:THR:HA	2.20	0.41
1:XA:658:G:C1'	15:XO:22:THR:OG1	2.68	0.41
1:XA:990:C:H2'	1:XA:991:U:O4'	2.20	0.41
1:XA:1004:A:H2	1:XA:1024:G:H2'	1.85	0.41
1:XA:1259:C:HO2'	1:XA:1283:G:N2	2.17	0.41
1:XA:1349:A:H2'	1:XA:1350:A:O4'	2.20	0.41
1:XA:1367:C:H2'	1:XA:1368:G:H8	1.86	0.41
1:XA:1440(B):G:O2'	1:XA:1440(C):G:C6	2.72	0.41
6:XF:22:GLU:OE2	6:XF:84:ASN:ND2	2.40	0.41
10:XJ:16:LEU:HD22	10:XJ:94:VAL:HG22	2.02	0.41
29:Y5:11:THR:HG23	29:Y5:15:ARG:HD2	2.02	0.41
34:YA:318:C:H2'	34:YA:319:C:H6	1.84	0.41
34:YA:444:C:H2'	34:YA:445:C:C6	2.56	0.41
34:YA:755:C:H2'	34:YA:756:C:C6	2.55	0.41
34:YA:1130:U:C2	34:YA:2025:C:H5"	2.55	0.41
34:YA:1843:C:H2'	34:YA:1844:C:C6	2.56	0.41
34:YA:1909:C:H2'	34:YA:1910:G:C8	2.56	0.41
34:YA:2036:C:H2'	34:YA:2037:G:C8	2.55	0.41
34:YA:2073:C:H2'	34:YA:2074:U:H6	1.86	0.41
36:YD:231:HIS:CD2	36:YD:249:PRO:HG3	2.56	0.41
37:YE:104:VAL:HG11	37:YE:188:VAL:HG12	2.03	0.41
44:YP:37:GLY:O	44:YP:40:SER:OG	2.36	0.41
48:YT:3:ARG:O	48:YT:7:ILE:HG12	2.21	0.41
50:YV:68:LYS:HD3	50:YV:68:LYS:HA	1.74	0.41
1:QA:55:A:H61	1:QA:357:G:H2'	1.86	0.41
1:QA:663:A:H2'	1:QA:664:G:C8	2.56	0.41
1:QA:958:A:N6	19:QS:77:THR:C	2.71	0.41
3:QC:73:PRO:HA	3:QC:76:VAL:HG22	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QC:120:VAL:O	3:QC:124:ILE:HG12	2.20	0.41
4:QD:27:TYR:O	6:XF:13:ASN:ND2	2.54	0.41
4:QD:166:LYS:HG2	36:YD:135:PHE:CZ	2.55	0.41
7:QG:87:VAL:HG23	7:QG:151:TYR:HB3	2.02	0.41
10:QJ:53:PRO:CB	14:QN:42:ILE:CD1	2.99	0.41
28:R4:26:SER:OG	39:RG:143:GLU:CD	2.52	0.41
34:RA:445:C:H2'	34:RA:446:G:C8	2.55	0.41
34:RA:568:U:H2'	34:RA:570:G:N7	2.36	0.41
34:RA:740:U:H2'	34:RA:741:G:H8	1.84	0.41
34:RA:903:C:H2'	34:RA:904:C:H6	1.85	0.41
34:RA:1076:C:C4	34:RA:1077:A:H1'	2.56	0.41
34:RA:1381:G:H1'	34:RA:1571:A:N1	2.36	0.41
34:RA:1695:G:H1'	36:RD:8:PRO:O	2.20	0.41
34:RA:1908:C:H2'	34:RA:1909:C:C6	2.56	0.41
34:RA:2185:C:H2'	34:RA:2186:G:H8	1.84	0.41
46:RR:96:ARG:HB2	46:RR:117:VAL:HG12	2.02	0.41
1:XA:125:U:H2'	1:XA:126:G:C8	2.56	0.41
1:XA:309:G:H2'	1:XA:310:G:C8	2.56	0.41
1:XA:421:U:C4'	3:XC:192:THR:HG22	2.46	0.41
1:XA:954:G:H22	1:XA:1228:C:H42	1.67	0.41
1:XA:1124:G:H4'	10:XJ:36:GLY:CA	2.51	0.41
1:XA:1440(I):U:H4'	1:XA:1440(J):A:C6	2.56	0.41
2:XB:75:LYS:HA	2:XB:75:LYS:HD3	1.86	0.41
2:XB:88:ALA:O	2:XB:226:ARG:NH1	2.46	0.41
2:XB:193:ASP:N	2:XB:193:ASP:OD2	2.41	0.41
3:XC:23:TYR:CE2	10:XJ:95:GLU:CG	3.04	0.41
9:XI:10:ARG:CZ	9:XI:105:ASP:HB2	2.51	0.41
10:XJ:40:LEU:N	10:XJ:40:LEU:CD1	2.84	0.41
11:XK:108:ILE:HD13	18:XR:87:ARG:NH2	2.36	0.41
24:Y0:72:ARG:HB3	24:Y0:75:LEU:HB2	2.02	0.41
25:Y1:3:LYS:HB3	34:YA:1364:G:OP1	2.20	0.41
34:YA:7:G:H2'	34:YA:8:A:C8	2.55	0.41
34:YA:312:G:H4'	34:YA:331:A:N3	2.35	0.41
34:YA:2825:C:H2'	34:YA:2826:A:O4'	2.21	0.41
34:YA:2832:U:H1'	34:YA:2834:G:C5	2.55	0.41
36:YD:44:ASN:OD1	36:YD:44:ASN:N	2.53	0.41
43:YO:70:LYS:HE2	43:YO:70:LYS:HB3	1.81	0.41
1:QA:103:C:OP2	20:QT:14:LYS:HD2	2.21	0.41
1:QA:488:C:H2'	1:QA:489:C:C6	2.56	0.41
1:QA:573:A:H2'	1:QA:574:A:C8	2.55	0.41
1:QA:619:U:H2'	1:QA:620:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:648:A:H2'	1:QA:649:G:H8	1.85	0.41
1:QA:684:A:H2'	1:QA:685:G:C8	2.56	0.41
1:QA:955:U:C2'	19:QS:83:HIS:CA	2.95	0.41
1:QA:1238:A:OP1	1:QA:1335:C:O2'	2.35	0.41
1:QA:1240:U:C2'	7:QG:38:LEU:CD1	2.87	0.41
1:QA:1364:U:C1'	21:QU:14:TRP:HZ2	2.34	0.41
1:QA:1407:C:H2'	1:QA:1408:A:C8	2.56	0.41
2:QB:20:GLU:HG3	2:QB:191:ASP:HB2	2.02	0.41
2:QB:231:GLU:HA	2:QB:232:PRO:HD3	1.87	0.41
3:QC:36:ASP:OD1	3:QC:59:ARG:NH2	2.53	0.41
3:QC:79:ARG:CZ	11:XK:104:GLN:CA	2.88	0.41
5:QE:11:ILE:HG21	5:QE:31:LEU:HD23	2.02	0.41
13:QM:40:ASN:HA	13:QM:41:PRO:HD3	1.92	0.41
14:QN:12:ARG:HE	14:QN:14:PRO:HD2	1.86	0.41
25:R1:80:LEU:HD12	25:R1:81:LYS:HB2	2.03	0.41
28:R4:27:THR:HG21	39:RG:62:LEU:HD13	2.03	0.41
32:R8:3:LYS:H	32:R8:3:LYS:HG2	1.71	0.41
34:RA:47:C:H2'	34:RA:48:G:H8	1.86	0.41
34:RA:256:A:H2'	34:RA:257:A:C8	2.56	0.41
34:RA:455:C:N3	34:RA:472:A:H2'	2.36	0.41
34:RA:456:C:C5	52:RX:69:TYR:CE1	3.09	0.41
34:RA:863:A:O2'	35:RB:100:G:N3	2.49	0.41
34:RA:923:C:H2'	34:RA:924:C:C6	2.55	0.41
34:RA:1303:G:H5'	34:RA:1642:G:H21	1.85	0.41
34:RA:1579:A:H2'	34:RA:1580:A:C8	2.55	0.41
34:RA:1793:C:H2'	34:RA:1794:U:C6	2.56	0.41
34:RA:1991:U:H2'	34:RA:1992:G:H5"	2.03	0.41
34:RA:2085:C:H4'	36:RD:262:ARG:NH2	2.35	0.41
34:RA:2134:A:H1'	34:RA:2158:A:N3	2.35	0.41
34:RA:2205:C:O2	34:RA:2226:C:N4	2.54	0.41
34:RA:2385:C:H2'	34:RA:2386:C:C6	2.56	0.41
34:RA:2428:G:O2'	44:RP:56:SER:OG	2.36	0.41
34:RA:2440:C:H2'	34:RA:2441:C:H4'	2.03	0.41
34:RA:2470:G:OP1	45:RQ:56:ARG:NH2	2.48	0.41
34:RA:2470:G:P	45:RQ:56:ARG:HH21	2.43	0.41
34:RA:2497:A:H1'	34:RA:2498:C:H5	1.86	0.41
34:RA:2764:A:H2'	34:RA:2766:G:C8	2.56	0.41
39:RG:141:PHE:HB2	39:RG:144:ILE:HD13	2.03	0.41
40:RH:123:PHE:HD2	40:RH:123:PHE:HA	1.77	0.41
41:RI:14:ASP:HB3	41:RI:15:VAL:H	1.65	0.41
49:RU:39:LEU:HD23	49:RU:39:LEU:HA	1.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:240:C:H2'	1:XA:241:C:C6	2.56	0.41
1:XA:354:G:N3	1:XA:354:G:H2'	2.35	0.41
1:XA:668:G:O2'	15:XO:46:HIS:ND1	2.47	0.41
1:XA:735:C:H2'	1:XA:736:C:C6	2.55	0.41
1:XA:802:A:H3'	1:XA:803:G:H8	1.86	0.41
1:XA:1293:G:H2'	1:XA:1294:G:C8	2.56	0.41
1:XA:1320:C:N4	19:XS:37:ARG:N	2.69	0.41
2:XB:40:HIS:HB2	2:XB:190:THR:HG21	2.01	0.41
12:XL:56:ALA:HB2	12:XL:70:ILE:HD11	2.03	0.41
14:XN:56:VAL:CG1	14:XN:57:ARG:N	2.59	0.41
15:XO:26:GLU:HG3	15:XO:81:LEU:HD22	2.03	0.41
18:XR:30:ASP:OD2	18:XR:33:ASP:N	2.54	0.41
20:XT:18:GLN:HE21	20:XT:22:ARG:NH2	2.19	0.41
28:Y4:31:ILE:HG21	39:YG:142:PRO:HB2	2.03	0.41
34:YA:375:C:H2'	34:YA:376:C:C6	2.56	0.41
34:YA:459:U:H2'	34:YA:460:A:H8	1.85	0.41
34:YA:558:G:H2'	34:YA:559:G:H8	1.85	0.41
34:YA:558:G:P	42:YN:111:PRO:HD2	2.61	0.41
34:YA:632:A:H2'	34:YA:633:A:C8	2.56	0.41
34:YA:665:C:H2'	34:YA:666:G:C8	2.56	0.41
34:YA:748:G:OP1	51:YW:88:ARG:NH2	2.40	0.41
34:YA:923:C:H2'	34:YA:924:C:C6	2.56	0.41
34:YA:1050:A:N7	34:YA:2751:G:N3	2.67	0.41
34:YA:1056:G:H5"	34:YA:1057:A:H5'	2.02	0.41
34:YA:1502:C:H2'	34:YA:1503:U:C6	2.56	0.41
34:YA:1503:U:H2'	34:YA:1504:C:C6	2.56	0.41
34:YA:1510:A:O2'	34:YA:1512:G:N7	2.50	0.41
34:YA:1914:C:H2'	34:YA:1915:U:O4'	2.21	0.41
34:YA:2059:A:C6	34:YA:2503:A:C6	3.05	0.41
34:YA:2134:A:H1'	34:YA:2158:A:C2	2.56	0.41
34:YA:2363:C:H2'	34:YA:2364:C:H6	1.86	0.41
34:YA:2402:C:H1'	34:YA:2403:C:C5	2.50	0.41
34:YA:2413:G:O2'	44:YP:70:GLN:NE2	2.48	0.41
34:YA:2503:A:O2'	34:YA:2505:G:OP2	2.23	0.41
34:YA:2820:A:H1'	46:YR:3:HIS:CE1	2.56	0.41
35:YB:111:U:H2'	35:YB:112:G:H8	1.85	0.41
36:YD:61:LEU:HD23	36:YD:61:LEU:HA	1.94	0.41
37:YE:154:LYS:HD2	37:YE:154:LYS:HA	1.86	0.41
38:YF:157:VAL:HG21	38:YF:181:LEU:HD13	2.03	0.41
40:YH:86:GLU:H	40:YH:86:GLU:HG2	1.51	0.41
44:YP:6:LEU:HD23	44:YP:6:LEU:HA	1.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:YQ:55:VAL:HG13	54:YZ:178:GLU:HB3	2.03	0.41
48:YT:19:LEU:HA	48:YT:20:PRO:HD3	1.91	0.41
52:YX:34:ALA:O	52:YX:77:LYS:NZ	2.54	0.41
52:YX:92:LEU:HD23	52:YX:92:LEU:HA	1.86	0.41
54:YZ:4:ARG:NH1	54:YZ:60:GLU:OE2	2.54	0.41
54:YZ:5:LEU:HB3	54:YZ:6:LYS:H	1.72	0.41
54:YZ:94:GLU:HA	54:YZ:95:PRO:HD2	1.75	0.41
1:QA:10:A:H2'	1:QA:11:G:H8	1.85	0.41
1:QA:65:U:O4'	1:QA:199:G:O2'	2.31	0.41
1:QA:254:G:OP1	17:QQ:67:LYS:O	2.39	0.41
1:QA:411:A:H2'	1:QA:413:G:C8	2.55	0.41
1:QA:692:U:H5'	1:QA:797:C:H5"	2.02	0.41
1:QA:818:G:H1'	1:QA:820:U:C4	2.55	0.41
1:QA:958:A:N7	19:QS:79:THR:HG21	2.36	0.41
1:QA:1026:G:H2'	1:QA:1027:C:O4'	2.20	0.41
1:QA:1080:A:H5'	5:QE:14:ARG:NH2	2.36	0.41
1:QA:1298:C:H6	1:QA:1298:C:H2'	1.55	0.41
3:QC:23:TYR:CD1	10:QJ:10:GLY:HA2	2.56	0.41
12:QL:93:LEU:HA	12:QL:94:PRO:HD3	1.96	0.41
25:R1:86:SER:O	25:R1:88:LYS:N	2.53	0.41
34:RA:713:G:H2'	34:RA:714:U:C6	2.56	0.41
34:RA:795:C:H2'	34:RA:796:C:C6	2.56	0.41
34:RA:1011:G:OP2	49:RU:70:ARG:NH2	2.54	0.41
34:RA:1468:C:H2'	34:RA:1469:A:C8	2.55	0.41
34:RA:1775:U:N3	34:RA:1776:G:H1'	2.36	0.41
34:RA:2345:G:H4'	34:RA:2346:A:H5'	2.03	0.41
36:RD:35:LYS:HB3	36:RD:63:ARG:HA	2.03	0.41
41:RI:143:SER:HB2	41:RI:144:VAL:H	1.64	0.41
44:RP:28:GLY:C	44:RP:30:THR:H	2.24	0.41
47:RS:50:SER:O	47:RS:76:LYS:NZ	2.41	0.41
49:RU:58:ARG:O	49:RU:62:ILE:HG12	2.20	0.41
50:RV:73:SER:OG	50:RV:74:LYS:N	2.53	0.41
54:RZ:24:LEU:HA	54:RZ:25:PRO:HD3	1.92	0.41
1:XA:22:G:H4'	1:XA:885:G:C8	2.56	0.41
1:XA:171:A:H2'	1:XA:172:A:C8	2.56	0.41
1:XA:299:G:H2'	1:XA:300:A:C8	2.56	0.41
1:XA:323:U:H3'	1:XA:324:G:H8	1.84	0.41
1:XA:528:C:N4	12:XL:49:ASN:CG	2.70	0.41
1:XA:1165:C:H2'	1:XA:1166:G:C8	2.55	0.41
1:XA:1314:C:H6	1:XA:1314:C:O5'	2.04	0.41
1:XA:1391:U:H2'	1:XA:1392:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:XJ:90:LEU:HD12	10:XJ:90:LEU:HA	1.90	0.41
19:XS:19:VAL:HA	19:XS:22:LEU:HB2	2.01	0.41
34:YA:709:U:H2'	34:YA:710:G:C8	2.56	0.41
34:YA:881:G:H2'	34:YA:882:G:C8	2.56	0.41
34:YA:1123:C:H2'	34:YA:1124:C:C6	2.56	0.41
34:YA:1252:G:N2	49:YU:33:ARG:HD3	2.36	0.41
34:YA:1836:C:H2'	34:YA:1837:C:C6	2.56	0.41
34:YA:1949:G:H3'	34:YA:1950:G:H21	1.86	0.41
34:YA:2850:A:H3'	34:YA:2851:A:H8	1.86	0.41
46:YR:56:LYS:NZ	46:YR:90:ARG:O	2.53	0.41
48:YT:130:ALA:HA	48:YT:133:GLU:HG2	2.03	0.41
1:QA:296:U:O2'	1:QA:556:C:O2	2.27	0.40
1:QA:542:G:P	4:QD:10:ARG:HH12	2.44	0.40
1:QA:709:G:H2'	1:QA:710:G:O4'	2.22	0.40
1:QA:756:C:H2'	1:QA:757:U:C6	2.56	0.40
1:QA:947:G:H5'	13:QM:109:THR:CG2	2.50	0.40
1:QA:956:U:H5'	19:QS:83:HIS:CA	2.51	0.40
1:QA:986:A:H2'	1:QA:987:G:H8	1.85	0.40
1:QA:996:A:N1	1:QA:1046:A:H1'	2.36	0.40
1:QA:1152:A:H3'	1:QA:1153:C:C6	2.56	0.40
1:QA:1278:U:H4'	1:QA:1279:A:C8	2.56	0.40
1:QA:1409:C:H2'	1:QA:1410:G:H8	1.86	0.40
1:QA:1498:U:H1'	1:QA:1499:A:N7	2.36	0.40
2:QB:167:PRO:O	2:QB:171:ALA:CB	2.67	0.40
13:QM:84:ILE:O	19:QS:74:PHE:CD2	2.57	0.40
20:QT:74:LYS:O	20:QT:76:ALA:N	2.55	0.40
34:RA:271(B):C:O2	34:RA:272:G:H1'	2.20	0.40
34:RA:2469:A:H2	34:RA:2481:G:H21	1.69	0.40
34:RA:2790:A:H2	34:RA:2791:C:H2'	1.86	0.40
34:RA:2820:A:C5	46:RR:4:LEU:HD12	2.56	0.40
35:RB:15:A:OP2	35:RB:69:G:N2	2.54	0.40
37:RE:144:ARG:HB3	37:RE:145:LYS:H	1.66	0.40
40:RH:126:PRO:HD2	40:RH:131:VAL:HA	2.03	0.40
44:RP:144:GLU:HA	44:RP:145:PRO:HD3	1.83	0.40
49:RU:34:LYS:HA	49:RU:34:LYS:HD3	1.72	0.40
1:XA:17:U:H2'	1:XA:18:C:C6	2.56	0.40
1:XA:864:A:H2	1:XA:918:A:H1'	1.86	0.40
1:XA:1241:G:H2'	1:XA:1242:C:C6	2.56	0.40
1:XA:1305:G:H2'	1:XA:1331:G:H21	1.74	0.40
10:XJ:5:ARG:N	10:XJ:99:LYS:O	2.54	0.40
11:XK:109:VAL:HG13	18:XR:86:VAL:HB	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:XP:72:ARG:HA	16:XP:75:ARG:HG2	2.03	0.40
34:YA:71:A:H5"	34:YA:72:U:H3'	2.02	0.40
34:YA:363(D):G:H2'	34:YA:363(E):G:H8	1.85	0.40
34:YA:1128:A:N6	34:YA:2518:A:C6	2.89	0.40
34:YA:1166:C:H2'	34:YA:1167:U:C6	2.56	0.40
34:YA:1174:A:H61	55:YA:3192:MG:MG	1.10	0.40
34:YA:1781:C:H4'	34:YA:1782:C:C5'	2.51	0.40
34:YA:2090:G:N3	34:YA:2230:G:C2	2.89	0.40
34:YA:2859:G:H2'	34:YA:2860:A:C8	2.56	0.40
36:YD:172:TYR:HB3	36:YD:184:LYS:HG2	2.04	0.40
37:YE:12:THR:HG23	37:YE:13:ARG:N	2.36	0.40
38:YF:116:ASP:OD1	38:YF:119:ARG:NH2	2.52	0.40
41:YI:143:SER:HB2	41:YI:144:VAL:H	1.60	0.40
43:YO:71:ARG:HH21	43:YO:77:ILE:HG21	1.86	0.40
1:QA:28:G:H2'	1:QA:296:U:H5"	2.02	0.40
1:QA:385:C:H2'	1:QA:386:C:C6	2.55	0.40
1:QA:665:A:N3	1:QA:732:C:H2'	2.36	0.40
1:QA:767:A:H1'	1:QA:1525:G:H1'	2.02	0.40
1:QA:968:A:N3	1:QA:1197:G:H1'	2.37	0.40
1:QA:980:C:H1'	14:QN:19:ARG:HG2	0.41	0.40
1:QA:1051:C:H2'	1:QA:1052:U:C2	2.57	0.40
1:QA:1107:C:H5"	3:QC:173:VAL:N	2.32	0.40
1:QA:1221:G:OP1	1:QA:1321:C:N4	2.54	0.40
1:QA:1431:C:H2'	1:QA:1432:G:O4'	2.21	0.40
4:QD:205:GLU:CD	5:QE:107:ARG:NH1	2.74	0.40
12:QL:32:PHE:HB3	12:QL:84:LEU:HD21	2.03	0.40
17:QQ:75:ARG:HA	17:QQ:75:ARG:HD2	1.88	0.40
24:R0:60:PHE:CZ	34:RA:2365:G:H4'	2.56	0.40
34:RA:234:C:H2'	34:RA:235:U:H6	1.86	0.40
34:RA:997:G:O5'	49:RU:58:ARG:NH1	2.55	0.40
34:RA:1050:A:H2'	34:RA:1051:G:O4'	2.21	0.40
34:RA:2011:U:H2'	34:RA:2012:G:O4'	2.20	0.40
36:RD:134:ARG:N	36:RD:187:GLY:O	2.54	0.40
40:RH:102:ALA:HA	40:RH:117:PRO:HD3	2.03	0.40
40:RH:103:LEU:O	40:RH:114:VAL:HA	2.22	0.40
1:XA:136:C:H42	1:XA:227:G:H1	1.68	0.40
1:XA:373:A:C2'	1:XA:374:A:H5'	2.52	0.40
1:XA:1019:C:H2'	1:XA:1020:U:C6	2.56	0.40
1:XA:1051:C:H2'	1:XA:1052:U:C6	2.56	0.40
1:XA:1300:G:N1	1:XA:1334:G:C6	2.89	0.40
2:XB:134:GLU:HG3	2:XB:137:ARG:NE	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:XB:188:ALA:HB1	2:XB:192:SER:HB3	2.03	0.40
4:XD:170:VAL:HB	4:XD:174:LEU:HD12	2.02	0.40
13:XM:26:GLY:O	13:XM:30:ALA:HB2	2.20	0.40
23:XX:8:A:H2'	23:XX:9:G:C8	2.55	0.40
24:Y0:23:VAL:HA	24:Y0:38:VAL:HG12	2.03	0.40
27:Y3:17:LYS:HB2	27:Y3:17:LYS:HE3	1.88	0.40
34:YA:452:G:N2	34:YA:457:A:O2'	2.55	0.40
34:YA:601:C:H2'	34:YA:602:G:O4'	2.21	0.40
34:YA:620:G:H4'	34:YA:621:A:H5'	2.03	0.40
34:YA:797:C:H2'	34:YA:798:G:C8	2.57	0.40
34:YA:839:U:H2'	34:YA:840:C:H6	1.85	0.40
34:YA:844:C:H3'	34:YA:845:G:H8	1.87	0.40
34:YA:849:A:H61	34:YA:929:G:H1'	1.86	0.40
34:YA:1080:C:H2'	34:YA:1081:U:H6	1.86	0.40
34:YA:1087:G:C8	34:YA:1089:G:H1'	2.56	0.40
34:YA:1158:C:H2'	34:YA:1159:U:C6	2.57	0.40
34:YA:1169:G:H2'	34:YA:1170:G:O4'	2.21	0.40
34:YA:2091:U:H2'	34:YA:2092:U:C5	2.57	0.40
34:YA:2537:U:H2'	34:YA:2538:C:C6	2.55	0.40
35:YB:5:C:O2'	35:YB:27:C:O2	2.39	0.40
40:YH:115:VAL:HG21	40:YH:148:ILE:HD11	2.02	0.40
48:YT:80:SER:HA	48:YT:81:PRO:HD3	1.95	0.40
48:YT:96:ARG:HE	48:YT:96:ARG:HB3	1.72	0.40
53:YY:12:THR:HA	53:YY:26:LYS:HA	2.03	0.40
54:YZ:14:LYS:HA	54:YZ:15:PRO:HD3	1.93	0.40
1:QA:95:G:H2'	1:QA:96:G:C8	2.56	0.40
1:QA:728:A:H2'	1:QA:729:A:C8	2.57	0.40
1:QA:741:G:H4'	15:QO:55:GLY:HA3	2.02	0.40
1:QA:955:U:C2'	19:QS:83:HIS:HA	2.52	0.40
1:QA:1049:U:H5"	1:QA:1050:G:C8	2.55	0.40
1:QA:1123:A:C1'	10:QJ:37:PRO:HD2	2.50	0.40
3:QC:56:ASP:HB3	3:QC:67:THR:HG23	2.02	0.40
9:QI:25:LYS:O	9:QI:60:ASP:HA	2.21	0.40
24:R0:43:THR:HG21	34:RA:2336:A:H61	1.85	0.40
34:RA:151:C:H2'	34:RA:152:G:H8	1.86	0.40
34:RA:486:C:H2'	34:RA:487:C:C6	2.56	0.40
34:RA:519:U:H2'	34:RA:520:G:C8	2.56	0.40
34:RA:729:G:P	36:RD:208:LYS:HZ3	2.45	0.40
34:RA:1186:G:H2'	34:RA:1187:G:O4'	2.21	0.40
34:RA:1561:G:H2'	34:RA:1562:A:C8	2.56	0.40
34:RA:1808:U:H2'	34:RA:1809:A:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:2348:U:H2'	34:RA:2349:G:C8	2.56	0.40
47:RS:59:LYS:HA	47:RS:59:LYS:HD2	1.94	0.40
53:RY:47:LYS:HA	53:RY:47:LYS:HD2	1.94	0.40
1:XA:68(A):G:H22	1:XA:101:A:H2	1.68	0.40
1:XA:225:C:H2'	1:XA:226:G:C8	2.56	0.40
1:XA:418:C:H2'	1:XA:419:C:H6	1.85	0.40
1:XA:707:C:H2'	1:XA:708:C:C6	2.56	0.40
1:XA:922:G:H1'	5:XE:19:MET:CB	2.50	0.40
1:XA:1035:A:H2'	1:XA:1036:G:H8	1.87	0.40
1:XA:1101:A:N3	1:XA:1102:A:H1'	2.37	0.40
1:XA:1118:C:H2'	1:XA:1119:C:C6	2.56	0.40
1:XA:1302:U:O2	13:XM:27:LYS:HE2	2.21	0.40
1:XA:1320:C:N4	19:XS:37:ARG:CA	2.60	0.40
1:XA:1359:C:H4'	1:XA:1362(A):C:H42	1.86	0.40
8:XH:34:GLU:O	8:XH:38:ILE:HG12	2.22	0.40
11:XK:51:LYS:HE2	11:XK:51:LYS:HB2	1.93	0.40
12:XL:70:ILE:HG13	12:XL:100:ILE:HG13	2.03	0.40
34:YA:38:A:H2'	34:YA:39:C:C6	2.57	0.40
34:YA:238:C:H1'	34:YA:609(A):A:H1'	2.03	0.40
34:YA:797:C:H2'	34:YA:798:G:H8	1.86	0.40
34:YA:887:A:H1'	34:YA:889:C:C5	2.56	0.40
34:YA:2292:C:H2'	34:YA:2293:C:C6	2.56	0.40
39:YG:95:ARG:HB3	39:YG:96:ARG:H	1.70	0.40
43:YO:67:LYS:HD2	43:YO:67:LYS:HA	1.87	0.40
50:YV:69:LYS:HA	50:YV:87:HIS:O	2.21	0.40
54:YZ:178:GLU:HB3	54:YZ:179:ASP:H	1.60	0.40
1:QA:44:G:OP1	16:QP:12:LYS:CD	2.64	0.40
1:QA:107:G:H4'	1:QA:378:G:H4'	2.02	0.40
1:QA:477:G:H2'	1:QA:478:A:C8	2.56	0.40
1:QA:668:G:O4'	15:QO:48:LYS:O	2.39	0.40
1:QA:1002:G:H3'	1:QA:1003:G:H8	1.85	0.40
1:QA:1179:A:H2'	1:QA:1180:A:H8	1.87	0.40
1:QA:1281:U:H5"	1:QA:1282:C:H5	1.87	0.40
1:QA:1285:A:N1	1:QA:1354:C:O2'	2.54	0.40
1:QA:1485:U:H2'	1:QA:1486:G:C8	2.55	0.40
2:QB:208:ILE:HA	2:QB:211:ILE:HG12	2.03	0.40
3:QC:12:LEU:HG	3:QC:18:TRP:NE1	2.36	0.40
10:QJ:14:LYS:HD3	10:QJ:15:THR:HG23	2.02	0.40
16:QP:14:ASN:OD1	16:QP:16:HIS:NE2	2.54	0.40
34:RA:67:U:H2'	34:RA:68:G:H8	1.87	0.40
34:RA:413:C:H2'	34:RA:414:C:H6	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RA:741:G:H2'	34:RA:742:G:C8	2.56	0.40
34:RA:817:C:O2'	34:RA:932:G:N2	2.55	0.40
34:RA:1031:G:H2'	34:RA:1032:A:C8	2.57	0.40
34:RA:1556:C:H2'	34:RA:1557:C:C6	2.57	0.40
34:RA:1853:A:N1	34:RA:2087:G:H1'	2.36	0.40
34:RA:2019:A:H2	34:RA:2035:G:H22	1.68	0.40
34:RA:2453:A:H2'	34:RA:2454:G:C8	2.45	0.40
34:RA:2463:C:H2'	34:RA:2464:C:C6	2.56	0.40
34:RA:2767:C:H2'	34:RA:2768:C:C6	2.57	0.40
39:RG:132:ASN:HD22	39:RG:158:ALA:HA	1.86	0.40
46:RR:3:HIS:HB3	46:RR:4:LEU:H	1.64	0.40
53:RY:67:LEU:HD23	53:RY:67:LEU:HA	1.96	0.40
1:XA:162:A:N7	1:XA:163:C:H1'	2.36	0.40
1:XA:200:G:H2'	1:XA:201(A):C:O4'	2.22	0.40
1:XA:254:G:H5'	17:XQ:66:SER:CB	2.51	0.40
1:XA:280:C:N4	17:XQ:39:SER:H	2.15	0.40
1:XA:1424:C:H2'	1:XA:1425:U:H6	1.86	0.40
1:XA:1437:C:H2'	1:XA:1438:G:C8	2.57	0.40
10:XJ:48:THR:HG22	10:XJ:60:ARG:HD2	2.02	0.40
14:XN:7:ILE:HG22	14:XN:23:ARG:HE	1.87	0.40
14:XN:47:LEU:HA	14:XN:47:LEU:HD23	1.86	0.40
24:Y0:70:GLN:HG2	24:Y0:72:ARG:HG2	2.03	0.40
29:Y5:46:CYS:HB3	29:Y5:49:CYS:HB3	2.03	0.40
34:YA:390:A:C6	44:YP:71:VAL:HG21	2.57	0.40
34:YA:642:G:H21	34:YA:646:A:H2	1.69	0.40
34:YA:862:G:H2'	34:YA:863:A:O4'	2.20	0.40
34:YA:1689:A:H2'	34:YA:1690:A:C8	2.56	0.40
34:YA:1754:C:H5"	48:YT:113:LYS:HD3	2.03	0.40
34:YA:1820:U:N3	36:YD:202:LYS:HD2	2.37	0.40
34:YA:1830:C:H2'	34:YA:1831:G:H8	1.87	0.40
34:YA:1836:C:H2'	34:YA:1837:C:H6	1.86	0.40
34:YA:2043:C:H42	34:YA:2625:G:H1	1.69	0.40
34:YA:2096:U:C2	34:YA:2194:G:C2	3.10	0.40
34:YA:2122:U:H2'	34:YA:2123:G:C8	2.57	0.40
38:YF:195:ASP:OD1	38:YF:195:ASP:N	2.47	0.40
50:YV:100:ARG:HE	50:YV:100:ARG:HB2	1.70	0.40
53:YY:39:VAL:HG23	53:YY:42:VAL:HB	2.02	0.40
54:YZ:24:LEU:HA	54:YZ:25:PRO:HD3	1.87	0.40
54:YZ:128:VAL:HG22	54:YZ:161:VAL:HG22	2.03	0.40
1:QA:277:C:P	17:QQ:68:ARG:HH21	2.44	0.40
1:QA:343:U:H1'	1:QA:347:G:N2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:390:C:H2'	1:QA:391:G:C8	2.57	0.40
1:QA:450:G:H5"	1:QA:451:A:H3'	2.04	0.40
1:QA:912:C:H2'	1:QA:913:A:C8	2.56	0.40
1:QA:957:U:P	19:QS:80:TYR:O	2.77	0.40
1:QA:1229:A:H2'	1:QA:1230:C:C6	2.56	0.40
1:QA:1329:A:OP1	13:QM:29:ARG:HD3	2.22	0.40
2:QB:75:LYS:HA	2:QB:75:LYS:HD3	1.83	0.40
4:QD:88:VAL:CG1	5:QE:97:GLY:HA3	2.47	0.40
31:R7:7:PRO:HB2	34:RA:1309:G:H4'	2.04	0.40
32:R8:27:THR:HA	44:RP:62:LEU:HD22	2.04	0.40
33:R9:29:ASN:HA	33:R9:30:PRO:HD3	1.93	0.40
34:RA:151:C:H2'	34:RA:152:G:C8	2.57	0.40
34:RA:969:U:H2'	34:RA:970:C:C6	2.56	0.40
34:RA:1464:C:H2'	34:RA:1465:G:C8	2.57	0.40
34:RA:1509:C:H2'	34:RA:1511:A:C8	2.57	0.40
34:RA:1853:A:N3	34:RA:2233:U:O2'	2.49	0.40
34:RA:2145:C:H2'	34:RA:2147:G:C2	2.56	0.40
34:RA:2405:G:H1'	34:RA:2412:A:H61	1.87	0.40
41:RI:40:THR:OG1	41:RI:41:GLU:N	2.55	0.40
44:RP:64:LYS:O	44:RP:66:GLY:N	2.55	0.40
45:RQ:30:GLY:HA2	45:RQ:107:ALA:HB2	2.03	0.40
48:RT:52:ILE:HG13	48:RT:61:PHE:HB3	2.02	0.40
1:XA:59:A:H3'	1:XA:331:G:N2	2.33	0.40
1:XA:293:G:H5'	1:XA:610:G:H21	1.86	0.40
1:XA:690:G:H1'	1:XA:698:G:N2	2.36	0.40
1:XA:767:A:H1'	1:XA:1525:G:H1'	2.02	0.40
1:XA:860:A:H3'	1:XA:861:G:C8	2.54	0.40
1:XA:969:A:O2'	10:XJ:55:LYS:NZ	2.44	0.40
1:XA:978:A:HO2'	1:XA:1322:C:N4	2.19	0.40
1:XA:1114:C:H2'	1:XA:1115:C:C6	2.56	0.40
1:XA:1275:A:H2'	1:XA:1276:G:O4'	2.22	0.40
1:XA:1302:U:H1'	13:XM:27:LYS:HE2	0.96	0.40
1:XA:1332:A:H3'	1:XA:1333:A:H8	1.87	0.40
4:XD:202:LEU:HA	4:XD:205:GLU:HB2	2.03	0.40
6:XF:7:ASN:HD21	18:XR:35:ARG:CZ	2.34	0.40
8:XH:81:HIS:ND1	8:XH:138:TRP:O	2.33	0.40
22:XV:19:G:C8	34:YA:2112:G:N7	2.88	0.40
25:Y1:41:ARG:NH2	34:YA:1365:A:O5'	2.40	0.40
34:YA:197:A:C6	34:YA:2430:A:C2	3.08	0.40
34:YA:270(S):G:H2'	34:YA:270(T):G:C8	2.56	0.40
34:YA:363(F):U:H3'	34:YA:363(G):A:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YA:594:U:H2'	34:YA:595:C:C6	2.56	0.40
34:YA:1456:G:C2	34:YA:2704:C:N3	2.89	0.40
34:YA:1656:C:H2'	34:YA:1657:C:C6	2.55	0.40
34:YA:1869:G:H5'	34:YA:1870:C:OP2	2.22	0.40
34:YA:2053:G:N2	34:YA:2617:C:N3	2.69	0.40
34:YA:2065:C:H2'	34:YA:2066:C:C6	2.55	0.40
34:YA:2429:G:N7	44:YP:56:SER:OG	2.35	0.40
34:YA:2591:C:H2'	34:YA:2592:G:C8	2.56	0.40
34:YA:2746:U:O4	34:YA:2755:C:H4'	2.21	0.40
34:YA:2820:A:C6	46:YR:4:LEU:CD1	3.04	0.40
36:YD:175:LEU:O	36:YD:182:LEU:HA	2.22	0.40
39:YG:47:LYS:HD3	39:YG:81:LYS:HB2	2.04	0.40
42:YN:34:LEU:O	42:YN:49:GLY:HA3	2.21	0.40

All (35) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:QG:149:ARG:NE	3:XC:81:GLY:O[4_555]	0.51	1.69
7:QG:149:ARG:NH1	3:XC:85:ARG:N[4_555]	1.02	1.18
7:QG:149:ARG:NH1	3:XC:85:ARG:CA[4_555]	1.16	1.04
7:QG:149:ARG:CZ	3:XC:85:ARG:N[4_555]	1.35	0.85
7:QG:149:ARG:NH1	3:XC:85:ARG:CB[4_555]	1.52	0.68
7:QG:149:ARG:NH2	3:XC:84:ILE:CA[4_555]	1.62	0.58
7:QG:149:ARG:NE	3:XC:81:GLY:C[4_555]	1.67	0.53
7:QG:149:ARG:CZ	3:XC:81:GLY:O[4_555]	1.67	0.53
7:QG:149:ARG:CD	3:XC:81:GLY:O[4_555]	1.70	0.50
7:QG:149:ARG:NH2	3:XC:85:ARG:N[4_555]	1.70	0.50
29:Y5:60:VAL:O	50:YV:49:THR:OG1[4_545]	1.72	0.48
7:QG:149:ARG:O	3:XC:80:GLY:O[4_555]	1.75	0.45
7:QG:149:ARG:NH2	3:XC:84:ILE:C[4_555]	1.77	0.43
9:QI:98:PRO:CB	10:XJ:79:ARG:NH1[4_555]	1.78	0.42
9:QI:98:PRO:CB	10:XJ:79:ARG:CZ[4_555]	1.81	0.39
7:QG:149:ARG:NH2	3:XC:84:ILE:N[4_555]	1.82	0.38
7:QG:149:ARG:NH2	3:XC:84:ILE:CG2[4_555]	1.83	0.37
36:RD:134:ARG:NH1	4:XD:163:GLU:O[4_555]	1.89	0.31
6:QF:20:ALA:CB	4:XD:195:ALA:CB[4_555]	1.92	0.28
9:QI:98:PRO:CA	10:XJ:79:ARG:NH1[4_555]	1.96	0.24
27:R3:3:ARG:NH2	44:YP:137:LYS:NZ[3_455]	1.96	0.24
6:QF:14:LEU:C	4:XD:20:TYR:OH[4_555]	1.98	0.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:QF:14:LEU:O	4:XD:20:TYR:OH[4_555]	1.98	0.22
9:QI:98:PRO:O	10:XJ:79:ARG:NH1[4_555]	1.99	0.21
7:QG:149:ARG:CD	3:XC:85:ARG:CG[4_555]	2.01	0.19
7:QG:149:ARG:NH2	3:XC:84:ILE:CB[4_555]	2.01	0.19
9:QI:98:PRO:C	10:XJ:79:ARG:NH1[4_555]	2.05	0.15
36:RD:135:PHE:CE1	4:XD:167:GLY:CA[4_555]	2.07	0.13
26:R2:34:GLU:OE1	34:YA:277:C:O2[3_555]	2.14	0.06
6:QF:15:ASP:CB	4:XD:20:TYR:CD2[4_555]	2.17	0.03
27:R3:60:GLU:O	44:YP:119:GLU:OE2[3_455]	2.17	0.03
9:QI:98:PRO:CB	10:XJ:79:ARG:NH2[4_555]	2.18	0.02
6:QF:14:LEU:CA	4:XD:20:TYR:OH[4_555]	2.19	0.01
7:QG:149:ARG:NH1	3:XC:85:ARG:CG[4_555]	2.19	0.01
7:QG:149:ARG:CD	3:XC:81:GLY:C[4_555]	2.19	0.01

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 X-ray entries followed by that with respect to entries of similar resolution.

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	
2	QB	233/256 (91%)	206 (88%)	27 (12%)	0	100	100
2	XB	234/256 (91%)	202 (86%)	31 (13%)	1 (0%)	30	67
3	QC	203/239 (85%)	180 (89%)	23 (11%)	0	100	100
3	XC	203/239 (85%)	182 (90%)	21 (10%)	0	100	100
4	QD	206/209 (99%)	195 (95%)	10 (5%)	1 (0%)	25	62
4	XD	206/209 (99%)	194 (94%)	11 (5%)	1 (0%)	25	62
5	QE	149/162 (92%)	134 (90%)	14 (9%)	1 (1%)	19	56
5	XE	149/162 (92%)	140 (94%)	8 (5%)	1 (1%)	19	56
6	QF	99/101 (98%)	96 (97%)	3 (3%)	0	100	100
6	XF	99/101 (98%)	98 (99%)	1 (1%)	0	100	100
7	QG	153/156 (98%)	145 (95%)	8 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	XG	153/156 (98%)	142 (93%)	11 (7%)	0	100	100
8	QH	135/138 (98%)	127 (94%)	8 (6%)	0	100	100
8	XH	135/138 (98%)	126 (93%)	9 (7%)	0	100	100
9	QI	103/128 (80%)	91 (88%)	12 (12%)	0	100	100
9	XI	105/128 (82%)	97 (92%)	8 (8%)	0	100	100
10	QJ	97/105 (92%)	88 (91%)	8 (8%)	1 (1%)	13	47
10	XJ	94/105 (90%)	87 (93%)	5 (5%)	2 (2%)	5	32
11	QK	117/129 (91%)	108 (92%)	9 (8%)	0	100	100
11	XK	114/129 (88%)	104 (91%)	10 (9%)	0	100	100
12	QL	123/132 (93%)	98 (80%)	24 (20%)	1 (1%)	16	53
12	XL	120/132 (91%)	99 (82%)	21 (18%)	0	100	100
13	QM	113/126 (90%)	96 (85%)	16 (14%)	1 (1%)	14	50
13	XM	112/126 (89%)	100 (89%)	11 (10%)	1 (1%)	14	50
14	QN	58/61 (95%)	50 (86%)	7 (12%)	1 (2%)	7	37
14	XN	58/61 (95%)	49 (84%)	7 (12%)	2 (3%)	3	24
15	QO	86/89 (97%)	80 (93%)	6 (7%)	0	100	100
15	XO	85/89 (96%)	81 (95%)	4 (5%)	0	100	100
16	QP	82/88 (93%)	76 (93%)	6 (7%)	0	100	100
16	XP	82/88 (93%)	78 (95%)	4 (5%)	0	100	100
17	QQ	98/105 (93%)	91 (93%)	7 (7%)	0	100	100
17	XQ	98/105 (93%)	94 (96%)	4 (4%)	0	100	100
18	QR	68/88 (77%)	66 (97%)	2 (3%)	0	100	100
18	XR	68/88 (77%)	66 (97%)	2 (3%)	0	100	100
19	QS	81/93 (87%)	66 (82%)	15 (18%)	0	100	100
19	XS	82/93 (88%)	65 (79%)	17 (21%)	0	100	100
20	QT	97/106 (92%)	86 (89%)	8 (8%)	3 (3%)	3	25
20	XT	97/106 (92%)	84 (87%)	10 (10%)	3 (3%)	3	25
21	QU	23/27 (85%)	21 (91%)	2 (9%)	0	100	100
21	XU	23/27 (85%)	23 (100%)	0	0	100	100
24	R0	79/85 (93%)	71 (90%)	8 (10%)	0	100	100
24	Y0	80/85 (94%)	75 (94%)	5 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
25	R1	93/98 (95%)	76 (82%)	17 (18%)	0	100 100
25	Y1	91/98 (93%)	78 (86%)	12 (13%)	1 (1%)	12 45
26	R2	67/72 (93%)	63 (94%)	4 (6%)	0	100 100
26	Y2	66/72 (92%)	64 (97%)	2 (3%)	0	100 100
27	R3	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
27	Y3	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
28	R4	43/71 (61%)	41 (95%)	2 (5%)	0	100 100
28	Y4	44/71 (62%)	28 (64%)	12 (27%)	4 (9%)	0 10
29	R5	57/60 (95%)	49 (86%)	7 (12%)	1 (2%)	7 35
29	Y5	57/60 (95%)	49 (86%)	7 (12%)	1 (2%)	7 35
30	R6	51/54 (94%)	46 (90%)	5 (10%)	0	100 100
30	Y6	51/54 (94%)	49 (96%)	2 (4%)	0	100 100
31	R7	45/49 (92%)	43 (96%)	2 (4%)	0	100 100
31	Y7	46/49 (94%)	45 (98%)	1 (2%)	0	100 100
32	R8	62/65 (95%)	51 (82%)	9 (14%)	2 (3%)	3 25
32	Y8	62/65 (95%)	48 (77%)	14 (23%)	0	100 100
33	R9	35/37 (95%)	33 (94%)	2 (6%)	0	100 100
33	Y9	35/37 (95%)	33 (94%)	2 (6%)	0	100 100
36	RD	270/276 (98%)	244 (90%)	24 (9%)	2 (1%)	19 56
36	YD	270/276 (98%)	241 (89%)	28 (10%)	1 (0%)	30 67
37	RE	203/206 (98%)	159 (78%)	39 (19%)	5 (2%)	4 29
37	YE	203/206 (98%)	162 (80%)	39 (19%)	2 (1%)	13 47
38	RF	200/210 (95%)	183 (92%)	15 (8%)	2 (1%)	13 47
38	YF	200/210 (95%)	183 (92%)	16 (8%)	1 (0%)	25 62
39	RG	179/182 (98%)	150 (84%)	28 (16%)	1 (1%)	22 59
39	YG	179/182 (98%)	152 (85%)	27 (15%)	0	100 100
40	RH	172/180 (96%)	145 (84%)	24 (14%)	3 (2%)	7 37
40	YH	172/180 (96%)	147 (86%)	21 (12%)	4 (2%)	5 31
41	RI	144/148 (97%)	114 (79%)	24 (17%)	6 (4%)	2 21
41	YI	144/148 (97%)	118 (82%)	22 (15%)	4 (3%)	4 27
42	RN	136/140 (97%)	122 (90%)	13 (10%)	1 (1%)	19 56

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
42	YN	136/140 (97%)	123 (90%)	12 (9%)	1 (1%)	19 56
43	RO	120/122 (98%)	109 (91%)	11 (9%)	0	100 100
43	YO	120/122 (98%)	112 (93%)	8 (7%)	0	100 100
44	RP	148/150 (99%)	114 (77%)	31 (21%)	3 (2%)	6 34
44	YP	145/150 (97%)	116 (80%)	28 (19%)	1 (1%)	19 56
45	RQ	139/141 (99%)	120 (86%)	18 (13%)	1 (1%)	19 56
45	YQ	139/141 (99%)	111 (80%)	27 (19%)	1 (1%)	19 56
46	RR	115/118 (98%)	103 (90%)	12 (10%)	0	100 100
46	YR	115/118 (98%)	104 (90%)	10 (9%)	1 (1%)	14 50
47	RS	109/112 (97%)	95 (87%)	14 (13%)	0	100 100
47	YS	109/112 (97%)	95 (87%)	13 (12%)	1 (1%)	14 50
48	RT	135/146 (92%)	116 (86%)	19 (14%)	0	100 100
48	YT	135/146 (92%)	121 (90%)	14 (10%)	0	100 100
49	RU	115/118 (98%)	106 (92%)	6 (5%)	3 (3%)	4 29
49	YU	115/118 (98%)	109 (95%)	6 (5%)	0	100 100
50	RV	99/101 (98%)	87 (88%)	11 (11%)	1 (1%)	13 47
50	YV	99/101 (98%)	90 (91%)	8 (8%)	1 (1%)	13 47
51	RW	111/113 (98%)	104 (94%)	7 (6%)	0	100 100
51	YW	111/113 (98%)	107 (96%)	4 (4%)	0	100 100
52	RX	90/96 (94%)	85 (94%)	5 (6%)	0	100 100
52	YX	90/96 (94%)	84 (93%)	6 (7%)	0	100 100
53	RY	105/110 (96%)	102 (97%)	3 (3%)	0	100 100
53	YY	105/110 (96%)	99 (94%)	6 (6%)	0	100 100
54	RZ	181/206 (88%)	139 (77%)	38 (21%)	4 (2%)	5 32
54	YZ	191/206 (93%)	145 (76%)	39 (20%)	7 (4%)	2 23
All	All	11368/12128 (94%)	10080 (89%)	1202 (11%)	86 (1%)	16 53

All (86) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
12	QL	105	TYR
20	QT	75	ASN
32	R8	30	ARG

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Mol	Chain	Res	Type
37	RE	147	PRO
40	RH	157	TYR
41	RI	11	ASN
44	RP	108	LYS
49	RU	91	ASP
49	RU	92	ARG
54	RZ	53	ILE
4	XD	156	GLU
20	XT	74	LYS
20	XT	75	ASN
28	Y4	24	THR
37	YE	147	PRO
40	YH	157	TYR
44	YP	108	LYS
50	YV	50	PRO
54	YZ	53	ILE
54	YZ	182	LYS
14	QN	17	LYS
32	R8	29	LYS
36	RD	243	GLY
39	RG	81	LYS
40	RH	126	PRO
41	RI	132	PRO
42	RN	22	THR
44	RP	22	GLY
49	RU	90	VAL
54	RZ	167	PRO
14	XN	57	ARG
36	YD	243	GLY
40	YH	47	GLU
41	YI	122	GLU
41	YI	132	PRO
47	YS	110	LEU
54	YZ	60	GLU
54	YZ	167	PRO
20	QT	74	LYS
36	RD	242	ARG
37	RE	130	GLY
38	RF	67	GLN
38	RF	129	PHE
10	XJ	37	PRO
14	XN	56	VAL

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Mol	Chain	Res	Type
28	Y4	5	ILE
38	YF	129	PHE
46	YR	4	LEU
10	QJ	55	LYS
29	R5	49	CYS
37	RE	17	ASP
37	RE	83	ASP
41	RI	10	GLU
41	RI	122	GLU
44	RP	29	LYS
54	RZ	52	SER
54	RZ	63	ASP
10	XJ	40	LEU
13	XM	7	VAL
20	XT	73	HIS
28	Y4	40	HIS
40	YH	152	ARG
41	YI	15	VAL
54	YZ	183	LEU
20	QT	98	PRO
37	RE	82	ARG
40	RH	156	ALA
50	RV	53	GLU
5	XE	74	GLY
40	YH	156	ALA
42	YN	22	THR
54	YZ	61	LEU
4	QD	156	GLU
13	QM	13	LYS
41	RI	15	VAL
25	Y1	54	ALA
29	Y5	49	CYS
37	YE	54	GLN
45	YQ	7	MET
54	YZ	94	GLU
5	QE	74	GLY
2	XB	208	ILE
28	Y4	4	GLY
45	RQ	78	PRO
41	YI	133	HIS
41	RI	119	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 X-ray entries followed by that with respect to entries of similar resolution.

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	
2	QB	203/220 (92%)	200 (98%)	3 (2%)	60	75
2	XB	204/220 (93%)	204 (100%)	0	100	100
3	QC	159/188 (85%)	157 (99%)	2 (1%)	65	77
3	XC	159/188 (85%)	157 (99%)	2 (1%)	65	77
4	QD	180/181 (99%)	179 (99%)	1 (1%)	84	88
4	XD	180/181 (99%)	178 (99%)	2 (1%)	70	80
5	QE	116/123 (94%)	116 (100%)	0	100	100
5	XE	116/123 (94%)	115 (99%)	1 (1%)	75	83
6	QF	90/90 (100%)	90 (100%)	0	100	100
6	XF	90/90 (100%)	89 (99%)	1 (1%)	70	80
7	QG	126/127 (99%)	126 (100%)	0	100	100
7	XG	126/127 (99%)	126 (100%)	0	100	100
8	QH	118/119 (99%)	117 (99%)	1 (1%)	79	84
8	XH	118/119 (99%)	118 (100%)	0	100	100
9	QI	79/99 (80%)	77 (98%)	2 (2%)	42	62
9	XI	81/99 (82%)	80 (99%)	1 (1%)	67	79
10	QJ	89/92 (97%)	89 (100%)	0	100	100
10	XJ	86/92 (94%)	84 (98%)	2 (2%)	45	64
11	QK	90/99 (91%)	89 (99%)	1 (1%)	70	80
11	XK	88/99 (89%)	87 (99%)	1 (1%)	70	80
12	QL	104/109 (95%)	104 (100%)	0	100	100
12	XL	103/109 (94%)	100 (97%)	3 (3%)	37	58
13	QM	93/101 (92%)	93 (100%)	0	100	100
13	XM	92/101 (91%)	92 (100%)	0	100	100
14	QN	49/50 (98%)	48 (98%)	1 (2%)	50	68
14	XN	49/50 (98%)	47 (96%)	2 (4%)	26	49

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
15	QO	79/80 (99%)	77 (98%)	2 (2%)	42 62
15	XO	79/80 (99%)	79 (100%)	0	100 100
16	QP	72/74 (97%)	72 (100%)	0	100 100
16	XP	72/74 (97%)	72 (100%)	0	100 100
17	QQ	95/97 (98%)	95 (100%)	0	100 100
17	XQ	95/97 (98%)	93 (98%)	2 (2%)	48 66
18	QR	61/77 (79%)	61 (100%)	0	100 100
18	XR	61/77 (79%)	61 (100%)	0	100 100
19	QS	72/80 (90%)	72 (100%)	0	100 100
19	XS	73/80 (91%)	73 (100%)	0	100 100
20	QT	76/82 (93%)	75 (99%)	1 (1%)	65 77
20	XT	76/82 (93%)	76 (100%)	0	100 100
21	QU	20/22 (91%)	19 (95%)	1 (5%)	20 44
21	XU	20/22 (91%)	19 (95%)	1 (5%)	20 44
24	R0	65/67 (97%)	64 (98%)	1 (2%)	60 75
24	Y0	65/67 (97%)	65 (100%)	0	100 100
25	R1	80/83 (96%)	78 (98%)	2 (2%)	42 62
25	Y1	78/83 (94%)	78 (100%)	0	100 100
26	R2	64/67 (96%)	64 (100%)	0	100 100
26	Y2	64/67 (96%)	63 (98%)	1 (2%)	58 74
27	R3	51/52 (98%)	51 (100%)	0	100 100
27	Y3	51/52 (98%)	51 (100%)	0	100 100
28	R4	40/63 (64%)	40 (100%)	0	100 100
28	Y4	41/63 (65%)	40 (98%)	1 (2%)	44 63
29	R5	51/52 (98%)	50 (98%)	1 (2%)	50 68
29	Y5	51/52 (98%)	48 (94%)	3 (6%)	16 40
30	R6	51/52 (98%)	49 (96%)	2 (4%)	27 50
30	Y6	51/52 (98%)	49 (96%)	2 (4%)	27 50
31	R7	40/42 (95%)	40 (100%)	0	100 100
31	Y7	41/42 (98%)	41 (100%)	0	100 100
32	R8	54/55 (98%)	54 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
32	Y8	54/55 (98%)	54 (100%)	0	100	100
33	R9	34/34 (100%)	34 (100%)	0	100	100
33	Y9	34/34 (100%)	33 (97%)	1 (3%)	37	58
36	RD	214/218 (98%)	212 (99%)	2 (1%)	75	83
36	YD	214/218 (98%)	214 (100%)	0	100	100
37	RE	165/166 (99%)	161 (98%)	4 (2%)	44	63
37	YE	165/166 (99%)	163 (99%)	2 (1%)	67	79
38	RF	161/166 (97%)	158 (98%)	3 (2%)	52	69
38	YF	161/166 (97%)	161 (100%)	0	100	100
39	RG	155/156 (99%)	155 (100%)	0	100	100
39	YG	155/156 (99%)	154 (99%)	1 (1%)	84	88
40	RH	145/148 (98%)	137 (94%)	8 (6%)	18	42
40	YH	145/148 (98%)	143 (99%)	2 (1%)	62	75
41	RI	122/124 (98%)	121 (99%)	1 (1%)	79	84
41	YI	122/124 (98%)	118 (97%)	4 (3%)	33	55
42	RN	117/119 (98%)	116 (99%)	1 (1%)	75	83
42	YN	117/119 (98%)	115 (98%)	2 (2%)	56	72
43	RO	100/100 (100%)	100 (100%)	0	100	100
43	YO	100/100 (100%)	98 (98%)	2 (2%)	50	68
44	RP	116/116 (100%)	115 (99%)	1 (1%)	75	83
44	YP	114/116 (98%)	114 (100%)	0	100	100
45	RQ	111/111 (100%)	111 (100%)	0	100	100
45	YQ	111/111 (100%)	110 (99%)	1 (1%)	75	83
46	RR	100/101 (99%)	99 (99%)	1 (1%)	73	81
46	YR	100/101 (99%)	99 (99%)	1 (1%)	73	81
47	RS	87/88 (99%)	87 (100%)	0	100	100
47	YS	87/88 (99%)	85 (98%)	2 (2%)	45	64
48	RT	120/127 (94%)	117 (98%)	3 (2%)	42	62
48	YT	120/127 (94%)	118 (98%)	2 (2%)	56	72
49	RU	93/94 (99%)	93 (100%)	0	100	100
49	YU	93/94 (99%)	91 (98%)	2 (2%)	47	65

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
50	RV	82/82 (100%)	82 (100%)	0	100 100
50	YV	82/82 (100%)	80 (98%)	2 (2%)	44 63
51	RW	92/92 (100%)	91 (99%)	1 (1%)	70 80
51	YW	92/92 (100%)	92 (100%)	0	100 100
52	RX	74/78 (95%)	71 (96%)	3 (4%)	26 49
52	YX	74/78 (95%)	72 (97%)	2 (3%)	40 60
53	RY	88/91 (97%)	88 (100%)	0	100 100
53	YY	88/91 (97%)	87 (99%)	1 (1%)	70 80
54	RZ	162/179 (90%)	162 (100%)	0	100 100
54	YZ	167/179 (93%)	165 (99%)	2 (1%)	67 79
All	All	9610/10066 (96%)	9507 (99%)	103 (1%)	70 80

All (103) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	QB	36	ARG
2	QB	149	LEU
2	QB	217	ARG
3	QC	38	ARG
3	QC	127	ARG
4	QD	18	LYS
8	QH	59	LEU
9	QI	64	THR
9	QI	85	LEU
11	QK	41	THR
14	QN	43	CYS
15	QO	22	THR
15	QO	87	ILE
20	QT	73	HIS
21	QU	6	ARG
24	R0	14	ARG
25	R1	73	LEU
25	R1	92	LYS
29	R5	36	CYS
30	R6	13	CYS
30	R6	23	THR
36	RD	242	ARG
36	RD	268	ARG

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Mol	Chain	Res	Type
37	RE	107	THR
37	RE	144	ARG
37	RE	154	LYS
37	RE	176	ILE
38	RF	89	VAL
38	RF	144	LYS
38	RF	195	ASP
40	RH	17	VAL
40	RH	69	ARG
40	RH	123	PHE
40	RH	125	VAL
40	RH	127	GLU
40	RH	129	THR
40	RH	130	ARG
40	RH	131	VAL
41	RI	81	VAL
42	RN	34	LEU
44	RP	16	ARG
46	RR	10	LEU
48	RT	85	LYS
48	RT	111	ARG
48	RT	129	ARG
51	RW	52	GLU
52	RX	16	LYS
52	RX	27	THR
52	RX	76	ARG
3	XC	12	LEU
3	XC	162	GLN
4	XD	135	LEU
4	XD	191	ARG
5	XE	12	LEU
6	XF	80	ARG
9	XI	27	THR
10	XJ	8	LEU
10	XJ	69	ASN
11	XK	117	ASN
12	XL	8	ASN
12	XL	89	ARG
12	XL	105	TYR
14	XN	3	ARG
14	XN	27	CYS
17	XQ	50	LYS

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Mol	Chain	Res	Type
17	XQ	74	LEU
21	XU	3	LYS
26	Y2	47	ASN
28	Y4	16	CYS
29	Y5	37	LYS
29	Y5	40	LYS
29	Y5	45	VAL
30	Y6	13	CYS
30	Y6	43	CYS
33	Y9	27	CYS
37	YE	107	THR
37	YE	184	VAL
39	YG	118	ARG
40	YH	67	LEU
40	YH	69	ARG
41	YI	56	LYS
41	YI	86	THR
41	YI	93	THR
41	YI	118	LYS
42	YN	96	GLU
42	YN	115	ARG
43	YO	24	VAL
43	YO	49	ARG
45	YQ	133	ARG
46	YR	2	ARG
47	YS	4	LEU
47	YS	110	LEU
48	YT	105	LEU
48	YT	129	ARG
49	YU	92	ARG
49	YU	94	ASN
50	YV	46	VAL
50	YV	78	LYS
52	YX	49	VAL
52	YX	66	LEU
53	YY	79	CYS
54	YZ	63	ASP
54	YZ	165	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (40) such sidechains are listed below:

Mol	Chain	Res	Type
3	QC	6	HIS
3	QC	176	HIS
4	QD	103	ASN
4	QD	123	HIS
7	QG	64	GLN
12	QL	9	GLN
13	QM	77	ASN
15	QO	62	GLN
16	QP	13	HIS
16	QP	14	ASN
19	QS	69	HIS
24	R0	12	ASN
25	R1	47	GLN
32	R8	31	HIS
32	R8	35	GLN
36	RD	253	GLN
38	RF	67	GLN
39	RG	132	ASN
42	RN	101	HIS
47	RS	38	GLN
52	RX	41	ASN
3	XC	162	GLN
3	XC	176	HIS
4	XD	116	GLN
4	XD	119	GLN
4	XD	123	HIS
6	XF	7	ASN
6	XF	57	GLN
6	XF	100	ASN
10	XJ	62	HIS
11	XK	117	ASN
12	XL	8	ASN
13	XM	77	ASN
14	XN	49	HIS
15	XO	28	GLN
28	Y4	6	HIS
29	Y5	22	HIS
37	YE	132	HIS
44	YP	70	GLN
50	YV	11	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	QA	1509/1521 (99%)	531 (35%)	14 (0%)
1	XA	1514/1521 (99%)	469 (30%)	27 (1%)
22	QV	66/77 (85%)	15 (22%)	1 (1%)
22	XV	66/77 (85%)	16 (24%)	1 (1%)
23	QX	18/19 (94%)	5 (27%)	0
23	XX	18/19 (94%)	5 (27%)	0
34	RA	2878/2905 (99%)	706 (24%)	40 (1%)
34	YA	2880/2905 (99%)	754 (26%)	40 (1%)
35	RB	119/122 (97%)	20 (16%)	1 (0%)
35	YB	119/122 (97%)	23 (19%)	1 (0%)
All	All	9187/9288 (98%)	2544 (27%)	125 (1%)

All (2544) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	QA	6	G
1	QA	7	G
1	QA	8	A
1	QA	9	G
1	QA	15	G
1	QA	16	A
1	QA	25	C
1	QA	27	G
1	QA	29	G
1	QA	32	A
1	QA	39	G
1	QA	41	G
1	QA	42	G
1	QA	44	G
1	QA	47	C
1	QA	48	C
1	QA	49	U
1	QA	50	A
1	QA	51	A
1	QA	53	A
1	QA	54	C
1	QA	58	C
1	QA	62	U
1	QA	65	U
1	QA	68	G
1	QA	69	G
1	QA	79	G
1	QA	80	G

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Mol	Chain	Res	Type
1	QA	82	U
1	QA	95	G
1	QA	102	G
1	QA	109	A
1	QA	113	G
1	QA	121	C
1	QA	129(B)	G
1	QA	130	A
1	QA	131	C
1	QA	132	C
1	QA	134	A
1	QA	136	C
1	QA	137	C
1	QA	138	G
1	QA	142	G
1	QA	144	G
1	QA	146	G
1	QA	147	G
1	QA	151	A
1	QA	153	C
1	QA	156	G
1	QA	157	G
1	QA	161	A
1	QA	163	C
1	QA	169	C
1	QA	171	A
1	QA	178	C
1	QA	181	G
1	QA	182	U
1	QA	183	G
1	QA	186(C)	C
1	QA	186(D)	G
1	QA	186(I)	U
1	QA	186(J)	U
1	QA	186(L)	G
1	QA	186(M)	G
1	QA	195	A
1	QA	196	A
1	QA	197	A
1	QA	201(A)	C
1	QA	201(B)	U
1	QA	201(C)	U

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Mol	Chain	Res	Type
1	QA	201(D)	U
1	QA	216	G
1	QA	228	A
1	QA	229	U
1	QA	235	C
1	QA	240	C
1	QA	241	C
1	QA	243	A
1	QA	244	U
1	QA	245	C
1	QA	247	G
1	QA	250	A
1	QA	252	U
1	QA	254	G
1	QA	258	G
1	QA	264	U
1	QA	266	G
1	QA	267	C
1	QA	274	A
1	QA	275	G
1	QA	281	G
1	QA	289	G
1	QA	296	U
1	QA	297	G
1	QA	299	G
1	QA	301	G
1	QA	305	G
1	QA	306	G
1	QA	315	A
1	QA	316	G
1	QA	321	A
1	QA	322	C
1	QA	324	G
1	QA	327	A
1	QA	328	C
1	QA	329	A
1	QA	330	C
1	QA	332	G
1	QA	344	A
1	QA	345	C
1	QA	346	G
1	QA	347	G

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Mol	Chain	Res	Type
1	QA	348	G
1	QA	351	G
1	QA	352	C
1	QA	353	A
1	QA	354	G
1	QA	356	A
1	QA	367	U
1	QA	368	U
1	QA	372	C
1	QA	373	A
1	QA	381	C
1	QA	382	A
1	QA	384	G
1	QA	389	A
1	QA	390	C
1	QA	392	G
1	QA	393	A
1	QA	394	G
1	QA	397	A
1	QA	398	C
1	QA	399	G
1	QA	401	C
1	QA	406	G
1	QA	408	A
1	QA	412	A
1	QA	413	G
1	QA	414	A
1	QA	422	C
1	QA	424	G
1	QA	426	G
1	QA	428	G
1	QA	429	U
1	QA	437	U
1	QA	438	G
1	QA	440	A
1	QA	443	C
1	QA	452	A
1	QA	453	A
1	QA	458(B)	G
1	QA	458(C)	A
1	QA	458(D)	C
1	QA	474	G

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Mol	Chain	Res	Type
1	QA	476	G
1	QA	481	G
1	QA	484	G
1	QA	485	G
1	QA	486	U
1	QA	489	C
1	QA	497	A
1	QA	498	U
1	QA	501	C
1	QA	508	C
1	QA	509	A
1	QA	510	A
1	QA	511	C
1	QA	514	C
1	QA	515	G
1	QA	517	G
1	QA	518	C
1	QA	519	C
1	QA	521	G
1	QA	522	C
1	QA	527	G
1	QA	531	U
1	QA	533	A
1	QA	534	U
1	QA	536	C
1	QA	537	G
1	QA	538	G
1	QA	541	G
1	QA	542	G
1	QA	546	G
1	QA	547	A
1	QA	550	G
1	QA	559	A
1	QA	562	C
1	QA	564	C
1	QA	572	A
1	QA	573	A
1	QA	574	A
1	QA	576	G
1	QA	577	G
1	QA	580	U
1	QA	582	U

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Mol	Chain	Res	Type
1	QA	587	G
1	QA	588	G
1	QA	590	C
1	QA	592	G
1	QA	596	C
1	QA	597	G
1	QA	599	C
1	QA	603	U
1	QA	607	A
1	QA	609	A
1	QA	614	A
1	QA	616	G
1	QA	617	G
1	QA	618	C
1	QA	619	U
1	QA	620	C
1	QA	624	C
1	QA	635	G
1	QA	641	U
1	QA	644	G
1	QA	647	C
1	QA	652	U
1	QA	653	A
1	QA	655	A
1	QA	661	G
1	QA	664	G
1	QA	665	A
1	QA	670	G
1	QA	683	G
1	QA	684	A
1	QA	686	U
1	QA	687	A
1	QA	688	G
1	QA	695	A
1	QA	700	G
1	QA	702	A
1	QA	703	G
1	QA	708	C
1	QA	710	G
1	QA	716	A
1	QA	718	G
1	QA	721	G

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Mol	Chain	Res	Type
1	QA	723	U
1	QA	724	G
1	QA	729	A
1	QA	749	C
1	QA	753	A
1	QA	754	C
1	QA	755	G
1	QA	773	G
1	QA	776	G
1	QA	777	A
1	QA	785	G
1	QA	787	A
1	QA	793	U
1	QA	794	A
1	QA	796	C
1	QA	799	G
1	QA	811	C
1	QA	812	C
1	QA	815	A
1	QA	816	A
1	QA	817	C
1	QA	818	G
1	QA	820	U
1	QA	821	G
1	QA	828	A
1	QA	829	G
1	QA	837	G
1	QA	838(B)	U
1	QA	838(C)	C
1	QA	838(D)	U
1	QA	848	C
1	QA	853	G
1	QA	855	G
1	QA	867	G
1	QA	871	U
1	QA	872	A
1	QA	873	A
1	QA	874	G
1	QA	876	G
1	QA	880	C
1	QA	885	G
1	QA	889	A

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Mol	Chain	Res	Type
1	QA	890	G
1	QA	914	A
1	QA	916	G
1	QA	918	A
1	QA	919	A
1	QA	926	G
1	QA	927	G
1	QA	928	G
1	QA	934	C
1	QA	935	A
1	QA	938	A
1	QA	941	G
1	QA	942	G
1	QA	946	A
1	QA	952	U
1	QA	957	U
1	QA	960	U
1	QA	961	U
1	QA	966	G
1	QA	967	C
1	QA	968	A
1	QA	969	A
1	QA	971	G
1	QA	972	C
1	QA	973	G
1	QA	974	A
1	QA	975	A
1	QA	976	G
1	QA	977	A
1	QA	979	C
1	QA	980	C
1	QA	981	U
1	QA	986	A
1	QA	988	G
1	QA	992	U
1	QA	993	G
1	QA	998(A)	G
1	QA	999	U
1	QA	1004	A
1	QA	1006	C
1	QA	1010	G
1	QA	1015	A

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Mol	Chain	Res	Type
1	QA	1016	A
1	QA	1023	G
1	QA	1024	G
1	QA	1025	U
1	QA	1026	G
1	QA	1027	C
1	QA	1028(A)	C
1	QA	1028(C)	C
1	QA	1028(D)	G
1	QA	1028(F)	G
1	QA	1037	C
1	QA	1042	G
1	QA	1044	A
1	QA	1046	A
1	QA	1050	G
1	QA	1054	C
1	QA	1056	U
1	QA	1060	C
1	QA	1064	G
1	QA	1065	U
1	QA	1066	C
1	QA	1076	C
1	QA	1088	G
1	QA	1089	G
1	QA	1094	G
1	QA	1095	U
1	QA	1099	G
1	QA	1101	A
1	QA	1104	G
1	QA	1107	C
1	QA	1117	G
1	QA	1123	A
1	QA	1124	G
1	QA	1125	U
1	QA	1126	U
1	QA	1127	G
1	QA	1128	C
1	QA	1129	C
1	QA	1130	A
1	QA	1131	G
1	QA	1132	C
1	QA	1133	G

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Mol	Chain	Res	Type
1	QA	1136	U
1	QA	1137	C
1	QA	1138	G
1	QA	1139	G
1	QA	1140	C
1	QA	1142	G
1	QA	1143	G
1	QA	1145	C
1	QA	1146	A
1	QA	1147	C
1	QA	1151	A
1	QA	1154	G
1	QA	1157	A
1	QA	1158	C
1	QA	1159	U
1	QA	1178	G
1	QA	1179	A
1	QA	1181	G
1	QA	1183	A
1	QA	1184	G
1	QA	1190	G
1	QA	1196	U
1	QA	1197	G
1	QA	1200	C
1	QA	1201	A
1	QA	1202	G
1	QA	1203	C
1	QA	1206	G
1	QA	1211	U
1	QA	1212	U
1	QA	1213	A
1	QA	1216	G
1	QA	1218	C
1	QA	1221	G
1	QA	1222	G
1	QA	1224	G
1	QA	1225	A
1	QA	1226	C
1	QA	1228	C
1	QA	1235	U
1	QA	1236	A
1	QA	1238	A

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Mol	Chain	Res	Type
1	QA	1240	U
1	QA	1244	C
1	QA	1246	C
1	QA	1250	A
1	QA	1251	A
1	QA	1252	A
1	QA	1253	G
1	QA	1254	C
1	QA	1256	A
1	QA	1257	U
1	QA	1258	G
1	QA	1260	C
1	QA	1263	C
1	QA	1265	G
1	QA	1268	A
1	QA	1269	A
1	QA	1270	C
1	QA	1272	G
1	QA	1273	G
1	QA	1274	G
1	QA	1275	A
1	QA	1277	C
1	QA	1278	U
1	QA	1279	A
1	QA	1280	A
1	QA	1281	U
1	QA	1282	C
1	QA	1285	A
1	QA	1286	A
1	QA	1287	A
1	QA	1290	G
1	QA	1293	G
1	QA	1296	C
1	QA	1297	C
1	QA	1299	A
1	QA	1300	G
1	QA	1301	U
1	QA	1303	C
1	QA	1307	U
1	QA	1312	G
1	QA	1318	A
1	QA	1319	A

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Mol	Chain	Res	Type
1	QA	1320	C
1	QA	1321	C
1	QA	1322	C
1	QA	1323	G
1	QA	1324	A
1	QA	1325	C
1	QA	1329	A
1	QA	1331	G
1	QA	1332	A
1	QA	1335	C
1	QA	1336	C
1	QA	1338	G
1	QA	1340	A
1	QA	1346	A
1	QA	1347	G
1	QA	1348	U
1	QA	1350	A
1	QA	1353	G
1	QA	1355	G
1	QA	1356	G
1	QA	1358	U
1	QA	1359	C
1	QA	1361	G
1	QA	1363	A
1	QA	1364	U
1	QA	1365	G
1	QA	1367	C
1	QA	1370	G
1	QA	1373	G
1	QA	1375	A
1	QA	1377	A
1	QA	1378	C
1	QA	1379	G
1	QA	1380	U
1	QA	1381	U
1	QA	1382	C
1	QA	1384	C
1	QA	1394	A
1	QA	1395	C
1	QA	1397	C
1	QA	1398	A
1	QA	1399	C

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Mol	Chain	Res	Type
1	QA	1401	G
1	QA	1413	A
1	QA	1419	G
1	QA	1422	G
1	QA	1432	G
1	QA	1435	G
1	QA	1436	U
1	QA	1440(C)	G
1	QA	1440(D)	G
1	QA	1440(E)	A
1	QA	1440(H)	C
1	QA	1440(J)	A
1	QA	1440(K)	C
1	QA	1440(L)	G
1	QA	1475	G
1	QA	1487	G
1	QA	1490	C
1	QA	1492	A
1	QA	1493	A
1	QA	1494	G
1	QA	1497	G
1	QA	1499	A
1	QA	1502	A
1	QA	1503	A
1	QA	1504	G
1	QA	1505	G
1	QA	1506	U
1	QA	1507	A
1	QA	1517	G
1	QA	1519	A
1	QA	1520	G
1	QA	1529	G
1	QA	1530	G
1	QA	1532	U
1	QA	1533	C
1	QA	1534	A
1	QA	1535	C
1	QA	1537	U
1	QA	1538	C
1	QA	1539	C
1	QA	1541	U
22	QV	8	U

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Mol	Chain	Res	Type
22	QV	10	G
22	QV	11	C
22	QV	15	G
22	QV	18	U
22	QV	19	G
22	QV	21(B)	A
22	QV	22	G
22	QV	31	G
22	QV	46	G
22	QV	47	U
22	QV	48	C
22	QV	59	A
22	QV	61	C
22	QV	67	U
23	QX	10	G
23	QX	12	A
23	QX	13	A
23	QX	16	C
23	QX	19	U
34	RA	7	G
34	RA	15	G
34	RA	23	G
34	RA	34	C
34	RA	35	G
34	RA	36	G
34	RA	46	C
34	RA	51	G
34	RA	55	G
34	RA	64	A
34	RA	71	A
34	RA	72	U
34	RA	74	A
34	RA	75	G
34	RA	83	G
34	RA	101	G
34	RA	102	G
34	RA	103	A
34	RA	114	U
34	RA	118	A
34	RA	120	U
34	RA	125	G
34	RA	128	C

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Mol	Chain	Res	Type
34	RA	131	G
34	RA	140	A
34	RA	161	U
34	RA	177	G
34	RA	181	A
34	RA	196	A
34	RA	198	C
34	RA	199	A
34	RA	206	U
34	RA	215	G
34	RA	216	A
34	RA	221	A
34	RA	222	A
34	RA	223	A
34	RA	228	A
34	RA	229	A
34	RA	230	U
34	RA	232	G
34	RA	242	G
34	RA	243	U
34	RA	245	G
34	RA	248	G
34	RA	249	C
34	RA	252	G
34	RA	261	G
34	RA	265	A
34	RA	266	G
34	RA	267	C
34	RA	270(L)	C
34	RA	270(M)	U
34	RA	270(N)	U
34	RA	270(O)	G
34	RA	270(Q)	C
34	RA	271(D)	U
34	RA	275	G
34	RA	276	A
34	RA	277	C
34	RA	278	A
34	RA	280	C
34	RA	283	A
34	RA	299	A
34	RA	300	A

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Mol	Chain	Res	Type
34	RA	311	A
34	RA	312	G
34	RA	316	C
34	RA	317	G
34	RA	323	G
34	RA	324	A
34	RA	329	G
34	RA	330	A
34	RA	332	A
34	RA	342	G
34	RA	343	C
34	RA	352	G
34	RA	362	U
34	RA	364	C
34	RA	371	A
34	RA	372	G
34	RA	373	U
34	RA	386	G
34	RA	387	U
34	RA	405	U
34	RA	407	G
34	RA	411	G
34	RA	412	A
34	RA	428	A
34	RA	444	C
34	RA	448	U
34	RA	451	C
34	RA	454	A
34	RA	455	C
34	RA	456	C
34	RA	457	A
34	RA	458	G
34	RA	459	U
34	RA	467	G
34	RA	470	A
34	RA	479	A
34	RA	481	G
34	RA	494	G
34	RA	496	G
34	RA	504	U
34	RA	505	A
34	RA	508	G

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Mol	Chain	Res	Type
34	RA	510	C
34	RA	512	G
34	RA	513	A
34	RA	527	C
34	RA	528	A
34	RA	529	A
34	RA	530	G
34	RA	531	C
34	RA	532	A
34	RA	533	G
34	RA	537	C
34	RA	539	G
34	RA	540	G
34	RA	546	C
34	RA	547	A
34	RA	554	U
34	RA	563	G
34	RA	568	U
34	RA	573	G
34	RA	575	A
34	RA	592	G
34	RA	599	G
34	RA	603	A
34	RA	604	G
34	RA	607	U
34	RA	613	U
34	RA	614	U
34	RA	615	G
34	RA	616	A
34	RA	617	G
34	RA	618(A)	G
34	RA	621	A
34	RA	622	G
34	RA	626	U
34	RA	627	A
34	RA	634	C
34	RA	637	A
34	RA	638	G
34	RA	645	C
34	RA	646	A
34	RA	651	G
34	RA	652	C

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Mol	Chain	Res	Type
34	RA	654(A)	A
34	RA	654(B)	G
34	RA	657	U
34	RA	668	G
34	RA	669	G
34	RA	670	A
34	RA	677	A
34	RA	685	A
34	RA	686	G
34	RA	689	A
34	RA	695	G
34	RA	702	G
34	RA	717	G
34	RA	722	A
34	RA	726	G
34	RA	730	C
34	RA	734	A
34	RA	738	G
34	RA	747	U
34	RA	748	G
34	RA	753	C
34	RA	764	A
34	RA	765	G
34	RA	769	G
34	RA	775	G
34	RA	776	G
34	RA	777	A
34	RA	782	A
34	RA	784	A
34	RA	785	G
34	RA	789	A
34	RA	792	G
34	RA	800	A
34	RA	805	G
34	RA	809	G
34	RA	812	C
34	RA	819	A
34	RA	827	U
34	RA	828	U
34	RA	829	A
34	RA	845	G
34	RA	847	U

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Mol	Chain	Res	Type
34	RA	854	G
34	RA	856	C
34	RA	857	C
34	RA	859	G
34	RA	860	U
34	RA	865	C
34	RA	867	C
34	RA	869	G
34	RA	877	U
34	RA	887	A
34	RA	889	C
34	RA	890	A
34	RA	896	A
34	RA	905	U
34	RA	907	U
34	RA	910	A
34	RA	915	C
34	RA	917	A
34	RA	919	G
34	RA	926	A
34	RA	932	G
34	RA	941	A
34	RA	945	A
34	RA	946	G
34	RA	953	A
34	RA	957	A
34	RA	959	A
34	RA	960	A
34	RA	961	C
34	RA	974(A)	G
34	RA	974(B)	C
34	RA	975	G
34	RA	980	A
34	RA	983	A
34	RA	996	A
34	RA	1005	C
34	RA	1008	C
34	RA	1011	G
34	RA	1012	U
34	RA	1013	C
34	RA	1015	G
34	RA	1022	G

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Mol	Chain	Res	Type
34	RA	1023	U
34	RA	1025	G
34	RA	1026	U
34	RA	1027	A
34	RA	1033	U
34	RA	1044	G
34	RA	1045	A
34	RA	1046	A
34	RA	1050	A
34	RA	1058	G
34	RA	1060	U
34	RA	1067	A
34	RA	1070	A
34	RA	1071	G
34	RA	1072	C
34	RA	1073	A
34	RA	1077	A
34	RA	1082	U
34	RA	1083	U
34	RA	1084	A
34	RA	1085	A
34	RA	1088	A
34	RA	1089	G
34	RA	1090	U
34	RA	1097	U
34	RA	1099	G
34	RA	1102	C
34	RA	1103	A
34	RA	1106	G
34	RA	1110	G
34	RA	1112	G
34	RA	1113	U
34	RA	1114	G
34	RA	1122	G
34	RA	1128	A
34	RA	1129	A
34	RA	1130	U
34	RA	1131	G
34	RA	1135	C
34	RA	1136	G
34	RA	1139	G
34	RA	1141	U

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Mol	Chain	Res	Type
34	RA	1142(A)	U
34	RA	1142(B)	A
34	RA	1155	A
34	RA	1156	A
34	RA	1168	G
34	RA	1170	G
34	RA	1173	G
34	RA	1174	A
34	RA	1175	U
34	RA	1176	G
34	RA	1179	C
34	RA	1181	C
34	RA	1190	G
34	RA	1195	G
34	RA	1204	A
34	RA	1205	U
34	RA	1206	G
34	RA	1210	A
34	RA	1212	G
34	RA	1213	A
34	RA	1220	A
34	RA	1236	G
34	RA	1238	G
34	RA	1240	U
34	RA	1241	A
34	RA	1244	G
34	RA	1247	A
34	RA	1250	G
34	RA	1253	A
34	RA	1255	U
34	RA	1256	G
34	RA	1265	A
34	RA	1271	G
34	RA	1272	A
34	RA	1273	U
34	RA	1281	G
34	RA	1282	U
34	RA	1286	A
34	RA	1300	U
34	RA	1301	A
34	RA	1308	A
34	RA	1313	U

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Mol	Chain	Res	Type
34	RA	1314	C
34	RA	1319	G
34	RA	1326	U
34	RA	1329	U
34	RA	1332	G
34	RA	1341	U
34	RA	1349	A
34	RA	1350	C
34	RA	1352	U
34	RA	1365	A
34	RA	1368	G
34	RA	1370	C
34	RA	1378	A
34	RA	1384	A
34	RA	1385	G
34	RA	1394	U
34	RA	1407	C
34	RA	1408	C
34	RA	1410	G
34	RA	1411	C
34	RA	1416	G
34	RA	1419	A
34	RA	1420	U
34	RA	1421	G
34	RA	1427	A
34	RA	1428	C
34	RA	1434	A
34	RA	1444(B)	A
34	RA	1445	C
34	RA	1448	G
34	RA	1449(A)	A
34	RA	1449(B)	G
34	RA	1451	C
34	RA	1455	G
34	RA	1461	G
34	RA	1466	G
34	RA	1467	C
34	RA	1471	A
34	RA	1472	A
34	RA	1474	C
34	RA	1480	G
34	RA	1482	U

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Mol	Chain	Res	Type
34	RA	1483	G
34	RA	1485	G
34	RA	1490	A
34	RA	1493	C
34	RA	1494	A
34	RA	1496	A
34	RA	1497	U
34	RA	1506	C
34	RA	1507	A
34	RA	1508	A
34	RA	1510	A
34	RA	1515	C
34	RA	1521	G
34	RA	1533	C
34	RA	1534	G
34	RA	1535	U
34	RA	1536	A
34	RA	1537	C
34	RA	1538	G
34	RA	1543	A
34	RA	1544	C
34	RA	1545(A)	A
34	RA	1558	A
34	RA	1559	G
34	RA	1560	G
34	RA	1566	A
34	RA	1567	A
34	RA	1569	A
34	RA	1578	U
34	RA	1579	A
34	RA	1582	C
34	RA	1586	A
34	RA	1598	C
34	RA	1607	C
34	RA	1608	A
34	RA	1609	A
34	RA	1610	A
34	RA	1611	C
34	RA	1613	G
34	RA	1616	A
34	RA	1617	C
34	RA	1618	A

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Mol	Chain	Res	Type
34	RA	1640	C
34	RA	1644	C
34	RA	1646	C
34	RA	1648	C
34	RA	1649	G
34	RA	1654	A
34	RA	1664	A
34	RA	1665	A
34	RA	1667	G
34	RA	1668	A
34	RA	1674	G
34	RA	1675	C
34	RA	1688	U
34	RA	1694	C
34	RA	1695	G
34	RA	1698	A
34	RA	1718	G
34	RA	1725	G
34	RA	1729	A
34	RA	1731	G
34	RA	1732	A
34	RA	1733	G
34	RA	1742	C
34	RA	1743	G
34	RA	1756	G
34	RA	1762	A
34	RA	1763	G
34	RA	1764	G
34	RA	1773	A
34	RA	1774	C
34	RA	1780	A
34	RA	1784	A
34	RA	1787	A
34	RA	1791	A
34	RA	1799	G
34	RA	1800	C
34	RA	1816	G
34	RA	1820	U
34	RA	1829	A
34	RA	1835	G
34	RA	1846	G
34	RA	1847	A

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Mol	Chain	Res	Type
34	RA	1848	A
34	RA	1858	G
34	RA	1869	G
34	RA	1872	A
34	RA	1878	G
34	RA	1881	C
34	RA	1882	C
34	RA	1884	A
34	RA	1888	G
34	RA	1889	A
34	RA	1896	G
34	RA	1900	A
34	RA	1903	G
34	RA	1905	C
34	RA	1906	G
34	RA	1913	A
34	RA	1929	G
34	RA	1930	G
34	RA	1931	U
34	RA	1932	A
34	RA	1936	A
34	RA	1937	A
34	RA	1938	A
34	RA	1939	U
34	RA	1955	U
34	RA	1963	U
34	RA	1965	C
34	RA	1966	A
34	RA	1967	C
34	RA	1969	A
34	RA	1970	A
34	RA	1971	A
34	RA	1972	A
34	RA	1981	A
34	RA	1982	C
34	RA	1992	G
34	RA	1993	U
34	RA	2020	A
34	RA	2021	C
34	RA	2023	G
34	RA	2031	A
34	RA	2032	G

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Mol	Chain	Res	Type
34	RA	2033	A
34	RA	2043	C
34	RA	2049	G
34	RA	2052	G
34	RA	2055	C
34	RA	2056	G
34	RA	2059	A
34	RA	2060	A
34	RA	2061	G
34	RA	2062	A
34	RA	2069	G
34	RA	2077	A
34	RA	2080	G
34	RA	2089	U
34	RA	2092	U
34	RA	2093	G
34	RA	2095	C
34	RA	2096	U
34	RA	2097	C
34	RA	2099	U
34	RA	2110	G
34	RA	2111	C
34	RA	2112	G
34	RA	2113	U
34	RA	2114	A
34	RA	2115	G
34	RA	2116	G
34	RA	2117	A
34	RA	2118	U
34	RA	2119	A
34	RA	2120	G
34	RA	2124	G
34	RA	2126	A
34	RA	2127	G
34	RA	2128	C
34	RA	2131	G
34	RA	2132	U
34	RA	2133	G
34	RA	2134	A
34	RA	2136	C
34	RA	2137	C
34	RA	2142	C

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Mol	Chain	Res	Type
34	RA	2145	C
34	RA	2146	C
34	RA	2147	G
34	RA	2148	G
34	RA	2158	A
34	RA	2164	C
34	RA	2166	G
34	RA	2169	A
34	RA	2173	A
34	RA	2176	A
34	RA	2178	C
34	RA	2189	U
34	RA	2190	G
34	RA	2191	G
34	RA	2192	G
34	RA	2194	G
34	RA	2197	U
34	RA	2198	A
34	RA	2209	C
34	RA	2210	G
34	RA	2211	G
34	RA	2212	A
34	RA	2215	G
34	RA	2225	A
34	RA	2238	G
34	RA	2239	G
34	RA	2243	U
34	RA	2244	U
34	RA	2266	A
34	RA	2275	C
34	RA	2283	C
34	RA	2287	A
34	RA	2288	A
34	RA	2302	G
34	RA	2304	G
34	RA	2305	A
34	RA	2307	G
34	RA	2308	G
34	RA	2310	A
34	RA	2311	A
34	RA	2319	G
34	RA	2320	A

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Mol	Chain	Res	Type
34	RA	2321	G
34	RA	2325	G
34	RA	2334	G
34	RA	2335	A
34	RA	2342	C
34	RA	2345	G
34	RA	2346	A
34	RA	2347	C
34	RA	2350	C
34	RA	2354	G
34	RA	2372	G
34	RA	2383	G
34	RA	2385	C
34	RA	2392	A
34	RA	2396	G
34	RA	2402	C
34	RA	2403	C
34	RA	2406	U
34	RA	2414	G
34	RA	2423	U
34	RA	2424	C
34	RA	2425	A
34	RA	2427	C
34	RA	2428	G
34	RA	2429	G
34	RA	2430	A
34	RA	2432	A
34	RA	2435	A
34	RA	2439	A
34	RA	2440	C
34	RA	2441	C
34	RA	2445	G
34	RA	2447	G
34	RA	2448	A
34	RA	2469	A
34	RA	2470	G
34	RA	2476	A
34	RA	2478	A
34	RA	2482	G
34	RA	2484	G
34	RA	2487	G
34	RA	2491	U

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Mol	Chain	Res	Type
34	RA	2494	G
34	RA	2499	C
34	RA	2502	G
34	RA	2503	A
34	RA	2504	U
34	RA	2505	G
34	RA	2506	U
34	RA	2518	A
34	RA	2520	C
34	RA	2529	G
34	RA	2535	G
34	RA	2542	A
34	RA	2543	G
34	RA	2554	U
34	RA	2562	U
34	RA	2566	A
34	RA	2567	G
34	RA	2569	G
34	RA	2572	A
34	RA	2573	C
34	RA	2577	A
34	RA	2584	U
34	RA	2585	U
34	RA	2602	A
34	RA	2609	U
34	RA	2610	C
34	RA	2611	U
34	RA	2612	C
34	RA	2614	A
34	RA	2615	U
34	RA	2621	A
34	RA	2629	A
34	RA	2630	G
34	RA	2655	G
34	RA	2665	A
34	RA	2673	G
34	RA	2675	A
34	RA	2682	U
34	RA	2686	G
34	RA	2689	U
34	RA	2690	C
34	RA	2691	C

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Mol	Chain	Res	Type
34	RA	2702	U
34	RA	2712(A)	U
34	RA	2712(B)	A
34	RA	2713	A
34	RA	2714	G
34	RA	2718	G
34	RA	2726	U
34	RA	2732	G
34	RA	2733	A
34	RA	2734	A
34	RA	2744	G
34	RA	2748	A
34	RA	2751	G
34	RA	2755	C
34	RA	2757	A
34	RA	2758	A
34	RA	2761	G
34	RA	2764	A
34	RA	2765	A
34	RA	2766	G
34	RA	2777	G
34	RA	2778	A
34	RA	2779	U
34	RA	2780	G
34	RA	2790	A
34	RA	2791	C
34	RA	2792	G
34	RA	2794	C
34	RA	2797	U
34	RA	2798	C
34	RA	2802	G
34	RA	2807	G
34	RA	2808	U
34	RA	2813	A
34	RA	2818	G
34	RA	2820	A
34	RA	2821	A
34	RA	2830	G
34	RA	2833	G
34	RA	2834	G
34	RA	2835	A
34	RA	2847	U

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Mol	Chain	Res	Type
34	RA	2849	U
34	RA	2850	A
34	RA	2867	G
34	RA	2872	G
34	RA	2873	A
34	RA	2880	C
34	RA	2883	A
34	RA	2886	G
34	RA	2892	A
34	RA	2894	G
34	RA	2895	U
35	RB	8	U
35	RB	9	G
35	RB	12	C
35	RB	13	A
35	RB	15	A
35	RB	22	U
35	RB	25	A
35	RB	32	C
35	RB	41	U
35	RB	42	C
35	RB	44	G
35	RB	45	A
35	RB	53	A
35	RB	56	G
35	RB	67	G
35	RB	73	A
35	RB	77	U
35	RB	81	G
35	RB	96	G
35	RB	109	G
1	XA	6	G
1	XA	9	G
1	XA	16	A
1	XA	18	C
1	XA	19	C
1	XA	22	G
1	XA	31	G
1	XA	32	A
1	XA	39	G
1	XA	41	G
1	XA	44	G

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Mol	Chain	Res	Type
1	XA	47	C
1	XA	48	C
1	XA	51	A
1	XA	59	A
1	XA	65	U
1	XA	66	G
1	XA	68(E)	C
1	XA	68(F)	G
1	XA	68(I)	G
1	XA	68(K)	G
1	XA	68(M)	U
1	XA	68(N)	U
1	XA	68(P)	A
1	XA	68(Q)	C
1	XA	68(T)	C
1	XA	68(V)	U
1	XA	68(W)	G
1	XA	101	A
1	XA	108	G
1	XA	109	A
1	XA	116	A
1	XA	121	C
1	XA	129(B)	G
1	XA	131	C
1	XA	142	G
1	XA	144	G
1	XA	147	G
1	XA	151	A
1	XA	160	A
1	XA	161	A
1	XA	163	C
1	XA	169	C
1	XA	173	U
1	XA	177	C
1	XA	182	U
1	XA	183	G
1	XA	186(A)	C
1	XA	186(H)	C
1	XA	186(K)	G
1	XA	186(L)	G
1	XA	186(N)	G
1	XA	195	A

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Mol	Chain	Res	Type
1	XA	197	A
1	XA	201(B)	U
1	XA	201(C)	U
1	XA	201(D)	U
1	XA	216	G
1	XA	231	G
1	XA	247	G
1	XA	251	G
1	XA	259	G
1	XA	261	U
1	XA	263	A
1	XA	266	G
1	XA	267	C
1	XA	278	G
1	XA	281	G
1	XA	289	G
1	XA	309	G
1	XA	310	G
1	XA	315	A
1	XA	328	C
1	XA	329	A
1	XA	330	C
1	XA	332	G
1	XA	345	C
1	XA	346	G
1	XA	347	G
1	XA	348	G
1	XA	351	G
1	XA	352	C
1	XA	353	A
1	XA	354	G
1	XA	356	A
1	XA	367	U
1	XA	368	U
1	XA	369	C
1	XA	372	C
1	XA	373	A
1	XA	378	G
1	XA	379	C
1	XA	386	C
1	XA	387	U
1	XA	390	C

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Mol	Chain	Res	Type
1	XA	391	G
1	XA	392	G
1	XA	393	A
1	XA	397	A
1	XA	398	C
1	XA	412	A
1	XA	413	G
1	XA	414	A
1	XA	422	C
1	XA	423	G
1	XA	424	G
1	XA	428	G
1	XA	429	U
1	XA	440	A
1	XA	443	C
1	XA	444	C
1	XA	451	A
1	XA	452	A
1	XA	453	A
1	XA	458(C)	A
1	XA	458(D)	C
1	XA	481	G
1	XA	484	G
1	XA	485	G
1	XA	495	A
1	XA	497	A
1	XA	498	U
1	XA	509	A
1	XA	511	C
1	XA	517	G
1	XA	518	C
1	XA	521	G
1	XA	524	G
1	XA	527	G
1	XA	530	G
1	XA	531	U
1	XA	532	A
1	XA	533	A
1	XA	536	C
1	XA	537	G
1	XA	547	A
1	XA	549	C

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Mol	Chain	Res	Type
1	XA	559	A
1	XA	560	U
1	XA	562	C
1	XA	568	G
1	XA	571	U
1	XA	572	A
1	XA	573	A
1	XA	576	G
1	XA	577	G
1	XA	581	G
1	XA	587	G
1	XA	588	G
1	XA	590	C
1	XA	596	C
1	XA	608	A
1	XA	610	G
1	XA	613	C
1	XA	617	G
1	XA	618	C
1	XA	620	C
1	XA	625	G
1	XA	629	G
1	XA	634	C
1	XA	637	G
1	XA	642	A
1	XA	653	A
1	XA	654	G
1	XA	661	G
1	XA	665	A
1	XA	671	G
1	XA	674	G
1	XA	686	U
1	XA	688	G
1	XA	695	A
1	XA	702	A
1	XA	703	G
1	XA	718	G
1	XA	721	G
1	XA	723	U
1	XA	724	G
1	XA	739	C
1	XA	741	G

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Mol	Chain	Res	Type
1	XA	749	C
1	XA	751	U
1	XA	753	A
1	XA	755	G
1	XA	758	G
1	XA	760	G
1	XA	777	A
1	XA	781	A
1	XA	789	U
1	XA	793	U
1	XA	794	A
1	XA	799	G
1	XA	809	G
1	XA	811	C
1	XA	812	C
1	XA	815	A
1	XA	816	A
1	XA	817	C
1	XA	818	G
1	XA	821	G
1	XA	828	A
1	XA	829	G
1	XA	838(B)	U
1	XA	838(C)	C
1	XA	838(D)	U
1	XA	848	C
1	XA	853	G
1	XA	855	G
1	XA	859	A
1	XA	867	G
1	XA	871	U
1	XA	872	A
1	XA	876	G
1	XA	877	C
1	XA	884	U
1	XA	885	G
1	XA	889	A
1	XA	898	G
1	XA	899	C
1	XA	902	G
1	XA	914	A
1	XA	916	G

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Mol	Chain	Res	Type
1	XA	926	G
1	XA	927	G
1	XA	934	C
1	XA	935	A
1	XA	943	U
1	XA	946	A
1	XA	948	C
1	XA	957	U
1	XA	958	A
1	XA	960	U
1	XA	961	U
1	XA	966	G
1	XA	967	C
1	XA	968	A
1	XA	969	A
1	XA	971	G
1	XA	972	C
1	XA	973	G
1	XA	974	A
1	XA	975	A
1	XA	976	G
1	XA	977	A
1	XA	979	C
1	XA	980	C
1	XA	981	U
1	XA	991	U
1	XA	992	U
1	XA	993	G
1	XA	1004	A
1	XA	1006	C
1	XA	1015	A
1	XA	1023	G
1	XA	1025	U
1	XA	1026	G
1	XA	1028(C)	C
1	XA	1028(D)	G
1	XA	1036	G
1	XA	1037	C
1	XA	1043	C
1	XA	1046	A
1	XA	1048	G
1	XA	1050	G

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Mol	Chain	Res	Type
1	XA	1053	G
1	XA	1054	C
1	XA	1055	A
1	XA	1058	G
1	XA	1060	C
1	XA	1064	G
1	XA	1065	U
1	XA	1066	C
1	XA	1076	C
1	XA	1080	A
1	XA	1081	G
1	XA	1083	U
1	XA	1089	G
1	XA	1094	G
1	XA	1095	U
1	XA	1099	G
1	XA	1101	A
1	XA	1106	G
1	XA	1107	C
1	XA	1114	C
1	XA	1116	C
1	XA	1118	C
1	XA	1123	A
1	XA	1124	G
1	XA	1125	U
1	XA	1126	U
1	XA	1127	G
1	XA	1128	C
1	XA	1129	C
1	XA	1130	A
1	XA	1131	G
1	XA	1132	C
1	XA	1134	G
1	XA	1136	U
1	XA	1137	C
1	XA	1138	G
1	XA	1139	G
1	XA	1145	C
1	XA	1146	A
1	XA	1147	C
1	XA	1150	U
1	XA	1151	A

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Mol	Chain	Res	Type
1	XA	1154	G
1	XA	1157	A
1	XA	1158	C
1	XA	1159	U
1	XA	1161	C
1	XA	1163	C
1	XA	1177	G
1	XA	1178	G
1	XA	1179	A
1	XA	1181	G
1	XA	1182	G
1	XA	1183	A
1	XA	1184	G
1	XA	1187	G
1	XA	1190	G
1	XA	1193	G
1	XA	1196	U
1	XA	1197	G
1	XA	1200	C
1	XA	1201	A
1	XA	1202	G
1	XA	1203	C
1	XA	1211	U
1	XA	1212	U
1	XA	1213	A
1	XA	1216	G
1	XA	1221	G
1	XA	1222	G
1	XA	1225	A
1	XA	1226	C
1	XA	1227	A
1	XA	1228	C
1	XA	1232	U
1	XA	1236	A
1	XA	1237	C
1	XA	1238	A
1	XA	1240	U
1	XA	1241	G
1	XA	1243	C
1	XA	1246	C
1	XA	1252	A
1	XA	1253	G

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Mol	Chain	Res	Type
1	XA	1254	C
1	XA	1256	A
1	XA	1257	U
1	XA	1258	G
1	XA	1260	C
1	XA	1263	C
1	XA	1265	G
1	XA	1269	A
1	XA	1270	C
1	XA	1272	G
1	XA	1273	G
1	XA	1274	G
1	XA	1275	A
1	XA	1277	C
1	XA	1278	U
1	XA	1280	A
1	XA	1281	U
1	XA	1282	C
1	XA	1285	A
1	XA	1286	A
1	XA	1287	A
1	XA	1290	G
1	XA	1293	G
1	XA	1296	C
1	XA	1297	C
1	XA	1298	C
1	XA	1299	A
1	XA	1300	G
1	XA	1302	U
1	XA	1303	C
1	XA	1304	G
1	XA	1305	G
1	XA	1306	A
1	XA	1307	U
1	XA	1312	G
1	XA	1319	A
1	XA	1320	C
1	XA	1321	C
1	XA	1322	C
1	XA	1323	G
1	XA	1325	C
1	XA	1327	C

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Mol	Chain	Res	Type
1	XA	1328	C
1	XA	1329	A
1	XA	1330	U
1	XA	1331	G
1	XA	1335	C
1	XA	1336	C
1	XA	1337	G
1	XA	1340	A
1	XA	1346	A
1	XA	1347	G
1	XA	1348	U
1	XA	1349	A
1	XA	1353	G
1	XA	1355	G
1	XA	1356	G
1	XA	1359	C
1	XA	1360	A
1	XA	1361	G
1	XA	1363	A
1	XA	1364	U
1	XA	1365	G
1	XA	1368	G
1	XA	1370	G
1	XA	1373	G
1	XA	1375	A
1	XA	1378	C
1	XA	1379	G
1	XA	1381	U
1	XA	1382	C
1	XA	1384	C
1	XA	1386	G
1	XA	1394	A
1	XA	1397	C
1	XA	1398	A
1	XA	1413	A
1	XA	1419	G
1	XA	1426	C
1	XA	1432	G
1	XA	1433	A
1	XA	1435	G
1	XA	1438	G
1	XA	1440(B)	G

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Mol	Chain	Res	Type
1	XA	1440(C)	G
1	XA	1440(D)	G
1	XA	1440(E)	A
1	XA	1440(I)	U
1	XA	1440(J)	A
1	XA	1440(K)	C
1	XA	1440(L)	G
1	XA	1475	G
1	XA	1477	C
1	XA	1487	G
1	XA	1492	A
1	XA	1493	A
1	XA	1494	G
1	XA	1495	U
1	XA	1496	C
1	XA	1497	G
1	XA	1498	U
1	XA	1499	A
1	XA	1500	A
1	XA	1502	A
1	XA	1503	A
1	XA	1504	G
1	XA	1505	G
1	XA	1506	U
1	XA	1507	A
1	XA	1517	G
1	XA	1519	A
1	XA	1520	G
1	XA	1528	U
1	XA	1529	G
1	XA	1530	G
1	XA	1531	A
1	XA	1532	U
1	XA	1533	C
1	XA	1534	A
1	XA	1538	C
1	XA	1539	C
1	XA	1541	U
22	XV	8	U
22	XV	11	C
22	XV	16	C
22	XV	17	C

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Mol	Chain	Res	Type
22	XV	18	U
22	XV	19	G
22	XV	20	G
22	XV	21(B)	A
22	XV	42	A
22	XV	43	G
22	XV	46	G
22	XV	47	U
22	XV	48	C
22	XV	58	A
22	XV	59	A
22	XV	61	C
23	XX	9	G
23	XX	10	G
23	XX	12	A
23	XX	13	A
23	XX	15	A
34	YA	9	U
34	YA	15	G
34	YA	23	G
34	YA	28	A
34	YA	34	C
34	YA	35	G
34	YA	36	G
34	YA	46	C
34	YA	51	G
34	YA	54	G
34	YA	55	G
34	YA	64	A
34	YA	72	U
34	YA	74	A
34	YA	75	G
34	YA	78	A
34	YA	90	U
34	YA	96	G
34	YA	101	G
34	YA	102	G
34	YA	103	A
34	YA	118	A
34	YA	120	U
34	YA	125	G
34	YA	131	G

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Mol	Chain	Res	Type
34	YA	138	G
34	YA	142	G
34	YA	155	C
34	YA	161	U
34	YA	162	U
34	YA	178	G
34	YA	188	G
34	YA	196	A
34	YA	199	A
34	YA	204	A
34	YA	205	G
34	YA	215	G
34	YA	216	A
34	YA	221	A
34	YA	222	A
34	YA	223	A
34	YA	226	G
34	YA	228	A
34	YA	229	A
34	YA	230	U
34	YA	232	G
34	YA	233	A
34	YA	242	G
34	YA	243	U
34	YA	245	G
34	YA	248	G
34	YA	252	G
34	YA	261	G
34	YA	265	A
34	YA	266	G
34	YA	267	C
34	YA	269	U
34	YA	270(L)	C
34	YA	270(M)	U
34	YA	270(N)	U
34	YA	270(Q)	C
34	YA	271(D)	U
34	YA	271(E)	G
34	YA	274	G
34	YA	275	G
34	YA	277	C
34	YA	278	A

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Mol	Chain	Res	Type
34	YA	279	C
34	YA	283	A
34	YA	299	A
34	YA	300	A
34	YA	311	A
34	YA	316	C
34	YA	317	G
34	YA	323	G
34	YA	329	G
34	YA	330	A
34	YA	332	A
34	YA	338	G
34	YA	342	G
34	YA	343	C
34	YA	352	G
34	YA	363(A)	G
34	YA	363(F)	U
34	YA	364	C
34	YA	371	A
34	YA	372	G
34	YA	374	A
34	YA	380	U
34	YA	386	G
34	YA	387	U
34	YA	399	G
34	YA	405	U
34	YA	407	G
34	YA	411	G
34	YA	412	A
34	YA	420	C
34	YA	428	A
34	YA	429	A
34	YA	444	C
34	YA	448	U
34	YA	454	A
34	YA	455	C
34	YA	457	A
34	YA	470	A
34	YA	473	G
34	YA	479	A
34	YA	480	A
34	YA	481	G

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Mol	Chain	Res	Type
34	YA	494	G
34	YA	496	G
34	YA	504	U
34	YA	505	A
34	YA	508	G
34	YA	509	C
34	YA	512	G
34	YA	518	G
34	YA	527	C
34	YA	528	A
34	YA	529	A
34	YA	530	G
34	YA	531	C
34	YA	532	A
34	YA	533	G
34	YA	537	C
34	YA	539	G
34	YA	540	G
34	YA	546	C
34	YA	547	A
34	YA	554	U
34	YA	563	G
34	YA	568	U
34	YA	573	G
34	YA	574	C
34	YA	575	A
34	YA	599	G
34	YA	603	A
34	YA	604	G
34	YA	607	U
34	YA	614	U
34	YA	615	G
34	YA	617	G
34	YA	621	A
34	YA	622	G
34	YA	627	A
34	YA	629	G
34	YA	634	C
34	YA	637	A
34	YA	638	G
34	YA	645	C
34	YA	646	A

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Mol	Chain	Res	Type
34	YA	647	G
34	YA	650	C
34	YA	651	G
34	YA	654(A)	A
34	YA	654(B)	G
34	YA	658	C
34	YA	686	G
34	YA	695	G
34	YA	700	G
34	YA	701	G
34	YA	704	G
34	YA	714	U
34	YA	721	C
34	YA	722	A
34	YA	726	G
34	YA	730	C
34	YA	731	C
34	YA	738	G
34	YA	747	U
34	YA	748	G
34	YA	753	C
34	YA	764	A
34	YA	771	G
34	YA	775	G
34	YA	777	A
34	YA	782	A
34	YA	784	A
34	YA	785	G
34	YA	789	A
34	YA	790	C
34	YA	792	G
34	YA	805	G
34	YA	812	C
34	YA	819	A
34	YA	827	U
34	YA	828	U
34	YA	847	U
34	YA	854	G
34	YA	856	C
34	YA	857	C
34	YA	859	G
34	YA	860	U

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Mol	Chain	Res	Type
34	YA	865	C
34	YA	866	A
34	YA	869	G
34	YA	872	A
34	YA	877	U
34	YA	878	A
34	YA	879	G
34	YA	889	C
34	YA	890	A
34	YA	896	A
34	YA	897	C
34	YA	899	A
34	YA	901	A
34	YA	904	C
34	YA	905	U
34	YA	906	G
34	YA	907	U
34	YA	910	A
34	YA	915	C
34	YA	917	A
34	YA	926	A
34	YA	932	G
34	YA	933	A
34	YA	941	A
34	YA	945	A
34	YA	946	G
34	YA	953	A
34	YA	957	A
34	YA	959	A
34	YA	961	C
34	YA	973	A
34	YA	974(A)	G
34	YA	974(B)	C
34	YA	975	G
34	YA	983	A
34	YA	989	G
34	YA	1005	C
34	YA	1008	C
34	YA	1011	G
34	YA	1012	U
34	YA	1013	C
34	YA	1015	G

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Mol	Chain	Res	Type
34	YA	1017	G
34	YA	1020	A
34	YA	1022	G
34	YA	1023	U
34	YA	1024	G
34	YA	1026	U
34	YA	1027	A
34	YA	1033	U
34	YA	1037	G
34	YA	1044	G
34	YA	1045	A
34	YA	1046	A
34	YA	1048	A
34	YA	1050	A
34	YA	1051	G
34	YA	1054	A
34	YA	1058	G
34	YA	1059	G
34	YA	1061	U
34	YA	1062	G
34	YA	1065	U
34	YA	1067	A
34	YA	1068	G
34	YA	1071	G
34	YA	1073	A
34	YA	1074	G
34	YA	1076	C
34	YA	1077	A
34	YA	1078	U
34	YA	1081	U
34	YA	1082	U
34	YA	1083	U
34	YA	1084	A
34	YA	1085	A
34	YA	1086	A
34	YA	1087	G
34	YA	1088	A
34	YA	1090	U
34	YA	1093	G
34	YA	1095	A
34	YA	1096	A
34	YA	1097	U

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Mol	Chain	Res	Type
34	YA	1099	G
34	YA	1103	A
34	YA	1104	C
34	YA	1110	G
34	YA	1111	A
34	YA	1112	G
34	YA	1115	G
34	YA	1122	G
34	YA	1126	A
34	YA	1130	U
34	YA	1131	G
34	YA	1132	A
34	YA	1135	C
34	YA	1136	G
34	YA	1139	G
34	YA	1142(A)	U
34	YA	1142(B)	A
34	YA	1156	A
34	YA	1168	G
34	YA	1170	G
34	YA	1173	G
34	YA	1174	A
34	YA	1175	U
34	YA	1176	G
34	YA	1179	C
34	YA	1180	C
34	YA	1183	G
34	YA	1186	G
34	YA	1190	G
34	YA	1195	G
34	YA	1204	A
34	YA	1205	U
34	YA	1206	G
34	YA	1210	A
34	YA	1212	G
34	YA	1218	C
34	YA	1220	A
34	YA	1221	C
34	YA	1236	G
34	YA	1238	G
34	YA	1240	U
34	YA	1241	A

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Mol	Chain	Res	Type
34	YA	1243	G
34	YA	1244	G
34	YA	1247	A
34	YA	1248	G
34	YA	1253	A
34	YA	1256	G
34	YA	1265	A
34	YA	1267	U
34	YA	1271	G
34	YA	1272	A
34	YA	1273	U
34	YA	1275	A
34	YA	1281	G
34	YA	1288	U
34	YA	1300	U
34	YA	1301	A
34	YA	1313	U
34	YA	1319	G
34	YA	1329	U
34	YA	1341	U
34	YA	1349	A
34	YA	1352	U
34	YA	1365	A
34	YA	1368	G
34	YA	1370	C
34	YA	1378	A
34	YA	1379	A
34	YA	1384	A
34	YA	1385	G
34	YA	1386	C
34	YA	1388	G
34	YA	1395	A
34	YA	1403	C
34	YA	1404	C
34	YA	1407	C
34	YA	1408	C
34	YA	1411	C
34	YA	1412	A
34	YA	1416	G
34	YA	1419	A
34	YA	1420	U
34	YA	1421	G

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Mol	Chain	Res	Type
34	YA	1427	A
34	YA	1428	C
34	YA	1437	C
34	YA	1444(B)	A
34	YA	1445	C
34	YA	1448	G
34	YA	1449(A)	A
34	YA	1449(B)	G
34	YA	1455	G
34	YA	1461	G
34	YA	1464	C
34	YA	1467	C
34	YA	1471	A
34	YA	1472	A
34	YA	1475	G
34	YA	1478	G
34	YA	1480	G
34	YA	1482	U
34	YA	1483	G
34	YA	1485	G
34	YA	1487	G
34	YA	1490	A
34	YA	1493	C
34	YA	1496	A
34	YA	1497	U
34	YA	1506	C
34	YA	1507	A
34	YA	1508	A
34	YA	1509	C
34	YA	1510	A
34	YA	1511	A
34	YA	1514	U
34	YA	1521	G
34	YA	1523	U
34	YA	1534	G
34	YA	1535	U
34	YA	1536	A
34	YA	1537	C
34	YA	1538	G
34	YA	1543	A
34	YA	1544	C
34	YA	1545(A)	A

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Mol	Chain	Res	Type
34	YA	1554	A
34	YA	1555	G
34	YA	1558	A
34	YA	1559	G
34	YA	1560	G
34	YA	1566	A
34	YA	1567	A
34	YA	1569	A
34	YA	1578	U
34	YA	1580	A
34	YA	1585	C
34	YA	1586	A
34	YA	1607	C
34	YA	1608	A
34	YA	1609	A
34	YA	1610	A
34	YA	1613	G
34	YA	1616	A
34	YA	1617	C
34	YA	1618	A
34	YA	1634	A
34	YA	1638	C
34	YA	1640	C
34	YA	1644	C
34	YA	1648	C
34	YA	1651	G
34	YA	1654	A
34	YA	1665	A
34	YA	1670	C
34	YA	1674	G
34	YA	1693	U
34	YA	1694	C
34	YA	1695	G
34	YA	1718	G
34	YA	1725	G
34	YA	1728	G
34	YA	1729	A
34	YA	1730	U
34	YA	1731	G
34	YA	1732	A
34	YA	1741	C
34	YA	1742	C

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Mol	Chain	Res	Type
34	YA	1743	G
34	YA	1750	G
34	YA	1753	G
34	YA	1756	G
34	YA	1762	A
34	YA	1763	G
34	YA	1764	G
34	YA	1773	A
34	YA	1774	C
34	YA	1776	G
34	YA	1779	U
34	YA	1780	A
34	YA	1781	C
34	YA	1782	C
34	YA	1784	A
34	YA	1787	A
34	YA	1791	A
34	YA	1799	G
34	YA	1800	C
34	YA	1802	A
34	YA	1816	G
34	YA	1820	U
34	YA	1847	A
34	YA	1853	A
34	YA	1858	G
34	YA	1864	U
34	YA	1869	G
34	YA	1872	A
34	YA	1878	G
34	YA	1881	C
34	YA	1882	C
34	YA	1885	A
34	YA	1888	G
34	YA	1889	A
34	YA	1900	A
34	YA	1903	G
34	YA	1906	G
34	YA	1913	A
34	YA	1914	C
34	YA	1929	G
34	YA	1930	G
34	YA	1931	U

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Mol	Chain	Res	Type
34	YA	1932	A
34	YA	1936	A
34	YA	1937	A
34	YA	1938	A
34	YA	1939	U
34	YA	1944	U
34	YA	1955	U
34	YA	1963	U
34	YA	1965	C
34	YA	1967	C
34	YA	1969	A
34	YA	1970	A
34	YA	1971	A
34	YA	1972	A
34	YA	1981	A
34	YA	1982	C
34	YA	1989	G
34	YA	1991	U
34	YA	1992	G
34	YA	1993	U
34	YA	2004	G
34	YA	2013	A
34	YA	2020	A
34	YA	2021	C
34	YA	2022	U
34	YA	2023	G
34	YA	2031	A
34	YA	2032	G
34	YA	2033	A
34	YA	2039	C
34	YA	2043	C
34	YA	2052	G
34	YA	2055	C
34	YA	2056	G
34	YA	2059	A
34	YA	2060	A
34	YA	2061	G
34	YA	2062	A
34	YA	2069	G
34	YA	2075	U
34	YA	2080	G
34	YA	2092	U

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Mol	Chain	Res	Type
34	YA	2093	G
34	YA	2094	G
34	YA	2099	U
34	YA	2107	C
34	YA	2108	C
34	YA	2111	C
34	YA	2113	U
34	YA	2114	A
34	YA	2115	G
34	YA	2116	G
34	YA	2118	U
34	YA	2119	A
34	YA	2120	G
34	YA	2126	A
34	YA	2127	G
34	YA	2128	C
34	YA	2131	G
34	YA	2132	U
34	YA	2133	G
34	YA	2135	A
34	YA	2137	C
34	YA	2138	C
34	YA	2145	C
34	YA	2146	C
34	YA	2148	G
34	YA	2158	A
34	YA	2159	G
34	YA	2164	C
34	YA	2165	G
34	YA	2166	G
34	YA	2172	U
34	YA	2173	A
34	YA	2176	A
34	YA	2190	G
34	YA	2191	G
34	YA	2194	G
34	YA	2197	U
34	YA	2198	A
34	YA	2199	A
34	YA	2209	C
34	YA	2210	G
34	YA	2211	G

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Mol	Chain	Res	Type
34	YA	2212	A
34	YA	2215	G
34	YA	2225	A
34	YA	2234	G
34	YA	2238	G
34	YA	2266	A
34	YA	2275	C
34	YA	2278	A
34	YA	2279	G
34	YA	2280	G
34	YA	2283	C
34	YA	2287	A
34	YA	2288	A
34	YA	2289	G
34	YA	2299	G
34	YA	2302	G
34	YA	2307	G
34	YA	2308	G
34	YA	2309	A
34	YA	2310	A
34	YA	2311	A
34	YA	2312	U
34	YA	2314	C
34	YA	2318	G
34	YA	2319	G
34	YA	2320	A
34	YA	2321	G
34	YA	2322	A
34	YA	2325	G
34	YA	2327	A
34	YA	2329	G
34	YA	2330	G
34	YA	2334	G
34	YA	2335	A
34	YA	2336	A
34	YA	2337	G
34	YA	2340	G
34	YA	2342	C
34	YA	2343	C
34	YA	2346	A
34	YA	2347	C
34	YA	2350	C

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Mol	Chain	Res	Type
34	YA	2354	G
34	YA	2372	G
34	YA	2377	A
34	YA	2379	G
34	YA	2383	G
34	YA	2385	C
34	YA	2391	G
34	YA	2392	A
34	YA	2396	G
34	YA	2400	G
34	YA	2402	C
34	YA	2403	C
34	YA	2406	U
34	YA	2410	G
34	YA	2413	G
34	YA	2414	G
34	YA	2423	U
34	YA	2424	C
34	YA	2425	A
34	YA	2427	C
34	YA	2428	G
34	YA	2429	G
34	YA	2430	A
34	YA	2435	A
34	YA	2439	A
34	YA	2440	C
34	YA	2441	C
34	YA	2445	G
34	YA	2448	A
34	YA	2469	A
34	YA	2470	G
34	YA	2471	C
34	YA	2475	C
34	YA	2476	A
34	YA	2480	C
34	YA	2484	G
34	YA	2487	G
34	YA	2491	U
34	YA	2498	C
34	YA	2500	U
34	YA	2502	G
34	YA	2504	U

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Mol	Chain	Res	Type
34	YA	2505	G
34	YA	2506	U
34	YA	2513	G
34	YA	2518	A
34	YA	2524	G
34	YA	2525	G
34	YA	2529	G
34	YA	2530	A
34	YA	2535	G
34	YA	2542	A
34	YA	2550	G
34	YA	2551	C
34	YA	2554	U
34	YA	2559	C
34	YA	2562	U
34	YA	2567	G
34	YA	2569	G
34	YA	2572	A
34	YA	2573	C
34	YA	2574	G
34	YA	2577	A
34	YA	2578	G
34	YA	2584	U
34	YA	2585	U
34	YA	2586	C
34	YA	2602	A
34	YA	2609	U
34	YA	2611	U
34	YA	2612	C
34	YA	2615	U
34	YA	2621	A
34	YA	2623	G
34	YA	2629	A
34	YA	2630	G
34	YA	2632	A
34	YA	2638	G
34	YA	2655	G
34	YA	2665	A
34	YA	2673	G
34	YA	2675	A
34	YA	2682	U
34	YA	2689	U

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Mol	Chain	Res	Type
34	YA	2690	C
34	YA	2691	C
34	YA	2701	C
34	YA	2702	U
34	YA	2703	C
34	YA	2712(A)	U
34	YA	2712(B)	A
34	YA	2713	A
34	YA	2714	G
34	YA	2718	G
34	YA	2724	C
34	YA	2726	U
34	YA	2733	A
34	YA	2734	A
34	YA	2739	U
34	YA	2744	G
34	YA	2758	A
34	YA	2761	G
34	YA	2762	G
34	YA	2765	A
34	YA	2766	G
34	YA	2777	G
34	YA	2778	A
34	YA	2779	U
34	YA	2780	G
34	YA	2787	C
34	YA	2789	C
34	YA	2790	A
34	YA	2791	C
34	YA	2792	G
34	YA	2794	C
34	YA	2797	U
34	YA	2798	C
34	YA	2807	G
34	YA	2808	U
34	YA	2818	G
34	YA	2820	A
34	YA	2821	A
34	YA	2830	G
34	YA	2832	U
34	YA	2833	G
34	YA	2834	G

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Mol	Chain	Res	Type
34	YA	2835	A
34	YA	2847	U
34	YA	2848	G
34	YA	2851	A
34	YA	2867	G
34	YA	2872	G
34	YA	2873	A
34	YA	2879	C
34	YA	2880	C
34	YA	2883	A
34	YA	2886	G
34	YA	2891	G
34	YA	2892	A
34	YA	2893	G
34	YA	2895	U
35	YB	7	G
35	YB	8	U
35	YB	9	G
35	YB	13	A
35	YB	15	A
35	YB	16	G
35	YB	19	G
35	YB	21	G
35	YB	22	U
35	YB	25	A
35	YB	35	U
35	YB	41	U
35	YB	42	C
35	YB	44	G
35	YB	45	A
35	YB	47	C
35	YB	52	A
35	YB	53	A
35	YB	56	G
35	YB	67	G
35	YB	73	A
35	YB	81	G
35	YB	109	G

All (125) RNA pucker outliers are listed below:

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Mol	Chain	Res	Type

Mol	Chain	Res	Type
1	QA	8	A
1	QA	65	U
1	QA	251	G
1	QA	328	C
1	QA	428	G
1	QA	687	A
1	QA	748	C
1	QA	992	U
1	QA	1054	C
1	QA	1225	A
1	QA	1278	U
1	QA	1285	A
1	QA	1504	G
1	QA	1538	C
22	QV	10	G
34	RA	99	U
34	RA	102	G
34	RA	222	A
34	RA	229	A
34	RA	242	G
34	RA	271(C)	G
34	RA	277	C
34	RA	404	C
34	RA	503	A
34	RA	512	G
34	RA	637	A
34	RA	752	A
34	RA	846	C
34	RA	856	C
34	RA	1022	G
34	RA	1026	U
34	RA	1045	A
34	RA	1069	A
34	RA	1130	U
34	RA	1178	C
34	RA	1312	U
34	RA	1427	A
34	RA	1558	A
34	RA	1653	G
34	RA	1694	C
34	RA	1799	G

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Mol	Chain	Res	Type
34	RA	1819	A
34	RA	1930	G
34	RA	1992	G
34	RA	2060	A
34	RA	2126	A
34	RA	2320	A
34	RA	2439	A
34	RA	2468	G
34	RA	2566	A
34	RA	2610	C
34	RA	2689	U
34	RA	2776	A
34	RA	2791	C
34	RA	2832	U
35	RB	66	A
1	XA	115	G
1	XA	266	G
1	XA	309	G
1	XA	328	C
1	XA	428	G
1	XA	608	A
1	XA	617	G
1	XA	635	G
1	XA	748	C
1	XA	980	C
1	XA	992	U
1	XA	1054	C
1	XA	1225	A
1	XA	1253	G
1	XA	1285	A
1	XA	1304	G
1	XA	1320	C
1	XA	1346	A
1	XA	1348	U
1	XA	1359	C
1	XA	1377	A
1	XA	1379	G
1	XA	1381	U
1	XA	1440(B)	G
1	XA	1504	G
1	XA	1505	G
1	XA	1537	U

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Mol	Chain	Res	Type
22	XV	10	G
34	YA	102	G
34	YA	177	G
34	YA	221	A
34	YA	229	A
34	YA	241	A
34	YA	242	G
34	YA	271(C)	G
34	YA	278	A
34	YA	404	C
34	YA	503	A
34	YA	637	A
34	YA	653	A
34	YA	752	A
34	YA	846	C
34	YA	856	C
34	YA	859	G
34	YA	1022	G
34	YA	1026	U
34	YA	1045	A
34	YA	1085	A
34	YA	1178	C
34	YA	1427	A
34	YA	1508	A
34	YA	1535	U
34	YA	1558	A
34	YA	1608	A
34	YA	1653	G
34	YA	1694	C
34	YA	1799	G
34	YA	1819	A
34	YA	1930	G
34	YA	1992	G
34	YA	2126	A
34	YA	2439	A
34	YA	2566	A
34	YA	2681	C
34	YA	2689	U
34	YA	2712(A)	U
34	YA	2712(B)	A
34	YA	2776	A
35	YB	66	A

5.4 Non-standard residues in protein, DNA, RNA chains (i)

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 1038 ligands modelled in this entry, 1036 are monoatomic - leaving 2 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	$\#\|Z\| > 2$
56	SF4	XD	301	4	0,12,12	-	-	-		
56	SF4	QD	301	4	0,12,12	-	-	-		

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
56	SF4	XD	301	4	-	-	0/6/5/5
56	SF4	QD	301	4	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	QD	301	SF4	2	0

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	QA	1511/1521 (99%)	-0.06	20 (1%)	74	60	186, 276, 733, 884	0
1	XA	1515/1521 (99%)	-0.17	16 (1%)	77	64	158, 261, 672, 775	0
2	QB	235/256 (91%)	0.03	10 (4%)	40	32	230, 330, 393, 429	0
2	XB	236/256 (92%)	0.28	18 (7%)	21	19	237, 291, 340, 364	0
3	QC	205/239 (85%)	0.26	13 (6%)	27	24	271, 379, 421, 449	0
3	XC	205/239 (85%)	0.35	12 (5%)	29	25	275, 359, 467, 497	0
4	QD	208/209 (99%)	0.70	23 (11%)	12	12	231, 275, 325, 369	0
4	XD	208/209 (99%)	0.60	18 (8%)	17	16	216, 258, 306, 370	0
5	QE	151/162 (93%)	0.43	10 (6%)	26	23	208, 268, 318, 333	0
5	XE	151/162 (93%)	0.12	9 (5%)	29	24	174, 222, 277, 313	0
6	QF	101/101 (100%)	0.32	6 (5%)	29	25	224, 285, 333, 355	0
6	XF	101/101 (100%)	0.46	7 (6%)	24	21	278, 343, 376, 406	0
7	QG	155/156 (99%)	-0.05	4 (2%)	57	43	332, 425, 492, 522	0
7	XG	155/156 (99%)	0.08	5 (3%)	50	38	327, 458, 559, 580	0
8	QH	137/138 (99%)	1.15	27 (19%)	3	6	230, 290, 341, 368	0
8	XH	137/138 (99%)	0.61	12 (8%)	17	16	197, 259, 299, 342	0
9	QI	105/128 (82%)	0.07	1 (0%)	79	65	289, 373, 413, 449	0
9	XI	107/128 (83%)	0.21	3 (2%)	55	41	364, 448, 487, 522	0
10	QJ	99/105 (94%)	0.41	3 (3%)	52	40	354, 404, 458, 476	0
10	XJ	96/105 (91%)	0.73	9 (9%)	15	15	340, 397, 495, 509	0
11	QK	119/129 (92%)	0.45	8 (6%)	25	22	172, 269, 315, 333	0
11	XK	116/129 (89%)	0.55	9 (7%)	20	19	213, 279, 334, 364	0
12	QL	125/132 (94%)	0.79	14 (11%)	11	12	183, 237, 288, 334	0
12	XL	122/132 (92%)	0.87	21 (17%)	5	7	168, 221, 289, 338	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	QM	115/126 (91%)	0.02	2 (1%) 69 53	298, 386, 443, 469	0
13	XM	114/126 (90%)	0.34	7 (6%) 28 24	317, 414, 450, 463	0
14	QN	60/61 (98%)	0.74	7 (11%) 10 11	295, 353, 479, 493	0
14	XN	60/61 (98%)	1.00	12 (20%) 3 6	312, 556, 587, 612	0
15	QO	88/89 (98%)	0.73	13 (14%) 7 9	196, 272, 314, 335	0
15	XO	87/89 (97%)	0.57	9 (10%) 13 13	182, 221, 267, 284	0
16	QP	84/88 (95%)	0.97	14 (16%) 5 7	189, 247, 303, 348	0
16	XP	84/88 (95%)	1.56	30 (35%) 1 2	264, 358, 461, 493	0
17	QQ	100/105 (95%)	1.19	19 (19%) 4 6	199, 251, 286, 319	0
17	XQ	100/105 (95%)	0.61	16 (16%) 6 8	174, 231, 273, 307	0
18	QR	70/88 (79%)	0.20	3 (4%) 40 32	240, 297, 336, 375	0
18	XR	70/88 (79%)	0.21	3 (4%) 40 32	168, 247, 321, 337	0
19	QS	83/93 (89%)	0.81	4 (4%) 36 30	308, 459, 605, 672	0
19	XS	84/93 (90%)	0.77	6 (7%) 23 21	341, 414, 456, 474	0
20	QT	99/106 (93%)	1.29	31 (31%) 1 3	205, 271, 358, 377	0
20	XT	99/106 (93%)	1.14	19 (19%) 4 6	198, 242, 278, 302	0
21	QU	25/27 (92%)	0.81	2 (8%) 20 18	300, 347, 463, 563	0
21	XU	25/27 (92%)	1.18	5 (20%) 3 6	336, 374, 530, 549	0
22	QV	68/77 (88%)	-0.19	1 (1%) 71 57	294, 387, 435, 446	0
22	XV	68/77 (88%)	-0.34	0 100 100	281, 411, 474, 504	0
23	QX	19/19 (100%)	0.21	0 100 100	368, 432, 461, 464	0
23	XX	19/19 (100%)	0.29	0 100 100	356, 422, 471, 476	0
24	R0	81/85 (95%)	0.79	15 (18%) 4 6	166, 206, 296, 364	0
24	Y0	82/85 (96%)	0.57	6 (7%) 22 20	120, 168, 274, 329	0
25	R1	95/98 (96%)	1.23	20 (21%) 3 5	162, 201, 262, 291	0
25	Y1	93/98 (94%)	1.06	15 (16%) 5 8	117, 176, 219, 232	0
26	R2	69/72 (95%)	0.38	4 (5%) 30 25	124, 192, 238, 283	0
26	Y2	68/72 (94%)	0.88	11 (16%) 5 8	124, 171, 214, 231	0
27	R3	59/60 (98%)	0.51	7 (11%) 10 11	175, 228, 281, 338	0
27	Y3	59/60 (98%)	0.48	4 (6%) 25 22	115, 168, 241, 269	0
28	R4	45/71 (63%)	-0.29	0 100 100	237, 382, 418, 429	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	Y4	46/71 (64%)	-0.31	0 100 100	206, 273, 315, 322	0
29	R5	59/60 (98%)	0.19	1 (1%) 69 53	142, 193, 225, 291	0
29	Y5	59/60 (98%)	0.15	1 (1%) 69 53	122, 172, 225, 300	0
30	R6	53/54 (98%)	-0.27	1 (1%) 66 50	175, 230, 267, 357	0
30	Y6	53/54 (98%)	0.22	2 (3%) 44 35	144, 194, 248, 260	0
31	R7	47/49 (95%)	0.96	7 (14%) 7 9	138, 167, 186, 207	0
31	Y7	48/49 (97%)	0.75	9 (18%) 4 6	111, 146, 192, 224	0
32	R8	64/65 (98%)	0.75	7 (10%) 12 13	154, 201, 248, 284	0
32	Y8	64/65 (98%)	1.21	15 (23%) 2 4	120, 172, 209, 259	0
33	R9	37/37 (100%)	1.48	10 (27%) 2 4	260, 289, 340, 357	0
33	Y9	37/37 (100%)	1.25	6 (16%) 5 8	174, 205, 233, 250	0
34	RA	2882/2905 (99%)	-0.31	3 (0%) 92 89	123, 197, 357, 505	0
34	YA	2883/2905 (99%)	-0.32	13 (0%) 87 76	96, 149, 276, 493	0
35	RB	120/122 (98%)	-0.35	0 100 100	205, 256, 303, 350	0
35	YB	120/122 (98%)	-0.41	1 (0%) 82 69	135, 175, 210, 248	0
36	RD	272/276 (98%)	0.71	38 (13%) 7 10	127, 186, 231, 284	0
36	YD	272/276 (98%)	0.62	25 (9%) 16 15	107, 159, 207, 243	0
37	RE	205/206 (99%)	0.78	30 (14%) 7 9	128, 211, 265, 310	0
37	YE	205/206 (99%)	0.68	24 (11%) 10 11	102, 157, 205, 254	0
38	RF	202/210 (96%)	0.25	9 (4%) 39 31	143, 199, 272, 328	0
38	YF	202/210 (96%)	0.47	16 (7%) 20 18	101, 160, 215, 256	0
39	RG	181/182 (99%)	-0.04	5 (2%) 55 41	231, 307, 360, 388	0
39	YG	181/182 (99%)	0.06	9 (4%) 35 29	178, 226, 291, 327	0
40	RH	174/180 (96%)	0.23	12 (6%) 24 21	189, 269, 313, 358	0
40	YH	174/180 (96%)	0.36	11 (6%) 27 24	123, 175, 217, 258	0
41	RI	146/148 (98%)	0.29	11 (7%) 22 20	188, 254, 300, 327	0
41	YI	146/148 (98%)	0.06	7 (4%) 36 30	158, 226, 271, 293	0
42	RN	138/140 (98%)	0.49	14 (10%) 14 13	139, 219, 260, 268	0
42	YN	138/140 (98%)	0.71	18 (13%) 9 10	94, 160, 205, 231	0
43	RO	122/122 (100%)	0.34	8 (6%) 26 23	158, 202, 247, 286	0
43	YO	122/122 (100%)	0.11	1 (0%) 82 69	113, 159, 199, 213	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	RP	150/150 (100%)	0.72	27 (18%) 4 7	160, 228, 287, 331	0
44	YP	147/150 (98%)	0.66	16 (10%) 12 13	128, 166, 217, 255	0
45	RQ	141/141 (100%)	0.36	13 (9%) 16 15	194, 231, 267, 309	0
45	YQ	141/141 (100%)	0.37	5 (3%) 47 36	132, 174, 238, 314	0
46	RR	117/118 (99%)	0.94	19 (16%) 5 8	121, 180, 224, 257	0
46	YR	117/118 (99%)	0.98	27 (23%) 2 4	104, 155, 212, 237	0
47	RS	111/112 (99%)	0.40	10 (9%) 17 15	191, 262, 311, 357	0
47	YS	111/112 (99%)	0.70	22 (19%) 3 6	146, 196, 282, 328	0
48	RT	137/146 (93%)	0.33	11 (8%) 20 18	158, 225, 307, 320	0
48	YT	137/146 (93%)	0.46	14 (10%) 13 13	127, 185, 257, 282	0
49	RU	117/118 (99%)	0.70	13 (11%) 12 12	149, 243, 286, 304	0
49	YU	117/118 (99%)	0.56	7 (5%) 29 24	101, 147, 194, 223	0
50	RV	101/101 (100%)	0.19	10 (9%) 14 14	165, 222, 278, 288	0
50	YV	101/101 (100%)	0.35	12 (11%) 10 11	118, 170, 240, 280	0
51	RW	113/113 (100%)	0.59	10 (8%) 17 16	117, 160, 226, 339	0
51	YW	113/113 (100%)	0.62	12 (10%) 13 13	92, 137, 192, 239	0
52	RX	92/96 (95%)	0.58	6 (6%) 26 23	127, 177, 212, 235	0
52	YX	92/96 (95%)	0.76	11 (11%) 10 11	110, 146, 190, 259	0
53	RY	107/110 (97%)	0.50	6 (5%) 31 26	170, 219, 264, 315	0
53	YY	107/110 (97%)	0.29	3 (2%) 55 41	107, 170, 205, 244	0
54	RZ	183/206 (88%)	-0.07	4 (2%) 62 47	211, 258, 298, 354	0
54	YZ	193/206 (93%)	0.14	9 (4%) 37 30	124, 196, 287, 350	0
All	All	20769/21416 (96%)	0.16	1144 (5%) 32 26	92, 221, 460, 884	0

All (1144) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
4	XD	4	TYR	11.2
17	QQ	24	GLU	9.4
2	XB	101	MET	9.1
8	QH	111	ILE	9.0
12	XL	28	LYS	8.6
17	QQ	7	THR	8.6
10	XJ	63	PHE	8.5

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Mol	Chain	Res	Type	RSRZ
45	YQ	38	GLU	8.5
13	QM	93	ARG	8.4
17	QQ	35	VAL	8.3
11	QK	129	SER	8.0
17	QQ	36	ILE	7.9
11	XK	126	ARG	7.8
36	RD	185	VAL	7.8
54	RZ	79	ARG	7.8
20	QT	70	SER	7.7
41	RI	37	VAL	7.7
47	YS	9	ARG	7.6
47	YS	4	LEU	7.4
4	QD	128	VAL	7.4
17	QQ	33	GLY	7.2
3	QC	129	ALA	7.1
26	Y2	15	LYS	7.1
11	XK	122	LYS	7.1
24	R0	3	HIS	7.1
36	RD	147	LEU	7.1
16	XP	29	ASP	7.0
20	XT	9	ASN	7.0
26	R2	8	LYS	6.9
50	RV	72	VAL	6.8
48	RT	1	MET	6.8
53	RY	1	MET	6.8
36	YD	184	LYS	6.7
47	RS	2	ALA	6.6
4	XD	2	GLY	6.6
48	RT	99	LEU	6.5
24	R0	76	GLY	6.5
19	XS	56	GLN	6.4
19	QS	33	THR	6.4
11	QK	128	ALA	6.3
38	RF	81	PRO	6.3
46	YR	48	VAL	6.3
8	QH	101	PRO	6.3
17	QQ	32	TYR	6.3
12	XL	20	LYS	6.1
3	QC	124	ILE	6.1
21	XU	4	GLY	6.1
17	QQ	34	LYS	6.0
16	QP	29	ASP	5.9

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Mol	Chain	Res	Type	RSRZ
4	XD	11	LEU	5.9
20	XT	11	SER	5.9
11	XK	125	PHE	5.9
47	YS	8	GLU	5.9
47	RS	3	ARG	5.8
14	XN	53	LEU	5.8
52	RX	34	ALA	5.8
20	QT	71	THR	5.7
6	QF	72	VAL	5.7
37	YE	113	PHE	5.7
3	XC	158	GLY	5.6
16	XP	1	MET	5.6
34	YA	2602	A	5.6
47	RS	8	GLU	5.5
8	QH	135	CYS	5.5
47	YS	3	ARG	5.5
46	RR	48	VAL	5.5
10	XJ	47	PHE	5.5
45	RQ	39	PRO	5.4
5	QE	26	PHE	5.4
14	XN	48	ALA	5.4
47	YS	7	TYR	5.4
46	RR	69	ASP	5.4
3	XC	178	LEU	5.4
12	XL	29	GLY	5.3
40	RH	165	ALA	5.3
38	RF	41	LEU	5.3
46	RR	66	VAL	5.3
44	YP	35	HIS	5.3
36	RD	6	PHE	5.3
3	QC	158	GLY	5.3
4	QD	146	ILE	5.3
16	QP	24	ALA	5.3
20	QT	56	MET	5.2
26	Y2	12	GLU	5.2
41	RI	38	LEU	5.2
10	QJ	58	ASP	5.2
3	QC	189	ALA	5.2
24	Y0	2	ALA	5.2
36	RD	5	LYS	5.2
3	XC	154	SER	5.2
37	RE	188	VAL	5.2

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Mol	Chain	Res	Type	RSRZ
16	XP	30	GLY	5.2
1	XA	1375	A	5.2
2	XB	71	VAL	5.1
37	RE	79	ARG	5.1
40	YH	64	LEU	5.1
8	QH	112	LEU	5.1
14	QN	11	LYS	5.1
17	QQ	37	LYS	5.1
37	RE	182	LEU	5.1
40	RH	150	ALA	5.1
5	XE	13	ILE	5.1
10	XJ	46	ARG	5.0
48	YT	106	SER	5.0
42	YN	75	TYR	5.0
25	R1	12	PRO	5.0
38	YF	181	LEU	5.0
48	YT	104	ASN	5.0
18	XR	31	LEU	5.0
8	QH	99	GLU	5.0
36	YD	169	GLU	5.0
16	XP	25	ARG	4.9
3	XC	165	THR	4.9
8	QH	134	ILE	4.9
16	XP	28	ARG	4.9
16	XP	60	LEU	4.9
11	QK	127	LYS	4.9
49	RU	37	GLU	4.9
2	XB	98	LEU	4.9
44	RP	110	TYR	4.9
52	RX	33	LYS	4.9
50	RV	73	SER	4.9
41	RI	36	ALA	4.9
37	RE	152	LYS	4.9
36	RD	184	LYS	4.8
46	YR	6	SER	4.8
37	RE	26	ILE	4.8
44	RP	71	VAL	4.8
48	YT	1	MET	4.8
3	XC	175	LEU	4.8
10	XJ	65	LEU	4.8
16	QP	25	ARG	4.8
20	QT	72	LEU	4.8

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Mol	Chain	Res	Type	RSRZ
20	XT	10	LEU	4.8
15	XO	60	VAL	4.8
16	XP	27	LYS	4.7
15	QO	66	LEU	4.7
20	XT	72	LEU	4.7
16	XP	31	LYS	4.7
46	RR	70	LEU	4.7
47	YS	11	LYS	4.7
50	YV	81	TYR	4.7
4	QD	94	LEU	4.7
44	RP	50	ARG	4.7
1	QA	1065	U	4.7
41	YI	21	VAL	4.6
12	QL	32	PHE	4.6
8	XH	112	LEU	4.6
46	YR	69	ASP	4.6
16	QP	70	ALA	4.6
34	RA	2319	G	4.6
36	RD	211	ARG	4.6
10	XJ	58	ASP	4.6
3	XC	155	GLY	4.6
46	YR	29	LEU	4.6
15	XO	63	ARG	4.6
47	YS	17	ARG	4.6
16	XP	65	GLN	4.6
33	R9	28	GLU	4.6
52	YX	62	LYS	4.5
40	RH	105	LEU	4.5
4	QD	68	TYR	4.5
46	RR	65	LEU	4.5
5	XE	81	GLU	4.5
20	QT	9	ASN	4.5
2	XB	97	TRP	4.5
3	QC	130	VAL	4.5
4	XD	5	ILE	4.5
51	YW	98	LYS	4.5
16	XP	4	ILE	4.4
4	XD	64	LEU	4.4
5	QE	43	LEU	4.4
4	QD	139	ARG	4.4
46	RR	68	ARG	4.4
15	QO	54	ARG	4.4

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Mol	Chain	Res	Type	RSRZ
16	QP	28	ARG	4.4
47	YS	92	TYR	4.4
31	R7	10	ARG	4.4
48	RT	102	ILE	4.4
19	XS	55	LYS	4.4
13	XM	82	MET	4.4
4	QD	67	ILE	4.4
20	XT	68	LYS	4.4
5	XE	25	ARG	4.4
20	QT	11	SER	4.4
31	R7	46	VAL	4.3
1	XA	134	A	4.3
40	RH	151	ILE	4.3
12	XL	89	ARG	4.3
50	YV	74	LYS	4.3
36	RD	226	MET	4.3
36	RD	36	PRO	4.3
17	QQ	26	GLN	4.3
3	QC	128	PHE	4.3
8	XH	91	ARG	4.3
36	RD	181	GLU	4.3
48	YT	109	GLU	4.3
42	RN	99	LEU	4.2
37	YE	156	MET	4.2
8	QH	120	THR	4.2
36	YD	170	GLY	4.2
8	QH	19	VAL	4.2
11	XK	124	LYS	4.2
31	R7	14	LYS	4.2
36	YD	38	LYS	4.2
37	RE	111	ARG	4.2
47	YS	13	ARG	4.2
48	RT	50	ILE	4.2
42	YN	82	LEU	4.2
14	QN	53	LEU	4.2
37	RE	121	ASN	4.2
50	RV	81	TYR	4.2
20	XT	60	GLU	4.2
37	RE	123	ALA	4.2
11	QK	84	VAL	4.2
20	QT	8	ARG	4.2
12	XL	120	TYR	4.2

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Mol	Chain	Res	Type	RSRZ
20	XT	12	ALA	4.2
6	XF	79	LEU	4.2
12	QL	93	LEU	4.2
2	QB	101	MET	4.2
42	RN	84	LYS	4.2
48	RT	94	ALA	4.2
5	XE	24	ARG	4.1
54	RZ	78	LYS	4.1
1	QA	60	A	4.1
20	XT	30	LYS	4.1
6	XF	72	VAL	4.1
31	Y7	15	THR	4.1
10	XJ	62	HIS	4.1
33	R9	25	VAL	4.1
18	QR	66	LEU	4.1
16	XP	3	LYS	4.1
53	YY	63	LYS	4.1
8	QH	95	VAL	4.1
12	XL	10	LEU	4.1
49	RU	35	ALA	4.1
8	XH	111	ILE	4.0
37	RE	156	MET	4.0
49	RU	91	ASP	4.0
4	QD	64	LEU	4.0
37	YE	195	LEU	4.0
10	XJ	64	GLU	4.0
25	R1	26	ARG	4.0
47	RS	4	LEU	4.0
2	QB	163	PHE	4.0
42	YN	81	GLY	4.0
31	Y7	48	LYS	4.0
32	Y8	11	LYS	4.0
36	RD	155	LEU	4.0
37	RE	195	LEU	4.0
24	R0	74	ARG	4.0
41	RI	3	VAL	4.0
2	XB	163	PHE	4.0
8	XH	80	ILE	4.0
50	RV	74	LYS	3.9
20	QT	67	ALA	3.9
52	YX	28	PHE	3.9
7	QG	8	GLU	3.9

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Mol	Chain	Res	Type	RSRZ
8	XH	133	LEU	3.9
51	YW	96	ILE	3.9
12	QL	86	ARG	3.9
20	QT	22	ARG	3.9
36	RD	259	THR	3.9
30	R6	4	GLU	3.9
53	YY	64	GLU	3.9
1	XA	1376	U	3.9
20	QT	13	LEU	3.9
24	R0	71	ASP	3.9
31	R7	22	MET	3.9
34	YA	2181	G	3.9
31	R7	45	ALA	3.9
42	RN	115	ARG	3.9
25	R1	3	LYS	3.9
45	YQ	39	PRO	3.9
12	QL	10	LEU	3.8
24	R0	75	LEU	3.8
41	RI	92	VAL	3.8
27	R3	14	GLY	3.8
25	R1	21	ARG	3.8
5	XE	129	ILE	3.8
7	XG	8	GLU	3.8
25	R1	27	GLU	3.8
11	XK	121	PRO	3.8
36	RD	173	VAL	3.8
14	QN	13	THR	3.8
52	RX	39	ILE	3.8
50	RV	77	ALA	3.8
12	XL	7	ILE	3.8
16	XP	2	VAL	3.8
47	YS	28	VAL	3.8
42	YN	76	SER	3.8
2	XB	108	ILE	3.7
17	XQ	83	ASP	3.7
24	R0	4	LYS	3.7
37	RE	128	SER	3.7
20	QT	12	ALA	3.7
36	RD	258	LYS	3.7
42	YN	46	VAL	3.7
44	RP	3	LEU	3.7
46	RR	71	GLN	3.7

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Mol	Chain	Res	Type	RSRZ
3	XC	153	VAL	3.7
47	YS	12	PHE	3.7
37	YE	76	ARG	3.7
16	QP	7	ALA	3.7
38	YF	37	VAL	3.7
24	R0	77	ARG	3.7
37	RE	151	TYR	3.7
40	YH	67	LEU	3.7
41	RI	21	VAL	3.7
41	YI	30	LEU	3.7
3	QC	120	VAL	3.7
17	XQ	24	GLU	3.7
25	R1	11	ARG	3.7
54	YZ	79	ARG	3.7
36	RD	16	MET	3.6
6	XF	95	GLU	3.6
3	QC	152	ILE	3.6
8	QH	100	ILE	3.6
41	RI	1	MET	3.6
2	QB	173	ALA	3.6
31	R7	18	PHE	3.6
17	QQ	30	PRO	3.6
12	QL	18	VAL	3.6
20	XT	64	ASP	3.6
11	XK	120	ARG	3.6
15	XO	68	ARG	3.6
45	RQ	100	GLY	3.6
52	RX	68	ARG	3.6
46	RR	47	PHE	3.6
46	RR	67	LEU	3.6
24	R0	45	PHE	3.6
20	QT	74	LYS	3.6
16	XP	74	LEU	3.6
3	XC	162	GLN	3.6
51	RW	99	ARG	3.6
44	RP	51	PHE	3.6
16	QP	68	ASP	3.6
3	QC	178	LEU	3.6
44	YP	3	LEU	3.6
33	R9	24	TYR	3.5
12	XL	27	LEU	3.5
26	Y2	20	GLU	3.5

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Mol	Chain	Res	Type	RSRZ
4	QD	77	ASN	3.5
7	XG	28	ASN	3.5
25	Y1	4	VAL	3.5
48	RT	22	PHE	3.5
36	YD	174	ILE	3.5
15	XO	65	ARG	3.5
49	RU	36	ARG	3.5
36	YD	5	LYS	3.5
15	XO	32	LEU	3.5
48	RT	114	LEU	3.5
47	YS	16	ASN	3.5
13	XM	90	LEU	3.5
17	QQ	39	SER	3.5
20	QT	73	HIS	3.5
7	QG	33	ASP	3.5
10	XJ	60	ARG	3.5
37	YE	7	VAL	3.5
43	RO	38	VAL	3.5
51	YW	86	LEU	3.5
15	QO	62	GLN	3.5
36	RD	28	GLU	3.4
16	XP	9	PHE	3.4
38	YF	41	LEU	3.4
1	XA	1367	C	3.4
16	QP	5	ARG	3.4
53	RY	33	LYS	3.4
52	YX	54	VAL	3.4
16	XP	22	THR	3.4
25	Y1	11	ARG	3.4
40	RH	166	GLY	3.4
14	QN	14	PRO	3.4
26	Y2	21	LEU	3.4
38	YF	50	SER	3.4
51	RW	98	LYS	3.4
2	QB	214	ILE	3.4
44	RP	26	GLY	3.4
8	QH	133	LEU	3.4
11	QK	125	PHE	3.4
5	XE	14	ARG	3.4
12	XL	19	ARG	3.4
37	YE	149	ARG	3.4
54	YZ	166	SER	3.4

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Mol	Chain	Res	Type	RSRZ
17	XQ	36	ILE	3.4
44	RP	35	HIS	3.4
47	RS	5	THR	3.4
20	XT	56	MET	3.4
1	QA	1112	C	3.4
51	RW	81	ALA	3.4
25	Y1	38	SER	3.4
46	YR	44	LEU	3.4
11	QK	11	LYS	3.4
36	RD	40	THR	3.4
4	QD	93	PHE	3.4
7	QG	37	ASN	3.3
20	QT	26	ASN	3.3
20	XT	63	ILE	3.3
25	R1	10	LYS	3.3
25	Y1	92	LYS	3.3
42	YN	83	LYS	3.3
15	XO	36	ILE	3.3
15	XO	66	LEU	3.3
3	XC	167	TRP	3.3
36	RD	52	ARG	3.3
36	RD	169	GLU	3.3
17	XQ	37	LYS	3.3
33	Y9	15	LYS	3.3
36	YD	168	ARG	3.3
12	QL	7	ILE	3.3
21	XU	3	LYS	3.3
36	YD	175	LEU	3.3
44	RP	53	GLY	3.3
33	Y9	26	ILE	3.3
20	QT	27	LYS	3.3
36	RD	42	GLY	3.3
47	YS	2	ALA	3.3
36	YD	44	ASN	3.3
20	QT	30	LYS	3.3
6	QF	53	ALA	3.3
40	YH	57	ASP	3.3
2	QB	97	TRP	3.3
7	XG	11	GLN	3.3
14	XN	61	TRP	3.3
33	R9	23	VAL	3.3
37	RE	163	GLU	3.3

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Mol	Chain	Res	Type	RSRZ
15	QO	58	MET	3.3
21	QU	16	GLY	3.2
32	Y8	20	GLY	3.2
4	XD	135	LEU	3.2
46	RR	44	LEU	3.2
12	QL	19	ARG	3.2
26	Y2	13	ALA	3.2
54	YZ	193	GLU	3.2
47	YS	20	ARG	3.2
51	RW	42	ARG	3.2
49	YU	7	GLY	3.2
26	Y2	66	GLU	3.2
48	RT	11	GLU	3.2
50	RV	76	LYS	3.2
1	QA	1111	A	3.2
20	XT	18	GLN	3.2
36	YD	41	GLY	3.2
50	RV	78	LYS	3.2
32	Y8	54	GLU	3.2
36	RD	175	LEU	3.2
5	XE	18	ARG	3.2
17	XQ	84	LEU	3.2
45	YQ	91	GLU	3.2
38	RF	184	TYR	3.2
47	RS	20	ARG	3.2
53	RY	20	TYR	3.2
32	Y8	63	PRO	3.2
25	R1	95	LEU	3.2
46	YR	47	PHE	3.2
33	R9	29	ASN	3.2
49	YU	91	ASP	3.1
25	Y1	37	ILE	3.1
44	RP	40	SER	3.1
8	QH	93	VAL	3.1
16	XP	68	ASP	3.1
33	Y9	25	VAL	3.1
8	XH	18	ARG	3.1
25	Y1	70	VAL	3.1
37	YE	188	VAL	3.1
54	YZ	168	GLU	3.1
17	QQ	22	LEU	3.1
12	XL	126	LYS	3.1

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Mol	Chain	Res	Type	RSRZ
2	XB	68	ILE	3.1
25	R1	7	ILE	3.1
36	RD	41	GLY	3.1
1	XA	135	C	3.1
6	QF	90	VAL	3.1
34	YA	2139	C	3.1
16	XP	34	GLU	3.1
16	QP	27	LYS	3.1
1	XA	1374	A	3.1
49	RU	79	PHE	3.1
15	QO	56	LEU	3.1
34	YA	2334	G	3.1
8	QH	67	PRO	3.1
37	RE	126	PRO	3.1
39	YG	11	TYR	3.1
31	Y7	47	ARG	3.1
33	Y9	34	GLN	3.1
36	YD	271	ILE	3.1
24	R0	46	LYS	3.1
51	YW	46	PHE	3.0
39	YG	34	LEU	3.0
42	YN	45	ASN	3.0
42	YN	109	LYS	3.0
44	RP	43	GLY	3.0
27	Y3	57	GLU	3.0
46	YR	24	GLN	3.0
7	XG	5	ARG	3.0
25	R1	41	ARG	3.0
49	RU	28	ARG	3.0
1	QA	378	G	3.0
8	XH	101	PRO	3.0
50	YV	76	LYS	3.0
12	XL	14	GLY	3.0
46	YR	7	GLY	3.0
20	QT	37	SER	3.0
38	RF	98	SER	3.0
12	XL	16	GLU	3.0
34	RA	2602	A	3.0
4	XD	66	ARG	3.0
16	XP	71	ARG	3.0
36	YD	134	ARG	3.0
48	YT	105	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
45	RQ	40	ALA	3.0
24	R0	53	MET	3.0
16	XP	32	TYR	3.0
40	RH	86	GLU	3.0
8	QH	123	GLU	3.0
16	QP	4	ILE	3.0
20	QT	18	GLN	3.0
38	YF	55	GLY	3.0
40	YH	71	LEU	3.0
36	RD	35	LYS	3.0
44	YP	65	ARG	3.0
5	QE	81	GLU	3.0
20	QT	64	ASP	3.0
7	QG	9	VAL	3.0
16	XP	24	ALA	3.0
46	YR	25	ALA	3.0
2	XB	51	LEU	3.0
20	XT	71	THR	2.9
4	QD	80	GLU	2.9
6	XF	53	ALA	2.9
38	RF	37	VAL	2.9
46	YR	65	LEU	2.9
6	QF	96	PRO	2.9
4	XD	3	ARG	2.9
48	RT	103	ARG	2.9
25	Y1	12	PRO	2.9
37	RE	153	GLY	2.9
49	RU	94	ASN	2.9
49	YU	44	ASN	2.9
54	YZ	74	VAL	2.9
45	RQ	21	THR	2.9
49	RU	19	LYS	2.9
42	RN	73	THR	2.9
32	R8	11	LYS	2.9
32	R8	54	GLU	2.9
16	XP	66	PRO	2.9
33	R9	30	PRO	2.9
48	YT	102	ILE	2.9
50	RV	71	LEU	2.9
36	RD	38	LYS	2.9
42	YN	68	GLU	2.9
49	YU	37	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
16	XP	26	ARG	2.9
31	R7	23	ARG	2.9
25	R1	44	PRO	2.9
46	RR	51	LEU	2.9
1	QA	1246	C	2.9
20	QT	23	ARG	2.9
14	XN	54	PRO	2.9
4	XD	70	ILE	2.9
17	XQ	4	LYS	2.9
8	XH	93	VAL	2.9
14	XN	56	VAL	2.9
44	YP	75	ILE	2.9
20	XT	13	LEU	2.9
49	RU	34	LYS	2.8
37	YE	157	ALA	2.8
3	QC	131	ARG	2.8
9	XI	71	SER	2.8
4	XD	93	PHE	2.8
2	QB	102	LEU	2.8
40	YH	107	VAL	2.8
4	QD	4	TYR	2.8
11	XK	11	LYS	2.8
24	Y0	45	PHE	2.8
16	QP	66	PRO	2.8
8	QH	36	LEU	2.8
11	XK	123	LYS	2.8
15	QO	67	LEU	2.8
32	Y8	65	GLU	2.8
44	RP	70	GLN	2.8
33	R9	9	ARG	2.8
37	YE	79	ARG	2.8
46	YR	2	ARG	2.8
32	Y8	19	SER	2.8
49	RU	30	LYS	2.8
12	QL	30	ALA	2.8
25	Y1	41	ARG	2.8
33	R9	20	HIS	2.8
33	Y9	12	ASP	2.8
2	XB	200	ILE	2.8
4	QD	126	ILE	2.8
25	Y1	91	LYS	2.8
46	RR	42	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
51	YW	21	VAL	2.8
4	XD	15	GLU	2.8
44	RP	41	ARG	2.8
38	YF	39	TRP	2.8
1	XA	1368	G	2.8
36	YD	15	PHE	2.8
41	RI	30	LEU	2.8
44	RP	46	LYS	2.8
14	XN	51	GLY	2.8
36	RD	183	ARG	2.8
46	RR	10	LEU	2.8
2	QB	71	VAL	2.8
16	QP	2	VAL	2.8
50	YV	70	ILE	2.8
20	QT	15	ARG	2.8
21	XU	6	ARG	2.8
39	YG	35	GLU	2.8
16	XP	70	ALA	2.8
20	QT	66	ALA	2.8
20	XT	58	LYS	2.8
8	QH	119	LEU	2.8
45	RQ	17	LEU	2.8
40	YH	151	ILE	2.8
42	YN	115	ARG	2.8
20	QT	60	GLU	2.8
26	R2	60	LEU	2.7
2	XB	58	ILE	2.7
4	XD	133	VAL	2.7
14	QN	25	VAL	2.7
44	YP	43	GLY	2.7
31	Y7	1	MET	2.7
50	YV	78	LYS	2.7
8	QH	127	LEU	2.7
37	YE	182	LEU	2.7
36	YD	173	VAL	2.7
37	RE	3	GLY	2.7
37	RE	76	ARG	2.7
38	YF	44	ARG	2.7
12	QL	98	TYR	2.7
14	XN	44	LEU	2.7
37	RE	25	VAL	2.7
1	QA	966	G	2.7

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Mol	Chain	Res	Type	RSRZ
27	R3	12	PRO	2.7
3	QC	199	LYS	2.7
32	Y8	40	GLU	2.7
2	XB	165	VAL	2.7
39	YG	161	THR	2.7
19	XS	20	LEU	2.7
12	XL	11	VAL	2.7
39	RG	157	ILE	2.7
37	RE	96	PHE	2.7
42	RN	68	GLU	2.7
45	RQ	47	ILE	2.7
44	YP	36	LYS	2.7
49	RU	22	LYS	2.7
15	XO	59	MET	2.7
43	RO	2	ILE	2.7
47	RS	7	TYR	2.7
48	YT	22	PHE	2.7
26	R2	11	GLU	2.7
37	YE	152	LYS	2.7
1	QA	134	A	2.7
5	QE	106	PRO	2.7
25	Y1	73	LEU	2.7
44	YP	56	SER	2.7
20	XT	55	ILE	2.7
7	XG	10	ARG	2.7
14	QN	12	ARG	2.7
38	YF	40	GLN	2.7
48	YT	46	GLU	2.7
24	Y0	3	HIS	2.7
51	RW	82	LEU	2.7
34	YA	949	C	2.7
37	YE	68	ALA	2.7
5	QE	15	ARG	2.7
17	QQ	25	ARG	2.7
51	YW	92	ARG	2.7
47	YS	88	ASP	2.6
37	YE	121	ASN	2.6
30	Y6	11	LEU	2.6
36	RD	133	LEU	2.6
45	RQ	37	LEU	2.6
48	RT	96	ARG	2.6
40	RH	153	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
33	R9	12	ASP	2.6
37	YE	27	LEU	2.6
42	YN	26	LEU	2.6
50	YV	80	GLN	2.6
52	YX	94	GLY	2.6
12	XL	90	VAL	2.6
26	Y2	68	ARG	2.6
9	XI	70	LYS	2.6
20	QT	29	LYS	2.6
38	YF	110	LEU	2.6
40	RH	120	GLY	2.6
42	YN	77	GLY	2.6
43	RO	74	GLY	2.6
38	YF	56	GLU	2.6
51	YW	40	ASN	2.6
5	QE	128	PRO	2.6
5	XE	21	ALA	2.6
8	QH	13	ILE	2.6
25	Y1	90	ILE	2.6
51	YW	17	VAL	2.6
48	YT	76	PHE	2.6
38	YF	184	TYR	2.6
37	YE	153	GLY	2.6
46	YR	72	ASP	2.6
4	XD	24	GLU	2.6
12	XL	17	LYS	2.6
31	Y7	11	LYS	2.6
6	XF	75	LEU	2.6
37	YE	71	GLY	2.6
37	RE	155	LYS	2.6
39	RG	75	LYS	2.6
45	YQ	139	GLU	2.6
2	XB	26	PRO	2.6
4	XD	37	PRO	2.6
42	RN	79	PRO	2.6
36	YD	133	LEU	2.6
46	YR	14	SER	2.6
52	RX	65	ARG	2.6
19	QS	50	ALA	2.6
42	RN	103	VAL	2.6
43	RO	1	MET	2.6
27	R3	26	LEU	2.6

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Mol	Chain	Res	Type	RSRZ
21	QU	14	TRP	2.6
38	YF	34	TRP	2.6
13	XM	85	GLY	2.6
3	XC	4	LYS	2.6
44	RP	33	ARG	2.6
10	QJ	59	SER	2.6
51	YW	97	LYS	2.6
44	RP	57	THR	2.6
44	RP	52	GLU	2.6
46	YR	41	ALA	2.6
24	Y0	46	LYS	2.5
51	YW	74	ALA	2.5
1	QA	108	G	2.5
36	RD	154	LYS	2.5
36	YD	183	ARG	2.5
44	YP	24	GLY	2.5
46	YR	8	ARG	2.5
38	YF	82	ILE	2.5
36	RD	215	LEU	2.5
45	RQ	80	GLU	2.5
46	YR	102	GLU	2.5
17	XQ	34	LYS	2.5
26	Y2	69	ARG	2.5
1	QA	1183	A	2.5
35	YB	88	C	2.5
47	YS	18	ILE	2.5
44	YP	6	LEU	2.5
13	QM	113	PRO	2.5
54	RZ	166	SER	2.5
16	XP	23	ASP	2.5
12	QL	99	HIS	2.5
37	RE	2	LYS	2.5
31	Y7	23	ARG	2.5
44	RP	79	ARG	2.5
1	QA	325	A	2.5
44	RP	54	GLY	2.5
1	XA	769	G	2.5
1	QA	133	U	2.5
12	QL	128	ALA	2.5
53	RY	43	ASN	2.5
36	YD	36	PRO	2.5
36	YD	14	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
52	YX	56	THR	2.5
1	XA	1054	C	2.5
1	QA	1248	A	2.5
4	QD	5	ILE	2.5
52	YX	71	GLY	2.5
27	R3	15	TYR	2.5
46	YR	51	LEU	2.5
16	XP	7	ALA	2.5
21	XU	14	TRP	2.5
25	Y1	3	LYS	2.5
50	YV	84	LYS	2.5
24	R0	72	ARG	2.5
25	Y1	27	GLU	2.5
1	XA	1248	A	2.5
4	QD	133	VAL	2.5
25	R1	22	GLY	2.5
8	XH	119	LEU	2.5
20	QT	53	LEU	2.5
32	Y8	60	LEU	2.5
37	RE	160	TYR	2.5
2	XB	152	PHE	2.5
16	QP	26	ARG	2.5
26	Y2	70	GLN	2.5
8	XH	120	THR	2.5
36	YD	185	VAL	2.5
37	YE	134	ILE	2.5
45	RQ	90	VAL	2.5
47	YS	14	VAL	2.5
19	XS	16	LEU	2.5
37	RE	1	MET	2.5
15	QO	35	ARG	2.5
17	QQ	27	PHE	2.5
3	QC	198	VAL	2.5
47	YS	98	VAL	2.5
9	QI	70	LYS	2.4
32	Y8	51	ALA	2.4
37	YE	28	ALA	2.4
37	YE	205	ALA	2.4
50	YV	83	ARG	2.4
17	XQ	30	PRO	2.4
22	QV	75	C	2.4
34	YA	2180	U	2.4

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Mol	Chain	Res	Type	RSRZ
46	YR	79	LEU	2.4
42	RN	80	GLY	2.4
46	YR	99	LYS	2.4
31	Y7	45	ALA	2.4
44	YP	110	TYR	2.4
45	RQ	25	ASP	2.4
1	QA	1186	G	2.4
2	XB	70	PHE	2.4
15	QO	68	ARG	2.4
45	RQ	104	PHE	2.4
51	RW	46	PHE	2.4
1	XA	1249	C	2.4
2	XB	196	LEU	2.4
19	XS	9	VAL	2.4
41	YI	44	LEU	2.4
41	YI	114	LEU	2.4
32	Y8	5	LYS	2.4
24	R0	78	TYR	2.4
25	R1	71	TYR	2.4
39	YG	178	PHE	2.4
51	RW	63	ASP	2.4
40	RH	172	LYS	2.4
41	YI	99	GLU	2.4
17	QQ	29	HIS	2.4
48	RT	100	TYR	2.4
43	RO	81	ASP	2.4
4	QD	137	SER	2.4
15	QO	70	LEU	2.4
25	R1	70	VAL	2.4
40	RH	103	LEU	2.4
42	YN	138	LEU	2.4
43	YO	86	ILE	2.4
44	RP	39	LYS	2.4
5	QE	22	GLY	2.4
4	XD	10	ARG	2.4
45	RQ	38	GLU	2.4
4	QD	104	VAL	2.4
27	R3	6	VAL	2.4
44	RP	36	LYS	2.4
46	YR	5	LYS	2.4
3	QC	10	PHE	2.4
37	RE	122	PHE	2.4

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Mol	Chain	Res	Type	RSRZ
54	YZ	88	PHE	2.4
8	XH	135	CYS	2.4
17	QQ	56	VAL	2.4
1	XA	1538	C	2.4
27	R3	20	LYS	2.4
46	RR	73	VAL	2.4
41	RI	20	ASP	2.4
48	YT	86	ILE	2.4
52	YX	53	LYS	2.4
4	QD	71	SER	2.4
38	YF	61	GLY	2.4
46	YR	71	GLN	2.4
54	YZ	192	ALA	2.4
43	RO	7	TYR	2.4
12	XL	13	LYS	2.4
37	RE	184	VAL	2.4
37	YE	133	LYS	2.4
42	RN	54	VAL	2.4
49	YU	16	LYS	2.4
2	XB	194	PRO	2.4
4	QD	51	PRO	2.4
24	R0	43	THR	2.4
9	XI	106	ALA	2.3
52	RX	70	LEU	2.3
17	XQ	56	VAL	2.3
20	QT	63	ILE	2.3
3	XC	164	ARG	2.3
24	R0	6	GLY	2.3
20	QT	59	ALA	2.3
38	YF	192	LEU	2.3
40	YH	105	LEU	2.3
42	YN	101	HIS	2.3
1	QA	107	G	2.3
20	QT	69	GLY	2.3
4	QD	103	ASN	2.3
5	QE	31	LEU	2.3
14	XN	60	SER	2.3
11	QK	32	ILE	2.3
49	YU	62	ILE	2.3
8	QH	14	ARG	2.3
46	YR	17	ARG	2.3
20	XT	69	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
32	R8	51	ALA	2.3
41	RI	35	LEU	2.3
14	XN	37	PHE	2.3
44	RP	38	GLN	2.3
46	RR	24	GLN	2.3
39	RG	39	ILE	2.3
50	RV	79	VAL	2.3
50	YV	79	VAL	2.3
2	XB	137	ARG	2.3
4	QD	3	ARG	2.3
25	Y1	6	GLU	2.3
38	RF	44	ARG	2.3
14	XN	15	LYS	2.3
16	XP	6	LEU	2.3
39	YG	173	LEU	2.3
42	RN	2	LYS	2.3
38	YF	73	ALA	2.3
47	YS	6	ALA	2.3
26	Y2	63	VAL	2.3
44	YP	23	PRO	2.3
54	RZ	169	GLU	2.3
5	QE	110	LEU	2.3
19	QS	30	LEU	2.3
32	Y8	59	LYS	2.3
42	YN	87	LEU	2.3
25	R1	4	VAL	2.3
36	RD	174	ILE	2.3
39	RG	41	GLN	2.3
51	YW	11	ARG	2.3
8	QH	132	GLU	2.3
39	YG	168	GLU	2.3
4	XD	78	LEU	2.3
24	Y0	49	LYS	2.3
37	RE	118	LYS	2.3
49	RU	27	LEU	2.3
51	RW	86	LEU	2.3
3	XC	163	ALA	2.3
20	QT	41	ILE	2.3
42	RN	122	VAL	2.3
45	YQ	47	ILE	2.3
8	QH	84	ARG	2.3
32	Y8	57	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
37	RE	74	PRO	2.3
50	YV	85	LYS	2.3
26	Y2	16	LEU	2.3
31	Y7	31	LEU	2.3
32	R8	50	LEU	2.3
38	RF	71	GLY	2.3
15	QO	60	VAL	2.2
40	YH	115	VAL	2.2
41	RI	4	ILE	2.2
6	QF	75	LEU	2.2
39	YG	32	PRO	2.2
48	YT	11	GLU	2.2
36	RD	267	SER	2.2
14	XN	59	ALA	2.2
32	R8	48	PHE	2.2
32	Y8	10	ALA	2.2
40	YH	113	VAL	2.2
43	RO	111	PHE	2.2
52	YX	59	VAL	2.2
13	XM	93	ARG	2.2
34	YA	2142	C	2.2
34	YA	2178	C	2.2
32	R8	59	LYS	2.2
32	Y8	3	LYS	2.2
18	QR	76	LEU	2.2
36	RD	230	ASP	2.2
4	QD	98	GLU	2.2
8	QH	136	GLU	2.2
10	QJ	62	HIS	2.2
27	R3	60	GLU	2.2
44	YP	54	GLY	2.2
17	QQ	11	VAL	2.2
25	R1	20	ARG	2.2
40	RH	170	ARG	2.2
44	YP	61	ARG	2.2
47	YS	30	ARG	2.2
1	QA	135	C	2.2
15	QO	57	LEU	2.2
31	Y7	42	LEU	2.2
8	QH	9	MET	2.2
11	XK	113	PRO	2.2
38	RF	70	THR	2.2

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Mol	Chain	Res	Type	RSRZ
46	RR	72	ASP	2.2
19	XS	17	GLU	2.2
20	XT	25	ARG	2.2
36	YD	224	ALA	2.2
41	YI	3	VAL	2.2
48	YT	61	PHE	2.2
52	YX	52	VAL	2.2
34	YA	2319	G	2.2
42	RN	83	LYS	2.2
44	RP	45	LEU	2.2
42	YN	72	TYR	2.2
6	QF	83	ASP	2.2
8	QH	137	VAL	2.2
12	XL	95	GLY	2.2
16	XP	5	ARG	2.2
17	XQ	80	GLY	2.2
20	QT	16	HIS	2.2
20	XT	66	ALA	2.2
29	Y5	2	ALA	2.2
20	QT	24	LEU	2.2
36	RD	177	LEU	2.2
46	YR	70	LEU	2.2
4	QD	207	TYR	2.2
24	Y0	53	MET	2.2
12	QL	101	VAL	2.2
16	QP	80	PHE	2.2
29	R5	24	ALA	2.2
37	YE	204	ALA	2.2
17	QQ	86	GLU	2.2
18	XR	38	GLU	2.2
24	R0	19	LYS	2.2
34	YA	985	C	2.2
48	YT	114	LEU	2.2
17	XQ	32	TYR	2.2
42	RN	46	VAL	2.2
1	XA	1364	U	2.2
37	YE	127	ASP	2.2
38	RF	100	THR	2.2
44	YP	76	LYS	2.2
4	XD	144	ASP	2.2
15	XO	57	LEU	2.2
36	RD	186	HIS	2.2

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Mol	Chain	Res	Type	RSRZ
13	XM	113	PRO	2.2
18	XR	80	PRO	2.2
39	RG	21	ARG	2.2
14	XN	11	LYS	2.2
44	RP	29	LYS	2.2
21	XU	2	GLY	2.2
10	XJ	67	THR	2.2
18	QR	58	LEU	2.2
37	RE	24	THR	2.2
12	XL	23	LYS	2.1
16	XP	33	ILE	2.1
37	RE	198	VAL	2.1
39	YG	20	ILE	2.1
15	QO	55	GLY	2.1
37	YE	6	GLY	2.1
34	YA	2179	C	2.1
44	RP	6	LEU	2.1
47	RS	32	LEU	2.1
1	XA	1187	G	2.1
2	QB	175	ARG	2.1
17	QQ	38	ARG	2.1
17	XQ	101	ARG	2.1
5	XE	88	LYS	2.1
46	RR	52	ILE	2.1
36	YD	22	SER	2.1
47	RS	12	PHE	2.1
36	RD	237	GLU	2.1
42	YN	73	THR	2.1
36	RD	273	ARG	2.1
2	QB	93	VAL	2.1
41	YI	1	MET	2.1
17	XQ	6	LEU	2.1
37	YE	123	ALA	2.1
46	YR	21	TYR	2.1
34	YA	2107	C	2.1
8	QH	15	ASN	2.1
12	XL	99	HIS	2.1
11	QK	110	ASP	2.1
51	RW	22	ASP	2.1
27	Y3	50	VAL	2.1
37	RE	116	VAL	2.1
44	YP	114	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
43	RO	84	ALA	2.1
25	Y1	20	ARG	2.1
27	Y3	20	LYS	2.1
33	Y9	22	ARG	2.1
44	RP	16	ARG	2.1
2	XB	174	VAL	2.1
12	XL	18	VAL	2.1
13	XM	78	ILE	2.1
26	R2	52	ASP	2.1
49	RU	110	VAL	2.1
53	YY	24	VAL	2.1
1	QA	1187	G	2.1
34	YA	2182	G	2.1
5	QE	132	ALA	2.1
16	XP	64	ALA	2.1
36	YD	240	ALA	2.1
44	YP	68	GLN	2.1
30	Y6	53	LYS	2.1
49	YU	28	ARG	2.1
40	RH	147	ASN	2.1
8	QH	83	ILE	2.1
15	QO	4	THR	2.1
25	R1	46	LEU	2.1
1	QA	1367	C	2.1
4	XD	130	GLY	2.1
32	R8	23	VAL	2.1
50	YV	72	VAL	2.1
53	RY	6	HIS	2.1
32	Y8	48	PHE	2.1
36	YD	124	PRO	2.1
44	RP	31	ALA	2.1
1	QA	551	U	2.1
46	YR	40	LYS	2.1
47	RS	11	LYS	2.1
50	YV	82	ARG	2.1
8	QH	6	ILE	2.0
19	QS	49	ILE	2.0
33	R9	11	CYS	2.0
42	YN	99	LEU	2.0
46	RR	28	LEU	2.0
36	RD	32	SER	2.0
1	QA	1366	C	2.0

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Mol	Chain	Res	Type	RSRZ
44	RP	28	GLY	2.0
47	YS	5	THR	2.0
47	YS	91	PRO	2.0
51	RW	83	LYS	2.0
36	RD	13	ARG	2.0
46	RR	8	ARG	2.0
40	YH	125	VAL	2.0
40	YH	41	MET	2.0
54	YZ	150	LEU	2.0
17	XQ	86	GLU	2.0
25	R1	6	GLU	2.0
1	XA	1369	C	2.0
6	XF	51	PRO	2.0
6	XF	96	PRO	2.0
25	R1	77	ALA	2.0
36	RD	232	PRO	2.0
53	RY	65	ALA	2.0
16	XP	17	TYR	2.0
2	QB	174	VAL	2.0
27	Y3	23	LEU	2.0
46	YR	52	ILE	2.0
52	YX	70	LEU	2.0
42	RN	1	MET	2.0
52	YX	89	ILE	2.0
13	XM	99	ARG	2.0
17	XQ	68	ARG	2.0
36	YD	153	ALA	2.0
45	RQ	15	GLY	2.0
54	YZ	80	ARG	2.0
1	XA	1290	G	2.0
12	XL	8	ASN	2.0
8	XH	95	VAL	2.0
14	QN	47	LEU	2.0
17	XQ	31	LEU	2.0
25	R1	47	GLN	2.0
36	RD	46	GLN	2.0
36	YD	155	LEU	2.0
48	YT	30	VAL	2.0
50	RV	40	LEU	2.0
51	YW	85	VAL	2.0
46	YR	9	LYS	2.0
12	QL	129	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
34	RA	2798	C	2.0
4	QD	7	PRO	2.0
12	QL	31	PRO	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (i)

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3277	1/1	-0.39	0.38	213,213,213,213	0
55	MG	QA	1634	1/1	-0.27	0.29	175,175,175,175	0
55	MG	YA	3192	1/1	-0.25	0.25	219,219,219,219	0
55	MG	RA	3139	1/1	-0.24	0.42	290,290,290,290	0
55	MG	RA	3164	1/1	-0.24	0.31	199,199,199,199	0
55	MG	YA	3145	1/1	-0.17	0.29	84,84,84,84	0
55	MG	RA	3186	1/1	-0.16	0.20	205,205,205,205	0
55	MG	YA	3142	1/1	-0.14	0.38	158,158,158,158	0
55	MG	RA	3011	1/1	-0.14	0.22	129,129,129,129	0
55	MG	QE	201	1/1	-0.12	0.43	198,198,198,198	0
55	MG	QH	201	1/1	-0.11	0.17	188,188,188,188	0
55	MG	RA	3163	1/1	-0.07	0.22	165,165,165,165	0
55	MG	RA	3169	1/1	-0.06	0.38	131,131,131,131	0
55	MG	QA	1654	1/1	-0.05	0.31	189,189,189,189	0
55	MG	RA	3224	1/1	-0.04	0.24	181,181,181,181	0
55	MG	RA	3075	1/1	-0.01	0.49	147,147,147,147	0
55	MG	RA	3272	1/1	0.02	0.26	188,188,188,188	0
55	MG	YA	3091	1/1	0.02	0.29	145,145,145,145	0
55	MG	RA	2907	1/1	0.05	0.23	158,158,158,158	0
55	MG	YA	3202	1/1	0.07	0.39	164,164,164,164	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3211	1/1	0.07	0.27	145,145,145,145	0
55	MG	YA	3254	1/1	0.08	0.22	181,181,181,181	0
55	MG	RA	3217	1/1	0.09	0.13	205,205,205,205	0
55	MG	RA	2921	1/1	0.11	0.42	136,136,136,136	0
55	MG	XA	1675	1/1	0.12	0.16	137,137,137,137	0
55	MG	RA	3078	1/1	0.13	0.43	208,208,208,208	0
55	MG	QA	1615	1/1	0.13	0.28	139,139,139,139	0
55	MG	RA	3326	1/1	0.13	0.21	165,165,165,165	0
55	MG	XA	1651	1/1	0.13	0.25	162,162,162,162	0
55	MG	YA	3250	1/1	0.14	0.34	148,148,148,148	0
55	MG	RA	3013	1/1	0.14	0.42	143,143,143,143	0
55	MG	RA	3223	1/1	0.14	0.41	122,122,122,122	0
55	MG	YA	3126	1/1	0.15	0.52	84,84,84,84	0
55	MG	XA	1647	1/1	0.15	0.14	199,199,199,199	0
55	MG	RA	3008	1/1	0.16	0.29	150,150,150,150	0
55	MG	RA	3172	1/1	0.17	0.24	107,107,107,107	0
55	MG	RA	3275	1/1	0.17	0.26	156,156,156,156	0
55	MG	RA	3138	1/1	0.17	0.19	185,185,185,185	0
55	MG	RA	3206	1/1	0.18	0.28	101,101,101,101	0
55	MG	RA	3030	1/1	0.18	0.22	157,157,157,157	0
55	MG	YA	2962	1/1	0.20	0.41	124,124,124,124	0
55	MG	QA	1627	1/1	0.20	0.20	173,173,173,173	0
55	MG	YA	3234	1/1	0.21	0.31	123,123,123,123	0
55	MG	YA	3176	1/1	0.21	0.21	111,111,111,111	0
55	MG	XA	1620	1/1	0.22	0.23	138,138,138,138	0
55	MG	RA	3035	1/1	0.22	0.24	113,113,113,113	0
55	MG	RA	3179	1/1	0.23	0.31	121,121,121,121	0
55	MG	QA	1605	1/1	0.23	0.31	188,188,188,188	0
55	MG	QA	1647	1/1	0.24	0.23	225,225,225,225	0
55	MG	RA	2909	1/1	0.24	0.30	186,186,186,186	0
55	MG	RA	3023	1/1	0.24	0.36	98,98,98,98	0
55	MG	YA	2965	1/1	0.25	0.35	94,94,94,94	0
55	MG	RA	2937	1/1	0.26	0.29	119,119,119,119	0
55	MG	YA	3093	1/1	0.26	0.26	127,127,127,127	0
55	MG	XA	1680	1/1	0.27	0.36	144,144,144,144	0
55	MG	QA	1624	1/1	0.27	0.23	92,92,92,92	0
55	MG	RA	3005	1/1	0.27	0.31	174,174,174,174	0
55	MG	RA	3122	1/1	0.28	0.20	97,97,97,97	0
55	MG	RA	3286	1/1	0.28	0.51	126,126,126,126	0
55	MG	YA	3262	1/1	0.28	0.44	150,150,150,150	0
55	MG	YA	3015	1/1	0.28	0.25	123,123,123,123	0
55	MG	RA	2989	1/1	0.29	0.27	136,136,136,136	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3193	1/1	0.29	0.21	141,141,141,141	0
55	MG	RA	3018	1/1	0.29	0.12	136,136,136,136	0
55	MG	YA	3175	1/1	0.29	0.49	117,117,117,117	0
55	MG	XA	1679	1/1	0.29	0.24	124,124,124,124	0
55	MG	QA	1664	1/1	0.29	0.14	156,156,156,156	0
55	MG	YA	3213	1/1	0.30	0.20	169,169,169,169	0
55	MG	YA	3117	1/1	0.30	0.83	120,120,120,120	0
55	MG	XA	1676	1/1	0.31	0.34	143,143,143,143	0
55	MG	RA	2935	1/1	0.31	0.24	132,132,132,132	0
55	MG	YA	3281	1/1	0.31	0.45	151,151,151,151	0
55	MG	QA	1602	1/1	0.32	0.20	148,148,148,148	0
55	MG	RA	3294	1/1	0.32	0.14	143,143,143,143	0
55	MG	XA	1657	1/1	0.32	0.47	236,236,236,236	0
55	MG	YA	3245	1/1	0.33	0.52	84,84,84,84	0
55	MG	YA	2980	1/1	0.33	0.23	84,84,84,84	0
55	MG	YA	2956	1/1	0.33	0.32	114,114,114,114	0
55	MG	YA	3290	1/1	0.33	0.41	211,211,211,211	0
55	MG	XA	1650	1/1	0.34	0.19	189,189,189,189	0
55	MG	XA	1660	1/1	0.34	0.32	114,114,114,114	0
55	MG	RA	2963	1/1	0.34	0.20	256,256,256,256	0
55	MG	YA	2904	1/1	0.34	0.50	122,122,122,122	0
55	MG	YA	3164	1/1	0.35	0.36	84,84,84,84	0
55	MG	YA	3137	1/1	0.35	0.31	110,110,110,110	0
55	MG	QA	1662	1/1	0.35	0.30	151,151,151,151	0
55	MG	YA	3178	1/1	0.35	0.40	84,84,84,84	0
55	MG	RA	2938	1/1	0.35	0.37	159,159,159,159	0
55	MG	YA	2954	1/1	0.36	0.40	135,135,135,135	0
55	MG	RA	3083	1/1	0.36	0.69	150,150,150,150	0
55	MG	RA	2906	1/1	0.36	0.39	150,150,150,150	0
55	MG	YA	2905	1/1	0.36	0.57	175,175,175,175	0
55	MG	RA	3173	1/1	0.37	0.26	130,130,130,130	0
55	MG	RA	3140	1/1	0.37	0.38	88,88,88,88	0
55	MG	XA	1672	1/1	0.37	0.24	160,160,160,160	0
55	MG	YA	2948	1/1	0.37	0.33	84,84,84,84	0
55	MG	YA	3162	1/1	0.38	0.13	112,112,112,112	0
55	MG	RA	3127	1/1	0.38	0.15	132,132,132,132	0
55	MG	QA	1613	1/1	0.39	0.35	127,127,127,127	0
55	MG	YA	2916	1/1	0.39	0.37	121,121,121,121	0
55	MG	RA	3161	1/1	0.39	0.29	116,116,116,116	0
55	MG	YA	3120	1/1	0.39	0.40	84,84,84,84	0
55	MG	YA	3127	1/1	0.40	0.24	84,84,84,84	0
55	MG	YA	3233	1/1	0.40	0.17	153,153,153,153	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3124	1/1	0.40	0.14	115,115,115,115	0
55	MG	YA	3141	1/1	0.40	0.32	102,102,102,102	0
55	MG	RA	3332	1/1	0.40	0.40	120,120,120,120	0
55	MG	XA	1613	1/1	0.41	0.49	171,171,171,171	0
55	MG	YA	2972	1/1	0.41	0.31	100,100,100,100	0
55	MG	YA	3279	1/1	0.41	0.21	122,122,122,122	0
55	MG	YA	3039	1/1	0.41	0.11	123,123,123,123	0
55	MG	YA	3179	1/1	0.41	0.32	84,84,84,84	0
55	MG	YB	201	1/1	0.41	0.35	104,104,104,104	0
55	MG	RA	3029	1/1	0.42	0.34	100,100,100,100	0
55	MG	YA	3194	1/1	0.42	0.52	163,163,163,163	0
55	MG	YA	3148	1/1	0.42	0.18	102,102,102,102	0
55	MG	RA	3238	1/1	0.42	0.29	157,157,157,157	0
55	MG	YA	3060	1/1	0.42	0.19	177,177,177,177	0
55	MG	RA	3117	1/1	0.43	0.12	243,243,243,243	0
55	MG	YA	3068	1/1	0.43	0.20	158,158,158,158	0
55	MG	RA	2923	1/1	0.43	0.27	174,174,174,174	0
55	MG	RA	3302	1/1	0.43	0.20	116,116,116,116	0
55	MG	RA	2962	1/1	0.43	0.27	124,124,124,124	0
55	MG	RA	3028	1/1	0.43	0.23	96,96,96,96	0
55	MG	XA	1601	1/1	0.43	0.25	174,174,174,174	0
55	MG	YA	3171	1/1	0.43	0.28	84,84,84,84	0
55	MG	YA	3059	1/1	0.43	0.15	189,189,189,189	0
55	MG	RA	3170	1/1	0.44	0.17	132,132,132,132	0
55	MG	XA	1628	1/1	0.44	0.20	109,109,109,109	0
55	MG	QA	1628	1/1	0.45	0.12	238,238,238,238	0
55	MG	RA	3314	1/1	0.45	0.39	137,137,137,137	0
55	MG	RA	2943	1/1	0.46	0.37	132,132,132,132	0
55	MG	YA	3003	1/1	0.46	0.28	97,97,97,97	0
55	MG	XA	1649	1/1	0.46	0.16	123,123,123,123	0
55	MG	QA	1636	1/1	0.46	0.26	134,134,134,134	0
55	MG	XA	1634	1/1	0.46	0.27	107,107,107,107	0
55	MG	YA	2951	1/1	0.47	0.35	101,101,101,101	0
55	MG	YA	3109	1/1	0.47	0.27	95,95,95,95	0
55	MG	YA	3186	1/1	0.47	0.23	187,187,187,187	0
55	MG	QA	1655	1/1	0.47	0.16	121,121,121,121	0
55	MG	XA	1612	1/1	0.47	0.51	191,191,191,191	0
55	MG	RA	3106	1/1	0.47	0.23	90,90,90,90	0
55	MG	RA	3074	1/1	0.47	0.16	149,149,149,149	0
55	MG	RA	3213	1/1	0.47	0.13	157,157,157,157	0
55	MG	XA	1678	1/1	0.47	0.15	173,173,173,173	0
55	MG	RA	3137	1/1	0.48	0.10	177,177,177,177	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	2930	1/1	0.48	0.33	136,136,136,136	0
55	MG	RA	2947	1/1	0.48	0.24	118,118,118,118	0
55	MG	RA	2929	1/1	0.48	0.20	211,211,211,211	0
55	MG	YA	3199	1/1	0.48	0.38	186,186,186,186	0
55	MG	YA	3140	1/1	0.48	0.16	84,84,84,84	0
55	MG	XA	1630	1/1	0.49	0.24	180,180,180,180	0
55	MG	RA	3132	1/1	0.49	0.35	238,238,238,238	0
55	MG	YA	3205	1/1	0.49	0.41	152,152,152,152	0
55	MG	RA	3092	1/1	0.50	0.28	98,98,98,98	0
55	MG	RA	3104	1/1	0.50	0.37	84,84,84,84	0
55	MG	RA	3293	1/1	0.50	0.13	121,121,121,121	0
55	MG	YA	3131	1/1	0.50	0.20	141,141,141,141	0
55	MG	QA	1643	1/1	0.50	0.24	180,180,180,180	0
55	MG	RA	3052	1/1	0.50	0.23	84,84,84,84	0
55	MG	RA	3034	1/1	0.50	0.19	111,111,111,111	0
55	MG	YU	201	1/1	0.50	0.14	97,97,97,97	0
55	MG	QA	1614	1/1	0.51	0.34	120,120,120,120	0
55	MG	YA	3267	1/1	0.51	0.15	84,84,84,84	0
55	MG	YA	3097	1/1	0.51	0.68	135,135,135,135	0
55	MG	XA	1606	1/1	0.51	0.14	165,165,165,165	0
55	MG	YA	3090	1/1	0.52	0.22	84,84,84,84	0
55	MG	YA	3115	1/1	0.52	0.30	148,148,148,148	0
55	MG	RA	3026	1/1	0.52	0.36	84,84,84,84	0
55	MG	RA	3059	1/1	0.52	0.37	153,153,153,153	0
55	MG	QA	1604	1/1	0.52	0.29	153,153,153,153	0
55	MG	YA	3258	1/1	0.53	0.35	88,88,88,88	0
55	MG	RA	3324	1/1	0.53	0.32	120,120,120,120	0
55	MG	YA	2940	1/1	0.53	0.22	84,84,84,84	0
55	MG	XA	1665	1/1	0.53	0.44	123,123,123,123	0
55	MG	QA	1637	1/1	0.53	0.26	126,126,126,126	0
55	MG	YA	2989	1/1	0.53	0.15	120,120,120,120	0
55	MG	XA	1618	1/1	0.53	0.28	103,103,103,103	0
55	MG	YA	3011	1/1	0.53	0.30	84,84,84,84	0
55	MG	RA	3328	1/1	0.53	0.25	145,145,145,145	0
55	MG	YA	3259	1/1	0.54	0.17	84,84,84,84	0
55	MG	XA	1652	1/1	0.54	0.09	143,143,143,143	0
55	MG	RA	3129	1/1	0.54	0.28	126,126,126,126	0
55	MG	RA	3086	1/1	0.54	0.36	84,84,84,84	0
55	MG	RA	3320	1/1	0.54	0.26	84,84,84,84	0
55	MG	QA	1625	1/1	0.54	0.22	104,104,104,104	0
55	MG	YA	2955	1/1	0.54	0.50	110,110,110,110	0
55	MG	YA	3256	1/1	0.54	0.23	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3101	1/1	0.54	0.71	120,120,120,120	0
55	MG	QA	1670	1/1	0.55	0.19	190,190,190,190	0
55	MG	RA	2953	1/1	0.55	0.32	101,101,101,101	0
55	MG	RA	3226	1/1	0.55	0.30	84,84,84,84	0
55	MG	XA	1688	1/1	0.55	0.15	122,122,122,122	0
55	MG	XA	1632	1/1	0.55	0.19	104,104,104,104	0
55	MG	RA	3039	1/1	0.55	0.16	256,256,256,256	0
55	MG	RA	3118	1/1	0.55	0.11	186,186,186,186	0
55	MG	RA	3162	1/1	0.55	0.57	139,139,139,139	0
55	MG	RA	2916	1/1	0.55	0.27	97,97,97,97	0
55	MG	YA	3048	1/1	0.56	0.38	84,84,84,84	0
55	MG	QA	1663	1/1	0.56	0.29	128,128,128,128	0
55	MG	RA	3095	1/1	0.56	0.13	258,258,258,258	0
55	MG	RA	3190	1/1	0.56	0.18	143,143,143,143	0
55	MG	RA	3057	1/1	0.56	0.72	180,180,180,180	0
55	MG	RA	3242	1/1	0.56	0.24	101,101,101,101	0
55	MG	YA	3211	1/1	0.56	0.44	101,101,101,101	0
55	MG	RA	3221	1/1	0.56	0.52	182,182,182,182	0
57	ZN	QN	101	1/1	0.56	0.17	439,439,439,439	0
55	MG	RA	3281	1/1	0.57	0.28	105,105,105,105	0
55	MG	YA	3050	1/1	0.57	0.29	84,84,84,84	0
55	MG	YA	3004	1/1	0.57	0.48	84,84,84,84	0
55	MG	RA	2913	1/1	0.57	0.15	107,107,107,107	0
55	MG	XA	1621	1/1	0.57	0.52	128,128,128,128	0
55	MG	RA	2969	1/1	0.57	0.25	104,104,104,104	0
55	MG	RA	3174	1/1	0.58	0.22	142,142,142,142	0
55	MG	RA	3208	1/1	0.58	0.29	84,84,84,84	0
55	MG	RA	2992	1/1	0.58	0.15	123,123,123,123	0
55	MG	RA	3180	1/1	0.58	0.20	168,168,168,168	0
55	MG	RA	3183	1/1	0.58	0.33	201,201,201,201	0
55	MG	RA	3220	1/1	0.58	0.78	166,166,166,166	0
55	MG	RA	3002	1/1	0.58	0.27	132,132,132,132	0
55	MG	YA	3242	1/1	0.58	0.14	84,84,84,84	0
55	MG	RA	3073	1/1	0.58	0.22	89,89,89,89	0
55	MG	YA	3049	1/1	0.58	0.28	84,84,84,84	0
55	MG	YA	3253	1/1	0.58	0.36	84,84,84,84	0
55	MG	RA	3144	1/1	0.58	0.48	126,126,126,126	0
55	MG	RA	3308	1/1	0.59	0.24	161,161,161,161	0
55	MG	RA	3289	1/1	0.59	0.30	125,125,125,125	0
55	MG	YA	2982	1/1	0.59	0.33	84,84,84,84	0
55	MG	RA	3093	1/1	0.59	0.17	131,131,131,131	0
55	MG	YA	3183	1/1	0.59	0.14	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	XA	1642	1/1	0.59	0.37	128,128,128,128	0
55	MG	RA	2912	1/1	0.59	0.50	132,132,132,132	0
55	MG	RA	3136	1/1	0.59	0.37	84,84,84,84	0
55	MG	YA	3057	1/1	0.60	0.29	105,105,105,105	0
55	MG	RA	3088	1/1	0.60	0.29	101,101,101,101	0
55	MG	RE	304	1/1	0.60	0.53	96,96,96,96	0
55	MG	R0	101	1/1	0.60	0.26	147,147,147,147	0
55	MG	YA	3077	1/1	0.60	0.22	87,87,87,87	0
55	MG	RA	2941	1/1	0.60	0.39	167,167,167,167	0
55	MG	YA	3044	1/1	0.60	0.31	84,84,84,84	0
55	MG	RA	3198	1/1	0.60	0.17	144,144,144,144	0
55	MG	YA	3239	1/1	0.60	0.41	84,84,84,84	0
55	MG	YA	3288	1/1	0.60	0.46	84,84,84,84	0
55	MG	XA	1674	1/1	0.60	0.16	159,159,159,159	0
55	MG	RA	2924	1/1	0.60	0.32	98,98,98,98	0
55	MG	YA	3187	1/1	0.60	0.26	117,117,117,117	0
55	MG	YA	3114	1/1	0.60	0.29	116,116,116,116	0
55	MG	RA	3076	1/1	0.61	0.26	114,114,114,114	0
55	MG	YA	2974	1/1	0.61	0.42	84,84,84,84	0
55	MG	YA	3032	1/1	0.61	0.21	84,84,84,84	0
55	MG	RA	3065	1/1	0.61	0.24	105,105,105,105	0
55	MG	RA	3252	1/1	0.61	0.30	121,121,121,121	0
55	MG	RA	3054	1/1	0.61	0.37	84,84,84,84	0
55	MG	XA	1669	1/1	0.61	0.08	187,187,187,187	0
55	MG	RA	3134	1/1	0.61	0.26	117,117,117,117	0
55	MG	YA	3128	1/1	0.61	0.38	134,134,134,134	0
55	MG	YA	3276	1/1	0.62	0.51	115,115,115,115	0
55	MG	RA	2903	1/1	0.62	0.14	100,100,100,100	0
55	MG	YA	3069	1/1	0.62	0.26	176,176,176,176	0
55	MG	RA	3167	1/1	0.62	0.28	165,165,165,165	0
55	MG	RA	2931	1/1	0.62	0.18	125,125,125,125	0
55	MG	YA	3174	1/1	0.62	0.25	94,94,94,94	0
55	MG	XA	1607	1/1	0.62	0.24	108,108,108,108	0
55	MG	YA	2961	1/1	0.62	0.27	117,117,117,117	0
55	MG	YA	3061	1/1	0.62	0.14	146,146,146,146	0
55	MG	QA	1618	1/1	0.63	0.38	176,176,176,176	0
55	MG	XA	1682	1/1	0.63	0.19	95,95,95,95	0
55	MG	RA	3304	1/1	0.63	0.28	155,155,155,155	0
55	MG	YA	3135	1/1	0.63	0.31	84,84,84,84	0
55	MG	YA	3232	1/1	0.63	0.25	91,91,91,91	0
55	MG	YA	2984	1/1	0.63	0.52	84,84,84,84	0
55	MG	RA	2965	1/1	0.63	0.20	211,211,211,211	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3237	1/1	0.63	0.42	115,115,115,115	0
55	MG	RA	2942	1/1	0.63	0.24	109,109,109,109	0
55	MG	YA	3287	1/1	0.63	0.36	84,84,84,84	0
55	MG	RA	3064	1/1	0.63	0.47	110,110,110,110	0
55	MG	YA	3010	1/1	0.63	0.41	84,84,84,84	0
55	MG	YA	2964	1/1	0.63	0.36	115,115,115,115	0
55	MG	XA	1646	1/1	0.63	0.19	148,148,148,148	0
55	MG	QA	1629	1/1	0.63	0.24	142,142,142,142	0
55	MG	YA	2981	1/1	0.64	0.31	103,103,103,103	0
55	MG	YA	3155	1/1	0.64	0.36	99,99,99,99	0
55	MG	XA	1670	1/1	0.64	0.35	136,136,136,136	0
55	MG	YA	2952	1/1	0.64	0.41	101,101,101,101	0
55	MG	YA	3122	1/1	0.64	0.42	84,84,84,84	0
55	MG	XA	1619	1/1	0.64	0.33	111,111,111,111	0
55	MG	YA	3017	1/1	0.64	0.45	107,107,107,107	0
55	MG	YA	3144	1/1	0.64	0.32	93,93,93,93	0
55	MG	QA	1619	1/1	0.64	0.28	123,123,123,123	0
55	MG	Y8	101	1/1	0.65	0.59	197,197,197,197	0
55	MG	RA	2910	1/1	0.65	0.18	149,149,149,149	0
55	MG	RA	3123	1/1	0.65	0.28	115,115,115,115	0
55	MG	RA	2952	1/1	0.65	0.16	143,143,143,143	0
55	MG	YA	3024	1/1	0.65	0.24	84,84,84,84	0
55	MG	XA	1616	1/1	0.65	0.34	291,291,291,291	0
55	MG	RA	3103	1/1	0.65	0.41	84,84,84,84	0
55	MG	QA	1669	1/1	0.65	0.26	158,158,158,158	0
55	MG	RA	3147	1/1	0.65	0.51	104,104,104,104	0
55	MG	YA	3107	1/1	0.65	0.32	204,204,204,204	0
55	MG	QA	1645	1/1	0.65	0.18	101,101,101,101	0
55	MG	RA	3295	1/1	0.65	0.28	129,129,129,129	0
55	MG	RA	2905	1/1	0.65	0.29	184,184,184,184	0
55	MG	RA	3020	1/1	0.65	0.33	126,126,126,126	0
55	MG	YA	3196	1/1	0.65	0.20	84,84,84,84	0
55	MG	YA	3151	1/1	0.66	0.30	94,94,94,94	0
55	MG	RA	3143	1/1	0.66	0.19	109,109,109,109	0
55	MG	YA	2935	1/1	0.66	0.39	84,84,84,84	0
55	MG	RA	3260	1/1	0.66	0.41	104,104,104,104	0
55	MG	QA	1632	1/1	0.66	0.11	84,84,84,84	0
55	MG	R0	102	1/1	0.66	0.11	120,120,120,120	0
55	MG	YA	3273	1/1	0.66	0.24	102,102,102,102	0
55	MG	YA	3218	1/1	0.66	0.32	84,84,84,84	0
55	MG	RA	3313	1/1	0.66	0.24	203,203,203,203	0
55	MG	YA	3035	1/1	0.66	0.28	122,122,122,122	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3051	1/1	0.66	0.46	170,170,170,170	0
55	MG	YA	3282	1/1	0.66	0.15	116,116,116,116	0
55	MG	QA	1607	1/1	0.66	0.36	84,84,84,84	0
55	MG	QA	1617	1/1	0.66	0.36	159,159,159,159	0
55	MG	YA	2995	1/1	0.66	0.28	116,116,116,116	0
55	MG	QA	1609	1/1	0.66	0.10	120,120,120,120	0
55	MG	RA	3111	1/1	0.66	0.34	102,102,102,102	0
55	MG	YA	3005	1/1	0.66	0.32	84,84,84,84	0
55	MG	RA	2939	1/1	0.67	0.14	84,84,84,84	0
55	MG	RA	3071	1/1	0.67	0.64	288,288,288,288	0
55	MG	YA	3180	1/1	0.67	0.29	90,90,90,90	0
55	MG	YA	3182	1/1	0.67	0.15	84,84,84,84	0
55	MG	XA	1633	1/1	0.67	0.26	99,99,99,99	0
55	MG	YA	3055	1/1	0.67	0.12	92,92,92,92	0
55	MG	RA	3048	1/1	0.67	0.25	168,168,168,168	0
55	MG	YA	3018	1/1	0.67	0.91	120,120,120,120	0
55	MG	YA	3224	1/1	0.67	0.34	84,84,84,84	0
55	MG	YA	2933	1/1	0.68	0.45	97,97,97,97	0
55	MG	RA	3210	1/1	0.68	0.18	121,121,121,121	0
55	MG	RA	3094	1/1	0.68	0.10	106,106,106,106	0
55	MG	YA	3085	1/1	0.68	0.30	84,84,84,84	0
55	MG	YA	3086	1/1	0.68	0.31	84,84,84,84	0
55	MG	RA	3171	1/1	0.68	0.40	115,115,115,115	0
55	MG	RA	2986	1/1	0.68	0.33	84,84,84,84	0
55	MG	RA	2920	1/1	0.68	0.17	113,113,113,113	0
55	MG	YA	2953	1/1	0.68	0.44	113,113,113,113	0
55	MG	RA	2957	1/1	0.68	0.33	95,95,95,95	0
55	MG	YA	3209	1/1	0.68	0.18	111,111,111,111	0
55	MG	QA	1601	1/1	0.68	0.26	123,123,123,123	0
55	MG	RA	3079	1/1	0.68	0.32	135,135,135,135	0
55	MG	YA	2959	1/1	0.68	0.32	84,84,84,84	0
55	MG	RA	3053	1/1	0.69	0.34	122,122,122,122	0
55	MG	YA	3095	1/1	0.69	0.15	84,84,84,84	0
55	MG	YA	3268	1/1	0.69	0.27	89,89,89,89	0
55	MG	QA	1626	1/1	0.69	0.18	104,104,104,104	0
55	MG	YA	2957	1/1	0.69	0.19	84,84,84,84	0
55	MG	RA	3222	1/1	0.69	0.39	166,166,166,166	0
55	MG	RA	2918	1/1	0.69	0.27	176,176,176,176	0
55	MG	XA	1658	1/1	0.69	0.35	179,179,179,179	0
55	MG	YA	3247	1/1	0.69	0.20	87,87,87,87	0
55	MG	RA	3182	1/1	0.69	0.12	150,150,150,150	0
55	MG	RA	3214	1/1	0.69	0.30	157,157,157,157	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	QA	1638	1/1	0.69	0.27	84,84,84,84	0
55	MG	RA	3240	1/1	0.69	0.21	89,89,89,89	0
55	MG	XA	1623	1/1	0.69	0.19	127,127,127,127	0
55	MG	YA	3228	1/1	0.69	0.28	115,115,115,115	0
55	MG	RA	3102	1/1	0.70	0.29	102,102,102,102	0
55	MG	XA	1671	1/1	0.70	0.08	149,149,149,149	0
55	MG	YA	2944	1/1	0.70	0.19	106,106,106,106	0
55	MG	QL	201	1/1	0.70	0.19	258,258,258,258	0
55	MG	RA	3157	1/1	0.70	0.20	156,156,156,156	0
55	MG	RA	3327	1/1	0.70	0.32	84,84,84,84	0
55	MG	QA	1621	1/1	0.70	0.32	159,159,159,159	0
55	MG	RA	3031	1/1	0.70	0.15	94,94,94,94	0
55	MG	YR	202	1/1	0.70	0.39	119,119,119,119	0
55	MG	YA	3189	1/1	0.70	0.20	93,93,93,93	0
55	MG	RA	3237	1/1	0.70	0.32	84,84,84,84	0
55	MG	YA	2931	1/1	0.71	0.42	84,84,84,84	0
55	MG	QA	1648	1/1	0.71	0.27	139,139,139,139	0
55	MG	R8	102	1/1	0.71	0.14	109,109,109,109	0
55	MG	YA	2936	1/1	0.71	0.42	84,84,84,84	0
55	MG	QA	1623	1/1	0.71	0.24	84,84,84,84	0
55	MG	YA	3001	1/1	0.71	0.11	84,84,84,84	0
55	MG	XA	1656	1/1	0.71	0.13	98,98,98,98	0
55	MG	YA	2963	1/1	0.71	0.35	84,84,84,84	0
55	MG	QA	1606	1/1	0.71	0.23	116,116,116,116	0
55	MG	YA	3094	1/1	0.71	0.17	104,104,104,104	0
55	MG	RA	3305	1/1	0.71	0.22	134,134,134,134	0
55	MG	QA	1642	1/1	0.71	0.07	157,157,157,157	0
55	MG	YA	3104	1/1	0.71	0.27	105,105,105,105	0
55	MG	YA	2908	1/1	0.71	0.30	84,84,84,84	0
55	MG	RA	3133	1/1	0.71	0.87	169,169,169,169	0
55	MG	YA	3156	1/1	0.72	0.25	84,84,84,84	0
55	MG	YA	3132	1/1	0.72	0.10	124,124,124,124	0
55	MG	YA	3271	1/1	0.72	0.30	92,92,92,92	0
55	MG	YA	3133	1/1	0.72	0.16	84,84,84,84	0
55	MG	YA	3134	1/1	0.72	0.16	120,120,120,120	0
55	MG	YA	3111	1/1	0.72	0.16	119,119,119,119	0
55	MG	RA	2954	1/1	0.72	0.61	306,306,306,306	0
55	MG	QA	1622	1/1	0.72	0.49	169,169,169,169	0
55	MG	RA	2904	1/1	0.72	0.29	219,219,219,219	0
55	MG	RA	3001	1/1	0.72	0.16	95,95,95,95	0
55	MG	YA	2969	1/1	0.72	0.36	84,84,84,84	0
55	MG	RA	3045	1/1	0.72	0.32	169,169,169,169	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3291	1/1	0.72	0.34	84,84,84,84	0
55	MG	YA	3082	1/1	0.72	0.38	84,84,84,84	0
55	MG	XA	1685	1/1	0.72	0.17	113,113,113,113	0
55	MG	XA	1668	1/1	0.72	0.13	131,131,131,131	0
55	MG	YA	3265	1/1	0.72	0.34	107,107,107,107	0
55	MG	Y5	102	1/1	0.73	0.24	84,84,84,84	0
55	MG	RA	3125	1/1	0.73	0.37	174,174,174,174	0
55	MG	RA	2936	1/1	0.73	0.11	87,87,87,87	0
55	MG	RA	2968	1/1	0.73	0.13	176,176,176,176	0
55	MG	YA	3087	1/1	0.73	0.43	84,84,84,84	0
55	MG	RA	3322	1/1	0.73	0.23	104,104,104,104	0
55	MG	RA	2917	1/1	0.73	0.15	100,100,100,100	0
55	MG	YA	2926	1/1	0.73	0.22	84,84,84,84	0
55	MG	YA	3143	1/1	0.73	0.39	84,84,84,84	0
55	MG	YA	3123	1/1	0.73	0.23	84,84,84,84	0
55	MG	XA	1602	1/1	0.73	0.20	96,96,96,96	0
55	MG	YA	3067	1/1	0.73	0.10	102,102,102,102	0
55	MG	XA	1603	1/1	0.73	0.15	189,189,189,189	0
55	MG	YA	3153	1/1	0.73	0.41	84,84,84,84	0
55	MG	RA	2998	1/1	0.73	0.18	84,84,84,84	0
55	MG	YA	3083	1/1	0.74	0.33	84,84,84,84	0
55	MG	RA	3046	1/1	0.74	0.22	150,150,150,150	0
55	MG	QA	1660	1/1	0.74	0.16	127,127,127,127	0
55	MG	YA	3173	1/1	0.74	0.28	84,84,84,84	0
55	MG	RA	2972	1/1	0.74	0.33	84,84,84,84	0
55	MG	YA	3054	1/1	0.74	0.14	93,93,93,93	0
55	MG	YA	2976	1/1	0.74	0.28	84,84,84,84	0
55	MG	RA	3311	1/1	0.74	0.26	84,84,84,84	0
55	MG	RA	3204	1/1	0.74	0.34	167,167,167,167	0
55	MG	YA	3161	1/1	0.74	0.22	132,132,132,132	0
57	ZN	XN	101	1/1	0.74	0.14	489,489,489,489	0
55	MG	YA	2915	1/1	0.75	0.28	107,107,107,107	0
55	MG	RA	2908	1/1	0.75	0.12	102,102,102,102	0
55	MG	RA	2966	1/1	0.75	0.14	149,149,149,149	0
55	MG	YA	3065	1/1	0.75	0.14	107,107,107,107	0
55	MG	RA	3115	1/1	0.75	0.10	130,130,130,130	0
55	MG	YA	3110	1/1	0.75	0.20	177,177,177,177	0
55	MG	YA	2932	1/1	0.75	0.72	84,84,84,84	0
55	MG	QA	1666	1/1	0.75	0.13	178,178,178,178	0
55	MG	YA	2983	1/1	0.75	0.55	84,84,84,84	0
55	MG	YA	2934	1/1	0.75	0.55	84,84,84,84	0
55	MG	QA	1631	1/1	0.75	0.11	110,110,110,110	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	2964	1/1	0.75	0.17	84,84,84,84	0
55	MG	XA	1664	1/1	0.75	0.31	84,84,84,84	0
55	MG	YA	3191	1/1	0.75	0.27	84,84,84,84	0
55	MG	RA	3330	1/1	0.75	0.22	84,84,84,84	0
55	MG	YA	3051	1/1	0.75	0.32	84,84,84,84	0
55	MG	YA	2907	1/1	0.75	0.47	151,151,151,151	0
55	MG	YA	2968	1/1	0.75	0.32	84,84,84,84	0
55	MG	RA	3200	1/1	0.75	0.24	141,141,141,141	0
55	MG	YA	3257	1/1	0.75	0.19	84,84,84,84	0
55	MG	YA	3203	1/1	0.75	0.28	84,84,84,84	0
55	MG	RA	3152	1/1	0.76	0.46	122,122,122,122	0
55	MG	YA	3210	1/1	0.76	0.41	121,121,121,121	0
55	MG	RA	3280	1/1	0.76	0.13	84,84,84,84	0
55	MG	RA	3156	1/1	0.76	0.20	106,106,106,106	0
55	MG	RA	3285	1/1	0.76	0.17	161,161,161,161	0
55	MG	RA	2975	1/1	0.76	0.50	104,104,104,104	0
55	MG	QA	1658	1/1	0.76	0.10	84,84,84,84	0
55	MG	RA	2926	1/1	0.76	0.31	124,124,124,124	0
55	MG	YA	2912	1/1	0.76	0.30	84,84,84,84	0
55	MG	YA	3027	1/1	0.76	0.12	102,102,102,102	0
55	MG	YA	3075	1/1	0.76	0.39	84,84,84,84	0
55	MG	RA	3112	1/1	0.76	0.23	84,84,84,84	0
55	MG	YA	3286	1/1	0.76	0.32	144,144,144,144	0
55	MG	RA	3066	1/1	0.76	0.22	117,117,117,117	0
55	MG	RA	2928	1/1	0.76	0.18	138,138,138,138	0
55	MG	YA	3154	1/1	0.76	0.14	138,138,138,138	0
55	MG	YA	2930	1/1	0.76	0.41	84,84,84,84	0
55	MG	RA	3056	1/1	0.76	0.30	139,139,139,139	0
55	MG	RA	3146	1/1	0.76	0.09	84,84,84,84	0
55	MG	RA	2950	1/1	0.76	0.09	108,108,108,108	0
55	MG	YA	3002	1/1	0.76	0.28	132,132,132,132	0
55	MG	RA	3310	1/1	0.76	0.55	116,116,116,116	0
55	MG	YA	3195	1/1	0.77	0.16	84,84,84,84	0
55	MG	RA	3307	1/1	0.77	0.41	132,132,132,132	0
55	MG	YA	3158	1/1	0.77	0.31	84,84,84,84	0
55	MG	YA	3159	1/1	0.77	0.29	84,84,84,84	0
55	MG	YA	2945	1/1	0.77	0.18	86,86,86,86	0
55	MG	XA	1641	1/1	0.77	0.17	112,112,112,112	0
55	MG	YA	2922	1/1	0.77	0.22	84,84,84,84	0
55	MG	XE	201	1/1	0.77	0.21	157,157,157,157	0
55	MG	YA	2929	1/1	0.77	0.40	84,84,84,84	0
55	MG	YA	2979	1/1	0.77	0.38	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3273	1/1	0.77	0.30	113,113,113,113	0
55	MG	QF	301	1/1	0.77	0.12	145,145,145,145	0
55	MG	RA	3199	1/1	0.77	0.26	84,84,84,84	0
55	MG	RA	2976	1/1	0.77	0.46	139,139,139,139	0
55	MG	YA	2906	1/1	0.77	0.29	84,84,84,84	0
55	MG	YA	3038	1/1	0.77	0.26	84,84,84,84	0
55	MG	RA	3282	1/1	0.77	0.28	149,149,149,149	0
55	MG	YA	3042	1/1	0.77	0.34	84,84,84,84	0
55	MG	YA	3240	1/1	0.77	0.25	84,84,84,84	0
55	MG	YA	3118	1/1	0.77	0.33	84,84,84,84	0
55	MG	YA	3243	1/1	0.77	0.28	108,108,108,108	0
55	MG	YA	3119	1/1	0.77	0.39	84,84,84,84	0
55	MG	RA	3271	1/1	0.77	0.22	102,102,102,102	0
55	MG	YA	3248	1/1	0.77	0.26	134,134,134,134	0
55	MG	YA	2938	1/1	0.77	0.21	84,84,84,84	0
55	MG	RA	2999	1/1	0.77	0.39	121,121,121,121	0
55	MG	YA	3130	1/1	0.78	0.22	84,84,84,84	0
55	MG	XA	1625	1/1	0.78	0.14	190,190,190,190	0
55	MG	YA	2921	1/1	0.78	0.59	84,84,84,84	0
55	MG	QA	1665	1/1	0.78	0.17	84,84,84,84	0
55	MG	RA	3318	1/1	0.78	0.40	84,84,84,84	0
55	MG	XA	1605	1/1	0.78	0.43	161,161,161,161	0
55	MG	QA	1616	1/1	0.78	0.10	128,128,128,128	0
55	MG	YA	3272	1/1	0.78	0.26	98,98,98,98	0
55	MG	YA	3025	1/1	0.78	0.11	98,98,98,98	0
55	MG	YA	3275	1/1	0.78	0.23	112,112,112,112	0
55	MG	YA	3066	1/1	0.78	0.23	113,113,113,113	0
55	MG	RA	3299	1/1	0.78	0.10	102,102,102,102	0
55	MG	XA	1637	1/1	0.78	0.17	84,84,84,84	0
55	MG	RA	3278	1/1	0.78	0.12	113,113,113,113	0
55	MG	YA	3073	1/1	0.78	0.15	84,84,84,84	0
55	MG	YA	3284	1/1	0.78	0.11	128,128,128,128	0
55	MG	YA	2988	1/1	0.78	0.32	84,84,84,84	0
55	MG	RA	3241	1/1	0.78	0.28	84,84,84,84	0
55	MG	RA	3177	1/1	0.78	0.15	156,156,156,156	0
55	MG	RA	2970	1/1	0.78	0.52	102,102,102,102	0
55	MG	RA	3256	1/1	0.78	0.10	84,84,84,84	0
55	MG	RA	3205	1/1	0.78	0.27	100,100,100,100	0
55	MG	YE	302	1/1	0.78	0.26	131,131,131,131	0
55	MG	RA	3038	1/1	0.78	0.20	119,119,119,119	0
55	MG	YA	3088	1/1	0.78	0.25	84,84,84,84	0
55	MG	RA	3218	1/1	0.78	0.17	196,196,196,196	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3129	1/1	0.78	0.29	84,84,84,84	0
55	MG	YA	3043	1/1	0.79	0.29	84,84,84,84	0
55	MG	RA	3036	1/1	0.79	0.07	136,136,136,136	0
55	MG	QA	1651	1/1	0.79	0.26	116,116,116,116	0
55	MG	YA	3212	1/1	0.79	0.29	84,84,84,84	0
55	MG	RA	3251	1/1	0.79	0.16	177,177,177,177	0
55	MG	RA	3022	1/1	0.79	0.30	84,84,84,84	0
55	MG	YA	3188	1/1	0.79	0.14	124,124,124,124	0
55	MG	QA	1641	1/1	0.79	0.18	155,155,155,155	0
55	MG	YA	3096	1/1	0.79	0.26	92,92,92,92	0
55	MG	YA	3168	1/1	0.79	0.50	84,84,84,84	0
55	MG	YA	3053	1/1	0.79	0.22	93,93,93,93	0
55	MG	YA	3292	1/1	0.79	0.12	109,109,109,109	0
55	MG	RA	3225	1/1	0.79	0.32	93,93,93,93	0
55	MG	YD	302	1/1	0.79	0.36	99,99,99,99	0
55	MG	RA	3202	1/1	0.79	0.18	134,134,134,134	0
55	MG	RA	2933	1/1	0.79	0.16	194,194,194,194	0
55	MG	YA	3006	1/1	0.79	0.34	84,84,84,84	0
55	MG	QA	1649	1/1	0.79	0.25	109,109,109,109	0
55	MG	RA	3176	1/1	0.79	0.15	152,152,152,152	0
55	MG	YA	3150	1/1	0.80	0.68	84,84,84,84	0
55	MG	YA	2911	1/1	0.80	0.24	84,84,84,84	0
55	MG	YA	2975	1/1	0.80	0.13	97,97,97,97	0
55	MG	RA	3166	1/1	0.80	0.23	124,124,124,124	0
55	MG	YA	3026	1/1	0.80	0.28	84,84,84,84	0
55	MG	YA	3263	1/1	0.80	0.56	88,88,88,88	0
55	MG	YA	2950	1/1	0.80	0.17	111,111,111,111	0
55	MG	RA	3243	1/1	0.80	0.17	84,84,84,84	0
55	MG	RA	3017	1/1	0.80	0.18	84,84,84,84	0
55	MG	RA	2959	1/1	0.80	0.30	84,84,84,84	0
55	MG	RA	3037	1/1	0.80	0.09	145,145,145,145	0
55	MG	RA	2987	1/1	0.80	0.23	84,84,84,84	0
55	MG	YA	3167	1/1	0.80	0.19	84,84,84,84	0
55	MG	QA	1603	1/1	0.80	0.10	121,121,121,121	0
55	MG	RA	3116	1/1	0.80	0.18	89,89,89,89	0
55	MG	YA	2958	1/1	0.80	0.40	84,84,84,84	0
55	MG	YA	3231	1/1	0.80	0.19	84,84,84,84	0
55	MG	RA	3297	1/1	0.80	0.21	167,167,167,167	0
55	MG	XA	1610	1/1	0.80	0.57	237,237,237,237	0
55	MG	RA	3195	1/1	0.80	0.53	170,170,170,170	0
55	MG	YA	2903	1/1	0.80	0.18	90,90,90,90	0
55	MG	RA	3141	1/1	0.80	0.26	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3136	1/1	0.80	0.24	84,84,84,84	0
55	MG	XA	1614	1/1	0.80	0.07	106,106,106,106	0
55	MG	YA	2967	1/1	0.80	0.08	84,84,84,84	0
55	MG	YA	3101	1/1	0.80	0.69	139,139,139,139	0
55	MG	XA	1644	1/1	0.80	0.32	235,235,235,235	0
55	MG	YA	3013	1/1	0.80	0.24	84,84,84,84	0
55	MG	RA	2982	1/1	0.80	0.15	87,87,87,87	0
55	MG	YA	3062	1/1	0.80	0.20	119,119,119,119	0
55	MG	RA	3025	1/1	0.80	0.12	84,84,84,84	0
55	MG	YA	3255	1/1	0.80	0.24	84,84,84,84	0
55	MG	QA	1610	1/1	0.81	1.26	211,211,211,211	0
55	MG	YA	3270	1/1	0.81	0.26	84,84,84,84	0
55	MG	YA	3030	1/1	0.81	0.26	110,110,110,110	0
55	MG	YA	3031	1/1	0.81	0.49	84,84,84,84	0
55	MG	YA	3236	1/1	0.81	0.27	84,84,84,84	0
55	MG	YA	2999	1/1	0.81	0.19	84,84,84,84	0
55	MG	RA	3175	1/1	0.81	0.13	84,84,84,84	0
55	MG	XA	1686	1/1	0.81	0.22	108,108,108,108	0
55	MG	RA	2911	1/1	0.81	0.17	111,111,111,111	0
55	MG	RA	3207	1/1	0.81	0.13	151,151,151,151	0
55	MG	YA	3072	1/1	0.81	0.32	106,106,106,106	0
55	MG	YA	3197	1/1	0.81	0.13	84,84,84,84	0
55	MG	YA	3165	1/1	0.81	0.23	84,84,84,84	0
55	MG	Y2	101	1/1	0.81	0.20	133,133,133,133	0
55	MG	RA	3194	1/1	0.81	0.13	111,111,111,111	0
55	MG	RA	3107	1/1	0.81	0.25	94,94,94,94	0
55	MG	RA	3265	1/1	0.81	0.34	84,84,84,84	0
55	MG	RA	2995	1/1	0.81	0.29	260,260,260,260	0
55	MG	RA	2974	1/1	0.81	0.38	84,84,84,84	0
55	MG	RA	3010	1/1	0.81	0.13	138,138,138,138	0
55	MG	XA	1654	1/1	0.81	0.13	118,118,118,118	0
55	MG	YP	201	1/1	0.81	0.16	113,113,113,113	0
55	MG	QA	1620	1/1	0.81	0.21	159,159,159,159	0
55	MG	YA	3149	1/1	0.81	0.16	93,93,93,93	0
55	MG	RA	3276	1/1	0.81	0.14	138,138,138,138	0
55	MG	RA	3203	1/1	0.81	0.14	193,193,193,193	0
55	MG	YA	2985	1/1	0.82	0.48	84,84,84,84	0
55	MG	XA	1673	1/1	0.82	0.13	114,114,114,114	0
55	MG	YA	2943	1/1	0.82	0.18	93,93,93,93	0
55	MG	YA	3274	1/1	0.82	0.28	84,84,84,84	0
55	MG	YA	2919	1/1	0.82	0.36	84,84,84,84	0
55	MG	YA	2997	1/1	0.82	0.38	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	XA	1640	1/1	0.82	0.08	101,101,101,101	0
55	MG	YA	2946	1/1	0.82	0.15	87,87,87,87	0
55	MG	RA	2983	1/1	0.82	0.30	84,84,84,84	0
55	MG	YA	3198	1/1	0.82	0.44	124,124,124,124	0
55	MG	RA	3004	1/1	0.82	0.06	205,205,205,205	0
55	MG	RA	3021	1/1	0.82	0.10	96,96,96,96	0
55	MG	QA	1657	1/1	0.82	0.38	157,157,157,157	0
55	MG	XA	1629	1/1	0.82	0.10	135,135,135,135	0
55	MG	YA	3074	1/1	0.82	0.16	84,84,84,84	0
55	MG	YA	3112	1/1	0.82	0.34	96,96,96,96	0
55	MG	RA	3323	1/1	0.82	0.29	205,205,205,205	0
55	MG	RA	3047	1/1	0.82	0.07	139,139,139,139	0
55	MG	RA	3325	1/1	0.82	0.18	84,84,84,84	0
55	MG	RA	2901	1/1	0.82	0.14	98,98,98,98	0
55	MG	YA	2913	1/1	0.82	0.29	84,84,84,84	0
55	MG	YQ	201	1/1	0.82	0.08	111,111,111,111	0
55	MG	YA	2937	1/1	0.82	0.22	84,84,84,84	0
55	MG	RA	3120	1/1	0.82	0.27	129,129,129,129	0
55	MG	YA	3056	1/1	0.82	0.26	84,84,84,84	0
55	MG	YA	3124	1/1	0.82	0.37	84,84,84,84	0
55	MG	RA	3098	1/1	0.83	0.41	212,212,212,212	0
55	MG	RA	3003	1/1	0.83	0.17	108,108,108,108	0
55	MG	RA	3306	1/1	0.83	0.12	111,111,111,111	0
55	MG	RA	3080	1/1	0.83	0.15	108,108,108,108	0
55	MG	RA	3150	1/1	0.83	0.17	84,84,84,84	0
55	MG	RA	2914	1/1	0.83	0.15	129,129,129,129	0
55	MG	YA	3034	1/1	0.83	0.22	84,84,84,84	0
55	MG	YA	2971	1/1	0.83	0.25	84,84,84,84	0
55	MG	RE	303	1/1	0.83	0.18	109,109,109,109	0
55	MG	RA	2927	1/1	0.83	0.10	135,135,135,135	0
55	MG	YA	3252	1/1	0.83	0.31	118,118,118,118	0
55	MG	YA	3041	1/1	0.83	0.25	84,84,84,84	0
55	MG	RF	301	1/1	0.83	0.25	118,118,118,118	0
55	MG	RA	3192	1/1	0.83	0.12	105,105,105,105	0
55	MG	YA	3007	1/1	0.83	0.57	84,84,84,84	0
55	MG	RA	3058	1/1	0.83	0.31	147,147,147,147	0
55	MG	YA	3177	1/1	0.83	0.11	90,90,90,90	0
55	MG	YA	3078	1/1	0.83	0.27	140,140,140,140	0
55	MG	RA	3027	1/1	0.83	0.23	92,92,92,92	0
55	MG	YE	303	1/1	0.83	0.40	124,124,124,124	0
55	MG	RA	3228	1/1	0.83	0.21	105,105,105,105	0
55	MG	RA	3042	1/1	0.83	0.08	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3077	1/1	0.83	0.54	185,185,185,185	0
55	MG	R8	101	1/1	0.83	0.18	111,111,111,111	0
55	MG	YA	3021	1/1	0.83	0.58	84,84,84,84	0
55	MG	YA	2942	1/1	0.83	0.26	120,120,120,120	0
55	MG	RA	3168	1/1	0.84	0.06	206,206,206,206	0
55	MG	RA	3329	1/1	0.84	0.20	93,93,93,93	0
55	MG	RA	2994	1/1	0.84	0.12	90,90,90,90	0
55	MG	YA	3103	1/1	0.84	0.49	84,84,84,84	0
55	MG	YA	3070	1/1	0.84	0.23	84,84,84,84	0
55	MG	QA	1635	1/1	0.84	0.11	112,112,112,112	0
55	MG	YA	2990	1/1	0.84	0.09	84,84,84,84	0
55	MG	RA	3160	1/1	0.84	0.12	109,109,109,109	0
55	MG	YA	3022	1/1	0.84	0.27	84,84,84,84	0
55	MG	YA	3169	1/1	0.84	0.15	119,119,119,119	0
55	MG	YA	2996	1/1	0.84	0.13	84,84,84,84	0
55	MG	YA	3052	1/1	0.84	0.10	84,84,84,84	0
55	MG	XA	1687	1/1	0.84	0.55	172,172,172,172	0
55	MG	RA	2985	1/1	0.84	0.32	139,139,139,139	0
55	MG	XA	1615	1/1	0.84	0.09	162,162,162,162	0
55	MG	RA	3135	1/1	0.84	0.15	100,100,100,100	0
55	MG	RA	2961	1/1	0.84	0.15	101,101,101,101	0
55	MG	YA	2941	1/1	0.84	0.11	106,106,106,106	0
55	MG	RA	2945	1/1	0.84	0.25	84,84,84,84	0
55	MG	YA	3223	1/1	0.84	0.14	84,84,84,84	0
55	MG	YA	3181	1/1	0.84	0.14	115,115,115,115	0
55	MG	YA	3227	1/1	0.84	0.29	90,90,90,90	0
55	MG	YR	201	1/1	0.84	0.14	95,95,95,95	0
55	MG	Y8	102	1/1	0.84	0.32	123,123,123,123	0
55	MG	RA	2934	1/1	0.84	0.23	94,94,94,94	0
55	MG	QA	1608	1/1	0.84	0.18	97,97,97,97	0
55	MG	YA	3040	1/1	0.84	0.18	84,84,84,84	0
55	MG	QA	1656	1/1	0.85	0.17	105,105,105,105	0
55	MG	RA	3110	1/1	0.85	0.14	108,108,108,108	0
55	MG	RA	3151	1/1	0.85	0.12	84,84,84,84	0
55	MG	RA	3298	1/1	0.85	0.17	95,95,95,95	0
55	MG	YA	2910	1/1	0.85	0.20	84,84,84,84	0
55	MG	YA	3009	1/1	0.85	0.24	84,84,84,84	0
55	MG	RA	3012	1/1	0.85	0.13	106,106,106,106	0
55	MG	QH	202	1/1	0.85	0.32	211,211,211,211	0
55	MG	XA	1635	1/1	0.85	0.11	159,159,159,159	0
55	MG	YA	3200	1/1	0.85	0.39	142,142,142,142	0
55	MG	RA	3315	1/1	0.85	0.20	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3119	1/1	0.85	0.11	137,137,137,137	0
55	MG	YA	3157	1/1	0.85	0.25	84,84,84,84	0
55	MG	YE	304	1/1	0.85	0.32	84,84,84,84	0
55	MG	YA	2973	1/1	0.85	0.14	90,90,90,90	0
55	MG	YA	3020	1/1	0.85	0.18	110,110,110,110	0
55	MG	RA	3201	1/1	0.85	0.34	125,125,125,125	0
55	MG	RA	3230	1/1	0.85	0.18	84,84,84,84	0
55	MG	XA	1643	1/1	0.85	0.19	105,105,105,105	0
55	MG	XA	1661	1/1	0.85	0.20	105,105,105,105	0
55	MG	YA	3222	1/1	0.85	0.15	84,84,84,84	0
55	MG	YA	3206	1/1	0.86	0.11	84,84,84,84	0
55	MG	RA	2981	1/1	0.86	0.21	109,109,109,109	0
55	MG	YA	3098	1/1	0.86	0.26	174,174,174,174	0
55	MG	RA	2956	1/1	0.86	0.27	198,198,198,198	0
55	MG	RA	3283	1/1	0.86	0.42	117,117,117,117	0
55	MG	YA	2914	1/1	0.86	0.47	84,84,84,84	0
55	MG	YA	3185	1/1	0.86	0.12	87,87,87,87	0
55	MG	XA	1655	1/1	0.86	0.26	84,84,84,84	0
55	MG	YA	3108	1/1	0.86	0.12	117,117,117,117	0
55	MG	RA	3043	1/1	0.86	0.09	133,133,133,133	0
55	MG	YA	2918	1/1	0.86	0.21	84,84,84,84	0
55	MG	XA	1608	1/1	0.86	0.17	108,108,108,108	0
55	MG	RA	2967	1/1	0.86	0.10	230,230,230,230	0
55	MG	RA	3097	1/1	0.86	0.04	98,98,98,98	0
55	MG	QL	202	1/1	0.86	0.09	95,95,95,95	0
55	MG	RA	3087	1/1	0.86	0.29	164,164,164,164	0
55	MG	YA	2986	1/1	0.86	0.20	84,84,84,84	0
55	MG	YA	3063	1/1	0.86	0.19	104,104,104,104	0
55	MG	XA	1681	1/1	0.86	0.10	171,171,171,171	0
55	MG	XA	1631	1/1	0.86	0.32	167,167,167,167	0
55	MG	RA	2977	1/1	0.86	0.11	84,84,84,84	0
55	MG	YA	2970	1/1	0.86	0.45	84,84,84,84	0
55	MG	RA	3089	1/1	0.86	0.17	198,198,198,198	0
55	MG	RA	2951	1/1	0.87	0.24	255,255,255,255	0
55	MG	RA	3055	1/1	0.87	0.24	123,123,123,123	0
55	MG	RA	2919	1/1	0.87	0.10	130,130,130,130	0
55	MG	YA	2901	1/1	0.87	0.32	242,242,242,242	0
55	MG	RA	3236	1/1	0.87	0.23	84,84,84,84	0
55	MG	RA	2979	1/1	0.87	0.11	135,135,135,135	0
55	MG	RA	3303	1/1	0.87	0.20	256,256,256,256	0
55	MG	QA	1661	1/1	0.87	0.12	108,108,108,108	0
55	MG	XA	1645	1/1	0.87	0.21	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3283	1/1	0.87	0.29	131,131,131,131	0
55	MG	YA	2939	1/1	0.87	0.11	84,84,84,84	0
55	MG	YA	3285	1/1	0.87	0.13	94,94,94,94	0
55	MG	RA	3121	1/1	0.87	0.30	177,177,177,177	0
55	MG	RA	3181	1/1	0.87	0.14	180,180,180,180	0
55	MG	QA	1646	1/1	0.87	0.07	84,84,84,84	0
55	MG	RA	3062	1/1	0.87	0.26	84,84,84,84	0
55	MG	RA	3246	1/1	0.87	0.20	84,84,84,84	0
55	MG	XA	1626	1/1	0.87	0.05	112,112,112,112	0
55	MG	YA	3071	1/1	0.87	0.23	84,84,84,84	0
55	MG	RA	3250	1/1	0.87	0.21	84,84,84,84	0
55	MG	RA	3006	1/1	0.87	0.17	84,84,84,84	0
55	MG	RA	3288	1/1	0.87	0.14	99,99,99,99	0
55	MG	RA	3041	1/1	0.87	0.07	131,131,131,131	0
55	MG	RA	3292	1/1	0.87	0.14	105,105,105,105	0
55	MG	XA	1659	1/1	0.87	0.15	84,84,84,84	0
55	MG	YA	3080	1/1	0.87	0.12	94,94,94,94	0
55	MG	YA	3226	1/1	0.87	0.06	100,100,100,100	0
55	MG	YA	3081	1/1	0.87	0.18	84,84,84,84	0
55	MG	RA	3191	1/1	0.87	0.39	148,148,148,148	0
55	MG	RA	3033	1/1	0.87	0.16	95,95,95,95	0
55	MG	RA	3231	1/1	0.88	0.10	141,141,141,141	0
55	MG	QA	1639	1/1	0.88	0.08	135,135,135,135	0
55	MG	YA	3147	1/1	0.88	0.19	84,84,84,84	0
55	MG	RA	3215	1/1	0.88	0.10	102,102,102,102	0
55	MG	RA	2960	1/1	0.88	0.22	108,108,108,108	0
55	MG	XA	1627	1/1	0.88	0.41	165,165,165,165	0
55	MG	RA	3185	1/1	0.88	0.24	84,84,84,84	0
55	MG	QA	1612	1/1	0.88	0.09	141,141,141,141	0
55	MG	RA	3277	1/1	0.88	0.13	182,182,182,182	0
55	MG	RA	3301	1/1	0.88	0.17	142,142,142,142	0
55	MG	YA	3217	1/1	0.88	0.17	104,104,104,104	0
55	MG	XA	1609	1/1	0.88	0.20	96,96,96,96	0
55	MG	YA	3220	1/1	0.88	0.17	84,84,84,84	0
55	MG	QA	1659	1/1	0.88	0.04	125,125,125,125	0
55	MG	RA	3016	1/1	0.88	0.18	84,84,84,84	0
55	MG	RA	3100	1/1	0.88	0.60	165,165,165,165	0
55	MG	RA	3247	1/1	0.88	0.19	84,84,84,84	0
55	MG	YE	301	1/1	0.88	0.24	113,113,113,113	0
55	MG	YA	2966	1/1	0.88	0.28	84,84,84,84	0
55	MG	RA	3148	1/1	0.88	0.21	89,89,89,89	0
55	MG	YA	3266	1/1	0.88	0.22	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	2988	1/1	0.88	0.16	101,101,101,101	0
55	MG	QA	1652	1/1	0.88	0.09	162,162,162,162	0
55	MG	XA	1667	1/1	0.88	0.13	173,173,173,173	0
55	MG	YA	3029	1/1	0.88	0.18	84,84,84,84	0
55	MG	YA	3235	1/1	0.88	0.25	84,84,84,84	0
55	MG	RA	3044	1/1	0.88	0.38	156,156,156,156	0
57	ZN	R9	101	1/1	0.88	0.10	314,314,314,314	0
55	MG	RA	3155	1/1	0.88	0.13	95,95,95,95	0
55	MG	YA	2920	1/1	0.89	0.12	84,84,84,84	0
55	MG	RA	3068	1/1	0.89	0.16	113,113,113,113	0
55	MG	YA	2993	1/1	0.89	0.19	84,84,84,84	0
55	MG	RA	3113	1/1	0.89	0.12	84,84,84,84	0
55	MG	RA	3149	1/1	0.89	0.42	85,85,85,85	0
55	MG	YA	2909	1/1	0.89	0.25	84,84,84,84	0
55	MG	YA	2998	1/1	0.89	0.33	84,84,84,84	0
55	MG	RE	302	1/1	0.89	0.25	84,84,84,84	0
55	MG	YA	2978	1/1	0.89	0.10	90,90,90,90	0
55	MG	YA	3269	1/1	0.89	0.25	84,84,84,84	0
55	MG	RA	2948	1/1	0.89	0.12	84,84,84,84	0
55	MG	RA	3209	1/1	0.89	0.14	165,165,165,165	0
55	MG	XA	1611	1/1	0.89	0.41	278,278,278,278	0
55	MG	YA	2949	1/1	0.89	0.17	84,84,84,84	0
55	MG	XA	1666	1/1	0.89	0.15	113,113,113,113	0
55	MG	RA	3165	1/1	0.89	0.13	197,197,197,197	0
55	MG	RA	2946	1/1	0.89	0.17	96,96,96,96	0
55	MG	YA	3036	1/1	0.89	0.23	84,84,84,84	0
55	MG	RA	3197	1/1	0.89	0.34	84,84,84,84	0
55	MG	YA	2987	1/1	0.89	0.23	84,84,84,84	0
55	MG	YA	3064	1/1	0.89	0.17	84,84,84,84	0
57	ZN	RY	201	1/1	0.89	0.07	344,344,344,344	0
55	MG	RA	3317	1/1	0.89	0.11	84,84,84,84	0
55	MG	YA	3201	1/1	0.90	0.36	139,139,139,139	0
55	MG	RA	3114	1/1	0.90	0.10	84,84,84,84	0
55	MG	RA	3153	1/1	0.90	0.08	117,117,117,117	0
55	MG	RA	3184	1/1	0.90	0.10	103,103,103,103	0
55	MG	YA	3246	1/1	0.90	0.10	129,129,129,129	0
55	MG	RA	3096	1/1	0.90	0.11	122,122,122,122	0
55	MG	RA	3126	1/1	0.90	0.08	137,137,137,137	0
55	MG	RA	3105	1/1	0.90	0.18	107,107,107,107	0
55	MG	RA	3032	1/1	0.90	0.20	84,84,84,84	0
55	MG	RA	3131	1/1	0.90	0.12	117,117,117,117	0
55	MG	RA	3254	1/1	0.90	0.11	130,130,130,130	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3289	1/1	0.90	0.11	84,84,84,84	0
55	MG	RA	2993	1/1	0.90	0.07	141,141,141,141	0
55	MG	RA	3109	1/1	0.90	0.12	84,84,84,84	0
55	MG	YA	2923	1/1	0.90	0.16	84,84,84,84	0
55	MG	YA	3125	1/1	0.90	0.26	89,89,89,89	0
55	MG	YA	3037	1/1	0.90	0.26	84,84,84,84	0
55	MG	RA	3264	1/1	0.90	0.14	148,148,148,148	0
55	MG	YA	2947	1/1	0.90	0.10	84,84,84,84	0
55	MG	QA	1644	1/1	0.90	0.09	84,84,84,84	0
55	MG	RA	3178	1/1	0.90	0.41	232,232,232,232	0
55	MG	YA	3230	1/1	0.90	0.20	84,84,84,84	0
55	MG	YA	3016	1/1	0.90	0.05	84,84,84,84	0
55	MG	RA	3050	1/1	0.90	0.22	110,110,110,110	0
55	MG	YA	2992	1/1	0.90	0.12	84,84,84,84	0
55	MG	YA	3045	1/1	0.90	0.23	84,84,84,84	0
55	MG	YA	3166	1/1	0.90	0.21	144,144,144,144	0
55	MG	YA	3019	1/1	0.90	0.07	84,84,84,84	0
55	MG	RA	3009	1/1	0.90	0.11	101,101,101,101	0
55	MG	RA	3040	1/1	0.90	0.12	89,89,89,89	0
55	MG	RA	3287	1/1	0.91	0.11	123,123,123,123	0
55	MG	YA	3238	1/1	0.91	0.10	129,129,129,129	0
55	MG	YA	3105	1/1	0.91	0.17	135,135,135,135	0
55	MG	RA	3099	1/1	0.91	0.29	84,84,84,84	0
55	MG	YA	3280	1/1	0.91	0.06	120,120,120,120	0
55	MG	RA	3232	1/1	0.91	0.06	99,99,99,99	0
55	MG	RA	3291	1/1	0.91	0.15	84,84,84,84	0
55	MG	YA	3138	1/1	0.91	0.17	98,98,98,98	0
55	MG	RA	3234	1/1	0.91	0.07	101,101,101,101	0
55	MG	QA	1650	1/1	0.91	0.24	108,108,108,108	0
55	MG	QA	1653	1/1	0.91	0.31	130,130,130,130	0
55	MG	XA	1662	1/1	0.91	0.10	141,141,141,141	0
55	MG	XA	1636	1/1	0.91	0.12	95,95,95,95	0
55	MG	RA	2980	1/1	0.91	0.18	84,84,84,84	0
55	MG	RA	3239	1/1	0.91	0.10	84,84,84,84	0
55	MG	YA	3216	1/1	0.91	0.16	84,84,84,84	0
55	MG	RA	3128	1/1	0.91	0.21	187,187,187,187	0
55	MG	XA	1617	1/1	0.91	0.16	84,84,84,84	0
55	MG	YA	3121	1/1	0.91	0.09	84,84,84,84	0
55	MG	RA	3262	1/1	0.91	0.26	194,194,194,194	0
55	MG	RA	3300	1/1	0.91	0.13	117,117,117,117	0
55	MG	RF	302	1/1	0.91	0.08	158,158,158,158	0
55	MG	YA	3008	1/1	0.91	0.26	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3319	1/1	0.91	0.11	114,114,114,114	0
55	MG	XA	1622	1/1	0.91	0.11	132,132,132,132	0
55	MG	RA	2996	1/1	0.91	0.18	177,177,177,177	0
55	MG	RA	3321	1/1	0.91	0.12	88,88,88,88	0
55	MG	YA	3193	1/1	0.91	0.33	176,176,176,176	0
55	MG	YX	101	1/1	0.91	0.08	84,84,84,84	0
55	MG	YA	3160	1/1	0.91	0.09	112,112,112,112	0
55	MG	XA	1604	1/1	0.91	0.12	176,176,176,176	0
55	MG	RA	3219	1/1	0.91	0.38	143,143,143,143	0
55	MG	RA	2915	1/1	0.91	0.10	84,84,84,84	0
55	MG	XA	1663	1/1	0.92	0.11	115,115,115,115	0
55	MG	XA	1684	1/1	0.92	0.13	210,210,210,210	0
55	MG	RA	3019	1/1	0.92	0.13	84,84,84,84	0
55	MG	RA	3267	1/1	0.92	0.16	143,143,143,143	0
55	MG	RA	3014	1/1	0.92	0.13	84,84,84,84	0
55	MG	XA	1648	1/1	0.92	0.05	137,137,137,137	0
55	MG	RA	2997	1/1	0.92	0.27	161,161,161,161	0
55	MG	YA	3264	1/1	0.92	0.20	84,84,84,84	0
55	MG	YA	3046	1/1	0.92	0.19	124,124,124,124	0
55	MG	YA	3047	1/1	0.92	0.15	84,84,84,84	0
55	MG	RN	201	1/1	0.92	0.13	98,98,98,98	0
55	MG	YA	3100	1/1	0.92	0.18	84,84,84,84	0
55	MG	QA	1640	1/1	0.92	0.30	101,101,101,101	0
55	MG	RA	3188	1/1	0.92	0.22	140,140,140,140	0
55	MG	YA	3028	1/1	0.92	0.20	84,84,84,84	0
55	MG	RA	3069	1/1	0.92	0.57	189,189,189,189	0
55	MG	RA	3091	1/1	0.92	0.28	132,132,132,132	0
55	MG	RA	2958	1/1	0.92	0.19	91,91,91,91	0
55	MG	RA	3257	1/1	0.92	0.19	86,86,86,86	0
55	MG	RA	3258	1/1	0.92	0.25	165,165,165,165	0
55	MG	RA	3063	1/1	0.92	0.17	84,84,84,84	0
55	MG	YA	3278	1/1	0.92	0.06	85,85,85,85	0
55	MG	YA	3190	1/1	0.92	0.28	99,99,99,99	0
55	MG	XA	1624	1/1	0.92	0.06	115,115,115,115	0
55	MG	RA	3227	1/1	0.92	0.26	123,123,123,123	0
55	MG	RA	3081	1/1	0.92	0.20	84,84,84,84	0
55	MG	RA	3284	1/1	0.93	0.10	108,108,108,108	0
55	MG	RA	2949	1/1	0.93	0.13	96,96,96,96	0
55	MG	RA	3248	1/1	0.93	0.09	105,105,105,105	0
55	MG	RA	3249	1/1	0.93	0.10	84,84,84,84	0
55	MG	YA	3139	1/1	0.93	0.07	84,84,84,84	0
55	MG	RO	201	1/1	0.93	0.35	186,186,186,186	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	QA	1667	1/1	0.93	0.13	154,154,154,154	0
55	MG	YA	3000	1/1	0.93	0.10	93,93,93,93	0
55	MG	YA	2917	1/1	0.93	0.23	98,98,98,98	0
55	MG	RA	2978	1/1	0.93	0.22	84,84,84,84	0
55	MG	YA	3092	1/1	0.93	0.09	149,149,149,149	0
55	MG	YD	301	1/1	0.93	0.14	86,86,86,86	0
55	MG	RA	3212	1/1	0.93	0.10	170,170,170,170	0
55	MG	RA	3253	1/1	0.93	0.23	84,84,84,84	0
55	MG	RA	3007	1/1	0.93	0.13	87,87,87,87	0
55	MG	RA	2944	1/1	0.93	0.11	84,84,84,84	0
55	MG	RA	3189	1/1	0.93	0.31	174,174,174,174	0
55	MG	RA	3216	1/1	0.93	0.12	122,122,122,122	0
55	MG	YA	2928	1/1	0.93	0.18	103,103,103,103	0
55	MG	RA	3259	1/1	0.93	0.19	97,97,97,97	0
55	MG	YA	3076	1/1	0.93	0.24	158,158,158,158	0
55	MG	RD	301	1/1	0.93	0.19	128,128,128,128	0
55	MG	RA	3244	1/1	0.93	0.08	144,144,144,144	0
55	MG	YA	3106	1/1	0.93	0.12	84,84,84,84	0
55	MG	YA	3079	1/1	0.93	0.12	84,84,84,84	0
55	MG	YA	3221	1/1	0.93	0.10	84,84,84,84	0
55	MG	RA	3235	1/1	0.93	0.14	84,84,84,84	0
55	MG	RA	3279	1/1	0.94	0.04	169,169,169,169	0
55	MG	XA	1677	1/1	0.94	0.05	147,147,147,147	0
55	MG	YA	3204	1/1	0.94	0.13	135,135,135,135	0
55	MG	XA	1653	1/1	0.94	0.11	84,84,84,84	0
55	MG	RA	2990	1/1	0.94	0.14	103,103,103,103	0
55	MG	RA	3268	1/1	0.94	0.13	84,84,84,84	0
55	MG	RA	3024	1/1	0.94	0.08	159,159,159,159	0
55	MG	YA	3099	1/1	0.94	0.18	84,84,84,84	0
55	MG	QA	1611	1/1	0.94	0.15	124,124,124,124	0
55	MG	RA	2922	1/1	0.94	0.15	105,105,105,105	0
55	MG	YA	3241	1/1	0.94	0.18	84,84,84,84	0
55	MG	YA	3215	1/1	0.94	0.18	84,84,84,84	0
55	MG	RA	3060	1/1	0.94	0.12	106,106,106,106	0
55	MG	RA	3061	1/1	0.94	0.18	91,91,91,91	0
55	MG	RA	3158	1/1	0.94	0.07	117,117,117,117	0
55	MG	YF	301	1/1	0.94	0.09	90,90,90,90	0
55	MG	YA	3170	1/1	0.94	0.09	84,84,84,84	0
55	MG	RE	301	1/1	0.94	0.10	84,84,84,84	0
55	MG	YA	3249	1/1	0.94	0.07	131,131,131,131	0
55	MG	YA	2991	1/1	0.94	0.10	95,95,95,95	0
55	MG	RA	3266	1/1	0.94	0.14	305,305,305,305	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	XO	101	1/1	0.94	0.05	151,151,151,151	0
55	MG	YA	2960	1/1	0.94	0.25	84,84,84,84	0
55	MG	YA	3014	1/1	0.94	0.04	84,84,84,84	0
55	MG	Y1	101	1/1	0.94	0.07	117,117,117,117	0
55	MG	YA	3113	1/1	0.94	0.05	84,84,84,84	0
55	MG	RA	3312	1/1	0.95	0.16	115,115,115,115	0
55	MG	RA	3269	1/1	0.95	0.06	200,200,200,200	0
55	MG	YA	3163	1/1	0.95	0.10	104,104,104,104	0
55	MG	YA	2924	1/1	0.95	0.12	84,84,84,84	0
55	MG	YA	3116	1/1	0.95	0.29	133,133,133,133	0
55	MG	RA	3130	1/1	0.95	0.10	119,119,119,119	0
55	MG	RA	3072	1/1	0.95	0.05	142,142,142,142	0
55	MG	RA	2925	1/1	0.95	0.18	84,84,84,84	0
55	MG	YA	3260	1/1	0.95	0.04	84,84,84,84	0
55	MG	XA	1639	1/1	0.95	0.12	84,84,84,84	0
55	MG	RA	3274	1/1	0.95	0.09	149,149,149,149	0
55	MG	YA	3293	1/1	0.95	0.09	102,102,102,102	0
55	MG	RA	3015	1/1	0.95	0.16	141,141,141,141	0
55	MG	YA	3172	1/1	0.95	0.18	84,84,84,84	0
55	MG	YA	3146	1/1	0.95	0.08	84,84,84,84	0
55	MG	RA	3142	1/1	0.95	0.19	152,152,152,152	0
55	MG	RA	3263	1/1	0.95	0.06	136,136,136,136	0
55	MG	RA	3090	1/1	0.95	0.18	138,138,138,138	0
55	MG	YA	3033	1/1	0.95	0.09	84,84,84,84	0
55	MG	Y7	101	1/1	0.95	0.26	208,208,208,208	0
55	MG	YA	3152	1/1	0.95	0.11	84,84,84,84	0
55	MG	YA	3012	1/1	0.95	0.12	84,84,84,84	0
55	MG	RA	2973	1/1	0.95	0.17	84,84,84,84	0
55	MG	RA	3000	1/1	0.95	0.04	109,109,109,109	0
55	MG	YA	2994	1/1	0.95	0.52	84,84,84,84	0
55	MG	RA	3309	1/1	0.95	0.07	120,120,120,120	0
55	MG	RA	3233	1/1	0.95	0.11	84,84,84,84	0
55	MG	YA	2977	1/1	0.95	0.09	84,84,84,84	0
55	MG	RA	2991	1/1	0.95	0.02	110,110,110,110	0
55	MG	YA	3219	1/1	0.95	0.07	91,91,91,91	0
55	MG	RA	3145	1/1	0.96	0.14	112,112,112,112	0
55	MG	RA	3261	1/1	0.96	0.07	191,191,191,191	0
55	MG	RA	2955	1/1	0.96	0.09	192,192,192,192	0
55	MG	YA	3023	1/1	0.96	0.07	84,84,84,84	0
55	MG	QA	1630	1/1	0.96	0.10	137,137,137,137	0
55	MG	YA	3225	1/1	0.96	0.14	100,100,100,100	0
55	MG	YA	3184	1/1	0.96	0.08	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3290	1/1	0.96	0.06	95,95,95,95	0
55	MG	YA	3251	1/1	0.96	0.06	99,99,99,99	0
55	MG	YA	3058	1/1	0.96	0.05	84,84,84,84	0
55	MG	R3	101	1/1	0.96	0.10	94,94,94,94	0
55	MG	YA	3207	1/1	0.96	0.07	84,84,84,84	0
55	MG	XA	1638	1/1	0.96	0.18	84,84,84,84	0
55	MG	RA	2932	1/1	0.96	0.05	131,131,131,131	0
55	MG	RA	3196	1/1	0.96	0.24	168,168,168,168	0
55	MG	RA	3159	1/1	0.96	0.12	104,104,104,104	0
55	MG	RA	3187	1/1	0.96	0.14	130,130,130,130	0
55	MG	RA	3067	1/1	0.96	0.05	101,101,101,101	0
55	MG	YA	3261	1/1	0.96	0.07	190,190,190,190	0
56	SF4	QD	301	8/8	0.96	0.06	181,237,336,420	0
55	MG	RA	3270	1/1	0.96	0.11	84,84,84,84	0
55	MG	YA	3084	1/1	0.96	0.17	84,84,84,84	0
55	MG	RA	3049	1/1	0.96	0.10	84,84,84,84	0
55	MG	RA	2984	1/1	0.96	0.07	84,84,84,84	0
57	ZN	Y9	101	1/1	0.96	0.05	162,162,162,162	0
55	MG	RA	3331	1/1	0.97	0.09	84,84,84,84	0
55	MG	QA	1633	1/1	0.97	0.05	190,190,190,190	0
55	MG	XA	1683	1/1	0.97	0.06	120,120,120,120	0
55	MG	YA	3102	1/1	0.97	0.16	178,178,178,178	0
55	MG	YA	3214	1/1	0.97	0.04	95,95,95,95	0
55	MG	RA	3082	1/1	0.97	0.10	84,84,84,84	0
55	MG	RA	3070	1/1	0.97	0.13	181,181,181,181	0
55	MG	YA	3294	1/1	0.97	0.04	103,103,103,103	0
55	MG	RA	3084	1/1	0.97	0.11	150,150,150,150	0
56	SF4	XD	301	8/8	0.97	0.05	163,216,235,295	0
55	MG	RA	3255	1/1	0.97	0.05	99,99,99,99	0
57	ZN	R5	101	1/1	0.97	0.03	268,268,268,268	0
57	ZN	R6	101	1/1	0.97	0.05	149,149,149,149	0
55	MG	YA	3244	1/1	0.97	0.12	84,84,84,84	0
55	MG	YA	2925	1/1	0.97	0.11	84,84,84,84	0
55	MG	RA	3245	1/1	0.97	0.19	93,93,93,93	0
57	ZN	Y5	101	1/1	0.97	0.07	308,308,308,308	0
55	MG	YA	2927	1/1	0.97	0.10	103,103,103,103	0
55	MG	RA	2940	1/1	0.98	0.04	84,84,84,84	0
55	MG	YA	2902	1/1	0.98	0.09	86,86,86,86	0
55	MG	RA	2902	1/1	0.98	0.04	84,84,84,84	0
55	MG	RA	3108	1/1	0.98	0.06	117,117,117,117	0
55	MG	RA	3296	1/1	0.98	0.07	121,121,121,121	0
55	MG	RA	3154	1/1	0.98	0.06	127,127,127,127	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3229	1/1	0.98	0.07	84,84,84,84	0
55	MG	QA	1668	1/1	0.98	0.06	114,114,114,114	0
55	MG	YA	3208	1/1	0.98	0.09	100,100,100,100	0
55	MG	RA	3085	1/1	0.98	0.09	140,140,140,140	0
55	MG	YA	3089	1/1	0.98	0.07	84,84,84,84	0
55	MG	RA	3229	1/1	0.98	0.09	84,84,84,84	0
55	MG	RA	3316	1/1	0.99	0.03	84,84,84,84	0
57	ZN	Y6	101	1/1	0.99	0.02	144,144,144,144	0
55	MG	RA	2971	1/1	0.99	0.04	84,84,84,84	0
57	ZN	YY	201	1/1	0.99	0.02	193,193,193,193	0

6.5 Other polymers (i)

There are no such residues in this entry.